
Thirteenth Annual Report
of the
United States Tariff Commission



1929



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UNITED STATES TARIFF COMMISSION

Office: Seventh and E Streets NW., Washington, D. C.

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LETTER OF TRANSMITTAL

UNITED STATES TARIFF COMMISSION,
Washington, December 2, 1929.

MY DEAR MR. SPEAKER: In compliance with the provisions of section 708 of the act of Congress approved September 8, 1916, "to increase the revenue, and for other purposes," there is transmitted herewith a copy of the Thirteenth Annual Report of the United States Tariff Commission.

Very truly yours,

THOMAS O. MARVIN,
Chairman.

HON. NICHOLAS LONGWORTH,
Speaker of the House of Representatives,
Washington, D. C.

THIRTEENTH ANNUAL REPORT OF THE UNITED STATES TARIFF COMMISSION

WASHINGTON, D. C., *December 2, 1929.*

To the Congress:

The United States Tariff Commission herewith submits its thirteenth annual report for the year 1928-29.

PERSONNEL

During the year the commission's membership has remained unchanged. In accordance with the provisions of the law requiring annual designation by the President, Commissioner Thomas O. Marvin was again designated chairman of the commission for a term of one year beginning January 15, 1929, and Commissioner Alfred P. Dennis was again designated vice chairman of the commission for a term of one year beginning July 22, 1929.

I. ORGANIZATION OF THE TARIFF COMMISSION

The Tariff Commission was created by the provisions of Title VII of the revenue act of September 8, 1916. (U. S. Code, title 19, secs. 91-106.) As thus established, the commission was primarily an advisory body, whose function was to gather and prepare for the use of the President and the Congress economic and industrial information concerning the foreign and domestic trade of the United States as related to and affected by customs duties, laws, regulations, and usages, not only in the United States but in other commercial nations as well. The precise scope of the commission's work as thus defined was extended and much enlarged upon the enactment of the special provisions of sections 315, 316, 317, and 318 of the tariff act of 1922. (U. S. C., title 19, secs. 93, 95, 100, 102-104, 154-158, 174-180.)

Section 315 authorizes the President, after investigation by the Tariff Commission, to proclaim such changes in classification or increases or decreases in rates of duty, within the limit of 50 per cent thereof, as may be necessary to equalize ascertained differences in costs of production of like or similar articles in the United States and in the principal competing foreign country. The section provides further that when such action by the President does not equalize differences in costs of production of articles upon which the duty is assessed wholly or in part upon the basis of their valuation he shall proclaim such findings and thereafter the duty shall be assessed upon the American selling price as defined elsewhere in the statute, but the rate of duty shall not be increased.

The section further provides that certain factors shall be taken into consideration in determining differences in costs of production, that no increase or decrease in any rate of duty shall be proclaimed in excess of 50 per cent of the existing rate, and that no article may be transferred from the dutiable list to the free list or vice versa, nor shall the form of any duty be changed.

Section 316 declares unlawful unfair methods of competition and unfair acts in the importation and sale of foreign articles. It provides that the Tariff Commission shall investigate alleged violations of these provisions and shall report thereon to the President, who is empowered to assess certain additional duties to offset the practices complained of, or in extreme cases to forbid entry to imported articles.

Section 317 deals in a comprehensive manner with discrimination by foreign countries against the commerce of the United States. It imposes upon the Tariff Commission the duty to ascertain and at all times to be informed, whether any such discriminations against the commerce of the United States as States as enumerated in the section are practiced by any country, and, upon the discovery of such practices, to bring them to the attention of the President with recommendations. The President is authorized, whenever he shall find the existence of such discriminatory practices, to specify and proclaim new or additional rates of duty as he may determine will offset such practices, or he may direct the exclusion from importation of such articles of the offending country as he may deem the public interests of the United States require.

Section 318 provides that in addition to other duties previously imposed upon it by law, the Tariff Commission shall ascertain conversion costs and costs of production of articles in the principal growing, producing, or manufacturing centers of the United States, whenever, in the opinion of the commission, it is practicable, and shall ascertain in foreign countries when feasible the costs of like or similar articles for comparison. The commission is also directed by this section to describe and keep on file samples of imported articles and domestic articles which are comparable, to ascertain the import costs of such foreign articles and the selling prices in the United States of comparable domestic articles, and to ascertain all other pertinent facts affecting competition between domestic and imported articles in the principal markets of the United States. This section authorizes the establishment and maintenance of an office of the commission at the port of New York, and authorizes the commission to adopt an official seal, which shall be judicially noticed.

Sections 700 and 701 of the act of 1916 provide that the commission shall consist of six members, that it shall appoint a secretary, and shall have authority to employ such special experts, clerks, and others as may be necessary for the performance of its duties. It is the purpose of the commission to have a technically trained staff to assist it in the consideration of all problems involved in its work and a sufficient auxiliary force of clerks, stenographers, messengers, and others to produce economically the most effective results.

The administrative division of the commission is under the direction of the secretary, who is also the budget officer and the chief executive officer of the commission. The administrative division includes the finance section, docket section, mails and files section,

stenographic section, publications section, duplicating section, and supplies section.

The technical staff as now organized consists of the chief economist, the division of economics, the office of the chief investigator, the legal division, the division of international relations, the transportation division, the accounting division, the statistical division, and the several commodity divisions corresponding in general to the schedules in the tariff law. The operations of these divisions are coordinated through the advisory board, which is composed of the chief economist (chairman), the chief of the economics division (vice chairman), the chief investigator, the chief of the legal division, the chief of the commodity division concerned, and an economist assigned to the subject under consideration.

The commission maintains a principal office in Washington, D. C., a New York office, and an European office with headquarters in Brussels, Belgium.

(1) PRINCIPAL OFFICE

The organic act creating the commission requires that the principal office of the commission shall be in the city of Washington, but that it may meet and exercise all its powers at any other place. The offices of the commission are located in the Old Land Office Building, Washington, D. C.

(2) NEW YORK OFFICE

The New York office of the Tariff Commission, established pursuant to provisions of section 318 of the tariff act of 1922, is in the customhouse. That office is used by the commission for two major purposes. It serves as a permanent agency for procuring original data of the import and export trade of the United States from customs records and from importers and producers in New York and vicinity. It serves also as a means of contact between the commission and those persons in New York and vicinity with whom the commission and its agents have occasion to transact official business. All agents of the commission operate from that office while in New York, whether dealing with other agencies of the Government or with representatives of industries affected by the commission's investigations.

(3) EUROPEAN HEADQUARTERS

The commission's headquarters in Europe are in Brussels, Belgium, where they have been since June, 1925. All business of the commission in Europe is transacted through that office either by the agents stationed there or through their cooperation with experts of the commission sent from Washington on particular investigations which may be in progress and which require that technical data and other information be obtained direct from European countries. That office not only makes the necessary contacts with European governmental and business agencies with which the commission has to conduct business, but also conducts investigations not requiring the participation of agents sent from the main office at Washington. By correspondence and by cable it furnishes the commission from time to time, as needed, special reports on economic and industrial conditions as related to problems under consideration by the commission. It also keeps in touch with foreign trade papers and other publica-

tions of interest to the commission. The Brussels office contributes materially to the work of the commission, assists in investigations involving comparative studies in the foreign field, and supplies the commission with information not otherwise available.

II. FUNCTIONS OF THE COMMISSION

The Tariff Commission was created by the revenue act of 1916 to investigate and report upon "the administration of the customs laws" and their "fiscal and industrial effects"; upon the "relations between the rates of duty on raw materials and finished or partly finished products"; upon "the effects of ad valorem and specific duties and of compound, specific, and ad valorem duties"; upon "all questions relative to the arrangement of schedules and classifications of articles in the several schedules"; and upon "the volume of importations compared with domestic production and consumption, and conditions, causes, and effects relating to competition of foreign industries with those of the United States, including dumping and cost of production." The commission is authorized "to investigate the tariff relations between the United States and foreign countries, commercial treaties, preferential provisions, economic alliances, the effect of export bounties and preferential transportation rates." It is required to put at the disposal of the President, the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate, whenever requested, all information at its command, and also to make special investigations and reports when requested by the President or by either branch of the Congress or by the committees of Congress.

The readiness of the commission to serve Congress is evidenced by the very short time in which the Summary of Tariff Information was prepared for the use of the Committee on Ways and Means at its public hearings. The request for the preparation of this material was made on December 6, 1928, and the summary on Schedule 1 was made available to the committee in a tentative form when the hearings on this schedule began on January 7, 1929. Thereafter these preliminary prints were made available schedule by schedule. The magnitude of this work is illustrated by the fact that the Summary of Tariff Information for 1929 consisted of 2,676 printed pages (without index), compared with 1,490 pages in the Summary of Tariff Information for 1921 (also without index). These summaries could not have been prepared in such short time had it not been for the mass of information accumulated by the commodity and other divisions. A more detailed account of the work of the commission in assisting the Congress in the tariff readjustment of 1929 will be furnished in Section IV of this report.

Special mention may be made of one particular matter illustrating the usefulness of certain phases of the routine work of the commission. The statistical division for an approximate 12-month period preceding the opening of the tariff question in the Congress had made a tabulation of imports since 1919 by quantity and value for almost all the individual commodities mentioned in the tariff act, and was able when the call came to furnish this information systematically arranged and practically brought down to date. The first question

that members of the committees of the Congress asked in dealing with particular commodities was the amount and trend of imports. This question the commission was able in most instances to answer without delay.

The original investigatory duties of the commission continue in full force and effect; some of them have been broadened or extended by subsequent legislation. By section 318 of the tariff act of 1922 more detailed and specific tasks are assigned to the commission with respect to investigating matters pertaining to competitive conditions, "in order that the President and the Congress may secure information and assistance." The commission is to go as thoroughly as may be into costs of production at home and abroad, import costs, and domestic selling prices, and to select and describe imported and domestic articles that are representative and comparable. In short, certain numerical data and other information are to be ascertained to make more complete and conclusive the sort of information respecting competitive conditions gathered for the President and for the Congress under the revenue act of 1916. Again, the original powers of the commission respecting the investigation of "the tariff relations between the United States and foreign countries," and "preferential" acts or conditions affecting our trade have been broadened and extended by section 317 of the tariff act of 1922. That section confers upon the President certain powers with respect to discriminations against the commerce of the United States practiced by foreign countries, and charges the United States Tariff Commission with the duty "to ascertain and at all times to be informed whether any of the discriminations * * * are practiced by any country; and if and when such discriminatory acts are disclosed * * * to bring the matter to the attention of the President, together with recommendations."

For the performance of the several duties referred to above the commission has organized its work so as to effect a careful division of labor.

The legal division has to do preeminently with the administration of the tariff law. The division of international relations deals with matters of foreign discrimination, preferential tariffs, treaties, etc. The gathering of material with respect to the economic or competitive features of the tariff, article by article, is performed by eight commodity divisions, corresponding in the main with the schedules of the tariff act. An economics division reviews the work of the commodity divisions and assists in the solution of all economic problems. The cost accounting and statistical divisions contribute basic data in the form needed by the commodity and other divisions. Much of the work performed by these divisions is not reflected in the current publications of the commission. For instance, not all the cases of foreign discriminations against our commerce require action by the President under section 317. The division of international relations is nevertheless constantly accumulating information on foreign commerce and when an occasion for action arises it has at hand a fund of pertinent information. Again, not all investigations under the general powers of the commission can be published in separate reports, yet the commodity divisions are constantly gathering information regarding prices, costs, and competitive conditions generally, and are sys-

tematically organizing the material for use when needed. Information thus obtained is published in part from time to time in the form of tariff information surveys and all of it is available for the use of the Congress in tariff legislation. And so it is with respect to the legal division, which publishes no surveys or reports currently but constantly keeps informed as to decisions and all other legal aspects of the administration of the customs laws.

By the tariff act of 1922 not only were the old powers and duties of the Tariff Commission materially extended but also certain wholly new powers and duties were added. Thus by section 316 "unfair methods of competition and unfair acts in the importation of articles into the United States, or in their sale" are declared to be unlawful, and the President is given certain powers of dealing with such cases when they arise. "To assist the President in making any decisions under this section the United States Tariff Commission is * * * authorized to investigate any alleged violation hereof on complaint under oath or upon its initiative." Public hearings are held and findings with recommendations are made upon the evidence in the investigation and reported to the President.

An important function added to the original duties of the commission by the tariff act of 1922 is its duty of furnishing the President basic data upon which to proceed in the administration of section 315, or what has come to be popularly known as the flexible provision of the tariff act. Investigations undertaken for the purposes of section 315 follow, when found to be warranted, a preliminary examination of an application for either an increase or a decrease of existing tariff rates. Investigations are also undertaken in response to requests of the President and congressional resolutions. The power of final action is conferred upon the President; the commission participates solely as a fact-finding body.

The establishment of certain facts and the gathering of supporting information by the commission, when thus assisting in the performance of a definite, Executive act carried through by the President, is quite different from its activities when engaged in gathering and organizing information under its general powers. For one thing, there are certain prescribed methods of procedure which must be observed by reason of the limitations or requirements of the statute. For instance, the investigation must ascertain, for comparison with domestic costs, the costs of production not of all foreign countries collectively, but of the "principal competing country." What country is the principal competing country must be established as a definite fact, and frequently that is not a simple matter. Again, costs of production must be compared with respect to "like or similar articles," imported and domestic. Often the selection of like or similar articles whose costs of production are to be compared is a task that presents difficulties that are sometimes almost insuperable. Selection upon the basis of physical likeness alone will not answer.

It is the ascertainment of the costs themselves, whatever article may be the subject of investigation, which occasions the most painstaking and time-consuming effort. Just what is involved in the so-called cost finding for purposes of section 315 investigations is set forth on pages 37 to 41 in the description of the work of the accounting division. Here it is sufficient to repeat that rarely on the books of

any producer are costs found in the form in which they can be used for the purposes of section 315. What, as a rule, the commission's accountants find are records kept in sufficiently good form to supply the data from which they may laboriously compute costs. Occasionally book records are so meager that recourse must be had to other evidences of costs, such as the market quotations of the price of materials, the rates of wages paid to certain classes of labor, and the known general conditions of the industry respecting technical operation and the relationship between overhead and other expense. Sometimes, to secure data for a constructive set of piece rates to be used in calculating specific and separable costs of the particular article or articles being costed, the commission's agents follow in detail certain operations over a period of time. It is not to be overlooked that unit costs (costs per pound, or per ton, or per bushel, etc.) alone can be used in the final comparisons of cost, and to obtain unit costs not only must the aggregate outlay of expense be ascertained, but also the quantity of production for which that expense was incurred. Here often the records of individual establishments are most defective, largely because ordinary bookkeeping is concerned mainly with the financial results of the business, and the accountants must in consequence ascertain from other records of the establishment the quantity produced during the costing period of the article being costed.

Although the commission does not itself initiate section 315 investigations, it is under the necessity of determining what investigations shall be undertaken. It is not practicable to institute an investigation in every instance where one is requested. The making of a choice among applications can not be by general rule or principle; it has to be done upon the basis of information and evidence. This involves a preliminary inquiry which often occasions field work and analysis of the results of the field work. The information respecting competitive conditions, volume of imports, prices, and other matters which the commodity divisions are accumulating all the time is frequently of great service here.

At the public hearing which is held in the course of each investigation for the purposes of section 315 all parties interested are afforded opportunity to be present, to produce evidence, and to be heard. At those public hearings much latitude is necessarily given persons who appear and desire to be heard. The hearings can not be conducted like cases in a court where the issue is between parties litigant. Because of the latitude allowed in the presentation of evidence the hearings take a great deal of time. The evidence produced is regarded as additional information supplementing or amending the evidence gathered by the commission; the whole proceeding with respect to any person who appears carries out the theory that he is not defending rights at law, but is furnishing information to the commission.

In order that the public hearing may serve the purpose for which it was intended, the parties interested should know in advance at least in a general way what are the results of the investigation thus far conducted and should be afforded an opportunity to examine the methods followed in the conduct of the investigation. To this end a

preliminary statement of information is prepared by the commission and is made available to parties interested. The preparation of this preliminary statement of information is a task that necessarily takes time. It is the practice of the commission to set forth clearly the methods of procedure followed and to call attention to the more important questions involved in the investigation. The commission is unable to supply interested parties with a statement of information containing all of the data in its possession because of the statutory restriction concerning the disclosure of trade secrets or processes. The commission takes measures to present data in such a way that not even by calculation may the figures given divulge confidential information.

In the preliminary statement of information the commission is careful not to commit itself to definite findings; the results of the investigation so far conducted and presented in the preliminary statement are merely tentative. Because of this practice the preliminary statement gives both sides of doubtful questions and often presents several alternative methods for solving problems. After the hearing the facts gathered by the commission and the questions raised at the hearing and in the briefs are carefully considered and weighed, and a report is formulated which summarizes the major problems of the investigation. Often the detailed analyses required before decisions are made take considerable time. If every effort to reach an agreement with regard to controversial matters fails, the respective views of the members of the commission are presented in the report to the President.

One result of the required inclusion in reports of section 315 investigations of complete data and conclusions respecting costs of transportation, has been greatly to increase the work of research with respect to costs and to add to the difficulties with respect to methods of procedure and ways of presenting results. Costs of transportation to what market? Sometimes there are a number of outstanding markets in the United States to which costs of transportation may be reckoned, or a diffused and general market. Should the principal market for purposes of section 315 be considered to be the principal port of entry for the foreign product or the market in which the distribution of the largest volume of the article, irrespective of origin, occurs, or the market in which the domestic and foreign products meet in competition in the largest quantities? Furthermore, the question arises as to the costs of transportation from what places of origin. This particular question with respect to the imported article usually presents little difficulty, because products from the principal competing country usually are shipped through a single foreign port or originate within limited areas. The domestic industry, however, may be carried on in many sections of the extensive territory of the United States and the problem is difficult of solution as to whether transportation costs shall be secured from all centers of production or only from some of them to such markets as may be selected. Domestic plants are often located where they are for the purpose of supplying local markets and thus escaping the burden of profitless transportation. Often the imported or the domestic article has little or no sale in portions of the United States because it can not bear the cost of transportation. The imported article may not be able to

reach the interior and the domestic article may not be able to reach the seaboard and the important consuming markets located thereon. Under such conditions the question arises whether potential markets should not also be taken into consideration and transportation costs computed to them. Shall it be assumed that domestic and foreign articles may be potentially shipped to any important market in the United States? It can not be overemphasized that the time-consuming features of section 315 investigations have been greatly increased by the problems arising in connection with the inclusion of costs of transportation.

Thus it will be seen, first, that the work being done by the commission under its general powers is much greater than appears from the record of current publications; and, second, that the time taken for section 315 investigations is in great measure necessary and unavoidable. The volume of output of completed section 315 investigations, this past year or any other year, is not great; it ought to be clear that, on the whole, under the existing complications and difficulties, it can not be otherwise.

III. ACTIVITIES OF THE UNITED STATES TARIFF COMMISSION SINCE 1922

(1) GENERAL

Because of the prominence of the Tariff Commission's work in recent years under the flexible tariff provisions—that is, under section 315 of the tariff act of 1922—from the point of view of public hearings and public reports to the President, there seems to be a current belief that the commission's work since the enactment of the tariff act of 1922 has consisted solely of investigations under the flexible tariff provisions. As a matter of fact, the commission has functioned since 1922 under all its powers—under sections 316, 317, and 318 as well as 315 of the tariff act of 1922—and also under the organic powers conferred upon it by the legislation of 1916 establishing the commission.

Since 1922 the Tariff Commission has completed 183 reports and special surveys; of this number, 48, covering 56 articles, have been made under the provisions of section 315 of the tariff act of 1922; 5 under the provisions of section 316, dealing with alleged unfair methods of competition; 18 under the provisions of section 317, dealing with complaints of discrimination by foreign countries against the commerce of the United States; and 97 reports under the general powers conferred upon the commission by the organic act of 1916 and by section 318 of the tariff act of 1922. In addition, there have been prepared 15 formal special reports to the President and the Department of State upon tariff matters, and numerous formal reports upon requests by committees of the Congress and in response to requests of individual Members of the Congress. Furthermore, there have been almost innumerable minor and less formal investigations and reports made in compliance with requests from various officials of the Government; and finally, there have been many responses to requests from individuals for information which the commission was able to supply.

Summary of activities of United States Tariff Commission

[Under sections 315, 316, and 317 of tariff act of 1922, and general powers]

Under section 315:	
Number of commodities covered by 603 applications.....	375
Number of commodities covered by investigations instituted.....	91
Reports completed and sent to President, covering 56 commodities.....	1 48
Under section 316:	
Complaints received.....	25
Investigations instituted.....	6
Reports completed and sent to President.....	5
Under section 317:	
Applications received.....	9
Reports completed and sent to President.....	2 12
Reports completed and sent to Department of State.....	6
Under general powers:	
Special investigations instituted.....	14
Special investigations completed.....	6
Other reports and surveys completed.....	91
Special reports to President.....	6
Special reports to Department of State.....	9
Total reports and surveys since 1922.....	183

Of these reports, 160 were unanimous and 23 were not unanimous.

(2) WITH RESPECT TO THE FLEXIBLE TARIFF IN PARTICULAR

In regard to the work of the commission in the administration of section 315 of the tariff act of 1922, there seems to be some misconception, apparently occurring through contrast in the number of applications to the commission for investigation under section 315 (603 to date) with the number of investigations completed and reported to the President (47, covering 55 articles).

The 603 applications cover approximately 375 separate commodities. These were divided approximately as follows: 200 commodities were covered by applications requesting increases in duty, 125 commodities were included in applications requesting decreases, for 25 commodities the applications requested both increases and decreases, and for 25 commodities requests were made for adjustments of the rates of duty. The commission has instituted 83 investigations covering 91 commodities. In connection with these 83 investigations, there were submitted to the commission 176 applications. The commission has completed and sent to the President, under the provisions of section 315 of the tariff act of 1922, reports concerning 56 commodities involving 110 applications. Rates of duty have been changed by presidential proclamation on 38 commodities covered in 76 applications. In 33 instances the duties have been increased by proclamation and in 5 instances they have been decreased. Two of the 33 increases have been increases in finished products necessitated by increases in the duties on the raw materials. Considering the relationship between the duty on the raw materials and on the finished products, wheat flour and linseed oil, in the tariff act of 1922, the changes in these two duties represent decreases in the spread between the duties on the raw materials and on the finished products. By presidential proclamation the duty on flour was increased 33 $\frac{1}{3}$ per

¹ Includes a letter to the President explaining why one investigation was discontinued.

² Includes 5 reports, the subjects of which were not covered by application.

cent, while the duty on the raw material, wheat, was increased 40 per cent. Likewise, the duty on linseed oil was increased 12.1 per cent in contrast to an increase of 40 per cent on the raw material, flaxseed.

In addition to the 38 commodities in connection with which presidential proclamations have been issued, there have been 18 commodities on which the commission has submitted reports to the President and upon which no proclamations have been issued. With respect to two of these, sugar and cotton fabric gloves, the President has issued statements setting forth the reasons for not changing the duties. These 18 commodities were the subject of 34 applications.

An analysis of the 603 applications submitted to the commission looking toward investigations under the flexible provisions may be of interest. In the first place, many of the applications are duplicates, or are virtual duplicates, because they refer to some one class of articles. For example, there were 117 applications or requests for an investigation looking toward a reduction in the duty on wild game birds. Upon the subject of vegetable and animal oils, 19 separate applications from different persons or organizations were received; 10 were received on canned tomatoes, 8 on cresylic acid, 7 on clover seed, and 5 each on onions, flaxseed, and dried peas. This statement is sufficient to indicate the frequency of duplicate applications.

Again, it may be pointed out that many of the applications received by the commission are misdirected with respect to the subject matter, or are unsupported by evidence, or are indefinite in character. Some so-called applications are in fact simply complaints; others can not be acted upon because the commodity is on the free list, or is not produced in this country, or is otherwise barred from a section 315 investigation by the limitations of the statute, a matter in many instances wholly misunderstood or overlooked by the applicants. Frequently a preliminary inquiry discloses that, although the investigation asked could be made, competitive circumstances in the industry are such that the relief asked for and needed would not be afforded by an investigation. Of the 375 commodities covered by applications received 147 have been withdrawn by the applicants or the applications covering them have been suspended or dismissed by the commission.

Of the 147 commodities, 75 were covered by applications for increase of duty; 72 were included in requests for decrease of duty; both increase and decrease of duty were requested as to 7; and as to 8 others, the applications were for readjustment of duties.

Experience has shown that it is advisable not to record as an application more or less informal complaints and impossible requests. Of the justifiably recorded applications a large number might have been dismissed outright. In its seventh annual report, page 37, the commission dealt with the subject of "procedure with respect to applications," and made, among other comments, the following leading statement:

It is, perhaps, unnecessary to point out that the provisions of section 315 are designed to be applied in the public interest and for general public purposes and not at the suit of private parties in their own private interest. No private right exists, as a matter of course, to the institution of an investigation looking to a change in an existing classification or rate of duty, nor is it possible for the Tariff Commission to expend the public money or to devote the public time to investigations and reports upon every alleged case of nonequalization of the differences between foreign and domestic production costs which a private party may happen

to bring before it. Its action must be determined upon consideration of general public interest. It follows, therefore, that the applications for increases or decreases or changes in classification thus made by private parties must be subjected to careful scrutiny. In short, under this statute, an investigation does not follow an application as a matter of course. An application is regarded as in the nature of information drawing the attention of the commission to some alleged instance of nonequalization between the existing duty and the differences in foreign and domestic costs which it is supposed to measure.

Of the 83 investigations undertaken by the commission (involving 176 applications), 47 have been completed, 3 have been discontinued, and 33, covering 37 commodities, the subjects of 66 applications, have reached various stages of completion (cost data have been gathered in the field and in some instances tabulated). Of necessity, work upon these investigations has been interrupted by the many demands made upon the commission in connection with the pending readjustment of the tariff by the Congress. As is indicated elsewhere in this report, the energies of nearly the entire staff of the commission have been concentrated during the past year in rendering service to the Congress in connection with the tariff legislation of 1929. Some of these investigations will probably not be carried further because of some insuperable difficulty discovered after their initiation. It has been found impracticable to obtain costs of production of some articles after investigations have been ordered because of difficulty in finding comparable foreign and domestic articles. This situation was unavoidable. The obstacles could not be discovered until after the field work had been carried further than is feasible in a "preliminary" inquiry.

Whenever an application is filed with the commission for an investigation for the purposes of section 315, a preliminary report is prepared setting forth the competitive situation in the industry concerned. This report usually gives a description of the commodity, a statement of its uses, and data on production in the United States and in competing foreign countries, imports, exports, prices, and competitive conditions. To gather significant information, the commission often finds it necessary to send experts into the field. After examination of the data obtained in these preliminary field trips, the commission determines whether an investigation is warranted and if so it is formally ordered. These preliminary reports on applications furnish to the commission extensive information over a wide range of commodities produced in the United States and in the principal competing countries. This body of data, accumulating over a period of years, was of material value, when, upon short notice, the commission was called upon to prepare a Summary of Tariff Information for the use of the Congress in its work of tariff adjustment.

IV. WORK IN CONNECTION WITH TARIFF READJUSTMENT BY THE CONGRESS, 1929

(1) PREPARATION OF SUMMARY OF TARIFF INFORMATION, 1929 AND STATEMENTS WITH RESPECT TO NUMEROUS REQUESTS FOR TARIFF INFORMATION

Eight years ago, when the Congress undertook the revision of the tariff that resulted in the act of 1922, the Tariff Commission was comparatively new. Nevertheless it was organized and functioning and able to perform important service for the Congress. The com-

mission furnished a complete set of Tariff Information Summaries, so-called, covering all the paragraphs of each schedule of the existing tariff act. These summaries were the result of five years' intensive study of all of the important industries of the country from the point of view of tariff legislation.

In addition to furnishing the basic information for the use of the Congress in tariff legislation, the commission's staff of experts rendered special service in drafting, revising, and qualifying the phraseology of the tariff act, in order to express clearly the will of the Congress. The work of the commission in this respect was especially detailed and significant upon the administrative provisions of the law and upon the unusually intricate and difficult chemical schedule.

The chemical schedule came up first for consideration, and the commission was prepared with organized information about all or nearly all of the numerous commodities covered by that schedule. Members of the committees of the Congress expressed at the time appreciation of the material assistance rendered by the chemical division of the staff of the commission. The legal division of the commission's staff performed an important service in reorganizing and systematizing the administrative provisions of the tariff act, which, growing up through many years, were largely obsolete, uncodified, and often not clearly expressed. Through the Tariff Commission, the Congress had placed before it a complete and well-organized body of administrative provisions, ready in form to be debated advantageously and passed upon with understanding. The Congress accepted nearly all of the whole scheme of reorganization of the administrative sections prepared by the commission and enacted it into law.

In connection with the tariff readjustments of 1929, there has not been the same opportunity for pioneer work that there was eight years ago; in general the work of the commission in preparing for the present tariff revision has consisted largely in building on the earlier foundations. The staff divisions have brought the information up to date, and have added to and revised it as changes in the industrial and commercial world have required. This is work that entails keeping fully abreast of the times with changes in manufacturing conditions and in commercial practices.

When, early in December, 1928, it was decided that there would be an adjustment of tariff rates at the special session of Congress called by the President, the energies of the commission were especially directed to preparing Tariff Information Summaries. Detailed reports on each commodity were prepared in the commodity divisions. These draft reports were edited and critically scrutinized by other divisions of the staff, reviewed and revised by the commission, and forwarded to the Committee on Ways and Means as fast as they were completed. These summaries were constantly used by members of the Committees on Ways and Means and Finance during the public hearings. The summaries were prepared under great pressure, but were completed in time for the Committee on Ways and Means to use as it took up in order the various schedules. At the time the Tariff Information Summaries were transmitted to the committee, they were necessarily (by reason of the haste imposed) furnished in separate pamphlets, schedule by schedule; but when the

House bill amended by the Committee on Finance reached the Senate the separate pamphlets were gathered into one large volume and a copy was on the desk of each Senator.

The subject matter of the Tariff Information Summaries is as broad as the tariff act itself. There are in most of the schedules many paragraphs providing one rate of duty for a great number of articles of commerce specifically enumerated; or there may be several groups of enumerated commodities in the paragraph, for each of which a separate duty is provided. In the basket clauses of many paragraphs, there are many commodities with one rate of duty. The Congress needs as a guide for its action information about each of the distinct commodities, whether or not they are mentioned by name, and whether or not they are combined in the final treatment given them. Often upon the basis of specific information as to particular commodities the Congress may provide new classifications or new duties or it may transfer some from one paragraph to another.

Such information collected in the summaries consists first of all in its more obvious aspects in bringing out what the course of domestic production has been, and what the course of imports has been. Sometimes imports are increasing, sometimes they are declining; sometimes the domestic production is increasing, sometimes declining; and such information is directly usable and significant. But more important than the tables of figures respecting production, imports, prices, costs of production (if available), and the like, is the commentary or supplementary information furnished in the text and which comes mainly toward the end of each summary under the caption "Competitive conditions." If it be shown that because of a change in style the demand for a certain commodity is declining and some branch of the domestic industry is suffering; or that there has been a recent rapid change in the process of production at home or abroad affecting the commodity; or that new commercial circumstances have arisen so that the competition of imports (even though still small) has a significance for the present and immediate future that they did not have in the past—all such statements, if well substantiated, are as important and as significant as facts that lend themselves to numerical expression.

A useful section of each Tariff Information Summary, coming at the end after the statement on "Competitive conditions," is the citation and analysis of Treasury and court decisions affecting the commodity. Frequently a commodity is described in various terms in more than one paragraph of the tariff act, and customs officers or the Treasury Department and, on review, the customs courts must decide which provision most properly describes the merchandise and fixes the rate of duty. Information concerning the dutiable status of such merchandise enables the Congress to consider whether the wording of existing law as administered carries its wishes into effect.

In addition to the information under the heading "Competitive conditions" which was submitted to the Committee on Ways and Means and printed by order of the committee, data more in detail were furnished to the committee orally by members of the staff of the commission.

Many other special requests for information were made upon the commission by the Committee on Finance of the Senate or some

member of it or by Senators who were not members of the committee, subsequent to the furnishing of the Tariff Information Summaries, and numerous supplementary statements were prepared when the bill was being considered by the Committee on Finance and before it was reported out.

Comments and suggestions for changes in phraseology, which are more fully described on page 13 of this report, were submitted to the Committee on Finance.

Members of the House of Representatives and of the Senate, as well as leaders in the Nation's business and in the ranks of agriculture, have testified to the effectiveness of the Tariff Commission's work in the recent tariff legislation by the Congress. Crowded into the 20,000 pages of record amassed at the hearings before the Committee on Ways and Means and the Committee on Finance are hundreds of references to the work of the Tariff Commission and the data which it has prepared. During the hearings members of these committees made constant references to the Summary of Tariff Information, 1929, and repeatedly checked statements to these summaries. Interested parties, representing domestic and foreign producers and importers, appearing at the hearings, often referred to the statements contained in the commission's documents and reports for the facts upon which they based their arguments.

Exhibiting a copy of the Summary of Tariff Information, 1929, on the floor of the Senate on October 1, 1929, Senator Reed, of Pennsylvania, took occasion to say:

No one can glance through it without realizing the mass of knowledge that has been accumulated and condensed in its 2,753 pages.

Without that volume and without the men who made it we would be acting completely in the dark; without that volume we would be getting discordant statements of fact from the parties in interest; without it we would be utterly at a loss to know—we who are amateurs at most of these subjects—these uses of the various commodities, their source, the volume of production in the United States, and the amount of our foreign trade in them.

It is to the Tariff Commission alone that we owe the fact that we are working on this bill with some degree of intelligence. I think it is no more than just to the Tariff Commission to make that statement.

Senator Barkley, of Kentucky, also took occasion on the floor of the Senate to commend the work of the commission, when, on October 1, 1929, he said:

I join with the Senator from Pennsylvania (Mr. Reed) in expressing the highest regard for the work performed by the Tariff Commission in matters of investigation, in the assembling of facts, not only in the performance of their own duties in recommending rates to the President, but in enabling members of the Finance Committee and of the Senate generally to have a better picture of the tariff situation, a better picture of the trade relations of our own country with other countries; and I think, on the whole, the work of the tariff experts is to be commended.

I think, on the whole, the investigators sent out by the Tariff Commission have been honest, hard-working men; and, so far as I am personally concerned, the result of their labors has been of invaluable assistance to me as a member of the Finance Committee in the consideration of this tariff bill.

(2) ASSIGNMENT OF EXPERTS TO THE COMMITTEE ON WAYS AND MEANS AND TO THE COMMITTEE ON FINANCE

Assignments of employees of the Tariff Commission to assist members of the Committee on Ways and Means of the House of Repre-

sentatives and the Committee on Finance of the Senate in the pending tariff legislation are of two types.

(1) The first type is general assignments to the staff to furnish upon request information on particular subjects which may be under consideration by either committee or by an individual member. This general assignment followed requests by Representative W. C. Hawley, chairman of the Committee on Ways and Means, and by Senator Reed Smoot, chairman of the Committee on Finance, that the commission put at their disposal all available information and the services of members of the staff during the public hearings, the executive meetings of the committees, and the consideration of the tariff bill on the floor of the House and Senate.

Practically all of the commodity experts of the commission's staff have been called upon to serve as the tariff schedules have come up for discussion in the committees. All of these experts are experienced in their special fields, some of them having 8 or 10 years' service, and none of them less than 5 years of office and field work with the commission.

The work entailed in this general assignment, aside from the preparation of summaries of tariff information for the use of the Congress and the public, included attendance at the public hearings on the pending bills before the Committee on Ways and Means and the Committee on Finance, analyses and checking of testimony of witnesses at the hearings, preparation of summaries and of digests of the testimony at the hearings and of statements as to the important tariff problems in each schedule, and the collection of supplemental information for the use of members of the committees.

A list of the commodity experts in each division of the commission and the particular products or industries with which each expert is especially familiar has been furnished members of committees, and the services of these men have been made available on short notice to both majority and minority members of the Committee on Ways and Means and the Committee on Finance.

(2) The second type of assignments resulted from direct requests of Senators for experts to assist them personally during the consideration of a particular subject or during the consideration of the bill as a whole. Requests for this type of assignment have come principally from members of the minority of the Senate Committee on Finance. Four economists from the commission were, upon request, assigned to assist the ranking minority members of the Senate Finance Committee. These men are expected to be of all possible assistance to the Senators to whom they were assigned, not only to supply information which they have at hand but to draw upon all information available in the commission's files or through its staff. They have served in an individual capacity, their work depending largely upon the special requests of the Senators whom they assisted. They have gathered factual information, sometimes obtained from many sources, respecting particular commodities in the tariff act, and have organized such information for the particular use required. They have further acted as contact agents, making available to the Senator to whom they are attached the information already gathered and organized by others and in the possession of the commission.

V. DIFFICULTIES ENCOUNTERED IN THE ADMINISTRATION OF SECTION 315

The difficulties encountered in the administration of section 315 are discussed in detail below under the headings: (a) Costs of Production, (b) Comparability of Domestic and Imported Products, (c) Principal Competing Country, (d) Principal Market or Markets, and (e) Transportation.

(a) COSTS OF PRODUCTION

1. DIFFICULTIES IN OBTAINING DOMESTIC COSTS

In most investigations it is not only possible but practicable to obtain adequate cost-of-production data for domestic industries for the purpose of tariff adjustment under section 315. Since 1922 the commission has obtained domestic costs of production in all investigations ordered by the commission, but it is a difficult and expensive process to obtain cost data for some industries even under the most favorable conditions. The cost records of the individual company may be entirely adequate in themselves, but to be comparable with the costs obtained from other companies must be reorganized and retabulated. Most firms have adequate financial records of income and expense, but not many of them have a complete cost system in which all elements of cost are distributed to particular classes of articles produced. In some industries only the most efficient concerns keep adequate cost records, and costs obtained from such concerns alone would hardly be representative of the industry as a whole. In many investigations conducted by the commission cost records were not kept in a form that was readily usable for comparison and the commission's accountants had to analyze the available information, work out cost statements, and segregate or allocate the cost data for the particular product or products under investigation.

Investigations of the costs of production of farm products involve additional problems, because a great many farmers produce a given article, which makes the determination of representative costs difficult; because ordinarily no cost records are kept; and because in calculating costs many of the charges, such as the labor of the farmer and his family, the horse labor, the value of some feeds and roughage, and interest charges, must be imputed or estimated.

An additional difficulty in obtaining cost data is the time required to get the basic information and to tabulate and summarize it in usable form for purposes of the law. As a rule it requires many months of field and office work by a large number of experts of the commission's staff to obtain the necessary data in important investigations. "Cost of production" is by definition an exact and mathematical term, and to obtain it requires a careful examination of cost records, prepared and interpreted under rules of economics and of cost accounting.

All these obstacles to obtaining costs-of-production data apply to both domestic and foreign industries, but they are multiplied when costs are to be obtained in foreign countries and in a foreign language.

2. DIFFICULTIES IN OBTAINING FOREIGN COSTS

The commission has found in most of the investigations in foreign countries that after the initial contacts are made individual producers

are as a rule not antagonistic to the commission or its agents. Cost records are sometimes refused, but with courtesy and with no show of irritation. The degree of personal ill feeling engendered by the commission's cost investigations abroad has been overemphasized. The same degree of opposition may be encountered under any form of flexible provisions under which an attempt is made to obtain actual and competitive conditions in foreign countries affecting a particular product or industry.

The extent to which the commission has been able to obtain foreign cost-of-production data for purposes of section 315 may be summarized as follows: Out of a total of 83 investigations for the purposes of section 315, foreign cost-of-production data were obtained in 49 instances. In only nine investigations were costs not obtained because of objections of foreign governments or because foreign producers refused to give cost data. Of these 49, in which costs were obtained, costs in 46 were checked directly to the books of the producers; in two instances statements of foreign costs were obtained, but no opportunity was granted for examination of the original cost records, and in one instance costs were calculated from collateral information, such as prices, wages, and prices of raw materials.

In 21 of the remaining 33 investigations invoice prices were used as evidence of foreign costs; in 9 of these, invoice prices were used either because of the objections raised by foreign governments or because foreign producers refused cost data; in the other 12 of the 21 investigations, agents of the commission were not sent into the field to secure foreign cost data, either because other information available to the commission made it unnecessary or because the commission had reason to believe that foreign cost data could not be obtained. The remaining 13 investigations have either been suspended or have not reached the stage where the ascertainment of foreign costs has been attempted.

A table showing the extent to which foreign costs of production were obtained follows:

Summary of foreign costs of production and other data obtained in investigations under section 315 of the tariff act of 1922

Foreign cost data obtained:	
Foreign cost data obtained and verified.....	46
Statements of foreign costs obtained but not verified.....	2
Costs calculated from collateral information, including prices, wages, etc.....	1
<hr/>	
Total number of investigations in which cost data have been ob- tained.....	49
Invoice prices used:	
Invoice prices used either because of objections raised by foreign governments or because of refusal by foreign producers.....	9
No attempt used to secure foreign cost data either because other information available to the commission made it unnecessary, or because the commission had reason to believe that foreign cost data could not be obtained.....	12
<hr/>	
Total number of investigations in which invoice prices have been used.....	21
Investigations which have been suspended or have not reached the stage where foreign cost data have been attempted.....	13
<hr/>	
Total investigations ordered by the commission for purposes of section 315.....	83

3. INVOICE PRICES AS EVIDENCE OF FOREIGN COSTS

Where foreign cost-of-production data were not obtainable or were considered unobtainable by the commission from the cost records of the foreign producers, or where the commission deemed it impracticable to ascertain the foreign costs, invoice prices of the article under consideration were resorted to as evidence of foreign costs. Difficulties encountered in obtaining foreign costs may be due to any or all of the three causes set forth under (a), (b), and (c).

(a) The articles invoiced through the customhouse may not be sufficiently described for purposes of exact comparison with the domestic articles.

(b) The invoice price may be based upon the American market price of similar articles and may be only remotely related to the actual cost of production abroad. Chinese peanuts, for example, sell in the Chicago market for almost exactly the same price as a similar grade of domestic peanuts, and the invoice price is the Chicago price, minus transportation and duty.

(c) Invoice prices presumably include a profit to the foreign producer or manufacturer and to the foreign exporter, and some deductions therefore probably should be made from them before they are compared with domestic costs. The addition of specific provisions for such deductions might be considered in amending section 315 of the present tariff act.

4. MISCELLANEOUS COST PROBLEMS

Joint costs.—Many commodities are produced jointly with other products. The degree of relation among the products may vary from that of the inseparable production of two products, such as wool and mutton, to that of accidental aggregations in which a more or less unrelated list of products is produced under the same management, in the same factory, and more or less by the same machines and labor. In other cases the cost of production of any one of the products is largely a matter of allocation on some reasonable basis of a portion of the joint costs to the particular product. The commission in such allocations has ordinarily used the so-called sales ratio basis; that is to say, the joint cost of the various products has been distributed in the ratio of the relative sales value of the products. This method may be open to objection, first, when identical methods and identical products are not found in the United States and in a foreign country, and, second, when the price of one product either in the United States or abroad may be abnormally depressed. If, for example, the competition from imports has depressed the price of one of the joint products under investigation, the domestic cost of such product is also reduced automatically by the sales value method of allocation. It becomes necessary in such cases to take such price conditions into consideration.

Costs of by-products.—It sometimes happens that the product for which costs are sought is either a by-product of a manufacturing process or made from a raw material which is a by-product or a waste product. If the article is a by-product, it may have no cost of production except in a nominal or arbitrary sense. If it is made from a by-product which has no regular market value, the cost of the principal

constituent can not be determined. For example, the commission did not find cost of production of casein in Argentina because it was unable to ascertain a satisfactory cost or value for skim milk, a by-product of the dairy industry, and the principal raw material in the manufacture of casein.

Depreciated exchange.—In some countries where the value of money has depreciated in terms of gold it is almost impossible to obtain costs of production which will be representative of competitive conditions over a considerable period. This difficulty is diminishing as European currencies are becoming stabilized, but in certain countries the variations in the purchasing power of local currency from month to month still present difficulties in obtaining cost-of-production data.

Part-time operations in domestic plants.—In domestic plants operating only part time, unit costs of production were found to be much higher than they would have been under normal conditions. Here a distinction must be made between low-operating conditions because of inefficient management, or an antiquated plant, and low-operations because of competition from imports.

Selling expenses.—Section 315 emphasizes differences in costs of production as a basis for determining equalizing duties. The commission has not included selling expenses in making cost comparisons when such expense could be segregated from other costs. In some instances, however, selling expenses constitute an important cost factor. Domestic producers, for example, may have expensive selling organizations, and may do a reasonable amount of advertising, and as a result of their sales campaign a similar imported article may sell readily along with the domestic product with little selling expense to the importer. On the other hand, a large sales organization may be required to market an imported product, because the domestic factory management may do its own selling, without an expensive independent sales organization.

Foreign export tax.—In some cases a foreign export tax or its equivalent has been charged upon articles exported to the United States which have been the subject of investigation for purposes of section 315. So long as this tax is charged it is an expense item to the particular exporter, and is an expense included in the cost to an importer or purchaser in the United States, but if the commission's findings were based upon cost, with the export tax included, a revocation of the export tax could offset the findings to the extent of the tax.

Finishing a product in the United States which has been partially manufactured abroad.—The commission has found difficulty in making foreign and domestic cost comparisons when an imported article is shipped in a semifinished state and is finished in the United States. Specifically, is a bent-wood chair, shipped knocked down and unvarnished, from Poland, and assembled and varnished in the United States, a product of the United States or of a foreign country? This difficulty is aggravated when there is no sale of the article in the United States in a form comparable with the imported article.

(b) COMPARABILITY OF DOMESTIC AND IMPORTED PRODUCTS

The comparability of domestic and imported products has often presented a serious problem in investigations for the purposes of

section 315. A distinction must be made between comparable competitive articles and those which are comparable for purposes of cost comparison.

A 10-cent article may be highly competitive with a 15-cent article, but it may be economically incorrect to compare the unadjusted cost of one article with that of another. Under the present wording of section 315 it is not certain that such adjustments could be made.

A further difficulty arises in comparability when the representative nature of the samples compared is under consideration. A number of samples of domestic and imported textile fabrics, for example, may be almost exactly comparable, but one or the other set of samples may not represent the domestic or foreign industry. The bulk of the imports may be of a finer average yarn count than the bulk of the domestic production, in which case any sample comparison is non-representative of one or the other lines of merchandise. Some of the domestic products may be produced at relatively low cost under conditions of mass production, but in finer fabrics requiring special care, and perhaps some handwork in manufacture, competition from imports may be so strong as to preclude their production in the United States in important quantities.

An extreme case of the difficulties of comparability is that in which there is no domestic production of articles similar to the imports. In such cases the principle of the differences in cost of production can not apply. It is not assumed that the flexible provisions should be so interpreted as to create an entirely new domestic industry, but it probably is consistent with the general principle of the flexible tariff that special grades of a general class of commodities should be protected, even though there is no actual commercial production of the special variety at the time the manufacturers of closely related articles are seeking relief for the whole line of their products. One special case encountered by the Tariff Commission is that of perfume bottles. Because of the organization of the trade, a perfumer makes an annual contract for a particular type of bottle either in the United States or abroad. When the bottle is made abroad, it is not ordinarily made in the United States, and, conversely, when made here it is not usually made abroad. Under these conditions costs can not be obtained for exactly similar articles produced concurrently, and any comparisons must be based upon calculated or built-up costs in one or the other country.

(c) PRINCIPAL COMPETING COUNTRY

The commission has had difficulty in some investigations in determining the principal competing country for purposes of section 315. In some instances the imports are so equally balanced between two or more countries that the principal source of imports has changed from month to month and from year to year. Other cases have been found in which an international cartel has exported the product from one or another foreign country arbitrarily to suit particular conditions at a given time. In both of the above instances it might be advisable to consider costs for at least two competing countries in equalizing the duty.

In other cases a country may be second in volume and value of imports, and therefore not the principal competing country by quan-

titative tests; but the unusually low value of the imports may make the competition from such imports more severe than from the country from which imports are larger.

(d) PRINCIPAL MARKET OR MARKETS

The determination of the principal market or markets for the purpose of calculating transportation costs for any given product in the United States is difficult because of the different possible meanings of the term "principal market or markets." Different views have been entertained. By one interpretation the principal market for purposes of section 315 may be the principal port of entry of the foreign product. By another interpretation the principal market may be the chief consuming market, irrespective of whether the product is of domestic or foreign origin; from another point of view it may be the market in which domestic and foreign products meet in competition in the largest quantities; again, and from another point of view, a seaboard point, such as New York, may be found to be the principal market for the imported product, and an interior point, such as Detroit or Chicago, may be found the principal market for the domestic product. And still another view has been suggested, that the principal market in the United States should be the place in which the distribution of the largest volume of the article takes place. The question is raised as to which of these or what other method the Congress desires to have followed in determining the principal market or markets for the purposes of section 315.

(e) BASIS FOR CALCULATING TRANSPORTATION COSTS TO PRINCIPAL MARKET OR MARKETS

On what basis shall transportation rates from points of production to the principal market or markets be calculated is a question that presents further difficulty. Following the opinion of the Attorney General, transportation of the foreign and domestic product to the principal market of the United States has been considered in determining the duty required to equalize the differences in costs of production. The ascertainment of the principal market or markets for any particular product and of the transportation cost from places of production to these markets requires a detailed analysis of the distribution of the foreign and domestic products. The problem is ordinarily a simple one for the foreign product because usually it is shipped to the United States from a single locality or through a single center or port from the points of production in the foreign countries.

Many different transportation rates ordinarily must be computed for the domestic product because the factories or farms supplying the principal market or markets may be widely scattered. The New York market, for example, may draw supplies of a product from as far west as Chicago or St. Louis, and as far south as Galveston or New Orleans. If the several rates are weighted by actual shipments from the plants covered by the investigation to the principal market or markets, the result is different from that obtained when the rates are weighted by the production of the domestic plants included in the investigation. A question arises in such cases as to the weight which must be given to each transportation rate in arriving at an average rate.

The method of calculating transportation as an advantage or disadvantage in competition should be clarified by the Congress. The methods that have been considered by the commission are:

(1) Weighting transportation rates by shipments as actually made from the plants at the time of the investigation to the principal market.

(2) Weighting transportation rates, in effect at the time of the investigation to the principal market, by the production of the plants included in the investigation.

(3) Weighting transportation rates, in effect at the time of the investigation to the principal market, by the production of the plants that can reasonably be expected to ship to the principal market.

VI. LEGAL PROCEEDINGS UNDER SECTION 315

PENDING PROTESTS

Since the publication of the commission's annual report for 1928 numerous protests have been filed by importers against the action of collectors of customs in assessing duties upon various products as to which proclamations have been issued by the President pursuant to section 315 of the act of 1922. Many of them and previous protests have been abandoned as a result of the decision of the Supreme Court of April 9, 1928 (*J. W. Hampton, Jr., & Co. v. United States*, 276 U. S. 394), affirming the judgment of the Court of Customs (now the Court of Customs and Patent Appeals) that section 315 and a tariff act having for a purpose protection of the industries of the United States are constitutional.

Protests are suspended to await a decision in the matter of sodium nitrite. This commodity was involved in an action for the issuance of a writ of mandamus to compel the Tariff Commission to divulge cost data obtained in the course of its investigation for the purposes of section 315, which was denied because pending decision on appeal the President issued a proclamation changing the rate of duty, thereby leaving unsettled the question concerning disclosure of cost data. (*United States ex rel. Norwegian Nitrogen Products Company, Inc., v. United States Tariff Commission*, 274 U. S. 106.)

VII. TARIFF CHANGES UNDER SECTION 315

Since the publication of the twelfth annual report of the commission the President has proclaimed the following changes in rates of duty imposed in the tariff act of 1922 pursuant to investigation by the Tariff Commission under section 315:

Onions.—Duty increased from 1 cent to 1½ cents per pound, effective January 21, 1929.

Cast polished plate glass, finished or unfinished, and unsilvered.—Duty increased on sizes not exceeding 384 square inches, from 12½ cents per square foot to 16 cents square foot; above 384 but not exceeding 720 square inches, from 15 cents per square foot to 19 cents per square foot; above 720 square inches, from 17½ cents per square foot to 22 cents per square foot, effective February 16, 1929.

Peanuts, not shelled and shelled.—Duty increased on peanuts, not shelled, from 3 cents per pound to 4¼ cents per pound; on peanuts, shelled, from 4 cents per pound to 6 cents per pound, effective February 18, 1929.

Whole eggs, egg yolk, and egg albumen, frozen or otherwise prepared or preserved, and not specially provided for.—Duty increased from 6 cents per pound to 7½ cents per pound, effective March 22, 1929.

Flaxseed.—Duty increased from 40 cents per bushel of 56 pounds to 56 cents per bushel of 56 pounds, effective June 13, 1929.

Fresh milk.—Duty increased from 2½ cents per gallon to 3¾ cents per gallon, effective June 13, 1929.

Cream.—Duty increased from 20 cents per gallon to 30 cents per gallon, effective June 13, 1929.

Cylinder, crown, and sheet glass, by whatever process made, and for whatever purpose used, unpolished.—Duty increased on sizes not exceeding 150 square inches, from 1¼ cents per pound to 1⅞ cents per pound; above 150 and not exceeding 384 square inches, from 1⅞ cents per pound to 2⅞ cents per pound; above 384 and not above 720 square inches, from 1⅞ cents per pound to 2⅞ cents per pound; above 720 and not exceeding 864 square inches, from 1¾ cents per pound to 2⅞ cents per pound; above 864 and not exceeding 1,200 square inches, from 2 cents per pound to 3 cents per pound; above 1,200 square inches and not exceeding 2,400 square inches, from 2¼ cents per pound to 3⅞ cents per pound; above 2,400 square inches, from 2½ cents per pound to 3¾ cents per pound, effective June 13, 1929.

Linseed or flaxseed oil, raw, boiled, or oxidized.—Duty increased from 3⅒ cents per pound to 3⅗ cents per pound, effective July 25, 1929.

The following table is a list of the subjects with respect to which changes in rates of duty have been proclaimed by the President under the provisions of section 315 since the enactment of the tariff act of 1922.

Article	Change in duty	Date of proclamation	Effective date of change
Wheat.....	Increased from 30 cents to 42 cents per bushel, 60 pounds.	Mar. 7, 1924	Apr. 6, 1924
Flour, semolina, etc.....	Increased from 78 cents to \$1.04 per 100 pounds.		
Millfeeds, bran, etc.....	Decreased from 15 per cent to 7½ per cent ad valorem.		
Sodium nitrite.....	Increased from 3 cents to 4½ cents per pound.	May 6, 1924	June 5, 1924
Barium dioxide.....	Increased from 4 cents to 6 cents per pound.	May 19, 1924	June 18, 1924
Diethylbarbituric acid (Veronal).	Increased—duty (25 per cent ad valorem) transferred to American selling price.	Nov. 14, 1924	Nov. 29, 1924
Oxalic acid.....	Increased from 4 cents to 6 cents per pound.	Dec. 29, 1924	Jan. 28, 1925
Potassium chlorate.....	Increased from 1½ cents to 2¼ cents per pound.	Apr. 11, 1925	May 11, 1925
Bobwhite quail.....	Decreased from 50 cents to 25 cents each (valued at \$5 or less each).	Oct. 3, 1925	Nov. 2, 1925
Taximeters.....	Increased from \$3 each plus 45 per cent ad valorem on foreign value, to \$3 each plus 27.1 per cent on American selling price.	Dec. 12, 1925	Dec. 27, 1925
Men's sewed straw hats.....	Increased from 60 per cent ad valorem to 88 per cent ad valorem on hats valued at \$9.50 or less per dozen.	Feb. 12, 1926	Mar. 14, 1926
Butter.....	Increased from 8 cents to 12 cents per pound.	Mar. 6, 1926	Apr. 5, 1926
Print rollers.....	Increased from 60 per cent ad valorem to 72 per cent ad valorem.	June 21, 1926	July 21, 1926

Article	Change in duty	Date of proclamation	Effective date of change
Paintbrush handles.....	Decreased from 33¼ per cent ad valorem to 16¾ per cent ad valorem.	Oct. 14, 1926	Nov. 13, 1926
Methanol (methyl or wood alcohol).	Increased from 12 cents to 18 cents a gallon.	Nov. 27, 1926	Dec. 27, 1926
Gold leaf.....	Increased from 55 cents to 82¼ cents per 100 on leaves not exceeding in size 3¾ by 3¾ inches and on larger leaves in proportion.	Feb. 23, 1927	Mar. 25, 1927
Iron in pigs.....	Increased from 75 cents to \$1.12½ per ton.	.....do.....	Do.
Emmenthaler type Swiss cheese.	Increased from 5 cents per pound, but not less than 25 per cent ad valorem to 7½ cents per pound but not less than 37½ per cent ad valorem.	June 8, 1927	July 8, 1927
Cresylic acid.....	Decreased from 40 per cent ad valorem and 7 cents per pound based on American selling price to 20 per cent ad valorem and 3½ cents per pound based on American selling price.	July 20, 1927	Aug. 19, 1927
Phenol.....	Decreased from 40 per cent ad valorem and 7 cents per pound based on American selling price to 20 per cent ad valorem and 3½ cents per pound based on American selling price.	Oct. 31, 1927	Nov. 30, 1927
Crude magnesite.....	Increased from ¼ of 1 cent per pound to ½ of 1 cent per pound.	} Nov. 10, 1927	Dec. 10, 1927
Caustic calcined magnesite.....	Increased from ½ of 1 cent per pound to ¾ of 1 cent per pound.		
Cherries, sulphured, or in brine, stemmed or pitted.	Increased from 2 cents to 3 cents per pound.	Dec. 3, 1927	Jan. 2, 1928
Rag rugs, cotton (hit-and-miss type).	Increased—duty (35 per cent ad valorem) transferred to American selling price.	Feb. 13, 1928	Feb. 28, 1928
Barium carbonate, precipitated.	Increased from 1 cent to 1½ cents per pound.	Mar. 26, 1928	Apr. 25, 1928
Sodium silicofluoride.....	Increased—duty (25 per cent ad valorem) transferred to American selling price.	Aug. 31, 1928	Sept. 15, 1928
Fluorspar.....	Increased from \$5.60 per ton to \$8.40 per ton on fluorspar containing not more than 93 per cent of calcium fluoride.	Oct. 17, 1928	Nov. 16, 1928
Potassium permanganate.....	Increased from 4 cents to 6 cents per pound.	Nov. 16, 1928	Dec. 16, 1928
Onions.....	Increased from 1 cent to 1½ cents per pound.	Dec. 22, 1928	Jan. 21, 1929
Cast polished plate glass, finished or unfinished, and un-silvered.	Increased from 12½ cents to 16 cents per square foot on sizes not exceeding 384 square inches; 15 cents to 19 cents per square foot on sizes above 384 square inches and not exceeding 720 square inches; 17½ cents to 22 cents per square foot on sizes above 720 square inches.	Jan. 17, 1929	Feb. 16, 1929
Peanuts, not shelled and shelled.	Increased from 3 cents to 4¼ cents per pound on peanuts, not shelled; 4 cents to 6 cents per pound on peanuts, shelled.	Jan. 19, 1929	Feb. 18, 1929
Whole eggs, egg yolk, and egg albumen, frozen or otherwise prepared or preserved, and not specially provided for.	Increased from 6 cents to 7½ cents per pound.	Feb. 20, 1929	Mar. 12, 1929
Flaxseed.....	Increased from 40 cents to 56 cents per bushel of 56 pounds.	May 14, 1929	June 13, 1929
Milk, fresh.....	Increased from 2½ cents to 3¼ cents per gallon.	}do.....	Do.
Cream.....	Increased from 20 cents to 30 cents per gallon.		
Window glass (cylinder, crown, and sheet glass, unpolished).	Increased from 1¼ cents to 1⅞ cents per pound on sizes not exceeding 150 square inches; 1¾ cents to 2⅞ cents per pound on sizes above 150 square inches and not exceeding 384 square inches; 1⅝ cents to 2⅞ cents per pound on sizes above 384 square inches and not exceeding 720 square inches; 1¾ cents to 2¾ cents per pound on sizes above 720 square inches and not exceeding 864 square inches; 2 cents to 3 cents per pound on sizes above 864 square inches and not exceeding 1,200 square inches; 2¼ cents to 3¾ cents per pound on sizes above 1,200 square inches and not exceeding 2,400 square inches; 2½ cents to 3¾ cents per pound on sizes above 2,400 square inches.	.....do.....	Do.
Linseed or flaxseed oil.....	Increased from 3.3 cents to 3.7 cents per pound.	June 25, 1929	July 25, 1929

VIII. PROCEEDINGS UNDER SECTION 316

(1) COMPLAINTS AND INVESTIGATIONS

Unfair methods of competition and unfair acts in the importation or sale of imported articles are declared unlawful by section 316. During the last year several communications were received concerning such unfair methods and unfair acts, but correspondence conducted and conferences held from time to time with various domestic manufacturers and others failed to disclose any evidence of violation of that section. Consequently no investigation has been instituted.

(2) SYNTHETIC PHENOLIC RESIN

Progress was made toward the settlement of questions in litigation respecting synthetic phenolic resin of Form C, commonly known as bakelite, which have been pending since July, 1927. The commission's investigation was instituted in 1926. Domestic manufacturers of the product called bakelite and manufacturers of bakelite articles complained of infringement of patent rights of the Bakelite Corporation and of other unfair methods of competition or unfair acts in the importation or sale of the articles in the United States. Two hearings, one at the importer's request, were held, and findings and recommendations were submitted to the President in May, 1927. The findings of the commission may be summarized as follows:

1. That the industry in the United States engaged in the manufacture of synthetic phenolic resin of Form C and products thereof is efficiently and economically operated within the intent and meaning of section 316.

2. That a good will has been established for products of synthetic phenolic resin of Form C and that the name bakelite has become identified with complainants' products in the minds both of dealers and of the purchasing public.

3. That patents involved in the investigation are valid and that articles were imported into the United States and sold therein in violation of rights under such patents, which importation and sale constitute unfair methods of competition or unfair acts within the intent and meaning of section 316.

4. That products of synthetic phenolic resin of Form C are imported without any distinguishing mark, name, inscription, or label other than the country of origin so as to avoid confusion between imported and domestic products on the part of the purchasing public, which facilitates passing them off as domestic articles and constitutes an unfair method of competition or an unfair act within the intent and meaning of section 316.

5. That apart from violation of patent rights and failure to mark imported articles so as to distinguish them from domestic articles importers have not practiced any unfair method of competition or unfair act.

6. That imported articles are sold at less than complainants' sales prices and alleged costs of production, but that such practice alone does not constitute an unfair method of competition or unfair act.

Two of the commissioners dissented. One of them expressed doubt as to the jurisdiction of the Tariff Commission to determine the validity of contested patents involved in the findings and recommen-

dations. The other commissioner dissented also on the ground that the investigation failed to establish one prerequisite of the granting of the relief sought by complainants, namely, that the United States industry was during the investigation or at the time of making the findings economically operated.

In the meantime, upon request of the President, the Secretary of the Treasury instructed customs officers to refuse entry of all synthetic phenolic resin of Form C and articles made wholly or in part thereof (except articles made by molding synthetic phenolic resin when mixed with other materials) pending completion of an investigation by the commission.

(3) APPEAL TO COURT OF CUSTOMS APPEALS (NOW COURT OF CUSTOMS AND PATENT APPEALS)

On July 13, 1927, an appeal was taken by respondent importers to the Court of Customs Appeals from the findings of the commission in the synthetic phenolic resin investigation. The appeal was based upon two major questions. As stated in the assignment of errors, they are:

(1) That a construction of section 316 which would authorize the Tariff Commission to entertain a complaint based upon alleged infringement of patent rights "is repugnant to the Constitution of the United States in that the same would be tantamount to an unlawful delegation of legislative or judicial functions to a ministerial body."

(2) That if properly construed "section 316 of the act of Congress of September 21, 1922, does not authorize and empower" the Tariff Commission "to inquire into issues of law and fact arising out of patent rights and/or patent infringements" and the commission was "therefore without jurisdiction."

On May 25, 1928, the Court of Customs Appeals held the provision in section 316 of the tariff act of 1922 giving to importers and consignees the right of appeal from findings of the Tariff Commission upon a question or questions of law to be constitutional and overruled the motion to dismiss the appeal. (16 Ct. Cust. App. 191.) The legislative history of that court was reviewed at length and the court declared to have jurisdiction of the matter as a case or controversy.

(4) ACTION BY THE SUPREME COURT

On August 24, 1928, the Bakelite Corporation presented a petition to the Supreme Court of the United States for the issuance of a writ of certiorari to review the foregoing judgment of the Court of Customs Appeals. Later the Bakelite Corporation filed a petition for a writ of prohibition to restrain the Court of Customs Appeals from entertaining the appeal from the commission's findings. On October 29, 1928, the Supreme Court denied the petition for a writ of certiorari and set down the petition for prohibition for hearing in January, 1929.

On May 20, 1929, prohibition was denied. (Ex parte Bakelite Corporation, 279 U. S. 438.) The Court of Customs Appeals was held to be a legislative court and not a constitutional court within Article III, section 2, of the Constitution. It was also held that an appeal under section 316 of the act of 1922 from findings of the Tariff Commission sustaining a charge of unfair competition is

within the jurisdiction of the Court of Customs Appeals. This is so whether or not it be a case or controversy in the constitutional sense.

The decision of the Supreme Court leaves the matter in the Court of Customs and Patent Appeals for a judgment on the merits.

(5) IMPORTANCE OF COMMISSION'S JURISDICTION OF PATENT INFRINGEMENTS

Protection of domestic owners of patents from violation of their patent rights through the importation and sale of infringing articles is wholly inadequate under existing law apart from section 316. Such infringing articles may be and are imported in large quantities and distributed throughout the United States. The names of importers are not disclosed by customs officers. As a result domestic owners of patents are unable to protect their rights before importations are cleared through the customs and distributed. But if the owners of patents could get timely information of imports of articles infringing their patents they still would not have an effective remedy in the courts. Actions against individual importers would involve a multiplicity of suits. While suit was pending against one or two importers the article might be obtained from abroad by or through other importers. There is no limit to the number of importers or the ports of importation. Furthermore, domestic patentees can not reach foreign manufacturers through the process of Federal courts.

Stoppage of importation of infringing articles through an order of exclusion from entry is the only effectual remedy. The jurisdiction of district courts and the scope of any decree issued by them do not extend to the importation or exclusion of imported merchandise from entry into the United States. Section 316 therefore, as construed by the Tariff Commission in its findings in the matter pending on appeal in the Court of Customs and Patent Appeals, affords an exclusive remedy.

(6) TEMPORARY ORDER OF SUSPENSION OF ENTRY

In previous annual reports attention was invited to subdivision (f) of section 316 of the act of 1922. This subdivision reads:

(f) That whenever the President has reason to believe that any article is offered or sought to be offered for entry into the United States in violation of this section but has not information sufficient to satisfy him thereof, the Secretary of the Treasury shall, upon his request in writing, forbid entry thereof until such investigation as the President may deem necessary shall be completed: *Provided*, That the Secretary of the Treasury may permit entry under bond upon such conditions and penalties as he may deem adequate.

The commission pointed out some of the difficulties of administering that provision so as, on the one hand, to afford interested parties opportunity to be heard before action was taken, and, on the other hand, not to permit the ends of the statute to be defeated. Under existing law the importer may import and get his merchandise if the Secretary of the Treasury in his discretion permits entry under bond. In the bill H. R. 2667, now before the Senate, the subdivision (which was changed from (f) to (e) in section 337 of the bill) was modified so as to give importers the right to make entry under bond without first seeking permission from the Treasury Department.

IX. PUBLIC HEARINGS

Hearings held by the commission since the publication of the twelfth annual report are shown in the following table.

Subject	Date of hearing	Pages of transcript of minutes of public hearing
Section 315:		
Flaxseed	Dec. 5, 6, 1928.....	294
Linseed oil.....	Dec. 12, 13, 1928.....	201
Sodium phosphate.....	Jan. 15, 16, 1929.....	188
Barium chloride.....	Mar. 5, 1929.....	22

At least 30 days in advance of each public hearing for the purposes of section 315, a preliminary statement of information is issued for the use of parties interested. This statement summarizes the data on production, trade, prices, costs, marketing, and transportation obtained by the commission in the investigation up to the time of the issuance of the statement. Costs of manufacture of individual concerns and other information in the nature of trade secrets or processes are excluded from the statement, as required by section 708 of the revenue act of 1916. At the public hearings discussions center around the tentative data presented in the statement.

Each investigation involves problems peculiar to the subject under consideration. The statement of information sets forth questions designed to stimulate discussion of problems raised with a view to assisting the commission in their solution.

At the public hearings all parties interested are given opportunity to be present, to produce evidence, and to be heard. At these hearings parties interested, including producers and importers, have appeared, and at a number of hearings foreign producers and representatives of foreign governments have participated in the proceedings. The hearings are rather informal in character, the strict rules of evidence in legal procedure not being followed and the method being, rather, to have a complete discussion of the salient facts pertinent in each investigation. Accordingly, all persons, irrespective of their particular interest, have equal opportunity to present evidence.

X. THE ADMINISTRATIVE DIVISION

The administrative division is under the immediate direction of the secretary of the commission, who is its chief executive officer and budget officer. The secretary is the custodian of the commission's records and of its official seal.

The assistant to the secretary assists in the general direction of the administrative division and is, by designation, the disbursing officer of the commission.

As organized by the commission the administrative division includes the secretary's office, the finance section, the mails and files section, the docket section, the supply section, the publications section, the stenographic section, and the messenger force.

FINANCE SECTION

Budget and appropriation estimates are prepared by the secretary as budget officer under the direction of the commission. He also appears before the appropriation committees of the Congress when the appropriation bills are under consideration. The finance section prepares all purchase orders, on approved requisitions; examines administratively all accounts for personal services, purchases, traveling expenses, communication services, transportation charges, printing and binding, and all other expenditures. The general appropriation records, purchase and personal service pay cards, and distribution ledgers are maintained in that section, and there requisitions for funds and certificates of deposit and redeposit are prepared. The work requires familiarity with the general laws relating to public expenditures and with the decisions thereon, as well as with the regulations of the General Accounting Office, of the Bureau of the Budget, of the General Supply Committee, of the Interdepartmental Board of Contracts and Adjustments, of the Federal Specifications Board, of the Interdepartmental Board of Simplified Office Procedure, of the Government Printing Office, and of other coordinating agencies of the budget and accounting organization.

MAILS AND FILES SECTION

The principal files of the commission are maintained in the mails and files section. Under the regulations of the commission all incoming and all outgoing correspondence and accompanying papers and documents are recorded and filed in this division through a system devised and adapted especially for the work of the commission. A method of recording, indexing, and cross indexing is in use which is based upon subjects, but by cross-references the records are available also through the names of correspondents and other parties concerned. The system, with its application, has been effective for the purpose for which designed, and has been adopted for the reorganization of at least one other large office of the Government.

DOCKET SECTION

In the docket section all applications under the provisions of sections 315, 316, and 317 of the tariff act of 1922 are recorded, numbered, and docketed. A record of all applications, showing name of applicant, article concerned, and the nature of the application, is maintained for each commissioner. A separate record is kept of the status of each application received and of the proceedings in each investigation instituted thereon by the commission. Information concerning these records is furnished from day to day in response to numerous inquiries by members of the commission and of its staff, as well as by other interested persons, both orally and by correspondence. Notices of investigations are prepared and, when approved by the commission, are posted and served on interested parties, notices are published and certificates of publication are procured, preliminary statements are sent to parties interested, and special docket files of each investigation are maintained.

SUPPLY SECTION

The supply section maintains and issues a stock of supplies used in the work of the commission. A record is made of all supplies and

equipment received and issued, and requisitions are prepared for supplies needed for replacements or for additional stock. The section also operates the telephone switchboard and service of the commission.

PUBLICATIONS SECTION

The publications section prepares all requisitions for printing and binding; receives and records all estimates and charges for such work; handles the receipt, record, and return of all proof sheets for text and illustrations for published commission reports; issues all publications and effects the distribution of printed reports. The section also includes the photostat equipment and the duplicating equipment, consisting of mimeograph machines, multigraph, typesetters, stitching machine, addressograph, and pay-roll machine.

It may be interesting to note that during the past year there were distributed more than 17,000 copies of the commission's printed reports, in addition to the large numbers of preliminary statements and other mimeographed material sent to interested parties. Practically all of this distribution was in response to personal requests from members of the Congress, trade organizations, representatives of foreign governments, and parties interested in the proceedings of the commission. In addition, the Superintendent of Documents at the Government Printing Office reports that during the fiscal year 1928 there were sold to the public, for cash, 3,814 copies of the commission's printed reports carried in stock by him. During the year there were produced 11,463 photostat prints. A large number of these were made for the use of the Department of Commerce in its study of the chemical industry. There were also printed on the mimeograph and multigraph machines more than 811,000 sheets, many of them very large, covering about 600 separate requisitions.

STENOGRAPHIC SECTION

The stenographic section includes a force of stenographers and typists who serve all divisions of the commission's staff, and at times is augmented by temporary employees when the pressure of work so demands. The work of the section includes the taking and transcription of dictation which involves the use of technical terms and difficult expressions, copying from rough draft of the same character, cutting and revising mimeograph stencils, and the preparation of complicated statistical tables. All this work is done on both short-carriage and long-carriage machines and by the use of the mimeoscope.

MESSENGERS

The messenger force includes a mechanic and five messengers who perform the usual duties of such positions. Three of the messengers are stationed adjacent to offices of the commissioners and the secretary, and two are used primarily for outside messenger service to other branches of the Government. The mechanic attends to the repair and maintenance of equipment not requiring the service of special tools or of experts.

XI. THE ADVISORY BOARD

The advisory board has continued to function during the past year as the planning, coordinating, and directing agency of the commission

in the work under the general powers of the commission and under sections 315, 316, and 318 of the tariff act of 1922. It is charged, furthermore, with responsibilities of review, criticism, revision, and interpretation of the results of investigations when reported to the commission.

The personnel of the advisory board is as follows: Chief economist, chairman; chief of economics division, vice chairman; chief investigator; chief of the legal division; chief of the commodity division in whose field the investigation falls; and the economist assigned to the particular investigation concerned. At times a second economist is assigned to study a special phase of the subject under consideration and he acts temporarily as a member of the board. In the performance of these duties it is assisted by the economics division, the commodity divisions, the accounting division, and others.

Because of the nature of its responsibilities the supervising authority of the advisory board is exercised at all stages of investigations. When tariff information surveys are in course of preparation, it passes upon the plan or outline for the undertaking, keeps track of the prosecution of the work, revises and otherwise participates in the presentation of the final result. With respect to applications for an investigation for the purposes of section 315, the advisory board recommends to the commission, after preliminary inquiries, either that an investigation be instituted or denied, and states in full its reasons for or against granting the request of the applicant. When an investigation is instituted it participates in the formulation of the plans of procedure calculated to secure representative and comparable costs and other data in the United States and in the competing foreign countries. During the progress of an investigation it takes such action as may be necessary to anticipate or solve difficulties and to prevent omissions, inconsistencies, and inaccuracies. Upon the completion of any stage of an investigation the advisory board has responsibility for the substantive matter as well as for the form of the report submitted to the commission, and frequently in its letter of transmission interprets the report at length, and offers suggestions as to alternative methods for the solution of problems involved. The statements of fact in an investigation, both those embodied in tables and in the text, must not only be substantiated as complete and accurate but also they must establish, as far as possible, bases for the ultimate determinations.

The section 315 investigations in progress or completed during the past year, the various tariff information surveys completed or in progress, and other tasks performed by the commission, all or most of which have come before the advisory board, are reviewed elsewhere in this report.

XII. THE ECONOMICS DIVISION

The economics division is the agency through which economic aspects of the commission's investigations are studied. Economists and statistical and accounting experts give their attention to problems that arise with respect to commodities or industries that are the subject of investigation, to the examination of basic data, and to work prepared by the commodity and other experts of the commission. Especially do they examine and pass upon statistical

methods, prices, foreign exchange, capital investment and interest, transportation and marketing methods and distribution of commodities, and competitive conditions in industries under consideration.

In every investigation instituted by the commission in which a questionnaire or cost schedule is employed the economics division assists the commodity expert in drafting the schedule to be used and in formulating plans for the field work to be undertaken.

Before this stage is reached an economist often goes with the commodity expert on a preliminary trip into the field to study the comparability of the domestic and imported products and the organization of the industry with a view to determining the centers and plants from which to obtain cost and other data and the most desirable method of procedure. It is important that the data be gathered in representative sections of the industry, that the method adopted be one that will insure an adequate body of reliable cost data, and that the costs obtained apply to the particular commodity for which data are sought. Experience has demonstrated that through careful planning of the ground work it is possible to reduce the time spent and the expense entailed in an investigation and to secure a comprehensive and reliable body of data. In the more advanced stages of the investigation the economist also participates. He assists in analyzing the data brought in from the field, in the preparation of the preliminary statement of information, and in drafting the final report of the commission.

Although the work of the economics division is largely concerned with investigations for the purposes of section 315, it also reviews special studies, surveys, and reports resulting from investigations made by the commission under its general powers. The economics division also carries on special research work.

To the economics division are assigned certain special duties for the performance of which separate sections have been created. An editorial section reviews the manuscript of all reports for form, syntax, and arrangement, reads the proof in its various stages, and indexes reports. With increasing frequency members of the staff submit early drafts of their reports to the editorial section, thereby avoiding delay and alterations in the final stages. A charting section prepares the graphs, maps, and charts with which most commission publications are illustrated. During the past year the section prepared 95 charts and graphs, 47 maps, 10 pictures, 156 tabular forms, and 21 commodity schedules, a complete set of schedules, comprising over 200 pages. Most of the illustrations mentioned and all of the schedules and forms were made by the mimeoscope, a process that effects a considerable saving in the commission's printing expenses. A cost analysis section, made up of persons proficient in accounting, helps in particular in the preparation of cost schedules before field work is begun. These members of the division participate both at the initial stage and at all later stages in determining the proper bases for the ascertainment of costs, the proper methods to be used in allocating joint costs, in coordinating the accounting field crews, and in scrutinizing, testing, and organizing the material constituting the data for costs.

In general, the members of the economics division participate in gathering and presenting information respecting the competitive phases of an investigation both in the preliminary inquiry before an

investigation is instituted and afterwards when a report is being drafted; they share largely in the ascertainment of marketing conditions and in the determination of what are the principal markets and how the costs of transportation to those markets shall be handled; they assist prominently in the formulation of the questions which shall be incorporated in a preliminary statement of information and presented at the public hearing in an investigation.

In preparing the preliminary statement an effort is made to tell how the investigation was conducted and how all statements of fact are substantiated, and to make the whole presentation such as to focus attention on the main problems and to evoke pertinent and helpful comment. In the preparation of the final report to the President the task of organization and presentation is somewhat different, and the economic problems involved often assume even greater importance, such as questions of marketing and transportation, questions of conversion of the foreign costs into American money, questions as to what categories of cost may be validly included or not included, and questions of the method of application of the ascertained differences in cost to the duties provided in the tariff act. At this stage of an investigation members of the economics division, in common with other members of the staff, are frequently consulted by commissioners and often furnish specially written reports to them. A detailed account of just what has been done specifically by the economics division during the past year would be difficult to present; its members have had a share, and often a considerable share, in practically all the work reported in detail under the commodity divisions.

In the consideration of the tariff bill after it reached the Senate a new and responsible duty was assigned to four members of the economics division—to act as assistants to the ranking minority members of the four subcommittees of the Committee on Finance.

XIII. OFFICE OF THE CHIEF INVESTIGATOR

The work of the office of the chief investigator is here discussed from three points of view: First, its relation to the commodity and other divisions of the commission's staff; second, to the advisory board and the economics division; and third, to the public and to other departments or officials of the Government.

The contacts of the chief investigator's office with the commodity and other divisions of the commission are largely in the form of administrative work connected with the conduct of investigations and the preparation of reports. When an application for an investigation under the provisions of section 315 is received, it is recorded and noted by certain divisions, after which it is transmitted by the chief investigator's office to the chief of the commodity division concerned, with a request that a preliminary report be prepared giving all available pertinent information on the subject of the application, including data on the competitive conditions affecting the particular industry. This preliminary report when completed is transmitted from the commodity division through the chief investigator's office to the advisory board for consideration and recommendation to the commission.

When an investigation is instituted by the commission plans of investigation are drawn by an informal committee, consisting of one

representative each of the chief investigator's office, the economics division, and the division concerned with the commodity in question. These plans, revised and approved first by the advisory board and then by the commission, are executed under the general direction of the chief investigator with the cooperation of members of the advisory board. Routine matters in connection with the field work are under the direction of the head of the field crew, who takes up directly with the head of the commodity division concerned questions of importance arising in the field. When the questions raised are of sufficient importance the chief of the division brings them to the attention of the chief investigator and the chief of the economics division or submits them to the entire advisory board.

The relation of the chief investigator's office to the advisory board and to the economics division is one of close cooperation on all important problems arising in investigations and subsequently in the preparation of reports. As has been stated, plans of investigation are drafted jointly by a representative of the chief investigator's office, the economics division, and the respective commodity divisions. Members of the economics division also assist in the execution of the field work, concerning which the chief investigator constantly confers with the chief of the economics division. The same relationship is maintained in drafting reports on the subjects of investigations.

The chief investigator is a member of the advisory board and as such takes part in all discussions of tariff problems arising in each investigation and in the framing of each report. As a member of the board he does not act primarily as an administrator—his principal function in connection with the field work in investigations—but as an economist and as a tariff expert, appraising and revising reports in cooperation with other members of the board, or advising in other matters under consideration.

Because of the close contact between the chief investigator's office and the advisory board the various preliminary and final reports submitted to the advisory board are not revised in detail in the chief investigator's office. The first drafts of reports originating with the commodity and other divisions are transmitted directly to the advisory board without substantial revision and without the delay of partial revision in the chief investigator's office. The opinions of all members of the board are heard with respect to these early drafts before substantial revisions are undertaken.

The chief investigator's office comes into contact with the public and with other departments and officials of the Government through personal interviews and correspondence. Contacts with the public are usually concerning applications, investigations in progress, or reports of the commission either actual or proposed. In these contacts, either by personal interviews or correspondence, care must be taken to place before interested persons the conditions confronting the commission, not only respecting the particular subject in which the interviewer is interested but all the current work of the commission and the relative urgency of the work on the different commodities. The commission often finds it impracticable to act at once upon a particular matter, not because information is unobtainable or because the case lacks merit, but rather because of the many other urgent matters requiring the commission's attention.

An important part of the work of the chief investigator's office is in connection with official correspondence with Members of the House of Representatives and of the Senate, members of the Cabinet, and other Government officers. Practically all of the letters received from these sources request information, and it is the duty of the chief investigator to direct the tabulation and analysis of the data collected for such purposes and in many cases to draft the letters transmitting the material.

XIV. THE LEGAL DIVISION

In all undertakings of the commission legal matters are involved to a greater or less degree, and it is the function of the legal division to make whatever contributions are required with respect to them. Its responsibilities are discharged partly by supervision and review of the work of others to guard against legal error in published statements, partly by collaboration with others where the legal aspects of the work are prominent, and partly by its own specific contributions. The legal division serves in an advisory capacity to members of the commission and of its staff and assists, in so far as practicable, in litigation affecting the commission and its functions. Through membership in the advisory board the legal division participates in all matters coming before the board, whatever may be their character. Investigations for the purposes of section 315 of the tariff act of 1922 and changes in duties resulting therefrom may be especially mentioned.

The most obvious participation of the legal division as an agency in work of the commission arising under the act of 1922 has been in the administration of section 316. This section declares unfair methods of competition or unfair acts in the importation or sale of foreign articles to be unlawful and directs the commission to assist the President in taking action when the law is violated. Assisted by the division of international relations, the legal division passes upon all complaints of alleged unfair competition, and, if a hearing be had before the commission, follows everything that takes place in the hearing. After the hearing the legal division formulates for the commission the findings of law and fact which serve as the basis of the commission's report to the President.

In the administration of section 317 of the tariff act of 1922, which has to do with discriminations by foreign countries and gives the President certain powers in relation thereto, the international relations division is the leading agency of investigation for the commission; but it requires and receives the assistance of the legal division. To all published tariff information surveys, executed under the general powers of the commission as extended and amplified by section 318 of the tariff act of 1922, there is appended by the legal division a section stating the decisions and other information defining the legal status of the article or articles dealt with in the survey.

Since the publication of the annual report for 1928 the legal division has been engaged mainly in work for the two Houses of Congress in readjusting the tariff. Work requested by the Committee on Ways and Means of the House of Representatives was begun in December, 1928, but much was done prior thereto in preparation for the information which it was anticipated would be requested.

The first information submitted was in the form of summaries comprising the dutiable schedules and the free list of the tariff act. The legal division prepared for these summaries a synopsis of court and Treasury decisions. The tariff status and the history of litigation under the tariff act of 1922 and under prior acts concerning the many commodities involved were set forth.

With a view to assisting the Committee on Ways and Means in the readjustment of the tariff, the legal division, collaborating with the commodity divisions, took up various matters of classification, and offered specific suggestions as to changes considered advisable in the existing law, and assisted in drafting provisions under consideration in the meantime.

After making detailed study of the bill as passed by the House of Representatives, the division prepared for the use of the Finance Committee of the Senate, during its consideration of the bill, comments and suggestions for changes with reasons making their adoption desirable. These suggestions were intended to assist the committee in eliminating inconsistencies and ambiguities, in preventing evasions, and in lessening administrative difficulties either already experienced or anticipated.

In addition to submitting comments on the 15 duty schedules and the free list, the legal division has acted in an advisory capacity with respect to special and administrative provisions, particularly those concerning the work of the Tariff Commission. The division is frequently called on for information and memoranda on legal matters connected with the tariff, including the constitutionality of certain provisions.

The work above indicated was made possible of submission within the time required for the use of the Congress by the division's keeping informed on legal matters connected with the tariff and its administration and of the need of changes in classifications and the correction of ambiguities, inconsistencies, and inequalities in dutiable schedules and the free list, and in special and procedural provisions of the act of 1922.

XV. THE ACCOUNTING DIVISION

The accounting division in cooperation with other divisions obtains and organizes cost data for the purposes of investigations under section 315 of the tariff act of 1922 and for investigations that come under the general powers of the commission. During the past year to these regular duties was added the preparation of data for the Ways and Means Committee and the Committee on Finance to use in the readjustment of the present tariff rates.

Cost investigations under section 315 are concerned with two main classes of commodities—manufactured and agricultural. The accountants go into the field for the figures of cost, which are analyzed and tabulated in the Washington office. Frequently the time taken in the office is greater than the time spent in the field, but the greater difficulties, calling for versatility on the part of the accountants engaged, are encountered in the field. In both the field and in the office work accountants cooperate with the commodity expert concerned with the investigation.

A preliminary feature of all field work is the preparation of a cost schedule for recording detailed information used in determining costs.

This schedule serves a dual purpose in guarding against the omission of essentials and in providing a uniform method of costing for all establishments. For results to be comparable they must rest upon the same bases for the whole industry, domestic and foreign. Because of diversity in manufacturing conditions and in accounting methods in the different industries and in different establishments within each industry, the cost schedule must be designed separately for each investigation; no standardized form is practicable. Recourse is had to cost systems proposed by associations and those advocated in various publications, but it is by field trips that actual practices and conditions are ascertained. Frequently before final adoption of a cost schedule, a trial is given it in a number of establishments to make certain of its practicability. In this important work of preparing a cost schedule, the accounting division collaborates with the advisory board and with other members of the staff.

The major difficulties encountered by the division in the performance of its function are in its field inquiries, and arise mainly from one outstanding cause—the necessity of obtaining specific costs for specific products. The commission is required to ascertain the costs of particular articles or grades of articles, and the records of most producers are generalized and cover their entire output irrespective of particular articles or specified grades. Occasionally, but not often, the accountants assigned to an investigation enter an establishment where the particular costs required can be found and verified, but never has an investigation, for the purposes of section 315, been made where all the establishments comprising the industry had cost-accounting systems adequate to the special requirements of the commission—i. e., cost and production data for the specific grades of the articles produced. In most of the establishments there are found, at best, records which constitute the materials from which the accountants can construct the desired segregated costs. Sometimes, in many establishments comprising an industry, the bookkeeping methods are such that the materials for costing the particular articles are not available. As a result of the commission's cost investigations a number of industries have realized the importance of adequate cost-accounting systems and have subsequently installed improved methods.

Under the conditions usually encountered in an investigation, not only do the book records of different establishments vary greatly with respect to fullness, accuracy, and usability, but also the manufacturing methods, and therefore the basic accounting conditions, are widely divergent. Some producers in an industry, for instance, will purchase certain materials or services, while others will make the materials or provide the services themselves. Again, wholly different raw materials may be used by different producers, or, with the same raw materials widely different methods of processing may be employed. Some establishments may manufacture the containers used for the product, and others purchase them; and the cost of containers may be an important part of the total costs. The kind of commodity dealt with may be a principal or main product, or it may be a joint product, or a by-product. If it be a by-product, often the raw material from one point of view may be considered to have a cost and from another point of view considered to have no cost at all; and usually some kind of adjustment has to be made. For joint products it is practically always necessary to determine costs upon the basis

of relative value, and that involves an extensive inquiry into prices. A distinctive main product may be one of a few products produced by an establishment or an industry, or it may be one of many hundreds or even thousands of articles produced.

In all cases the costs to be assigned to the commodity costed are of two main sorts—direct and indirect. From pay rolls and other records the material can be gathered for direct costs, and it is usually a comparatively simple matter to determine them separately for the particular article or articles being costed. But always the handling of overhead is difficult. The basic information in the books with respect to overhead can not be drawn off easily, like information from a pay roll. Whatever the amount of the overhead, the assignment or allocation of it to particular products, so that the proper amount attaches to each product, presents various problems. The method of allocation used depends upon manufacturing conditions and the available information in the plant records. Furthermore, the quantity of production as well as the pecuniary outlay of expense must be considered in obtaining costs. The commission can use in the final cost comparisons only unit costs, and to determine unit costs usually the aggregate of expense incurred must be divided by the amount of the resulting production. Frequently the record of the quantity produced of particular articles is imperfectly kept by manufacturing establishments. Sometimes unit costs are obtained by methods which preclude the necessity of knowing quantities produced, but even in such cases the knowledge of quantities is required in the end, if there is to be a weighted averaging and not a simple averaging of the unit costs.

In industries and establishments where thousands of articles are produced, section 315 investigations present peculiar difficulties. It is not practicable to cost all the articles produced; some of them must be selected as representative of the whole. These specimens or samples taken must match up on both sides, domestic and foreign, as being on some appropriate basis like or similar; otherwise there can be no comparability in the costs as finally obtained. This work of selecting the samples is done for the accounting division by other members of the staff; its task is to obtain the costs for the list of samples presented to it, sample by sample.

Under such circumstances the accountants proceed with a thorough analysis of elements, and subsequent combination of elements, which is not called for in the other investigations. In the ordinary investigations the major items of factory cost (direct labor, raw materials, power, maintenance, etc.) are determined separately as directly attached to or attachable to the article or articles being costed, without reference to the particular operations and processes involved in making them. In the investigations now being described operations and processes are dealt with. The procedure in these cases is not always the same in all particulars, but it always involves some kind of determination, by using the experience of the industry or by more exact methods, of the time required per unit of measurement for performing the operations or processes. In all investigations of this kind the accountants, as well as the commodity experts, must become thoroughly familiar with operations, processes, and manufacturing conditions generally; they can not merely work from the books.

The first step in the procedure, outlined briefly, is to reconcile with the company's profit and loss statement the leading kinds of expense recorded in the books—labor, raw materials, shop supplies, superintendence, depreciation, etc. Then each of these is attached to one or more of the departments, some items charged directly, others allocated on appropriate bases, and subsequently the costs of the service departments are distributed to the production departments. The accumulated expenses of the power plant, for example, are distributed to the production departments which use power in proportion to the horsepower-hours required by them; the costs of the steam department are assigned to the subdivisions of the plant which are heated according to the floor space occupied by each, and so on with all the other service departments. The costs of each of the production departments are applied to the specific articles being costed by means of cost rates for the operations performed by each and embodied in the articles. These rates are for common-denominator units of measurement, such as shop hours, melting hours, weight of ware, etc. For example, the total shop hours of the hand-shop department were determined and divided into the total expenses of that department, which gave that department's cost rate. And in a similar fashion the hourly cost rate of the melting department is found, but based upon melting hours. After this to get the costs attached to the specific articles being costed is a matter of determining the number of hours of the operations performed on each article in each department and multiplying those hours by the departmental rates that apply. Where production losses have to be reckoned with, the operation costs for the article up to the point at which the losses occur, less any salvage value, are charged against the good pieces produced.

There are many details of this costing procedure omitted from the foregoing description—a procedure which must be followed in substantially its present form if costs in the industry are to be obtained.

Some other aspects of the work of the accounting division call for particular mention. One of these is finding, at home and in the foreign country, the distinctive item of cost known as imputed interest or the cost, other than the regular depreciation charges, of using the capital investment in plant and equipment, and in other assets connected with the manufacture of the article or articles being costed. The idea is that the plants and other assets of any industry, for reasons connected with general American economic conditions, may cost the domestic producers more than they cost their foreign competitors, and therefore constitute a factor in comparative advantage or disadvantage in competition. The main feature in obtaining the amount of imputed interest for any plant is the determination of the value of its assets, to which as a base the common rate of interest of the industry is applied. Such a value is not easy to determine and often involves the detailed investigation of original investment costs incurred, and subsequent additions and deductions, over a long series of years.

Another matter with which the accountants are concerned in the field, but only to a slight extent in the office, is the cost of transportation. To obtain costs of transportation, even in the form of a simple average for all producers comprising an industry, it is necessary to know to what places the commodity goes; and to obtain a weighted

average cost it is also necessary to know the quantities shipped by each producer. Rarely do the records of any concern show the sales distribution summarized by markets, and the accountants accordingly must have recourse to the whole file of invoices and laboriously draw off and compile particular shipments to particular places. Sometimes accounts receivable are analyzed, and salesmen's commission accounts, in order to ascertain the sales distribution. By reason of the immense detail not infrequently involved, the ascertainment of sales distribution by markets requires much time and effort on the part of the accounting division. The transportation division furnishes the rates for different hauls used in the computation of transportation costs, and still other sections of the staff deal with the especially difficult problems connected with transportation.

The office analyses and the tabulation of cost of production data take quite as much time and often more time than is consumed by the field crews in obtaining such data. The figures must be carefully scrutinized with respect to all the items in the field schedule, plant by plant, to guard against clerical error. Anomalous entries in the schedules, and the problems presented by exceptional conditions in the field, are discussed and a decision is reached as to how they shall be handled. As supporting data for the summarized tables of costs, which are the bases of the ultimate comparison of costs, many subordinate or detailed tabulations are made.

Finally, with the completed cost investigation, there goes a comprehensive accounting report describing the various stages of the field work, the allocations and other processes by which the work was accomplished, and just what is included in each of the major items of cost. It must be made clear what the accountants have done and exactly to what their findings apply.

During the past year the accounting division cooperated with other divisions in obtaining and in organizing cost-of-production data on a large number of commodities, among them handkerchiefs, cork tile, cork insulation, tungsten, tungsten steel, ferrotungsten, matzos, decolorizing carbons, china clay, blown-glass tableware, barium chloride, and beef and beef products.

For the use of the Committee on Ways and Means the accounting division in cooperation with other divisions prepared numerous tabulations, the most extensive being a comparison (arranged according to schedules and paragraphs of the bill H. R. 2667) of the rates of duty and of the equivalent ad valorem rates in the tariff act of 1922 with the rates in H. R. 2667 as passed by the House of Representatives, based upon imports for consumption during the calendar year 1928. This comparison is printed as House Document No. 44, Seventy-first Congress, first session.

For the use of the Committee on Finance or individual members thereof, the accounting division prepared the following tabulations:

1. A comparison (arranged according to schedules and paragraphs in the bill H. R. 2667) of the rates of duty and of the equivalent ad valorem rates in the tariff act of 1922 and in the bill H. R. 2667, as passed by the House of Representatives, with adjustments by the Committee on Finance based upon imports for consumption during the calendar year 1928. These data are printed as Senate committee print of September 4, 1929.

2. A revision of the above (1) to include the rates of duty and equivalent ad valorem rates under the tariff act of 1913. (Printed as Senate Document No. 30.)

3. A detailed comparison of the rates of duty and equivalent ad valorem rates in the tariff act of 1913 and in the tariff act of 1922 with those in the bill H. R. 2667, as passed by the House of Representatives and as reported to the Senate by the Committee on Finance (arranged according to schedules and articles in the bill H. R. 2667). This comparison is calculated from the quantity and value of dutiable imports in the calendar year 1928. (Printed as Senate Document No. 30)

4. A tabulation of commodities for which imports were less than 10 per cent of domestic consumption in the year 1927.

5. A tabulation of imported articles on the free list in the bill H. R. 2667 showing the ratio of imports to domestic consumption in 1927.

6. A tabulation showing the financial standing and return on capital investment of various manufactures and industries.

7. Other miscellaneous data furnished in conjunction with the several commodity divisions.

XVI. THE STATISTICAL DIVISION

The duties of the statistical division are: (1) To assist and cooperate with all other divisions of the commission in the tabulation of statistics on specific commodities; (2) to keep up-to-date statistics on a variety of subjects to be used by members of the commission or likely to be called for from outside sources, and to collect and analyze general statistics of trade and commerce for studies being made by the divisions; (3) to make independent statistical studies of tariff problems, such as the relative volume and value of raw materials and finished products imported under the various tariff acts, and to compute the ad valorem equivalent of the duties paid under various tariff acts for specified classes of commodities.

Statistics of trade, production, prices, and other information compiled by the statistical division are usually taken from published documents of other branches of the Government, foreign publications, and trade and industrial journals. In studying the effect of particular tariff rates, it is generally necessary to assemble the figures on a given commodity over a period of many years. As a rule the information desired in a compilation of this nature must be obtained from a great variety of sources, necessitating long and careful research. Statistics of imports and exports of the United States are tabulated from annual and monthly publications of the Department of Commerce. Official reports of the Bureau of the Census and the Department of Agriculture are usually the source of information for domestic production statistics, and foreign trade statistics are obtained from official publications of foreign countries.

Price statistics are obtained from periodicals, trade, and industrial journals, official reports of other departments of the Government and from foreign publications. In the tabulation of prices, special care must be exercised to determine the identity and quality of the commodity under consideration, because price statistics are meaningless unless exact grades and conditions of the product are known. The conversion of statistical material from units of foreign weights and measures, and foreign money, into the equivalent weights and

measures and monetary values in the United States must be carefully done. A difficulty encountered in making statistical tabulations for commodities mentioned in a number of tariff acts is the difference in tariff classification in successive acts and the corresponding changes in statistical classifications. Statistics are not comparable, therefore, from year to year, unless they are segregated in detail, and re-tabulated from the point of view of the particular variety of the general class of commodities under consideration.

The statistical division is often called upon to furnish up-to-date statistics of imports, prices, and production which are available only from unpublished information. The statistical blotters of the Department of Commerce are used continuously for the latest information concerning the imports of particular products, and customs invoices for the latest prices.

During the current year statistical tabulations were made on all commodities the subject of investigation either for the purposes of section 315 or under the commission's general powers. The work done on these commodities has differed in detail, but in general it consisted of compiling statistics of production and imports not only by totals but by countries and by customs districts, of exports, of prices, and rates of duty, both upon the specific and ad valorem basis, and in many cases on the trade of other countries in the same commodities.

Among the important assignments during the year was that of gathering information for the use of Congress in connection with tariff readjustment. Most of the statistical material incorporated in the tariff information summaries and in reports furnished the Committee on Ways and Means and the Committee on Finance, as well as that furnished individual Members of Congress, was compiled and calculated in the statistical division. For each paragraph of the act of 1922 the division compiled statistics of imports and duties for the years 1919 to 1928, inclusive. The figures for 1928 were obtained from the statistical blotters of the Department of Commerce, which list commodities by code numbers. The compilation involved no less than 40,000 items, each of which had to be checked. Much work was done for the office of the chief investigator, involving the editing and proof reading of the statistical tables appearing in the Summary of Tariff Information, and the compilation of special statistics requested by Members of Congress.

For the use of the commission in special reports and for other purposes, the division compiled import and other statistics on marine animal oil and on beef cattle; tabulated imports of china and earthenware for the years 1924 and 1927, showing countries of shipment and districts of entry for each country and each class of goods; and assisted in the organization of data for a study of the productivity and wages of workers in the United States and in foreign countries. Current interest in agriculture and the increasing importance of certain southern States in the trade in fruits and vegetables led to a compilation of imports of these products from contiguous southern countries, 1926 to 1929. Tabulations were also made of production, import values and prices of important commodities which the farmer produces as compared with commodities which he buys.

A request received by the division necessitated the arranging of tariff rates under the tariff act of 1922 in ascending order by schedules

and paragraphs. The value of free and dutiable merchandise imported in each year under the various tariff acts, beginning with the act of 1890, together with an average of each act, was another statistical computation made during the year.

COOPERATION WITH OTHER DEPARTMENTS OF THE GOVERNMENT

The statistical division of the Tariff Commission cooperated with the statistical division of the Bureau of Foreign and Domestic Commerce in the preparation of a publication by the Department of Commerce of the detailed table of imports for consumption, showing the commodities and the duties paid, for the calendar year 1928. This cooperation expedited the publishing of the statistics and resulted in making information concerning imports available for the use of the commission at a much earlier date than it would otherwise have been obtainable.

XVII. THE TRANSPORTATION DIVISION

A. TRANSPORTATION COSTS

In earlier annual reports the commission has called attention to the opinion of the Attorney General, expressed February 10, 1926, that the President should take into consideration, as far as he finds it practicable, costs of transportation in determining differences in costs of production for the purposes of section 315. Since the rendering of this opinion the commission has taken this item into consideration in calculating the costs of all commodities that have been the subject of investigation under section 315.

Any study of transportation costs involves the determination of the principal sources of supply of the product, both foreign and domestic, the principal ports through which the imported article enters the country, and the United States markets where the imported and domestic products meet in competition.

On imported articles, transportation costs include the foreign inland cost of hauling to the seaboard, foreign port and transfer charges, ocean freight and insurance, handling charges at the American port of entry, and the internal transportation charges where the product moves inland. These charges are usually obtained from the records of foreign producers or from customs invoices at the port of entry, but when not available from such sources, or when checking is necessary, the division supplies them. During the past year the division has supplied transportation costs to ports of entry in this country on commodities from Argentina, Belgium, Brazil, the British Isles, Canada, China, Cuba, France, Germany, Hawaii, the Isle of Pines, Italy, Japan, Mexico, Netherlands, Norway, Nova Scotia, the Philippine Islands, Porto Rico, Portugal, Prince Edward Island, Spain, and Sweden.

On articles of domestic manufacture the items taken into account are the freight charges from the factory to the principal markets. When called upon to calculate the total of these charges the transportation division is supplied by the commodity division with a statement as to the shipping points and the principal markets of the product in question. The transportation division then computes and tabulates the various rates applicable to the product, such as for

car lots or less than car lots, via all rail or all water routes, or a combination of the two, together with other charges incident to the movement of the product. During the year transportation costs from the point of production to the common market or port have been calculated for nearly 100 different commodities.

In addition to furnishing rates for use in calculating transportation costs for investigations under section 315, the division has calculated for a great number of commodities comparative costs of transportation from a given foreign port and from a domestic shipping point to a common domestic port. These calculations were in detail unit rates on (a) 25 commodities from London to San Francisco and similar domestic commodities from about 34 points of production to the same port; (b) 17 commodities from the port of export in the country where produced to New York and similar domestic commodities from 10 producing points to the same port; (c) 37 commodities from New York to London and the same commodities from New York to Chicago; (d) 130 commodities from London to New York and conversely on similar commodities from New York to London. For commodities of domestic origin, these rates were shown by different routes, whether all rail, rail and water, and all water.

B. PASSENGER TRAVEL

Although the division was created primarily to study the cost of transporting imported and domestic commodities, it also arranges for all official travel of the commission. By preparing itineraries and by obtaining accommodations and tickets for those who go into the field, it is able to effect economies in both time and money.

C. FILE OF PUBLICATIONS

The division maintains for its immediate use a file of freight and passenger tariffs issued by rail and ocean carriers, maps, hotel guides, time-tables, lists of ship sailings, and other travel literature.

XVIII. THE DIVISION OF INTERNATIONAL RELATIONS

[Commercial Policy and Treaties, Preferential Tariffs, Unfair Competition, and Miscellaneous Research]

The division of international relations is occupied largely with the investigations authorized and the duties prescribed by three provisions of law. (1) In cooperation with the legal division, and where necessary with the commodity divisions, it makes the preliminary investigations and drafts the preliminary and final reports on cases of unfair competition under section 316 of the tariff act of 1922. (2) Under section 317 of the tariff act of 1922 it makes investigations and reports upon discriminations by foreign countries against the commerce of the United States. (3) From time to time it makes special studies of "tariff relations between the United States and foreign countries, commercial treaties, preferential provisions, and economic alliances," as provided in section 704 of the act of 1916, creating the Tariff Commission.

The division is concerned in many ways with the relations between the United States and foreign countries. It is called upon to prepare or to contribute to all reports, memoranda, and correspondence relat-

ing to the tariff, commercial treaties, and commercial policies of foreign countries; or relating to questions of American policy concerning which the President or the Secretary of State from time to time requests information gathered by the Tariff Commission, or desires a statement of the commission's point of view. These requests are confidential and are not enumerated here. They relate to a wide variety of questions of commercial policy, such as the advisability of protesting or of negotiating in certain cases, the nature of the protests or reservations to be made, the inclusion or rejection of certain clauses in commercial treaties, the advisability of taking part in international conferences which may affect the commercial and economic relations of nations, and the attitude to be taken by the United States Government at such conferences.

The division has given special attention to discriminations by foreign countries and has been active in preparing memoranda for use in commercial negotiations. The division maintains files of information on subjects within its jurisdiction and answers numerous inquiries from Members of Congress and others; but it does not ordinarily duplicate the work of the Division of Foreign Tariffs of the Department of Commerce in supplying rates of duty in force in foreign countries.

The commission's report on the Effects of the Cuban Reciprocity Treaty was published during the year, and numerous studies and statistical compilations were prepared for the use of the congressional committees and Members of both Houses in connection with the tariff revision at the special session (71st Cong., 1st sess.).

The division of international relations collaborates with the legal division in all matters arising in the administration of section 316 of the tariff act of 1922, which section deals with unfair methods of competition or unfair acts in the importation or sale of foreign articles.

The division of international relations prepares the material from which the commission formulates its reports and its recommendations to the President with respect to discriminations arising under section 317 of the tariff act of 1922.

(1) DISCRIMINATIONS UNDER SECTION 317

Section 317 of the tariff act of 1922 was framed in accordance with suggestions of the Tariff Commission in its report of 1919 entitled "Reciprocity and Commercial Treaties." It follows the precedent established by the maximum and minimum provisions of the tariff act of 1909, which "had for its purpose the obtaining of equality of treatment for American overseas commerce." Section 317, however, is adaptable, while the provisions of the act of 1909 were inflexible and, as experience showed, comparatively ineffective, because they could not be fitted to the circumstances of each case.

Section 317 of the act of 1922 covers discriminations "in fact" of all varieties, whether in customs duties or other charges, or in classifications, prohibitions, restrictions, or regulations of any kind. If the commission finds that discriminations are being practiced, the President may then impose upon importations of the products of the country practicing such discriminations new or additional duties not to exceed 50 per cent ad valorem; and if thereafter the foreign country

maintains or increases its discriminations against the commerce of the United States, products of that country may be excluded from importation.

Subdivision (e) provides for countervailing duties to offset industrial advantages obtained by foreign countries through differential export duties imposed by other foreign countries or subdivisions thereof.

Since the passage of the tariff act of 1922 reports have been submitted to the President, pursuant to the provisions of section 317, upon all important existing discriminations against the commerce of the United States by means of tariff rates and regulations. The President has secured the removal of important discriminations without imposing the retaliatory duties authorized by this section of the act.

(2) EFFECTS OF THE CUBAN RECIPROCITY CONVENTION OF 1902

During the past year the commission published a report upon the effects of the Cuban reciprocity convention of 1902. This is the only reciprocity treaty to which the United States is now a party, and an understanding of its operation is important. Suggestions that the treaty needed revision made it desirable to make a more extensive study of the subject than that embodied in the report of the commission, published in 1919, covering the whole field of reciprocity and commercial treaties. The new study examines particularly the extent to which the reciprocity treaty enabled the United States to expand its exports to Cuba.

This convention, which came into force December 27, 1903, provided that the United States and Cuba should each give favorable treatment to the "products of the soil or industry of the other," namely, reductions of existing or future duties and a continuance of the existing free lists. The United States accorded a uniform reduction of 20 per cent of its duties on all Cuban products; Cuba accorded reductions of 20, 25, 30, or 40 per cent of her duties upon all dutiable products of the United States except tobacco. The Cuban negotiators conceded the greater percentages of reduction because the treaty was expected to prove advantageous to all products exported from Cuba, although it was believed that many American products, either because they already dominated the Cuban market or because they would be unable to compete therein, would receive no material stimulus from reductions limited to 20 per cent of the comparatively low Cuban duties.

A review of the entire trade between the United States and Cuba since 1900 has shown that the Cuban export trade on which the United States has made reductions of duty greatly exceeded the American exports on which Cuba made reductions, Cuba having what is called a "favorable" balance of trade with the United States. Expressing the concessions on the two sides, not as percentages of the duties but as percentages of the value of the trade (i. e., in *ad valorem* equivalents), it is seen that the reductions of 20 per cent of the American tariff rates considerably exceeded the reductions of 20 to 40 per cent of the Cuban rates. The greater trade received the greater concessions, and the total nominal sacrifice of revenue on the part of the United States has been three times as great as the nominal sacrifice by Cuba. To a large extent the sacrifice of revenue has

been merely nominal on both sides. Cuba readjusted her tariff rates on February 1, 1904, so as to produce a greater revenue than was obtained prior to the treaty. The treaty left the United States equally free to change its tariff rates, but Congress reenacted the rates upon sugar and tobacco in 1909, and in 1913 reduced the duty upon sugar.

As a general rule, the remission of taxation by a government affords a corresponding relief to the taxpayers concerned, and is, therefore, not a sacrifice in the sense of an uncompensated loss. But in the early years of the operation of this treaty the United States made a real and important sacrifice of revenue, because a considerable part of the revenue remitted upon imports of sugar took the form of higher prices for the Cuban producers. The treaty was of particular value to Cuba in the earlier years when American buyers bid up the price of Cuban sugar to avoid as far as possible the necessity of buying full-duty sugars. Up to July 1, 1909, the United States had remitted \$48,000,000 in sugar duties, a considerable part of which went to the Cuban producers. This part of the remission was most important in the development of the Cuban sugar industry, both directly and in giving investors and creditors confidence in the future of that industry. The political relations between the United States and Cuba contributed to this confidence.

Both before and after reciprocity the United States took practically all of Cuba's sugar until Cuban exports outgrew the import requirements of the United States. The United States is Cuba's natural market. The preferential rates accorded by the United States have not in any important degree expanded the American demand for the products of Cuba in the sense of diverting to the United States products which would otherwise have had to seek a market elsewhere; but the reciprocity treaty has given to Cuban sugar such an advantage over sugar from other exporting countries as practically to eliminate the importation into the United States of sugar from countries other than Cuba.

The great expansion of the Cuban sugar industry compelled the planters after 1911 to look for markets outside the United States and thus deprived them of the price premium they had formerly enjoyed in the United States; but their industry continued to expand and to supply the United States with increasing percentages of its total consumption of sugar. The American sugar industry has also expanded (except for continental United States, since 1922), but even including noncontiguous territory the expansion has been slower than the Cuban, and beginning with the fiscal year 1913 Cuba has supplied more than half of the sugar consumed in the United States.

In more recent years the exclusive concessions which Cuba enjoys have not been without value to her in guaranteeing to her a favored market, in preventing similar concessions by the United States to other countries, and in obtaining special advantages for minor products, especially those which enter free from Cuba, though dutiable when produced elsewhere, such as manganese ore, coconuts, alligator pears, and logs of cedar and mahogany.

In contrast to the advantages to Cuba, whatever advantages have accrued to the United States from the reciprocity treaty depends on how far it has facilitated the expansion of American exports in competi-

tion with Cuban imports from other sources; for the exporters of the United States have not received through the operation of the reciprocity treaty higher profits per unit on sales to Cuba than on other sales.

Looking only at the growth of United States exports to Cuba, one might easily be misled into attributing undue importance to the reciprocity treaty. Broad comparisons and detailed analyses put a different light upon the matter. Comparisons with the United States exports to Canada (in spite of the British preference fully established in 1900), to Mexico, and to eight Caribbean countries show that the total value of exports to Cuba developed somewhat more rapidly than did total values to the other near-by markets, if average imports in 1905-1907 are taken as showing the immediate effects of reciprocity; but that by 1912-1914 the expansion both in Canada and in the eight Caribbean countries exceeded that in Cuba.

More significant are the figures showing the changes in the percentages of total imports derived from the United States. With reciprocity, the percentage of Cuban imports obtained from the United States increased from 44.2 in 1900 to 49.4 in 1905-1907; but without reciprocity, the percentage for six Caribbean countries combined rose from 41.1 to 50.8, and for Mexico, from 50.6 to 62.6. After a score of years of reciprocity, in 1922-1925 the United States supplied 65.6 per cent of Cuba's imports, 66.9 per cent of Canada's, 67.3 per cent of those of the six Caribbean countries, and 69.1 per cent of Mexico's. These percentages are not presented as conclusive, but they are undeniably suggestive and significant. The values and the percentages together suggest that, although Cuba's purchasing power rapidly increased after reciprocity and the total value of her purchases from the United States developed with special rapidity for several years (owing to reciprocity and to other favorable factors, such as political stability and the investment of foreign capital), this special rapidity had ceased before 1912-1914, and by 1922-1925 Cuba was no more favorable a market for American goods than were other neighboring countries.

As a final test of the immediate effectiveness of the reciprocity treaty, the commission has compared Cuban imports from the United States for 1902-3 and for 1905-1907, taking 130 leading articles separately, and showing the development of the trade with the ad valorem equivalents of the tariff reductions based on the trade of 1905. This survey, covering over 90 per cent of the trade, shows that two-thirds of the trade made no material shift in favor of the United States—in each item the percentage of total imports supplied by the United States either decreased or increased by less than 5 per cent. On the other hand, 52 items imported from the United States to an average annual value of \$12,252,000 in 1905-1907, being 34 per cent of the total here analyzed, show changes in percentages supplied by the United States ranging from moderate to substantial increases. For 17 of these items, representing annual trade of \$2,438,000, the Cuban tariff concessions were less than 5 per cent ad valorem, and it seems improbable that the increases in the trade should be attributed to the concessions. This leaves 35 items, representing \$9,814,000 of annual trade, upon which there was a moderate or substantial concession and a moderate or substantial increase in the percentage of imports supplied by the United States. These 35 items cover 27.1 per cent of the trade represented by the 130 items examined.

Caution forbids the hasty conclusion that the preference accounted for this increase in 27 per cent of the total trade. The need for caution is suggested, for example, in considering the increase shown for natural fertilizers; these are free of duty and therefore without preference, but the percentage supplied by the United States rose from 27 in 1902-3 to 100 per cent in 1905-1907. Evidently there must be a further check before concluding that substantial concessions on 35 items were the cause of substantial increases in the percentages of total imports supplied by the United States.

It is difficult to match the classifications of the Cuban and American statistics, but United States export figures for 13 classifications are found to cover 72 per cent of the total trade of the above 35 items, excluding coffee. For these 13 classifications, tabulations of exports by countries show that every substantial development, both absolute and relative, in the United States trade with Cuba between 1902-3 and 1905-1907 was perhaps paralleled by an equally significant improvement in Central America, South America, Mexico, or Canada. Boots and shoes are an important item. The figures show not only that United States exports to Central America increased relatively more rapidly than exports to Cuba, but also that the exports to Cuba were displacing Cuban imports from other sources more rapidly before than after reciprocity. The detailed statistics, therefore, support the idea advanced in the previous analysis that in a large measure the growth of American exports to Cuba even in the years immediately following the establishment of reciprocity was not dependent upon tariff concessions but would have taken place in the absence of the reciprocity treaty as it was doing at the same time in other markets.

An appraisal of the whole situation leads to the conclusion that the concessions granted by Cuba have accounted for but a minor part of the expansion of United States exports to that island, and at present are not the determining factor in any considerable percentage of the total trade. The tariff concessions which Cuba extends to the United States averaged in 1923 only 4.6 per cent of the total value of Cuba's dutiable imports from the United States. The conclusion seems warranted that with respect to most varieties of manufactured goods, Cuba's tariff concessions, seldom exceeding 10 per cent ad valorem, have exerted and now exert very much less influence upon the course of trade than was anticipated by the negotiators of the treaty.

The present study disregards the revision of the Cuban tariff in October, 1927. Its changes on the whole seem more likely to decrease than to increase the advantages which the reciprocity treaty affords to the United States.

XIX. ACTIVITIES OF NEW YORK OFFICE AND EUROPEAN HEADQUARTERS

(a) THE NEW YORK OFFICE

The New York office of the commission, established in the customhouse through special arrangement with the Treasury Department, has been active in furnishing original data respecting imports and other information secured directly from the customs records which may not be taken from the customhouse building. In section 315 investigations, where invoice prices are used as evidence of foreign costs, the New York office is in a position to acquire detailed and accurate figures

on f. o. b. prices and all subsequent charges, such as ocean freights, consular fees, marine insurance, and entry data required to calculate the landed cost in this country. This work it is able to accomplish readily and cheaply because of its location at New York and through its established connections with importers and others. It obtains information required by the commission not only from customhouse records but through personal interviews with importers and appraisers.

In the preparation of preliminary reports on applications for section 315 investigations, and also other reports and surveys, it is often important to ascertain the volume of imports of a commodity included in a general provision of the tariff. During the past year the office made 79 analyses of imports under basket provisions of the tariff act of 1922, many of them for the indirect use of the Congress in determining articles to be provided for *ex nomine* in tariff readjustment.

Other work done by the New York office in supplying information for the commission's use in assisting the Congress during the pending tariff legislation involved the tabulation of cost data on 54 commodities and the answering of 101 communications asking for information as to administrative difficulties encountered, the possibility of litigation, the volume of imports affected by new provisions in the House and Senate bills, and the feasibility of adopting new bases for fixing the duties on specified commodities.

In practically all investigations the New York office is so located and equipped as to be able to obtain information which would otherwise require the sending of some one from the headquarters office of the commission at Washington. This effects a considerable saving in expense. When the commission's experts go from Washington to New York to make investigations, the contacts which the New York office has made with importers, manufacturers, and others in New York and vicinity, and the other assistance which it can render effect a great saving in time and consequently in expense.

It is difficult to indicate by any one general statement the services performed and the kind of information and assistance furnished by the New York office.

(b) EUROPEAN HEADQUARTERS

The headquarters maintained by the commission at Brussels, Belgium, serves chiefly as the agency of the commission in making contacts for all cost investigations in Europe. This it accomplishes partly through diplomatic channels and partly through its established associations with individuals. In the less complicated investigations the commission has obviated the expense of sending experts from Washington, by relying on the Brussels office both to make contacts and to obtain cost and other data needed. In the more complicated investigations for which experts were sent from Washington, the European office, besides being responsible for contacts with foreign officials and business men, has been of material assistance in the cost study and also has obtained the more general information required. In all investigations the office furnishes a detailed economic report.

During the past year the Brussels office assisted in six investigations instituted for the purposes of section 315 of the tariff act of 1922. The commodities studied and the countries in which the investigation took place are shown as follows:

Investigation No.	Commodity	Country
46.....	Hide glue.....	Germany.
77.....	Tungsten.....	Do.
78.....	Handkerchiefs.....	Ireland and Switzerland.
80.....	Blown-glass tableware.....	Czechoslovakia.
81.....	Barium chloride.....	Germany and Belgium.
83.....	Decolorizing carbons.....	Holland.

Full cost data were obtained for hide glue, handkerchiefs, and decolorizing carbons.

In the investigation on handkerchiefs, one of the most extensive yet undertaken, costs were obtained from eight firms in Ireland, the experts remaining in Belfast from September 20 to the middle of March. In Switzerland costs were obtained from four firms, work beginning early in April and ending in June.

German and Belgian manufacturers of barium chloride refused access to their books, stating that the determination of these costs would disclose business secrets regarding more important products. Two German firms, however, furnished copies of summarized cost sheets and a third firm gave a résumé of costs over a period of several years. No comparable data were obtained from Belgian firms.

German producers of tungsten, like those of barium chloride, refused access to their books. English manufacturers gave summarized cost data, one firm signifying willingness to open its books.

In all the investigations, except that on handkerchiefs in Ireland, contacts with foreign government offices and with business men were made by the Brussels office. The European representative of the commission assisted in the field work and prepared reports dealing with questions involved in the cost studies and with competitive conditions.

In December, 1928, glass manufacturers signified their willingness to furnish cost data on blown-glass tableware, but preferred that the experts of the commission wait until the 1st of March. Meanwhile, the work in response to requests for information in connection with tariff readjustments by the Congress required so much of the time of the experts of the ceramics division of the commission's staff that field work in Czechoslovakia had to be postponed.

Among the other activities of the Brussels office may be cited the attendance at Geneva of the commission's European representative as technical adviser to the American delegate to the Second International Conference on Import and Export Restrictions and Prohibitions, July 3 to 11, 1928.

In the intervals between field trips and work on investigations, preparation of weekly reports continued. These dealt with foreign conditions of production and sale of a number of imported commodities.

A study of wages and of the productivity of labor in European tanneries, undertaken in April, 1928, in response to Senate Resolutions 163 and 169, was completed during the year. Significant data were obtained from tanneries in Czechoslovakia, France, England, and Scotland.

Relations of comity with representatives of other branches of the Federal service have not only been maintained but promoted by the assistance rendered to the foreign office by consuls in various European cities.

Methods of obtaining foreign cost data.—In general the commission employs the same methods of assembling and verifying foreign costs of production that it uses in domestic investigations. As a rule the foreign figures are obtained from books of record and verified with great care by the commission's experts. In one important respect obtaining accurate cost data in foreign countries presents a problem not encountered in domestic cost investigations, that is, getting the consent of the foreign firm to render available their cost data.

The commission's agents have no authority outside the United States. They can only *request*, not *demand*, information from foreign firms. In order to avoid misunderstanding, they must proceed with careful regard for diplomatic formalities and with full appreciation of the point of view of foreign business men. Business information in Europe, particularly in England, is more difficult to obtain than in the United States. Foreign firms are not in the habit of supplying data regarding production, wages, and other phases of their business, even to their own government. Censuses of production are taken only at infrequent intervals and are at best fragmentary. On the Continent the fear of the tax collector deters business men from divulging facts regarding their operations. A foreign business man, therefore, is likely to resent being asked to give information to the representative of a foreign country, which he would be within his legal rights in refusing to give the officials of his own country.

Realizing the peculiar nature of the problems described above, the commission has established the following principles as fundamental for the conduct of its cost work abroad.

1. When work abroad is contemplated by members of the commission's staff a communication is sent to the Department of State outlining tentative plans for the foreign work, and bespeaking the cooperation of the representatives abroad of the State Department in making the initial contacts between the commission's representatives and foreign officials and foreign producers. The Department of State is expected to assume no responsibility beyond the appropriate introduction.

2. No approach is made to a foreign business firm or individual for the purpose of discussing the costs of production until the Government has first been notified and until it has indicated whether or not it wishes to raise objection. Some such objections have been made, but, as a rule, foreign governments place no obstacles in the way of the commission's work. They have even encouraged their citizens in some cases to cooperate with the commission's experts. It is usual for the head of the Ministry of Commerce or a corresponding official of the Government in question to send formal letters of introduction to the firms which the commission wishes to interview. In this way its agents are fully accredited and when they get in touch with business men no question can be raised of the official character of their mission.

3. A third principle is that the commission's employees shall, immediately upon their arrival in the foreign city where they propose to work, establish contact with the American consul and with the commercial attaché or trade commissioner in charge of the district. These officers furnish helpful cooperation by supplying letters of introduction and by arranging interviews. Upon leaving the district

the commission's European representative reports to the diplomatic officer in charge the general results of his visit.

4. Finally, in dealing with the foreign business man, the commission has taken great care to avoid any semblance of threat or pressure. It will be remembered that foreign agents of the United States Treasury Department, if they choose, may invoke the provisions of section 510 of the tariff act of 1922, which provides for the embargo of the shipments of foreign firms who refuse to disclose certain information. Although this measure has been rarely employed, its presence in the act has caused some misunderstanding respecting the foreign work of the Tariff Commission. The commission has had no such powers and has taken pains to make this fact clear in its work abroad. The foreign manufacturer or exporter has been told frankly that the commission can make no difficulties for him if he refuses to furnish cost data. He is told, on the other hand, that the commission has under consideration an application for a change in the rate of duty on a product in which he is interested. If he chooses to avail himself of the opportunity the commission's experts will be glad to accept whatever information he may choose to furnish. Such information will, of course, have comparable standing before the commission with that furnished by domestic manufacturers only if it can be verified by methods similar to those employed in cost investigations in the United States. If he decides to give the cost information it is often because he feels that by doing so he can best present his case before the commission.

The methods employed in foreign cost investigations as described above are inevitably time-consuming. The commission's experts can not go immediately to centers of production in any foreign country, but must first go to the seat of government and spend a number of days there in formal interviews. Before coming into contact with the manufacturers, negotiations are often carried on with the heads of their association. They may be able to give an immediate answer or they may have to consult with the firms interested. In either event there is usually a certain amount of delay involved before the decision is obtained. The matter may have to be discussed by the commission's representatives with each producer in turn. The next step, therefore, is the discussion of the presentation of the commission's request to the individual foreign manufacturers. These firms may be widely scattered and a considerable amount of travel necessary before contacts can be established with them all.

On the Continent of Europe the commission's experts must surmount the language barrier. Cost records may be kept in any one of a number of different languages, and he may have to translate the cost terms into English and put all questions regarding the significance and interpretations of the figures to the manufacturer through an interpreter.

XX. SURVEYS, REPORTS, AND INVESTIGATIONS

The work of each of the commodity divisions is described in this section.

During the past year practically the entire attention of the commodity divisions has been devoted to preparing information for the use of the Congress in enacting tariff legislation. Because of this

work new reports or investigations, as a rule, have not been undertaken, and surveys and reports in progress have been adapted to the immediate use of Congress rather than completed for publication.

SCHEDULE 1. CHEMICALS, OILS, AND PAINTS

(a) GENERAL STATEMENT

The work of the chemical division is concerned with the chemicals and allied products enumerated in Schedule 1 and with related articles in the free list. It includes dyes, medicinals, perfumes, oils, paints, botanical drugs, pyroxylin and other plastics, and other related products.

During the current year the division has been occupied chiefly in compiling data for the use of the Congress in its readjustment of the tariff. In addition, it has prepared its annual edition of the census of dyes and other synthetic organic chemicals, and a compilation of dye import statistics in collaboration with the Department of Commerce, and has continued its work on investigations for purposes of section 315 of the tariff act of 1922.

(b) COMPILATION OF DATA FOR CONGRESS

The assistance rendered by the chemical division to Congress in the pending tariff revision may be summarized as follows:

1. Preparation of tariff information summaries.
2. Preparation of digest of testimony before and of briefs filed with the Committee on Ways and Means and the Committee on Finance, with an index of requests for changes in duties.
3. Attendance at committee hearings by chemical experts assigned to each committee (for presentation of data regarding chemical commodities).
4. Preparation of statistical data and reports personally requested by Representatives and Senators.

Summaries of tariff information are condensed forms of the tariff surveys prepared on the items in Schedule 1 and on the free list and on many important chemical items not specifically mentioned in the tariff act of 1922. They are similar in form to those printed in 1922, but contain additional data on prices, costs of production, and competitive conditions—all of which were used by the Committees on Ways and Means and Finance and by the Members of the Congress. In preparing these summaries and other work for the committees, experts from the division made analyses of invoices and tabulated data on many imported commodities for which adequate information on prices, transportation charges, and quality or grade was lacking. For some industries it was necessary to go into the field to obtain current information. Conferences in Washington with manufacturers, importers, and consumers also proved helpful in eliciting and checking information on specific commodities.

(c) CENSUS OF DYES AND OTHER SYNTHETIC ORGANIC CHEMICALS, 1928

The Twelfth Annual Census of Dyes and Other Synthetic Organic Chemicals, to appear early in 1930, brings to date the figures published in earlier census reports on the domestic production of (1) coke,

coal tar, and coal-tar crudes; (2) intermediates; (3) finished products, such as dyes, color lakes, photographic chemicals, medicinals, perfumes, and flavors; (4) synthetic organic chemicals not derived from coal tar. In addition, it contains a list of all producing companies which have gone out of business, or have been merged with, or purchased by, or have otherwise passed into the control of other companies since January 1, 1925. Because of the pronounced trend during the last year toward mergers among industrial and other companies, this list is of interest.

COAL-TAR DYES

Domestic production.—For the fourth successive year domestic production of dyes has shown an increase. In 1928 production was 96,600,000 pounds, an increase of 1.5 per cent over 1927. Sales totaled 93,300,000 pounds, valued at \$39,790,000, an average of 42.6 cents per pound, or 9.2 per cent more than in 1927. Forty-seven firms reported production in 1928 as compared with 55 in 1927.

Domestic manufacturers supplied about 93 per cent of the apparent consumption of dyes by quantity and about 80 per cent by value during 1928, and there were exports of 27,800,000 pounds. The year was again characterized by the quantity of vat and other fast dyes produced, including many new types, particularly adapted for rayon, mixed fabrics, and specialties.

Prices of domestic dyes.—For the first time since 1917 the weighted average price per pound of all domestic dyes shows an increase, with a general average price of 9.2 per cent more in 1928 than in 1927. The increase was due to the higher prices paid for the bulk colors, indigo and sulphur black, and to the larger proportion of high-priced dyes in the total sales. As a group, however, the high-priced dyes showed a decline in weighted average selling price. Comparative prices per pound of total dyes in recent years follow:

1917-----	\$1. 26	1926-----	\$0. 42
1922-----	. 60	1927-----	. 39
1924-----	. 54	1928-----	. 42
1925-----	. 47		

Imports.—A change in the trend of dye imports is also noted in recent years. Totaling 5,351,951 pounds, valued at \$4,321,867 in 1928, imports showed the first increase since 1925; compared with the imports in 1927, they amounted to about 26 per cent more in both quantity and value. Imports were largely of the high-cost dyes originating chiefly in Germany and Switzerland.

Exports.—The 1928 export of 27,824,264 pounds, valued at \$6,531,619, represents an increase of 3.9 per cent in quantity and 18.8 per cent in value over 1927. The principal dyes exported were indigo and sulphur black, chiefly to the Orient.

SYNTHETIC ORGANIC CHEMICALS NOT DERIVED FROM COAL TAR

Since the first statistical compilation by the commission in 1921 of synthetic organic chemicals of noncoal-tar origin this group has shown a steady and remarkable increase in production. In 1921 domestic production was 21,545,186 pounds, with a sales value of \$9,264,430; by 1928 it had expanded to 384,564,836 pounds, with a sales value of \$69,221,670. The average unit value decreased from

\$0.43 per pound in 1921 to \$0.18 in 1928. Production in 1928, compared with that in 1927, increased 27.6 per cent in quantity and 25.5 per cent in value. In 1928, for the first time, the value of production of synthetic chemicals was greater than that of the finished coal-tar products.

Important chemicals in this group showing substantial increases in production were ethylene glycol and derivatives, acetaldehyde and derivatives, amyl and butyl alcohols, synthetic methanol, ethyl chloride, tetraethyl lead, and furfural. Most of these chemicals are used in the production of lacquers, tires, antiknock gasoline, and anti-freeze solutions.

Chief among the products first reported in 1928 are synthetic acetic acid, fermentation citric acid, and formic acid. Acetic acid from acetylene, produced in Canada during the war, is now manufactured in the United States on a large scale. The production of citric acid by the fermentation of cane sugar, and as a by-product of the California citrus industry, renders the United States independent of foreign raw materials. Likewise, the domestic production of formic acid by two firms in 1928 (for the first time since 1923) relieves consumers of entire dependence upon imports.

Early in 1929 successful production was reported of synthetic acetone from propane, and of synthetic ethyl alcohol from ethane, both constituents of natural gas. Some synthetic camphor was produced in the United States during the war and it is possible that it will again be made on a commercial scale.

INTERNATIONAL DYE TRADE

Many important developments in the international dye trade took place in 1928. Dye manufacturers of Germany, Switzerland, and France signed a sales agreement with provisions for fixing prices, establishing export quotas, using commercial bureaus in common, and for exchanging technical information. The year was characterized by increased exports from the United States, Great Britain, and Switzerland, and by a small decrease in exports from Germany. There was a continuance of the trend toward fast colors and toward the manufacture of new types of fast dyes and specialties.

The Interessen Gemeinschaft, the largest chemical and dye organization in Germany, increased its activities at home and abroad. Its outstanding domestic achievement was the increased output of fixed nitrogen and synthetic gasoline. A feature of its foreign program was the formation of the American I. G. Corporation for manufacture in the United States of dyes, chemicals, fertilizers, and other products.

Under the leadership of the Imperial Chemical Industries (Ltd.), the British dye industry expanded and increased its trade, both domestic and foreign. The Imperial Chemical Industries also entered the fixed nitrogen, synthetic methanol, and butyl alcohol industries.

(d) COOPERATION WITH OTHER GOVERNMENT DEPARTMENTS

Since January, 1923, the Tariff Commission has cooperated with the Department of Commerce in the publication of a monthly list of imports of dyes and of other coal-tar products provided for in para-

graphs 27 and 28 of the tariff act of 1922. Prompt publication during the early part of the month following importation of the dyes is an aid to domestic manufacturers in planning their production programs, and to consumers in purchasing dyes. The publication of monthly lists of chemicals other than those of coal-tar origin in paragraphs 1, 5, 23, and 61 (commenced in 1925) was discontinued at the close of the year 1928.

Since May, 1923, the Tariff Commission and the Department of Commerce have issued jointly a semiannual report on bacteriological stains, indicators, and research chemicals imported for consumption in the United States.

(e) INVESTIGATIONS FOR PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922

(1) APPLICATIONS RECEIVED AND INVESTIGATIONS INSTITUTED

The commission has received since July 1, 1928, one application for an investigation for the purposes of section 315, with respect to the chemical schedule, namely, on tailors' chalk. The chemical division made a preliminary study of this commodity to assist the commission in determining whether an investigation was warranted. No new investigations of chemicals were instituted during the year, and because of demands by the Congress for data to be used in the pending tariff readjustment little progress was made on investigations already undertaken.

(2) REPORTS TO THE PRESIDENT

Potassium permanganate.—On May 26, 1927, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of potassium permanganate. Domestic and foreign costs of production were obtained late in 1927.

The largest use of potassium permanganate is in the purification of zinc salts used in the manufacture of lithopone; other important uses are as an antiseptic and disinfectant, as a remedy for poultry diseases, and as an ingredient of the filler in gas-mask canisters for the absorption of lethal gases.

Since 1923 there has been only one domestic manufacturer of potassium permanganate. Germany is the principal foreign producer, and Czechoslovakia probably the second.

Imports in 1923 amounted to 1,121,613 pounds, valued at \$142,877, or \$0.13 per pound; in 1927, to 319,332 pounds, valued at \$26,931, or \$0.084 per pound; and in 1928, to 600,944 pounds, valued at \$54,259, or \$0.09 per pound. About 70 per cent of the imports in 1926 and in 1927 originated in Germany.

Because costs of production were obtained from only one domestic and one German company, the figures can not be published without revealing confidential information. The difference in costs was greater than 6 cents per pound, the maximum duty permissible under the provisions of section 315, whether cost comparisons include transportation charges to New York, the principal market for the domestic and the imported articles, or transportation charges for the domestic and the foreign articles, respectively, to important markets in the United States for potassium permanganate.

On November 16, 1928, the President issued a proclamation increasing the duty on potassium permanganate from 4 cents per pound to 6 cents per pound, effective December 16, 1928.

Linseed oil.—An investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of linseed oil was instituted by the commission on May 4, 1923. Costs of production were obtained in the latter part of 1923 from domestic crushers and from British and Dutch crushers. Hearings were held and briefs were filed in 1924, and a report was sent to the President on March 3, 1925. On February 6, 1926, the President asked for data covering a longer period than that for which the commission had submitted costs and for raw material costs. In order to comply with the President's request, the commission made a second field investigation and obtained costs of linseed oil for 1925 and 1926 and on August 4, 1926, instituted an investigation of the costs of production of flaxseed.² Linseed oil costs were obtained from domestic and English producers for 1925 and 1926, but producers in Holland did not give costs for these years. Costs were calculated for Holland, 1925 and 1926, on the basis of conversion costs obtained previously by the commission, and of prices paid for flaxseed and prices received for oil and cake.

Linseed oil is a drying oil obtained from flaxseed and used chiefly in the manufacture of paints, varnishes, oilcloth, and linoleum. Prior to 1923 the United States imported more than half of its requirements of flaxseed, chiefly from Argentina. Since 1923 production has been slightly greater than imports. From 1924 to 1927, inclusive, the average annual production was 21,500,000 bushels, and the average annual import, 19,000,000 bushels. Mills along the Atlantic seaboard crush imported seed; those in the Middle West crush domestic seed.

Imports of linseed oil reached a maximum in 1922, amounting to 19,184,826 gallons, as compared with a domestic production of 61,072,233 gallons. Thereafter decreased quantities came in, reaching a minimum of 23,189 gallons in 1928. Most of the imports of linseed oil are indirect in the form of flaxseed. Domestic production in 1926 was 96,014,659 gallons; in 1927, 103,561,933 gallons; and in 1928, 100,192,604 gallons.

On June 19, 1929, the commission transmitted to the President a report on linseed oil. All of the commissioners signed this report, but with respect to the cost of transportation of domestic oil three of the commissioners were of the opinion that the transportation to New York should be weighted by the production of all the mills included in the scope of the investigation. The other three commissioners were of the opinion that the transportation of domestic linseed oil to New York should be weighted by the production of the domestic mills, included in the scope of the investigation, that are located in Chicago, Milwaukee, and east thereof. The following table gives comparative costs of production of linseed oil in the United States and in the Netherlands, the chief competing country, as determined by the commission for 1925 and 1926, when the duty on flaxseed was 40 cents per bushel.

² For a discussion of the flaxseed investigation, see Schedule 7.

Linseed oil, crude: Costs of production, including transportation charges to New York, for the United States and the Netherlands, 1925, 1926, and 2-year average

[Comparison of costs of production based upon a duty of 40 cents per bushel on flaxseed]

	1925		1926		Average, 1925, 1926	
	United States	Netherlands	United States	Netherlands	United States	Netherlands
	<i>Cents per pound</i>	<i>Cents per pound</i>	<i>Cents per pound</i>	<i>Cents per pound</i>	<i>Cents per pound</i>	<i>Cents per pound</i>
Cost f. o. b. mill.....	12.30	9.49	10.36	7.12	11.33	8.15
Transportation charges to New York, weighted by—						
Production of all domestic mills ¹.....	.40	.44	.35	.29	.37	.40
Production of domestic mills including mills of Chicago and Milwaukee and east thereof.	.21	.44	.17	.29	.19	.40
Actual shipments.....	.02	.44	.04	.29	.03	.40
Cost, including transportation charges to New York, weighted by:						
Production of all domestic mills.....	12.70	9.93	10.71	7.41	11.70	8.55
Production of domestic mills including mills of Chicago and Milwaukee and east thereof.	12.51	9.93	10.53	7.41	11.52	8.55
Actual shipments.....	12.32	9.93	10.40	7.41	11.36	8.55
Duty required to equalize difference in cost of production, including transportation charges to New York, weighted by—						
Production of all domestic mills ²	2.77		3.30		3.15	
Production of domestic mills, including mills of Chicago and Milwaukee and east thereof.	2.58		3.12		2.97	
Actual shipments.....	2.39		2.99		2.81	
Rate of duty, act of 1922.....	3.3 cents per pound					

¹ Excluding production at Portland, Oreg., transportation charges are 0.38 of a cent for 1925, 0.32 of a cent for 1926, and 0.35 of a cent for 1925, 1926.

² The differences in costs of production, excluding transportation charges on the production at Portland, Oreg., are 2.75 cents for 1925, 3.27 cents for 1926, and 3.13 cents for 1925, 1926.

Prior to the completion of the linseed oil report, the President, under the provisions of section 315 of the tariff act of 1922, had increased the duty on flaxseed from 40 to 56 cents per bushel. The rate of duty on linseed oil required to compensate for the increase in duty of 16 cents per bushel on flaxseed, taking into consideration the drawback received upon imported seed from the export of oil cake, is calculated as follows:

The average drawback per bushel of imported flaxseed on exports of linseed oil and cake for 1925, 1926 was computed for each of the three principal crushing districts. These averages are 9.73 cents for the eastern district, 4.18 for the Buffalo district, and 2.52 for the district west of Buffalo, or 24.32, 10.45, and 6.30 per cent, respectively, of the duty upon flaxseed, 40 cents. Applying each of the above percentages to the 16-cent increase, the drawback deduction on the 16-cent duty by reason of the linseed oil and cake which would be exported with benefit of drawback is 3.89 cents per bushel for the eastern district, 1.67 cents for the Buffalo district, and 1.01 cents for the western district. The additional cost of flaxseed to domestic manufacturers in each of the districts is therefore the difference between 16 cents and the respective deductions for drawback, namely, 12.11 cents per bushel for the eastern district, 14.33 cents for the Buffalo district, and 14.99 cents for the western district. The weighted average net increase for the three districts combined is 13.77 cents per bushel of flaxseed, or 0.73 cent per pound of linseed oil. In the following table, therefore, 0.73 cent has been added to the domestic costs shown in the preceding table.

Linseed oil, crude: Costs of production, including transportation charges to New York City, for the United States and the Netherlands, 1925, 1926, and 2-year average

[Comparison of costs of production based upon a duty of 56 cents per bushel on flaxseed]

	1925		1926		Average, 1925, 1926	
	United States	Netherlands	United States	Netherlands	United States	Netherlands
	Cents per pound	Cents per pound	Cents per pound	Cents per pound	Cents per pound	Cents per pound
Cost f. o. b. mill.....	13.03	9.49	11.09	7.12	12.06	8.15
Transportation charges to New York City, weighted by—						
Production of all domestic mills, ¹ included in the scope of the investigation.....	.40	.44	.35	.29	.37	.40
Production of domestic mills, including mills of Chicago and Milwaukee and east thereof.....	.21	.44	.17	.29	.19	.40
Actual shipments.....	.02	.44	.04	.29	.03	.40
Cost, including transportation charges to New York City, weighted by—						
Production of all domestic mills, including the scope of the investigation.....	13.43	9.93	11.44	7.41	12.43	8.55
Production of domestic mills, including mills of Chicago and Milwaukee and east thereof.....	13.05	9.93	11.26	7.41	12.25	8.55
Actual shipments.....	13.24	9.93	11.13	7.41	12.09	8.55
Amount by which the cost of production in the United States exceeds the cost of production in the Netherlands, including transportation charges to New York City, weighted by—						
Production of all domestic mills, ² included in the scope of the investigation.....	3.50		4.03		3.88	
Production of domestic mills, including mills of Chicago and Milwaukee and east thereof.....	3.31		3.85		3.70	
Actual shipments.....	3.12		3.72		3.54	
Rate of duty, act of 1922.....	3.3 cents per pound					

¹ Excluding production at Portland, Oreg., transportation charges are 0.38 of a cent for 1925, 0.32 of a cent for 1926, and 0.35 of a cent for 1925, 1926.

² The differences in costs of production, excluding transportation charges on the production at Portland, Oreg., are 3.48 cents for 1925, 4 cents for 1926, and 3.86 cents for 1925, 1926.

On June 25, 1929, the President issued a proclamation increasing the duty on linseed oil from 3.3 cents per pound to 3.7 cents per pound, effective July 25, 1929.

(3) INVESTIGATIONS IN PROGRESS

Glue.—On July 24, 1925, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of glue. In the United States costs were obtained for extracted bone glue and hide glue; in Great Britain and Germany, for extracted bone glue. The principal British producer refused representatives of the commission access to the company's cost records, but another large manufacturer furnished cost data.

Glue is made from hides and bones. Its chief uses are as an adhesive for binding furniture parts together; as a binder for calcimine, for sizing paper and leather goods, and in compounding rubber.

Since 1921 the annual domestic production of hide glue has ranged between 58,000,000 and 65,000,000 pounds; extracted bone glue, between 8,000,000 and 9,000,000 pounds; and green bone glue, from 28,000,000 to 35,000,000 pounds. During the same period

imports have been from 5,000,000 to 7,000,000 pounds annually, and have consisted largely of extracted bone glue. From 1923 to 1927, inclusive, Great Britain was the chief source of imports, but in 1926 Germany supplied almost as much as did Great Britain. British glue imported into this country is nearly all bone glue; imports from Germany are probably 75 per cent bone, and the remainder low-grade hide glue.

A preliminary statement of information was issued prior to a public hearing held in the offices of the commission in Washington April 26 and 27, 1928. Since that date the commission has obtained costs of production of hide glue in Germany, the principal source of imports.

Tartaric acid.—On March 4, 1926, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of tartaric acid. Costs of production were obtained for the United States, Italy, and Germany for the years 1924 to 1926, inclusive.

Tartaric acid is made from argols and wine lees, which are almost entirely imported. The baking-powder and pharmaceutical industries are the largest consumers of tartaric acid. Photography, package gelatin, confectionery, soft drinks, and tartrazine dyes are also consuming industries.

In 1925 the domestic production of tartaric acid was 5,498,920 pounds, and imports amounted to 3,472,252 pounds. A preliminary statement of information was issued prior to a public hearing held in the offices of the commission in Washington, July 25, 1928. Briefs were filed by interested parties on September 17, 1928.

Cream of tartar.—On March 4, 1926, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of cream of tartar. Domestic costs of production were obtained from four manufacturers. Foreign costs of production were sought from individual producing companies in France, the principal source of imports, but were not obtained. Invoice prices were used as an evidence of foreign costs.

The raw materials used in the production of cream of tartar are similar to those used in the manufacture of tartaric acid. Its principal use is as an ingredient of baking powders; other products into which it enters are self-rising flour and candy.

The apparent annual consumption of cream of tartar is about 7,250,000 pounds. In 1925 domestic production amounted to 7,041,766 pounds and imports to 315,652 pounds. In recent years France has been the chief source of imports.

A preliminary statement of information was issued to the trade prior to a public hearing held in the offices of the commission on July 25, 1928. Briefs were filed by interested parties on September 17, 1928.

Sodium phosphate.—On May 26, 1927, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of sodium phosphate.

Three kinds of sodium phosphate are known in commerce—mono-, di-, and tri-sodium phosphate—all made from the same raw materials, phosphoric acid and alkalis, and each having its distinct uses. Mono-sodium phosphate is relatively unimportant, only small quantities being used for baking powders and in medicines. Di-sodium phosphate is used in weighting silk, from 75 to 90 per cent of total con-

sumption serving this purpose. Tri-sodium phosphate, the form that the bulk of domestic production takes, is used chiefly in household and industrial cleaning preparations.

Domestic cost data for the calendar year 1926 were obtained in the latter part of 1927 from the six manufacturers. Costs of production of di-sodium phosphate were obtained from the principal producer in Germany for the calendar year 1926, and of di- and tri-sodium phosphate from the single manufacturer in Belgium for the periods July 1, 1925, to June 30, 1926; July 1, 1926, to June 30, 1927; and July 1 to December 31, 1927.

Census figures for 1925 show a domestic production of 106,000,000 pounds of tri-salt, and 30,500,000 pounds of mono- and di-salts, of which the mono-salt constitutes only a small proportion. In 1926 imports of all forms amounted to 9,066,657 pounds, valued at \$228,313, or \$0.0252 per pound. Of the total imports, di-salt constituted the largest percentage and tri-salt the next. In 1927 imports of all kinds of sodium phosphate were approximately double those of 1926.

Foreign competition is chiefly from di-sodium phosphate, the principal market for which is near the Atlantic seaboard. The consumption of tri-sodium phosphate is widely scattered over the country.

A preliminary statement of information was issued for use at a public hearing held on January 15 and 16, 1929.

Whiting and precipitated chalk.—On May 26, 1927, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of whiting and precipitated chalk. During the period July to November, 1927, the commission obtained domestic cost data from the five companies making whiting for sale and from the two manufacturers of precipitated chalk. In August and September, 1927, the commission obtained foreign costs from two of the four manufacturers of whiting in Belgium and from the principal producer of precipitated chalk in England.

Preliminary statements of information on whiting and precipitated chalk were issued prior to the public hearing held in the offices of the commission on June 20, 1928. Briefs on whiting were filed by interested parties on July 23, 1928. The report covering these two commodities has been prepared and transmitted to the President.

Whiting.—Whiting is finely ground natural chalk and is used chiefly in the manufacture of calcimine, wall paints, putty, and rubber. The whiting produced in the United States is made almost entirely from natural chalk imported from Belgium and France. The importation of natural chalk amounted to 217,000,000 pounds in 1928. Imports of whiting increased from 34,500,000 pounds in 1922 to nearly 66,000,000 pounds in 1926 and 80,000,000 pounds in 1928.

Complete statistics of the domestic production of whiting are not available. Data collected by the commission on total sales in the period 1922 to 1926 of firms manufacturing whiting for sale show a maximum of 136,000,000 pounds sold in 1923 and a minimum of 110,000,000 pounds sold in 1926. The annual production of six companies manufacturing for their own consumption is estimated at 78,000,000 pounds.

Apparent consumption in 1926 was about 251,000,000 pounds, and in 1928 was about 297,000,000 pounds.

Belgium is the chief source of imports of natural chalk and of whiting.

Precipitated chalk.—Precipitated chalk is made by a chemical process from limestone and is chiefly used in the manufacture of tooth pastes. Production in the United States is wholly from domestic raw materials. Statistics of the domestic production of precipitated chalk can not be published without revealing confidential information. An estimate given before the Senate Finance Committee in 1922 put the annual consumption at 5,000,000 pounds.

Imports of precipitated chalk in 1926 amounted to 3,132,527 pounds; in 1927 to 2,766,401 pounds; and in 1928 to 3,712,903 pounds. Statistics are not available for earlier years. England was the chief source of imports, supplying about 80 per cent of the total.

Nitrate of potash, refined.—On April 18, 1928, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of costs of production of refined nitrate of potash. Costs of production were obtained from the one domestic producer in 1928. In that year, however, domestic production ceased, and on February 5, 1929, the commission dismissed the investigation.

Barium chloride.—On July 20, 1928, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of barium chloride. Domestic and foreign costs were obtained.

Barium chloride is used chiefly in the preparation of color lakes for lithographic inks and paints; as a weighting agent in kid leather; and in the purification of salt brine. There are only two domestic manufacturers and their production can not be shown without disclosing confidential information. Imports in recent years have averaged about 3,500,000 pounds. In 1927, Germany and Belgium were the principal sources of imports, supplying almost equal quantities. During the first six months of 1928 Belgium was the chief source.

A preliminary statement of information was issued prior to the public hearing held in the offices of the commission on March 5, 1929.

Decolorizing and deodorizing carbons.—On August 11, 1928, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of decolorizing and deodorizing carbons. Costs of production have been obtained and tabulated for the United States and the Netherlands.

Decolorizing and deodorizing carbons are charcoals that have been activated by special processes so that they are capable of absorbing much greater quantities of coloring matter or of impurities than ordinary charcoals or bone char. The industrial application of these carbons, also known as activated carbons, is a result of the war-time development of carbons for gas-mask canisters to absorb lethal gases.

Decolorizing and deodorizing carbons are used principally in the refining of sugar sirups, vegetable oils and fats, glycerin, crystallized chemicals (both organic and inorganic), and in the recovery of dry-cleaners' solvents.

Bone char is at present (1929) the chief agent for decolorizing sugar and sirup. For cane sugar it has two distinct advantages over decolorizing carbons: (1) It will remove a far greater proportion of the mineral salts; (2) the spent material is at present more satisfactorily revived than are the spent decolorizing carbons. Activated carbons are much more powerful decolorizing agents than bone

char, hence correspondingly smaller quantities are required. Their use for bleaching sugar insures a substantial saving in cost of equipment, materials, and operation. Experimental work is being carried on looking toward the further displacement of bone char by decolorizing carbons. Indications are that the depression in the sugar industry and the large amount of capital tied up in bone-char equipment and material offer serious obstacles to the general replacement of bone char by decolorizing carbons in the near future. The development of other promising uses for decolorizing carbons should, however, greatly increase their consumption.

There are two domestic manufacturers of decolorizing carbons. Imports in 1927 amounted to 1,126,446 pounds, or double the quantity imported in 1925. In 1928 they amounted to 1,264,073 pounds. Holland is the principal source of imports, but the organization of cartels and the negotiation of international agreements among European producers indicate that Germany is endeavoring to obtain an increased share of the United States markets.

(f) STATISTICS OF COMMODITIES ON WHICH CHANGES IN RATES OF DUTY HAVE BEEN MADE UNDER SECTION 315

(1) *Barium dioxide*.—The President, by a proclamation effective June 18, 1924, increased the rate of duty on barium dioxide from 4 to 6 cents per pound. Imports in 1925, amounting to over 1,270,000 pounds, were about one-third less than imports in 1923. Beginning with 1926, imports have been insignificant compared with former years. In 1924 there was only one domestic producer of barium dioxide. By 1928 two others had entered the field.

The following table shows imports of barium dioxide from 1923 to June, 1929.

Barium dioxide: Imports for consumption, 1923-1929 (six months)

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922, 4 cents per pound. Rate of duty changed by presidential proclamation to 6 cents per pound, June 18, 1924]

Year	Quantity	Foreign value	Unit value
1923.....	<i>Pounds</i> 1, 810, 593	\$152, 570	\$0. 084
1924 ¹	698, 949	52, 587	.075
1924 ²	1, 021, 756	67, 787	.066
1924 (total).....	1, 720, 705	120, 374	.070
1925.....	1, 270, 443	70, 553	.056
1926.....	98, 901	8, 157	.082
1927.....	11, 496	1, 264	.110
1928.....	12, 551	1, 310	.104
1929 (6 months).....	None.	None.	None.

¹ Imports prior to June 18, 1924, date of increase in rate of duty.

² June 18 to Dec. 31, 1924.

Following the change in rate, New York spot prices of both domestic and imported barium dioxide remained constant at 17 cents and 15 cents, respectively, until May, 1925. They then declined to 13 cents per pound for both domestic and imported, a level that was maintained for the domestic through December, 1927, and for the

imported through June, 1927. Imported barium dioxide has since been quoted at 12 cents, through August, 1929.

The following table shows price quotations per pound of domestic and imported barium dioxide in the spot New York market from 1923 to August, 1929.

Barium dioxide: Price¹ per pound, 86 to 88 per cent, New York spot market, 1923-1929

Month	1923		1924		1925		1926		1927		1928	1929
	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic ¹	Imported ²	Domestic ²	Imported ³	Imported ³	Imported
January.....	\$0.18	\$0.14	\$0.17	\$0.13 $\frac{1}{2}$	\$0.17	\$0.15	\$0.13	\$0.13	\$0.13	\$0.13	\$0.12	\$0.12
February.....	.18	.14	.17	.13 $\frac{1}{2}$	.17	.15	.13	.13	.13	.13	.12	.12
March.....	.17	.14	.16	.15	.16	.15	.13	.13	.13	.13	.12	.12
April.....	.17	.14	.17	.14 $\frac{1}{2}$	.16	.15	.13	.13	.13	.13	.12	.12
May.....	.17	.14	.17	.14 $\frac{1}{2}$	.13	.13	.13	.13	.13	.13	.12	.12
June.....	.17	.14	.17	.15	.13	.13	.13	.13	.13	.13	.12	.12
July.....	.17	.14	.17	.15	.13	.13	.13	.13	.13	.13	.12	.12
August.....	.17	.14	.17	.15	.13	.13	.13	.13	.13	.12	.12	.12
September.....	.17	.14	.17	.15	.13	.13	.13	.13	.13	.12	.12	.....
October.....	.17	.14	.17	.15	.13	.13	.13	.13	.13	.12	.12	.....
November.....	.17	.14	.17	.15	.13	.13	.13	.13	.13	.12	.12	.....
December.....	.17	.14	.17	.15	.14	.....	.13	.13	.13	.12	.12	.....

¹ The low quotation on the date nearest the 1st of each month. Source: Drug and Chemical Market (1923-1927) and Oil, Paint, and Drug Reporter (1928-29).

² 88 per cent.

³ 86 to 88 per cent.

⁴ Increase in rate of duty, effective June 18, 1924.

(2) *Diethylbarbituric acid (barbital)*.—On November 14, 1924, the President issued a proclamation, effective November 29, 1924, changing the basis of the assessment of duty on diethylbarbituric acid from 25 per cent ad valorem on the foreign market value to 25 per cent ad valorem on the "American selling price" as defined in subdivision (f) of section 402 of the tariff act of 1922 of similar products produced in the United States and sold under their respective chemical names (including barbital and barbital sodium) "not using for the purpose of said basis and assessment such price of such articles when sold under the trade-mark name "Veronal" or "Veronal-sodium."

The incompleteness of import statistics for this chemical prior to 1926 makes it difficult to determine the effect of the change in duty on foreign shipments to this country. Imports since 1926 have been as follows:

Diethylbarbituric acid and derivatives: Imports for consumption, 1927-1929 (6 months)

[Source: Foreign Commerce and Navigation of the United States]

[Increased rate of duty effective November 29, 1924, after which date all values shown are on the basis of American selling price]

Year	Quantity	Value	Unit value
1927 ¹	<i>Pounds</i> 15,502	\$132,084	\$8.52
1928.....	23,278	190,112	8.17
1929 (6 months).....	18,301	148,367	8.11

¹ April to Dec. 31.

In November, 1924, the price of imported barbital was quoted at \$3.30 per pound, and in December, immediately after the increase, at \$4.50. In February, 1925, there was a decline to \$4, a price that was maintained until November, when it increased to \$4.20. In January–March, 1926, the quotation was \$4.15 per pound; from April, 1926, to March, 1927, inclusive, it was \$4, after which it remained at \$3.85 through November, then fell to \$3.75 in December, 1927. Later quotations on the imported material are not available.

Domestic barbital declined from \$10 per pound preceding the change in duty to \$8 for the month following the change. This price was maintained through November, 1927; since then it has been \$4.60 per pound.

The following table shows the price quotations per pound of domestic and imported barbital, New York spot market, from January, 1924, to July, 1929.

Diethylbarbituric acid: Price¹ per pound, New York spot market, 1924–1929

Month	1924		1925		1926		1927		1928	1929
	Do- mestic	Im- ported	Do- mestic	Im- ported	Do- mestic	Im- ported	Do- mestic	Im- ported ²	Do- mestic	Do- mestic
January.....	\$8.50	-----	\$8.00	\$4.25	³ \$8.00	\$4.15	\$8.00	\$4.00	\$4.60	\$4.60
February.....	8.50	-----	8.00	4.00	8.00	4.15	8.00	4.10	4.60	4.60
March.....	8.00	\$4.10	8.00	4.10	8.00	4.15	8.00	4.00	4.60	4.60
April.....	8.50	-----	8.00	4.00	8.00	4.00	8.00	3.85	4.60	4.60
May.....	10.00	3.75	8.00	4.00	⁴ 8.00	4.00	8.00	3.85	4.60	4.60
June.....	10.00	3.75	8.00	4.00	8.00	4.00	8.00	3.85	4.60	4.60
July.....	10.00	3.75	8.00	4.00	8.00	4.00	8.00	3.85	4.60	4.60
August.....	10.00	3.50	8.00	4.00	8.00	4.00	8.00	3.85	4.60	-----
September.....	10.00	3.50	8.00	4.00	8.00	4.00	8.00	3.85	4.60	-----
October.....	10.00	3.50	8.00	4.00	8.00	4.00	8.00	3.85	4.60	-----
November.....	10.00	3.30	8.00	4.00	8.00	4.00	8.00	3.85	4.60	-----
December.....	⁵ 8.00	⁵ 4.50	8.00	4.20	8.00	4.00	4.60	3.75	4.60	-----

¹ The low quotation on the date nearest the 1st of each month on large quantities of material. Source: Drug and Chemical Markets, New York.

² Not quoted after 1927.

³ Drug and Chemical Markets.

⁴ Beginning May, 1926, quotations are from Drug Markets.

⁵ Increase in the rate of duty effective Nov. 29, 1924.

(3) *Oxalic acid*.—The President, by proclamation, increased the rate of duty on oxalic acid from 4 to 6 cents per pound, effective January 28, 1925. Imports reached their maximum in 1924, when 3,135,664 pounds were imported. They afterwards declined to 890,000 pounds in 1928, and in the first six months of 1929 to 332,000 pounds. Increased quantities of mixtures and salts of oxalic acid are being imported, such as a mixture of oxalic acid and sodium silicofluoride, and iron ammonium and iron sodium oxalates.

The following table shows imports of oxalic acid for the years 1923 to June, 1929.

Oxalic acid: Imports for consumption, 1923-1929 (6 months)

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922, 4 cents per pound. Rate of duty changed by presidential proclamation to 6 cents per pound, January 28, 1925]

Year	Quantity	Foreign value	Unit value
	<i>Pounds</i>		
1923.....	2,621,302	\$206,100	\$0.079
1924.....	3,135,664	177,641	.057
1925 ¹	2,569,275	117,639	.046
1926.....	1,583,011	71,685	.045
1927.....	1,843,732	98,657	.054
1928.....	890,203	46,447	.052
1929 (6 months).....	332,535	17,196	.052

¹ Increase in rate of duty effective Jan. 28, 1925.

For the five months preceding the change in duty the price of oxalic acid was constant at about 9½ cents per pound spot, New York. Following the change in rate both the domestic and the imported had a slightly higher market value. From March, 1925, through September, 1926, prices were fairly stable at 10¾ cents per pound for domestic and 10¾ to 11¾ cents for the imported. Since October, 1926, domestic acid has been 11 cents and imported 11 to 12¼ cents per pound.

The following table gives monthly quotations on imported and domestic oxalic acid in the New York spot market for the years 1924 to August, 1929.

Oxalic acid: Price¹ per pound, New York spot market, 1924-1929

Month	1924		1925		1926		1927		1928		1929	
	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported
January.....	\$0.12	\$0.11¼	\$0.10¼	\$0.10¼	\$0.10¼	\$0.11	\$0.11	\$0.11½	\$0.11	\$0.11¼	\$0.11	\$0.11¼
February.....	.11½	.11¼	².11	².10¼	.10¼	.11	.11	.11½	.11	.11¾	.11	.11¾
March.....	.10½	.10¼	.10½	.10¼	.10¼	.11	.11	.11½	.11	.11¾	.11	.11¾
April.....	.10	.10½	.10¼	.10¼	.10¼	.11¼	.11	.11½	.11	.11½	.11	.12½
May.....	.10¼	.10¼	.10¼	.10¼	³.10¼	.11¼	.11	.11½	.11	.11¾	.11	.12¼
June.....	.10¼	.10	.10¼	.10¼	³.10¼	.11¼	.11	.11½	.11	.11¾	.11	.12¼
July.....	.10	.10	.10¼	.11	².10¼	.11¼	.11	-----	.11	.11¾	.11	.11¾
August.....	.09¾	.09½	.10¼	.11	.10¼	.11¼	.11	-----	.11	.11¾	.11	.11¾
September.....	.09½	.09½	.10¼	.11	.10¼	.11	.11	.11¾	.11	.11¾	-----	-----
October.....	.09½	.09½	.10¼	.11	.11	.11	.11	.11¾	.11	.11¾	-----	-----
November.....	.09½	.09½	.10¼	.11	.11	.11	.11	.11¾	.11	.11¾	-----	-----
December.....	.09½	.09½	.10¼	.11	.11	.11½	.11	.11¾	.11	.11¾	-----	-----

¹ The low quotation on date nearest the 1st of each month. Source: Drug and Chemical Markets, New York.² Increase in rate of duty effective Jan. 28, 1925.³ Beginning May, 1926, quotations are from Chemical Markets, and January, 1928, Oil, Paint, and Drug Reporter.

(4) *Methanol*.—The President's proclamation increasing the rate of duty on methanol from 12 to 18 cents per gallon became effective December 27, 1926. In the 12 months prior to the change in duty imports amounted to 754,917 gallons (with an average foreign value of 46 cents per gallon), or nearly 10 per cent of domestic consumption. In the 12 months following the change, 1,714,442 gallons of methanol were imported with an average foreign value of 42 cents per gallon. Importations in 1927 represent the peak in entries of methanol. Domestic production of synthetic methanol by two firms commenced

in 1927 and by a third firm in 1929. This synthetic product was offered for sale in 1927 as low as 42 cents per gallon.

The following table shows monthly imports of methanol from January, 1926, to June, 1929, inclusive.

*Methanol: Imports for consumption, January, 1926, to June, 1929*¹

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922, 12 cents per gallon. Rate of duty changed by presidential proclamation to 18 cents per gallon, Dec. 27, 1926]

Month	1926			1927		
	Quantity	Foreign value ¹	Foreign unit value ¹	Quantity	Foreign value	Foreign unit value
January.....	<i>Gallons</i> 67,692	\$31,044	\$.46	<i>Gallons</i> 312,196	\$140,810	\$.45
February.....	43,486	19,937	.46	67,241	29,464	.44
March.....	71,749	32,390	.45	145,928	61,283	.42
April.....	36,215	15,521	.43	164,349	67,923	.41
May.....	55,079	25,334	.46	316,172	138,582	.44
June.....	20,436	9,433	.46	199,541	87,456	.44
July.....	34,963	14,393	.41	102,382	44,380	.43
August.....	32,865	15,028	.46	95,008	41,619	.44
September.....	80,435	37,171	.46	52,724	23,606	.45
October.....	38,966	18,095	.46	88,385	32,851	.37
November.....	71,506	33,730	.46	76,598	23,338	.31
December.....	201,525	93,249	.47	93,918	26,660	.28
Total.....	754,917	345,530	.46	1,714,442	718,412	.42

Month	1928			1929		
	Quantity	Foreign value	Foreign unit value	Quantity	Foreign value	Foreign unit value
January.....	<i>Gallons</i> 54,224	\$13,475	\$.248	<i>Gallons</i> 70,472	\$28,875	\$.410
February.....	73,939	18,137	.245	41,485	15,607	.376
March.....	-----	-----	-----	75,460	30,804	.408
April.....	-----	-----	-----	92,904	43,808	.472
May.....	-----	-----	-----	71,461	26,792	.375
June.....	-----	-----	-----	54,804	20,386	.372
September.....	54,710	20,996	.384	-----	-----	-----
October.....	17,062	6,519	.382	-----	-----	-----
November.....	83,690	31,996	.382	-----	-----	-----
December.....	95,666	38,216	.399	-----	-----	-----
Total.....	379,291	129,339	.341	-----	-----	-----

¹ Increased rate effective Dec. 27, 1926.

Methanol: Price¹ per gallon, New York spot market, in tanks, January, 1926, to August, 1929

[Source: Oil, Paint, and Drug Reporter]

Month	95 per cent				Pure			
	1926	1927	1928	1929	1926	1927	1928	1929
January.....	\$0.55	\$0.80	\$0.45	\$0.55	\$0.65	\$0.85	\$0.50	\$0.60
February.....	.55	.80	.40	.55	.65	.85	.46½	.60
March.....	.55	.80	.43	.55	.65	.80	.46½	.60
April.....	.58	.80	.43	.55	.65	.85	.46½	.60
May.....	.53	.80	.43	.55	.65	.85	.42½	.60
June.....	.53	.63	.43	.55	.65	.68	.40½	.60
July.....	.52	.63	-----	.55	.65	.68	-----	.60
August.....	.55	.63	.45	.55	.65	.68	.50	.60
September.....	.65	.50	.45	-----	.75	.55	.50	-----
October.....	.65	.50	.45	-----	.75	.55	.50	-----
November.....	.70	.45	.55	-----	.80	.50	.60	-----
December.....	2.75	.45	.55	-----	2.85	.50	.60	-----

¹ The low quotation on the date nearest the 1st of the month.

² Increase in rate of duty effective Dec. 27, 1926.

Following the change in duty the New York wholesale prices on all grades of methanol increased approximately 5 cents per gallon, and within a month thereafter the 85 per cent grade advanced another 5 cents. A fairly uniform level was then maintained through May. By September competition from imported material and seasonal depression had caused prices to recede to 50 cents per gallon for 95 per cent and to 55 cents for pure methanol, and by June, 1928, gradual recessions to 43 cents for 95 per cent and to 40½ cents for pure had taken place. There was a strengthening to 45 and 50 cents per gallon in August, and to 55 and 60 cents in November, 1928, prices that have since prevailed.

(5) *Potassium chlorate*.—The President, by proclamation, increased the rate of duty on potassium chlorate from 1½ to 2¼ cents per pound, effective May 11, 1925. Import statistics did not segregate potassium chlorate and perchlorate prior to May 11, 1925, but the quantities reported jointly were chiefly potassium chlorate. In 1924 imports of potassium chlorate amounted to 7,520,700 pounds.³ In 1925 they decreased to 5,551,000 pounds; they have since averaged about 12,000,000 pounds per year. There has been no domestic production of potassium chlorate for several years.

The following table shows imports of potassium chlorate for the years 1923 to June, 1929, inclusive.

Potassium chlorate: Imports for consumption, 1923-1929 (6 months)

[Source: Foreign Commerce and Navigation of United States]

Rate of duty, under act of 1922, 1½ cents per pound. Rate of duty changed by presidential proclamation to 2¼ cents per pound, May 11, 1925]

Year	Quantity	Foreign value	Unit value	Year	Quantity	Foreign value	Unit value
	<i>Pounds</i>				<i>Pounds</i>		
1923 ¹	13,498,145	\$569,399	\$.042	1926.....	12,110,875	\$430,883	\$0.036
1924 ¹	7,520,700	310,643	.041	1927.....	13,122,384	476,887	.036
1925 ¹ ²	3,761,444	141,530	.038	1928.....	11,980,027	417,405	.035
1925 ³	5,551,381	202,014	.036	1929 (6 months).....	6,464,015	220,962	.034
1925 (total).....	9,312,825	343,544	.037				

¹ Includes potassium perchlorate.

² Imports prior to May 11, 1925, date of increase in rate of duty.

³ May 11 to Dec. 31, 1925.

The average invoice price of imported potassium chlorate since the change in the duty is practically the same as before, namely, from 3.4 cents to 3.6 cents per pound. The price quotations of the imported product in the New York market, duty and all other charges paid, have varied from less than 7 cents to 9 cents per pound, but during most of the period since the change in the duty in May, 1925, they have ranged from 7½ cents to 8½ cents per pound.

The following table shows price quotations of imported potassium chlorate in the spot New York market from January, 1924, to August, 1929, inclusive. Domestic prices can not be given, because there has been no domestic production of potassium chlorate in recent years.

¹ Includes potassium perchlorate.

Potassium chlorate, powdered: Price¹ per pound of imported product, New York spot market, 1924 to August, 1929

Month	1924	1925	1926	1927	1928	1929
January.....	\$0.07½	\$0.06¾	\$0.08¼	\$0.08¼	\$0.07½	\$0.07½
February.....	.07¼	.06¾	.08¼	.08¼	.07¼	.07½
March.....	.07	.07	.08¼	.08¼	.07¼	.07½
April.....	.07½	.09	.08¼	.08¼	.07½	.07½
May.....	.08¾	.08½	.08¼	.08¼	.07½	.07½
June.....	.08¾	.08½	.08¼	.08¼	.07½	.07½
July.....	.08¾	.09	.08¼	.08¼	.07¼	.07½
August.....	.07	.08¼	.08¼	.08¼	.07½	.07½
September.....	.06¾	.08¼	.08¼	.08¼	.07½	-----
October.....	.06½	.08¼	.08¼	.08¼	.07½	-----
November.....	.06½	.08¼	.08¼	.08¼	.07½	-----
December.....	.06½	.08¼	.08¼	.07½	.07¼	-----

¹ The low quotation on the date nearest the 1st of each month. Source: Drug and Chemical Markets, New York.

² Increase in rate of duty effective May 11, 1925.

³ May, 1926, to December, 1927, quotations are from Chemical Markets; 1928-29, from Oil, Paint, and Drug Reporter.

(6) *Sodium nitrite*.—The President's proclamation increasing the rate of duty on sodium nitrite from 3 to 4½ cents per pound became effective June 5, 1924. From a volume of 4,500,000 pounds in 1923 and in 1924, imports decreased to about 1,900,000 pounds in 1925 and in 1926, to 291,726 pounds in 1927, and to 107,739 pounds in 1928. In 1923 there were two small and one large domestic producers of sodium nitrite. One of the large plants was burned and not rebuilt. At present there are four important producers in the United States.

The following table shows imports from the years 1923 to June, 1929.

Sodium nitrite: Imports for consumption, 1923-1929 (6 months)

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922, 3 cents per pound. Rate of duty changed by presidential proclamation to 4½ cents per pound, June 5, 1924]

Year	Quantity	Foreign value	Unit value	Year	Quantity	Foreign value	Unit value
1923.....	<i>Pounds</i> 4,685,527	\$209,029	\$0.045	1925.....	<i>Pounds</i> 1,971,105	\$78,149	\$0.040
1924 ¹	3,277,065	129,167	.039	1926.....	1,927,109	69,575	.036
1924 ²	1,234,274	49,198	.040	1927.....	291,726	10,809	.037
1924 (total).....	4,511,339	178,365	.040	1928.....	107,739	4,158	.039
				1929 (6 months).....	149,270	5,782	.039

¹ Imports prior to June 5, 1924, date of increase in rate of duty.

² June 5 to Dec. 31, 1924.

Following the change in duty, the price of sodium nitrite increased, the imported slightly more than the domestic. During the three months preceding the change prices were stable at 8½ cents for both the domestic and the imported. By the early months of 1925 quotations had become fairly constant at 8½ cents for domestic and 9½ cents for imported. These prices were maintained until September, 1925, when both the imported and domestic sold for about 9 cents. During the first eight months of 1926 the domestic price was constant at 9 cents. From June, 1926, to March, 1927, the

imported was quoted at 8¾ cents; from March, 1927, to October, 1928, at 8½ cents; and since then at 8¾ cents. The domestic dropped to 8¾ cents in September, 1926; to 8 cents in April, 1927; 7½ cents in December, 1927; and 7¼ cents in March, 1928, at which price it has since been quoted.

The following table shows monthly price quotations of sodium nitrite, domestic and imported, in the spot New York market from January, 1923, to August, 1929, inclusive.

Sodium nitrite: Price¹ per pound, 96 to 98 per cent, New York spot market, January, 1923, to August, 1929

[Source: Oil, Paint, and Drug Reporter, New York]

Month	1923		1924		1925		1926	
	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported
January.....	\$0.10	\$0.08	\$0.08	\$0.08½	\$0.08½	\$0.09½	\$0.09	\$0.08½
February.....	.10	.08½	.07¾	.07¾	.08½	.09½	.09	.09
March.....	.10	.08½	.08½	.08½	.08½	.09½	.09	.08½
April.....	.10	.08½	.08½	.08½	.08½	.09½	.09	.08½
May.....	.10	.08½	.08½	.08½	.08½	.09½	.09	.08½
June.....	.08½	.08	‡.08½	‡.08½	.08½	.09½	‡.09	.08½
July.....	.07½	.07¾	.08½	.08½	.08½	.09½	‡.09	.08½
August.....	.07¾	.07½	.08¾	.08¾	.08½	.09½	.09	.08½
September.....	.07½	.07½	.08¾	.09	.08½	.09	.08¾	.08½
October.....	.07¾	.07½	.09	.09	.09	.09	.08¾	.08½
November.....	.07¾	.07½	.09	.09¼	.09	.09	.08¾	.08½
December.....	.08	.07½	.09¼	.09½	.09½	.09	.08¾	.08½

Month	1927		1928		1929	
	Domestic	Imported	Domestic	Imported	Domestic	Imported
January.....	\$0.08¾	\$0.08¾	\$0.07½	\$0.08½	\$0.07¼	\$0.08¾
February.....	.08¾	.08¾	.07½	.08½	.07¼	.08¾
March.....	.08¾	.08¾	.07¼	.08½	.07¼	.08¾
April.....	.08	.08½	.07¼	.08½	.07¼	.08¾
May.....	.08	.08½	.07¼	.08½	.07¼	.08¾
June.....	.08	.08½	.07¼	.08½	.07¼	.08¾
July.....	.08	-----	.07¼	.08½	.07¼	.08¾
August.....	.08	-----	.07¼	.08½	.07¼	.08¾
September.....	.08	.08½	.07¼	.08½	-----	-----
October.....	.08	.08½	.07¼	.08½	-----	-----
November.....	.08	.08½	.07¼	.08¾	-----	-----
December.....	.07½	.08½	.07¼	.08¾	-----	-----

¹ The low quotation on the date nearest the 1st of each month.

² Increase in rate of duty effective June 5, 1924.

³ Beginning May, 1926, quotations are from Chemical Markets.

(7) *Cresylic acid*.—The President, by proclamation effective August 19, 1927, decreased the rate of duty on refined cresylic acid from 7 cents per pound and 40 per cent ad valorem on the basis of the American selling price to 3½ cents per pound and 20 per cent ad valorem on the basis of the American selling price.

Imports of cresylic acid amounted to 441,646 pounds in 1924, decreased greatly in 1925 and 1926, and were negligible in 1927 up to the time of the decrease in the rate of duty. In November and December, 1927, imports were unusually large, bringing the total for the year up to 609,886 pounds. In 1928 they further increased to nearly 1,000,000 pounds, and during the first six months of 1929, exceeded this quantity. The following table shows monthly imports of cresylic acid from January, 1926, to June, 1929.

Cresylic acid: Imports for consumption, January, 1926, to June, 1929

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922: September 22, 1922, 7 cents per pound plus 55 per cent (based on American selling price); September 22, 1924, 7 cents per pound plus 40 per cent (based on American selling price).
 † Rate of duty changed by presidential proclamation to 3½ cents per pound plus 20 per cent (based on American selling price), effective August 19, 1927]

Month	1926			1927		
	Quantity	Value	Unit value	Quantity	Value	Unit value
January.....	<i>Pounds</i>			<i>Pounds</i>		
February.....						
March.....				10	\$4	\$0.400
April.....						
May.....	501	\$90	\$.180			
June.....						
July.....	915	80	.087			
August.....				1,964	135	.140
September.....	22,604	4,145	.183			
October.....				1,126	160	.142
November.....	1,912	433	.226	196,054	12,875	.066
December.....				411,732	24,272	.059
Total.....	25,932	4,748	.183	609,886	37,446	.061

Month	1928			1929		
	Quantity	Value	Unit value	Quantity	Value	Unit value
January.....	<i>Pounds</i>			<i>Pounds</i>		
February.....	350,529	\$19,200	\$0.055	57,295	\$3,797	\$0.066
March.....				412,017	34,313	.083
April.....	1,000	600	.600	102,771	12,208	.119
May.....	112,024	10,378	.093	206,668	18,067	.087
June.....				53,656	3,565	.066
July.....	4,724	410	.087	312,540	22,657	.072
August.....						
September.....	150,450	8,434	.056			
October.....						
November.....	357,453	31,491	.088			
December.....						
Total.....	976,180	70,513	.072			

† Decrease in rate of duty effective Aug. 19, 1927.

Prices of cresylic acid, 97-99 per cent, pale, had an upward trend in the London market beginning April, 1927, and in the New York market, beginning May, 1927, from 40 and 60 cents per gallon, respectively, to 54 cents in London from September, 1927, through March, 1928, and 72 to 78 cents in New York from October, 1927, through December, 1928. New York prices remained constant at 65 cents per gallon for the first eight months of 1929. During April, May, and June, 1928, London prices increased to 59 cents per gallon, but in June gradually declined, sinking to 46 cents in August, 1929.

Prices of cresol, U. S. P., a refined grade of cresylic acid used for medicinal purposes, at New York were constant at \$1.52-\$1.74 per gallon from October, 1927, to March, 1928, inclusive, but in April dropped to \$1.22-\$1.48 per gallon, this price being maintained through August, 1928. Since then the price has remained constant at \$1.20 to \$1.46 per gallon.

The following table shows monthly price quotations of cresylic acid, 97-99 per cent, pale, in the London and New York markets, and of cresol, U. S. P., in the New York market, from January, 1926, to August, 1929.

Cresylic acid, 97-99 per cent pale: Prices per gallon at New York¹ and London,² January, 1926, to August, 1929

Month	1926		1927	
	London	New York	London	New York
January.....	\$0.32-\$0.35	\$0.60-\$0.72	\$0.40-\$0.51	\$0.60-\$0.63
February.....	.32-.37	.65-.72	.40-.42	.60-.63
March.....	.32-.36	.65-.72	.40-.46	.60-.63
April.....	.31-.35	.65-.72	.41-.44	.60-.63
May.....	.34-.35	.63-.72	.43-.51	.65-.67
June.....	.34-.35	.62-.72	.46	.65-.67
July.....	.34-.37	.58-.64	.52	.65-.67
August.....	.41-.42	.56-.60	.52	.66-.68
September.....	.41-.44	.59-.65	.54	.65-.70
October.....	.40-.42	.62-.67	.54	.72-.75
November.....	.40-.42	.58-.63	.54	.72-.74
December.....	.40-.56	.60-.63	.54	.72-.74

Month	1928		1929	
	London	New York	London	New York
January.....	\$0.54	\$0.72-\$0.74	\$0.47	\$0.65-\$0.78
February.....	.54	.72-.74	.47	.65-.78
March.....	.54	.73-.75	.47	.65-.78
April.....	.59	.73-.80	.47	.65-.78
May.....	.59	.73-.80	.47	.65-.78
June.....	.59	.73-.80	.47	.65-.78
July.....	.54	.73-.80	.46	.65-.78
August.....	.54	.72-.75	-----	.65-.78
September.....	.54	.72-.75	-----	-----
October.....	.51	.72-.75	-----	-----
November.....	.47	.72-.75	-----	-----
December.....	.47	.78-.80	-----	-----

¹ Oil, Paint, and Drug Reporter, New York.

² Chemistry and Industry, London, from January, 1926, to June, 1927; Chemical Trade Journal, from June, 1927, to August, 1929, inclusive. Prices from London Journal are "net and naked sellers' works."

Cresol, U. S. P.: Prices at New York, January, 1926, to August, 1929

[Source: Oil, Paint, and Drug Reporter, New York]

Month	1926	1927	1928	1929
January.....	\$1.57-\$1.74	\$1.52-\$1.74	\$1.52-\$1.74	\$1.20-\$1.46
February.....	1.57-1.74	1.52-1.74	1.52-1.74	1.20-1.46
March.....	1.57-1.74	1.52-1.74	1.52-1.74	1.20-1.46
April.....	1.57-1.74	1.52-1.74	1.22-1.48	1.20-1.46
May.....	1.57-1.74	1.52-1.74	1.22-1.48	1.20-1.46
June.....	1.57-1.74	1.52-1.74	1.22-1.48	1.20-1.46
July.....	1.57-1.74	1.52-1.74	1.22-1.48	1.20-1.46
August.....	1.57-1.74	1.52-1.74	1.22-1.48	1.20-1.46
September.....	1.57-1.74	1.52-1.74	1.20-1.46	-----
October.....	1.52-1.74	1.52-1.74	1.20-1.46	-----
November.....	1.52-1.74	1.52-1.74	1.20-1.46	-----
December.....	1.52-1.74	1.52-1.74	1.20-1.46	-----

(8) *Phenol*.—The President, by proclamation effective November 30, 1927, decreased the rate of duty on phenol from 7 cents per pound and 40 per cent ad valorem based on the American selling price to 3½ cents per pound and 20 per cent ad valorem based on the American selling price.

There has been a substantial increase in the domestic production and sales of phenol, and a decrease in price since 1921. The following table shows the production and sales of phenol in the United States from 1921 to 1928, inclusive.

Phenol, natural and synthetic: Production and sales in the United States, 1921-1928

Year	Production	Sales		Unit value
		Quantity	Value	
	<i>Pounds</i>	<i>Pounds</i>		
1921		292,645	\$41,617	\$0.14
1922	1,285,978	1,266,552	268,311	.21
1923	3,310,911	2,180,244	589,822	.27
1924	10,521,944	8,273,598	2,505,533	.30
1925	14,734,065	8,524,178	1,771,332	.21
1926	8,691,181	5,479,727	987,631	.18
1927	8,041,082	4,595,162	684,160	.15
1928	10,227,489	7,745,650	912,304	.12

Under the tariff act of 1922 imports of phenol reached a maximum of 256,126 pounds in 1925 and decreased each following year until 1927, when 500 pounds were imported. During 1928 imports were 1,653 pounds.

The following table shows the monthly imports of phenol from January, 1927, to June, 1929.

Phenol: Imports for consumption, January, 1927, to June, 1929

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922: September 22, 1922, 7 cents per pound plus 55 per cent (based on American selling price); September 22, 1924, 7 cents per pound plus 40 per cent based on American selling price. Rate of duty changed by presidential proclamation to 3½ cents per pound plus 20 per cent (based on American selling price), effective November 30, 1927]

Month	1927			1928			1929		
	Quantity	Value	Unit value	Quantity	Value	Unit value	Quantity	Value	Unit value
	<i>Pounds</i>			<i>Pounds</i>			<i>Pounds</i>		
January									
February									
March				500	\$90	\$0.180	400	\$72	\$0.180
April							286,594	26,407	.092
May							100,267	12,111	.121
June				33	7	.212	45,005	5,513	.122
July				672	121	.180			
August									
September									
October									
November	500	\$100	\$0.200						
December	(1)	(1)		448	80	.179			
Total	500	100	.200	1,653	298	.180			

¹ Decrease in rate of duty effective Nov. 30, 1927.

Prices of phenol in 1927, prior to the change in the rate of duty, tended to be irregular in both the London and New York markets. The London price was 14.2 cents per pound in January, 1927, decreased the next two months to 12.1 cents in March, then increased in the next two months to 17.2 cents in May, where it held through August. Since August, 1927, there has been a gradual decrease to 13 cents per pound in February, 1928, this quotation prevailing through April, 1929; since April, 1929, the price has ranged from 13 to 14 cents per pound. The domestic price fluctuated from 16 to

18 cents per pound in 1927, but in August, 1928, reached a low of 12¼ cents per pound. For seven months thereafter a price of 13¼ cents per pound prevailed, followed by a price of 12¼ cents during the second quarter of 1929 and an advance to 14¼ cents per pound in August.

The following table gives monthly price quotations of phenol from January, 1927, to July, 1929, in the United States and in Great Britain.

*Phenol: Prices per pound in the United States and in Great Britain, January, 1927, to August, 1929*¹

Month	1927		1928		1929	
	Great Britain	United States	Great Britain	United States	Great Britain	United States
January.....	\$0. 1416	\$0. 17	\$0. 15	\$0. 17	\$0. 13	\$0. 13¼
February.....	. 1263	. 17	. 13	. 17	. 13	. 13¼
March.....	. 1214	. 17	. 13	. 17	. 13	. 13¼
April.....	. 1265	. 17	. 13	. 17	. 13	. 12¾
May.....	. 1720	. 16	. 13	. 17	. 14	. 12¾
June.....	. 1720	. 16	. 13	. 15	. 13	. 12¾
July.....	. 1720	. 16	. 13	. 15	. 14	. 12¾
August.....	. 1720	. 16	. 13	. 12¾	-----	. 14¼
September.....	. 16	. 18	. 13	. 13¼	-----	-----
October.....	. 16	. 17	. 13	. 13¼	-----	-----
November.....	. 16	. 17	. 13	. 13¼	-----	-----
December.....	. 15	. 17	. 13	. 13¼	-----	-----

¹ Prices in United States are for phenol U. S. P. in drums, taken from Oil, Paint, and Drug Reporter; English prices are for carbolic acid, crystallized 40°, taken from Chemistry and Industry, London, for 1927, and from Chemical Trade Journal for 1928 and 1929. The United States product designated "Phenol U. S. P." is comparable in quality with the British product known as carbolic acid crystallized 40°.

² Decrease in rate of duty effective Nov. 30, 1927.

(9) *Barium carbonate*.—The President, by proclamation effective April 25, 1928, increased the rate of duty on precipitated barium carbonate from 1 to 1½ cents per pound.

Imports increased greatly in the two months preceding the change in the rate of duty, but in the first two months following the change, were negligible. Imports have since been at the rate of about 7,200,000 pounds per year. The following table shows monthly imports of precipitated barium carbonate from January, 1927, to June, 1929.

Barium carbonate, precipitated: Imports for consumption, January, 1927, to June, 1929

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922, 1 cent per pound. Rate of duty changed by presidential proclamation to 1½ cents per pound, effective April 25, 1928]

Month	1927			1928			1929		
	Quantity	Value	Unit value	Quantity	Value	Unit value	Quantity	Value	Unit value
	<i>Pounds</i>			<i>Pounds</i>			<i>Pounds</i>		
January.....	804, 125	\$10, 381	\$0. 013	684, 391	\$9, 769	\$0. 014	857, 672	\$10, 977	\$0. 013
February.....	891, 902	10, 750	. 012	966, 347	10, 550	. 011	382, 994	4, 089	. 011
March.....	1, 120, 152	13, 639	. 012	1, 114, 668	11, 607	. 010	92, 593	973	. 011
April.....	462, 272	5, 316	. 011	4, 412, 816	49, 728	. 011	892, 387	9, 702	. 011
May.....	953, 446	11, 431	. 012	1 57, 119	667	. 012	876, 066	9, 229	. 011
June.....	1, 153, 722	14, 427	. 013	-----	-----	-----	664, 628	7, 227	. 011
July.....	462, 040	5, 577	. 012	595, 392	6, 206	. 010	-----	-----	-----
August.....	111, 728	1, 459	. 013	485, 822	5, 119	. 011	-----	-----	-----
September.....	825, 746	9, 589	. 012	611, 627	6, 451	. 011	-----	-----	-----
October.....	1, 147, 056	14, 312	. 012	110, 230	1, 170	. 011	-----	-----	-----
November.....	1, 010, 127	11, 559	. 011	908, 796	9, 621	. 011	-----	-----	-----
December.....	893, 872	10, 574	. 012	496, 235	5, 353	. 011	-----	-----	-----
Total.....	9, 836, 188	119, 014	. 012	10, 443, 443	116, 241	. 011	-----	-----	-----

¹ Increase in rate of duty effective Apr. 25, 1928.

Both imported and domestic barium carbonate, quoted at \$47.50 to \$55 per ton for two months prior to the change in duty, increased approximately \$10 per ton following the change and remained at that level through March, 1929, since when a price of \$58 has been maintained. This \$10 per ton increase in price is equal to the increase in duty.

*Barium carbonate, precipitated: Prices per ton of imported and domestic, New York market, January, 1927, to August, 1929*¹

Month	1927		1928		1929	
	Domestic	Imported	Domestic	Imported	Domestic	Imported
January.....	\$50.00-\$52.00	\$48.00-\$50.00	\$48.00-\$50.00	\$48.00-\$50.00	\$57.50-\$60.00	\$57.50-\$60.00
February.....	50.00-52.00	48.00-50.00	48.00-50.00	48.00-50.00	57.50-60.00	57.50-60.00
March.....	50.00-52.00	48.00-50.00	47.75-55.00	47.75-55.00	57.50-60.00	57.50-60.00
April.....	50.00-52.00	48.00-50.00	47.50-55.00	47.50-55.00	58.00-60.00	60.00-65.00
May.....	50.00-52.00	48.00-50.00	57.50-60.00	57.50-60.00	58.00-60.00	60.00-65.00
June.....	50.00-52.00	48.00-50.00	57.00-60.00	57.00-60.00	58.00-60.00	60.00-65.00
July.....	50.00-52.00	48.00-50.00	57.00-60.00	57.00-60.00	58.00-60.00	60.00-65.00
August.....	52.00-54.00	52.00-53.00	57.50-60.00	57.50-60.00	58.00-60.00	58.00-60.00
September.....	52.00-54.00	52.00-53.00	57.50-60.00	60.00-68.50	-----	-----
October.....	52.00-54.00	52.00-53.00	57.50-60.00	60.00-68.50	-----	-----
November.....	52.00-54.00	52.00-53.00	57.50-60.00	57.50-60.00	-----	-----
December.....	52.00-54.00	52.00-53.00	57.50-60.00	57.50-60.00	-----	-----

¹ Oil, Paint, and Drug Reporter, New York.

² Increase in rate of duty effective Apr. 25, 1928.

(10) *Sodium silicofluoride*.—The President's proclamation increasing the rate of duty on sodium silicofluoride from 25 per cent ad valorem based on the foreign value to 25 per cent on the basis of the American selling price became effective September 15, 1928. Imports of sodium silicofluoride have increased each year, advancing from 1,943,794 pounds in 1924 to 3,585,935 pounds in 1928, and have been at the annual rate of 4,600,000 pounds during the first six months of 1929.

The following table shows monthly imports of sodium silicofluoride in 1928 and 1929 (six months).

Sodium silicofluoride: Imports for consumption, January, 1928, to June, 1929

[Source: Foreign Commerce and Navigation of the United States]

Month	1928			1929 (6 months)		
	Quantity	Value	Unit value	Quantity	Value	Unit value
	<i>Pounds</i>			<i>Pounds</i>		
January.....	179,380	\$4,149	\$0.023	132,882	\$6,726	\$0.051
February.....	647,950	17,749	.027	412,802	21,660	.052
March.....	264,533	7,123	.027	243,432	12,754	.052
April.....	223,661	6,441	.029	369,091	17,863	.048
May.....	298,828	8,128	.027	742,194	39,073	.053
June.....	169,867	4,725	.028	419,535	21,886	.052
July.....	234,185	6,479	.028	-----	-----	-----
August.....	223,888	6,660	.030	-----	-----	-----
September ¹	143,700	4,378	.030	-----	-----	-----
October.....	926,562	46,509	.050	-----	-----	-----
November.....	53,347	2,802	.053	-----	-----	-----
December.....	220,036	10,136	.046	-----	-----	-----
Total.....	3,585,935	125,288	.035	2,319,936	119,962	-----

¹ Increased rate of duty, effective Sept. 15, 1928, after which date all values shown are on the basis of American selling price.

Prices of sodium silicofluoride remained at $4\frac{1}{2}$ cents per pound during the first six months of 1928, but declined to $4\frac{3}{8}$ cents during the next three months. After the increase in the rate of duty, the price advanced to 5 cents per pound, which was maintained through May, 1929, when a further advance of one-fourth cent took place.

The following table shows monthly price quotations of sodium silicofluoride for 1928 and 1929 (eight months).

Sodium silicofluoride: Prices (domestic) per pound, New York market, January, 1928, to January, 1929

[Source: Oil, Paint, and Drug Reporter]

Month	1928	1929 (8 months)	Month	1928	1929 (8 months)
January.....	\$0.04½	\$0.05	July.....	\$0.04¾	\$0.05¼
February.....	.04½	.05	August.....	.04¾	.05¼
March.....	.04½	.05	September.....	1.04¾	.....
April.....	.04½	.05	October.....	.05	.....
May.....	.04½	.05	November.....	.05	.....
June.....	.04½	.05¼	December.....	.05	.....

¹ Increased duty effective Sept. 15, 1928.

(11) *Potassium permanganate*.—Imports of potassium permanganate increased each year from 88,662 pounds in 1925 to 600,974 pounds in 1928. The President, by proclamation effective December 16, 1928, increased the rate of duty from 4 cents to 6 cents per pound. During the first 11 months of 1928 imports amounted to 435,629 pounds, and in the last month to 165,345 pounds. In January, 1929, 1,102 pounds were entered, the only imports reported up to July.

The following table shows imports of potassium permanganate during 1928 and 1929 (6 months).

Potassium permanganate: Imports for consumption, January, 1928, to January, 1929

[Source: Foreign Commerce and Navigation of the United States]

[Rate of duty under act of 1922, 4 cents per pound. Rate of duty changed by presidential proclamation to 6 cents per pound, December 16, 1928]

Month	1928			1929 (6 months)		
	Pounds	Foreign value	Unit foreign value	Pounds	Foreign value	Unit foreign value
January.....	16,537	\$1,547	\$0.094	1,102	\$101	\$0.092
February.....	79,903	6,887	.086	.....	.....	.....
March.....	29,211	2,691	.092	.....	.....	.....
April.....	29,983	2,687	.090	.....	.....	.....
May.....	54,462	4,715	.087	.....	.....	.....
June.....	40,895	3,347	.082	.....	.....	.....
July.....	62,281	5,547	.089	.....	.....	.....
August.....	76,501	7,026	.092	.....	.....	.....
September.....	22,156	2,104	.095	.....	.....	.....
October.....	.....	.....	.....	.....	.....	.....
November.....	23,700	2,254	.095	.....	.....	.....
December ¹	165,345	15,454	.093	.....	.....	.....
Total.....	600,974	54,259	.090	1,102	101	.092

¹ Increase in rate of duty effective Dec. 16, 1928.

Potassium permanganate was quoted at $15\frac{1}{4}$ cents per pound during the first five months of 1928 and at 15 cents during the last

seven months. In January, 1929, following the increase in the rate of duty, the price increased to 16 cents per pound, and remained at that figure through August.

Potassium permanganate: U. S. P. price per pound, New York spot market, January, 1928, to August, 1929

[Source: Chemical Markets]

Month	1928	1929	Month	1928	1929
January.....	\$0. 1525-\$0. 1550	\$0. 16-\$0. 1650	July.....	\$0. 1500-\$0. 1525	\$0. 16-\$0. 1650
February.....	. 1525- . 1550	. 16- . 1650	August.....	. 1500- . 1525	. 16- . 17
March.....	. 1525- . 1550	. 16- . 1650	September.....	. 1500- . 1525	-----
April.....	. 1525- . 1550	. 16- . 1650	October.....	. 1500- . 1525	-----
May.....	. 1525- . 1550	. 16- . 1650	November.....	. 1500- . 1525	-----
June.....	. 1500- . 1525	. 16- . 1650	December ¹.....	. 1500- . 1525	-----

¹ Increase in rate of duty effective Dec. 16, 1928.

(12) *Linseed oil*.—The President, by proclamation effective July 25, 1929, increased the rate of duty on linseed oil from 3.3 cents per pound to 3.7 cents per pound. Prior to this date he had proclaimed an increase in the rate of duty on flaxseed, the raw material for linseed oil, from 40 cents to 56 cents per bushel, effective June 13, 1929. Too short a time has elapsed for any definite trend to be noted in the imports following the change in the rate of duty. A considerable rise in the price of linseed oil has occurred since the change in July, 1929. During the first six months of 1929 prices varied from 9.3 cents to 9.5 cents per pound. In July, following the increase in the rate of duty on flaxseed, the price of linseed oil advanced to 9.9 cents per pound and in October to 15.1 cents. Reports of short crops of flaxseed in the United States and other important producing countries have resulted in an increase in the price of linseed oil many times the amount of the increase in the duty.

SCHEDULE 2. EARTHS, EARTHENWARE, AND GLASSWARE

(a) GENERAL STATEMENT

The commodities assigned to the ceramics division include all products in Schedule 2 of the tariff act of 1922, except some types of refractory brick, carbon, mica, incandescent electric lamps, and certain mineral substances used largely by industries other than those engaged in the manufacture of pottery and glass. The division also deals with common building brick, cement, marble and other stone, stained glass windows, thermostatic bottles, and a number of other commodities specified in the sundries schedule, and in the free list.

Subsequent to October, 1928, the division has been engaged almost wholly in work connected with the pending readjustment of the tariff. Such work required in the first instance the preparation of a summary of tariff information relating to all commodities assigned to the division in Schedule 2, in the sundries schedule, and in the free list. A large proportion of the data contained in this summary was compiled from information in the files of the division, but for a number of commodities field work had to be undertaken.

During much of the year 1929, the staff was engaged in assisting the subcommittee of the Committee on Ways and Means in charge of Schedule 2 in analyzing and summarizing the information obtained

at the hearings, and, in conjunction with the House legislative counsel and the legal division of the Tariff Commission in drafting changes in the phraseology of various paragraphs of Schedule 2.

A number of special reports relating to specific commodities, and containing information in addition to that given in the Summary of Tariff Information, 1929, together with numerous statistical tabulations, were prepared for the use of members of the Committee on Ways and Means. Subsequently, the time of the staff was largely taken up in the preparation of similar data for the use of the Finance Committee of the Senate, and in conferences with members of that committee.

Other activities of the division included field work in the investigations instituted by the commission with respect to blown-glass tableware and china clay or kaolin, assisting in the preparation of a report to the President summarizing the data obtained in the window glass investigation, and special studies of Portland cement, common clay building brick, and glass glasses.

(b) STUDIES AND SURVEYS

Roman, Portland, and other hydraulic cement.—Cement is conditionally free of duty under the tariff act of 1922, but if any country imposes a duty on cement imported from the United States an equal duty is imposed upon imports from that country to the United States. Prior to the war Germany was the only important source of domestic imports of Portland and other hydraulic cements. In some years imports from all countries amounted to from two and one-half to three million barrels, but rapidly declined after 1907. Imports in considerable volume were not resumed until 1923, when 1,678,500 barrels were entered, approximately 54 per cent being subject to duty. In 1926, however, 3,232,390 barrels were imported, 93 per cent of the total being free of duty. Imports subsequently declined in quantity, and in 1928 amounted to 2,286,170 barrels, 95 per cent being free of duty. For the three-year period 1926–1928, over 74 per cent of all imports came from Belgium.

Portland cement is the principal form of hydraulic cement now produced in the United States. Portland cement is an important material in building and road construction. The tremendous expansion of the domestic industry in comparatively recent years is largely due to the greatly increased building and road construction activities in this country, as well as to the nation-wide promotion work and advertising campaigns carried on by domestic producers. In 1920, 117 plants reported production amounting to about 100,000,000 barrels, and in 1928, 158 plants in 32 States reported production of 175,970,000 barrels. In 1928 Pennsylvania, with 27 mills, was the largest producing State; Michigan, with 16 mills, was second; California, with 12 mills, was third; and New York, with 11 mills, was fourth.

By reason of the comparatively low unit value of Portland cement and its proportionately high transportation cost, the price of the domestic product at most competitive marketing points is largely determined by the mill nearest to the specific market. The producer disadvantageously located with respect to large markets must absorb the difference between his transportation cost from mill and that of his competitor nearest to that market.

The comparatively high transportation costs in this country practically preclude the movement in quantity of imported cement to points distant from the seaboard, and the domestic mills most affected by competition from the foreign cement are those which ordinarily supply seaboard markets. Domestic mills in various sections which usually supply the seaboard markets are often disadvantageously located with respect to these markets, and their transportation costs are relatively high.

In 1928 the average transportation costs and other charges to the principal ports of entry in the United States for about 70 per cent of the Belgian cement imported at these ports was less than the average transportation cost for domestic cement shipped to the same points.

In recent years imports have been concentrated largely at the following points: Boston, Mass.; New York City; Philadelphia, Pa.; Wilmington, N. C.; Charleston, S. C.; Houston, Tex.; Portland Ore.; and Porto Rico. The total 1928 shipments of domestic cement to all continental American seaboard markets amounted to approximately 25,000,000 barrels, as compared with total imports in that year (not including 355,000 barrels imported into Hawaii and Porto Rico) amounting to 1,931,000 barrels. The 1928 imports were equivalent, therefore, to 8 per cent of the domestic shipments to, or about 7 per cent of the total consumption at, such points.

During the year the commission obtained through correspondence data with respect to the 1927 costs of production of Portland cement for more than 100 domestic mills. These data have not been verified by the commission by examination and analysis of the records at the plants submitting information. No data have been obtained at foreign plants regarding their costs of producing cement, but as evidence of such costs the average value of the foreign product has been obtained through analyses of the invoice prices of 1928 imports.

The data obtained from domestic producers were tabulated and summarized and weighted average costs were computed by producing districts. As far as was practicable, the mills have been grouped in geographical districts in accordance with the areas they ordinarily supply. Of a total of 12 districts, 6 are designated seaboard and 6 are designated interior districts. These 12 districts and their calculated costs of production, including imputed interest, packing, shipping, and selling expenses, but not including transportation costs, are as follows:

Cost of production, per barrel, including imputed interest, packing, shipping, and selling expenses

SEABOARD DISTRICTS

1. New York (comprising mills in eastern and central New York).....	\$1. 60
2. Lehigh (including Lehigh district of eastern Pennsylvania, western New Jersey, and Maryland).....	1. 42
3. Southeastern (comprising mills in Virginia, Tennessee, Georgia, and Alabama).....	1. 49
4. Texas.....	1. 45
5. California.....	1. 66
6. Washington and Oregon ⁴	1. 87

⁴ The costs for the 2 mills in Montana, ordinarily included in the Washington-Oregon district, are not included in the costs for that district.

Cost of production, per barrel, including imputed interest, packing, shipping, and selling expenses—Continued

INTERIOR DISTRICTS

7. Comprising mills in western Pennsylvania, Ohio, and West Virginia..	\$1. 59
8. Michigan.....	1. 57
9. Comprising mills in Wisconsin, Illinois, Indiana, and Kentucky.....	1. 42
10. Minnesota, Iowa, and eastern Missouri.....	1. 52
11. Nebraska, Kansas, Oklahoma, and western Missouri.....	1. 44
12. Utah and Colorado.....	1. 66

The mills in the six seaboard districts are the only ones largely affected by competition from foreign cement. The following table shows for each of the six districts adjacent to the seaboard the 1927 weighted average cost of production, including imputed interest, together with the weighted average costs for packing and shipping cement sold, and in addition, selling expense. Similar data are also shown for the six districts combined. The weighted average costs of production, including imputed interest, but not including packing costs, shipping expenses, and selling expenses, were calculated upon the basis of the cement produced. Packing costs, shipping expenses, and selling expenses were computed upon the basis of the cement sold, because of the disparity between the amount of cement produced and the amount sold and because it was not possible to separate packing costs and shipping expenses. Packing expenses include the labor cost for packing the cement, proportional departmental expenses, and the net average loss on bags used during the cost period. The charge for bags, 40 cents per barrel, is not included because the domestic producers, as well as the foreign, make allowances for bags returned to the mill. Imputed interest was computed at the rate of 6 per cent upon the value of depreciated fixed assets and of inventories.

Portland cement: Weighted average costs of production, imputed interest, packing and shipping expense, and selling expense for each domestic seaboard producing district, and for the six districts combined, for 1927

[Per barrel] ¹

	District						Average, 6 dis- tricts
	1	2	3	4	5	6	
Raw materials.....	\$0. 1587	\$0. 2037	\$0. 1698	\$0. 1318	\$0. 2112	\$0. 3849	\$0. 1962
Fuel.....	. 2680	. 2317	. 2054	. 3662	. 3074	. 3440	. 2536
Manufacturing labor.....	. 1627	. 1601	. 1730	. 1238	. 1677	. 1364	. 1601
Power and other manufacturing ex- pense.....	. 3039	. 2317	. 2348	. 2218	. 3024	. 2216	. 2477
General and administrative expense...	. 2268	. 1737	. 2438	. 2255	. 2396	. 2046	. 2037
Total cost of production, un- packed, not including interest.	1. 1201	1. 0009	1. 0268	1. 0691	1. 2283	1. 2915	1. 0613
Imputed interest.....	. 2127	. 1468	. 1930	. 1474	. 1929	. 3001	. 1734
Total cost of production, includ- ing imputed interest.....	1. 3328	1. 1477	1. 2198	1. 2165	1. 4212	1. 5916	1. 2347
Packing and shipping expense.....	. 1180	. 0976	. 0957	. 0772	. 0951	. 0796	. 0973
Total cost of production, includ- ing imputed interest, packing, and shipping expense.....	1. 4508	1. 2453	1. 3155	1. 2937	1. 5163	1. 6712	1. 3320
Selling expense.....	. 1520	. 1705	. 1722	. 1548	. 1407	. 1189	. 1618
Total cost of production, includ- ing imputed interest, packing, shipping, and selling expense...	1. 6028	1. 4158	1. 4877	1. 4485	1. 6570	1. 7901	1. 4938

¹ Costs include calculated net average loss on bags used during cost period. They do not include the charge to dealers of 40 cents for bags per barrel.

The average costs to the importer of cement from Belgium (the principal competing country), c. i. f. ports of importation, were obtained from invoices for the year 1928. The invoice values include a charge of 40 cents for 4 cloth bags per barrel. The same charge for bags is made by the domestic mills. The following table affords a comparison of the domestic costs of production, including imputed interest, packing, shipping, and selling expenses, with the cost to the importer of Belgian cement c. i. f. important competitive points on the Atlantic seaboard. Selling expense, if any, of importers is not included. The specific charge for bags, amounting to 40 cents per barrel, is not included in domestic costs or in the value of the imported cement. The domestic costs, including transportation to specific markets, are for the districts which ordinarily ship to such markets. The imports at the points shown in the table represent approximately 76 per cent of all imports through continental American ports.

Portland cement: Comparison of 1927 domestic costs of production, including imputed interest, packing, shipping, and selling expense, but not including charge for bags, with 1928 cost to importer of Belgian cement (not including charge for bags) c. i. f. American Atlantic ports

[Per barrel of 4 bags (380 pounds gross weight)]

Market	Domestic			Foreign		Spread (difference between domestic costs and costs to importers)
	Producing district	Cost of production, including imputed interest, packing, shipping, and selling expense	Transportation costs from producing district to indicated markets	Total, including transportation to indicated markets	Total cost to importer, c. i. f., to indicated markets	
Boston, Mass.....	(1) New York.....	\$1.60	\$0.62	\$2.22	\$1.45	\$0.77
Do.....	(2) Lehigh.....	1.42	.72	2.14	1.45	.69
New York City.....	(1) New York.....	1.60	.42	2.02	1.50	.52
Do.....	(2) Lehigh.....	1.42	1.38	1.80	1.50	.30
Philadelphia, Pa.....	do.....	1.42	.46	1.88	1.50	.38
Wilmington, N. C.....	(3) Southeast.....	1.49	.69	2.18	1.35	.83
Charleston, S. C.....	do.....	1.49	.73	2.22	1.35	.87

¹ If shipped via Jersey City and barge to New York City, the transportation cost is 46 cents per barrel.

Common building brick.—Brick “not specially provided for” are conditionally free of duty under the tariff act of 1922, but if any country imposes a duty upon them when imported from the United States an equal duty is imposed upon imports of such brick from that country to the United States. In recent years 95 per cent or more of the imports of brick not specially provided for, practically all common building brick, have been entered free of duty; and 80 per cent or more of the imports have come from Belgium. About 98 per cent of all imports of such brick are entered at the port of New York and sold in the metropolitan area, where they compete almost wholly with the American brick made in the Hudson River district of New York.

The following table shows the imports of brick not specially provided for, compared with the production of common clay building brick in the Hudson River district for specified years.

Year	Production in the Hudson River district	Imports of bricks n. s. p. f.
	<i>Thousand</i>	<i>Thousand</i>
1923.....	899, 835	81, 060
1924.....	978, 554	68, 129
1925.....	996, 731	54, 081
1926.....	1, 275, 831	116, 284
1927.....	1, 235, 364	96, 198
1928.....	(¹)	79, 512

¹ Not available.

The average of the imports for 1926 and 1927 was equivalent in quantity to approximately 8 per cent of the brick produced in the Hudson River district in that period. Imports have declined in quantity since 1926.

The production in 1927 of common building brick in the Hudson River district was a decrease of 3.12 per cent in quantity and 19.2 per cent in value from that of 1926. The value of production in this district in 1926 and 1927 was \$17,206,237 and \$13,904,649, respectively. The number of establishments manufacturing common brick in this district decreased from 75 in 1926 to 68 in 1927, but the average number of wage earners employed, as reported by the Census of Manufactures, increased from 4,533 in 1925 to 5,095 in 1927.

Common building brick are manufactured in every State in the Union. With few possible exceptions, such brick are used largely in construction within a comparatively short distance from the plant.

The following table shows the total domestic production of common clay building brick for specified years.

Year	Quantity	Value
	<i>Thousand</i>	
1923.....	7, 296, 901	\$94, 213, 979
1924.....	7, 158, 714	86, 691, 550
1925.....	7, 561, 501	88, 551, 400
1926.....	7, 517, 211	88, 226, 625
1927.....	7, 002, 714	77, 851, 145
1928 ¹	6, 220, 429	67, 571, 210

¹ Preliminary figures.

The total number of establishments primarily engaged in manufacturing common building brick decreased from 925 in 1925 to 807 in 1927. During the same period the number of wage earners employed in these plants decreased from 29,524 to 26,480.

Because the clay in the Hudson River district and that in Belgium differ in plasticity and binding qualities, different processes are used in making domestic and imported brick. The soft-mud process is used in the Hudson River district and the stiff-mud process in Belgium. The average daily production per man by the machines used in forming the bricks by the soft-mud process is less than one-half that by the stiff-mud process. According to figures obtained by the Bureau of Labor Statistics at a number of common-brick

plants in the United States in 1922, the labor cost per thousand bricks made by the soft-mud process was 56 per cent greater than for those made by the stiff-mud process.

Prices in 1928 for Belgian common brick f. o. b. plant were \$4 to \$4.30 per thousand. By far the larger percentage of the Belgian brick exported to the United States in 1928 was priced at the latter figure. Transportation and other charges on such brick from Belgian plant to alongside dock, Brooklyn, N. Y., as obtained from consular invoices, ranged from approximately \$6.50 to \$7 per thousand. This gives a total cost to the importer alongside dock at Brooklyn of \$10.50 to \$11.30 per thousand, the greater number of the shipments being imported at the latter figure. These figures include the Belgian manufacturer's profit, but do not include an unloading charge of about \$1.25 per thousand paid by the importer.

The selling price of the Hudson River brick alongside dock to dealers, Brooklyn, N. Y., declined from \$17 per thousand in January, 1927, to \$12 per thousand in the latter part of 1928.

(c) INVESTIGATIONS UNDER THE GENERAL POWERS OF THE COMMISSION.

Kaolin or china clay.—On April 20, 1928, the commission, under its general powers, instituted an investigation of kaolin or china clay. This commodity had previously been the subject of an application filed with the commission on October 29, 1924, by domestic producers requesting an investigation for the purposes of section 315 of the tariff act of 1922.

Although there are enormous reserves of kaolin in the United States, prior to the war imports of china clay or kaolin, practically all from England, greatly exceeded production of the similar domestic product. In some years immediately preceding the war imports were more than twice the domestic production. During the war imports were somewhat curtailed and domestic consumers found it necessary to use an increasing quantity of domestic china clay. The greater demand for kaolin in comparatively recent years by various industries in the United States led to a considerable expansion of the domestic clay industry and to greatly increased imports as compared with pre-war buying abroad. The greater demand for the domestic product is largely accounted for by the fact that the domestic producers, after considerable expenditure of capital for new plant equipment, have greatly improved the quality of their product. In 1926, 1927, and 1928 the domestic production of kaolin or china clay for all uses exceeded imports of this commodity.

The following table shows for purposes of comparison the trend of domestic production and of imports of china clay or kaolin for the period 1914-1928. Approximately 25 per cent of the domestic production consists of relatively low-priced clays having certain characteristics which make them an economical material for specific uses. About 85,000 tons of such clays are used annually in the manufacture of cement and refractories and about 35,000 tons in the rubber and paint industries. Little, if any, of the imported clay is used in the manufacture of these products.

Comparison of domestic china clay or kaolin sold in the United States with imports of this commodity, 1914-1928

Year	Domestic kaolin or china clay marketed in the United States			Imports of china clay		
	Quantity	Value	Average price per ton	Quantity ¹	Value	Average foreign price per ton
	<i>Short tons</i>			<i>Short tons</i>		
1914	150,519	\$843,151.00	\$5.60	328,038	\$1,927,425.00	\$5.88
1915	141,064	781,142.00	5.54	209,132	1,152,778.00	5.51
1916	201,157	1,075,730.00	5.35	253,707	1,326,684.00	5.22
1917	206,334	1,263,799.00	6.12	241,029	1,315,769.00	5.46
1918	179,694	1,459,529.00	8.12	168,100	1,153,240.00	6.86
1919	152,828	1,475,681.00	9.65	180,592	1,965,393.00	10.88
1920	268,203	2,865,407.00	10.68	361,831	3,568,677.00	9.86
1921	162,726	1,579,163.00	9.70	162,906	1,546,285.00	9.49
1922	275,675	2,346,095.00	8.51	310,137	2,963,420.00	9.56
1923	336,803	2,926,255.00	8.69	312,297	3,046,191.00	9.75
1924	326,611	2,923,965.00	8.95	353,124	3,188,454.00	9.03
1925	362,319	3,220,719.00	8.77	372,552	3,195,694.00	8.58
1926	432,215	3,771,568.00	8.73	396,219	3,484,054.00	8.79
1927	454,215	3,809,834.00	8.39	339,014	2,937,113.00	8.66
1928	² 496,142	4,088,003.00	8.24	307,303	2,962,269.00	9.64

¹ Quantity reported in long tons converted into short tons to facilitate comparisons.

² Preliminary.

The comparability of foreign and domestic kaolins for various uses has been a controversial question of long standing. Domestic paper clays have been greatly improved in quality in recent years, mainly through better purifying and blending methods. They now serve purposes for which they were once considered unsuited. Although domestic clays possess some inherent and unalterable characteristics, they nevertheless can by chemical treatment and washing be so improved that they may to a degree be substituted for the English material. Up to within a few years ago, no domestic paper-coating clay was on the market and the possibility of producing one was given little thought. In 1928 over 20,000 tons of refined domestic coating clay were used in paper manufacture. The annual imports of English coating clays amount to approximately 80,000 tons. At the present time, however, a large number of the manufacturers of high-grade book and magazine paper claim that the better grades of English coating clays are a necessary material for the manufacture of their high-grade products. Assuming that all imports consist of clays comparable to or competitive with the various grades of domestic clay (other than those used in the cement, refractory, rubber, and paint industries), the approximate consumption in the United States in 1927 of competitive china clays or kaolins consisted of about 325,000 tons of the domestic product and 339,000 tons of the imported product.

The following table shows the quantity and value of kaolin sold by producers located in the four principal producing States for specified years.

State	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
Georgia	<i>Short tons</i> 141,956	\$1,040,064	<i>Short tons</i> 175,230	\$1,357,923	<i>Short tons</i> 193,151	\$1,492,857
South Carolina	52,937	541,222	60,404	592,262	78,401	666,269
Florida	53,009	711,567	50,344	772,124	47,319	646,415
North Carolina	18,799	309,833	20,719	631,487	20,334	327,638

It is estimated that approximately 60 per cent of the total china clay consumed in the United States is used in the manufacture of paper. In this industry it is used either as a filling clay or as a coating clay; the quantity consumed for filling greatly exceeds that for coating. Coating clays are of much higher grade—whiter in color and finer in texture—than filler clays, and always command a much higher price.

Almost all the domestic production of paper clays comes from Georgia and South Carolina. These States also produce pottery clays and clays used as a filler in the rubber, oilcloth, linoleum, and paint industries, but by far the larger portion of the output is consumed in the paper industry. Clay of the paper-filler grade constitutes the bulk of the output in these two States, and it is this particular grade that encounters the keenest competition with the foreign product.

The average domestic paper-filler clay sells for \$8 per short ton f. o. b. mines Georgia or South Carolina. A comparable grade of English common filler clay was sold to domestic importers in 1928 at 32½ shillings (\$7.90) per long ton f. o. b. Fowey, England, the principal port of shipment. This is equivalent to \$7.05 per short ton and includes an inland freight charge of approximately \$1.20. Practically all producers are members of the "Associated China Clays, Limited," an association of English china clay producers organized to fix prices, maintain clay standards, allocate production, and to control shipments to the various markets. This association, which was dissolved in September, 1924, was reorganized January 1, 1928. Almost immediately after the dissolution of the association, in 1924, prices of less expensive grades declined sharply, some grades falling as much as 33½ per cent below the former prices. Subsequent to the reorganization in 1928 prices for common grades rose to approximately the level prevailing in the early part of 1924 before the association was dissolved.

The total landed cost to an importer of one grade of common filler clay in 1928 was approximately as follows:

	F. o. b. English mine	Inland freight	F. o. b. Fowey	Ocean freight	Marine insurance and entry fee	Total cost and charges to American port	Duty	Total cost
Long-ton basis.....	27s. \$6.56	5s. 6d. \$1.34	32s. 6d. \$7.90	14s. \$3.40	\$0.10	\$11.40	\$2.50	\$13.90
Short-ton basis.....	5.85	1.20	7.05	3.04	.09	10.18	2.23	12.41

The average 1928 selling price of the above English paper-filler clay f. o. b. American port of importation was \$13.12 per short ton. The following table affords a comparison between prices of comparable domestic and English paper-filler clay delivered at important consuming points in the United States in 1928.

Comparison between prices of domestic and English paper-filler clay, delivered, at important consuming points in the United States in 1928

[Per short ton]

Place of delivery	English			Domestic		
	At \$13.12 per short ton f. o. b. cars, North Atlantic ports			At \$8 per short ton f. o. b. cars, mines in Georgia		
	Price f. o. b. cars, port of entry	Transportation cost	Delivered price	Price f. o. b. cars, mine	Transportation cost from Georgia mine	Delivered price
Lawrence, Mass.....	\$13.12	\$1.90	\$15.02	\$8.00	\$7.92	\$15.92
West Fitchburg, Mass.....	13.12	2.50	15.62	8.00	7.92	15.92
Lisbon Falls, Me.....	13.12	1.60	14.72	8.00	9.25	17.25
Rumford, Me.....	13.12	2.50	15.62	8.00	9.14	17.14
Providence, Md.....	13.12	2.03	15.15	8.00	5.40	13.40
Johnsburg, Pa.....	13.12	3.40	16.52	8.00	6.80	14.80
Piedmont, W. Va.....	13.12	3.70	16.82	8.00	5.59	13.59
Glen Falls, N. Y.....	13.12	4.10	17.22	8.00	8.28	16.28
Niagara Falls, N. Y.....	13.12	3.60	16.72	8.00	6.62	14.62
Hamilton, Ohio.....	13.12	5.10	18.22	8.00	4.58	12.58
Chillicothe, Ohio.....	13.12	4.70	17.82	8.00	5.30	13.30
Kalamazoo, Mich.....	13.12	5.50	18.62	8.00	6.14	14.14
Kimberly, Wis.....	13.12	7.70	20.82	8.00	7.90	15.90

As indicated by the above table, transportation is a very important factor in the competition between foreign and domestic clays. In the New England district, where a large proportion of the paper mills are located, Georgia paper clays are for the most part at a price disadvantage in competition with the foreign product. This district uses about 30 per cent of all kaolin used by the paper industry. The combined rail and ocean freight charges on English clay from mines to many large consuming points in this district are considerably less than the domestic rail charge from southern mines. For example, the combined freight charge on English clay from mine to Rumford, Me., is \$6.75 per short ton as compared with \$9.14 on the domestic product from Georgia to Rumford.

The next largest use of china clay or kaolin is in the manufacture of pottery. The pottery mix usually consists of feldspar, flint, and several grades of clay.

North Carolina and Florida are the two principal States producing pottery kaolins. Practically none of the kaolin produced in these two States is used for any purpose except in the manufacture of pottery.

Freight rates from mines in these two States to consuming points also figure largely in price competition with the foreign product.

The following table shows a comparison between delivered prices of domestic and English pottery clays at important consuming points in the United States in 1928.

Comparison between prices of domestic and English pottery clays delivered at important consuming points in the United States in 1928

[Per short ton]

	North Carolina, at \$16-\$16.50 per short ton f. o. b. cars, mine		Florida, at \$13-\$13.75 per short ton f. o. b. cars, mine		English, at \$17.86 per short ton f. o. b. cars, North Atlantic ports	
	Transportation cost from mine	Delivered price	Transportation cost from mine	Delivered price	Transportation cost in United States	Delivered price
Zanesville, Ohio.....	\$6. 01	\$22. 01-\$22. 51	\$9. 00	\$22. 00-\$22. 75	\$4. 20	\$22. 06
East Liverpool, Ohio.....	6. 73	22. 73- 23. 23	9. 49	22. 49- 23. 24	3. 40	21. 26
Beaver Falls, Pa.....	6. 73	22. 73- 23. 23	9. 49	22. 49- 23. 24	3. 40	21. 26
Trenton, N. J.....	6. 01	22. 01- 22. 51	8. 76	21. 76- 22. 51	1. 80	19. 66

The extent to which domestic pottery clays may be further substituted for English clays depends largely on how far the objections to the use of the southern kaolins can be overcome. English clays have a certain prestige, acquired through years of satisfactory use, and domestic users are slow to make a change. However, scientific research has in recent years demonstrated to the domestic manufacturer the fact that American kaolins are satisfactory for many types of white ware. Quite a number of domestic potteries, which before the war used large quantities of English china clay, have found that domestic kaolins, properly blended, are as suitable for their use as the English product. A large number of domestic potters use both domestic and imported kaolin.

English deposits of china clay are very extensive, the clay beds being frequently worked at depths exceeding 200 feet. In contrast, domestic deposits seldom exceed 25 feet in thickness and have equally as much or more overburden to be removed. The loose texture of English clays permits the use of hydraulic mining with a resultant low labor cost. Domestic kaolins, being hard and dense, must as a rule be hand sorted at the pit and subsequently disintegrated by special machinery. The costs of the domestic mining operations are correspondingly higher than those of the English. Because of the texture of the domestic kaolins, the removal of the water used in washing requires the use of more expensive dewatering equipment in the domestic plants than is used in the English plants.

The commission under its general powers has obtained for the year 1927 data from the records of domestic producers with respect to costs of production of china clay or kaolin. Data were obtained from 5 companies operating 10 plants in Georgia, 5 companies operating 5 plants in South Carolina, and 1 plant in Georgia adjacent to the South Carolina producing area, 2 companies operating 3 plants in Florida, and 2 companies operating 6 plants in North Carolina.

The china clay produced in Georgia and South Carolina consists for the most part of the grades of clay used as a filler in the manufacture of paper.

The following table shows the weighted average costs of production of paper-filler clays f. o. b. plants in Georgia and in South Carolina, together with the weighted average costs for the two States combined.

These figures are tentative and have not been approved by the commission.

By reason of the fact that cost data were obtained from two companies only in Florida and two in North Carolina, the costs for these States can not be shown because of the possibility of disclosing confidential information. The combined costs for Florida and North Carolina are not given because the clays mined in these States are not comparable and the cost of production and the average selling price for the Florida clay differ considerably from the cost and selling price of the North Carolina clay.

China clay or kaolin: Weighted average cost of production of grades used as a filler¹ in the paper industry, for Georgia and South Carolina, for 1927

	Georgia	South Carolina	Georgia and South Carolina combined
Total production..... tons.....	86,802.59	43,431.91	130,234.50
Total sales..... do.....	82,945.36	44,251.00	127,196.36
	<i>Per ton</i>	<i>Per ton</i>	<i>Per ton</i>
Production expense.....	\$4.9687	\$5.0949	\$5.0108
Depreciation and depletion.....	.7146	1.2782	.9026
General and administrative expense.....	.3741	.3963	.3815
Total production cost.....	6.0574	6.7694	6.2949
Imputed interest.....	.2609	1.0565	.5262
Total production cost, including imputed interest.....	6.3183	7.8259	6.8211
Selling expense.....	.8098	1.0723	.9011
Total production cost, including imputed interest and selling expense.....	7.1281	8.8982	7.7222

¹ Costs weighted on basis of production, allocated to use, through analysis of sales distribution.

No data have been obtained from the records of producers in England with respect to the costs of production of china clay or kaolin in that country. Invoice prices and delivered cost to importers for an important grade of filler china clay and for an important grade of pottery china clay have been given under the price section for kaolin.

(d) INVESTIGATIONS FOR THE PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922

Granite.—On July 24, 1925, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the costs of production of unmanufactured granite and of granite hewn, dressed, polished, or otherwise manufactured, suitable for use as monumental or building stone. The investigation was confined to unmanufactured and manufactured monumental granite because it was developed by the investigation and the public hearings that there was no tariff problem with respect to granite used for building purposes.

Unmanufactured monumental granite.—The following table shows domestic production and imports of unmanufactured monumental granite for specified years. By far the largest proportion of the imports of rough monumental granite comes from Sweden.

Year	Domestic production			Imports		
	Quantity	Value ¹	Average value	Quantity	Value	Average value
1924.....	<i>Cubic feet</i> 3, 520, 530	\$8, 167, 630. 00	<i>Cubic foot</i> \$2. 32	<i>Cubic feet</i> 146, 728	\$215, 515. 00	<i>Cubic foot</i> \$1. 47
1925.....	3, 195, 250	8, 020, 176. 00	2. 51	156, 767	228, 753. 00	1. 46
1926.....	3, 240, 550	7, 388, 454. 00	2. 28	184, 457	250, 793. 00	1. 36
1927.....	3, 197, 910	7, 383, 805. 00	2. 39	132, 722	213, 387. 00	1. 61
1928.....	(²)	(²)	(²)	142, 907	241, 058. 00	1. 69

¹ Estimated.² Not available.

The domestic quarries supplying the largest quantities of monumental granite are the districts of Barre, Vt. (having the largest output), and Quincy, Mass., producing gray granite, and St. Cloud, Minn., and Wisconsin, producing red granite. Black granite is produced largely in the eastern part of Pennsylvania. Comparatively little unmanufactured monumental granite is sold in Minnesota, Wisconsin, or Pennsylvania, either to dealers or manufacturers, as practically all the quarriers manufacture the stone obtained from their own quarries.

In recent years Sweden has been the largest exporter to the United States of unmanufactured monumental granite. Most of the rough granite imported is a black stone, obtained from Sweden, and manufactured for the most part in New York City for the local trade. The landed cost to the importer of this stone, duty paid, at New York City is higher than the value at that point of the principal competing black granite obtained from quarries in Pennsylvania. Comparatively little rough granite is shipped to New York from other domestic quarrying districts. What little there is consists largely of gray granite from Quincy, Mass.

Imports at Quincy, Mass. (through the port of Boston), from Sweden and Finland in 1926 were about one-third of the imports from these countries at New York City. The foreign stone manufactured into monuments at Quincy is largely red granite obtained from Finland. The average value of the foreign red granite is considerably less than the average value of the black granite imported at New York City, and the value of the red stone delivered at Quincy is less than the average value of the better grades of gray granite obtained from the quarries in Quincy and manufactured at that point into monuments. The unit value of the foreign rough monumental granite, particularly the black granite from Sweden, has increased materially since 1924.

During 1925 the commission obtained data in the United States with respect to quarrying costs in 1924 of unmanufactured monumental granite for 3 companies in Barre, Vt., and 5 companies in Quincy, Mass., producing gray granite; 5 companies in St. Cloud, Minn., and 3 companies in Wisconsin producing several varieties of red granite; and 2 companies in Pennsylvania producing black granite. The various classes of monumental granite produced in these districts constitute the bulk of sales in the industry, and most of them are comparable with the several important types of imported unmanufactured monumental granite.

In Sweden cost data were obtained in detail from the books of three companies said to control about 80 per cent of the total granite business—particularly the quarrying operations—of that country. Each of these companies operates in several districts where different kinds of granite are available, and their expenditures for quarrying operations were separately recorded in their books for the various kinds of granite quarried. Detailed cost data were obtained for the outstanding types produced—4 were black granite, 2 of which were from the same quarrying district, 1 was gray, and 1 red. The types of granite for which cost data were obtained from these three companies constitute by far the largest percentage of imports from Sweden of unmanufactured monumental granite.

The commission's report to the President has been published by the Finance Committee of the Senate.

A comparison of the weighted average costs of production, including imputed interest, of domestic and Swedish unmanufactured monumental granite, f. o. b. quarries, and at New York City, and the differences in such costs at these points for the year 1924, as shown in the commission's report to the President, are given below.

Unmanufactured monumental granite: Costs for Vermont, Massachusetts, and Pennsylvania districts combined, compared with costs for 4 black, 1 red, and 1 gray Swedish granites combined, 1924

[Per cubic foot]

Item	Domestic	Sweden	Differences in costs (duty per cubic foot necessary to equalize differences in costs)
Labor.....	\$0.98	\$0.72	.....
Superintendence.....	.20	.08	.....
Power.....	.14	.04	.....
Repairs and supplies.....	.18	.12	.....
Hauling.....	.15	.06	.....
Taxes and insurance.....	.12	.02	.....
Depreciation.....	.06	.04	.....
Depletion.....	.14	.09	.....
Miscellaneous.....	.10	.25	.....
Total cost at quarry.....	2.07	1.42	.....
Less credit for paving blocks, riprap, etc.....	.01		.....
Net total cost f. o. b. quarry.....	2.06	1.42	\$0.64
Imputed interest.....	.14	.04	.10
Cost, including interest.....	2.20	1.46	.74
Transportation and other charges to New York City.....	.82	.94	.12
Total.....	3.02	2.40	.62

The investigation by the commission shows that if comparisons are made of the costs of production of Swedish black granite and of Pennsylvania black granite, the cost of the Swedish granite f. o. b. quarry, and at New York City, exceeds the cost of the domestic at corresponding points. As before stated, little of the rough monumental granite produced in Vermont and Massachusetts is sold to manufacturers in New York City. As cost data were obtained from only two companies in Pennsylvania, costs of production for the Pennsylvania district can not be shown because of the possibility of disclosing confidential information.

Manufactured monumental granite.—Little information is available regarding the value of domestic production of manufactured monumental granite. In 1927 the granite monuments and tombstones produced in the United States were valued at \$48,462,000. This figure does not include the output of the numerous small yards buying and selling finished or partly finished monuments. Statistics for other years are not available.

Imports of manufactured monumental granite, largely from Germany, for the period 1924–1928 follow.

Year	Quantity		Value
	Pounds	Cubic feet ¹	
1924.....	7,957,030	43,315	\$302,180
1925.....	8,741,378	47,585	357,054
1926.....	7,782,843	42,370	321,483
1927.....	8,670,775	47,200	313,787
1928.....	5,779,010	31,459	242,793

¹ Estimated.

Imports of manufactured monumental granite are entered largely at the port of Philadelphia, Pa. Comparatively little of this foreign granite is sold in Philadelphia or other eastern markets, but is shipped to points in Ohio and farther west, where it competes for the most part with the red granite manufactured in St. Cloud, Minn., and with the gray granites manufactured in Barre, Vt., and in Quincy, Mass. Imports consist of granite dies (the principal stone of the monument which is usually set upon a base), most of which have all exposed surfaces polished. Monuments manufactured in Germany from red granite obtained from Sweden constitute a large percentage of the imports.

Cost data for finished monumental granite were obtained at the plants of 8 companies in Barre, Vt., the largest producing district; 5 companies in Quincy, Mass.; 6 companies in St. Cloud, Minn.; 3 companies in Wisconsin; and 2 companies in Pennsylvania. The granite monuments selected for the purpose of comparing costs of production of domestic and foreign products have four sides and the tops polished. Cost data were obtained for three styles of monuments—flat top, oval top, and serpentine top—and for four sizes in each style. These selected styles and sizes are considered representative of a large portion of the total domestic production and of the bulk of the imports of granite monuments.

In Germany cost data were obtained from four finishing plants located in the Fichtelgebirge district of Bavaria, the principal granite-finishing center. From the data obtained in Germany were computed the costs of production of the selected types and sizes of dies manufactured in that country from four varieties of imported Swedish rough granite, namely, Black Swede, Beers Red, Red Swede, and Bon Accord Gray, and from one variety of native German stone known as Spremberger syenite. These varieties were selected because the monumental dies fabricated from them make up the bulk of the manufactured monumental granite imported into the United States from Germany, the principal competing country.

In its report to the President the commission shows the costs of domestic and imported polished monumental granite calculated upon two bases. The costs shown in the following table are, for the United States, the simple average costs for a composite granite die manufactured in Barre, Vt., Quincy, Mass., and St. Cloud, Minn., and for the imported die, the simple average for similar dies manufactured in Germany from three types of Swedish granite, namely, Beers Red, Red Swede, and Bon Accord Gray, and from one type of German granite, Spremberger syenite.

The costs obtained in the Wisconsin and in the Pennsylvania granite-producing areas for red and black granites are not included in the cost for the domestic because (1) the volume of production in these districts is not sufficient to warrant their use in the simple unweighted average costs, and (2) the dies produced in Wisconsin and Pennsylvania are specialties sold at a higher price level than those produced in the three principal districts.

Manufactured monumental granite: Comparison of United States and German costs of production for a composite polished granite die, at plants, transportation costs to Philadelphia, Pa., and Columbus, Ohio, and the costs including transportation to such points, for the year 1925

Item	Costs per composite die			Duty necessary to equalize differences in costs ¹
	United States	Germany	Difference	
				<i>Per cent</i>
Rough stock.....	\$30.78	\$27.29		
Direct labor.....	27.31	14.99		
Manufacturing expense.....	49.33	22.20		
Packing expense.....	1.54	2.96		
Total cost of production, f. o. b. plants.....	108.96	67.44	\$41.52	62.11
Imputed interest.....	1.75	2.85	-1.10	
Cost, including interest.....	110.71	70.29	40.42	60.46
Transportation charges from plants to—				
Philadelphia, Pa.....	7.72	8.06		
Columbus, Ohio.....	6.08	² 15.13		
Cost, including interest, at—				
Philadelphia, Pa.....	118.43	78.35	40.08	59.96
Columbus, Ohio.....	116.79	85.42	31.37	46.93

¹ Computed on a foreign value of \$66.85 per die.

² Includes \$8.06 transportation from German plants to American Atlantic port and the transportation charge from port of importation (Philadelphia, Pa.) to Columbus.

Plate glass.—On May 5, 1923, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, with respect to cast polished plate glass. Field work, both domestic and foreign, was conducted at two different periods, and two public hearings were held, for reasons given below.

The first field work was carried on in the United States and in Belgium and Germany in 1923 and 1924. Cost data were obtained from all producers in the United States, from one company in Belgium (owned largely by American capital), and from several companies in Germany. Belgian plate-glass manufacturers affiliated with the Union Commerciale des Glaceries Belges declined to give any information with respect to their costs of production. Belgium is the principal source of imports into the United States.

After public notice had been given as prescribed by the law, and a preliminary statement of information obtained in the investigation had been distributed, a public hearing was held at the office of the commission in Washington, the sessions of which were on November 23, 24, 30, and December 1, 1925. At the hearing all parties interested were given reasonable opportunity to be present, to produce evidence, and to be heard with regard to differences in costs of production and all other advantages and disadvantages in competition with respect to plate glass. Representatives of Belgian plate-glass manufacturers and importers of plate glass asked, through counsel, that the commission continue the investigation until more accurate and up-to-date information respecting costs of production could be obtained and until a study could be made of new processes of manufacture. At the same time Belgian manufacturers assured the commission that opportunity would be afforded to obtain complete cost information from their records.

On February 18, 1926, the commission ordered that the investigation be continued, and in the summer of 1926 the second field work was undertaken for the purpose of getting new cost and other data. Costs were obtained from all producers of polished plate glass in the United States and in Belgium, and the new data were incorporated in a second preliminary statement of information, which was issued to parties interested. Public notice was then given of the second public hearing, which was held on May 9 to 13, 1927, when parties interested in the manufacture, distribution, and consumption of plate glass were represented and were given opportunity to be heard and to present evidence. Subsequent to this second public hearing, briefs were filed by counsel for the Belgian plate-glass manufacturers, for the American plate-glass manufacturers, for the Association of Imported Plate Glass Consumers, and for the Sligh Furniture Co., of Grand Rapids, Mich.

The commission's final report on this subject was transmitted to the President on August 22, 1928. Although all six members of the commission signed the report, they were not in agreement as to the period for which production costs of plate glass should be considered or as to the method of computing costs of transportation. Three commissioners were of the opinion that the weighted average costs of production for the three years covered by the commission's investigation, namely, 1923, 1924, and 1925, and transportation costs to the 14 principal markets in the United States should be used for comparison, and three commissioners believed that the costs of production for 1925, the last year covered by the commission's investigation, and transportation costs to Cleveland, Ohio, should be used as a basis of comparison.

The weighted average costs for producing plate glass in Belgium for the three years covered by the Tariff Commission's investigation amounted to 24.53 cents per square foot and in the United States to 46.66 cents per square foot. Transportation and other charges to the 14 principal markets⁵ in the United States amounted to 3.80 cents per square foot for the Belgian glass and 1.98 cents per square foot for the domestic glass. The United States cost exceeded the Belgian

⁵ Boston, New York, Philadelphia, Baltimore, Norfolk, Los Angeles, San Francisco, Seattle, Detroit, Cleveland, Buffalo, Chicago, St. Louis, and High Point, N. C.

cost at these markets by an average of 20.31 cents per square foot, whereas the average duty collected on imports from Belgium for the same three years was 16.09 cents per square foot. The increase necessary to equalize cost differences was, therefore, 26.2 per cent.

The weighted average cost of producing plate glass in Belgium for the year 1925 amounted to 26.57 cents per square foot and in the United States to 44.15 cents per square foot, a difference of 17.58 cents per square foot, f. o. b. plant. Transportation and other charges to Cleveland, Ohio, amounted to 2.10 cents per square foot for the Belgian glass and 1.43 cents per square foot for the domestic glass. The United States cost exceeded the Belgian cost at Cleveland by an average of 14.10 cents per square foot, whereas the average duty collected on imports from Belgium for 1925 was 16.16 cents per square foot. The decrease necessary to equalize cost differences at Cleveland was, therefore, 12.7 per cent.

On January 17, 1929, the President by proclamation increased the rates of duty on cast polished plate glass, effective February 16, 1929, on sizes not exceeding 384 square inches, from 12½ cents per square foot to 16 cents per square foot; above 384 square inches and not exceeding 720 square inches, from 15 cents per square foot to 19 cents per square foot; and all above 720 square inches, from 17½ cents per square foot to 22 cents per square foot.

Domestic production of plate glass in 1927 was 111,390,933 square feet, of which approximately 1,000,000 square feet were exported. European production amounts to slightly over 100,000,000 square feet annually. Belgium alone produces from 35 to 40 million square feet, of which approximately one-fourth is exported to the United States. The rapid development of the American plate-glass industry may be attributed largely to building expansion and to the growth of the automobile industry. The demand for plate glass in the fall of 1922 and during 1923 created by the increased production of closed motor cars and the activity in the building trades throughout the country exceeded the capacity of American plants. Imports, which had never before exceeded 3,000,000 square feet per year amounted in 1922 to over 10,000,000 square feet and in 1923 to over 25,000,000 square feet, equivalent to approximately 30 per cent of the domestic production for the latter year. During this period prices rose to new levels for both the domestic and the imported product.

Following this period of industrial activity there was a general movement toward expansion throughout the plate-glass industry. Old plants were enlarged and new ones built in an effort to keep pace with the increasing demand. In both the United States and Belgium new and improved methods of manufacturing were developed on the principle of large-scale output of a more or less standard product. Some of the large automobile manufacturers sought to secure an adequate supply of plate glass either by obtaining control of existing plate-glass plants or by building new ones where the most modern methods of manufacturing are being applied.

In the United States these somewhat revolutionary developments in the plate-glass industry resulted in the creation of a supply evidently greater than was warranted by the demand during the next two years, 1924 and 1925. Imports decreased from 25,000,000 square feet in 1923 to approximately 16,000,000 square feet for each of the years 1924 and 1925, and prices of both domestic and foreign glass

were reduced about 15 per cent. In 1926, however, there was a return to something like the conditions of supply and demand obtaining in 1923, and imports again amounted to nearly 25,000,000 square feet. Domestic production was larger in 1926 than in any previous year, amounting to over 128,000,000 square feet.

In 1927 a decrease in domestic production to 111,000,000 square feet, and in imports to approximately 15,000,000 square feet, was attributed to the curtailment of production of certain automobiles. In 1928 domestic production amounted to over 130,000,000 square feet and imports to over 15,500,000 square feet.

Window glass.—The President, by proclamation effective June 13, 1929, changed the rates of duty on cylinder, crown, and sheet glass, unpolished (commercially known as window glass), from $1\frac{1}{4}$ cents per pound to $1\frac{1}{8}$ cents per pound on sizes not exceeding 150 square inches; from $1\frac{3}{8}$ cents per pound to $2\frac{1}{16}$ cents per pound on sizes not exceeding 384 square inches; from $1\frac{5}{8}$ cents per pound to $2\frac{1}{16}$ cents per pound on sizes not exceeding 720 square inches; from $1\frac{3}{4}$ cents per pound to $2\frac{5}{8}$ cents per pound on sizes not exceeding 864 square inches; from 2 cents per pound to 3 cents per pound on sizes not exceeding 1,200 square inches; from $2\frac{1}{4}$ cents per pound to $3\frac{3}{8}$ cents per pound on sizes not exceeding 2,400 square inches; and from $2\frac{1}{2}$ cents per pound to $3\frac{1}{4}$ cents per pound on sizes above 2,400 square inches.

The weighted average cost of production of cylinder, crown, and sheet glass, unpolished, as ascertained by the Tariff Commission for the year 1926, in Belgium, including transportation to New York, amounted to 2.445 cents per pound. The cost of production in the United States, including transportation to New York, weighted on the basis of actual shipments, was 4.73 cents per pound. The domestic cost, including transportation to New York, weighted upon the basis of the production of the plants east of the Mississippi River, was 4.75 cents per pound. The difference in costs of production and in transportation to New York upon the first basis was 2.285 cents per pound, and upon the second basis it was 2.305 cents per pound. The average duty collected on imports from Belgium during the same year was 1.509 cents per pound. The average increase in the duty, therefore, necessary to equalize costs at New York City, upon either basis of weighting transportation, was approximately 52 per cent.

There are at the present time four different methods of producing window glass—(1) the hand-blown cylinder method, (2) the machine-cylinder method, (3) the Libbey-Owens method, and (4) the Fourcault method. The last two are sheet-drawing methods developed largely since the war. In the United States the machine-cylinder, Libbey-Owens, and Fourcault methods are used; in Belgium, the hand-cylinder, Libbey-Owens, and Fourcault methods.

The expansion of the domestic window-glass industry since 1921 is directly attributable to building activities, which have created a large demand for building glass of all types. The application of new methods of production, the Libbey-Owens (American patent) and the Fourcault (Belgian patent), increased productive capacity and stimulated a general movement toward mass production.

More window glass was produced in the United States in 1925 than in any previous year, production in that year amounting to

approximately 567,000,000 square feet. In 1926, the year covered by the commission's cost investigation, production amounted to approximately 530,000,000 square feet. In 1927 it declined to 480,000,000 square feet and in 1928 to 467,000,000 square feet.

Of the total domestic production in 1926, approximately 2 per cent was produced by the hand-cylinder process, 59 per cent by the machine-cylinder process, 29 per cent by the Libbey-Owens process, and 10 per cent by the Fourcault process. In 1928 no window glass was produced in the United States by the hand-cylinder process, and production by the machine-cylinder process dropped to 38.8 per cent of the output. Production by the sheet-drawing process rose to 61.2 per cent, about equally divided between the Libbey-Owens process and the Fourcault process.

In the domestic production of window glass West Virginia ranks first, Pennsylvania second, Indiana third, and Louisiana fourth.

In Europe the hand-blown cylinder process, which until a few years before the war was the only process used, is rapidly being displaced by the more modern mechanical methods introduced by Libbey-Owens and Fourcault. European production in 1926 is estimated at 1,180,000,000 square feet, more than half of which was produced by the Libbey-Owens and Fourcault processes.

The substitution of machine methods for hand-cylinder methods in Belgium has made for progress in the industry in recent years. The total Belgian production in 1913 was approximately 460,000,000 square feet, of which less than 14,000,000 was produced by the Fourcault process. Of the total Belgian production in 1927 of 566,000,000 square feet, 34.6 per cent was produced by the hand-cylinder process, 46.3 per cent by the Fourcault process, and 19.1 per cent by the Libbey-Owens process. About one-tenth of the Belgian production is exported to the United States.

In recent years, since the beginning of activity in the building trades of the United States, the average annual imports have almost doubled in quantity those before the war. The considerable increase of imports in the years 1921 and 1922, in particular, was due to the domestic industry not being prepared in those years to meet the greatly enlarged demand.

The competitive situation in window glass is complicated by the changes in methods of production going on at home and abroad—in the United States the change from the mechanically blown cylinder process to the sheet-drawing process and in Europe from the mouth-blown cylinder process to the sheet-drawing process.

More window glass was imported into the United States in 1927 than in any previous year. Imports in 1927 amounted to 83,204,229 pounds, or about 13 per cent of the domestic production. In 1928 there was a decline to approximately 68,000,000 pounds. Since 1924, imports from Czechoslovakia, produced in considerable quantities by mechanical processes, have increased markedly. For the years 1925, 1926, 1927, and 1928 imports from that country have constituted by quantity over 23 per cent of the total imports and by value about 37 per cent. The greater value per unit of imports from Czechoslovakia, as compared with imports from Belgium and other countries, is accounted for almost wholly by the fact that they consist largely of heavy window glass sold under the trade name of "Vitrea."

The following table shows the imports of window glass from 1918 to 1928, inclusive.

Window glass: United States imports for consumption, 1918-1928

[Source: Commerce and Navigation of the United States]

Year	Quantity	Value		Specific duties collected		Equivalent ad valorem rate of duty
		Total	Per pound	Total	Per pound	
	<i>Pounds</i>					<i>Per cent</i>
1918.....	302,461	\$33,634.00	\$0.111	\$2,867.00	\$0.009478	8.52
1919.....	635,501	73,636.00	.116	6,134.00	.009652	8.33
1920.....	5,319,030	513,579.00	.097	52,763.00	.009919	10.27
1921.....	47,065,139	2,524,082.00	.054	561,167.00	.011923	22.23
1922.....	52,414,111	2,527,382.00	.048	671,755.00	.012816	26.58
1923.....	46,243,164	2,102,410.00	.045	729,845.00	.015782	34.71
1924.....	30,799,664	1,768,793.00	.057	485,128.00	.015751	27.43
1925.....	45,585,770	2,395,168.00	.052	763,692.00	.016752	31.90
1926.....	80,884,601	3,129,075.00	.039	1,321,844.00	.016342	42.24
1927.....	83,204,229	2,888,616.00	.035	1,338,636.00	.016089	46.34
1928.....	67,870,133	2,491,075.00	.037	1,100,061.00	.016208	44.16

The 1928 price of Belgian window glass, single strength, third quality, 25-inch bracket (the size and quality most commonly imported and sold in this country), was \$1.07 per box of 50 square feet f. o. b. Antwerp. Transportation, duty, and other charges from Antwerp to New York amounted to \$0.925 per box, making a total cost of \$1.995 per box to the importer at New York City. The selling price of domestic window glass of the same size and quality f. o. b. Pittsburgh in 1928 was \$2.09 per box. Transportation to New York City amounted to \$0.255 per box, making a total cost of \$2.345 per box to New York jobber for the domestic glass, a difference in delivered cost at New York City of 35 cents per box in favor of the Belgian glass.

The distribution of domestic window glass is according to density of population, the principal markets being the larger cities. About 35 per cent of the total domestic shipments in 1926 went to New York and to cities within a radius of 35 miles of that point. The Atlantic and Gulf States together received 45½ per cent, the Pacific States 7½ per cent, and the interior States 47 per cent of total domestic shipments. The existing markets in the United States for imported glass are confined largely to the seaboard States. The Atlantic and Gulf Coast States received 50 per cent of the total imports in 1926, Pacific Coast States 34 per cent, and interior States 16 per cent.

Blown-glass tableware.—On July 12, 1928, the commission instituted an investigation, for the purposes of section 315, of the costs of production of blown-glass tableware. This investigation is concerned with table and kitchen glassware, blown or partly blown, and whether or not colored, cut, or decorated, as provided for in paragraph 218 of the tariff act of 1922.

In 1928 there were at least 45 domestic plants producing blown-glass tableware. About 30 of these are in western Pennsylvania, eastern Ohio, and northern West Virginia. The remainder are in Indiana, Massachusetts, New York, New Jersey, Maryland, Oklahoma, and California. In addition to the glassware plants, there are numerous establishments engaged in cutting and decorating table glassware.

Statistics of production, imports, and exports as compiled by the Department of Commerce do not segregate blown-glass tableware. The American Association of Flint and Lime Glass Manufacturers (Inc.) estimated that the annual domestic production of blown-glass tableware amounts to approximately \$10,500,000. Importers at New York City estimated the total annual foreign value of all imports of blown glassware for the table at about \$1,000,000. Data secured by the Tariff Commission from the leading importers of this kind of glassware in New York City indicate that the estimate of \$1,000,000 annual imports is approximately correct.

Czechoslovakia is probably the principal source of imports for most types of blown-glass tableware. Other countries exporting to the United States in quantity are Germany, England, Sweden, France, Belgium, the Netherlands, and Italy.

Domestic field work in this investigation was begun in the early part of August, 1928, and continued until December, 1928, when the investigation was suspended in order that the personnel assigned to it might assist in the preparation of data for the use of the Congress in connection with tariff legislation. Costs and other data were secured from 10 domestic plants—2 in Pennsylvania, 3 in West Virginia, and 5 in Ohio.

Cost data with respect to competing imported glassware have not been obtained at foreign plants, but information with respect to landed costs, selling prices, etc., for foreign articles has been obtained from New York importers. These data have been tabulated and are available to the Congress.

SCHEDULE 3. METALS AND MANUFACTURES OF METAL

(a) GENERAL STATEMENT

To the metals division are assigned the products provided for in about 150 paragraphs of the tariff act of 1922. They embrace a number of minerals and mineral products in Schedule 2, all of Schedule 3, and minerals and their products specified in the sundries schedule and on the free list.

The regular work of the division consists primarily in collecting trade statistics and other information pertaining to all products included in its assignment and in maintaining complete and current files of such data.

During the past year the division completed field work and drafted a report on tungsten, an investigation instituted for the purposes of section 315, and reports on scientific instruments and manganese, investigations instituted under the general powers of the commission. The major portion of the year has been devoted to work in connection with the tariff readjustments of 1929, the work consisting of the preparation of summaries of tariff information for the use of the Congress and the public, attendance at public hearings, analyzing and checking testimony, collecting supplementary information for use in the tariff readjustment, supplying information to members of the congressional committees as requested, and assisting in the preparation of data respecting the various issues of the bill H. R. 2667 that have appeared.

(b) SURVEYS, REPORTS, AND SPECIAL STUDIES

The division's practice of maintaining files of commodity surveys in rough draft form has justified itself during the past year. Much

of the material thus collected was incorporated in the Summary of Tariff Information, 1929, which is in constant use by members of the Congress in their studies relating to the new tariff bill. The section of the Summary of Tariff Information devoted to metals covered 213 individual products and groups of commodities.

(c) INVESTIGATIONS UNDER THE GENERAL POWERS OF THE COMMISSION

Manganese.—An investigation of manganese was instituted by the commission under its general powers on May 31, 1927, and field work was conducted from July to October, 1927, in Minnesota, Montana, Washington, Arizona, New Mexico, Arkansas, Georgia, and Virginia. In these States about 95 per cent of the domestic output of the high-grade and a larger proportion of the low-grade ore are produced. Field studies were made of production, beneficiation, and marketing of the ores and the costs of these items, as well as of the manufacture, distribution, and cost of ferromanganese. Additional data were collected regarding the technology and use of manganese in its various forms, and information was gathered and compiled on ore resources and international trade.

Manganese is a raw material essential in steel manufacture and for certain chemicals. Production in the United States in recent years has provided about one-twelfth of the domestic demands. There are, however, large resources of low-grade ore, which, if it proves amenable to commercial beneficiation, will greatly reduce the dependence of the United States on foreign sources of supply. New processes of beneficiation that have been developed are considered in the commission's report of its investigation.

Scientific instruments.—The commission's investigation, under its general powers, of scientific instruments embraces all types of instruments, apparatus, and appliances designed for scientific pursuits and for the practice of certain professions. During August and September, 1928, field work was conducted to obtain the latest information on surgical, dental, and industrial instruments. The intervention of other and more urgent work precluded completion of the commission's report on these subjects. The new information obtained, particularly with respect to changing conditions in the trade on surgical instruments, was used in the course of the pending tariff readjustment.

(d) INVESTIGATIONS FOR THE PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922

(1) APPLICATIONS RECEIVED AND PRELIMINARY REPORTS MADE

Since the publication of the twelfth annual report, applications for investigations have been received requesting changes in the rates of duty on marcel irons and straightening combs. In view of the pending readjustment of the present tariff act, no preliminary studies or reports were made respecting these industries.

For the same reasons, no field work has been conducted during the past year with respect to previous applications, except in tungsten alloys.

(2) INVESTIGATIONS IN PROGRESS

Tungsten.—In response to Senate Resolution No. 203 of April 26, 1928, the commission instituted on May 14, 1928, an investigation of the costs of production of tungsten. Through field work, conducted from July to October, 1928, by the commission's experts, data were collected in South Dakota, Colorado, Nevada, California, and Arizona, where most of the domestic ore is produced, and reduced to concentrates, and in Eastern States, where the domestic and imported raw materials are utilized in the manufacture of ferrotungsten, tungsten steel, and other tungsten products. The field work on tungsten ore embraced studies of domestic reserves, technology, and marketing, as well as of the costs of production and transportation of the ore and concentrates. The field work on tungsten products related particularly to the tungsten losses incurred in the utilization of tungsten materials for the manufacture of tungsten products. These losses form one basis for the calculation of the compensatory factor in the tariff rates on the tungsten content of alloys, compounds, and steel.

Tungsten is essential to the manufacture of high-speed tools. Until recently these tools were either of tungsten steel or of alloy substitutes for steel containing tungsten. During 1928 tungsten carbide, a new material, of such superior hardness and abrasive properties as to promise a revolution in the design of certain cutting and drilling tools, was developed. This new development greatly enhances the importance of tungsten as an alloying mineral. Domestic production of tungsten has in recent years supplied about one-third of our consumption, the remainder coming mostly from China in the form of concentrates, which are further manufactured in the United States.

From 1911 to 1914 domestic production of tungsten averaged about 1,200 short tons per year. During the war years the average was about 4,900 short tons, with a maximum of 6,144 tons in 1917. From 1919 to 1924 the average production was 225 tons, with no output in either 1921 or 1922. The decline in production after the war and through the year 1924 was caused by lessened peace-time demands and by the use of war stocks accumulated in the United States.

From 1925 to 1928 domestic production averaged about 1,300 short tons per year. In 1927 and 1928 Nevada was the principal producer, but California, Colorado, and South Dakota produced substantial quantities. In recent years only five operators have contributed regularly to domestic production. The abandonment of operations by some of the former producers is accounted for by the exhaustion of workable deposits.

Statistics of domestic production for the period 1925 to 1928 are as follows:

Tungsten ore: Production in the United States, 1925-1928

(60 per cent concentrates)

Year	Short tons	Total value	Value per ton	Value per short ton unit ¹
1925.....	1, 191	\$755, 500. 00	\$634. 00	\$10. 57
1926.....	1, 383	920, 400. 00	666. 00	11. 10
1927.....	1, 353	740, 936. 00	548. 00	9. 13
1928 ²	1, 290	761, 000. 00	582. 00	9. 70

¹ The trade measure "short ton unit," consists of 20 pounds of contained tungsten trioxide or 15.86 pounds of contained tungsten.

² Preliminary figures.

Since 1918 China has furnished the bulk of imports not only to the United States but to all industrial countries. Because of accumulated war stocks in the United States tungsten ore was not imported in 1923 and 1924. Imports for 1925 to 1928 are as follows:

Tungsten ore: Imports for consumption, calendar years 1925 to 1928

Item	1925	1926	1927	1928
Tungsten content, short tons.....	427	1,207	1,085	1,428
Equivalent 60 per cent concentrates, short tons...	897	2,662	2,280	3,000
Declared value.....	\$205,326.00	\$566,996.00	\$540,409.00	\$672,199.00
Duty collected.....	\$384,327.00	\$1,140,586.00	\$967,796.00	\$1,285,196.00
Value per short ton of equivalent 60 per cent concentrates.....	\$229.00	\$213.00	\$237.00	\$224.00
Value per short-ton unit.....	\$3.82	\$3.55	\$3.95	\$3.73
Equivalent ad valorem rate of duty, per cent.....	186.27	201.16	180.75	191.19

The commission's preliminary report on this investigation was nearly finished when work on the revision of the tariff act of 1922 began.

(e) EFFECT ON IMPORTS AND PRICES OF CHANGES IN DUTIES UNDER THE PROVISIONS OF SECTION 315 OF THE TARIFF ACT OF 1922

Fluorspar.—The rate of duty upon fluorspar in the tariff act of 1922 was \$5.60 per ton, regardless of the percentage content of calcium fluoride. Following an investigation by the Tariff Commission for purposes of section 315 of the tariff act of 1922, the President, by proclamation effective November 16, 1928, increased the rate of duty upon fluorspar containing not more than 93 per cent calcium fluoride from \$5.60 per ton (the previous duty upon all fluorspar) to \$8.40 per ton.

The duty on fluorspar containing more than 93 per cent calcium fluoride was not changed. Different grades of fluorspar were not segregated in the statistics of imports until November 16, 1928, so that authentic figures for the importation of metallurgical fluorspar can not be given. Data obtained in the investigation indicate that the ratio of metallurgical to total fluorspar imported was about 78 per cent in 1925, 86 per cent in 1926, and 89 per cent in the first half of 1927.

Fluorspar: Imports for consumption, January, 1927, to June, 1929

Month	Quantity	Value	Value per ton
<i>Under rate of duty of the act of 1922 (\$5.60 per ton)</i>			
1927			
	<i>Tons</i>		
January.....	3,691	\$33,023.00	\$8.94
February.....	4,291	37,531.00	8.74
March.....	3,571	34,214.00	9.58
April.....	4,686	38,052.00	8.12
May.....	3,137	28,647.00	9.13
June.....	10,189	94,266.00	9.25
July.....	4,624	40,896.00	8.84
August.....	9,080	102,179.00	11.25
September.....	4,041	38,735.00	9.58
October.....	6,292	63,071.00	10.02
November.....	5,532	40,904.00	7.39
December.....	4,475	42,564.00	9.51
Total.....	63,609	594,082.00	9.34
1928			
January.....	2,831	23,816.00	8.41
February.....	1,236	13,457.00	10.88
March.....	630	9,118.00	14.47
April.....	1,176	10,808.00	9.19
May.....	1,695	17,640.00	10.41
June.....	3,104	32,713.00	10.54
July.....	3,482	34,663.00	9.95
August.....	6,666	53,828.00	8.07
September.....	6,954	71,478.00	10.28
October.....	6,249	63,076.00	10.09
November.....	7,479	69,293.00	9.26
Total (11 months).....	41,502	399,890.00	9.64

Month	Not more than 93 per cent calcium fluoride			More than 93 per cent calcium fluoride		
	Quantity	Value	Value per ton	Quantity	Value	Value per ton
<i>Under rate of duty as proclaimed by the President (not more than 93 per cent calcium fluoride, \$8.40 per ton; more than 93 per cent calcium fluoride, \$5.60 per ton)</i>						
1928						
December.....	<i>Tons</i> 107	\$898.00	\$8.39	<i>Tons</i> 757	\$9,053.00	\$11.96
1929						
January.....	514	4,601.00	8.95	2,175	27,729.00	12.75
February.....	199	1,069.00	5.37	300	6,909.00	23.03
March.....	93	791.00	8.50	1,879	18,763.00	9.98
April.....	1,316	9,934.00	7.55	1,398	18,704.00	13.38
May.....	2,146	21,185.00	9.88	1,226	13,727.00	11.20
June.....	2,567	25,086.00	9.77	4,468	43,371.00	9.71
Total (6 months).....	6,835	62,666.00	9.18	11,446	129,203.00	11.29

Total imports in 1926, the year in which the investigation was instituted and when most of the field work was done, averaged about 5,600 tons per month; in 1927 they were about 5,300 tons; in 1928 (10½ months of which preceded the change in duty) they dropped to 3,500 tons, and in the first half of 1929 they averaged 3,000 tons per month.

The grade of imports since the proclaimed rate has altered to the extent that during the first half of 1929 about two-thirds of imported fluorspar has been more than 93 per cent calcium fluoride, whereas formerly only about one-sixth of the imported tonnage was of that grade. Insufficient time has elapsed to determine whether this change is the result of altered methods of beneficiation or the increased exploitation of high-grade ore.

Quoted prices in domestic trade journals indicate a steadily weakening market from October, 1926, when the price for metallurgical grade was \$18 per short ton, until March, 1928, when it was \$14.75, and a rising market from then until November, 1928, when the \$18 quotation was resumed. There has been no change in published quotations since a few weeks before the new tariff rate of \$8.40 went into effect. Many of these quotations are, however, relatively nominal as they apply to only small transactions, the bulk of the trade being carried on through three to six month contracts which are unaffected by temporary market fluctuations.

Crude and caustic calcined magnesite.—The President's proclamation increasing the rate of duty on crude magnesite from five-sixteenths cent to fifteen thirty-seconds cent per pound and on caustic calcined magnesite from five-eighths cent to fifteen-sixteenths cent per pound became effective December 10, 1927.

Annual imports of crude magnesite, preceding and following the increase in the duty, are given in the following table.

Crude magnesite: United States imports, January 1, 1925, to June 30, 1929

Year	Quantity	Value
<i>Under rate of duty of the act of 1922 (five-sixteenths of 1 cent per pound)</i>		
1925.....	Short tons 487	\$6,382
1926.....	608	6,555
1927.....	856	8,574
<i>Under rate of duty as proclaimed by the President (fifteen thirty-seconds of 1 cent per pound)</i>		
1928.....	762	6,264
1929 (6 months).....	1	150

The price of domestic crude magnesite at California shipping points was \$14 per short ton for several years until May, 1928, when it dropped to \$11, where it has remained. Greece is the principal source of imports of crude magnesite.

Caustic calcined magnesite comes principally from British India, with minor quantities from the Netherlands and other countries. Imports of caustic calcined magnesite before and after the change in rate of duty are shown in the table which follows.

Caustic calcined magnesite: Imports for consumption, January, 1926, to June, 1929

Month	Quantity	Value	Value per ton
<i>Under rate of duty of the act of 1922 (five-eighths of 1 cent per pound)</i>			
1926			
January.....	Short tons 685	\$21,096.00	\$30.80
February.....	1,459	32,372.00	22.19
March.....	1,278	27,873.00	21.81
April.....	409	12,735.00	31.14
May.....	1,433	29,776.00	20.78
June.....	1,716	33,037.00	19.25
July.....	1,503	34,461.00	22.93
August.....	2,105	41,829.00	19.87
September.....	268	8,120.00	30.30
October.....	407	12,085.00	29.69
November.....	2,477	51,487.00	20.79
December.....	1,018	24,257.00	23.83
Total.....	14,758	329,128.00	22.30

Caustic calcined magnesite: Imports for consumption, January, 1926, to June, 1929—Continued

Month	Quantity	Value	Value per ton
<i>Under rate of duty of the act of 1922 (five-eighths of 1 cent per pound)—Continued</i>			
1927			
	<i>Short tons</i>		
January.....	113	\$3,931.00	\$34.79
February.....	869	17,482.00	20.12
March.....	1,123	23,734.00	21.13
April.....	636	14,871.00	23.38
May.....	1,378	27,063.00	19.64
June.....	989	22,050.00	22.30
July.....	301	9,433.00	31.34
August.....	917	21,755.00	23.72
September.....	894	20,482.00	22.91
October.....	818	21,643.00	26.46
November.....	901	23,590.00	26.18
Dec. 1-10.....	521	16,044.00	30.79
<i>Under rate of duty as proclaimed by the President (fifteen-sixteenths of 1 cent per pound)</i>			
1927			
Dec. 11-31.....	108	3,065.00	28.38
Total (12 months).....	9,568	225,143.00	23.53
1928			
January.....	562	12,861.00	22.88
February.....	82	2,675.00	32.62
March.....	91	3,096.00	34.02
April.....	854	21,678.00	25.38
May.....	955	20,200.00	21.15
June.....	717	16,579.00	23.12
July.....	642	14,335.00	22.33
August.....	270	8,171.00	30.26
September.....	199	5,785.00	29.07
October.....	192	5,704.00	29.71
November.....	774	17,143.00	22.28
December.....	136	3,992.00	29.35
Total.....	5,474	132,219.00	24.15
1929			
January.....	274	9,751.00	35.58
February.....	929	22,521.00	24.24
March.....	101	3,609.00	35.73
April.....	849	18,683.00	22.01
May.....	264	7,495.00	28.40
June.....	1,283	24,052.00	18.73
Total (6 months).....	3,700	86,111.00	23.27

There has been no change of note in the price of either the imported or domestic caustic calcined magnesite. Because of the lessened consumption of stucco for the external finish of dwellings, the tonnage of both has declined.

Iron in pigs.—On February 23, 1927, the President proclaimed an increase in the rate of duty on iron in pigs from 75 cents to \$1.12½ per ton, effective March 25, 1927.

The market for iron in pigs is highly competitive, and changes in economic conditions, which are the principal causes of alterations in relative price levels, have marked and prompt effect on distribution. As a result largely of such price changes, the principal source of imports shifted from the United Kingdom to British India early in 1924, to Germany in 1926, and to British India in 1927 and 1928. During the first six months of 1929 imports from the United Kingdom exceeded those from British India.

The increase of 37½ cents per long ton in the duty amounts to about 2 per cent of the domestic price. What effect this increase has had upon imports or prices can not be estimated for the reasons that the increase is small compared to major fluctuations in the price of pig iron, and that prices of pig iron have been at a relatively low level in the United States since the new duty became effective. There was a tendency for prices to increase during 1929.

Iron in pigs: Imports for consumption, January, 1926, to June, 1929

[Long tons]

Month	United Kingdom	India	Germany	All other countries	Total
<i>Under rate of duty of the act of 1922 (\$0.75 per ton)</i>					
1926					
January.....	15,833	10,859	8,395	13,336	48,423
February.....	15,826	10,243	16,869	16,184	59,122
March.....	12,250	14,558	13,900	14,117	54,825
April.....	15,651	9,798	13,529	15,381	54,359
May.....	12,236	11,348	21,419	11,708	57,211
June.....	8,275	10,775	15,535	8,521	43,106
July.....	8,724	4,885	10,573	8,234	32,416
August.....	3,244	4,087	13,200	6,027	26,538
September.....		3,742	11,490	3,351	18,583
October.....		454	12,565	5,828	18,847
November.....	4	1,879	9,701	5,976	17,560
December.....		203	10,218	4,362	14,783
Total.....	92,043	83,311	157,394	113,025	445,773
1927					
January.....		246	5,272	3,808	9,326
February.....		1,565	634	2,218	4,417
March.....	1,250	2,763	690	2,789	7,492
<i>Under rate of duty as proclaimed by the President (\$1.12½ per ton)</i>					
1927					
April.....	2,048	2,149	285	4,441	8,923
May.....	3,600	10,402	180	2,482	16,664
June.....	4,995	5,687	750	2,085	13,497
July.....	3,042	5,405		1,930	10,377
August.....		9,703	560	3,821	14,084
September.....	90	6,242	500	2,337	9,169
October.....	190	5,196		2,792	8,178
November.....	3,173	9,245	340	3,384	16,142
December.....	2,741	8,044		3,514	14,299
Total (12 months).....	21,129	66,627	9,211	35,601	132,568
1928					
January.....	3,750	5,634	40	1,703	11,127
February.....	50	3,794		2,543	6,387
March.....	10,748	3,338		2,069	16,155
April.....	10,147	4,196		5,802	20,145
May.....	4,556	3,026		2,150	9,732
June.....	6,726	3,792	55	1,226	11,799
July.....	50	2,994	300	2,711	6,055
August.....	2,550	7,495		2,945	12,990
September.....	2,225	3,758		4,454	10,437
October.....	7,702	4,610		1,796	14,108
November.....	250	8,459		2,225	10,934
December.....	2,190	5,324	300	3,011	10,825
Total.....	50,944	56,420	695	32,635	140,694
1929					
January.....	5,250	7,315	3	3,540	16,108
February.....	4,540	6,974	50	4,735	16,299
March.....	4,700	1,107		2,765	8,572
April.....	3,000	1,826		1,867	6,693
May.....	6,342	4,589	50	3,412	14,393
June.....	3,040	3,903		4,453	11,396
Total (6 months).....	26,872	25,714	103	20,772	73,461

It will be noted that beginning in June, 1926, total imports decreased in quantity, reaching the low point of 4,417 tons in February, 1927, but subsequently increased to 20,145 tons in April, 1928. During the period April, 1928, to June, 1929, they ranged from a minimum of 6,055 tons in July, 1928, to a maximum of 16,299 tons in February, 1929. Early in 1926, when imports were at the rate of 50,000 tons per month, the price of No. 2X eastern at Philadelphia was about \$24 per ton and the price of No. 2X at Buffalo was between \$21 and \$22 per ton. The decrease in monthly imports in 1926 was coincident with the decrease in the price of No. 2X eastern foundry iron delivered at Philadelphia to less than \$23 per ton and of No. 2X foundry iron at Buffalo to less than \$20 per ton. The average price in 1927 of No. 2X eastern delivered at Philadelphia was \$21.55 and of No. 2X at Buffalo was \$18.06. These prices show a decline during 1928 to \$21.17 for No. 2X eastern delivered at Philadelphia and to \$17.79 for No. 2X at Buffalo. During the first seven months of 1929 the average price of No. 2X foundry iron delivered Philadelphia was \$22.40, a considerable increase as compared to prices in 1928.

Foreign invoice prices of British Indian pig iron amounted to \$13.65 in 1928 and to \$13.37 for the first six months of 1929. Quoted prices in Europe, particularly in the United Kingdom and Sweden, are considerably higher.

Taximeters.—On October 1, 1925, the commission transmitted to the President a report on its investigation of taximeters.

The President, by a proclamation dated December 12, 1925, effective December 27, 1925, increased the duty on taximeters by changing the basis of assessment from \$3 each and 45 per cent ad valorem on the foreign market value to \$3 each and 27.1 per cent ad valorem on the American selling price, as defined in subdivision (f) of section 402 of the tariff act of 1922.

The following table shows the number and value of imports of taximeters before and since the change in the rate of duty. The table applies wholly to importations of assembled meters.

Taximeters: Imports for consumption, January, 1924, to June, 1929

Year	Number	New meters				Number	Secondhand meters				
		Foreign value		Dutiable value ¹			Foreign value		Dutiable value ¹		
		Total	Each	Total	Each		Total	Each	Total	Each	
Under former rate of duty (\$3 each and 45 per cent ad valorem, based on foreign value):											
1924.....	651	\$19,962	\$30.66								
1925.....	1,376	43,133	31.35								
Under present rate of duty (\$3 each and 27.1 per cent ad valorem, based on American selling price):											
1926.....	628			\$69,080	\$110	142			\$6,627	\$46.67	
1927.....	1			110	110	75			3,750	50.00	
1928.....	3			330	110	25			1,250	50.00	
1929 (January to June).....											

¹ American selling price of comparable meters.

No material change was apparent in the rate of importation of taximeters until April, 1926, about three months after the rate of duty was changed. Since March, 1926, imports of new meters have been irregular and relatively small, and, as will be noted from the tables, the importations of new meters, formerly principally from Germany, practically ceased with 1 meter in January, 1927, and 1 meter in December, 1928, from Germany, and 2 in July, 1928, from France. There were no imports during the first six months of 1929. Since the increased duty became effective more or less regular imports of secondhand meters have come from France, but the volume of this business has been small. The former principal importer of German-made taximeters is now a domestic manufacturer of taximeters for which he imports the principal parts. Imports of such parts, dutiable under paragraph 368 at 50 per cent ad valorem, are not separately published, but are included in statistics of imports of other products. They can be separated only by means of a complete analysis of invoices showing a great variety of products.

The foreign value of taximeters is not reported. The selling price of domestic meters, comparable to imported meters, has remained unchanged at \$110 for new meters and at \$50 for secondhand meters since the proclamation of the President became effective.

Gold leaf.—On March 25, 1927, the President's proclamation increasing the rate of duty on gold leaf from 55 to 82½ cents per 100 leaves became effective. The rate applies to leaf not exceeding in size 3⅜ inches square, larger leaf taking a proportionately higher rate.

The following table shows total imports for periods before and after the change in rate took effect.

Gold leaf: Imports for consumption, January, 1926, to June, 1928

Month	Quantity	Value	Value per pack
<i>Under rate of duty of the act of 1922 (55 cents per 100 leaves not exceeding in size the equivalent of 3⅜ by 3⅜ inches)</i>			
1926			
	<i>Packs</i>		
January.....	908	\$5,698.00	\$6.27
February.....	1,969	11,995.00	6.09
March.....	2,470	14,893.00	6.03
April.....	2,139	13,250.00	6.19
May.....	2,784	16,049.00	5.76
June.....	1,973	11,808.00	5.98
July.....	1,878	10,887.00	5.79
August.....	724	4,399.00	6.07
September.....	1,387	8,216.00	5.92
October.....	2,686	10,676.00	3.98
November.....	2,479	14,541.00	5.86
December.....	3,458	12,283.00	3.56
Total.....	124,855	134,695.00	5.42
1927			
January.....	2,993	18,293.00	6.11
February.....	847	5,100.00	6.02
March.....	3,495	20,965.00	6.00

¹ Includes 4,865 packs at \$3.13 and 19,900 packs at \$5.97.

Gold leaf: Imports for consumption, January, 1926, to June, 1928—Continued

Month	Quantity	Value	Value per pack
<i>Under rate of duty as proclaimed by the President (82½ cents per 100 leaves not exceeding in size the equivalent of 3¼ by 3¾ inches)</i>			
1927			
	<i>Packs</i>		
April.....	1,109	\$6,501.00	\$5.86
May.....	278	1,635.00	5.88
June.....	165	1,210.00	7.36
July.....	380	2,122.00	5.59
August.....	1,138	6,021.00	5.30
September.....	881	5,085.00	5.77
October.....	1,089	5,889.00	5.41
November.....			
December.....	800	3,276.00	4.09
Total (12 months).....	13,175	76,097.00	5.77
1928			
January.....	562	3,139.00	5.58
February.....	42	236.00	5.62
March.....	213	1,258.00	5.91
April.....	367	2,301.00	6.27
May.....	861	4,755.00	5.52
June.....	92	511.00	5.55
July.....	330	2,032.00	6.16
August.....	46	252.00	5.47
September.....	200	1,115.00	5.58
October.....	101	535.00	5.28
November.....	29	332.00	11.61
December.....	370	2,073.00	5.61
Total.....	3,213	18,539.00	5.77
1929			
January.....	280	1,490.00	5.33
February.....			
March.....	6	197.00	35.18
April.....	90	474.00	5.27
May.....	41	525.00	12.50
June.....	37	265.00	7.18
Total (6 months).....	454	2,951.00	6.49

During the 15 months from January, 1926, to March, 1927, before the increased rate became effective, imports averaged 2,146 packs per month, valued at \$5.56 per pack. Following the increased rate, imports for the last nine months of 1927 averaged 649 packs per month, valued at \$5.44 per pack. Average monthly imports since then have declined further to 268 packs in 1928 and to 76 packs in the first half of 1929.

Prices of domestic gold leaf, XX deep, the grade of most common use, have been nominal at about \$12, beginning in 1923 and until October, 1928, when they dropped to \$11.50 per pack. The foreign declared value of XX deep leaf has ranged from \$5.50 to \$6 per pack; variations from this range, indicated in the unit value of imports in the preceding table, are due to the inclusion in statistics of cheaper or more expensive grades.

Print rollers.—The President proclaimed an increase in the rate of duty on print rollers from 60 to 72 per cent ad valorem, effective July 21, 1926.

The following table shows imports of all kinds of rollers entered under paragraph 396 of the act of 1922, by months, from January, 1924, to July, 1926, inclusive, and from August 1, 1926, to June, 1929, inclusive.

Rollers: Entries for consumption January 1, 1924, to June 30, 1929

Month	1924			1925			1926		
	Quantity	Value	Unit value	Quantity	Value	Unit value	Quantity	Value	Unit value
<i>Under rate of duty of the act of 1922 (60 per cent ad valorem)</i>									
	<i>Number</i>			<i>Number</i>			<i>Number</i>		
January.....	145	\$3,077	\$21.22	257	\$4,167	\$16.20	772	\$27,160	\$35.18
February.....	1,198	13,828	11.54	478	7,592	15.88	141	12,043	85.41
March.....	849	10,908	12.85	518	9,198	17.76	1,154	7,631	6.61
April.....	999	11,464	11.48	1,219	16,795	13.78	544	9,566	17.58
May.....	1,270	7,124	5.60	1,004	14,421	14.36	260	7,252	27.89
June.....	753	15,311	20.33	377	9,658	25.62	180	5,295	29.42
July.....	1,525	6,360	4.17	75	3,536	47.15	96	3,231	33.66
August.....	110	2,215	20.14	169	3,716	21.99	-----	-----	-----
September.....	758	1,278	1.69	26	3,089	11.88	-----	-----	-----
October.....	545	1,564	2.87	106	1,951	18.41	-----	-----	-----
November.....	188	4,283	22.78	123	9,057	7.36	-----	-----	-----
December.....	248	3,285	13.25	233	13,447	5.77	-----	-----	-----
Total.....	8,588	80,697	9.40	4,585	96,627	21.07	-----	-----	-----

Month	1926			1927			1928		
	Quantity	Value	Unit value	Quantity	Value	Unit value	Quantity	Value	Unit value
<i>Under rate of duty as proclaimed by the President (72 per cent ad valorem)</i>									
	<i>Number</i>			<i>Number</i>			<i>Number</i>		
January.....	-----	-----	-----	137	\$947	\$6.91	29	\$321	\$11.07
February.....	-----	-----	-----	8	276	34.50	13	274	21.08
March.....	-----	-----	-----	277	2,648	9.56	34	587	17.26
April.....	-----	-----	-----	148	1,969	13.30	62	1,300	20.97
May.....	-----	-----	-----	127	1,498	11.80	11	345	31.36
June.....	-----	-----	-----	112	1,582	14.13	52	1,081	20.79
July.....	-----	-----	-----	14	970	69.29	25	667	26.68
August.....	68	\$2,582	\$37.97	196	1,734	8.85	28	466	16.64
September.....	63	1,287	20.43	105	2,634	25.09	24	554	23.08
October.....	88	2,914	33.11	17	150	8.82	11	904	82.18
November.....	77	1,651	21.44	55	736	13.38	29	775	26.72
December.....	158	1,841	11.65	27	294	10.89	34	497	14.62
Total.....	-----	-----	-----	1,223	15,438	12.62	352	7,771	22.08

Month	1929			Month	1929		
	Quantity	Value	Unit value		Quantity	Value	Unit value
<i>Under rate of duty as proclaimed by the President (72 per cent ad valorem)—Continued</i>				<i>Under rate of duty as proclaimed by the President (72 per cent ad valorem)—Continued</i>			
	<i>Number</i>				<i>Number</i>		
January.....	79	\$1,500	\$18.99	May.....	38	\$2,641	\$69.50
February.....	-----	-----	-----	June.....	16	523	32.69
March.....	30	409	13.63	Total (6 months).....	220	6,670	30.32
April.....	57	1,597	28.02				

The figures in the foregoing table include embossing rollers prior to November, 1925, and print rollers in chief value of wood prior to August, 1927. Decisions of the Customs Court declared the former dutiable as parts of machines at 30 per cent ad valorem and the latter as manufactures in chief value of wood at 33½ per cent ad valorem. The transfer of embossing rollers and of print rollers in chief value of wood to other classifications accounts in part at least for the falling off of imports of print rollers since July, 1926.

The principal importers of print rollers of the type covered by the commission's investigation are wall-paper manufacturers. These manufacturers report that there is now in effect a program of economy providing for standardization of designs, exchange of rollers, and production of new designs in fewer numbers and at longer intervals than formerly. It is probable that these practices have resulted in the reduction of requirements for rollers to about the capacity of the print-cutting shops operated by the wall-paper manufacturers.

Imports of print rollers are seasonal, the largest quantities usually coming in from December to June. During the 6-month period ending in May of each year, the busy season in the industry, imports declined from 3,104 rollers in 1926 to 238 during the corresponding six months of 1929.

The trend of imports and the average declared values of imported rollers are affected in some measure by court decisions. The extent of this effect can not be measured quantitatively except by a complete analysis of all invoices of parts of machines, and manufactures of wood not specially provided for, in several ports of entry. The average value per roller of imports, shown in the foregoing table, during the busy season of 1929 (six months ending in May) was \$27.92, which compares with \$17.73 for the corresponding period of 1928 and \$10.74 for the corresponding period of 1927, which may indicate a trend toward the importation of rollers of the more complicated or exclusive designs.

Customs examiners and wall-paper manufacturers state that there is now little importation of print rollers made of wood, brass, and felt of the type used for printing wall paper.

(f) TARIFF READJUSTMENT OF 1929

Since December 1, 1928, preparatory work for public hearings, by the Committee on Ways and Means and the Committee on Finance, attendance at such hearings, and work for the committees and for individual members of the Congress have taken practically the entire time of the division.

(1) SUMMARIES OF TARIFF INFORMATION

During December, 1928, the division prepared manuscript for 213 summaries of tariff information, covering its entire assignment. Proof reading and revision required about one month in addition. These summaries comprise 553 printed pages, of which 44 pages were in Schedule 2, 425 pages in Schedule 3, 11 pages in Schedule 14, and 73 pages in Schedule 15. The Summaries of Tariff Information were more useful than any other reference works available during the tariff readjustment. They were quoted by most of the witnesses who appeared before the Senate Finance Committee and members of the committee made constant use of the data.

(2) WORK WITH THE COMMITTEE ON WAYS AND MEANS

Members of the staff were in attendance at the public hearings held before the Committee on Ways and Means. They also attended conferences held by the committee and subcommittees and consulted many witnesses with a view to clarifying testimony and verifying material submitted to the committee.

During preliminary studies by the various subcommittees, information was summarized and presented as requested.

Members of the staff were called upon to furnish information on practically every item considered in executive sessions of the majority members of the Committee on Ways and Means. As the content of the bill was decided upon, the staff worked directly with the legislative counsel, furnishing the technical and economic data necessary for drafting the phraseology of the bill.

Members of the division's staff were present during debate in the House and in the Senate and were called upon from time to time to furnish information respecting the various amendments introduced.

(3) HEARINGS BEFORE THE FINANCE COMMITTEE OF THE SENATE

Many witnesses appeared before the subcommittees of the Finance Committee with comments pertaining to the House bill. Members of the staff attended these hearings and conferred with many of the witnesses, supplying data of nonconfidential nature, and eliciting for the commission's files and for the use of the Congress much information supplementary to the testimony and briefs appearing in the record.

(4) WORK WITH THE FINANCE COMMITTEE

Members of the staff were in attendance at the executive sessions of the majority members of the Finance Committee, supplying such information as was requested, and worked with the legislative counsel in the preparation of the Senate bill.

Memoranda were prepared for the information of individual members who made requests of the commission respecting items on which the duty was changed either by the House or by the Senate committee. Most of these memoranda were brief summaries of the facts available from the commission's reports and files and from the testimony.

Further work connected with the tariff revision consisted in the checking of tabulations, showing the comparison of rates proposed in the different drafts of the bill, and in the preparation of a study to indicate the conversions of ad valorem rates necessary for the application of United States value as a method of appraisal.

Certain of the tariff problems of Schedule 3 are briefly discussed below.

Iron and steel.—The products of the iron and steel industry are of two general classes: The relatively cheap, so-called tonnage products, such as plates, structural shapes, and common bars, of ordinary mild carbon steel, which are characteristically produced in the United States by the large integrated steel companies, and amount to over 30,000,000 tons per year; and the tool and fine steels, both plain carbon grades and alloy steels, which are made by a limited group of relatively small producers, and constitute only about one-half of 1 per cent of the total steel production.

In the first or tonnage group imports constitute on the average less than 1 per cent of domestic consumption, although some items, such as concrete reinforcing bars, structural shapes, and sheet piling, encounter substantially greater foreign competition. It is increasingly evident that factors other than customs duties are of importance in

determining the amount of international trade in the various tonnage steel products. Such factors may be international control of markets under the cartel system; preferential tariff rates; proximity of producing and consuming industries; differences in manufacturing standards, such as grade of steel, rigidity of specifications, closeness of tolerances in dimensions, and standardization of the sections rolled. Slow, irregular delivery and difficulty of stowage for water shipment may also be important factors in limiting importations of certain steel products. Some items, such as structural shapes, are imported to certain domestic markets in substantial volume and are also exported in considerable volume. Trade reports indicate that a large proportion of the imports of structural shapes are of small sizes, such as are used for transmission towers, framework for display advertising, fire escapes, and other light structures which do not require material designed to rigid specifications. Exports of structural shapes consist in great measure of the heavier sections which are transported unfabricated to near-by markets, or which are purchased for use in structures designed by American engineers, fabricated in the United States, and erected abroad by American construction firms.

In the second group, the tool and fine steels, the ratio of imports to domestic consumption is variously estimated from 2 to over 10 per cent, depending upon the price selected as the lower limit for this grade of products. These figures do not include the greater portion of alloy steels, which are relatively cheap and are of the types used largely for automobile construction. Certain of the fine steels imported are probably not at the present time manufactured in the United States. Much of the testimony submitted to the congressional committees during the pending tariff readjustment indicates that a substantial part of the fine steel imported to the United States sells on its reputation at higher prices than domestic steel of corresponding physical characteristics. Also, that some domestic consumers prefer the imported product even at substantially higher prices than are quoted on the domestic product. Throughout the tool and fine steel industry there has been a marked development in technology during the life of the act of 1922. Many new alloy steels have been produced, and the tendency has been to utilize small quantities of alloying material even for the tonnage products, thus securing valuable physical characteristics with the minimum expenditure for raw materials.

Ferro-alloys and their alloy metals.—The ferro-alloy industries have during the past 10 years made unusual progress in technology. A substantial number of new ferro-alloys have been produced on a commercial basis, largely for use in the manufacture of steel, and a number of metals not formerly employed commercially for alloying purposes have come into use, at least experimentally. The low price at which a few ferro-alloys are now produced has caused changes in the technology of steel to take advantage of the lower costs.

One of the outstanding recent developments in alloy metals has been the utilization of tungsten in the form of a carbide in metal-cutting tools, and as a substitute for diamonds in various types of cutting tools, and for hard alloys in making oil-well drills. Tungsten carbide is nearly as hard as diamond. The powdered form is mixed with cobalt, compressed in any desired shape for use as a cutting edge in finished tools, and sintered. Carbide may also be used in

the lump form. The efficiency of carbide cutting tools is so great that there is a probability of their revolutionizing the design of certain machine tools and of their making marked changes in numerous manufacturing processes. Some of the alloy metals in the pure form are being used in an increasing number of products. For example, tungsten and molybdenum metal are finding increased employment in the manufacture of electrical apparatus of various kinds.

Under the act of 1922 evasions of the duties on alloy metals and their ores were accomplished by importing, for their valuable metal content, intermediate or finished products which are dutiable at rates lower than those applying to the basic materials. In certain instances foreign producers have altered their products or even devised new products for the purpose of taking advantage of lower rates of duty. H. R. 2667, now pending, includes more specific detail in the paragraphs relating to alloy metals in an effort to adjust, with reasonable accuracy, the rates on intermediate and finished products to those provided for the basic materials. The bill also provides for a number of alloy products which are still in the experimental stage, and it amplifies the basket clauses to provide for possible future developments.

Watches and clocks.—Paragraphs 367 and 368 of the tariff act of 1922 provided for types of watches and clocks and parts commonly made at the time the act was passed. There have been changes, however, in the two industries since 1922 which have made possible importations of watches and clocks and parts at lower rates of duty than were contemplated in the act for approximately similar products. For example, watches with jewel escapements, previously standardized at seven jewels, were constructed abroad in great numbers with six jewels, and imported at a saving of 50 cents in duty on each watch movement. Information from various sources also indicates that parts have been removed from watch movements, and that the incomplete mechanisms have been imported at the ad valorem rate for parts, resulting in a saving of a substantial portion of the duties intended on such mechanisms.

Paragraph 367 of the pending tariff bill provides a new method of classifying watches, providing duties dependent upon the diameter or width of the watch, the number of jewels contained in the mechanism, and the number of adjustments marked on the back of the movement. The classification respecting parts of watches was changed with a view to eliminating evasions of the rates on complete movements, and to encouraging the assembling of imported parts in the United States on a factory basis.

Two outstanding types of watches are manufactured in the United States: (1) The nonjeweled watch, of the same general type of construction as the clock movement; and (2) the jeweled watch, the movement for which is assembled upon a machined pillar plate, and which incorporates jeweled bearings designed to reduce friction and wear and to increase accuracy.

The consumption in the United States of watches not containing jewels amounts to roughly 9,000,000 per year and of jeweled watches to 6,000,000 per year.

Importations of nonjeweled watches are not great. One-jeweled watches are, however, imported in large but unknown numbers.

Such watches compete directly with and are often not mechanically superior to the nonjeweled watches produced in the United States. Beginning with 1927, between one-half and two-thirds of the supply of jeweled watches have been imported, mostly from Switzerland. Statistics for the first six months of 1929 indicate that importations are now at the rate of about 5,500,000 jeweled watches per year.

The demand for watches in the United States has increased markedly since the war on account of the introduction and popularization of wrist watches which are now available in a great variety of sizes and grades and in which the element of style has become an important factor. Competition from imports is particularly severe in low and medium grade wrist watches. Very small women's wrist watches, less than 0.6 inch in width, are now supplied exclusively by foreign producers, their manufacture in the United States having been discontinued several years ago. In men's high-grade watches there is competition in all lines, although in the absence of statistics the volume of such imports can not be compared with domestic production.

Most of the domestic production, which is now at a rate slightly below 2,000,000 watches per year, or approximately 50 per cent of reported capacity, is by five concerns.

Competition in the clock trade is not so severe as in watches. Apparently about 4 per cent of the domestic consumption of clocks are imported. Competition is not, however, so uniformly distributed as it is in watches, there being some major lines, such as alarm clocks, which are typical American productions, encountering very little competition from imports and enjoying substantial export markets. In other types, however, such as automobile clocks, boudoir and traveling clocks, certain novelties including movements with torsion pendulums and movements for hall clocks, competition is substantial.

The clock paragraph (368 of the act of 1922 and the pending bill) has been subject to the same general type of criticism that has been made of the watch paragraph, particularly with respect to the importation of incomplete mechanisms which are dutiable as parts of clocks. Hence the treatment accorded to parts and incomplete mechanisms in paragraph 368 of the bill (H. R. 2667) is similar to that in paragraph 367, and with the same objects in view.

Hardware and tools.—A number of paragraphs in Schedule 3 provide for the smaller items of hardware and tools, such as builders' hardware, metal fittings of all sorts, and mechanics' tools. During the postwar years there has been a substantial growth of the chain-store method of distribution which has resulted in increased sales of these items, particularly the cheaper grades. A considerable portion of the hardware and tools sold by chain stores is of foreign origin and is often imported direct by the distributing agency. In quality, the imported products are on the whole somewhat below the competing products manufactured in the United States. In instances the items are not physically comparable with domestic products, but they supply a portion of the demand which would otherwise be filled by higher-grade and more expensive articles. The volume of the import trade in miscellaneous metal wares can not be measured with any degree of accuracy on account of insufficient statistical classification. Testimony before the congressional committees and information submitted to the commission indicate that some hard-

ware lines meet comparatively little competition, while others encounter imported goods in substantial volume.

Another development of recent years is the tendency of domestic capital to migrate toward the centers of production of western Europe, transplanting American manufacturing methods, and obtaining the advantage of relatively low wages paid in Europe. It is not known to what extent import trade is supplied by these plants. Testimony indicates that in certain instances the foreign-made product of American concerns is used to supply markets outside of the United States for low-priced goods which were formerly supplied by plants in the United States.

SCHEDULE 4. WOOD AND MANUFACTURES OF WOOD

(a) GENERAL STATEMENT

The lumber division is concerned with all articles provided for in Schedule 4 and with the forest products and manufactures of wood on the free list. During the past year the division has been occupied mainly with the preparation of information for the use of the Congress in connection with tariff legislation.

The assembling of basic data for the Summary of Tariff Information, 1929, was begun in July, 1928. On several of the more important forest products fairly complete data were at hand, because during investigations made in the field domestic and foreign costs of production had been obtained, together with pertinent competitive and economic data. In other instances it was necessary to obtain information directly from the industries concerned, because the available statistics are given only in group totals and not for the specific commodities desired. The commission's New York office was called upon to analyze imports made under the basket classifications.

The hearings on Schedule 4 by the Committee on Ways and Means of the House of Representatives, as well as those by the Finance Committee of the Senate, were attended by the lumber division experts. Analysis of the testimony of each witness was made, and later the experts served in an advisory capacity to the subcommittee on Schedule 4 and to the majority party members of the committee during discussions of the schedule. Similar services were rendered to the Committee on Finance during its consideration of the schedule. Assistance likewise was given to the legislative counsel in the matter of phrasing the various paragraphs. A considerable volume of work was done in the preparation of memoranda on various commodities in Schedule 4 in response to requests made for information by Members of both branches of the Congress.

(b) SURVEYS

No new surveys were published during the year upon the commodities in the wood schedule, but the recent information obtained for these products was incorporated in the Summary of Tariff Information for Schedule 4 or was supplied the committees of the Congress concerned with tariff legislation.

(c) INVESTIGATIONS AND REPORTS FOR THE PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922.

No applications with respect to commodities of wood were made to the commission during the period under consideration.

(1) INVESTIGATIONS IN PROGRESS

Bent-wood chairs.—In April, 1925, the commission instituted an investigation of bent-wood chairs for the purposes of section 315 of the tariff act of 1922. A preliminary statement of information issued to the trade in May, 1927, summarized cost and economic data obtained during the field investigation. At a public hearing held on June 6, 7, and 8, 1927, testimony was taken with respect to domestic and foreign costs of production, costs of assembling knocked-down parts, competition, comparability, transportation, and markets.

(2) REPORTS TO THE PRESIDENT

Logs of fir, spruce, cedar, or Western hemlock.—On March 14, 1928, the commission transmitted to the President a report upon its investigation of the costs of production of logs of fir, spruce, cedar, or Western hemlock. The President has issued no proclamation upon the subject. The commission's report has been published as a Senate document for the information of Congress.

The investigation was instituted on July 2, 1923. Following a preliminary hearing on August 6, 1923, the commission, Commissioners Culbertson and Costigan dissenting, reported to the President that it proposed to discontinue the investigation, because it was of the opinion that the duty under paragraph 401 was not subject to the provisions of section 315, in view of the exemption of logs of the species named from duty if imported from any country or subdivision of government which during a period of 12 months immediately preceding importation imposed no restriction upon the exportation of such logs from such country or subdivision of government. Advised by the Attorney General that section 315 appeared applicable in the case, the President on January 16, 1924, suggested that the commission proceed in accordance with the opinion of the Attorney General.

Domestic field work was begun in June, 1924, and foreign field work in August, 1924.

Domestic cost data for the year 1923 were obtained for 43 logging operations in the area tributary to Puget Sound, which is the domestic market in which imported logs compete. The estimated production in this region in 1923 was 3,000,000,000 feet, of which 1,791,000,000 feet, or 60 per cent, were produced by the 43 operations for which cost data were obtained.

Competing foreign logs are produced in the Vancouver forest district of British Columbia, the area tributary to the Strait of Georgia. Production in this district in 1923 amounted to 1,767,069,000 feet. Foreign cost data were obtained for 20 logging operations, which in 1923 produced 685,000,000 feet, or 39 per cent of the total production in that district.

Cost data obtained included operating costs of felling the trees, cutting them into logs, moving or yarding the logs to loading stations, loading them on cars and hauling them to booms at tidewater, and

forming them into rafts for towage to market; general and administrative expense; stumpage or cost of standing timber; royalty or severance tax paid by British Columbia operators; and interest. Data were also obtained pertaining to certain advantages and disadvantages in competition for consideration under the provisions of subdivision (c) of section 315 of the tariff act of 1922. These included towage charges from boom to market, and the timber tax (or export royalty) collected at the time of exportation of logs cut from certain classes of lands and exported from British Columbia.

The stumpage charge, which represents the raw material cost of the logging industry, may be either a depletion charge for timber cut from land owned by the logger, or a payment for timber cut from land owned by others. The value on which the depletion charge was based for owned timber was the actual purchase price, or the value allowed for income tax purposes as of March 1, 1913, in the United States, and June 1, 1914, in Canada.

The important log markets on Puget Sound are Seattle, Tacoma, Everett, Anacortes, and Bellingham. The principal ports of entry of imported logs are Bellingham, Anacortes, and Blaine. Bellingham is the principal market where imported and domestic logs meet in competition, and for the purposes of this inquiry was considered the principal competing market.

The results of the investigation are summarized in the following tables.

TABLE A.—*Logs of fir, spruce, cedar, or Western hemlock: Comparative costs of domestic and foreign logs in boom at tidewater, 1923*

[Per thousand feet]

Item	Domestic	Foreign ¹
Operating expenses (falling and bucking, yarding and loading, railroad haul to tidewater, and booming and rafting):		
Labor.....	\$5. 11	\$4. 60
Supplies.....	. 94	1. 25
Repairs and maintenance.....	1. 03	. 86
Spur track and freight paid common carrier.....	2. 18	1. 06
Miscellaneous operating.....	. 15	. 22
Depreciation.....	. 81	1. 23
Total operating expense.....	10. 22	9. 22
Administrative expenses.....	1. 58	1. 87
Stumpage.....	3. 10	2. 40
Canadian royalty (severance tax).....		. 46
Interest.....	1. 73	1. 02
Total cost in boom at tidewater.....	16. 63	14. 97

¹ All cost items except those for stumpage converted into United States dollars at the rate of \$0.980352 per Canadian dollar.

The report detailing the information obtained in the commission's log investigation was signed by all commissioners. Two separate statements were submitted with respect to certain matters upon which the commissioners were not in agreement. One statement was signed by Chairman Marvin and Commissioners Brossard and Lowell, and the other by Vice Chairman Dennis and Commissioners Costigan and Dixon. These statements dealt particularly with the question of towage and the Canadian timber tax.

In the statement by Commissioners Marvin, Brossard, and Lowell the following information and opinions are given:

The area covered by the commission's investigation is that around Puget Sound, in the State of Washington, and the Strait of Georgia, in British Columbia. The principal market in which imported and domestic logs meet in competition is Bellingham. For the purposes of this investigation Bellingham is considered the principal competing market. The tidewater mill, wherever located, which is in need of logs is the loggers' market, both in the United States and in Canada. On both sides of the line logs not purchased by local sawmills must seek a market at other points. The ratio of the capacity of the tidewater sawmill to actual log production may be regarded as approximately the same in the United States and in Canada. This investigation is not concerned with those logs only which for special reasons may move to a common market in any particular year. Its purpose is to assist the President in ascertaining costs of production of logs in the United States and in the principal competing country, taking into consideration also advantages and disadvantages in competition with respect to such logs.

The average cost of production of logs of fir, spruce, cedar, and western hemlock in the United States, in boom at tidewater, is \$16.63 per 1,000 feet, and the average cost in Canada of like or similar logs in boom at tidewater is \$14.97 per 1,000 feet. Costs of production of logs in boom at tidewater in the United States exceed costs of production of logs in boom at tidewater in Canada by \$1.66 per 1,000 feet.

During the period covered by the commission's investigation 95,040,112 feet of domestic logs were towed to three mills at Bellingham from various points on Puget Sound ranging from three-fourths of a mile to 120 miles. The weighted average distance these logs were towed was 24 miles. The average towing rate was \$0.44. Of these 95,040,112 feet, more than 51,000,000 feet were towed to one mill at Bellingham, which conducts its own logging operations at or near Bellingham. The average towing cost of this company was 28 cents, and the average haul was 14 miles, compared with an average for the other two mills which purchased logs in the open market of approximately 61 cents, and an average towing distance of 36 miles. Of these 95,040,112 feet, 45,419,967 feet, or 48 per cent of the total, were towed a distance of 6 miles or less.

From this analysis it is apparent that an average towing rate calculated upon the data obtained from three mills at Bellingham, purchasing only 95,040,112 feet, a large percentage of which was purchased in the immediate vicinity of Bellingham, fails to reflect the real distance towed and the cost of towing domestic logs to Bellingham in 1923.

In 1923 logs were actually towed to Bellingham from Everett, a distance of 69 miles; from Lakota Beach, a distance of 100 miles; and from points on Hoods Canal, 110 and 120 miles from Bellingham. This clearly shows that in the ordinary course of competition logs are towed long distances in Puget Sound and that movement of domestic logs is not confined to markets adjacent to their booming points.

Under the opinion of the Attorney General with respect to transportation, towing costs are to be considered, in so far as the President finds it practicable, as an advantage or disadvantage in competition.

To limit consideration of advantages or disadvantages in competition to domestic producers of logs to towing costs paid in 1923 for logs purchased by three mills from only a few of the domestic producers would not meet the purposes of section 315 as construed by the Attorney General. To equalize rates of duty "for the protection of American producers" and "to offset any advantages in competition enjoyed by foreign producers," advantages or disadvantages based upon the operations of all domestic producers included within the scope of the commission's investigation should be taken into consideration. The purpose of section 315 as thus expressed is not to fix a rate of duty which will protect a few domestic producers who at a particular season are able to enter the common market and sell their logs there. That purpose requires that if the President finds it practicable the advantages or disadvantages in competition with respect to transportation or towing costs for the domestic industry considered as a whole shall be taken into consideration. The best method available to the commission for calculating the costs of towing logs for the purposes of section 315, therefore, is that which considers the towing costs of all domestic and Canadian logs boomed at tidewater included in the commission's investigation. In the opinion of Commissioners Marvin, Brossard, and Lowell, the average cost of towing domestic and Canadian logs should be a weighted average cost of towing logs from boom at tidewater to Bellingham. To arrive at such an average cost the official or contractual rates for towing such logs to Bellingham have been weighted by the quantity of logs boomed at each point by companies included in the commission's investigation.

Most of the logs produced both in British Columbia and in the United States are boomed at tidewater and subsequently towed to their respective markets, the tidewater mills. Of the 43 domestic operations included in the commission's investigation, 30 boomed logs at tidewater for towage elsewhere. Logs from 13 of these 43 operations were delivered to inland mills and were not boomed at tidewater. These 13 operations, therefore, are not included in the calculation of the weighted average cost of towing logs from boom at tidewater to Bellingham.

Calculated by the method outlined above, the weighted average cost of towing domestic logs from boom at tidewater to Bellingham is \$1.09 per 1,000 feet; the weighted average cost of towing Canadian logs from boom at tidewater to Bellingham is \$1.60 per 1,000 feet.

The weighted average cost of production in the United States of logs of fir, spruce, cedar, or Western hemlock, including costs of transportation to Bellingham calculated by the above method, is \$17.72 per 1,000 feet. The weighted average cost of production in Canada of like or similar logs, including costs of transportation to Bellingham calculated by the above method, is \$16.57 per 1,000 feet. The average cost of production in the United States exceeds the average cost of production in Canada by \$1.15 per 1,000 feet.

The Canadian timber tax.—In the statement by Commissioners Marvin, Brossard, and Lowell the following views are expressed in regard to the Canadian timber tax:

There are two possible heads under which the timber tax imposed by Canada might be considered for the purposes of section 315—as an item in Canadian costs of production under subdivision (a) of

that section; or as an advantage or disadvantage in competition under clause 4 of subdivision (c).

Though a timber tax in name, this tax is in effect a restriction upon exportation or an export tax upon the logs in question, and has been so construed by the United States Customs Court. The tax, which amounts to \$2 per 1,000 feet on grade No. 1, \$1.50 per 1,000 feet on grade No. 2, and \$1 per 1,000 feet on grade No. 3, is levied on all logs cut from certain lands (described in detail on pages 6 and 7 of Part I of the commission's report), but is remitted if the logs are manufactured into lumber in Canada, and is actually collected and paid only if the logs are exported. According to the evidence before the commission, it is Canada's policy to restrict the exportation of logs and promote their manufacture into lumber in Canada, and this timber tax is the effective means by which that purpose is accomplished. In the application of this tax by the Canadian Government, remitting it on logs milled in Canada and collecting it only if the logs are exported, a governmental advantage in competition is bestowed on Canadian lumber manufacturers, enabling them to get this raw material cheaper than their competitors on the American side, because of the export tax interposed between these Canadian logs and the American mills.

This Canadian timber tax on exported logs can not be considered as an item in the cost of production of British Columbia logs, because it is in effect a tax on exportation and not on production as such; it was paid on less than half of the logs imported from British Columbia in 1925 and 1926, and is not paid at all on the much larger quantity of Canadian logs which compete in the form of lumber and shingles.

In appraising the advantages and disadvantages in competition on either side it is impossible to consider the logging industry apart from the lumber industry because the effect of the tax on the one can not be separated from its effect upon the other. By means of this tax a competitive governmental advantage is bestowed on the Canadian lumber industry as an integrated whole, in competition with the similar integrated industry on the American side. The Canadian logging industry as a whole benefits by the governmental advantage in competition conferred on Canadian lumber manufacturers by means of this tax, as regards all logs subject to the tax which are manufactured or used in Canada. On the other hand, Canada's tax on exported logs may be considered a disadvantage to certain loggers on the Canadian side (at least in the sense that any export tax is an expense incidental to selling the taxed article in foreign markets), as regards that portion of their production on which the tax is actually paid. But the extent of their disadvantage is not determinable; none of these loggers export their entire output, and it is impossible to say how far any disadvantage entailed on the smaller portion of the output which pays the tax may be offset by the advantage accruing on the larger portion which benefits by the remission of the tax.

The same principle applies on the American side. The disadvantage to American lumber mills resulting from Canada's differentially applied timber tax must affect unfavorably the market for American logs, but to what extent is not determinable statistically.

Under the provisions of section 315 the rate of duty to be proclaimed by the President is a rate that will equalize differences in ascertained costs of production in the United States and in the principal com-

peting foreign country. If in the administration of this section export taxes were accepted as an element in costs of production either under subdivision (a) of section 315, or as an advantage or disadvantage in competition under clause 4 of subdivision (c), it would place foreign countries in a position to determine the United States import duties by raising or lowering their export taxes. The adoption of such a method would place foreign countries in a position to frustrate the protective policy of the tariff act of 1922, and would result in a transfer of revenue from the United States to foreign countries; the revenue previously collected here in the form of import duties would be collected in foreign countries in the form of export taxes.

In view of the considerations set forth above, Commissioners Marvin, Brossard, and Lowell are of the opinion that the Canadian timber tax (export tax) should not be included in ascertaining differences in costs of production for the purposes of section 315. These commissioners state that this question, however, has never been passed upon, either by the Attorney General or by the courts and that the President may therefore wish to have an expression of opinion from the Attorney General in this matter.

Table B shows the cost comparisons and rates of duty required to equalize differences in costs, according to the findings of Chairman Marvin and Commissioners Brossard and Lowell.

TABLE B.—Logs of fir, spruce, cedar, or Western hemlock: Comparative costs of domestic and foreign logs, 1923. Comparison of total costs including cost of towage to Bellingham of all logs boomed at tidewater and excluding timber tax (or export royalty)

[Per 1,000 feet]

Item	Domestic	Foreign ¹
Cost in boom at tidewater.....	\$16.63	\$14.97
Towage to Bellingham ²	1.09	1.60
Total cost of production, including towage to Bellingham.....	17.72	16.57
Rate of duty necessary to equalize cost of production within the limits of sec. 315 of the tariff act of 1922:		
(a) If towing costs are not included.....	\$1.50	
(b) If towing costs are included.....	1.15	

¹ All cost items, except those for stumpage, converted into United States dollars at the rate of \$0.980352 per Canadian dollar.

² Weighted average calculated by applying to the towing rates from the several booms to Bellingham, the quantity of logs boomed at each of these points by companies included in the commission's investigation.

In the section of the report signed by Vice Chairman Dennis and concurred in by Commissioners Costigan and Dixon, the view is expressed that the Canadian export tax can not be ignored and should be considered as "an advantage or disadvantage in competition."

With respect to towage charges, Vice Chairman Dennis states:

All commissioners agree that Puget Sound is the principal area of competition, with Bellingham, Wash., within 40 miles of the international boundary, the principal market in the United States for logs of Canadian origin. Commissioners also agree that the average cost of towing 44,502,000 feet of British Columbia logs to Bellingham in 1923 was \$1.77 per 1,000 feet. It is also agreed that some 95,000,000 feet of domestic logs were actually towed to Bellingham in 1923 at an average towage cost of \$0.44 per 1,000 feet. The difference between the two figures correctly represents the difference in towage charge as between foreign and domestic logs to the principal competitive market on Puget Sound. But the

elementary mathematical proposition fails to command the assent of certain commissioners. They would substitute for an actual towage expense a paper towage rate on hypothetical logs which do not move.

The undersigned commissioners are unalterably opposed to the substitution of fiction for fact in a report sent to the President of the United States for his assistance. No reflection is cast upon any other commissioner's candor, nor upon the honesty of his judgment. A self-deceived person may in perfect honesty pass on his deception to another person. It remains a deception none the less.

A report to the President which ignores an export tax which is actually paid and substitutes for a domestic towage expense actually incurred a fictitious towage charge that is not incurred on hypothetical log rafts which do not move, is a travesty upon accepted fact, and as such tends to mislead the President rather than assist him in the correct determination of a rate that will equalize costs of production.

To substitute fiction for reality in reports to the President is to lay the ax to the root of the tree, since it means the employment of the flexible tariff to prevent the accomplishment of the very things it was intended to do.

POINTS IN THE TOWAGE CONTROVERSY

"Towage," as accepted by the industry, describes in a single word the process of transporting logs from boom at tidewater to market. Logs find at once their proper objective and their ultimate market at sawmills. The greater the concentration of sawmills, the bigger and broader the market for logs. In British Columbia logging is more of a frontier industry than in the State of Washington. The terrain on both sides of Georgia Strait in British Columbia for a distance of 300 miles is sparsely settled with no important rail heads outside of Vancouver, and no important cities except Vancouver and Victoria. The Canadian loggers work at arm's length from the mills they serve. It frequently happens that their logs must be towed from 70 to 280 miles in order to reach their terminal market.

Quite a different situation prevails on the American side of the line. Industry in the State of Washington has grown apace with great sawmill centers springing up around the littoral of Puget Sound in obedience to the economic law which tends to provide the domestic output of logs with convenient markets. The entire development of the industry has tended to shorten the transport of heavy logs to terminal markets. Puget Sound logs attain their terminal markets on short hauls, with correspondingly light towage charges. The cities of Seattle, Everett, and Tacoma with their great sawmill concentrations absorbed nearly two-thirds of the logs which actually moved in 1923 from booms at tidewater to mills. Four important trunk-line railroads serve various points on Puget Sound.

The most important sawmill concentration on the sound, Tacoma (26 sawmills with an estimated annual capacity of 793,000,000 feet)¹ paid an average towing charge of only \$0.35 per 1,000 feet on approximately 293,000,000 feet of logs towed to that market in 1923.

It is interesting in this connection to note that the water transport costs on all domestic logs actually towed from all Puget Sound points to all Puget Sound destinations in the year 1923 was \$0.50 per 1,000 feet, or only about 7 cents more than the average cost of logs actually towed to Bellingham.

In the face of actual towage expense on actual movement of logs to Bellingham of not more than \$0.50 per 1,000 feet, how do certain commissioners arrive at the surprising figure of \$1.09 per 1,000 feet for domestic towage costs to Bellingham? This figure is arrived at by imaginatively conducting the 1,403,609,465 feet of the 30 domestic operations whose logs reached tidewater to Bellingham. In other words, the towage charge of \$1.09 represents a purely fictitious and hypothetical movement of logs. Certain commissioners seated in their comfortable offices in Washington with a few strokes of the pen are moving nearly a billion and a half feet of logs to Bellingham when under the dictum of actual circumstances these logs do not so move and under no conceivable condition ever would move to the Bellingham market.

If Canadian logs were entirely excluded from the Bellingham market the domestic logger could only hope to benefit in the Bellingham market by the amount displaced by the Canadian imports. Canadian imports in the year 1923 carried to Bellingham amounted to 64,501,000 feet, or 4.6 per cent of the 1,403,609,000 feet of domestic logs put in tidewater by 30 of the operations

¹ Computed on a basis of 275 days' operation.

covered by the commission's investigation. These 64,500,000 feet represented in 1923 the maximum advantage in increased market volume which domestic logs would have secured through an embargo on Canadian imports. But an embargo is quite outside the pale of this discussion. The maximum change in rate under the flexible provision of the tariff act amounts to no more than 50 per cent up or down in the existing tariff level.

But conceding the possibility of enlarging the American market up to the limits of the amount displaced by Canadian imports, what is this figure of 64,500,000 feet alongside the 1,403,609,000 feet of domestic logs actually reaching boom at tidewater in the operations considered by the commission? What forces are in motion, economic or political, that would take a billion and half feet of logs to a relatively poor and feeble market, Bellingham, when they are disposed of to better advantage in great near-by markets such as Seattle, Everett, and Tacoma?

The Puget Sound logger is not a metaphysician. He is a practical business man who in obedience to simple economic law sells his product in the most convenient markets. He obtains no market advantage whatever in towing his logs 69 miles beyond Everett, which in 1923 cut 2,395,000 feet of timber daily, to the relatively poorer market of Bellingham which in 1923 cut only 1,345,000 feet daily.

The practical, unimaginative logger interested in profits rather than in metaphysical abstractions, sells his logs in near-by convenient markets and so avoids unnecessary towing expense.

It is difficult to give a patient hearing to the grotesque doctrine, unsupported either by practical loggers or the Tariff Commission's expert examiners, that domestic costs of production must be saddled with a theoretical transportation charge on logs that are not actually transported to Bellingham. If there were no Canadian competition whatever, the domestic loggers could not and would not offer more than a small fraction of their logs for sale in Bellingham, since Bellingham offers but a sorry and limited market when compared to the enormous saw-mill concentrations at other points which have and will continue to absorb the bulk of the Puget Sound log output.

Apply this doctrine of fictitious transportation to the steel industry. Let us take for purposes of illustration New York City as the principal competing market. The transportation costs of domestic steel plants actually moving their product to New York would naturally be compared with the actual transportation cost on European steel that moves to New York.

In contesting the obvious, however, one may point out that promising steel plants have been established in such remote sections of the country as Utah, Colorado, and Texas. These plants find a ready market for their output in near-by consuming centers such as Salt Lake City, Denver, Galveston, or even Chicago. None of this steel actually moves to New York City, nor would it so move if no foreign steel whatever were imported. The reason is plain. The domestic producer in attempting to sell steel in an eastern market on a haul of 1,000 to 1,500 miles would have no chance as against the domestic Pittsburgh producer who is selling his steel in the same market on a haul of one-third the distance.

Exactly the same reasoning applies to logs. The logger operating in the southern reaches of Puget Sound would be working absolutely against his own interest in attempting to sell logs in the northern part of the Sound near the Canadian border. He would be matching his long-haul charges against the short haul of his northern competitors. He would be overwhelmed by domestic competition.

Transportation charges are necessarily based on movement. No transportation expense without a movement. A comparison of towage costs is indisputably based on actual rather than theoretical movement.

A great gathering of domestic loggers attended the public hearing in Seattle, August 4, 5, 6, and 7, 1925. No witness who appeared in opposition to the application for a reduction in the log duty offered testimony in favor of theoretical towage charges to Bellingham. The doctrine of theoretical towing costs originated with Mr. Stephen V. Carey, the learned attorney for the domestic Loggers' Information Association.

Mr. Carey puts this hypothetical question to one of his witnesses (p. 467, transcript of log hearing, August 6, 1925): "In other words, you do not think it would be fair to exclude your Phoenix operation, for instance, from the Bellingham market by allowing the Canadians to charge off \$1.76 to bring their logs into Bellingham and not allow you \$1.75 to bring your logs from Phoenix to Bellingham?"

The witness replied: "That is the way it appears to me."

This is about the only testimony which the record supplies as to the views of practical logging men on the subject of the theoretical transportation of logs.

"That is the way it appears" to the witness. How does Mr. Carey's question appear to the seeker for the truth in this matter of comparative towage charges? First, logs are not moved from the Phoenix operation at Potlatch to Bellingham; second, if they were so moved they would pay an average towage rate of \$1.26 rather than \$1.75; third, if the domestic logger marketing his product on a short transportation radius is to be allowed the same towage charge which the Canadian is compelled to pay on his longer towage radius, how is this fictitious award to be entered as an item in production costs? If in some future case the domestic transportation item happens to exceed the foreign transportation item, would a demand be heard for bringing them both down to exactly the same level?

It is interesting to note that Mr. Carey, the original proponent of theoretical towage costs, is not convinced of the soundness of his own theory. He resumes discussion of the subject in his reply brief, page 14, proceeding at first to offer the suggestion that "towage charges are not a proper item to be taken into consideration at all." Under a subsequent ruling of the Attorney General the Tariff Commission has no option about the matter. It must take such charges into consideration. Mr. Carey refers to the displacement of American logs at Bellingham by Canadian logs and points out that the domestic towage average is lowered by the amount of logs which might have moved to Bellingham had they not been excluded by the competing Canadian logs.

Accepting this view at its face value, the few million feet of logs which are unable to find their market at Bellingham because of Canadian competition (64,501,000 feet) are but a minor factor in the equation when compared to the 1,403,609,000 feet of domestic logs that actually did move from their booms at tidewater to terminal markets. Because 64,500,000 feet of logs are possibly excluded from the Bellingham market is no reason to ask that all logs included in the domestic operation be given the benefit of theoretical towage to Bellingham, a market to which they do not and would not move.

As a conclusion to the whole matter of towage charges, Mr. Carey may again be quoted (p. 14, reply brief Loggers' Information Association): "We again venture the suggestion that towing charges are not a proper item to be taken into consideration at all, but even though some of the commission should disagree with us on that as an abstract proposition, nevertheless, it is clear that the only way to get these charges on a comparable basis is to compare the cost of towing Canadian logs that actually move to Bellingham with the cost of towing American logs that actually move to Bellingham."

Thus Mr. Carey, and those for whom he speaks, though advocating a higher duty on domestic logs, abandon the fantastic suggestion of certain commissioners as to hypothetical towage and range themselves squarely with the view here maintained that the only comparable basis for towage charges is to compare the costs of towing Canadian logs that actually move to Bellingham with the cost of towing American logs that actually move to Bellingham.

Table C shows cost comparisons and the duty required to equalize differences in costs according to the interpretation of Vice Chairman Dennis, concurred in by Commissioners Costigan and Dixon.

TABLE C.—Logs of fir, spruce, cedar, or Western hemlock: Comparative costs of domestic and foreign logs, 1923. Comparison of total costs, including cost of towage, based on actual movement of logs in 1923 and with and without timber tax (or export royalty)

(Per 1,000 feet)

Item	Domestic, 43 operations	Foreign, 20 operations	
Total cost in boom at tidewater.....	\$16.63	\$14.97	
Average timber tax (export royalty).....		.92	
Average towage paid on actual movement of logs:			
(1) For domestic on Puget Sound and for foreign to Bellingham.....	1.50	1.77	
(2) On both domestic and foreign logs to Bellingham.....	1.44	1.77	
Total cost, including towage paid on actual movement of logs and timber tax (export royalty):			Canadian costs exceed United States costs by:
(1) For domestic on Puget Sound and for foreign to Bellingham.....	17.13	17.66	\$0.53.
(2) On both domestic and foreign logs to Bellingham.....	17.07	17.66	.59.
Maximum reduction indicated in each case.			United States costs exceed Canadian costs by:
Total cost, including towage paid on actual movement of logs but excluding timber tax (export royalty):			\$0.39.
(1) For domestic on Puget Sound and for foreign to Bellingham.....	17.13	16.74	
(2) On both domestic and foreign logs to Bellingham.....	17.07	16.74	.33.
Maximum reduction indicated in each case.			

¹ Towage paid in 1923 by 37 sawmills on Puget Sound on 1,075,565,931 feet.

² Towage paid in 1923 by 6 Canadian loggers to deliver a total of 44,502,000 feet of logs to Bellingham mills.

³ Towage paid in 1923 by 3 sawmills at Bellingham on 95,040,112 feet of domestic logs purchased from loggers.

(d) EFFECT OF CHANGES IN DUTY ON IMPORTS AND PRICES

Paintbrush handles.—A proclamation by the President under the date of October 14, 1926, decreased the rate of duty on paintbrush handles from 33 1/3 per cent ad valorem to 16 2/3 per cent ad valorem. The lower rate of duty became effective November 13, 1926. Comparisons of imports under the old and new rates of duty can not be made because statistics were not compiled on paintbrush handles prior to November, 1926. Imports, by months, under the lower rate of duty are shown in the following table.

Paintbrush handles: Imports for consumption, by months, November 13, 1926, to July, 1929

Month	Value of imports		
	From Canada	From Germany	Total
1926			
November.....	\$69	\$123	\$192
December.....	1,496	255	1,751
1927			
January.....	1,496	96	1,592
February.....	1,361	80	1,441
March.....	1,298	136	1,434
April.....	1,325	689	2,014
May.....	543	281	824
June.....	946	164	1,110
July.....	880	1,430	2,310
August.....	2,424	10	2,434
September.....		910	910
October.....		681	681
November.....	1,048	90	1,138
December.....	1,460	186	1,646

Paintbrush handles: Imports for consumption, by months, November 13, 1926, to July, 1929—Continued

Month	Value of imports		
	From Canada	From Germany	Total
1928			
January.....	\$504	\$243	\$747
February.....	1,609	150	1,759
March.....	1,269	-----	1,269
April.....	693	350	1,043
May.....	2,575	154	2,729
June.....	1,483	1,274	2,757
July.....	2,554	961	¹ 3,542
August.....	2,661	1,185	3,846
September.....	3,645	212	3,857
October.....	3,738	347	² 4,746
November.....	1,701	107	1,808
December.....	1,754	720	2,454
1929			
January.....	1,918	71	1,989
February.....	3,298	392	³ 3,698
March.....	1,330	448	1,778
April.....	2,313	1,822	4,135
May.....	1,464	298	1,762
June.....	2,658	857	⁴ 5,810
July.....	2,100	1,147	⁵ 4,021

¹ Includes imports of \$27 from United Kingdom.

² Includes imports of \$661 from Japan.

³ Includes imports of \$8 from Italy.

⁴ Includes imports of \$2,295 from France.

⁵ Includes imports of \$774 from France.

SCHEDULE 5. SUGAR, MOLASSES, AND MANUFACTURES OF

(a) GENERAL STATEMENT

The sugar division deals with all commodities covered in Schedule 5, except the rare sugars used as chemicals. It also considers chicle, used in the manufacture of chewing gum provided for in Schedule 1, and honey provided for in Schedule 7. The most important products in the schedule are sugar, sirup, edible and inedible molasses, dextrose, and maple sugar and sirup.

It is the aim of this, as of other divisions, to keep all available information as nearly as possible up to date and in form for distribution when needed. Particularly does the division keep itself informed as to production, imports, exports, available supply, value, prices, and duties for the products in the schedule. In production, the division is concerned not only with the output of continental United States and noncontiguous areas, but with that of all foreign countries, especially those from which a part of the domestic supply comes. Imports show the grades of the products such as sugar and molasses and the countries of origin. They also distinguish between full-duty and preferential Cuban imports. Exports indicate the principal purchasing countries as well as the total export trade in sugar and related products.

During the past year a large part of the time of the division was spent in collecting and assembling information for the use of the committees of the Congress and for others interested in the readjustment of the tariff rates of Schedule 5.

(b) SURVEYS AND SPECIAL STUDIES

(1) CANE AND BEET SUGAR

The world production of both cane and beet sugar continues to increase. In cane sugar the increase has been particularly marked in Cuba, Hawaii, Porto Rico, the Virgin Islands, the Phillippines, and

Java. In beet sugar the increase has been large in Europe and in some of the less important producing areas.

The following table shows the world production of cane and beet sugar compared with the Cuban cane and with the total United States production, including Hawaii, Porto Rico, Virgin Islands, and the Philippines, and the ratio of Cuban and United States production to world production in specified years.

World production of cane and beet sugar in specified years, 1914-1929

Year	All countries			Cuba	Ratio of Cuban production to total	United States, Porto Rico, Hawaii, Virgin Islands, and Philippines	Ratio of United States, and island production to total
	Cane	Beet	Total				
	<i>Short tons</i>	<i>Short tons</i>	<i>Short tons</i>	<i>Short tons</i>	<i>Per cent</i>	<i>Short tons</i>	<i>Per cent</i>
1914.....	10,977,720	9,671,135	20,648,855	2,909,460	14.09	2,282,719	11.05
1919.....	13,344,192	4,348,963	17,693,155	4,448,389	25.14	2,273,423	12.85
1923.....	14,735,642	5,826,950	20,562,622	4,035,259	19.62	2,198,009	10.69
1928.....	18,252,939	10,107,246	28,360,185	4,493,123	15.84	3,516,492	12.40
1929.....	¹ 19,702,491	¹ 10,378,022	¹ 30,080,513	¹ 5,775,073	19.20	3,418,977	11.37

¹ Estimated.

During the last 10 years the increase in sugar production in Cuba and in the United States, including noncontiguous territories, has been marked, but in neither country has it kept pace with the increase in the world production.

The following table shows for the last 10 years the acreage and production of sugar in continental United States and in each of the islands from which duty-free shipments are received. It will be noted that there has been little change in the total sugar production in continental United States during these years, but that in Hawaii, Porto Rico, and the Philippines production has increased 50 to 200 per cent, the increase for the group of islands being about 85 per cent.

Acreage of beets and cane and production of sugar in the United States and non-contiguous territory, 1913-14 and 1918-19 to 1928-29

Year	United States (continental)				
	Beet			Louisiana cane	
	Harvested ¹	Sugar produced		Harvested ¹	Sugar produced ²
		Refined ²	Raw equivalent ³		
	<i>Acres</i>	<i>Short tons</i>	<i>Short tons</i>	<i>Acres</i>	<i>Short tons</i>
1913-14.....	580,000	733,934	785,309	248,000	300,537
1918-19.....	593,010	755,879	808,791	231,200	280,898
1919-20.....	692,455	731,312	782,504	179,900	120,999
1920-21.....	871,676	1,085,749	1,161,751	182,843	169,116
1921-22.....	814,988	1,020,533	1,091,970	226,366	324,429
1922-23.....	530,000	689,848	738,137	241,433	295,095
1923-24.....	657,000	881,683	943,401	217,259	162,024
1924-25.....	817,000	1,091,087	1,167,463	163,000	88,482
1925-26.....	653,000	900,972	964,040	190,000	139,381
1926-27.....	687,000	897,396	960,214	128,000	47,165
1927-28.....	732,000	1,081,070	1,156,745	73,000	70,792
1928-29 ⁴	654,000	1,039,643	1,112,418	138,000	132,054

¹ From U. S. Department of Agriculture Yearbooks and Concerning Sugar.

² From Willett & Gray's Weekly Statistical Sugar Trade Journal. (Figures converted from long tons.)

³ Sugar production statistics are on a raw basis, except domestic beet sugar, which is reported as refined. For purposes of comparison and combination refined beet sugar has been converted to a raw equivalent by multiplying the refined tonnage by the conversion factor 1.07.

⁴ Preliminary.

Acree of beets and cane and production of sugar in the United States and non-contiguous territory, 1913-14 and 1918-19 to 1928-29—Continued

	Hawaii, cane		Porto Rico, cane		Philippines, cane		United States and noncontiguous territory, ¹ cane and beet	
	Harvested ¹	Sugar produced ²	Harvested ¹	Sugar produced ²	Cultivated	Sugar produced ²	Harvested or cultivated	Sugar produced ³
	<i>Acres</i>	<i>Short tons</i>	<i>Acres</i>	<i>Short tons</i>	<i>Acres</i>	<i>Short tons</i>	<i>Acres</i>	<i>Short tons</i>
1913-14.....	114, 600	617, 036	209, 378	364, 024	435, 188	260, 692	1, 587, 166	2, 327, 598
1918-19.....	119, 800	601, 710	256, 431	406, 132	507, 818	218, 724	1, 708, 259	2, 316, 255
1919-20.....	119, 700	569, 485	238, 901	485, 884	494, 692	234, 456	1, 725, 648	2, 193, 328
1920-21.....	114, 100	564, 562	240, 151	491, 113	487, 783	286, 544	1, 896, 553	2, 673, 086
1921-22.....	113, 100	562, 457	241, 372	405, 935	596, 364	378, 739	1, 992, 190	2, 763, 530
1922-23.....	124, 000	536, 999	244, 180	379, 070	595, 066	295, 049	1, 734, 679	2, 244, 350
1923-24.....	114, 000	701, 432	239, 676	447, 972	561, 634	417, 012	1, 789, 569	2, 671, 841
1924-25.....	111, 000	775, 940	236, 600	660, 531	561, 386	650, 792	1, 888, 986	3, 343, 208
1925-26.....	122, 000	789, 992	240, 010	606, 463	591, 491	489, 110	1, 796, 501	2, 988, 986
1926-27.....	122, 309	811, 331	242, 745	630, 200	572, 645	654, 347	1, 752, 699	3, 103, 257
1927-28.....	124, 542	904, 042	236, 148	751, 331	586, 254	697, 428	1, 751, 944	3, 580, 338
1928-29 ⁴		929, 600	237, 746	⁵ 595, 840		713, 440		

¹ From U. S. Department of Agriculture Yearbooks and Concerning Sugar.

² From Willett & Gray's Weekly Statistical Sugar Trade Journal. (Figures converted from long tons.)

⁴ Does not include the Virgin Islands, which produced from 2,000 to 14,000 tons of sugar annually during the period covered in this table.

⁵ Preliminary.

⁶ Cane crop severely damaged by storm.

The following table shows the quantity and value of sugar imported into continental United States from Cuba and from countries paying full duty.

Imports of sugar from Cuba and from countries paying full duty¹

	Quantity	Value	Duty	Value per pound	Computed ad valorem rate
1923:	<i>Short tons</i>				<i>Per cent</i>
Cuba.....	3, 401, 520	\$330, 392, 209	\$119, 175, 211	\$0. 049	36. 07
Full duty.....	187, 248	18, 363, 177	8, 300, 170	. 049	45. 20
1924:					
Cuba.....	3, 718, 806	317, 519, 119	130, 250, 321	. 043	41. 02
Full duty.....	109, 820	9, 578, 487	4, 848, 785	. 044	50. 62
1925:					
Cuba.....	3, 901, 732	199, 432, 871	136, 741, 660	. 026	68. 56
Full duty.....	27, 842	1, 803, 304	1, 269, 170	. 032	62. 49
1926:					
Cuba ²	4, 120, 676	191, 431, 294	144, 523, 576	. 023	75. 50
Full duty.....	19, 741	1, 312, 821	904, 779	. 033	68. 92
1927:					
Cuba ²	3, 690, 827	210, 011, 427	129, 584, 264	. 029	61. 70
Full duty.....	10, 029	665, 779	459, 633	. 033	69. 04
1928:					
Cuba.....	³ 3, 299, 092	159, 937, 213	116, 099, 558	. 024	72. 59
Full duty.....	22, 309	1, 320, 441	1, 045, 134	. 030	79. 15

¹ The rate of duty on sugar imported from Cuba is 20 per cent below the full duty rate.

² Production was limited by decree of the President of Cuba.

³ Cuban exports to the United States were limited by presidential decree to not over 3,000,000 long tons. The Cuban limitations on production and exports have been removed and do not affect the 1929 crop.

The consumption of sugar in continental United States has averaged over 6,000,000 tons annually during the past four years, or from 101 to 109 pounds per capita. About one-half of the sugar consumed in continental United States comes from Cuba under preferential

rates, less than 1 per cent paying full duty. The sources of supply and the per capita consumption of sugar in continental United States are shown in the following table.

Sources of supply and per capita consumption of sugar in continental United States, 1913 and for 1919-1928¹

Year	Total consumption (short tons)	Source of supply										Per capita consumption (pounds)
		Continental United States (cane and beet)		Hawaii, Porto Rico, and Virgin Islands (duty-free cane)		Philippine Islands (duty-free cane)		Cuba (preferential)		Other countries (full duty)		
		Short tons ²	Per cent of total	Short tons	Per cent of total	Short tons	Per cent of total	Short tons	Per cent of total	Short tons	Per cent of total	
1913..	4,192,316	954,769	22.77	393,177	22.38	49,974	1.19	2,229,731	53.19	19,665	0.47	85.40
1919..	4,555,792	1,187,627	26.07	907,189	19.91	81,212	1.78	2,315,097	50.82	64,667	1.42	85.43
1920..	4,574,833	612,559	13.39	824,295	18.02	127,734	2.79	2,389,743	52.24	620,502	13.56	86.56
1921..	4,600,207	1,368,667	29.75	964,605	20.97	146,908	3.19	2,090,091	45.44	29,936	.65	84.47
1922..	5,703,889	1,313,732	23.03	870,685	15.26	240,183	4.21	3,237,439	56.76	41,850	.74	103.18
1923..	5,354,366	1,229,336	22.96	797,972	14.90	221,677	4.14	2,966,010	55.40	139,371	2.60	95.63
1924..	5,437,016	927,514	17.06	951,947	17.51	297,241	5.47	3,163,054	58.18	97,260	1.78	95.90
1925..	6,171,267	1,135,384	18.40	1,286,434	20.85	453,461	7.35	3,258,121	52.79	37,867	.61	107.50
1926..	6,351,895	1,058,031	16.66	1,212,806	19.09	350,250	5.51	3,686,252	58.04	44,556	.70	109.30
1927..	5,932,696	918,785	15.49	1,258,544	21.21	486,687	8.20	3,262,446	54.99	6,234	.11	100.95
1928..	6,207,733	1,292,543	20.82	1,428,645	23.01	583,200	8.59	2,920,410	47.05	32,955	.53	104.27

¹ From Willett & Gray's Weekly Statistical Sugar Trade Journal.

² Includes small quantities of domestic maple sugar and sugar made from duty-free molasses.

³ Virgin Islands not included.

⁴ Production of sugar in Cuba was limited by presidential decree to 4,500,000 long tons in 1926-27 and to 4,000,000 long tons in 1927-28.

⁵ Exports of sugar from Cuba to the United States were limited by presidential decree to not over 3,000,000 long tons.

In 1928 the refined sugar consumed in the United States amounted to approximately 6,222,804 short tons, the equivalent of 6,658,400 short tons, raw-sugar basis.

The following table¹ shows the principal uses of sugar in the United States; the approximate quantity consumed in households, in hotels, and restaurants, and in each of the products listed; also the per capita consumption and the percentage of sugar used for each of the purposes mentioned, so far as the data are available.

	Quantity ¹ (short tons)	Per capita (pounds)	Percentage
Household.....	4,136,673	68.87	66.5
Hotels and restaurants.....	157,009	2.62	2.5
Bakery products.....	654,206	10.84	10.5
Beverages.....	340,187	5.70	5.5
Ice cream.....	172,710	2.90	2.8
Condensed milk.....	86,879	1.50	1.4
Candy.....	512,897	8.50	8.2
Canned goods.....	68,037	1.12	1.1
Miscellaneous.....	94,206	1.59	1.5
Total.....	6,222,804	103.64	100.0

¹ Refined basis.

From 1919 to 1928 the price of raw sugar in New York (c. & f.) declined from an average of 6.36 cents per pound to 2.45 cents. This

¹ Basic figures taken from the Sugar Index: B. W. Dyer & Co., New York, Aug. 27, 1929.

decline was not uniform from month to month or from year to year, prices fluctuating at times within wide limits, as shown in the following table.

Monthly price quotations on raw sugar, Habana and New York, 1919-1928 (cents per pound)

IN HABANA ¹

Month	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
January	5.04	10.83	3.71	(²)	3.24	4.47	2.47	2.07	2.97	2.48
February	5.04	10.26	4.27	1.67	4.49	5.12	2.53	2.68	2.86	2.22
March	5.04	10.57	4.41	1.97	5.21	4.83	2.66	2.01	2.73	2.43
April	5.04	15.08	3.83	2.09	5.71	4.23	2.41	2.08	2.69	2.39
May	5.04	19.43	3.44	2.14	5.89	3.54	2.29	2.12	2.77	2.41
June	5.04	18.20	-----	2.63	5.69	3.04	2.33	2.09	2.60	2.32
July	5.04	15.22	2.59	3.21	4.85	3.03	2.20	2.07	2.48	2.24
August	5.04	10.95	2.83	3.19	4.23	3.26	2.28	2.15	2.46	2.14
September	5.04	-----	2.25	3.33	4.64	3.73	2.19	2.31	2.74	2.04
October	5.04	6.70	2.11	3.23	5.58	3.90	1.82	2.43	2.59	1.93
November	5.04	5.15	2.09	3.46	5.10	3.78	1.97	2.56	2.58	1.89
December	10.50	3.49	1.90	3.57	5.17	3.30	1.99	2.98	2.52	1.94
Average	5.50	11.44	3.03	2.77	4.98	3.85	2.26	2.30	2.67	2.20

IN NEW YORK ³ C. & F.

January	5.88	12.00	4.34	2.05	3.52	4.94	2.82	2.40	3.28	2.75
February	5.88	10.34	4.25	2.14	4.38	5.45	2.84	2.45	3.15	2.48
March	5.88	10.81	4.95	2.31	5.50	5.12	2.96	2.56	3.02	2.73
April	5.88	16.60	4.41	2.39	6.03	4.59	2.67	2.33	3.03	2.69
May	5.88	19.25	3.83	2.44	6.23	3.85	2.54	2.42	4.06	2.72
June	5.88	18.62	3.43	2.98	5.66	3.31	2.64	2.37	2.86	2.56
July	5.88	16.50	3.00	3.54	5.16	3.34	2.51	2.38	2.76	2.45
August	5.88	12.31	3.19	3.56	4.28	3.61	2.58	2.46	2.74	2.39
September	5.88	9.65	2.93	3.17	5.19	4.17	2.49	2.66	3.02	2.24
October	5.88	7.25	2.56	3.64	5.81	4.25	2.01	2.80	2.91	2.16
November	5.88	5.75	2.50	3.83	5.50	4.03	2.27	2.93	2.88	2.09
December	11.58	4.38	2.11	3.91	5.53	3.36	2.36	3.33	2.81	2.17
Average	6.36	11.96	3.46	3.00	5.22	4.17	2.56	2.59	3.04	2.45

¹ From Industria Azucarera and Revista Azucarera (H. A. Himely). Figures were averaged from quotations given for various sections of Cuba.

² No sales.

³ Average of weekly quotations in Willett & Gray's Weekly Statistical Sugar Trade Journal.

* Prices for 1919 under Government control.

It will be noted from the above table that the annual average price of raw sugar in New York (c. & f.) for the past four years has been 2.66 cents.

(2) SUGARCANE

In 1913, 4,214,000 tons of sugarcane were grown in Louisiana for the production of sugar. The ravages of disease and of insects caused a decline over a period of years, culminating in the low yield of 864,000 tons in 1926; the next year there was an increase, and in 1928 production advanced to 2,244,000 tons.

Most of the cane used in the production of sugar in continental United States is grown in Louisiana; small quantities are grown also in Texas and in Florida. For making sirup, cane is grown over an area of more than 100,000 acres scattered mostly in small patches throughout eight of the Southern States. The tonnage of cane used in making sirup is not stated, as most of it is milled without weighing.

Since 1870 there have been frequent importations of sugarcane in small quantities into continental United States, but the records do

not disclose the origin or the port of entry, nor do they show in all cases the purpose for which the cane was imported. The smallness of these importations indicates that they were intended for planting and not for the immediate production of sugar.

Since 1913 Porto Rico has received each year considerable quantities of cane from Santo Domingo for the direct production of sugar. From 1906 to 1922 Cuba also supplied Porto Rico with small quantities of cane, but after 1922 there is no record of imports of cane from Cuba.

Prior to 1923 only the values and not the quantity of the imported cane were shown in the records, the rates of duty being assessed on an ad valorem basis. These ad valorem rates ranged from 10 to 20 per cent; under the act of 1909 the rate was 10 per cent and under the act of 1913, was 15 per cent. The act of 1922 levied the specific rate of \$1 per ton on sugarcane in its natural state.

The following table shows the quantity of cane imported into Porto Rico since 1923, its value, duty collected, unit value, and calculated ad valorem rates of duty.

Imports of sugarcane into Porto Rico, 1923-1928

Calendar year	Rate of duty	Quantity	Value	Duty collected	Value per unit of quantity	Computed ad valorem rate
		<i>Tons</i>				<i>Per cent</i>
1923-----	\$1 per ton-----	74, 857	\$247, 058	\$74, 857	\$3. 300	30. 30
1924-----	do-----	109, 430	360, 356	109, 430	3. 293	30. 37
1925-----	do-----	204, 010	668, 779	204, 010	3. 278	30. 50
1926-----	do-----	220, 105	726, 881	220, 105	3. 302	30. 28
1927-----	do-----	185, 434	642, 245	185, 434	3. 463	28. 87
1928-----	do-----	228, 777	800, 755	228, 777	3. 500	28. 57

(3) DEXTROSE AND DEXTROSE SIRUP

Dextrose and dextrose sirup are made in commercial quantities from starch—in the United States usually from cornstarch and in Europe from potato starch.

In making dextrose and dextrose sirup the usual process is to boil the starch with diluted hydrochloric acid, which causes the starch to combine with water, after which it is neutralized and decolorized and then by evaporation, concentrated. If boiling with acid and evaporation are carried far enough, a solid known as dextrose, corn sugar, or grape sugar is produced. When these processes are discontinued at a relatively early stage, dextrose sirup or glucose results.

The combined production of dextrose and dextrose sirup increased from 157,276,442 pounds in 1919 to nearly 1,800,000,000 pounds (about 900,000,000 pounds of each) in 1927. It is estimated that in 1928 the production of dextrose was over 969,000,000 pounds and of dextrose sirup over 1,100,000,000 pounds. Imports of these two products are insignificant, amounting to from 209 to 3,000 pounds annually since 1923. Exports of dextrose ranged from 3,000,000 to 10,000,000 pounds annually from 1923 to 1928 and of dextrose sirup for the same period from 123,000,000 to 172,000,000 pounds.

The rate of duty on imports of both dextrose and dextrose sirup is 1½ cents per pound.

(4) RARE SUGARS AND LACTOSE

Rare sugars and lactose are compounds belonging to a class of carbohydrates which, because of their composition, are classed as sugars, although they do not compete with sucrose, the principal sugar of commerce.

Rare sugars are used chiefly in bacteriological tests and medicinal diagnoses. Certain bacteria, which can not be identified by other means, are often distinguished by their reactions upon the rare sugars.

Lactose, commonly known as sugar of milk, is found in the milk of all mammals. It has the same composition as cane or beet sugar plus one molecule of water. Whey, produced in the manufacture of cheese and casein, is the basic material for lactose. Upon treatment, it yields from 3 to 3½ per cent of lactose. In the United States the manufacture of lactose has been of commercial importance for many years; 2,872,000 pounds were made in 1923 and 4,385,735 pounds in 1928. In barrel lots, it has for several years been selling at about 21 cents per pound.

Under the present tariff act imports of lactose are included under "other saccharides," but an analysis of the invoices at the principal ports of entry shows that more than 600,000 pounds were imported in 1928, 95 per cent of which came from the Netherlands. The rate of duty upon rare sugars and on lactose is 50 per cent ad valorem.

(5) CANDY AND CONFECTIONERY

Owing to the large quantities of candy made in the home and to the fact that the Bureau of the Census omits from its statistics the output of small shops whose production is valued at less than \$5,000, the exact production of candy and confectionery in the United States can not be stated.

In 1921, according to the Bureau of the Census, there were 2,254 establishments manufacturing candy and confectionery (not including those whose production was less than \$5,000 annually). These utilized material worth \$174,071,963 and turned out products valued at \$313,997,573. By 1925 the number of candy factories had decreased to 1,931. In these the cost of materials used had increased to \$205,432,667, and the value of products made to \$379,081,441.

In 1927 there were 1,908 establishments, utilizing \$213,261,813 worth of material and turning out products valued at \$391,927,343.

The following table shows the production of confectionery, by kinds, in the United States for 1925. The total production of 1,581 commercial manufacturing establishments shows a total or approximately 823,000,000 pounds of confectionery valued at \$210,000,000, or an average of \$0.255 per pound. The table also shows an additional output of confectionery (for which the quantity is not given) to the value of about \$164,000,000. If this represented an average value of \$0.255 per pound, it would represent an additional 644,000,000 pounds of confectionery, indicating that the total output of commercial establishments for 1925 amounted to 1,467,000,000 pounds, or approximately 12 pounds per capita for the population of the United States. The four leading States in the order of output were New York, Illinois, Massachusetts, and Pennsylvania, which, combined, represented approximately 56 per cent of the total production.

Confectionery products, by kind, quantity, and value for the United States, 1925

[Data for establishments with products valued at \$5,000 or over]

	Quantity	Value	Value per pound
Products of 1,581 establishments:			
Chocolates—	<i>Pounds</i>		
Total.....	295,704,297	\$102,790,304	\$0.348
Fancy packages.....	124,613,312	63,179,221	.507
Bulk.....	171,090,985	39,611,083	.232
Bars—			
Total.....	248,976,565	54,573,600	.219
Chocolate covered.....	190,488,909	42,985,945	.226
Other.....	58,487,656	11,587,655	.198
Hard candy, total.....	190,350,224	31,702,191	.167
Panwork, total.....	59,498,742	8,972,836	.151
All other confectionery.....		107,231,351	
Salted nuts.....	28,378,259	12,178,011	.429
Miscellaneous products.....		24,521,542	
Total, pound products.....	822,908,085	210,216,942	.255
Total, all products.....		341,969,835	
Products of 350 establishments.....		37,111,606	
Total products, 1,931 establishments.....		379,081,441	
Products, not confectionery, included in above reports of 1,931 establishments.....		17,501,248	
Total confectionery, 1,931 establishments.....		361,580,193	
Confectionery reported as secondary product of other industries.....		12,743,936	
Total confectionery.....		374,324,129	

The following table indicates a total of 1,301,349,000 pounds of basic materials valued at \$103,955,000, or an average of 8 cents per pound of basic materials used by 1,279 of the 1,931 establishments covered by the census of 1925 in the manufacture of confectionery. These establishments produced 80.6 per cent of the total value of products for the industry as a whole. If these 1,279 establishments also used about 80 per cent of the quantity of basic materials, the total amount of basic materials used amounted to about 1,550,000,000 pounds, valued at about \$124,122,000. Sugar accounts for almost exactly one-half of the basic materials used in the production of confectionery.

Quantity and value of basic materials used in production of confectionery in 1,279 of the 1,931 establishments covered by the census of 1925

Basic materials	Quantity	Cost	Cost per pound
	<i>Pounds</i>		
Sugar.....	596,363,000	\$35,004,000	\$0.059
Milk and milk products.....	58,157,000	6,170,000	.106
Chocolate coatings.....	131,030,000	24,802,000	.185
Chocolate liquors.....	13,783,000	2,256,000	.164
Corn sirup.....	346,886,000	12,383,000	.036
Cocoa butter.....	7,808,000	2,097,000	.269
Cocoa beans.....	14,553,000	1,736,000	.119
Cocoa powder.....	2,007,000	165,000	.082
Nuts.....	116,960,000	17,191,000	.147
Fruits.....	13,800,000	2,651,000	.192
Total ¹	1,301,349,000	103,955,000	² .0799

¹ These 1,279 establishments, being 66.2 per cent of all establishments, produced 80.6 per cent of the total value of products for the industry as a whole.

² Weighted average.

The figures in the table above do not include coconut, flavoring sirup, extracts, or other material not specified, nor wax paper, tin, and other foils, or containers.

Imports of candy and confectionery, in 1928 paying full duty (40 per cent ad valorem) amounted to 3,630,861 pounds; from Cuba (32 per cent ad valorem) 2,728 pounds; and duty-free shipments from the Virgin Islands, 300 pounds. The value of the full-duty imports was \$955,018, the value of the imports from Cuba was \$737, and of the free shipments from the Virgin Islands, \$100. The duties collected on candy in 1928 were \$382,007.20 on full-duty imports and \$235.84 on Cuban imports.

Exports of candy and confectionery in 1922 amounted to 10,907,913 pounds and in 1923 to 9,773,778 pounds. Although there has been a gradual increase in the quantity and value of candy and confectionery exported annually since 1923, as shown in the table below, they have not represented one-fourth of 1 per cent of the domestic production, nor have they amounted in value to 1 per cent of the value of the domestic production in any one year.

Domestic exports of candy and confectionery,¹ 1923-1928

Year	Quantity	Value	Year	Quantity	Value
	<i>Pounds</i>			<i>Pounds</i>	
1923.....	9, 773, 778	\$2, 013, 944	1926.....	11, 401, 824	\$1, 958, 790
1924.....	10, 732, 974	2, 053, 552	1927.....	12, 490, 146	2, 131, 068
1925.....	11, 294, 651	1, 860, 615	1928.....	12, 437, 905	2, 147, 087

¹ Not including chocolate confectionery.

The principal foreign purchasers of candies and confectionery other than chocolate produced in the United States in 1927 were United Kingdom, 4,667,843 pounds; Canada, 1,035,420 pounds; Dominican Republic, 782,872 pounds; Colombia, 710,606 pounds; and Cuba, 666,391 pounds. The remainder went to more than 70 other countries.

(6) CHEWING GUM

Chewing gum, although not strictly a confection, is usually considered with confectionery. It is not possible to determine the total quantity manufactured in the United States. The chief ingredients of chewing gum are chicle, sugar, flavoring, and coloring materials. Chicle is usually the base of all chewing gum manufactured; sometimes other gums are used. Sugar comprises from 50 to 70 per cent.

The following table shows the production of chewing gum in the large establishments in the United States.

Production of chewing gum in the United States for specified years

Year	Number of establishments	Wage earners (average number)	Wages	Cost of materials	Value of products	Value added by manufacture
1914 ¹	74	2, 048	\$828, 467	\$7, 322, 299	\$17, 159, 607	\$9, 837, 308
1919 ¹	62	3, 190	2, 679, 803	25, 202, 312	51, 240, 156	26, 037, 833
1921 ¹	50	1, 994	2, 148, 675	19, 908, 185	38, 864, 925	18, 956, 740
1923 ¹	45	2, 052	2, 233, 473	15, 487, 188	40, 870, 914	25, 383, 726
1925 ¹	41	2, 180	2, 537, 509	17, 968, 033	47, 838, 150	29, 870, 117
1927 ²	40	2, 524	2, 727, 236	26, 917, 635	62, 001, 320	34, 833, 816

¹ Data from Biennial Census of Manufactures, 1925.

² Data from Census of Manufactures, 1927. Preliminary.

No imports of chewing gum into the United States are recorded, but 8,709,252 pounds of chicle, valued at \$4,482,932, were imported in 1928; the duties collected were \$870,925.20 and the calculated ad valorem rate of duty was 19.43 per cent. The rate of duty on crude chicle under the act of 1922 is 10 cents per pound.

Exports of chewing gum for the five-year period 1924 to 1928, inclusive, were as follows:

*Exports of chewing gum, 1924-1928*¹

Year	Quantity	Value	Year	Quantity	Value
1924	<i>Pounds</i> 3,243,513	\$1,463,228	1927	<i>Pounds</i> 3,769,311	\$1,586,770
1925	4,387,701	1,907,364	1928	3,027,396	1,352,474
1926	5,025,570	2,194,276			

¹ From Commerce and Navigation of the United States.

The largest foreign purchasers of chewing gum from the United States in 1927 were United Kingdom, Italy, Canada, the Philippine Islands, Japan, and Mexico. These six countries took over 2,000,000 pounds. The remainder went to 74 other countries.

(7) HONEY

It is estimated that the total commercial production of honey in the United States exceeds 250,000,000 pounds annually. This does not take into account the honey produced on farms where only a few colonies of bees are kept or the large quantity not produced on farms and, therefore, not included in the agricultural census reports.

Large quantities of both strained and comb honey are sold for table use. Confectioners and bakers buy it in carload lots, manufacturers of sirup use it for blending, and canners and manufacturers of preserves use it in quantity in their products. Aside from its consumption as a food and in foodstuffs, honey is also used in medicines and in lotions.

Imports of honey are small, totaling less than 1,000,000 pounds annually. In 1928 dutiable imports amounted to only 97,214 pounds, valued at \$24,763. Of the imported honey, 600 pounds, valued at \$47, came from Cuba. The full-duty rate on honey is 3 cents per pound and the Cuban rate 2.4 cents per pound.

Although only a small part of the United States consumption of honey is imported, the domestic export trade in honey is of considerable importance, as shown in the following table:

*Domestic exports of honey, 1927 and 1928*¹

Exported to—	1927		1928	
	Quantity	Value	Quantity	Value
	<i>Pounds</i>		<i>Pounds</i>	
Germany	8,483,332	\$687,532	6,923,058	\$587,895
United Kingdom	2,282,305	232,862	2,263,794	228,591
Netherlands	425,425	54,764	356,892	28,689
France	166,693	15,211	299,459	27,991
Denmark	172,336	15,153	250,875	20,310
Italy	1,400	150	226,960	20,145
China	52,338	6,702	65,257	8,370
Belgium	131,184	7,920	45,329	3,506
Canada	187,509	27,053	42,277	7,413
Other countries	154,685	25,296	277,697	38,031
Total	12,054,607	1,052,643	10,751,598	970,941

¹ Source: Foodstuffs, Round the World, Confectionery Foreign Trade News, Department of Commerce, Apr. 19, 1929.

The wholesale price of extracted honey in 1928 ranged from 7½ to 13 cents per pound in the principal producing areas and in the large-consuming centers of the United States. In the same year white clover honey in the comb, put up in 24-section cases, sold in New York and the North Central States for \$4.25 to \$4.80 per case. Although the yearly average price of comb honey has remained approximately constant for the past six years (1923 to 1928, inclusive), the price of extracted honey has tended to decline slightly. For example, the average price of extracted honey in New York and the North Central States in 1923 was approximately 11 cents per pound, in 1926 about 9½ cents per pound, and in 1928 about 8¼ cents per pound.

(c) INVESTIGATIONS UNDER THE GENERAL POWERS OF THE COMMISSION

(1) MOLASSES AND CANE SIRUP

The Tariff Commission has in progress an investigation, under its general powers, of the costs of production of cane sirup, edible molasses, and inedible molasses generally known in the trade as "blackstrap." Most of the data obtained, however, have been made available to the committees of Congress in drafting the new tariff bill.

The following table shows the quantity of cane sirup and edible molasses produced annually in the United States during the last four years, together with the imports, exports, and available supply.

Domestic production, imports, and exports of edible molasses and cane sirup, 1925-1928

[Gallons]

Year	Domestic production		Imports		Exports		Available supply
	Cane sirup	Edible molasses	Cane sirup and edible molasses		Sirup including maple	Molasses ¹	
			Dutiable	Free			
1925.....	20,400,000	11,560,650	1,900,347	16,320	4,444,695	3,106,622	26,326,000
1926.....	22,172,000	4,508,400	1,922,520	18,021	3,667,750	4,158,746	20,794,445
1927.....	20,839,000	3,463,650	1,676,627	10,590	2,665,008	6,093,143	17,231,716
1928.....	21,783,000	8,705,750	1,682,459	5,422	3,023,860	10,692,843	18,459,928

¹ The grade of molasses exported is not given, hence the figures may include blackstrap.

The quantity of edible molasses made in the Louisiana sugar mills is variable from year to year, the output in any one year depending upon the ripeness of the cane when cut and upon the demand for molasses and, consequently, its price during the grinding season as compared with the price then paid for sugar.

Large quantities of "table sirup" are made from refiners' molasses. According to the Bureau of the Census, the domestic production of refiners' sirup for table use amounted in 1927 to 5,536,808 gallons, valued at \$1,247,054. Later production figures are not available. Under the tariff act of 1922 the rate of duty on edible molasses and cane sirup is twenty-five hundredths of 1 cent per gallon if the total sugars present do not exceed 48 per cent of the weight of the molasses or sirup. For each per cent of total sugars above 48 the rate of:

duty is increased two hundred and seventy-five thousandths of 1 cent per gallon. Imports of edible molasses and cane sirup come mainly from the British West Indies.

(2) BLACKSTRAP MOLASSES

Blackstrap molasses is a by-product of sugar in all cane and beet sugar mills and in all sugar refineries. It is produced and imported into the United States in far greater quantity than either edible molasses or cane sirup.

The following table shows the source and the available supply of blackstrap in the United States from 1925 to 1928, inclusive.

Domestic production, imports, and exports of blackstrap molasses, 1925-1928

[Gallons]

Calendar year	Production in the United States ¹			Shipments to the United States (free) ²			
	Louisiana cane	Beet	Total	Porto Rico	Hawaii	Other free	Total free
1925.....	3,950,100	48,709,250	52,659,350	22,070,418	19,981,793	4,670	42,056,881
1926.....	6,222,350	40,221,950	46,444,300	26,033,726	16,963,594	9,341	43,006,661
1927.....	2,105,600	40,062,300	42,167,900	16,697,062	13,867,665	850	30,565,577
1928 ³	3,160,350	48,262,050	51,422,400	23,700,260	21,485,888	-----	45,186,148

Calendar year	Imports (dutiable) ⁴			Total (production, shipments, and imports)	Domestic exports	Available supply
	Cuba	Other countries	Total			
1925.....	227,115,987	20,892,557	248,008,544	342,724,775	3,106,622	339,618,153
1926.....	222,880,035	31,893,838	254,773,873	344,224,834	4,158,746	340,066,088
1927.....	181,760,673	24,011,466	205,772,139	278,504,616	6,093,143	272,412,473
1928 ³	235,147,142	37,076,743	272,223,885	368,832,433	10,692,843	358,139,590

¹ Based on 50 gallons to 1 long ton of sugar. Basic data from Willett & Gray's Weekly Statistical Sugar Trade Journal for fiscal year ending June 30.

² Figures include a small amount of molasses other than blackstrap.

³ Preliminary.

⁴ Imports for consumption.

In addition to the domestic supply of blackstrap shown in the above table, the refiners of imported raw sugar in the United States produce from 30,000,000 to 36,000,000 gallons of blackstrap annually. According to the Bureau of the Census, refiners' blackstrap in 1927 totaled 31,014,017 gallons, valued at \$2,171,900.

In the United States blackstrap molasses is used chiefly in the manufacture of ethyl alcohol, sweet feeds for livestock, and yeast. These three industries consume roughly 275,000,000 to 325,000,000 gallons annually, divided as follows: Alcohol, 200,000,000 to 225,000,000 gallons; stock feeds, 50,000,000 to 75,000,000 gallons; and yeast, 20,000,000 to 25,000,000 gallons. A large number of other industries use minor quantities.

The full rate of duty on blackstrap molasses is one-sixth of 1 cent per gallon if the blackstrap contains not over 52 per cent total sugars, and increases one-sixth of 1 cent per gallon for each per cent of total sugars above 52 up to 56. The maximum rate of duty is, therefore, five-sixths of 1 cent per gallon. The Cuban rate, being 20 per cent

below the full rate, varies from two-fifteenths to two-thirds of 1 cent per gallon. All molasses and sirups imported into the United States enter at the rates of duty provided for edible molasses unless the imported product (molasses and sirup) is declared not to be imported for human consumption or for the extraction of sugar.

Under the provisions of section 562 of the tariff act of 1922 blackstrap may be so manipulated in warehouse as to enter the United States at the minimum rate of duty. By diluting it to 52 per cent or below of total sugars, the importer may have it entered at one-sixth of 1 cent per gallon instead of at the higher rate for molasses testing above 52 per cent total sugars. While undoubtedly some blackstrap molasses containing not over 52 per cent of total sugars is produced, the practice of diluting is so general that nearly all blackstrap, regardless of its original sugar content, enters the United States at the minimum rate of duty, and as the bulk of the imports come from Cuba, it enters at two-fifteenths of 1 cent per gallon.

(d) INVESTIGATIONS FOR THE PURPOSE OF SECTION 315 OF THE TARIFF ACT OF 1922

MAPLE SUGAR AND MAPLE SIRUP

The investigation of maple sugar and maple sirup instituted by the commission on February 25, 1927, for the purposes of section 315, has been completed and copies of the report sent to the President have been put at the disposal of the congressional committees adjusting tariff rates.

The production of maple sugar and maple sirup in the United States has declined since 1918, as shown by the following table:

Domestic production of maple sugar and maple sirup, selected years, from 1918-1928

Year	Trees tapped	Sugar made	Sirup made	Total production in terms of sugar
1918.....	19,132,000	<i>Pounds</i> 12,944,000	<i>Gallons</i> 4,863,000	<i>Pounds</i> 51,848,000
1923.....	15,291,000	4,685,000	3,605,000	33,525,000
1927.....	14,603,000	3,236,000	3,672,000	32,612,000
1928.....	14,388,000	2,388,000	3,013,000	26,492,000

The principal States producing maple sugar and maple sirup are Vermont, New York, and Ohio. Michigan, New Hampshire, Pennsylvania, Wisconsin, Maine, and Massachusetts produce smaller quantities. About 97 per cent of the domestic production is made in the 9 States mentioned; the remaining 3 per cent in from 12 to 15 other States.

Canada is the only foreign country producing maple sugar and maple sirup on a commercial scale; there production of the two products has slightly increased over the 10-year period, 1918 to 1928. Maple sugar reached its maximum production in Canada, 15,615,000 pounds, in 1920, and its minimum, 7,137,000 pounds, in 1926. Maple sirup showed a fairly steady increase during the 10-year period; from the low yield of 1,764,000 gallons in 1919 it advanced to a maximum

of 2,586,000 gallons in 1927. In 1928 there was a slight recession, the yield being 2,024,000 gallons.

Under the tariff act of 1913 the rate of duty on maple sugar and maple sirup was 3 cents per pound. The act of 1922 increased the rate on both products to 4 cents per pound.

Before the present tariff law was enacted in September, 1922, imports of maple sugar and maple sirup were not shown separately. In 1919 imports of the two products combined totaled 4,277,300 pounds; in 1924 imports of maple sugar amounted to 3,910,774 pounds and of maple sirup 66,550 pounds; in 1928 imports of maple sugar were 6,954,530 pounds, and maple sirup 398,644 pounds, or 36,240 gallons. These imports in 1928 made up 74.44 per cent of the maple sugar and only 1.19 per cent of the maple sirup consumed in the United States during that year.

Exports of maple sugar and maple sirup from the United States are negligible and are, therefore, included with the exports of other sugars and sirups.

SCHEDULE 6. TOBACCO AND MANUFACTURES OF

The summary of tariff information on Schedule 6, prepared for the special use of the committees of Congress, gives information bearing on tariff problems connected with the various types of leaf tobacco and tobacco manufactures. The testimony given at the public hearings before the Committee on Ways and Means and the Committee on Finance was summarized and indexed so as to make it readily available for reference.

To obtain information on wrapper tobacco, the commission made a field study in the Connecticut Valley and in the Georgia-Florida region, the principal wrapper-tobacco growing areas, as well as in the marketing and manufacturing centers of New York City, Red Lion, Pa., and Tampa, Fla. Discussions before the committees by persons interested in obtaining changes in rates in this schedule were practically confined to wrapper tobacco.

Cigar-wrapper tobacco is leaf of specialized type, developed for the purpose of giving an acceptable finish to cigars. Three distinct kinds of leaf tobacco go into the ordinary cigar—the filler leaf, the binder, and the wrapper. The binder is used to hold together the small pieces of tobacco making up the filler. After the cigar is put together and shaped, it is finished off with a wrapper cut from a selected leaf. Although the wrapper is but a small part of the cigar, sometimes less than one-tenth, it is an important part, since it, more than anything else, determines the appearance of the cigar.

The best wrappers are neutral in taste or have a flavor that blends well with the tobacco in the remainder of the cigar. They burn evenly, have a silky smoothness, a uniform color, small inconspicuous veins, and possess sufficient strength and elasticity to prevent easy breaking. A large yield per pound of leaf, good grading, and dependability of supply are important.

The domestic production of wrapper tobacco is limited to a comparatively few areas where the soil and climate are exceptionally favorable to producing the color, flavor, burn, and size desired. Nearly all of the present supply is produced under artificial shade in the Connecticut River Valley of Connecticut and Massachusetts and

in contiguous counties of Florida and Georgia. Before the decade 1900 to 1910, which marked the development of shade-grown tobacco, a considerable quantity of sun-grown (stock harvested tobacco) was used for wrapper, but in recent years only small quantities of sun-grown have been used in local brands of cigars. In Connecticut a few hundred acres have been planted in Havana seed for sun-grown wrapper. There harvesting is done by priming—that is, by picking the leaves from standing stocks as they ripen—a method that increases the percentage of leaf that can be used for wrapper. At the present time, however, domestic cigars are chiefly wrapped with wrapper of a specialized type grown under shade in the Connecticut Valley, in the Georgia-Florida area, or with imported Sumatra or Java leaf.

The industry of growing wrapper tobacco under shade was begun in the Connecticut Valley around the year 1900. By 1910, 1,000 acres were under cultivation there with a production of nearly 1,000,000 pounds; by 1922 the acreage had expanded to 8,000 acres with a production of nearly 6,500,000 pounds, valued at nearly \$5,800,000. In 1925 there was a decrease to 4,580 acres, but again in 1928 an increase to 8,000 acres, and in 1929 a further increase. The following table gives the acreage, yield per acre, production, average farm price per pound, and the farm value of Connecticut Valley shade leaf since 1921.

*Production of wrapper tobacco under shade in the Connecticut Valley, 1922-1928*¹

Year	Acreage	Average yield per acre	Production	Average farm price per pound	Total farm value
		<i>Pounds</i>	<i>Pounds</i>		
1922.....	8,000	800	6,400,000	\$0.90	\$5,760,000
1923.....	8,400	1,030	8,652,000	1.00	8,652,000
1924.....	6,900	1,067	7,360,000	.85	6,256,000
1925.....	4,580	1,052	4,818,000	1.00	4,818,000
1926.....	5,210	1,004	5,231,000	.977	5,111,000
1927.....	7,100	900	6,390,000	1.05	6,709,000
1928.....	8,000	867	6,936,000	1.00	6,936,000

¹ Division of Crop Estimates, United States Department of Agriculture.

In the Georgia-Florida region the acreage planted to shade leaf declined from 4,050 acres in 1922 to 1,900 acres in 1925, but increased to 3,800 acres in 1928. The following table shows the acreage, average yield per acre, the production, average farm price, and total farm value of wrapper tobacco grown under shade in Georgia and Florida.

Production of wrapper tobacco under shade in Georgia and Florida, 1922-1928

Year	Acreage	Average yield per acre	Production	Average farm price per pound	Total farm value
		<i>Pounds</i>	<i>Pounds</i>		
1922.....	4,000	1,095	4,436,000	\$0.50	\$2,218,000
1923.....	4,200	1,157	4,860,000	.58	2,819,000
1924.....	2,650	1,075	2,850,000	.59	1,682,000
1925.....	1,900	1,060	2,014,000	.65	1,309,000
1926.....	2,300	1,112	2,557,000	.65	1,663,000
1927.....	2,800	1,206	3,378,000	.65	2,196,000
1928.....	3,800	1,113	3,230,000	.55	2,326,000

Imports of wrapper tobacco into the United States originate almost entirely in the Dutch East Indies, principally in Sumatra (in recent years small quantities in Java), and come through the Netherlands. Small imports come from Cuba to supply the relatively restricted demand for the clear Havana cigar industry of Tampa, Key West, and New York City.

General imports of leaf tobacco suitable for cigar wrappers, calendar years 1923-1928

Imported from--	1923		1924		1925	
	Quantity	Value	Quantity	Value	Quantity	Value
The Netherlands.....	<i>Pounds</i> 7,484,730	\$17,985,930	<i>Pounds</i> 5,821,412	\$14,941,000	<i>Pounds</i> 6,261,325	\$14,745,058
Canada.....	12,869	18,962	26,330	51,532	8,795	17,825
Cuba.....	58,935	71,258	43,584	103,080	149,288	296,377
Argentina.....	102,632	15,549	-----	-----	-----	-----
Java and Madeira.....	20,433	22,235	1,155	924	751	687
Other Dutch East Indies.....	457	375	-----	-----	3,620	6,628
All other countries.....	28,201	19,666	1,710	3,196	10,984,666	10,605
Total.....	7,708,257	18,133,975	5,894,191	15,099,732	6,434,763	15,077,180

	1926		1927		1928	
	Quantity	Value	Quantity	Value	Quantity	Value
The Netherlands.....	6,322,749	\$14,406,436	5,663,895	\$12,100,482	6,498,037	\$13,196,902
Canada.....	8,989	16,077	14,086	24,582	4,378	6,640
Cuba.....	114,056	303,962	100,654	308,329	117,897	384,430
Argentina.....	102,336	17,374	-----	-----	-----	-----
Java and Madeira.....	-----	-----	-----	-----	10,392	41,753
Other Dutch East Indies.....	2,020	2,103	5,078	4,229	10	10
All other countries.....	1,050	1,395	718	805	492	395
Total.....	6,551,200	14,747,347	5,784,431	12,438,427	6,631,206	13,630,130

Nearly all imported wrapper leaf arrives unstemmed, as it is more convenient to handle in that form and less subject to loss through breakage. Imports through the Netherlands from Sumatra began about 1881, some 20 years after the establishment of the industry in that island. In 1890, 9,900,000 pounds came in, a figure never again surpassed. During the war, when it was difficult to ship from the Netherlands, imports in about the usual amounts came direct from the East Indies. Since 1900 the annual importations have been fairly uniform. From 1924 to 1928 they averaged 6,000,000 pounds, valued at \$12,000,000 to \$15,000,000 annually. The duty collected averaged over \$12,000,000. It is estimated that about two-thirds of the Sumatra leaf is used on 5-cent cigars and that three-fifths of the combined imports of Sumatra and Java are used on cigars of that price.

The annual importation of Sumatra and Java is sufficient to wrap almost 3,000,000,000 cigars, or one-half the average annual domestic production in recent years. There has been almost no growth in the cigar industry since 1910. In that year 6,800,000,000 large cigars were produced; 17 years later less than 6,500,000,000 were produced. In 1926 Congress materially reduced the internal-revenue taxes, especially upon the cheaper cigars. The tax on 5-cent cigars was reduced by the act approved February 26, 1926, from \$4 to \$2 per thousand. In 1927 the production of large cigars increased to 6,519,000,000, most of the gain over the previous year's production

of 6,499,000,000 being in 5-cent cigars. In recent years cigar-making machines have been increasingly used instead of the old hand methods, particularly in making the cheaper grades. It is to class A cigars (5-cent cigars), on which the reduction of the internal-revenue tax was most helpful and the introduction of machinery most effectual, that the manufacturers look for any gain in the industry. Since a large volume of business is necessary to insure the successful production by cigar-making machines, including filling and banding machines, their introduction into the industry has tended toward consolidation and consequently elimination of the small manufacturer.

With respect to the duty on wrapper tobacco, the interests of the cigar manufacturers are not identical for the reason that they use different types of tobacco. The largest manufacturers usually use Sumatra wrapper, especially on their 5-cent cigars. They buy in large lots, and are therefore able to send their own buyers to Amsterdam or to deal with domestic merchants on advantageous terms. Only 15 or 20 per cent of the total exports of Sumatra tobacco from the Netherlands is taken by American buyers, so that a wide selection is available. Care in grading gives a uniformity in type that enables the large manufacturer wrapping with Sumatra leaf to maintain the appearance of his brand of cigars. Other manufacturers have built up the most profitable part of their business by manufacturing higher priced cigars wrapped with Connecticut shade leaf. In certain portions of Pennsylvania a number of manufacturers make cigars by hand, employing local labor; they use quantities of shredded filler and cover their cigars with Florida-Georgia shade-grown tobacco. Manufacturers of clear Havana cigars maintain their product by using wrapper tobacco imported from Cuba; otherwise their product could not properly be called clear Havanas.

Since the major portion of the import of Sumatra wrapper is used on 5-cent cigars, the manufacturers of the cheapest grades of cigars are the ones most affected by any change in the wrapper rate. The field investigation made by the Tariff Commission indicates that the margin of profit on class A cigars is narrow. The average selling price to the jobber is about \$31.50 per thousand. The present internal-revenue tax is \$2 per thousand. On the basis of the conservative estimate of 1.75 pounds of Sumatra wrapper to 1,000 cigars, the wrapper duty of \$2.10 amounts to \$3.68 per 1,000 cigars. Thus the total duty and internal-revenue tax since 1926 has been \$5.68 per thousand or nearly one-fifth the price the manufacturer receives for his 5-cent cigar.

The producers of domestic cigar filler and binder tobaccos are also interested in the duty on wrapper tobacco. Their interest arises from the fact that most of the imported wrapper is used with domestic filler binder tobacco. Binder leaf is grown principally in Wisconsin, in the Connecticut River Valley, and in New York State. Filler leaf is grown principally in Pennsylvania in the regions centering in Lancaster and York Counties, and in Ohio and Indiana in the Miami River Valley. In 1928, 127,200 acres were devoted to filler and binder tobacco, with a production of 153,613,000 pounds, valued at \$26,138,000, as compared with 121,800 acres planted to wrapper tobacco, with a production of 11,166,000 pounds, valued at \$9,262,000.

The Sumatra wrapper leaf imported into the United States is typically light in color, thin, small-veined, silky, neutral in taste, and

of sufficient tensile strength to work well on cigar machines. From $1\frac{3}{4}$ to 2 pounds are required to make 1,000 cigars. Sumatra leaf is carefully graded for size, color, and quality. As a rule the best grades are imported. The tail ends of the lots bought by Americans, the "Schwanz," are taken by Continental buyers. About two-thirds of the Sumatra leaf imported into the United States is used in 5-cent cigars. The very finest grades are used in class B and class C cigars. The grade selling at \$1.20 per pound ex-duty in 1928 is about the quality used in 5-cent cigars. For some of the finer grades importers pay as high as \$3 to \$4 per pound.

Georgia-Florida shade-grown tobacco is used almost entirely for 5-cent cigars. It is perhaps the domestic type most nearly comparable to imported Sumatra. Much of it is light in color, and but little more of it is required to produce 1,000 cigars than of the Sumatra. The better grades of it are neutral in taste. The average farm value of all grades of Georgia-Florida shade leaf in 1928 was 55 cents per pound; the higher grades brought from \$2 to \$3.

Connecticut shade-grown leaf of the better grades is of fine quality, but is likely to have a smaller proportion of light colors than the Georgia-Florida. It has a good flavor, which blends well with Havana and Porto Rican filler. As a rule, only the darker colors of the Connecticut shade wrapper are used on 5-cent cigars. The average farm value for the whole Connecticut shade crop in 1928 as reported by the Department of Agriculture was \$1 per pound; some of the best grades brought as high as \$3 to \$4 per pound. More than 70 per cent of the whole crop was actually used for wrapper, the remainder being used for binder, cigarettes, and chewing tobacco.

Although importations of Havana wrapper from Cuba constitute only a small proportion of the total imports of wrapper tobacco, customs officials have experienced administration difficulties since wrapper tobacco was first specifically provided for in the act of 1883. These difficulties arise from the fact that the imported Havana leaf consists largely of mixed bales of filler and wrapper tobaccos. The act of 1922 provides that filler tobacco when mixed or packed with more than 35 per cent of wrapper tobacco shall be dutiable at the same rate as wrapper. This provision is a substitute for the provision in the act of 1913 (which was the same as that in the act of 1909 and of 1897) that filler tobacco when mixed with more than 15 per cent wrapper tobacco, pay the same duty as wrapper tobacco. Since Havana wrapper is used in the United States only by manufacturers of clear Havana cigars, importations at Tampa and at Key West are the ones creating a problem. Under the act of 1922 the general rate of duty on unstemmed wrapper tobacco is \$2.10 per pound, as compared with 35 cents per pound on unstemmed filler; the rates applicable to imports from Cuba are \$1.68 and 28 cents, respectively. The difference between wrapper and filler rates is so great that it is of considerable importance from an administrative point of view. The question then arises as to what, for tariff purposes, shall be classed as wrapper tobacco. The requirements for a wrapper tobacco are so various that it is difficult to formulate a definition. The act of 1922 does not take as a criterion its actual use, nor does it prescribe any physical test or set any objective standard. Its definition is worded as follows: "The term 'wrapper tobacco' as used in this title means

that quality of leaf tobacco which has the requisite color, texture, and burn, and is of sufficient size for cigar wrappers, and the term, 'filler tobacco' means all other leaf tobacco."

The standard is thus left indefinite. What is the color requisite for a clear Havana cigar wrapper? What is the texture or burn? What is sufficient size? The answers to these questions differ according to the size of cigars referred to, the particular crop of tobacco used, or even the needs of the individual manufacturer concerned. The very small manufacturer may be able to get wrappers out of leaf not so usable by the large factory.

Under the tariff act of 1922 and previous acts it was necessary for the customs officials to determine the exact percentage of wrapper and of filler leaf in mixed bales. The wrapper rate was levied upon the portion found to be of the wrapper grade and the filler rate on the remainder. Under the proposed change it will be necessary to determine only whether or not the percentage of wrapper in a particular mixed bale is more than 5 and not more than 35 per cent. Statistics of imports of unstemmed cigar wrapper and filler tobacco entered at Tampa from 1924 to 1928, inclusive, indicated that the wrapper content of mixed bales during that period averaged about 15 per cent. Later shipments may, of course, show a higher percentage either because of a change in packing in Cuba or because of a change in the grades of leaf purchased for importation into the United States.

SCHEDULE 7. AGRICULTURAL PRODUCTS AND PROVISIONS

(a) GENERAL STATEMENT

Schedule 7 includes not only the immediate products of the farm and closely related manufactures of farm products, but also fish and fish products. The work on fish and fish products is reported separately on pages 195 to 201.

During the period covered by this report the major portion of the time and effort of the agricultural division has been devoted directly or indirectly to obtaining and organizing information for use in connection with tariff legislation. For the two committees of Congress the division prepared a summary of tariff information giving pertinent data on every item appearing in Schedule 7, made digests of the testimony given at the committees' hearings, and in collaboration with the legal division suggested reclassifications of the commodities falling within certain paragraphs of the act of 1922. In addition it made a considerable number of informal reports and prepared statistical tabulations for Members of Congress and for others interested in the agricultural schedule. In the performance of this work a large volume of correspondence was maintained.

Although the work thus centered largely about tariff readjustment the division gave its attention also to the preparation of various surveys, carried on investigations under the general powers of the commission, and completed important cost investigations under section 315. Reports were drafted for the use of the commission in preparing reports to the President, under the provisions of section 315, on peanuts, eggs and egg products, milk and cream, flaxseed, and onions.

(b) WORK CONNECTED WITH TARIFF READJUSTMENT

The Summary of Tariff Information, prepared primarily for the use of members of the Ways and Means Committee, was made available before the public hearings of the committees were held. Later it was published for the use of the Members of the House and Senate and for the public in general. For each item included in the schedule the summary presents in compact and usable form a description of the article, statistics of production and trade, prices, a statement of competitive conditions, and a digest of court decisions respecting the tariff law. The congressional committees had the services of the experts of the division when the argicultural paragraphs of the bill were being drafted and revised and when they were under discussion in the two Houses of Congress. For the use of the committees the division also made digests of the testimony taken at the committee hearings, and went into the field for material for special studies on tapioca, tapioca flour, and cassava. A special study on milling-in-bond of wheat was also made. A brief summary of these studies follows.

Tapioca, tapioca flour, and cassava.—Tapioca, tapioca flour, and cassava are obtained from the root of a shrub native to tropical America and grown extensively in the Dutch East Indies, Central America, and Africa. Production is confined almost entirely to the Dutch East Indies; only negligible quantities are produced in the United States.

The following table shows imports of tapioca, tapioca flour, and cassava in the calendar years 1919 to 1928, inclusive. Tapioca and cassava have been on the free list for more than half a century. Tapioca flour, which has been specifically exempted from duty since 1909, was held under the act of 1890 to be free as tapioca and not dutiable as starch. This decision applied under the acts of 1894 and 1897.

Total annual imports of tapioca, tapioca flour, and cassava, 1919 to 1928, inclusive

Year	Quantity	Total value	Value per pound	Year	Quantity	Total value	Value per pound
	<i>Pounds</i>				<i>Pounds</i>		
1919-----	95,652,647	\$5,014,316	\$0.052	1924-----	83,491,156	\$3,773,530	\$0.045
1920-----	99,286,119	5,634,283	.057	1925-----	118,411,974	4,185,440	.035
1921-----	50,458,450	1,673,678	.033	1926-----	103,938,420	3,175,439	.031
1922-----	89,027,246	2,785,823	.031	1927-----	110,408,412	3,198,602	.029
1923-----	93,882,460	4,252,804	.045	1928 ¹ -----	171,215,709	3,794,608	.022

¹ Includes 29,660,585 pounds of gaplak, the dried sliced root of tapioca, and gaplak meal, the dried ground root, imported mainly on the Pacific coast for cattle feed.

The distribution data given in the following table and obtained from the leading importers at New York City and from important manufacturers of products made from tapioca, tapioca flour, and cassava show the uses served by tapioca.

Sales distribution of tapioca, tapioca flour, and cassava in the United States in 1928⁶

Foods:	Per cent.
Pearl, flakes, siftings, seeds-----	6.6
Flour-----	13.8
Sizing of textiles-----	9.7
Wood glues-----	33.1
Adhesives, gums, and dextrines-----	27.3
Miscellaneous:	
Explosives-----	.3
Shipments to jobbers, use unknown-----	5.4
All other-----	3.8
 Total-----	 100.0

The largest single use of tapioca and tapioca flour is in the manufacture of a glue for the furniture trade making veneers. According to furniture manufacturers, wood glues made from tapioca have properties not possessed by glues made from corn starch, and are the only starch glues that have so far proved satisfactory. More than 30 per cent of the tapioca imported into the United States goes into the manufacture of wood glue.

Domestic manufacturers of adhesives, gums, and dextrines practically all use tapioca, corn, and potato starches as raw materials. Fully 27 per cent of the tapioca consumed in the United States is used for such purposes. There appears to be a definite demand for the gums and dextrines made from each of these starches for certain purposes. For United States postage stamps and for envelopes used in the Federal service, Government contracts call for tapioca gums only. For sealing paper boxes, adhesives made from tapioca are said to be much more satisfactory than those made from other starches, because of the quick stick of the tapioca gum. Manufacturers of adhesives and gums maintain that each starch fills a purpose of its own.

About 20 per cent of the tapioca consumed in the United States is used as food, either for puddings or as a starch filler or base for pastries and pies. Between 1921 and 1928 there was an apparent decline in the percentage consumption of tapioca for food, but a slight increase in the actual quantity consumed.

For puddings, tapioca competes with corn starch and other starches, the individual preference of the purchaser being the determining factor in sales. For bakers' supplies, such as fillers for pastry and pies, tapioca flour or starch competes with starches made from corn and wheat. Here the price of the starch material as well as the individual taste determines which ingredients will be used.

In the cotton textile industry, where large quantities of potato, tapioca, sago, corn, and wheat starches are used for sizing, it has been found that each of these starches will give a somewhat different finish to the cloth. The commission's survey indicates that the type and style of finish desired determine the kind of starch to be used for sizing and that there is no indiscriminate substitution of one starch for another in the textile mills. The same situation appears to exist in the sizing of cotton yarns.

From 1924 to April, 1929, inclusive, tapioca and tapioca flour sold, wholesale, at New York City, for somewhat higher prices than corn

⁶ Quantity covered was 124,611,200 pounds. No gaplak or gaplak meal included.

starch, except in 1928, when certain grades of tapioca and tapioca flour were lower in price.

*Milling-in-bond of wheat.*⁹—A report on milling-in-bond of imported wheat,¹⁰ submitted by the commission to the Committee on Ways and Means and later made available to the Senate Finance Committee, contains information here briefly summarized.

The milling-in-bond of foreign wheat is provided for in section 311 of the tariff act of 1922. All flour produced from foreign wheat in bonded mills must be exported, but wheat mill feeds, obtained as a by-product, may be withdrawn from bonded warehouse for domestic consumption on payment of a duty equal to the duty which would be assessed on such products if imported. The imports of duty-paid wheat and of free wheat for milling-in-bond since September 22, 1922, have been as follows:

Imports of wheat, 1922-1928

[Rate of duty under act of 1922, 30 cents per bushel. Changed by President's proclamation to 42 cents per bushel, effective Apr. 6, 1924]

Calendar year	Average Minneapolis price per bushel No. 1 dark northern	Full duty			Free in bond for milling and for export as flour		
		Quantity	Value	Unit value	Quantity	Value	Unit value
1922 (Sept. 22-Dec. 31).....	\$1. 27	<i>Bushels</i> 3, 165, 026	\$3, 393, 207	\$1. 07	<i>Bushels</i> 3, 998, 888	\$4, 276, 881	\$1. 07
1923.....	1. 26	8, 929, 749	8, 887, 124	1. 00	9, 988, 592	10, 339, 659	1. 04
1924 (Jan. 1-Apr. 5).....	1. 39	6, 215, 465	5, 841, 153	. 94	9, 479, 819	9, 646, 551	1. 02
1924 (Apr. 6-Dec. 31).....	.....	679, 150	736, 178	1. 08			
1925.....	1. 72	1, 308, 399	1, 701, 851	1. 30	10, 439, 714	15, 000, 670	1. 44
1926.....	1. 62	451, 029	640, 140	1. 42	15, 429, 102	21, 488, 633	1. 39
1927.....	1. 40	21, 289	27, 443	1. 29	11, 152, 699	14, 651, 452	1. 31
1928.....	1. 40	224, 133	280, 690	1. 25	19, 766, 974	22, 908, 096	1. 16

Minneapolis and Buffalo are the two most important domestic milling centers for hard spring wheat flour. Milling-in-bond operations are carried on almost entirely in Buffalo. Statistics of production of flour at Minneapolis and Buffalo in recent years are as follows:

Production of flour in Minneapolis and Buffalo, 1920-1927

Year	Minneapolis ^a	Buffalo ^b	Year	Minneapolis ^a	Buffalo ^b
	<i>Barrels</i>	<i>Barrels</i>		<i>Barrels</i>	<i>Barrels</i>
1920.....	17, 117, 610	5, 243, 360	1924.....	12, 191, 411	6, 988, 609
1921.....	14, 524, 845	6, 693, 255	1925.....	10, 989, 152	9, 458, 142
1922.....	14, 785, 650	6, 708, 827	1926.....	12, 509, 057	9, 671, 829
1923.....	15, 730, 865	6, 462, 571	1927.....	11, 184, 865	9, 945, 548

^a Year ended Aug. 31.

^b Calendar year.

⁹ Wheat may also be imported for manufacture and products thereof exported with benefit of drawback of 99 per cent of the duty paid, under the provisions of section 313 of the tariff act of 1922. However, it is provided that such duty shall not be refunded unless not less than 30 per cent of domestic wheat has been mixed with the foreign wheat in the manufacture of flour. According to present information, no domestic flour miller has made use of the drawback provision to an important extent in recent years.

¹⁰ Published in hearings before the Committee on Ways and Means, Vol. XVI, p. 9972.

Exports of flour from the United States include flour made from foreign wheat under the milling-in-bond provisions, as well as flour made from wheat grown in the United States. The following table shows the total exports of flour and the estimated quantity of flour produced in bonded mills from foreign wheat.

Domestic exports of flour, 1923-1928

Year	Total from all wheat	Made in bond from imported wheat ¹	Year	Total from all wheat	Made in bond from imported wheat ¹
	<i>Barrels</i>	<i>Barrels</i>		<i>Barrels</i>	<i>Barrels</i>
1923.....	16,309,856	2,219,687	1926.....	11,850,322	3,428,689
1924.....	15,989,760	2,106,626	1927.....	12,823,084	2,478,378
1925.....	11,118,808	2,319,936	1928.....	11,848,042	4,392,661

¹ Calculated on basis of wheat entered in bond for milling and export, 4½ bushels of wheat equals 1 barrel of flour.

Most of the flour milled in bond is exported through the New York City customs district. Under the tariff act of 1922 exports through New York of all domestic wheat flour have averaged about 5,000,000 barrels annually. This average has been maintained despite a decline in exports of flour from 16,300,000 barrels in 1923 to 11,848,000 barrels in 1928, and is largely due to heavy exports of wheat flour made in bond from imported wheat.

Under reciprocity provisions with Cuba, flour imported from the United States, whether made in the United States from domestic or imported wheat, is granted a preferential rate at 30 per cent less than is accorded to flour from Canada. At the present time (1929) the Cuban duty on flour imported from other countries, including Canada, is \$1.16 per barrel of 196 pounds (\$1.30 per 100 kilos) and from the United States \$0.81 per barrel of 196 pounds (\$0.91 per 100 kilos). Exports of flour to Cuba from the United States through the chief flour-exporting ports and from Canada to Cuba have been as follows:

Exports of wheat flour from the United States to Cuba, by customs districts, 1923-1928

[Calendar year]

	1923		1924		1925	
	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent
Total domestic exports of wheat flour to Cuba....	<i>Barrels</i> 1 089, 556	100.0	<i>Barrels</i> 1, 187, 185	100.0	<i>Barrels</i> 1, 197, 903	100.0
Exports from—						
New York.....	360, 726	33.1	381, 043	32.1	416, 782	34.8
New Orleans, Galveston, and Mobile.....	696, 320	63.9	752, 247	63.4	751, 296	62.7
All other ports.....	32, 510	3.0	53, 895	4.5	29, 825	2.5
	1926		1927		1928	
Total domestic exports of wheat flour to Cuba....	1, 146, 058	100.0	1, 239, 226	100.0	1, 139, 525	100.0
Exports from—						
New York ¹	530, 019	46.2	724, 817	58.5	714, 062	62.7
New Orleans, Galveston, and Mobile.....	602, 950	52.7	485, 867	39.2	370, 499	32.5
All other ports.....	13, 089	1.1	28, 542	2.3	34, 964	4.8

¹ Includes small quantities from Baltimore and Philadelphia.

*Exports of wheat flour from Canada to Cuba, 1924 to 1929.*¹¹

	Barrels		Barrels
1923-24	252, 647	1926-27	107, 176
1924-25	145, 680	1927-28	18, 804
1925-26	147, 998	1928-29	36, 428

In milling-in-bond operations some domestic wheat or flour is mixed with the foreign; probably the softer winter varieties of domestic wheat are used to blend with the hard spring wheat from Canada.

The following table shows the quantity of duty-free foreign wheat, the quantity of domestic wheat, and the wheat equivalent of domestic flour used in the bonded mills at Buffalo in manufacturing flour for export.

Wheat and flour used in bonded flour mills in manufacturing flour for export, district No. 9, Buffalo, N. Y., 1925-1927

Calendar year	Foreign wheat	American wheat			Per cent of American wheat used in bonded flour mills
		Used as wheat	Used in form of flour	Total	
	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	
1925	10, 255, 003	3, 473, 947	898, 470	4, 372, 417	29. 89
1926	13, 812, 351	1, 613, 791	676, 750	2, 290, 541	14. 22
1927	11, 738, 934	4, 810, 985	367, 380	5, 178, 365	30. 61

(c) AGRICULTURAL SURVEYS

No agricultural surveys were published during the year, but a number were written in preliminary form. The information contained in them has been made available to the committees of the Congress in connection with tariff legislation.

(d) AGRICULTURAL INVESTIGATIONS UNDER THE GENERAL POWERS OF THE COMMISSION

Cattle and beef.—On May 8, 1928, the commission instituted, under its general powers, an investigation of cattle and beef, including canned beef and by-products of beef, such as hides, tallow, and oleo oil. Field work was begun on July 31 to obtain ranch costs of cattle production in the range States of the United States, the costs of fattening cattle in the Corn Belt, and ranch costs in the four western Provinces of Canada.

For domestic costs of raising and fattening cattle the commission used a series of studies made in recent years by a number of State agricultural colleges and experiment stations, most of them in cooperation with the United States Department of Agriculture. In adapting the figures obtained to the purposes for which they are to be used and in bringing them up to date, the commission had the assistance of the colleges and of the department. Adjustments were made to allow for changes in (1) numbers, weights, and values in the cattle inven-

¹¹ Fiscal year ended Mar. 31.

tories, sales, and purchases, (2) investment in other livestock, (3) sales of other livestock and livestock products, (4) purchases, sales, and inventories of crops, feeds, and supplies, (5) miscellaneous receipts, (6) cost of hired labor and value of unpaid labor, including board, (7) cost of leases, rentals, grazing fees, and taxes, (8) miscellaneous ranch expenses, (9) charges for depreciation and repairs, and (10) number of calves raised.

The ranch costs are for one or more areas in each of the Dakotas, Montana, Wyoming, Utah, California, New Mexico, Texas, Arizona, Nebraska, and Colorado. The costs of fattening cattle are for representative areas in Indiana, Iowa, Illinois, Nebraska, Missouri, and Kansas. In addition to the ranch costs, marketing expenses from range points to the central markets were obtained.

Cost records were taken for 40 representative ranches in the Provinces of Saskatchewan, Alberta, and British Columbia. These records cover operations on the short-grass ranches of eastern Alberta and western Saskatchewan, mainly leased lands; the foothill ranches of western Alberta, where wheat production has greatly expanded in recent years; and the bunch-grass ranches in the mountain region, where, grain production being impracticable, extensive use is made of national forest grazing. Marketing expenses from range points in Canada to the United States markets were also obtained.

In addition to the ranch cost studies, an investigation was made of the costs of packing and marketing beef and its by-products in the United States. In the New York district special attention was given to the processing and marketing of kosher beef. Through the cooperation of domestic packing houses having plants in Argentina and Uruguay, an effort is being made to procure similar data for the meat-packing industries in those countries. Data on the export trade in surplus by-products of beef packing have also been obtained.

The domestic slaughter of cattle and calves, production of fresh beef and veal, imports (for consumption) of live cattle and of fresh beef and veal, are shown in the following tabulation. Domestic exports of fresh beef and veal have averaged about 2,000,000 pounds per annum during the past three years, or only 0.02 per cent of production. Being so small, they are not included in this tabulation. Domestic exports of live cattle have averaged 14,183 head per annum during the past three years; i. e., about 0.06 per cent of domestic slaughter of cattle and calves. Being so small, and chiefly a border trade with Canada, Mexico, and Cuba, these exports also are excluded from tabulation.

Year	Domestic slaughter			Domestic production			Imports	
	Cattle	Calves	Cattle and calves	Beef	Veal	Beef and veal	Cattle ¹	Beef and veal
	In thousands			In million of pounds			In thousands	In million pounds
1923.....	13,883	8,824	22,707	6,873	862	7,735	137	19
1924.....	14,400	9,466	23,866	7,065	925	7,990	142	17
1925.....	14,706	10,099	24,805	7,146	1,001	7,147	173	16
1926.....	14,971	9,542	24,513	7,458	960	8,418	212	20
1927.....	14,000	9,030	23,030	6,826	867	7,693	427	42
1928.....	12,452	8,667	21,119	6,082	814	6,896	516	49

¹ Approximately 4 per cent weighed 1,050 pounds per head or more, dutiable at 2 cents per pound. The rest weighed less than 1,050 pounds per head and were dutiable at 1.5 cents per pound.

The increase in imports of cattle during 1927 and 1928 resulted from a sharp advance in domestic prices after 1926, by which time a post-war surplus of domestic production had been eliminated. Virtually all cattle imported for consumption came from Canada and Mexico. Canada supplied about 72 per cent of the total during the three years ended December 31, 1927, as compared with 54 per cent during 1928, or an average of about 65 per cent of the total imported during the past four years. Canada is by far the chief source of imports of fresh beef and veal, but New Zealand has shipped increasing amounts during the past two years.

In order to supplement the study of beef cattle production costs, an analysis was made of the spread in prices between the New York and London markets for comparable grades of dressed beef. Medium western steer sides at New York compare with Argentine chilled sides (fore and hind quarters) in London. The Argentine beef can be landed in New York at virtually the same cost per pound as in London. The market differential was undoubtedly affected by the existing embargo,¹² but it does indicate the competitive situation as between domestic and Argentine beef. During the calendar years 1927 and 1928 the Argentine beef averaged 11.65 cents per pound in London as compared with 17.53 cents per pound for the domestic beef in New York, resulting in a market differential of 5.88 cents per pound. The following tabulation shows average annual prices for native beef steers and stockers and feeders at Chicago, chiller export steers in Buenos Aires, medium western steer beef (sides) at New York, and Argentine chilled sides (fores and hinds) in London, for the years 1923 to 1928, inclusive.

Prices per 100 pounds

Year	Chicago		Buenos Aires chiller steers	New York medium western steer beef sides	London, Argentine chilled beef sides	Market differential between New York and London
	Native beef steers	Stockers and feeders				
1923.....	\$9.55	\$6.55	\$3.60	\$13.86	\$9.90	\$3.96
1924.....	9.60	6.35	4.38	13.85	10.00	3.85
1925.....	10.55	6.80	6.16	14.12	11.50	2.62
1926.....	9.70	7.40	5.16	13.71	10.60	3.11
1927.....	11.70	8.75	5.52	15.90	11.40	4.50
1928.....	14.05	11.05	6.29	19.16	11.90	7.26

Hay.—The commission instituted an investigation of the trade in hay June 15, 1928. The information obtained was incorporated in a survey and made available to the committees of the Congress concerned with tariff legislation.

The marketing problem in hay is one of control of surplus or prevention of deficiency in the hay regions of the northeastern States. Most of the imported hay crosses the section of the Canadian border that extends from Buffalo to Maine, and competes with hay produced in New York, Pennsylvania, New Jersey, and New England. New York and Pennsylvania are the most important surplus States of this region, usually shipping into New England, New Jersey, and, to a less extent, to the States farther south.

The cash market for hay is created principally by owners of horses in the urban centers and by dairy farmers, especially by those near the large cities where land is too valuable or not adapted for extensive

¹² The embargo was laid for sanitary reasons and became effective Jan. 1, 1927.

production of hay. In recent years the rapid decline in the number of horses, particularly in cities, has caused a sharp decrease in the demand for market hay. Notwithstanding this decrease in demand, imports have been maintained in considerable volume.

(e) INVESTIGATIONS FOR THE PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922

(1) NEW INVESTIGATIONS

Since the beginning of the fiscal year no applications for investigation for the purposes of section 315 have been received. Work on the one investigation started—that concerning matzos (unleavened bread)—instituted on July 27, 1928, was suspended after the consideration of the pending tariff legislation began.

INVESTIGATIONS IN PROGRESS

Fresh tomatoes.—On June 10, 1927, the commission instituted an investigation of fresh tomatoes. An application for an investigation for the purposes of section 315 had been filed with the commission on April 15, 1927, by the Florida East Coast Growers' Association. It was indorsed by the American Farm Bureau Federation and by 22 other organizations. On July 12, 1927, the commission began field work at Miami, Fla., ending in Mexico three months later. The areas covered were the tomato-growing sections of Florida, Mississippi, Texas, and the west coast of Mexico. The cost data gathered were limited to the early crop.

Fresh tomatoes for table use are grown in all parts of the United States and are harvested the year round. The early crop, produced principally in south Florida and south Texas, is harvested between December 1 and June 1. The bulk of the intermediate crop is harvested during June and July and comes mainly from north Florida, Mississippi, east Texas, Arkansas, Tennessee, Ohio, and Illinois. The largest acreages of the late crop are in California, New Jersey, Maryland, Indiana, Missouri, and New York. Tomatoes grown in these States are largely for canning.

It is the early crop that presents a tariff problem so far as the fresh product is concerned. Imports, which come mainly from the west coast of Mexico, Cuba, and the Bahamas, are marketed in the same season as the domestic early crop. The volume of imports from Mexico and the correspondence of the marketing seasons are shown in the tables on page 155.

When the figures obtained in the field had been analyzed and tabulated, it became apparent that additional data were needed as to the quantity of marketable tomatoes left in the field in certain areas, the quantity of culls sorted out at the time of packing, the acreage under cultivation, and the effect of planting disease-resistant varieties. Representatives of the commission again went into the field to obtain this information for Florida, Mississippi, Texas, and Mexico.

A preliminary statement for use at the public hearing summarizing the information obtained in the United States and Mexico was issued to interested parties. The hearing, held June 25, 26, and 27, 1928, was attended by representatives of growers and shippers of early domestic tomatoes, by representatives of growers and shippers of Mexi-

can, Cuban, and Bahama tomatoes, and by Senators and Representatives from Florida.

The table below shows production, imports, exports, and consumption of tomatoes in recent years.

Early fresh tomatoes: Domestic shipments, imports, exports, and apparent domestic consumption, during import seasons, 1922-23 to 1928-29

[December to May, inclusive]

Season	Domestic shipments	Imports ¹			Exports	Apparent domestic consumption	Per cent of domestic consumption imported
		From Cuba and Bahamas	From Mexico	Total			
	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	
1922-23.....	9,329	257	1,798	2,055	367	11,017	19
1923-24.....	8,372	200	1,844	2,044	337	10,079	20
1924-25.....	8,035	331	2,757	3,088	256	10,867	28
1925-26.....	4,606	824	2,999	3,823	233	8,196	47
1926-27.....	12,593	936	4,796	5,732	433	17,892	32
1927-28.....	8,902	1,270	4,087	5,357	337	13,922	38
1928-29 ²	10,279	1,594	4,587	6,181	³ 210	16,250	38
Average.....	8,874	773	3,267	4,040	310	12,603	32

¹ No imports from June to November.

² Subject to revision.

³ Through March, 1929.

NOTE.—Apparent domestic consumption equals domestic shipments plus imports minus exports.

The table below compares for the years 1925-26 to 1928-29 shipments of domestic and imported tomatoes during the importing season.

Early fresh tomatoes: Comparison of monthly carload shipments, domestic and imported, during import season, 1925-26 to 1928-29

	December	January	February	March	April	May	Total
1925-26:							
Domestic.....	110	14	54	297	1,144	2,987	4,606
Imports—total.....	431	658	716	970	724	324	3,823
Bahamas.....	67	111	72	19	5	—	274
Cuba.....	213	100	62	106	65	4	550
Mexico.....	151	447	582	845	654	320	2,999
1926-27:							
Domestic ¹	136	78	430	2,162	3,630	6,157	12,593
Imports—total.....	310	707	1,330	1,613	1,482	290	5,732
Bahamas.....	17	166	111	17	2	—	313
Cuba.....	9	89	156	290	74	5	623
Mexico.....	284	452	1,063	1,306	1,406	285	4,796
1927-28:							
Domestic.....	352	492	300	532	2,109	5,117	8,902
Imports—total.....	636	871	636	1,375	1,526	² 313	5,357
Bahamas.....	176	136	50	1	—	—	363
Cuba.....	193	292	247	154	19	—	905
Mexico.....	267	443	339	1,220	1,507	311	4,087
1928-29: ³							
Domestic.....	458	586	1,234	1,588	2,047	4,366	10,279
Imports—total.....	1,011	1,174	1,384	1,067	804	741	6,181
Bahamas.....	139	205	36	—	—	—	380
Cuba.....	385	413	256	137	23	—	1,214
Mexico.....	487	556	1,092	930	781	741	4,587

¹ Includes 13 cars from Porto Rico.

² Includes 2 cars from Bermuda.

³ Subject to revision.

Sweet peppers.—On April 10, 1928, the commission instituted an investigation of the cost of producing sweet peppers. As a preliminary study of the industry indicated that all domestic peppers shipped during the months of importations originate in Florida, the domestic

costs were obtained only for growing peppers in that State and for marketing them in the several consuming centers.

Foreign costs were obtained in Cuba and Mexico, the two sources of imports. Cuba was once the more important, but in recent years shipments from there have tended to decline and those from Mexico to increase.

A preliminary summary of the investigation has been completed, but no public hearing has been held, because of pending tariff legislation. The information obtained in the investigation was made available to the committees of Congress.

The following table shows the domestic production, imports, and consumption of peppers during importing seasons 1924-25 to 1928-29.

Fresh sweet peppers: Domestic shipments, imports, and apparent domestic consumption during import season, 1924-25 to 1928-29

[December to May, inclusive]

Season	Domestic shipments (¹)	Imports ²			Apparent domestic consumption	Per cent of domestic consumption imported
		Cuba	Mexico	Total		
	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	<i>Carloads</i>	
1924-25.....	710	³ 357	159	516	1, 226	42
1925-26.....	368	739	192	931	1, 299	72
1926-27.....	1, 118	573	422	995	2, 113	47
1927-28.....	1, 516	308	434	742	2, 258	33
1928-29 ⁴	1, 673	276	281	557	2, 230	25
5-year average.....	1, 077	451	298	748	1, 825	41

¹ Confined to Florida exclusively during import season.

² No imports from June to November.

³ Includes 18 cars from Bermuda in May, 1925.

⁴ Subject to revision.

NOTE.—Apparent domestic consumption is equal to production plus imports minus exports. Exports are not recorded; they are known to be unimportant.

The table below compares for the years 1925-26 to 1928-29 the shipments of domestic and imported peppers during the importing season.



Fresh sweet peppers: Comparison of monthly carload shipments, domestic and imported, during import season, 1925-26 to 1928-29

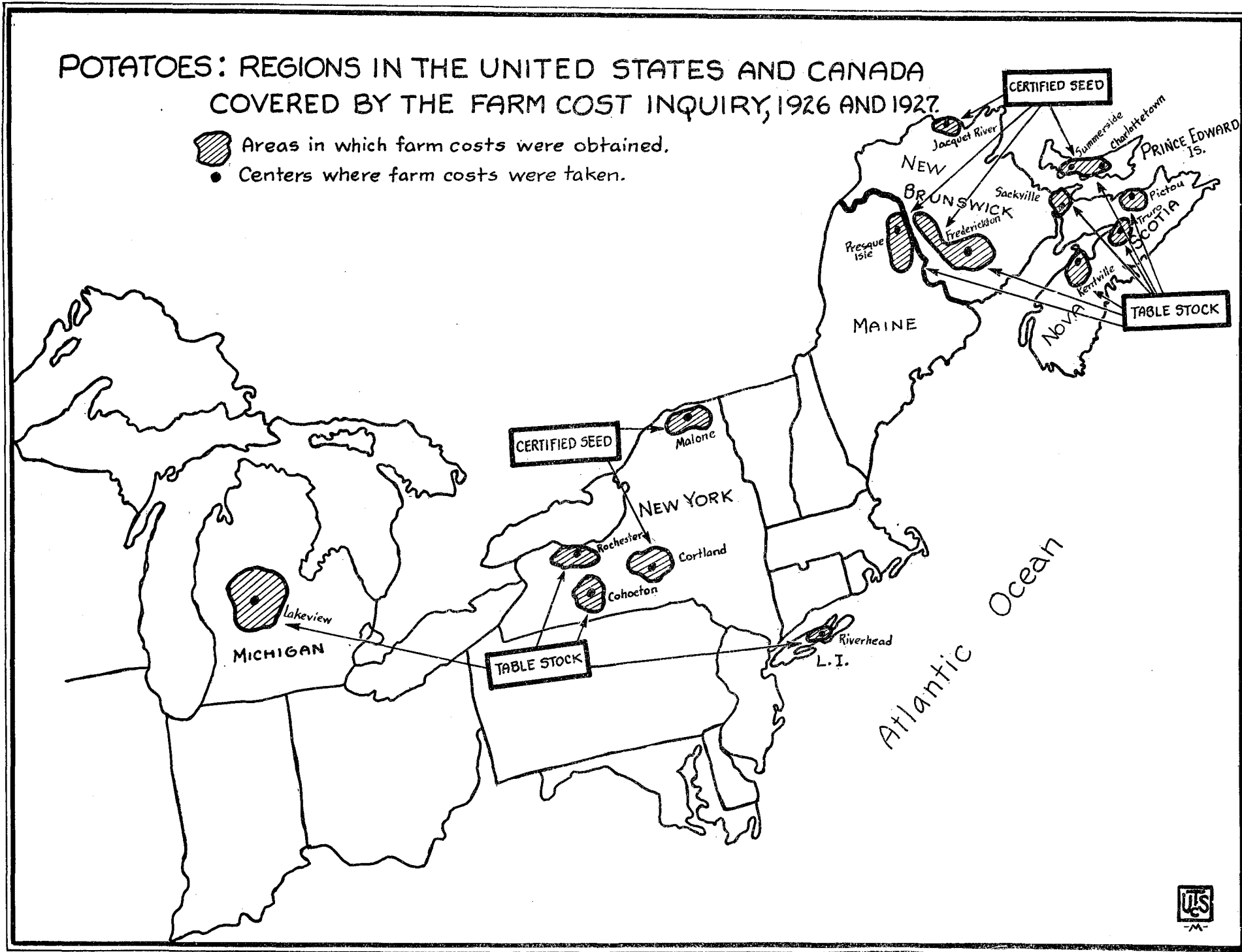
	December	January	February	March	April	May	Total
1925-26:							
Domestic.....	133	53	4	17	47	114	368
Imports—total.....	45	152	172	298	213	51	931
Cuba.....	19	107	143	271	156	43	739
Mexico.....	26	45	29	27	57	8	192
1926-27:							
Domestic ¹	147	53	35	231	332	320	1, 118
Imports—total.....	43	162	354	278	121	37	995
Cuba.....	26	85	178	201	67	16	573
Mexico.....	17	77	176	77	54	21	422
1927-28:							
Domestic.....	229	126	141	249	427	344	1, 516
Imports—total.....	12	163	298	149	73	47	742
Cuba.....	6	88	108	71	30	5	308
Mexico.....	6	75	190	78	43	42	434
1928-29:							
Domestic ²	30	80	228	410	399	526	1, 673
Imports—total.....	50	170	184	112	20	21	557
Cuba.....	19	74	104	64	14	1	276
Mexico.....	31	96	80	48	6	20	281

¹ Includes 19 cars from Porto Rico.

² Subject to revision.

POTATOES: REGIONS IN THE UNITED STATES AND CANADA
COVERED BY THE FARM COST INQUIRY, 1926 AND 1927.

-  Areas in which farm costs were obtained.
-  Centers where farm costs were taken.



Potatoes.—An investigation for the purposes of section 315 of the act of 1922 of the cost of producing potatoes was instituted April 20, 1928, following the adoption of a resolution by the United States Senate on April 17, 1928 (Resolution No. 200), requesting the commission to determine the costs of production of potatoes in the United States and in the chief competing countries. Prior to this date several applications for an investigation had been filed with the commission.

The plans of investigation called for data on the costs of growing, storing, and handling potatoes in the United States and in Canada, on prices and other factors affecting competition, and for a separation of the figures to be obtained for potatoes intended for direct consumption and those grown principally for seed under State or Dominion supervision.

In a field study begun on July 5, 1928, cost data were obtained from 278 potato growers and 16 potato dealers in the United States, and from 220 potato growers and 17 dealers in Canada. United States costs were obtained in the principal potato growing areas of Maine, New York, and Michigan; Canadian costs, in the principal potato growing areas in the Provinces of Prince Edward Island, New Brunswick, and Nova Scotia. For this work, a force of six men was employed about six months. The scope of the investigation is illustrated by the map opposite this page.

Data obtained in the investigation were tabulated and summarized and made available to the committees of Congress.

The trend of domestic production has been gradually upward, although individual crops have varied widely. The 4-year average production (1925 to 1928) was 387,000,000 bushels, about 90 per cent of which were late potatoes. The leading potato-producing States are Maine, Minnesota, New York, Michigan, Wisconsin, and Pennsylvania. Many States have inspection services which officially certify for seed purposes potatoes that are true to type and that have been produced under conditions that make them practically free from disease. The leading States producing certified seed potatoes are Maine, Minnesota, Idaho, and New York. The total production of certified seed potatoes advanced from 1,411,000 bushels in 1921 to 10,366,000 bushels in 1928.

Imports of potatoes increased from 730,000 bushels in 1923 to 5,000,000 bushels in 1927. From 1926 to 1928, 94 per cent of the imports were late potatoes from Canada and 4 per cent were early potatoes from Bermuda, Cuba, and other West Indian islands. An important proportion (probably 30 to 40 per cent in 1927 and 1928) of the potatoes from Canada were certified seed. The bulk of imported certified seed potatoes are bought by the potato growers along the Atlantic Seaboard as far south as Florida.

Exports of potatoes decreased from 3,600,000 bushels in 1919 to 2,700,000 bushels in 1928. Twenty-six per cent of the exports in 1928 were early potatoes shipped to Canada, and the remainder late potatoes, going principally to Cuba and Mexico.

(3) INVESTIGATIONS COMPLETED

Peanuts.—On January 10, 1929, the commission transmitted to the President a report upon its investigation of the cost of production of unshelled and shelled peanuts in the United States and in China, the principal competing country.

On January 19, 1929, the President proclaimed an increase, effective February 18, 1929, in the duty on unshelled peanuts, from 3 to 4¼ cents per pound and an increase in the duty on shelled peanuts from 4 cents per pound to 6 cents per pound.

The investigation was instituted on May 26, 1926, the day following the adoption of Senate Resolution No. 230, requesting the commission to determine the cost of production of peanuts (among other commodities) in the United States and in the chief competing country. Several applications for an investigation had been received by the commission prior to this time.

In a field study in the United States, begun in July, 1926, farm costs were obtained by a crew of six men under the direction of an agricultural expert and mill costs by six accountants. An economist of the commission's staff assisted in planning and beginning the cost investigations and made a field study of conditions of competition and problems of marketing.

Price, cost, and other economic data on peanuts were obtained in China during the months of December, 1926, and January, 1927. In this work two commodity experts, two accountants, and an interpreter were employed.

A preliminary statement of information presenting the data obtained in the investigation was issued to the trade on June 7, 1928; a public hearing was held on July 17, 18, and 19, 1928; and briefs were filed on August 20, 1928.

The commission's report to the President shows peanuts produced in the United States to be of three general types—(1) the Virginia type, produced in Virginia and North Carolina, and imported from the Orient; (2) the Spanish type, produced throughout the Southern States but mainly in Georgia, Alabama, and Texas; and (3) the less important runner type, produced in scattered areas of Alabama, Georgia, and neighboring States.

The following table shows the domestic production, exports, imports for consumption, and the total quantity of peanuts available for consumption in the United States. The domestic production covers all types of peanuts. On the average about 50 per cent of the production is of the Virginia type, the type which is imported.

Peanuts: United States production, exports, duty-paid imports, and consumption of peanuts, 1917-1928

[On the basis of peanuts, not shelled]

Year	Production	Exports ¹	Imports for consumption ²	Total available for consumption	Percentage of consumption supplied by imports
1917	919, 028	22, 413	49, 033	945, 648	5. 18
1918	1, 432, 581	12, 319	92, 936	1, 513, 198	6. 14
1919	1, 240, 102	19, 778	43, 665	1, 263, 989	3. 45
1920	783, 273	9, 366	162, 551	936, 458	17. 36
1921	841, 474	14, 493	63, 914	890, 895	7. 17
1922	829, 307	12, 621	14, 187	830, 873	1. 71
1923	633, 114	4, 806	67, 340	695, 648	9. 68
1924	647, 762	3, 127	81, 073	725, 708	11. 17
1925	745, 059	3, 489	102, 152	843, 722	12. 11
1926	698, 475	4, 232	56, 383	750, 626	7. 51
1927	631, 825	4, 727	51, 165	678, 263	7. 54
1928	809, 060	5, 419	68, 974	872, 615	7. 90

¹ Combined shelled and unshelled.

² Shelled peanuts converted on basis that 1.5 pounds not shelled make 1 pound shelled.

The following table gives the United States production and imports for consumption of peanuts by grades for the year 1925. These data obtained by the commission in its investigation of peanuts are available for the year 1925 alone. It will be noted that the competition from imports has been chiefly in a few grades.

Peanuts: Estimated United States production, imports, and consumption of peanuts of the Virginia type, by grades, 1925

[000 omitted]

	United States production	Imports for consumption	Total available for consumption	Per cent supplied by imports
Estimated quantity of Virginia type farm stock purchased by mills.....	<i>Pounds</i> 225,995			
Loss in cleaning.....	11,641			
Cleaned peanuts available, for grading, for shelling and grading.....	214,354			
Production of cleaned and graded peanuts, not shelled:				
Jumbos.....	42,378	8,946	51,324	17.43
Fancies.....	45,143	(1)	45,143	
Jumbo extras.....	2,401	(1)	2,401	
Extras.....	5,830	(1)	5,830	
Total.....	95,752	8,946	104,698	8.54
Production of graded shelled peanuts:				
Virginia Extra Large ¹	15,981	49,198	65,179	75.48
Virginia No. 1.....	34,264	12,944	47,208	27.42
Virginia No. 2.....	10,163	(1)	10,163	
Virginia Splits.....	2,276	(1)	2,276	
Virginia No. 3 and oil stock.....	8,857	(1)	8,857	
Total.....	71,541	62,142	133,683	46.48

¹ No comparable imports.

² Include 8,420 pounds of Chinese 28/30 grade which are larger than Extra Large Virginias.

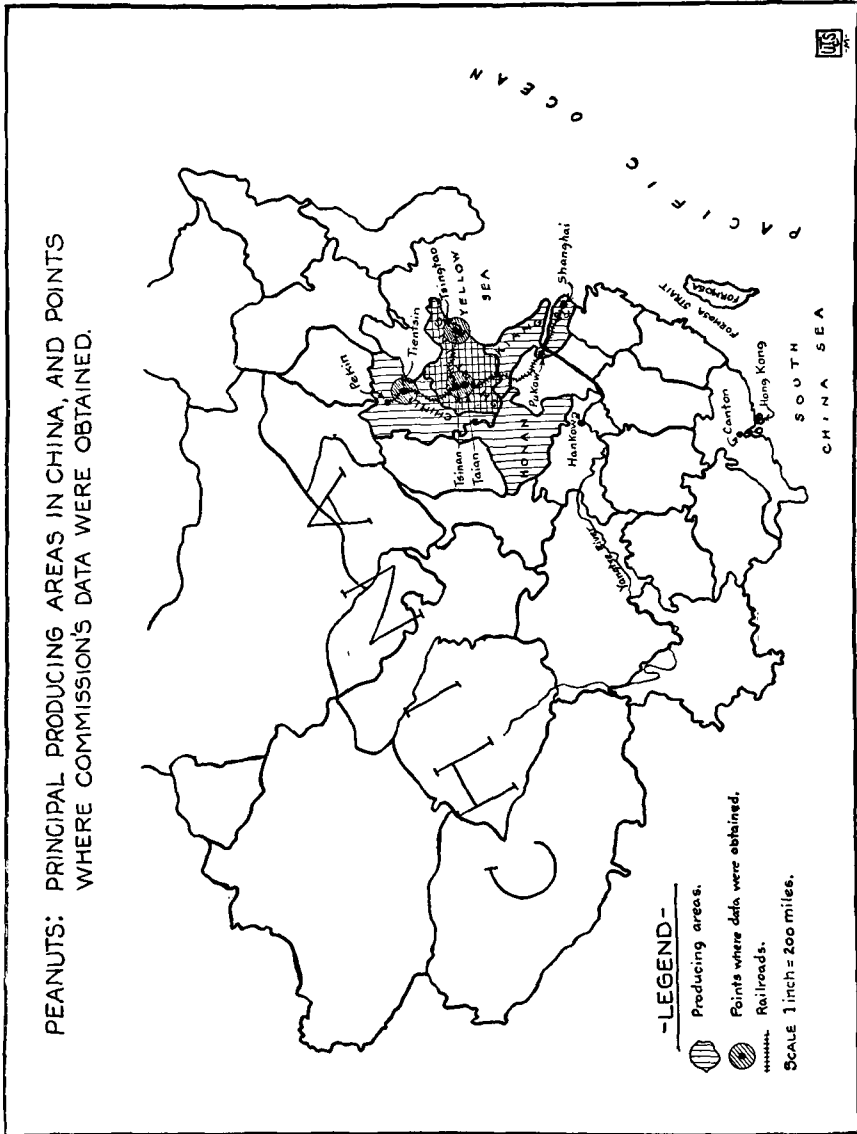
The investigation was confined to the Virginia and the Spanish types. Imports from the principal competing country are solely of the Virginia type, so that the cost comparison presented in the report relates to the Virginia type only. Data on the farm cost of producing peanuts of the Virginia type in the United States were obtained in northeastern North Carolina and in the adjoining section of Virginia. The areas covered were selected as of especial importance in peanut production and as typical in yield per acre, farm organization, labor conditions, and soil. Data were obtained from 232 farms for 5,855 acres planted to peanuts of the Virginia type, and producing a crop of 6,450,000 pounds in 1924, and for 6,070 acres producing 7,908,000 pounds in 1925.

Costs of cleaning, grading, and shelling Virginia peanuts were obtained from 14 mills, which in the crop year 1924-25 cleaned and shelled 99,304,000 pounds of farm-stock peanuts of the Virginia type, or approximately 44 per cent of the total production of that type in Virginia and North Carolina.

As evidence of the cost of producing peanuts in China, the commission obtained a day-by-day record of all reported factory sales of shelled and unshelled peanuts in Tsingtao, showing the quantities sold and the prices paid; prices and other data from invoices of shipment to the United States; costs incurred by three dealers in Tsingtao in the purchase of peanuts and in handling and grading them; direct data as to farm cost of production for a limited acreage. These

figures on farm cost, used as a check on the other data procured, were obtained under such conditions and for such a limited acreage as to make doubtful their representativeness. The scope of the investigation in China is pictured in the following chart.

The commission's report presents separate summaries for unshelled and for shelled peanuts.



For unshelled peanuts the following table compares the costs of domestic and Chinese peanuts, for the years 1924-25 and 1925-26, delivered in the principal United States markets. Domestic costs were taken to be the farm costs plus costs of milling and of transportation. In calculating the cost of Chinese nuts the prices of unshelled farm stock in Tsingtao were used as evidence of farm cost of produc-

tion. To these costs were added milling costs and transportation and other charges.

Peanuts, not shelled: Comparison of costs of production of domestic and Chinese peanuts, including transportation to the principal United States markets, 1924-25 and 1925-26

[Cents per pound]

	Domestic Jumbo grade	Chinese average of 11/12, 12/13, 13/14 grades
Total cost, f. o. b. domestic milling point and Chinese port.....	8.761	4.400
Transportation costs to—		
San Francisco.....	1.242	.517
New York.....	.404	1.008
Total cost, including transportation:		
(1) For domestic delivered at New York and Chinese at San Francisco.....	9.165	4.917
(2) For both domestic and Chinese delivered at San Francisco.....	10.003	4.917
(3) For both domestic and Chinese delivered at New York.....	9.165	5.408
Amount by which average domestic delivered cost exceeds Chinese:		
(1).....		4.248
(2).....		5.086
(3).....		3.757

The commission based its findings for unshelled nuts on a comparison of the total weighted average cost of domestic Virginia peanuts, of the Jumbo grade, delivered at their principal market, New York, with that of similar Chinese peanuts (11/12, 12/13, and 13/14 grades) at their principal United States market, San Francisco. The rate of duty necessary to equalize the costs of domestic and Chinese peanuts, including advantages and disadvantages in competition, was 4.25 cents per pound.

For shelled peanuts the following table compares the total cost of domestic and Chinese shelled peanuts, for the years 1924-25 and 1925-26, delivered at the principal United States markets. The costs for domestic peanuts are farm costs plus costs of milling and transportation; the costs for Chinese peanuts are prices of shelled farm-stock peanuts at Tsingtao which had been used as evidence of farm costs of production plus the milling costs and transportation and other charges.

Peanuts, shelled: Comparison of costs of domestic and Chinese peanuts, delivered at the principal United States markets, 1924-25 and 1925-26

[Cents per pound]

	Domestic			Chinese		
	Extra large	No. 1	Average extra large and No. 1	30/32	38/40	Average 30/32 and 38/40
Total cost f. o. b. domestic milling point and Chinese port.....	11.683	9.189	10.648	5.294	4.679	5.305
Transportation costs to—						
San Francisco.....	.993	.993	.993	.271	.271	.271
Chicago.....	.636	.636	.636	1.281	1.281	1.281
Total cost, including transportation:						
(1) For domestic delivered at Chicago and Chinese at San Francisco.....	12.319	9.825	11.284	5.565	4.950	5.306
(2) For both domestic and Chinese delivered at San Francisco.....	12.676	10.182	11.641	5.565	4.950	5.306
(3) For both domestic and Chinese delivered at Chicago.....	12.319	9.825	11.284	6.575	5.960	6.316
Amount by which domestic delivered costs exceed the Chinese:						
(1).....	6.754	4.875	5.978			
(2).....	7.111	5.232	6.335			
(3).....	5.744	3.865	4.968			

The commission based its findings for shelled nuts on a comparison of costs of the domestic Virginia peanuts of the extra large and large grades, with those of similar Chinese peanuts (30/32 and 38/40 grades). The rate of duty necessary to equalize the differences in costs of domestic and Chinese shelled peanuts, including advantages and disadvantages in competition, within the limits prescribed in section 315, was 6 cents per pound.

Canned tomatoes and tomato paste.—The commission completed its investigation and on February 28, 1929, submitted to the President its report on the cost of production of canned tomatoes, instituted June 10, 1927, and of tomato paste, instituted October 14, 1927. The report was later published by the Finance Committee of the Senate.

The investigation covered (1) the costs of growing tomatoes for canning and for tomato paste, (2) the costs of canning tomatoes, and (3) the costs of manufacturing tomato paste.

CANNED TOMATOES

The farm costs of growing tomatoes and the costs of canning were obtained in California, Utah, Indiana, New York, New Jersey, and Maryland. In selecting the areas to be covered in each State, the factors taken into consideration were the importance of the area in tomato production and its representativeness in yield per acre, farm organization, labor conditions, and type of soil. The data obtained covered 214 farms producing 14,072 tons of tomatoes on 1,851 acres in 1926 and 13,367 tons on 2,018 acres in 1927. Costs of manufacturing tomato paste were obtained in California and Indiana.

Although no information was available to the commission as to the total cost of tomatoes per ton, or as to any item of the cost of growing them in Italy, the principal competing country, it is known that wages are lower in Italy than in the United States, that cultivation is more intensive, and that harvesting calls for more labor per ton harvested because of the small size of the Italian tomato. Lacking direct cost data, the commission used as evidence of foreign costs consular invoices of canned tomatoes and tomato paste shipped from Italy to New York during the period September, 1926, to August, 1927. These invoices covered 76 per cent of the imports of Italian canned tomatoes entered at New York City during this period, or about 58 per cent of the total imports for consumption in the United States. The invoice data were checked back to the records of the importers.

The comparability of domestic and Italian canned tomatoes was an important problem in this investigation. Italian tomatoes prepared for export to the United States are reported to be all of one grade. The peeled fruit is packed by hand, and by many buyers and brokers is considered the equivalent of the solid pack, extra fancy, or fancy grades of the United States. The Italian tomato has a different flavor from that of the domestic and is somewhat higher in total solids and sugars. Being almost uniformly solid and having a small core, it lends itself to a solid pack better than the more liquid American tomato. California and Utah tomatoes approximate Italian tomatoes in flavor but differ in appearance. Witnesses before the commission testified that during the war Americans of Italian origin when unable to obtain imported tomatoes purchased California standards with added puree.

In the United States the commission obtained costs of production for canned tomatoes of various grades, packed in cans of several sizes, but used in the final comparison only the costs of solid, fancy, or extra standard domestic tomatoes packed in Nos. 2, 2½, and 3 cans, the nearest in net content to the two sizes imported. Transportation costs per dozen cans were arrived at by obtaining the weighted average cost of transporting to New York by way of the Panama Canal from California and the rail rates from other points. The following table compares the domestic costs of production of canned tomatoes, including transportation to New York, with the total costs of Italian canned tomatoes landed at New York City, the cost of Italian canned tomatoes being calculated by assuming a 10 per cent profit in the invoice price of imports.

Canned tomatoes: Summary of costs of production in the United States and Italy, 1926, 1927

[Per dozen cans]

	United States weighted average of No. 2, 2½, and 3 cans graded as solid, fancy, or extra standard	Italy weighted average of No. 2 and No. 3 cans
Total cost at cannery on basis of—		
Prices paid by canner for tomatoes, 1926.....	\$1.2137	¹ \$0.9967
Farm cost of production of tomatoes, 1926.....	1.2060	-----
Farm cost of production of tomatoes, 1927.....	1.2939	-----
Simple average of farm cost of production of tomatoes, 1926-27.....	1.2500	-----
Transportation to New York (includes marine insurance for Italian).....	.1484	.0750
Total costs at New York on basis of—		
Price paid by canner for tomatoes, 1926.....	1.3621	1.0717
Farm cost of production of tomatoes, 1926.....	1.3544	-----
Farm cost of production of tomatoes, 1927.....	1.4423	-----
Simple average of farm cost of production of tomatoes, 1926-27.....	1.3984	-----
Amount by which domestic costs at New York exceed Italian: Costs at New York, on basis of—		
Price paid by canner for tomatoes, 1926.....	.2904	-----
Farm cost of production of tomatoes, 1926.....	.2827	-----
Farm cost of production of tomatoes, 1927.....	.3706	-----
Simple average of farm cost of production of tomatoes, 1926-27.....	.3287	-----
Foreign value.....		1.0964
Amount of ad valorem duty necessary to equalize differences in costs of production on basis of—	<i>Per cent</i>	
Price paid by canner for tomatoes, 1926.....	27.09	-----
Farm cost of production of tomatoes, 1926.....	26.38	-----
Farm cost of production of tomatoes, 1927.....	34.58	-----
Simple average of farm cost of production of tomatoes, 1926-27.....	30.67	-----

¹ Calculated by assuming a 10 per cent profit in the invoice price of imports. (See transcript of minutes of public hearings, p. 456.)

From its investigation the commission reached the following findings: That for canned tomatoes Italy is the principal competing country and New York City is the principal market in the United States. The weighted average domestic cost of producing canned tomatoes of solid pack, fancy or extra standard grade, including transportation to New York, if based upon the price that canners paid for tomatoes in 1926, is \$1.36 per dozen cans; if based on the simple average farm costs of producing tomatoes in 1926 and 1927, it is \$1.40 per dozen cans. Transportation charges for domestic canned tomatoes to New York are practically the same, whether weighted by the production

covered by the commission's investigation or by shipments that actually moved to New York City. The weighted average cost of production of like or similar canned tomatoes imported into the United States from Italy, including transportation to New York, is \$1.07 per dozen cans. Thus the weighted average cost of production of 1 dozen cans of tomatoes in the United States, including transportation to New York, exceeds the weighted average cost of 1 dozen cans of tomatoes imported from Italy by 29 cents, or 27.09 per cent of foreign value if the price paid by the domestic canner for tomatoes in 1926 be taken as the basis of comparison; and by 33 cents, or 30.67 per cent of foreign value, if the simple average of domestic farm costs of production in 1926 and 1927 be taken. The rate of duty necessary to equalize these differences in costs, within the limit provided in section 315 of the act of 1922, is 22½ per cent ad valorem.

TOMATO PASTE

The commission obtained the domestic costs of manufacturing tomato paste in the principal producing section of California and of Indiana. As evidence of foreign costs, it made an analysis of consular invoices of shipments of tomato paste from Italy to New York City in the period September, 1926, to August, 1927, inclusive. This analysis covered 89 per cent of the imported tomato paste entered at New York, or 52 per cent of the total imports for consumption into the United States.

Tomato paste is the concentrated product obtained by evaporating or drying tomatoes that have been freed of seeds, skins, and cores. In the daily diet of Italians and other Mediterranean peoples, tomato paste is an item of great importance for soups and sauces, and for other uses served by fresh or canned tomatoes, the competing products.

It usually takes about 5 pounds of the fresh fruit to make 1 pound of paste on a basis of 20 to 26 per cent concentrates. The commission's investigation shows that the domestic tomato paste is produced in various concentrations, and is packed in cans of several sizes, but that the bulk of it has a solid content of 20 to 26 per cent and is in 6-ounce cans, 200 to the case. Imports of Italian tomato paste consist almost entirely of paste concentrated to a total solid content of 20 to 26 per cent and packed in cans of about the same size as the domestic, 200 to the case.

Of the total domestic production of tomato paste, more than 50 per cent is manufactured in California where the tomatoes grown have much the same flavor as those grown in Italy. Much of the domestic tomato paste is artificially colored, but there is little difference in appearance between Italian and American pastes.

The commission made its final cost comparisons between domestic and Italian tomato paste of a total solid content of 20 to 26 per cent. The figures given in the following table are the costs as found for tomato paste, including transportation to New York City, and for Italian tomato paste landed at New York City, costs of the Italian paste being calculated by assuming a 10 per cent profit in the invoice price of imports.

Tomato paste: Summary of cost of production in the United States and in Italy

[In cases of two hundred 6-ounce cans]

	United States	Italy
Total costs at factory based on—		
Price paid by canner for tomatoes, 1926.....	\$8.0391	¹ \$8.413
Farm cost of production of tomatoes, 1926.....	7.6916	-----
Farm cost of production of tomatoes, 1927.....	8.7015	-----
Simple average of farm cost of production of tomatoes, 1926-27.....	8.1966	-----
Transportation to New York (includes marine insurance for Italian).....	.5780	.327
Total cost at New York on basis of—		
Price paid by canner for tomatoes, 1926.....	8.6171	8.740
Farm cost of production of tomatoes, 1926.....	8.2696	-----
Farm cost of production of tomatoes, 1927.....	9.2795	-----
Simple average of farm cost of production of tomatoes, 1926-27.....	8.7746	-----
Foreign value.....		9.254

¹ Calculated by assuming a 10 per cent profit in the invoice price of imports. (See transcript of minutes of public hearings, p. 456.)

The commission reached the following findings with regard to its investigation of tomato paste: Italy is the principal competing country and New York the principal United States market. In the United States the weighted average cost of production of tomato paste with a concentration of 20 to 26 per cent of total solids is \$8.62 per case of two hundred 6-ounce cans; if based on the price paid by the domestic canners for tomatoes in 1926, it is \$8.77 per case of two hundred 6-ounce cans if based on a simple average of the domestic farm costs of production in 1926 and 1927. Transportation charges for domestic tomato paste to New York are practically the same, whether weighted by the production covered by the commission's investigation, or by the shipments that actually moved to New York City. For imported Italian paste of the same degree of concentration as the domestic, the weighted average cost, including transportation to New York City as evidenced by invoice prices was found to be \$8.74 per case of two hundred 6-ounce cans. The rate of duty, as shown by the differences in costs of production of tomato paste in the United States and in Italy, including transportation to New York City, necessary to equalize said differences within the limits provided in section 315 of the tariff act of 1922, is therefore 20 per cent ad valorem.

Eggs and egg products.—The President, on February 20, 1929, proclaimed an increase in the duty on whole eggs, egg yolk, and egg albumen, frozen or otherwise prepared or preserved, and not specially provided for, from 6 cents per pound to 7½ cents per pound.

This change in rate followed an investigation for the purposes of section 315 of the tariff act of 1922 of eggs and egg products instituted by the commission on August 4, 1926. Field work was conducted in the United States and in China, the principal competing country, in the latter part of 1926 and in 1927. A public hearing was held in the offices of the commission on June 10, 1928, prior to which a preliminary statement was issued presenting information obtained in the investigation. Briefs were filed on August 22, 1928.

The ascertainment of costs of production in the investigation was confined to frozen and dried egg products and the final cost comparison to frozen egg products. Figures obtained in the investigation indicated that domestic eggs come largely from farms where poultry raising for eggs is a secondary or minor enterprise. On such farms

no record is kept of feed consumed or of the value of the labor required. In the circumstances, dependable cost data were not obtainable for the major part of the domestic production of eggs in the shell. In China it was impossible to obtain farm costs of production because of disturbed conditions incident to civil warfare.

The commission's report shows that there is no direct competition between domestic and imported eggs in the shell. From 1924 to 1927, inclusive, imports of shell eggs averaged less than one-tenth of 1 per cent of domestic production. Imports are chiefly preserved duck eggs from China for the use of the Chinese residing in the United States.

Cost comparisons are not made for dried eggs for the reason that during the decade ended with 1926 there was no commercial production of dried eggs in the United States. In 1927 there was a shortage of Chinese eggs, to meet which two domestic companies (importers) began to dry egg yolks and whole eggs, but neither company was in the business in 1928.

On the basis of the figures obtained for 1926, the year covered by the investigation, the rate of duty necessary to equalize the differences between the cost of production of frozen eggs (whole eggs, albumen and yolks) in the United States and in China, including transportation to New York, was 7.658 cents per pound if transportation charges were weighted by production, and 7.531 cents per pound if weighted by actual shipments to New York.

On the basis of a cost comparison for the 3-year period 1926-1928, the cost of production of domestic frozen eggs, estimated from the price paid in 1926 and from the quoted prices of breaking stock in 1927 and 1928, including transportation to New York, was found to exceed the cost of production of frozen eggs in China by 5.49 cents per pound, weighting transportation charges by production; by 5.36 cents per pound, weighting transportation charges by actual shipments to New York.

In the three years 1925, 1926, and 1928 there was little variation in the wholesale price of breaking-stock eggs. Since the cost of breaking-stock eggs represents 90 per cent of the total cost of frozen eggs in the United States, it is fair to assume that in those three years frozen eggs were produced at approximately the same cost. The year 1926, therefore, appears to be a normal and representative period to take for recent costs in the domestic frozen-egg industry. For China, the prices paid at interior points, and transportation costs, are available only for the year 1926. There was a slight upward trend in wholesale prices of shell eggs in Shanghai from 1926 to 1928, but the higher prices may have been due to unfavorable business conditions caused by the revolution. If the higher prices prevailing in 1927 and 1928 are used as a basis of calculation, the costs of the frozen eggs in China are increased by only about 8 per cent.

The rate of duty necessary in the judgment of the commission to equalize the differences in cost of production of whole eggs, egg yolk, and egg albumen, frozen, in the United States and in the principal competing country, for the year 1926, was 7½ cents per pound.

The following table gives the total costs in 1926 of domestic and Chinese frozen eggs.

Frozen eggs: Comparison of weighted average costs of production of domestic and Chinese frozen eggs, including transportation and other charges to New York, 1926

[Cents per pound]

Item	United States	China ¹
Manufacturing costs:		
Raw material.....	22.000	12.587
Labor.....	.870	.186
Factory overhead.....	.932	.930
General and administrative expense.....	.286	.880
Containers.....	.614	.659
Total.....	24.702	15.242
Less credit from sale of egg cases.....	.222	
Net manufacturing cost ²	24.480	15.242
Transportation and other charges from plants to New York, weighted by production.....	\$ 1.511	\$ 3.091
Total cost, including transportation and other charges from plants to New York, weighted by production.....	25.991	18.333
Amount by which domestic cost exceeds foreign cost.....	7.658	
Transportation and other charges from plants to New York, weighted by actual shipments.....	\$ 1.384	\$ 3.031
Total cost, including transportation and other charges from plants to New York, weighted by actual shipments.....	25.864	18.333
Amount by which domestic cost exceeds foreign cost at New York.....	7.531	

¹ Foreign-cost data were converted to United States money by the following methods: Raw material and labor at the average rate of exchange for the breaking season of 1926 (March to July, inclusive); all other manufacturing costs at the average for the year 1926; transportation charges at the rate of exchange in effect on the date of the invoice.

² Interest is not included in either foreign or domestic costs.

³ Includes freight, refrigeration in transit, and storage charges at New York for 1 month.

⁴ Includes packing charges; marine insurance; ocean freight; consular charges, wharfage, river, harbor, and conservancy dues at Shanghai, China; and storage charges for 1 month at New York.

Commissioner Dennis held that any conclusion drawn from the data gathered by the commission was largely inferential and conjectural, but, doubtful as to whether exact costs could be calculated, he agreed to give the domestic producer the benefit of the doubt and joined the other commissioners in recommending a duty of 7½ cents per pound.

Milk and cream.—On May 14, 1929, the President proclaimed increases, effective June 13, 1929, in the duty on fresh milk from 2½ to 3¼ cents per gallon and in the duty on cream from 20 to 30 cents per gallon.

The investigation of the costs of production of milk and cream in the United States and in Canada, the principal competing country, was instituted on March 4, 1926, in compliance with Senate Resolution No. 146, adopted February 17, 1926. At a preliminary public hearing, held March 24 and 26, 1926, the commission presented for discussion certain problems that had arisen in planning the investigation. This hearing was attended by representatives of the milk and cream importers and producers, who discussed in detail the questions raised.

A field study occupied approximately four months, from July to October, 1926. During this time a staff of 10 farm-cost accountants and 2 clerks obtained 894 farm records in the United States and 197 records in Canada. Four cost accountants obtained cost data from 77 creamery plants in the United States and from 22 plants in Canada.

The investigation covered the following domestic producing regions: (1) The Boston milk shed, including all of New England except the

northern part of Maine; (2) the New York milk shed, including the State of New York and the counties in northeastern Pennsylvania and northern New Jersey, contributing to the supply of the New York markets; (3) the Philadelphia milk shed, including 20 counties in southern and southeastern Pennsylvania, all of Delaware, the Eastern Shore of Maryland, and three counties in western Maryland; and (4) areas in the North Central States—Michigan, Ohio, Indiana, Iowa, Minnesota, and Wisconsin—which ship cream to the eastern markets. In Canada the investigation covered all counties in Quebec and Ontario bordering the United States and lying along the St. Lawrence River, the principal sources of imports of milk and cream into this country.

The map opposite this page illustrates the scope of the investigation in the United States and in Canada.

The commission's report makes separate cost comparisons for milk and cream. For milk, the comparison was limited to production cost areas in the United States and Canada supplying plants situated near the border line between the two countries. Milk imported into the United States from Canada enters near the border, and the plants receiving it separate it for cream, make it into condensed milk or other products, or reship it to New York City or Boston for consumption as market milk. During the fiscal year ended April 30, 1926, about 60 per cent of the imported milk went into milk products in the domestic border plants. The domestic regions supplying these plants are chiefly in northern Vermont and northern New York. Thus, the bulk of the milk imported from Canada is processed in the same plants, with the same equipment, and at the same cost as domestic milk. Most of this Canadian milk is hauled by the individual owner, or is collected by a truck hauling for a number of farmers living in a zone about 20 miles wide; it incurs practically the same expense as domestic milk from northern Vermont and New York. For purposes of comparison, therefore, the costs of production for both countries were calculated on the farm costs, including the costs of hauling to the domestic border plants.

The weighted average farm cost of producing milk in the United States (northern Vermont and northern New York) for the year ended April 30, 1926, was found to be \$0.255 per gallon, and in Canada, \$0.212 per gallon, a difference of \$0.043 per gallon.

Milk for fluid use: Summary of costs of production in the United States and Canada, based upon delivery to United States border plants,¹ May 6, 1925, to April 30, 1926

[Dollars per gallon]

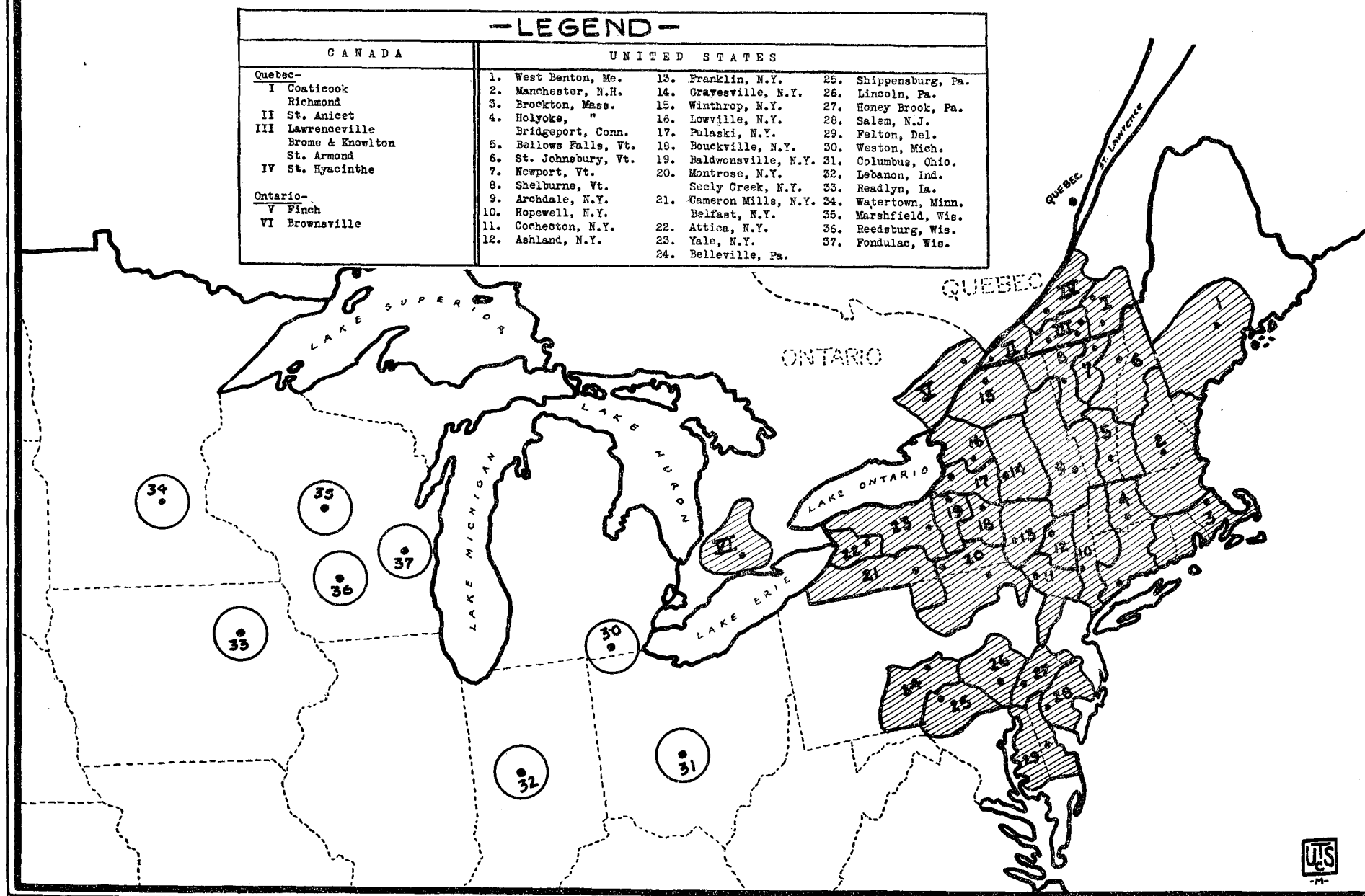
	United States				Canada
	North- ern Ver- mont	North- ern New York	Western New York	Weighted average	
Average butterfat test.....per cent..	3.86	3.42	3.51	3.56	3.40
Farm cost of producing milk, including interest ²	\$0.253	\$0.260	\$0.250	\$0.255	\$0.212
Difference in cost.....					.043

¹ (a) The milk of both countries being handled in the same plants, the plant costs are omitted as being identical; (b) transportation is for hauling to country plants and is already included in the farm cost.

² For details of cost see Table 11, p. 24, of the printed report to the President.

AREAS STUDIED IN THE UNITED STATES AND CANADA
in obtaining
AGRICULTURAL COST OF PRODUCING MILK AND CREAM.

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Canadian cream enters into competition with domestic cream at the three principal markets—Boston, New York, and Philadelphia. Of the total imports of cream, in the year 1925–26, 20 per cent went to Boston, 18 per cent to Metropolitan New York, 12 per cent to Philadelphia, and the remainder, 50 per cent, to cities in the milk sheds supplying cream to these markets. Of the domestic cream consumed in Boston, New York, and Philadelphia, 37 per cent was supplied by areas in the Boston milk shed, 38 per cent by the New York milk shed, 13 per cent by the Philadelphia milk shed, and 12 per cent by creameries in six North Central States. Cost comparisons are therefore made between the weighted average cost for these areas and the weighted average cost in Canadian areas shipping to the United States. Three methods are employed in the final comparison. In Method I, Boston is considered the principal competing market in the United States, and Canadian transportation costs thereto are added to the Canadian farm and plant costs. The amount actually expended in moving cream from the producing center in the Boston area to the city of Boston constitutes the domestic transportation costs. According to this method, the weighted average cost of production of cream, including interest and transportation, for the fiscal year ended May 1, 1926, is \$2.680 per gallon for the United States, and \$2.279 for Canada. Costs in the United States are found to exceed costs in Canada by \$0.401 per gallon.

In Method II, New York is considered the principal competing market in the United States, and Canadian transportation costs thereto are added to the Canadian farm and plant costs. The amount expended in moving cream from the areas in the New York milk shed and from the North Central States to New York City constitutes the domestic transportation costs. According to this method, the domestic costs exceed the foreign costs by \$0.412 per gallon.

In Method III, an average of the expended transportation costs incurred in moving all the cream from the three eastern milk sheds and from the North Central States to the three eastern Metropolitan markets are compared with the average costs of transporting Canadian cream to these markets. According to this method, the domestic costs exceed the foreign costs by \$0.346.

The following tables give in detail the final cost comparisons.

Cream: Summary of cost of production in the United States and Canada, for cream with an average butterfat test of 40 per cent, including transportation to Boston, Mass. (Method I), May 1, 1925, to April 30, 1926

[Dollars per gallon]

	Boston milk shed	Canada
Average butterfat test (per cent).....	40.00	40.00
Farm cost of producing milk for cream, including interest.....	\$2.480	\$2.010
Plant-handling costs.....	.154	.178
Total cost, not including transportation.....	2.634	2.188
Transportation to Boston, Mass.....	.046	.091
Total cost, including transportation.....	2.680	2.279
Amount by which United States cost exceeds Canadian cost.....		.401

Cream: Summary of cost of production in the United States and Canada, for cream with an average butterfat test of 40 per cent, including transportation to New York, N. Y. (Method II), May 1, 1925, to April 30, 1926

[Dollars per gallon]

	New York milk shed	Canada
Average butterfat test (per cent).....	40.00	40.00
Farm cost of producing milk for cream, including interest.....	\$2.420	\$2.010
Plant-handling costs.....	.218	.178
Total cost, not including transportation.....	2.638	2.188
Transportation to New York, N. Y.....	.057	.095
Total cost, including transportation.....	2.695	2.283
Amount by which United States cost exceeds Canadian cost.....		.412

Cream: Summary of cost of production in the United States and Canada, for cream with an average butterfat test of 40 per cent, including transportation to the normal principal market for each of the respective milk sheds (Method III), May 1, 1925, to April 30, 1926

[Dollars per gallon]

	United States					Canada
	North Central States	Phila- delphia milk shed	New York milk shed	Boston milk shed	Weight- ed aver- age	
Average butterfat test (per cent).....	40.00	40.00	40.00	40.00	40.00	40.00
Farm cost of producing milk for cream, including interest.....	\$1.690	\$2.490	\$2.420	\$2.480	\$2.370	\$2.010
Plant-handling costs.....	.159	.294	.218	.154	.195	.178
Total cost, not including transportation.....	1.849	2.784	2.638	2.634	2.565	2.188
Transportation to the normal principal market for each of the respective milk sheds.....	.176	.038	.057	.046	.065	.096
Total cost, including transportation.....	2.025	2.822	2.695	2.680	2.630	2.284
Amount by which United States cost exceeds Canadian cost.....						.346

The rate of duty necessary to equalize the differences in costs of producing cream in the United States and in Canada, within the limits of section 315 of the tariff act of 1922, is thus found to be \$0.30 per gallon.

Commissioner Dixon appended a statement to the report giving his reasons for withholding his signature.

Flaxseed.—On May 14, 1929, the President issued a proclamation, effective June 13, increasing the duty on flaxseed from 40 to 56 cents per bushel of 56 pounds. The President's action followed a report by the Tariff Commission of the results of an investigation instituted August 4, 1926, of the costs of producing flaxseed in the United States and in Argentina, the principal competing country. Prior to that date a number of applications for such an investigation had been received from producers and their representatives.

In a field study, begun November 30, 1926, and completed January 20, 1927, cost data for the crop year 1925 were obtained from 285 flaxseed producers and 41 elevators, and for the crop of 1926 from

324 flaxseed producers and 41 elevators. The records were taken in the principal flaxseed producing regions of Minnesota, North Dakota, South Dakota, and Montana.

Objections by the Argentine Government made it impracticable to obtain cost data from the producers in Argentina, the principal source of imports. As an evidence of foreign costs prices on invoices of imports of flaxseed from Argentina in 1925, 1926, and 1927 were used. Supplemental information concerning the Argentine flaxseed industry was obtained from other available sources.

A preliminary statement of the information obtained in the investigation was issued to interested parties, and on December 5 and 6, 1928, a public hearing was held at the offices of the commission. Testimony was given at the hearing by a special committee from North Dakota appointed by the flaxseed producers to analyze the commission's preliminary statement, by the Commissioner of Agriculture of Minnesota, by representatives of the Farm Bureau Federation, and by representatives of the agricultural colleges of South Dakota and Montana.

New York City is the principal market for flaxseed in the United States, and there a large percentage of the crushing is done. In 1925 and 1926, 38 per cent (in terms of quantity) of all flaxseed consumed in the United States was crushed at New York. Of the total domestic consumption of Argentine seed in the same years, 91 per cent was crushed at New York, and of the total consumption of domestic seed, about 11 per cent.

The weighted average cost of Argentine flaxseed, as evidenced by invoice prices in the crop years 1925 and 1926, including transportation to New York, was found to be \$1.983 per bushel of 56 pounds, and that of domestic flaxseed, including transportation to New York during the calendar years 1925 and 1926, to be \$2.539 per bushel of 56 pounds—a difference of \$0.556 per bushel.

The following table shows, for the years 1925 and 1926 and the 2-year average, a comparison of the domestic and foreign costs of production of flaxseed, including transportation to the chief consuming markets, New York and Buffalo.

Flaxseed: Comparison of domestic and foreign costs of production for 1925, 1926, and the 2-year average, including transportation charges to the principal consuming markets, New York and Buffalo

[Per bushel]

	1925		1926		2-year average 1925, 1926	
	United States	Argentina ¹	United States	Argentina ¹	United States	Argentina
Cost of production:						
Farm cost.....	\$2.150	-----	\$2.160	-----	\$2.155	-----
Elevator cost.....	.078	-----	.092	-----	.085	-----
Total.....	2.228	² \$1.894	2.252	² \$1.797	2.240	² \$1.846
Transportation charges to ³ —						
New York.....	.304	.128	4.294	.147	.299	.137
Buffalo.....	.185	.206	.175	.225	.180	.215
Total cost, including transportation to—						
New York.....	2.532	2.022	2.546	1.944	2.539	1.983
Buffalo.....	2.413	2.100	2.427	2.022	2.420	2.061
Amount by which domestic costs exceed Argentine costs, including transportation to—						
New York.....	.510		.602		⁵ .556	
Buffalo.....	.313		.405		.359	

¹ Invoice prices of imports from Argentina during 1926 have been used as evidence of the cost of the 1925 crop and invoice prices of 1927, as evidence of cost of the 1926 crop.

² Includes loading expenses, commissions, and consular charges in Argentina. Argentine export taxes are not included.

³ There is practically no difference in the transportation costs on domestic flaxseed whether charges to Duluth be weighted by the production of all areas studied or by the production of only the areas in the Duluth shipping territory. On imported flaxseed from Argentina transportation charges include ocean freight, marine insurance, and landing charges at New York.

⁴ No shipments by barge canal in 1926. The weighted average rate for rail and barge shipments between Buffalo and New York for 1925 was used in computing transportation costs for 1926.

⁵ Vice Chairman Dennis and Commissioners Dixon and Clark maintain that the export tax should be included in the costs of Argentine flaxseed. If the export tax of \$0.017 per bushel on flaxseed from Argentina be included in the Argentine costs of production, the difference in the costs of domestic and Argentine flaxseed, including transportation to New York, exclusive of duty, is \$0.539 per bushel.

Vice Chairman Dennis and Commissioners Dixon and Clark, in separate statements appended to the report, commented on several difficulties encountered in making cost comparisons.

Onions.—The President's proclamation of an increase in duty on onions, from 1 cent to 1½ cents per pound, became effective January 21, 1929.

Prior to the issuance of the proclamation, the commission had submitted to the President a report on its investigation as to the cost of producing domestic and imported onions, after an investigation for the purposes of section 315, instituted July 23, 1926. Applications for such an investigation had been received from Indiana, California, Texas, and Utah.

Domestic costs were obtained for 1926 from 405 onion growers and from 20 local dealers in the principal onion-producing areas of Texas, California, Washington, Idaho, Utah, Colorado, Indiana, Ohio, Michigan, New York, and Massachusetts. For this work a field crew of six was employed about six months. In addition, studies were made in New York and Chicago of conditions and methods of marketing imported and domestic onions, and later in New Mexico and Utah of the cost of crating domestic onions of the Spanish type.

Information concerning the onion industries of Spain and Egypt was sought from various sources, and a study was made of some 1,200 invoices of importations of onions from these countries.

A preliminary statement of the information obtained in the investigation was issued to the trade on January 9, 1928; a public hearing was held on February 9, 10, and 11, and briefs were filed on March 5 and 6, 1928.

Subsequent to the hearing the commission's experts again went to New York City to obtain more detailed data on matters discussed in the preliminary statement of information—in particular, information concerning United States weighers' weights, condemnations of the New York City Board of Health, and sales weights for imported onions.

Costs were obtained for the years 1925 and 1926 for the three principal types of onions—the strong, the domestic Spanish, and the Bermuda. The wide scope of the investigation is illustrated by the map on page 174.

Spain was found to be the principal competing country.

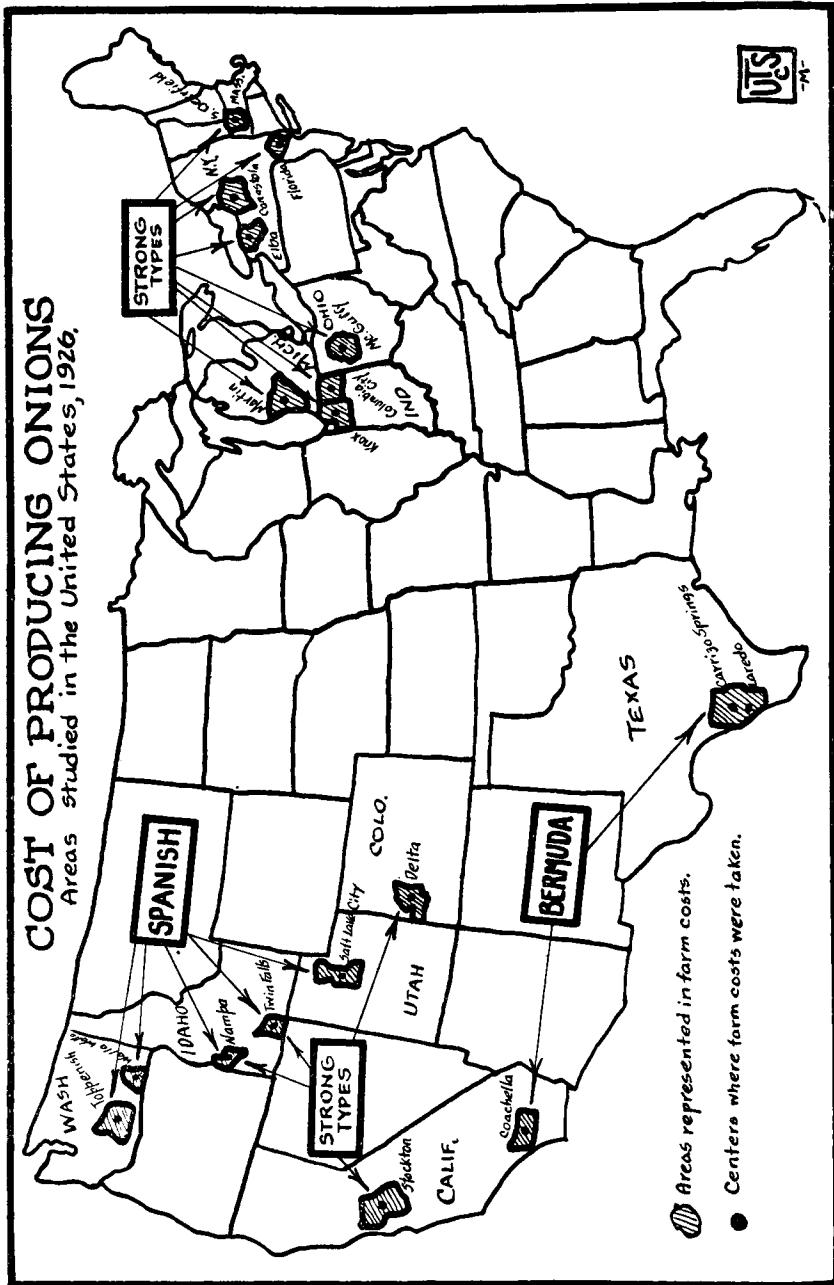
In the commission's report the final comparison of the costs of domestic and imported onions is made by four distinct methods. By Method I the 2-year average cost of imported Spanish onions landed at New York City as evidenced by invoice prices of purchased shipments is compared with the combined average cost of domestic Spanish onions in crates and of domestic Bermuda onions in crates. For domestic onions transportation costs to New York City are weighted on the basis of production. By Method I domestic costs are found to exceed foreign costs by 1.505 cents per pound.

Unable to obtain farm costs of production in Spain, the commission used in Method II farm prices in Spain, as reported by the United States consul at Valencia, and other items of cost involved in delivering Spanish onions to New York as obtained from a study of consular invoices of purchased shipments. To determine the cost f. o. b. port in Spain, the cost of containers, inland transportation, cartage, consular, and export fees were added to the farm price. The item of cost for packing shown in the invoices was not included in the f. o. b. cost, since it represented a labor expense for careful hand grading and packing not included in the costs of domestic onions.

In the report the 2-year average cost thus obtained of imported Spanish onions in crates landed at New York City is compared with the combined cost of domestic Spanish onions in sacks and Bermuda onions in crates. For the domestic onions transportation costs to New York City are weighted by the quantity produced. The cost of the imported onions is computed on the basis of United States weighers' weights less condemnations. The farm prices were reported by the United States Consul in American dollars; the other items of costs of Spanish onions taken from the invoices are converted into American dollars at the rate of exchange shown on the importers' books of record to have been paid. Transportation costs for the imported onions are the average rate from foreign ports to New York City, as ascertained from the invoices studied. By Method II the domestic costs are found to exceed the foreign cost by 1.623 cents per pound.

By Method III the 2-year average cost of imported Spanish onions landed at New York City, as evidenced by invoice prices of purchased shipments, is compared with the combined average costs of domestic Spanish in sacks and domestic Bermudas in crates. For the domestic onions, the costs, f. o. b. local shipping points are weighted by pro-

duction, and the transportation costs are weighted by unloads at New York City. The cost of the imported onions is computed on the basis of the United States weighers' weights less condemnations. The cost in pesetas is converted into dollars at the rate of exchange



actually paid as shown on the importers' books of record. The item of cost for packing shown in the invoices is not included in the f. o. b. cost, as it represents labor expense for careful hand grading and packing not included in the costs of domestic onions. Farmers' or dealers'

profits are not included in the domestic costs of production, but such profits presumably are included in the invoice prices of Spanish onions. In the absence of definite information concerning the amount of such profits, a deduction for profits of 8 per cent from the invoice f. o. b. price less packing is made in order to arrive at foreign costs for comparison with domestic costs. The transportation cost for the imported onions is the weighted average rate from the foreign ports to New York City, as ascertained from the invoices studied. By Method III the domestic costs are found to exceed the foreign costs by 1.552 cents per pound.

By Method IV the 2-year average cost of imported Spanish onions in crates landed at New York City, as evidenced by invoice prices of purchased shipments, is compared with the costs of domestic Bermuda onions in crates. For the domestic onions, the costs f. o. b. shipping points are weighted by production and the transportation costs are weighted by unloads at New York City. The cost of the imported onions is computed on the basis of the United States weighers' weights less condemnations. The cost in pesetas is converted into American dollars at the rate of exchange actually paid as shown in the importers' books of record. The transportation cost for the imported onions is the weighted average rate from the foreign port to New York City, as ascertained from the invoices studied. By Method IV, the domestic costs are found to exceed the foreign costs by 1.428 cents per pound.

In view of all the data gathered in the investigation, the commission is of the opinion that the rate of duty necessary to equalize the difference in the cost of production of onions in the United States, and of like or similar onions in Spain, within the limits of section 315, is 1.5 cents per pound.

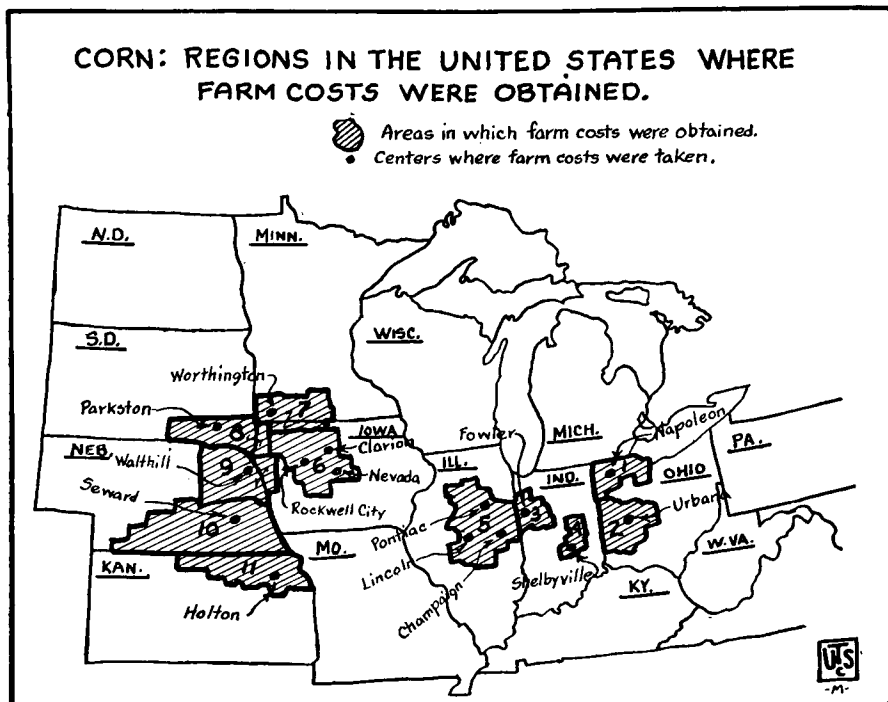
Corn or maize.—An investigation of the cost of producing corn was instituted on June 24, 1927, for the purposes of section 315 of the tariff act of 1922. Prior to that time the commission had received a number of letters from persons interested in obtaining a higher duty on corn; some of these letters had been transmitted by the President. Domestic field work was begun in August, 1927, and completed in October of the same year. A preliminary statement of the information obtained in the investigation was distributed to interested parties, and a public hearing was held at the office of the commission in Washington on August 1, 1928. On September 1, 1928, a brief was filed by the American Farm Bureau Federation, representing the domestic producers of corn. The commission's report was submitted to the President on October 22, 1928, and later was published by the Senate Committee on Finance. On August 16, 1929, in response to a request by the President, the commission submitted a supplementary statement giving more recent information in regard to production, imports, and prices than that contained in the original report.

The commission's investigation of the domestic industry was confined to surplus corn sections of eight Central States, commonly known as the Corn Belt—Ohio, Indiana, Illinois, Iowa, southern Minnesota, southeastern South Dakota, eastern Nebraska, and northeastern Kansas. Centers for study were determined after conferences with representatives of State agricultural colleges and State statisticians in charge of reporting crop estimates. Selection of the areas to be covered in each State was made on the basis of the quantity of corn sold and the representativeness of the areas in yield per acre, farm organization, labor conditions, and type of soil.

The map below shows the location of the surplus corn sections studied and the points in each area covered by the commission's cost investigation.

Because of representations made by the Argentine ambassador in Washington, it was deemed impracticable to obtain data in Argentina as to the costs of growing corn. As evidence of such costs, prices and other data were obtained from consular invoices of imports entered at New York City, San Francisco, and Seattle. The commission also gathered from published reports of the Argentine Minister of Agriculture information as to market prices, yield per acre, wages paid, and value of land in the corn-growing sections of that country.

Corn is one of the leading crops of the United States, whether judged by quantity produced, total value of the crop, acreage planted,



or value per acre. More corn is grown in the United States than in all other countries together, but, considering the quantity produced, the commercial movement is relatively small. The greater part of the crop is consumed on the farms where it is grown. Of the total grain corn produced from 1923 to 1927, approximately 87.5 per cent (2,000,000,000 bushels per year) was fed to animals; the very substantial remainder, when considered quantitatively, was used in the manufacture of foodstuffs for human consumption. In addition to the corn grown for grain, to which some 83,000,000 acres were devoted in 1926, about 12,000,000 acres were used for "hogging down" and "grazing over" and over 4,000,000,000 acres for the production of silage.

Since 1910 the largest quantity of corn imported in any single year was 12,289,000 bushels in 1914. Between 1921 and 1924 there was an increase from 158,748 bushels to 3,906,000 bushels, then in 1926 a

decline to about 1,000,000 bushels, and again in 1927 an increase to approximately 4,900,000 bushels. The 1927 import was less than three-tenths of 1 per cent of the total domestic production in that year, but amounted to 2.2 per cent of the receipts at the 11 primary markets—Chicago, St. Louis, Kansas City, Peoria, Omaha, Indianapolis, Milwaukee, Minneapolis, Duluth, Toledo, and Detroit—in the year beginning November, 1926.

Corn: Imports for consumption, 1910-1927

Year	Rate of duty	Quantity	Value	Duty collected	Value per bushel	Equivalent valorem rate
FISCAL						
		<i>Bushels</i>				<i>Per cent</i>
1910.....	15 cents per bushel.....	117,933	\$72,341	\$17,690	\$0.613	24.45
1911.....	do.....	52,295	37,843	7,844	.724	20.73
1912.....	do.....	53,351	47,853	8,007	.896	16.73
1913.....	do.....	865,124	470,176	129,768	.543	27.60
1914.....	do.....	524,175	318,542	78,625	.608	24.68
1914.....	Free.....	11,765,187	7,564,699	-----	.643	-----
1915.....	do.....	9,893,573	6,083,390	-----	.615	-----
1916.....	do.....	5,210,470	2,866,335	-----	.550	-----
1917.....	do.....	2,267,414	1,488,617	-----	.656	-----
1918.....	do.....	3,197,051	3,482,211	-----	1.090	-----
CALENDAR						
1918.....	Free.....	156,362	114,454	-----	.732	-----
1919.....	do.....	11,212,717	10,966,911	-----	.978	-----
1920.....	do.....	7,784,482	9,296,991	-----	1.194	-----
1921.....	do.....	113,419	128,941	-----	1.137	-----
1921.....	15 cents per bushel.....	45,329	56,860	6,799	1.254	11.96
1922.....	do.....	112,790	115,605	14,522	1.025	14.64
1923.....	do.....	202,776	228,262	30,416	1.126	13.33
1924.....	do.....	3,905,667	3,393,868	585,850	.869	17.26
1925.....	do.....	1,123,193	1,223,276	168,479	1.089	13.77
1926.....	do.....	1,055,895	908,911	158,384	.861	17.43
1927.....	do.....	4,916,615	3,906,699	737,492	.795	18.88

The statistics of imports of corn into the United States by principal countries of origin show the predominance of Argentina as a source of imports. In 1927, 5,154,000 bushels, or about 94 per cent of the total, came from that country. For the purposes of the investigation, Argentina was, therefore, the principal competing country. Exports from Argentina to the United States represent only a small proportion of the total exports from that country. During 1924, 1925, and 1926 the exports to the United States were 1 per cent, 1.25 per cent and four-tenths of 1 per cent of the total quantity exported each year from Argentina.

Although imports of corn from Argentina are of the flint variety and domestic corn is almost entirely of the softer dent variety, they are used for approximately the same purposes and are readily substituted for each other. In the manufacture of corn meal, corn starch, corn sirups and sugars, and other corn products, they are freely interchanged. Both are used as feed for poultry and birds, and for hogs and other animals. The small kernalled flint corn is preferred for feeding pigeons and other birds and to some extent for feeding poultry; the dent variety for feeding hogs and other animals. Argentine corn cracked for animal feeds competes directly with domestic corn. Competition is limited, however, to two important deficiency areas—(1) the Atlantic coast within a relatively short distance from New York City; (2) the Pacific coast in the important poultry producing centers of California and in and around Seattle, Wash., and Portland, Oreg.

The table following gives the prices of corn at Chicago, Liverpool, and Buenos Aires, 1900 to 1927.

Corn: Comparison of annual average prices in Chicago, Buenos Aires, and Liverpool, 1900-1928

[Per bushel]

Year	Chicago No. 3 yellow ¹	Liverpool ²	Buenos Aires ³	Excess of Liverpool over Chicago	Excess of Liverpool over Buenos Aires	Duty	Excess of Chicago over Buenos Aires
1900	\$0.36	\$0.57	\$0.40	\$0.21	\$0.17	15 cents per bushel	-\$0.04
1901	.43	.63	.49	.20	.14	do	-.06
1902	.62	.71	.51	.09	.20	do	+.11
1903	.47	.62	.41	.15	.21	do	+.06
1904	.49	.61	.44	.12	.17	do	+.05
1905	.48	.65	.49	.17	.16	do	-.01
1906	.44	.62	.50	.18	.12	do	-.06
1907	.50	.70	.56	.20	.14	do	-.06
1908	.68	.76	.62	.08	.14	do	+.06
1909	.65	.78	.62	.13	.16	do	+.03
1910	.59	.67	.56	.08	.11	do	+.03
1911	.53	.72	.86	.19	.14	do	-.33
1912	.71	.78	.55	.07	.23	do	+.16
1913	.53	.67	.57	.14	.10	do	-.04
1914	.70	.85	.54	.15	.31	Free	+.16
1915	.70	1.21	.53	.51	.68	do	+.17
1916	.79	1.46	.63	.67	.83	do	+.16
1917	1.11	1.99	1.13	.88	.86	do	-.02
1918	1.63	2.18	.66	.55	1.52	do	+.97
1919	1.62	2.03	.80	.41	1.23	do	+.82
1920	1.59	1.94	.92	.35	1.02	do	+.67
1921	.62	.86	.70	.24	.16	15 cents per bushel	-.08
1922	.55	.81	.74	.26	.07	do	-.19
1923	.73	.96	.77	.23	.19	do	-.04
1924	.88	1.02	.84	.14	.18	do	+.04
1925	1.09	1.09	.95	.00	.14	do	+.14
1926	.76	.84	.66	.08	.18	do	+.10
1927	.84	1.06	.70	.22	.36	do	+.14
1928	.98	1.06	.92	.08	.14	do	+.06

¹ No. 3 yellow weighted average price per bushel of reported cash sales. From 1924 Agriculture Yearbook. Year beginning in previous November.

² Prices of American mixed maize from the Journal Royal Statistical Society, year 1927, from Bromhall's Corn Trade News.

³ Quotations from Anuario de Estadística Agro-Pecuaría 1925-26, sec. B, p. 129. Argentine Minister of Agriculture, years 1926, 1927, from Review of River Plate and Bolsa de Cereals.

The commission summarizes its findings of fact as follows:

1. Argentina is the principal competing country.
2. Commissioners Marvin, Brossard, and Lowell are of the opinion that the present duty of 15 cents per bushel of 56 pounds prescribed in paragraph 724 of Title I of the tariff act of 1922 does not equalize the difference in costs of production in the United States and in said principal competing country; that San Francisco is the principal port of entry and the chief competing market; that for the final cost comparison in this investigation the domestic farm costs of production should include the charge for the use of corn land calculated at the rate of 6 per cent interest on the value of the farm land used in the production of corn; that the weighted average cost of production should be obtained by weighting the area and State unit costs respectively by the production in the respective areas and States included in the investigation; that transportation costs to San Francisco should be included for the domestic corn from all of the eight surplus producing States for which the commission has cost of production data (Ohio, Indiana, Illinois, Iowa, Minnesota, South Dakota, Nebraska, and Kansas); that in determining the weighted average of domestic costs of transportation, the freight rate to San Francisco from each producing area, respectively, for which the commission ascertained costs, production should be weighted by the production of corn in that area; and that Argentine costs of production should be based on the weighted average of the invoice prices of Argentine corn during the two years, January 1, 1926, to December 31, 1927, including transportation costs to San Francisco.

The weighted average cost of production of corn in the United States for the two years, 1926 and 1927, including transportation to San Francisco, as shown in Table 43, page 44,^a is \$1.284 per bushel of 56 pounds, and the average cost of

^a Printed report to President.

production of Argentine corn for the two years, 1926 and 1927, including transportation to San Francisco, is \$0.936 per bushel of 56 pounds. Said cost of production for the United States exceeds said cost of production for Argentina by \$0.348 per bushel of 56 pounds.

The rate of duty necessary to equalize said difference in costs of production of corn in the United States and in said principal competing country, within the limit specified in section 315 of the tariff act of 1922, is a specific duty of 22½ cents per bushel of 56 pounds.

3. Commissioners Dennis, Dixon, and Clark are of the opinion that New York is the principal port of entry and the chief competing market; that the weighted average cost of production of domestic corn should be obtained by weighting the unit costs of the various areas and States by the surplus corn produced in such areas and States, respectively; that domestic costs, as a rule, should include the cash rental charge for the use of corn land, but the evidence of cash rental is so meager in the report that these domestic costs must necessarily include the charge for the use of corn land calculated at the rate of 6 per cent interest per annum of the value of the farm land used in the production of corn; that the domestic cost should be calculated for the surplus producing States shipping corn to New York, where it meets the foreign corn in competition, such States being Ohio, Indiana, Illinois, Iowa, and Minnesota; that the weighted average costs of transportation to New York from these surplus producing States should be determined by weighting the freight rates from each State to New York on the basis of surplus production; that as farm costs of production in Argentina could not be procured, the total costs of the domestic corn delivered at New York should be compared with the invoice prices of Argentine corn delivered at New York during the years of 1926 and 1927.

The weighted average cost of production of corn in the United States, for the two years 1926 and 1927, including transportation to New York, as shown in Table 41, page 43,^a is \$1.048 per bushel of 56 pounds, and the average cost of production of Argentine corn, including transportation to New York, is \$0.927 per bushel of 56 pounds. Said cost of production in the United States exceeds said cost of production for Argentine corn by \$0.121. In the opinion of Commissioners Dennis, Dixon, and Clark, the difference in costs of production shown above does not warrant a change in the duty.

The report with respect to corn or maize contains a detailed discussion of the items entering into cost, detailed tables of farm, marketing, and transportation costs, and summary tables employing different methods of cost calculation.

The cost comparison upon which the statement of Commissioners Marvin, Brossard, and Lowell is based, follows.

Corn: Comparison of costs of production of domestic and Argentine corn, including transportation from all areas to New York and San Francisco, 1926, 1927, and the 2-year average, with land charge on interest basis, weighted on total production in areas studied

[Per bushel]

Competitive market	1926 ¹		1927 ¹		2-year average	
	Domestic cost	Foreign cost	Domestic cost	Foreign cost	Domestic cost	Foreign cost
New York:						
Farm cost.....	\$0.778		\$0.781		\$0.780	
Marketing cost.....	.071		.074		.072	
Transportation cost.....	.261		.261		.261	
Total cost.....	1.110	\$1.027	1.116	\$0.827	1.113	\$0.927
San Francisco:						
Farm cost.....	.778		.781		.780	
Marketing cost.....	.071		.074		.072	
Transportation cost.....	.432		.432		.432	
Total cost.....	1.281	.914	1.287	.957	1.284	.936
Amount by which United States cost exceeds Argentine cost, including transportation:						
At New York.....	.083		.289		.186	
At San Francisco.....	.367		.330		.348	

¹ The crop year, May 1 to Apr. 30, for the domestic; the calendar year for the foreign; such a comparison is made necessary by the overlapping seasons in the Northern and Southern Hemispheres.

^a Printed report to President.

The cost comparison on which the statement of Commissioners Dennis, Dixon, and Clark is based follows.

Corn: Comparison of costs of production of domestic and Argentine corn, including transportation to New York and San Francisco, 1926, 1927, and 2-year average, weighted by quantities shipped out of counties where grown, with land charge on interest basis

[Per bushel]

Competitive market	1926 ¹		1927 ¹		2-year average	
	Domestic cost	Foreign cost	Domestic cost	Foreign cost	Domestic cost	Foreign cost
New York:						
Farm cost.....	\$0. 701	-----	\$0. 781	-----	\$0. 741	-----
Marketing cost.....	. 064	-----	. 067	-----	. 066	-----
Transportation cost.....	. 241	-----	. 241	-----	. 241	-----
Total cost.....	1. 006	\$1. 027	1. 089	\$0. 827	1. 048	\$0. 927
San Francisco:						
Farm cost.....	. 808	-----	. 761	-----	. 785	-----
Marketing cost.....	. 067	-----	. 070	-----	. 069	-----
Transportation cost.....	. 382	-----	. 382	-----	. 382	-----
Total cost.....	1. 257	. 914	1. 213	. 957	1. 236	. 936
Amount by which United States cost exceeds Argentine cost, including transportation:						
At New York.....	² — . 021		. 262		. 121	
At San Francisco.....	. 343		. 256		. 300	

¹ The crop year May 1 to Apr. 30, for the domestic; the calendar year for the foreign; such a comparison is made necessary by the overlapping season in the Northern and Southern Hemispheres.

² Minus sign means excess of Argentine over domestic costs.

The supplementary statement submitted by the commission on August 16, 1929, contains data showing acreage and production in the United States and Argentina over a period of years, and statistics on production, imports, exports, and prices for the year 1928 and for the few months of 1929 which became available since the submission of the corn report. The supplementary statement also shows the corn deficiency areas in the United States, the principal markets and the corn shipped to the principal markets, and cost comparisons for the New York and San Francisco markets and for New York and San Francisco combined. In addition to the supplementary statement signed by all commissioners, two separate statements were submitted by Commissioners Dennis, Dixon, and Clark, and by Commissioners Marvin, Brossard, and Lowell.

The statement by Commissioners Dennis, Dixon, and Clark pointed out that no new information had been secured as to costs of producing corn in the United States and Argentina; and that "the only significant fact about the new material is revealed by the later 16-month period for which international trade figures in corn have been obtained. This later statistical period (calendar year 1928 and first four months of 1929) indicates that our imports of corn are declining and our exports of corn increasing." They state that "If the facts before us in the autumn of 1928 suggested no basis for a higher duty when imports of corn amounted to 5,000,000 bushels, how can we modify that position when imports have now declined to 547,000 bushels (calendar year 1928)?"

They further state:

We have no new facts to alter our judgment that New York is the principal competing market for corn in the United States or to modify our objection to the fiction which would weight domestic transportation charges on corn to coastal markets by the entire output of the surplus-producing States. In point of fact, the corn market study of the Department of Commerce, the publication of which

was made available since the transmission of the original report, shows that in 1926 practically all the shipments of corn to the Southwestern States originated in Iowa, Kansas, and Nebraska (see pp. 81, 82, and 83, supplementary report). Prices of corn in the principal markets plus transportation to San Francisco (p. 84, supplementary report) confirms the conclusion that the Pacific coast shipments originate in Kansas and Nebraska and confutes the doctrine that such transportation charges should be weighted by the entire production of all surplus-producing States. We reaffirm our former judgment that transportation charges should be limited to actual shipments or to shipments which might take place under conditions which are reasonable and conceivable to the human understanding.

Commissioners Dennis, Dixon, and Clark concluded that they "stand by their judgment as recorded in the original report that no warrant exists for a change in the present duty on corn."

The statement of Commissioners Marvin, Brossard, and Lowell calls attention to the decline in the corn acreage in the United States during the last 5-year period 1924-1928 over that of 1909-1914, and the decline in exports of corn from the United States from 72,745,000 bushels in 1919-1923 to 18,684,000 bushels during the 5-year period 1924-1928. The corn acreage in Argentina, on the other hand, had increased from a 5-year average of 21,900,000 acres during 1909-1913 to 31,500,000 acres in 1927.

Commissioners Marvin, Brossard, and Lowell stated as follows:

The comment by Commissioners Dennis, Dixon, and Clark lays emphasis upon the small percentage of imported corn compared with the national production of corn. Such a comparison fails to present fully the situation in our competitive markets, the Atlantic and Pacific seaboard areas. A fairer method would be a comparison of the amount of imports with the production of the deficiency areas. Thus the Pacific seaboard States—California, Oregon, and Washington—produce 6,616,000 bushels of corn and import 1,018,000 bushels (average for 1923-1928). In other words, the imports are equal to 15 per cent of the amount produced in that area. Furthermore, the imports are by no means negligible when compared with the domestic corn sold in the open market instead of with total corn production, including that fed to livestock on the farms where produced.

Chairman Marvin and Commissioners Brossard and Lowell were of the opinion

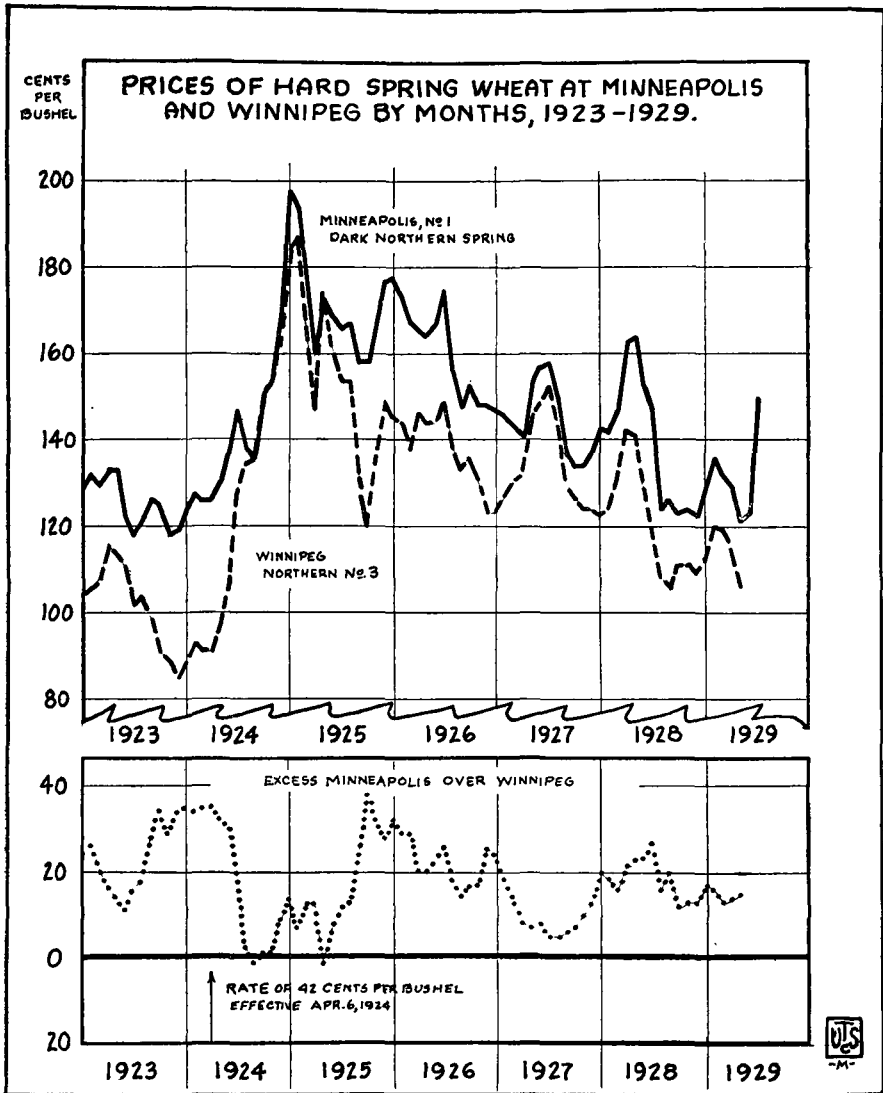
that the corn-deficient areas (the Atlantic and Pacific seaboard States) may be accepted as the principal competing market, and that the weighted average cost of production in the United States, including transportation costs to New York and San Francisco as representative points in the deficiency areas, may be compared with the weighted average cost of production of Argentine corn, including costs of transportation to the same points * * * and the rate of duty necessary to equalize the difference in costs of production of corn in the United States and in the principal competing country, within the limit specified in section 315 of the tariff act of 1922, is 22½ cents per bushel of 56 pounds.

(b) STATISTICS OF COMMODITIES ON WHICH CHANGES IN DUTIES HAVE BEEN MADE UNDER PROVISIONS OF SECTION 315

Statistics of imports and of prices of commodities on which changes in duties have been made under section 315 should be interpreted with caution. Many of the changes have been so recent that the figures can not be taken as an indication of the effect of the new rates. Even where the course of imports and prices is shown for a number of years since the change in rate became effective, it should not be assumed that increases or decreases have been due solely to the change in rate.

The statistics here given are arranged in the order in which the changes in duties upon the commodities were made. Imports for

consumption are given by years for the period 1923 to 1928 and by months or quarters beginning with the year before the change in duty. Prices are shown monthly or quarterly for the same period as imports. Where possible comparison is made of the prices of the commodity in the ruling domestic and foreign markets; otherwise, of the imported and domestic commodity in the principal domestic market.



(1) *Wheat*.—Table A shows the marked decline in imports of duty-paid wheat after the increase from 30 to 42 cents per bushel on April 6, 1924. Annual imports declined from 8,930,000 bushels in 1923 to the low level of 21,000 bushels in 1927, increasing to 224,000 bushels in 1928, but amounted to only 11,000 bushels in the first seven months of 1929. Free entries for milling-in-bond and for export increased from slightly less than 10,000,000 bushels in 1923 to nearly 20,000,000 bushels in 1928.

TABLE A.—Wheat: Imports for consumption, 1923-1929

Year and month	Full duty			Free in bond for milling and export		
	Quantity	Foreign value	Unit value	Quantity	Foreign value	Unit value
<i>Under the rate of duty originally provided in the act of 1922 (30 cents per bushel)</i>						
1923	Bushels 8,929,749	\$8,887,124	\$1.00	Bushels 9,988,592	\$10,339,859	\$1.04
1924	6,215,465	5,841,153	.94	3,058,703	2,745,945	.90
<i>Under the rate of duty as proclaimed by the President, effective Apr. 6, 1924 (42 cents per bushel)</i>						
1924	679,160	736,178	1.08	6,421,116	6,900,606	1.07
1925	1,308,399	1,701,851	1.30	10,439,714	15,009,870	1.44
1926	451,029	640,140	1.42	15,429,102	21,488,633	1.39
1927	21,299	27,443	1.29	11,152,699	14,651,452	1.31
1928	224,133	280,690	1.25	19,766,974	22,908,096	1.16
1929 (9 months)	15,210	16,849	1.11	11,456,858	12,505,083	1.09

Table B compares prices of No. 1 Dark Northern spring wheat in Minneapolis with prices of No. 3 Northern spring wheat in Winnipeg. Prices in Minneapolis have generally been higher than prices in Winnipeg but not by the full amount of the duty. The effect of the change in duty on prices has been modified by changes in freight rates, in conditions of storage and marketing, and in the relative quantities of the several grades imported. Furthermore, the Canadian standards for the several grades are not fixed but vary from year to year. In the fall of the year a large number of samples of the crop are obtained and analyzed, and the grades for that year are determined on the basis of the protein content of the wheat, its weight per bushel, and the percentage of foreign matter that it contains. This change in standards lessens the value of price comparisons in measuring the effects of a change in duty.

TABLE B.—Prices of spring wheat at Minneapolis and Winnipeg, 1923-1929 [Per bushel]

Date	Minneapolis ¹	Winnipeg ²	Amount Minneapolis price exceeds Winnipeg	Date	Minneapolis ¹	Winnipeg ²	Amount Minneapolis price exceeds Winnipeg
	Dark Northern No. 1	Northern No. 3			Dark Northern No. 1	Northern No. 3	
1923:				1927:			
January	\$1.28	\$1.04	\$.24	January	\$1.47	\$1.23	\$.24
April	1.33	1.16	.17	April	1.41	1.33	.08
July	1.18	1.02	.16	July	1.58	1.53	.05
October	1.25	.91	.34	October	1.34	1.27	.07
1924:				1928:			
January	1.24	.89	.35	January	1.43	1.23	.20
April ³	1.26	.91	.35	April	1.63	1.42	.21
July	1.47	1.27	.20	July	1.47	1.20	.27
October	1.51	1.50	.01	October	1.23	1.11	.12
1925:				1929:			
January	1.98	1.84	.14	January	1.29	1.12	.17
April	1.60	1.47	.13	April	1.29	1.15	.14
July	1.66	1.54	.12	July	1.50		
October	1.58	1.20	.38				
1926:							
January	1.78	1.46	.32				
April	1.66	1.46	.20				
July	1.75	1.49	.26				
October	1.53	1.36	.17				

¹ From Crops and Markets, U. S. Department of Agriculture.

² From Monthly Bulletin of Agricultural Statistics: Dominion Bureau of Statistics.

³ Change in duty from 30 cents to 42 cents per bushel effective Apr. 6, 1924.

(2) *Wheat flour.*—Following the increase in the duty on wheat flour from 78 cents to \$1.04 per 100 pounds effective April 6, 1924, imports sharply declined, dropping from 264,000 barrels in 1923 to less than 4,000 barrels in 1928. (See Table C.) Since the price of flour moves with that of wheat, no price quotations on flour are here given.

TABLE C.—*Wheat flour: Imports for consumption, 1923-1929*

Year	Quantity		Foreign value	Unit value
	Pounds	Barrels		
<i>Under the rate of duty originally provided for in act of 1922 (78 cents per 100 pounds)</i>				
1923	51,747,653	264,019	\$1,366,051	Per barrel \$5.17
1924	11,531,441	55,983	291,610	5.21
<i>Under the rate of duty as proclaimed by the President, effective April 6, 1924 (104 cents per 100 pounds)</i>				
1924	1,141,640	8,676	27,232	3.14
1925	2,173,198	11,086	71,417	6.44
1926	1,794,376	9,165	71,587	7.82
1927	701,403	3,579	30,158	8.43
1928	757,665	3,867	26,917	6.96
1929 (9 months)	259,459	1,324	9,050	6.84

(3) *Bran, shorts, and other by-products of wheat.*—The reduction in duty upon by-product feeds was followed by a considerable increase in imports. From a total of 126,000 long tons, valued at about \$3,000,000 in 1923, entries of direct importations and withdrawals from bonded mills together amounted to 273,000 long tons, valued at somewhat over \$8,000,000 in 1928.

Tables D to F show the movement of prices of by-product wheat feeds before and since the change in duty. Table E compares the prices of bran at Buffalo and Minneapolis with prices at Toronto and Winnipeg. Table F compares the prices of spring wheat middlings at Buffalo and Minneapolis with the prices of shorts at Toronto and Winnipeg.

TABLE D.—*Bran, shorts, and other by-products of wheat: Imports for consumption, 1923-1929*

Year and quarter	Direct importation		Unit value	Withdrawn from bonded mills ¹		Unit value
	Quantity	Foreign value		Quantity	Foreign value	
<i>Under the rate of duty originally provided for in the act of 1922 (15 per cent)</i>						
	<i>Long tons</i>			<i>Long tons</i>		
1923	126,469	\$2,997,626	\$23.70			
1924	26,427	568,745	21.52			
<i>Under the rate of duty as proclaimed by the President, effective April 6, 1924 (7½ per cent)</i>						
1924	210,770	\$4,449,221	\$21.11			
1925	251,862	6,107,274	24.25			
1926	105,839	2,471,434	23.35	79,743	\$1,980,004	\$24.83
1927	83,102	2,219,497	26.71	104,970	2,885,156	27.49
1928	138,968	3,800,292	27.35	133,727	4,210,302	31.48
1929 (9 months)	129,944	3,332,548	25.65	110,988	3,088,194	27.82

¹ The by-products of wheat brought in free of duty and milled in bonded warehouses for export as flour.

TABLE E.—Prices of bran at Buffalo and Toronto, 1923-1928

[Per short ton]

Date	Buffalo standard spring wheat bran ¹	Toronto bran ²	Amount Toronto price exceeds Buffalo	Date	Buffalo standard spring wheat bran ¹	Toronto bran ²	Amount Toronto price exceeds Buffalo
1923:				1926:			
January.....		\$24.25		January.....	\$31.50	\$31.25	-\$0.25
April.....	\$32.00	28.25	-\$3.75	April ³	30.00	31.25	1.25
July.....	24.50	28.25	1.75	July.....	24.00	27.25	1.25
October.....	33.50	28.25	-5.25	October.....	25.00	28.25	3.25
1924:				1927:			
January.....	29.00	28.25	-.75	January.....	30.10	32.25	2.15
April ³	25.50	26.25	.75	April.....	31.90	32.25	.35
July.....	26.00	27.25	1.25	July.....	29.35	32.25	2.90
October.....	27.00	30.25	3.25	October.....	28.95	30.25	1.30
1925:				1928:			
January.....	33.00	36.00	3.00	January.....	35.00	34.00	-1.00
April.....	27.00	26.25	-.75	April.....	38.66	40.00	1.35
July.....	28.00	28.25	.25	July.....	30.25	33.40	3.15
October.....	26.00	27.25	1.25	October.....	32.40	33.50	1.10

¹ From Crops and Markets, U. S. Department of Agriculture. Prices shown through 1926 are averages for the week which included the middle of the month. From January, 1927, prices shown are monthly averages.

² From Monthly Bulletin of Agricultural Statistics; Dominion Bureau of Statistics.

³ Change in duty from 15 per cent to 7½ per cent ad valorem effective Apr. 6, 1924.

TABLE F.—Prices of middlings (shorts) at Buffalo and Toronto, 1923-1929

[Per short ton]

Date	Buffalo standard spring wheat middlings ¹	Toronto shorts ²	Amount Toronto price exceeds Buffalo	Date	Buffalo standard spring wheat middlings ¹	Toronto shorts ²	Amount Toronto price exceeds Buffalo
1923:				1927:			
January.....		\$26.25		January.....	\$31.10	\$34.25	\$3.15
April.....	\$31.50	30.25	-\$1.25	April.....	32.75	34.25	1.50
July.....	29.50	28.25	-1.25	July.....	35.35	35.25	-.10
October.....	33.50	31.25	-2.25	October.....	29.80	32.25	2.45
1924:				1928:			
January.....	29.00	31.25	2.25	January.....	34.60	36.00	1.40
April ³	23.50	28.25	4.75	April.....	38.85	42.00	3.15
July.....	27.00	31.25	4.25	July.....	34.10	36.20	2.10
October.....	29.00	32.25	3.25	October.....	32.90	35.50	2.60
1925:				1929:			
January.....	37.50	38.25	.75	January.....	33.25	33.50	.25
April.....	28.00	28.25	.25	April.....	26.40	29.25	2.85
July.....	29.50	30.25	.75	July.....	31.75		
October.....	27.50	29.25	1.75				
1926:							
January.....	31.50	33.25	1.75				
April.....	30.00	33.25	3.25				
July.....	28.50	29.25	0.75				
October.....	26.00	30.25	4.25				

¹ From Crops and Markets; U. S. Department of Agriculture. Prices shown through 1926 are averages for the week which included the middle of the month. From January, 1927, prices shown are monthly averages.

² From Monthly Bulletin of Agricultural Statistics; Dominion Bureau of Statistics.

³ Change in duty from 15 per cent to 7½ per cent ad valorem effective April 6, 1924.

(4) *Live bobwhite quail*.—Table G shows the importations of live bobwhite quail since the change in duty from 50 cents to 25 cents on November 2, 1925. The proclamation not only changed the duty

but created a new classification, bobwhite quail formerly being included in the general classification for live birds. For this reason no statistics of imports before the change in duty are available for comparison. The largest imports since the change, occurred in 1927 when nearly 48,000 birds, valued at about \$18,000, came in.

TABLE G.—*Bobwhite quail, valued at \$5 each or less: Imports for consumption, 1926-1929*¹

Year and month	Quantity	Foreign value	Unit value
<i>Rate of duty under act of 1922 (50 cents each)²</i>			
1925:	<i>Number</i>		
November.....	-----	-----	-----
December.....	-----	-----	-----
<i>Under rate of duty as proclaimed by the President, effective November 2, 1926 (25 cents each)</i>			
1926.....	34, 039	\$15, 818	\$0. 465
1927.....	47, 674	17, 690	. 371
1928.....	24, 349	11, 643	. 478
1929.....	37, 860	18, 147	. 479

¹ All importations of live quail occur during the months January to May.

² Imports of live quail were not reported separately prior to the change in rate of duty by presidential proclamation.

(5) *Butter*.—There has been a considerable expansion in the butter industry throughout the world in recent years. In the United States the production of creamery butter, representing about two-thirds of the total domestic output, increased from 1,242,214,000 pounds in 1923 to 1,487,949,000 pounds in 1928. During the same period the trend of the production of butter in important surplus producing foreign countries was also upward. The exports of 15 of the principal exporting countries, which had amounted to 543,000,000 pounds in 1922, reached a total of 855,000,000 pounds in 1927, an increase of over 300,000,000 pounds. This increase in the world's exportable butter surplus tended to depress prices in the world markets in much the same manner as the increase in domestic production bore down upon domestic prices. Much of this enlarged world surplus resulted from the expansion of production in the low-cost areas in the southern hemisphere.

Table H shows the imports for consumption of butter for 1923-1929.

TABLE H.—*Butter: Imports for consumption from Denmark, New Zealand, and all countries, by years 1923-1929 and by months 1926-1929*¹

Calendar year and month	Pounds		
	Denmark	New Zealand	Total
<i>Under the rate of duty originally provided in the act of 1922 (8 cents per pound)</i>			
1923.....	7, 081, 208	2, 446, 247	20, 809, 620
1924.....	5, 359, 566	3, 983, 691	2 19, 279, 309
1925.....	420, 755	2, 201, 815	6, 861, 435
1926.....	555, 848	832, 428	3, 276, 024

¹ Rate of duty changed to 12 cents per pound by President's proclamation, effective Apr. 5, 1926.

² Includes 4,648,529 pounds valued at \$1,530,892 withdrawn from warehouse for which no detail by countries is available.

TABLE H.—Butter: Imports for consumption from Denmark, New Zealand, and all countries, by years 1923-1929 and by months 1926-1929—Continued

Calendar year and month	Pounds		
	Denmark	New Zealand	Total
<i>Under the rate of duty as proclaimed by the President, effective April 5, 1926 (12 cents per pound)</i>			
1926.....	865, 176	906, 282	3, 451, 031
1927.....	997, 267	3, 511, 413	8, 458, 397
1928.....	644, 002	2, 215, 289	4, 334, 684
1929 (9 months).....	732, 012	1, 143, 358	2, 117, 715
1926:			
January.....	345, 747	323, 497	1, 113, 917
February.....	144, 677	251, 259	841, 093
March.....	50, 028	213, 651	616, 708
April.....	176, 982	195, 104	713, 895
May.....	16, 898	74, 032	101, 386
June.....	12, 241	68, 880	100, 942
July.....	73, 368	44, 520	137, 214
August.....	7, 666	94, 167	127, 561
September.....	21, 962	69, 440	144, 491
October.....	17, 296	41, 160	184, 738
November.....	150, 057	29, 960	540, 573
December.....	504, 102	418, 040	2, 104, 534
1927:			
January.....	227, 250	114, 240	688, 446
February.....	143, 460	533, 020	951, 796
March.....	130, 558	931, 392	2, 620, 977
April.....	80, 103	1, 224, 026	2, 322, 272
May.....	64, 902	86, 958	251, 319
June.....	54, 670	98, 168	203, 975
July.....	53, 944	173, 577	269, 005
August.....	57, 620	69, 323	162, 026
September.....	52, 469	40, 768	119, 282
October.....	20, 241	36, 400	99, 742
November.....	33, 793	105, 448	194, 761
December.....	78, 257	93, 088	562, 796
1928:			
January.....	26, 306	407, 400	1, 099, 629
February.....	68, 310	173, 364	357, 547
March.....	44, 604	711, 837	1, 080, 311
April.....	58, 564	127, 156	232, 396
May.....	68, 624	82, 768	178, 355
June.....	36, 111	73, 976	240, 038
July.....	29, 968	100, 464	196, 324
August.....	59, 449		78, 077
September.....	51, 703	128, 240	241, 245
October.....	82, 451	72, 464	210, 997
November.....	48, 624	86, 280	204, 614
December.....	68, 288	245, 340	354, 651
1929:			
January.....	107, 663	153, 552	294, 491
February.....	54, 441	116, 704	197, 790
March.....	65, 474	109, 256	198, 294
April.....	100, 233	124, 284	258, 676
May.....	86, 563	194, 324	293, 780
June.....	89, 010	161, 504	273, 043
July.....	61, 425	137, 430	223, 862
August.....	66, 921	81, 032	159, 328
September.....	100, 282	64, 792	213, 451

¹ Rate of duty changed to 12 cents per pound by President's proclamation, effective Apr. 5, 1926.

² Includes 59,837 pounds valued at \$22,030 withdrawn from warehouse for which no countries are shown.

⁴ Includes 36,321 pounds valued at \$12,359 withdrawn from warehouse for which no countries are shown.

Table I compares the prices in London of New Zealand and Danish butter, selected as being most comparable in grade, with prices of 92-score butter in New York. The same data are shown graphically in the charts on page 190.

TABLE I.—Comparison of prices of 92-score creamery butter in New York with prices of New Zealand and Danish butter in London, 1922-1929

[Cents per pound]

	Creamery 92-score New York	New Zealand butter in London	Danish butter in London	Excess New York over New Zealand	Excess New York over Danish
1922:					
January	37.42	25.90	32.87	11.52	4.55
February	37.33	27.58	35.12	9.75	2.21
March	38.19	31.86	36.31	6.33	1.88
April	37.77	36.54	36.90	1.23	.87
May	36.55	34.84	36.82	1.71	-.27
June	36.94	40.30	40.63	-3.36	-3.69
July	36.31	43.39	42.84	-7.08	-6.33
August	35.55	40.50	41.88	-4.95	-6.35
September	41.16	42.74	43.69	-1.58	-2.53
October	45.69	42.84	43.80	2.85	1.89
November	50.78	42.76	43.50	8.02	7.28
December	54.33	38.11	43.03	16.22	11.30
1923:					
January	52.19	40.98	43.96	11.21	8.23
February	49.46	42.39	43.95	7.07	5.51
March	49.57	42.69	44.19	6.88	5.38
April	46.31	33.78	36.91	12.53	9.40
May	41.63	29.93	31.92	11.70	9.71
June	38.86	31.62	31.43	7.24	7.43
July	39.16	33.25	33.04	5.91	6.12
August	43.92	36.82	36.65	7.10	7.27
September	45.98	39.83	41.62	6.15	4.36
October	47.45	39.55	41.07	7.90	6.38
November	52.41	39.86	41.43	12.55	10.98
December	54.73	42.04	43.32	12.69	11.41
1924:					
January	52.93	40.73	41.87	12.20	11.06
February	50.38	38.54	41.18	11.84	9.20
March	46.88	33.53	39.60	13.35	7.28
April	38.75	30.90	34.65	7.85	4.10
May	38.74	33.28	38.17	5.46	.57
June	41.49	34.16	35.25	7.33	6.24
July	40.49	37.16	39.39	3.33	1.10
August	38.37	41.04	42.74	-2.67	-4.37
September	37.89	42.11	43.67	-4.42	-5.78
October	38.46	45.40	47.32	-6.94	-8.86
November	42.48	43.81	45.14	-1.33	-2.66
December	44.74	44.12	49.70	.62	-4.96
1925:					
January	40.61	37.19	44.17	3.42	-3.56
February	40.84	38.44	47.56	2.40	-6.72
March	47.60	39.26	48.59	8.34	-.99
April	44.69	38.13	42.69	6.56	2.00
May	42.85	37.56	39.38	5.29	3.47
June	42.59	40.79	41.54	1.80	1.05
July	42.44	42.78	42.74	-.34	-.30
August	43.46	43.58	45.80	-.12	-2.34
September	47.61	45.01	47.76	2.60	-.15
October	50.97	48.60	49.16	2.37	1.81
November	50.59	45.54	46.73	5.05	3.86
December	49.19	38.71	41.83	10.48	7.36
1926:					
January	44.75	37.96	38.96	6.79	5.79
February	44.84	38.21	42.06	6.63	2.78
March	43.08	37.85	41.54	5.23	1.54
April ¹	39.55	37.87	39.18	1.68	.37
May	40.92	37.22	38.04	3.70	2.88
June	41.18	38.34	38.23	2.84	2.95
July	40.54	37.17	37.82	3.37	2.72
August	41.64	37.85	38.53	3.79	3.11
September	44.32	35.80	38.63	8.52	5.69
October	46.71	32.05	38.92	14.66	7.79
November	50.33	32.57	37.58	17.76	12.75
December	54.50	37.25	39.96	17.25	14.54

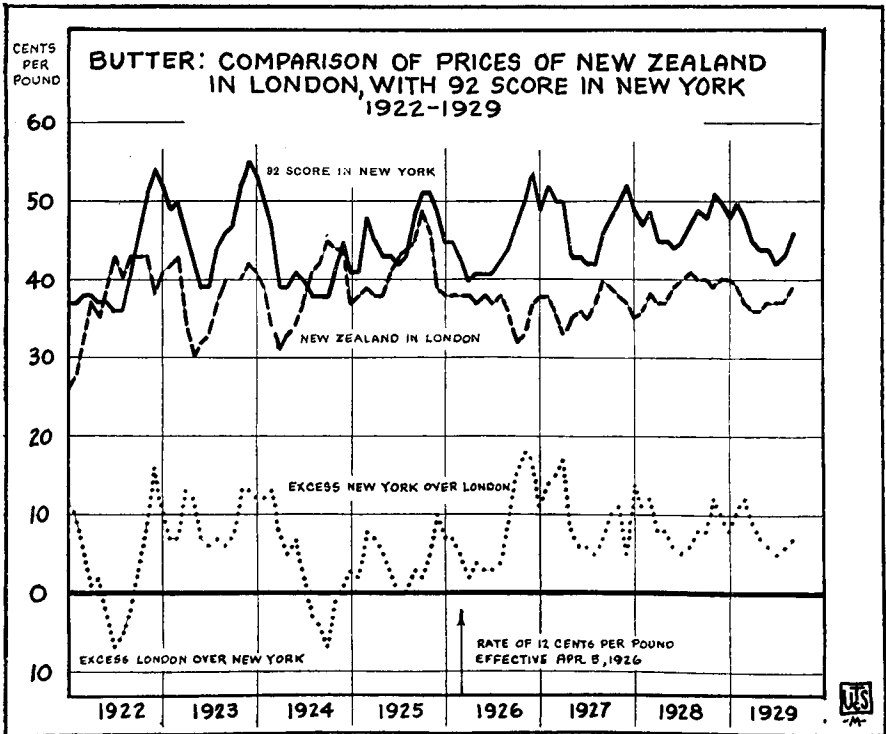
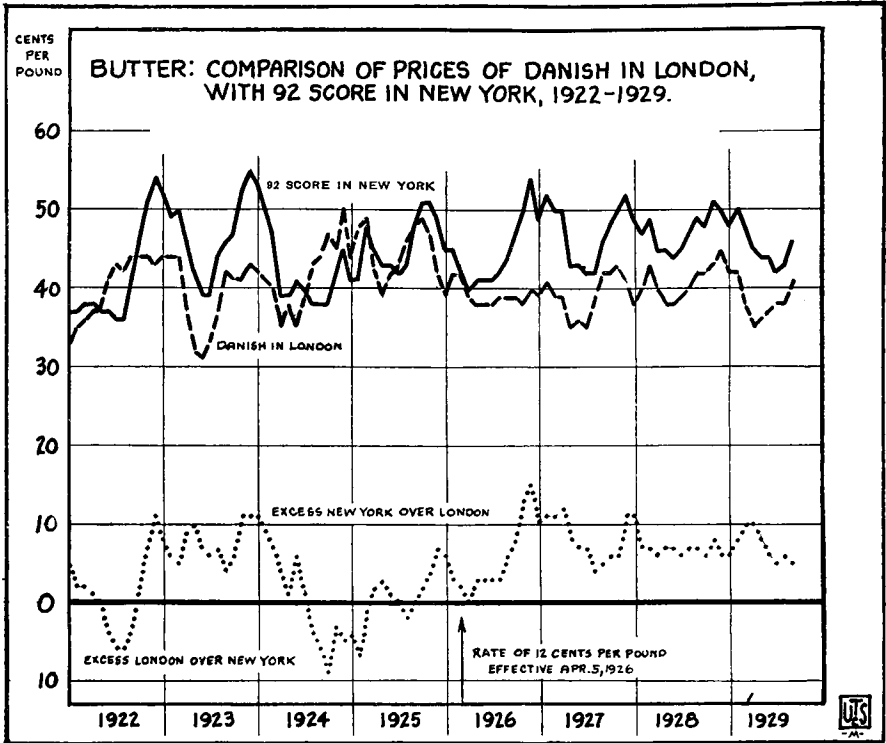
¹ Rate of duty increased from 8 cents to 12 cents per pound effective Apr. 5, 1926.

TABLE I.—Comparison of prices of 92-score creamery butter in New York with prices of New Zealand and Danish butter in London, 1922-1929—Continued

(Cents per pound)

	Creamery 92-score New York	New Zea- land butter in London	Danish butter in London	Excess New York over New Zealand	Excess New York over Danish
1927:					
January	49.15	37.69	38.70	11.46	10.45
February	51.54	38.00	40.98	13.54	10.56
March	50.17	34.93	39.22	15.24	10.95
April	50.34	33.04	38.65	17.30	11.69
May	43.46	35.02	35.29	8.44	8.17
June	42.51	36.16	35.82	6.35	6.69
July	41.72	35.44	34.68	6.28	7.04
August	41.88	36.81	37.55	5.07	4.33
September	46.46	39.89	41.54	6.57	4.92
October	48.39	38.67	42.00	9.72	6.30
November	49.79	38.45	43.48	11.34	6.31
December	51.87	36.67	41.28	5.20	10.59
1928:					
January	48.76	35.04	38.25	13.72	10.51
February	46.62	35.91	39.63	10.71	6.99
March	49.44	37.91	42.90	11.53	6.54
April	45.49	37.38	39.91	8.11	5.58
May	44.93	37.31	38.29	7.62	6.64
June	44.13	38.56	37.53	5.57	6.60
July	44.93	40.39	38.92	4.54	6.01
August	46.93	40.56	39.92	6.37	7.01
September	48.75	40.28	42.17	8.47	6.58
October	47.79	39.94	41.59	7.85	6.20
November	50.57	38.88	42.89	11.69	7.68
December	50.46	39.97	44.91	10.49	5.55
1929:					
January	47.94	40.40	41.85	7.54	6.09
February	49.89	38.83	41.67	11.06	8.22
March	48.45	36.61	38.37	11.84	10.08
April	45.35	35.86	35.21	9.49	10.14
May	43.54	36.25	35.97	7.29	7.57
June	43.54	37.23	37.34	6.31	6.20
July	42.42	37.47	37.87	4.95	4.55
August	43.45	37.04	37.39	6.41	6.06
September	46.22	39.18	41.26	7.04	4.96

Source: New York prices from Crops and Markets. Monthly averages of weekly quotations through 1927, monthly averages of daily quotations for 1928 and January to September, inclusive, 1929. London prices from the Statist, monthly averages of weekly quotations.



(6) *Swiss cheese*.—Table J shows the course of imports of Swiss cheese (with the eye formation) from all countries since the increase in the duty from 5 cents per pound but not less than 25 per cent to 7½ cents per pound but not less than 37½ per cent, effective July 8, 1927. Comparable statistics for years preceding the change are not available because the classification was new with the proclamation. The table shows that since the increase the monthly imports have been well maintained with an upward trend.

TABLE J.—*Cheese having the eye formation characteristics of the Swiss or Emmenthaler type: Imports for consumption, by months, July, 1927–July, 1929*¹

Year and month	Quantity	Value	Unit value
1927:			
	<i>Pounds</i>		
July ²	137,415	\$38,651	\$0.281
August.....	712,348	210,014	.295
September.....	³ 16,001	³ 2,731	.171
	1,180,942	354,228	.300
October.....	² 42	² 8	.190
	1,500,755	467,898	.312
November.....	1,823,589	569,594	.312
December.....	1,304,071	390,514	.299
Total.....	³ 38,097	³ 9,503	.249
	6,637,066	2,024,135	.305
1928:			
January.....	1,254,495	379,659	.303
February.....	1,060,403	313,120	.295
March.....	³ 3,472	³ 634	.183
	1,075,211	326,287	.303
April.....	1,673,214	506,241	.303
May.....	1,710,046	512,320	.300
June.....	³ 52,532	³ 9,992	.190
	1,817,928	550,917	.303
July.....	1,715,601	524,444	.306
August.....	2,192,816	664,503	.303
September.....	1,769,287	536,291	.303
October.....	1,952,219	595,863	.305
November.....	1,341,265	437,782	.326
December.....	965,815	290,891	.301
Total.....	³ 56,004	³ 10,626	.190
	18,528,300	5,638,228	.304
1929:			
January.....	1,429,126	437,945	.306
February.....	1,309,335	398,598	.304
March.....	1,478,841	458,520	.310
April.....	1,277,771	392,282	.307
May.....	1,726,573	536,375	.311
June.....	1,999,913	604,690	.302
July.....	2,016,121	606,215	.301

¹ Rate of duty changed by presidential proclamation to 7½ cents per pound but not less than 37½ per cent, effective July 8, 1927. Dutiable at 37½ per cent ad valorem unless otherwise noted.

² July 8 to 31, inclusive. Not reported separately prior to July 8, 1927.

³ Dutiable at 7½ cents per pound.

Comparison of Table J with Table K (p. 192) shows that in 1928 about 85 per cent of all cheese imported from Switzerland was the type with eye formation known as Emmenthaler. The maintenance of the volume of imports subsequent to the increase in duty may be largely explained by the fact that the Emmenthaler Cheese Corporation inaugurated a nation-wide magazine advertising campaign emphasizing the quality of the cheese and by the adoption of the new name "Switzerland Cheese" to distinguish the imported from the domestic cheese of the Swiss type. This name was stamped on the rind of the imported cheese so conspicuously that buyers could not fail to distinguish it from domestic cheese of the same type.

TABLE K.—Cheese: Imports of all cheese from Switzerland, 1923-1928

Year	Quantity	Foreign value	Unit value	Year	Quantity	Foreign value	Unit value
	<i>Pounds</i>				<i>Pounds</i>		
1923-----	16, 371, 537	\$5, 499, 025	\$0, 336	1926-----	16, 618, 987	\$5, 174, 765	\$0.311
1924-----	13, 434, 899	4, 739, 690	. 353	1927-----	18, 952, 870	5, 913, 418	.312
1925-----	15, 829, 174	5, 526, 944	. 349	1928-----	18, 455, 886	5, 933, 149	.321

Table L compares monthly prices of domestic and imported cheese of the Swiss type in New York. It shows that since 1927 the prices of domestic Swiss cheese have scarcely held at the levels obtaining in 1926, while the prices of the imported have somewhat advanced.

TABLE L.—Swiss cheese: Wholesale prices at New York of domestic and imported Swiss cheese, 1926-1929

[Cents per pound]

Month	Wisconsin	Imported	Wisconsin	Imported
	fancy, large-eyed	Swiss round, fancy, large-eyed	fancy, large-eyed	Swiss round, fancy, large-eyed
	1926		1927	
January-----	37-41	-47	35-	-39
February-----	37-40	-46	35-	38-39
March-----	37-40	44-	35-	39-40
April-----	37-40	42-43	35-	-41
May-----	37-40	42-43	35-	43-
June-----	37-40	42-43	35-	45-46
July-----	37-40	43-44	1 35-	46-
August-----	35-	39-40	36-37	46-47
September-----	35-	38-39	36-37	-48
October-----	35-	38-39	38-39	-48
November-----	35-	-39	38-39	-48
December-----	35-	-39	38-39	-48
	1928		1929	
January-----	38-40	-48	39-40	46-48
February-----	38-40	-47	37-38	46-48
March-----	38-40	46-47	37-38	46-48
April-----	38-40	46-47	37-38	46-48
May-----	38-40	46-47	37-38	47-49
June-----	38-40	46-47	37-38	47-49
July-----	39-40	47-48	37-38	47-49
August-----	39-49	-48	37-38	47-49
September-----	39-40	47-48		
October-----	39-40	47-48		
November-----	39-40	47-48		
December-----	39-40	46-48		

¹ Change in duty from 5 cents per pound, but not less than 25 per cent ad valorem, to 7½ cents per pound, but not less than 37½ per cent ad valorem, effective July 8, 1927.

From: *Producers' Price Current*; prices taken at date nearest middle of month.

(7) *Cherries, sulphured or in brine.*—Table M gives monthly imports of cherries, sulphured or in brine, stemmed or pitted, since January 2, 1928, when the duty was increased from 2 to 3 cents per pound. Comparable statistics for earlier years and market quotations on these cherries are not available.

TABLE M.—Cherries, sulphured or in brine, stemmed or pitted: Imports for consumption, by months, 1928 and 1929

[Rate of duty under act of 1922: 2 cents per pound] ¹

Year and month	Quantity	Foreign value	Unit value
1928:			
	<i>Pounds</i>		
January.....	515, 545	\$50, 887	\$0. 118
February.....	728, 936	93, 015	. 128
March.....	715, 060	96, 194	. 133
April.....	660, 154	83, 566	. 127
May.....	702, 596	82, 318	. 117
June.....	373, 688	49, 220	. 132
July.....	451, 223	54, 906	. 122
August.....	1, 074, 120	146, 902	. 137
September.....	1, 501, 227	209, 953	. 140
October.....	1, 407, 916	224, 943	. 160
November.....	1, 410, 935	232, 510	. 165
December.....	1, 413, 345	227, 677	. 161
Total.....	10, 955, 345	1, 561, 091	. 142
1929:			
January.....	1, 169, 075	185, 794	. 159
February.....	730, 696	130, 112	. 178
March.....	651, 002	104, 328	. 160
April.....	716, 372	115, 529	. 161
May.....	529, 051	88, 943	. 168
June.....	389, 714	66, 823	. 171
July.....	1, 545, 641	236, 226	. 153

¹ Changed by presidential proclamation to 3 cents per pound, Jan. 2, 1928.

(8) *Onions*.—Table N indicates that for the short period for which comparable statistics are available imports of onions slightly declined after January 21, 1929, when the change in duty from 1 to 1½ cents per pound became effective. From February to September, 1929, inclusive, imports amounted to 41,678,000 pounds, as compared with 60,504,000 pounds in the corresponding period of the previous year.

Table O compares the prices of domestic onions of the strong and Bermuda types in New York with those of imported Egyptian onions, and the prices of domestic onions of the Spanish type in Chicago with those of imported Spanish onions.

TABLE N.—Onions: Imports for consumption, 1923–1928, and by months, 1928 and 1929

[Under the rate of duty originally provided for in the act of 1922 (1 cent per pound)] ¹

Year and month	Quantity	Foreign value	Unit value
<i>Pounds</i>			
1923.....	110, 961, 487	\$2, 250, 935	\$0. 020
1924.....	75, 310, 495	1, 517, 554	. 020
1925.....	136, 288, 679	2, 748, 542	. 020
1926.....	99, 172, 825	1, 867, 589	. 019
1927.....	120, 573, 666	2, 661, 366	. 022
1928.....	125, 314, 060	2, 660, 878	. 021
1928:			
January.....	4, 440, 977	144, 693	. 033
February.....	3, 438, 967	82, 448	. 024
March.....	4, 819, 610	128, 582	. 027
April.....	11, 480, 426	262, 765	. 023
May.....	9, 477, 815	198, 387	. 021
June.....	7, 629, 406	161, 642	. 021
July.....	6, 500, 802	137, 811	. 021
August.....	3, 170, 526	48, 643	. 015
September.....	13, 986, 223	281, 784	. 020
October.....	27, 673, 571	561, 663	. 020
November.....	11, 577, 056	212, 713	. 018
December.....	21, 118, 681	435, 047	. 021

¹ Changed by presidential proclamation to 1½ cents per pound, Jan. 21, 1929.

TABLE N.—Onions: Imports for consumption, 1923–1928, and by months, 1928 and 1929—Continued

[Under the rate of duty originally provided for in the act of 1922 (1 cent per pound)]

Year and month	Quantity	Foreign value	Unit value
1929:	<i>Pounds</i>		
January.....	8,819,269	196,897	.022
February.....	2,095,288	56,263	.027
March.....	5,441,368	122,796	.023
April.....	5,598,150	104,407	.019
May.....	3,578,468	66,412	.019
June.....	1,201,765	22,869	.019
July.....	6,008,174	80,701	.013
August.....	6,832,974	94,196	.014
September.....	5,412,652	86,380	.016
	7,604,833	127,015	.017

TABLE O.—Onions: Average monthly prices at New York and Chicago, 1928 and 1929

[Per 100 pounds]

Year and month	New York			Chicago		
	New York yellows (in 100-pound bags) ¹	Texas yellows (in 50-pound crates)	Egyptian (in 110-pound bags)	Domestic Spanish (in 100-pound bags)	Imported Spanish (in 38-pound crates)	
					50s	72s
1928:						
January.....	\$2.18				\$6.68	\$6.08
February.....	1.78				7.24	6.71
March.....	2.36			² \$3.88	8.11	7.68
April.....	2.36	\$5.42	\$3.88	² 3.50		
May.....		3.20	3.08			
June.....		2.38	2.00		5.66	6.08
July.....	1.87	2.72	1.75		4.68	3.95
August.....	2.42	2.20		² 2.17	4.74	3.95
September.....	3.12			² 3.82	5.74	
October.....	2.50			² 3.06	4.84	4.92
November.....	3.12			² 4.12	4.95	4.87
December.....	3.00			² 4.25	4.61	4.95
1929:						
January.....				² 4.54	6.29	5.84
February.....					6.82	6.45
March.....	2.85	6.30				
April.....	2.01	4.62	3.72			
May.....		2.96				
June.....		3.76	3.15			
July.....	2.66	2.70	3.09	² 3.17	6.21	
August.....	2.16			² 2.38	5.68	5.39
September.....	2.04				5.53	5.00

¹ Includes Long Island, Canastota, Orange Co., and Eastern Yellows.

² Utah.

³ Walla Walla.

NOTE.—New York prices from Producer's Price Current; Chicago prices from Chicago Fruit and Vegetable Reporter. Prices here shown are simple averages of quotations on Wednesdays of each week.

(9) *Peanuts, frozen eggs, flaxseed, and milk and cream.*—On this group of commodities the duties have been changed since January 1, 1929. Because these changes have been so recently made, statistics do not reflect the permanent changes, if any, in these industries that may result from the higher rates of duties. Statistics on imports and prices for periods before and after the new rates became effective are, therefore, not submitted for these products.

SCHEDULE 7. FISH AND FISH PRODUCTS

SURVEYS AND SPECIAL STUDIES

(1) SUMMARY OF TARIFF INFORMATION

The commission's Summary of Tariff Information, 1929, is the first published document to treat of economic problems relating to all fish and fishery products consumed in the United States. Many of the data given in the summary were obtained in the course of a field survey made during the summer of 1928 in anticipation of a revision of the tariff law.

Tariff problems concerned with the fisheries are complicated by such considerations as the operation of United States fishing vessels in territorial, international, and foreign waters; their drawing in common with other countries upon the same basic source of supply; the numerous direct subsidies granted to foreign fishing enterprises; the treaty rights and port privileges granted by foreign governments; and regulations governing the purchase and sale of fishing equipment.

The dearth of published data bearing on economic aspects of the fisheries trade made it necessary that the commission obtain most of its information at first-hand in centers of production and distribution. To this end two fisheries experts were detailed to examine books of record and to confer with persons engaged in the fishing industries. In the course of their field work, these experts visited nearly all of the large fish producing, manufacturing, and distributing centers of the United States. Through conferences with producers, importers, distributors, and United States customs officers, they familiarized themselves with trade definitions and trade practices pertaining to individual fish and fishery products, obtained statistics on prices, production, cost of production, wages, and hours of labor, and information as to the comparability of the domestic and imported products.

The data obtained in this investigation were used by the congressional committees not only in their consideration of tariff rates, but in the rephrasing of the fisheries paragraphs so as to avoid some of the difficulties encountered in the administration of the tariff act of 1922. With a detailed description at hand of each fish or fishery product, and its commercial designation, the committees changed the wording of the fisheries paragraphs so as to reduce to a minimum chances of litigation; i. e., of leaving it to the courts to decide under which paragraph an article is properly dutiable.

Within recent years the fisheries trade of the world has undergone important changes that affect the United States trade. In general, the fisheries have made extensive plans for further expansion in most branches of the industry. Many new products have been developed and extensive improvements have been made in the preservation and transportation of fish and sea foods. In the United States there has been an appreciable increase in the catch of edible fish as a result in part of the new demand for fish in packaged form. The gain in fish production is significant in view of the declining per capita production of meat. Some fish products which were virtually unknown in this country when the tariff act of 1922 became effective are now important articles of commerce. In consequence there has been litigation concerning their proper classification for customs purposes. Important changes have also taken place with respect to

United States fishing rights and privileges in foreign countries, and United States regulations concerning the use of foreign fishing vessels.

Approximately 2,700,000,000 pounds of sea and inland-water fishery products, having a wholesale value of \$280,000,000, are obtained from fish caught annually by United States fishermen. Annual imports into the United States approximate 415,000,000 pounds, valued at \$43,000,000, and exports 165,000,000 pounds, valued at \$20,000,000. In quantity of production, the United States fisheries are exceeded only by those of Japan. The principal sources of imports in order of importance are Canada, Norway, the United Kingdom, Japan, Mexico, Newfoundland, and the Netherlands. Exports go mainly to the United Kingdom, the Philippine Islands, Canada, Australia, British Malay, Germany, and Mexico.

(2) MARINE ANIMAL OIL SURVEY

Work on a survey of marine animal oils was carried on during periods when the commission's fishery experts were not engaged in preparing data for the Committee on Ways and Means and the Committee on Finance. The oils covered in this survey are whale, sperm, menhaden, cod, cod liver, herring, sardine, seal, and salmon. All statistics in the report were brought up to date and the text revised to include the latest available information on trade practices and competitive conditions. A number of persons engaged in the marine animal oil industry were also consulted as to statements in the report, and the section on methods of fishing and processing fish was mimeographed and mailed to producers for criticism.

(3) SALMON SURVEY

The commission has published a report on salmon, a résumé of which follows:

National character of the fisheries.—The principal salmon fisheries are confined to territorial waters and are, therefore, national rather than international. Only in boundary waters (such as part of Puget Sound) and in the trolling fisheries off the North Pacific coast are there international fisheries. Competition in the salmon trades is, therefore, limited to countries whose bays and streams abound in salmon. Japan, Siberia, and Canada are the three countries with runs sufficient to make their fisheries competitive with those of the United States. The fisheries of Japan, although large, do not yield a supply adequate to the home demand and, therefore, offer little competition with the United States. The Siberian fisheries are extensive and very productive. They yield large quantities of sock-eye, which, when canned, finds a ready market in the United States and Great Britain. The Canadian fisheries center in British Columbia, in close proximity to Alaska, Washington, and Oregon, the important producing centers of the United States. They are thus in a position to export to us the highly perishable fresh salmon.

Depletion of the national supply.—Because of the danger of depletion through unregulated fishing, the several governments interested in salmon fishing have assumed regulatory powers over their own fisheries, with the announced intention of conserving the national supply. In consequence, competition within any one country or between different countries is governed in large measure by the extent to

which restrictive legislation is enacted and enforced in the countries concerned, or in any one of them. Obviously, changes in the regulations or in their enforcement in the United States or in any competing foreign country may influence the effectiveness of the customs duties on the various salmon products.

Duties on materials.—Duties on the unprocessed or partially processed salmon for canning are usually included in the compensatory duties on the finished or semifinished fish, being designed to offset to the domestic manufacturer his greater cost of raw material. In respect to canned salmon, there are two factors to the compensation—allowance for the duty on the fresh fish and allowance for shrinkage in manufacture. One hundred pounds of fresh salmon will yield only 70 pounds of canned. Thus, the canner who pays 2 cents per pound duty on the fresh fish (act of 1922) has an additional cost of 0.86 cent per pound chargeable to loss in weight in preparing the fish for canning.

The problem of a duty on the fresh salmon used in canning, however, lends itself to solution by simple mathematical calculation only with respect to the product of a limited area on Puget Sound adjacent to the international line where it is physically practicable to import the fresh fish for canning. Full compensation for the fresh-fish duty is, therefore, apparently needed in this region.

The salmon canner of Alaska or of the Columbia River region, however, even were there no customs duties on raw salmon, would not import because of the distance of his plant from British Columbia. This does not mean that the Alaskan and Columbia River producers may not be indirectly affected by the duty on raw salmon. If such duty were removed, it is possible that efficient Puget Sound canneries could use cheaper British Columbia raw material (assuming that the present duties are effective) and force a reduction in the domestic price received for the canned product of Alaska and of the Columbia River.

The exact allowance for raw material duty to be included in the duty on canned fish, so that it will apply to the major part of the industry, is thus clearly impossible to calculate. A duty that is compensatory for Puget Sound canners may be protective for Alaskan canners. Mild-cured salmon (lightly salted salmon sides) is in essentially the same category as canned salmon with respect to compensatory duties.

Raw salmon.—Salmon as landed by the fishermen is considered fresh fish regardless of its subsequent use. There is a so-called fresh salmon trade which does not process the fish, but sells it locally or packs it in crushed ice for shipment to distant points for table use. In this report the trade in salmon intended for the fresh-fish market is discussed separately because of its distinct competitive problems.

Raw salmon is provided for under paragraph 717 of the tariff act of 1922 as "Fish, fresh * * * or packed in ice; * * * salmon, * * * 2 cents per pound; * * *." Imports come almost entirely from Canada; the exact quantity imported fresh is not known because official statistics give only a total for fresh and frozen salmon. It is estimated that of the 6,028,000 pounds of fresh and frozen salmon imported in 1928, not more than 2,000,000 pounds were frozen. The remaining 4,028,000 pounds were sold fresh for immediate consumption or for mild curing. Because of the relative

market prices of the fresh and canned fish, comparatively little raw salmon paying a duty of 2 cents per pound is canned. Under the tariff act of 1913, with raw salmon on the free list, there were at times relatively large imports—24,000,000 pounds in 1916—largely the cheaper varieties used by border canning companies. During the period of free entry imports fluctuated widely from year to year because of variations in the natural “runs” of fish, it being the practice of border canneries to import raw fish only in times of local shortage. An increased import of the red chinook salmon for mild curing was noted during the free entry period, but available data indicate that this trade declined after the raw fish became dutiable.

Different rates of specific duty on the several species of raw salmon have been advocated for the reason of the wide variations in price. Such a change may not be practicable because of the difficulty of distinguishing the several species. The present rate of 2 cents per pound applies alike to all species of fresh and frozen salmon. An ad valorem rate of duty might effect a variation in the duties on the several species, but is open to the objection that it would probably lead to administrative difficulties, as the price of each species and each grade of fresh salmon changes materially from day to day; a single car lot consignment often contains several species and grades.

Fresh and frozen salmon.—To the average consumer there is no difference between fresh salmon and frozen salmon just thawed out, but the frozen sells for less because it lacks the firmness of texture, the delicate flavor, and the keeping qualities of the strictly fresh.

Practically no salmon is caught on the Atlantic coast of the United States. On the Atlantic coast of Canada, however, there is an annual production of about 5,000,000 pounds, a large part of which is exported to New England where, because of its freshness, it commands a high price. Competition in the trade is chiefly between the Pacific coast industries of the two countries, where the fishing seasons are the same and where transportation costs are identical from the principal sources (Seattle, Wash., and Portland, Oreg., in the United States, and Vancouver, and Prince Rupert in Canada), to the principal markets. The major producing regions of Alaska are too remote for fresh salmon to compete in United States markets. The southern part of Alaska, although its supply is large, must sell chiefly in the State of Washington, shipment to more distant markets being impossible without deterioration of the fish in transit.

It is estimated that the annual consumption of fresh salmon in the United States is between 30,000,000 and 40,000,000 pounds, 10 per cent of which is imported. United States exports of fresh salmon are negligible.

Frozen salmon is prepared during the relatively short period of heavy catch for use in the winter, when fresh salmon from the sea is comparatively scarce and prices are high. Canada is now (1929) our only competitor, but Siberia is a potential rival, for it has already gained a United States market for frozen halibut.

The competitive status of the United States and Canadian frozen-salmon industries differs from that of the fresh-fish industry in that the distance from market of the Alaskan supply does not affect its use for freezing. Imports of frozen salmon probably do not exceed 2,000,000 pounds annually, and may be less than 1,000,000 pounds. Domestic production in 1928 approximated 13,000,000 pounds, and

exports 3,000,000 pounds. Fully half of the export went to the United Kingdom, where it was offered for sale in competition with Canadian and Newfoundland frozen salmon and with the fresh local salmon. Frozen salmon is dutiable in the United States at 2 cents per pound.

Canned salmon.—The average annual trade of the United States in canned salmon in the 4-year period, 1925–1928, is summarized below:

Production.....	Pounds 303, 783, 000
Imports (maximum).....	900, 000
Total.....	304, 683, 000
Exports.....	48, 299, 000
Consumption.....	256, 384, 000

Besides its natural advantage of a large supply of fish, the United States canning industry has had, since its inception, the benefit of a customs duty ranging from 15 per cent to 30 per cent ad valorem. Since the present duty of 25 per cent ad valorem became effective (act of 1922) imports of the fancy grades of canned salmon have substantially declined and those of the cheaper grades have almost ceased. In view of the fact that Canada exports about 80 per cent of its production and Siberia at least 95 per cent, this decline in our imports is highly significant.

In the United States, the prices of canned salmon, like those of other important canned foods, such as pineapple, spinach, corn, peas, and tomatoes, are set by a few large packers, when the packing season is well advanced. The "opening prices" announced by the large concerns are taken as a guide by the smaller producers in fixing their quotations. Salmon canning, however, is concentrated in fewer hands than most other canning industries. In 1928 five packers produced 64 per cent of the pack of the most valuable species, the sockeye or red salmon. These five packers, however, produced only 26 per cent of the total pack of all varieties. The control of the foreign industry is in the hands of even fewer companies. In 1928 five companies put up 88 per cent of the total Canadian pack, and one company 79 per cent of the total Siberian pack. Opening prices are usually announced in August and are guaranteed against a decline until January. As they are published before the close of the canning season, subsequent quotations on one or more varieties may be higher or lower if unexpected changes occur in the runs of fish. Long periods ensue, however, when prices are stable, and for some varieties a single price may be maintained throughout an entire season.

In foreign markets, prices are materially affected by the annual variations in the combined pack of the United States, Canada, and Siberia. The rapid expansion of the Siberian industry within recent years has been the outstanding feature of the international trade in canned salmon. The large quantities of red salmon canned in Siberia, and the increasing production of the cheaper grades, are making it more difficult for the United States and Canada to market their large production of pink and chum salmon. In the United Kingdom, the principal foreign market for canned salmon, the price of Siberian red salmon has been uniformly below that of Alaskan red

salmon. Comparing London and Seattle prices, there is considerable monthly variation in certain standard grades of canned salmon. Whether London is supplied by the United States only when there is an exportable surplus or whether United States packers quote prices to the export trade lower than to the domestic is not known. The available statistics of prices and of exports indicate that United States exports to the United Kingdom are made largely during periods of low prices in the United States. Influences other than competition from Canadian and Siberian salmon may contribute to price differences existing in the London market. In selling to the export trade the United States packer does not guarantee against a price decline in the foreign market. The average sale in the London market is usually larger than the average sale in the home market.

In some important foreign markets, United States canned salmon suffers, directly or indirectly, as a result of tariff discriminations. Canadian salmon enjoys concessions in France and preferential entrance into Australia, New Zealand, and other British possessions. In others—Cuba and the Philippines—the United States product has tariff advantages, but less valuable advantages than Canada has in other countries. Both Canada and the United States are, of course, subject to extensive competition from the more recently developed Siberian industry, especially in the English market, where there are no customs duties, and where the demand is for red salmon, a species relatively more abundant in Siberia than in the United States and Canada.

Mild-cured salmon.—The United States trade in mild-cured salmon (lightly salted salmon sides) in 1927 is summarized below:

	Pounds
Production.....	14, 308, 000
Imports (maximum).....	618, 875
Total.....	14, 926, 875
Exports.....	2, 947, 400
Consumption.....	11, 979, 475

A comparison of the above statistics with corresponding figures for the other salmon products indicates that there is greater competition in United States markets between the foreign and the domestic mild-cured than between any other salmon products, but even so, exports of mild-cured greatly exceed imports. In both the United States and Germany (the principal foreign market) there is a growing demand for mild-cured salmon, although in the latter country trade has not reached its pre-war level. Canada, Japan, and Siberia are the only important foreign sources of mild-cured salmon, and at present (1929) Canada is probably the principal source of United States imports.

Pickled salmon.—The United States pack of pickled salmon is put up largely for home consumption. Small quantities are imported from Newfoundland and Canada, but neither country is a large producer. Siberia, the only important producer, sells almost its entire output in the Orient. In the United States the demand for pickled salmon is declining. Domestic production in 1927 was only about 766,000 pounds. Statistics of imports and exports are lacking, but the trade is probably small. The decline in domestic consump-

tion is probably due to the time and labor required to prepare salted fish for the table; the decrease in our foreign-born population, the chief consumers; and the wider distribution of fresh and frozen salmon.

Pickled salmon and the higher priced mild-cured salmon are competitive to the extent that when the latter is scarce or for other reasons the price is high, the former is used.

Under the last three general tariff acts pickled salmon has been provided for as follows: Act of 1909, 1 cent per pound; act of 1913, free; act of 1922, 25 per centum ad valorem.

Dry-salted salmon.—Almost the entire world supply of dry-salted salmon is consumed in the Orient. Most of it is produced in Siberia by the Japanese. Practically none has been produced in the United States since 1920. Only when there is a shortage in the Orient does the United States pack any appreciable quantities. Canada, the only other producer outside Asia, has gained a substantial market in the Orient in recent years, shipping approximately 11,000,000 pounds annually from 1921 to 1927, inclusive. The world production of dry-salted salmon appears to be declining, not only because the fisheries are being depleted, but because of an increased demand for the fresh fish by the other salmon industries. With a waning supply of fish available for salting, there has been an increase in the cost of the raw material and hence a rise in the price of the finished product. Japanese dry-salted pink salmon sold at 4 cents per pound in 1927, as compared with 1.8 cents in 1914.

The United States customs duty on dry-salted salmon under the tariff act of 1922 is $1\frac{1}{4}$ cents per pound.

Smoked salmon.—Smoked salmon, on account of its perishability and the relatively staple nature of the raw product (salted salmon), is prepared chiefly in the large consuming centers. There is an extensive market for it in the United States, but imports even when duty free never exceeded 3 per cent of domestic consumption. Factors that favor production in the large consuming centers apparently preclude extensive imports, although improvements in preserving processes may lead to substantial foreign competition.

Kippered salmon.—Kippered salmon, like smoked salmon, has encountered no serious competition from abroad, even when on the free list. There is little probability of immediate competition, because the large consuming centers are the most economical points of manufacture. Competition may develop, however, as a result of improved preserving processes. In recent years a small trade has been built up in frozen kippered salmon and in canned kippered salmon.

SCHEDULE 8. SPIRITS, WINES, AND OTHER BEVERAGES

Most of the articles included in Schedule 8 are of minor tariff importance, since their manufacture and trade are supervised by the Bureau of Prohibition. The Tariff Commission has summarized the available information in regard to domestic production, imports and exports of spirits, wines, and other beverages and it has been published as volume 8 of the Summary of Tariff Information, 1929.

All of the public hearings held by both committees on the proposed tariff act were attended by the representatives of the commission.

Subsequently, experts of the commission made digests of the testimony given before the committees and prepared memoranda for Members of Congress with respect to changes in duty requested by witnesses who appeared at the hearing.

SCHEDULES 9, 10, 11, AND 12. TEXTILES

(a) GENERAL STATEMENT

The textile division is concerned with all articles provided for in Schedules 9, 10, 11 (except raw wool, handled by the agricultural division), and 12, and with other textile materials and manufactures in the sundries schedule and on the free list.

During the past year the division prepared a summary of tariff information pertaining to textile subjects for the use of the Congressional committees in connection with pending tariff readjustments, and continued its work on surveys and on investigations instituted for the purposes of section 315.

In addition to making special investigations and preparing reports, the division maintains a current file reflecting changes in economic conditions, changes of tariff significance in industrial technique, and, what is equally important in the marketing of textiles, changes in styles or in the use of textiles in industry and in the arts that may have a far-reaching effect on demand and alter the conditions of foreign competition.

The source of statistical material for this file is usually the official publications of other United States Government agencies. Whenever possible the production figures of the Bureau of the Census, the statistical data compiled by the Department of Agriculture, and figures on foreign trade published by the Department of Commerce are relied upon. Pertinent material from official publications of foreign countries and statistical data published by domestic trade associations are also used.

Occasionally, however, the United States Census of Manufactures, which is taken more frequently and is more comprehensive than that of any other nation, does not contain details corresponding exactly to some particular classification in the tariff act. When production data are needed on an article not covered in the census schedules, questionnaires are sent to all known manufacturers of the article. This procedure is followed only when the article has considerable tariff importance, and when reliable information is not available through other sources.

Statistics on imports for consumption follow closely classifications in the tariff act, but at times are worded too broadly to indicate the exact nature and extent of foreign competition. Recourse is then had to actual invoices either for a general study or for statistical analysis. For example, an examination of invoices covering imports of "knit fabric, other than warp knit, wholly or in chief value of cotton" (par. 914) showed practically all of the imports under this clause to be a special type of elastic fabric knit of cotton, rayon, and india rubber, in selvaged pieces for use in corset manufacture.

In studying the kinds of articles imported, valuable assistance has been received from the office of the appraiser of the port of New York, the principal port of entry for manufactured textiles. During the

past year, when information was desired as to the volume of imports of different kinds of silk velvet, a material in popular favor and one not given a separate import classification by type, the office of the appraiser made a special tabulation of imports of silk velvets showing weight and value by types and countries of origin. The textile examiners have given the experts of the commission the benefit of their experience and have afforded them opportunities for study, at first-hand, of the type, character, manufacturing technique, and quality of imports.

The fact that the production of different kinds of textiles is controlled by the trend of fashion complicates the task of the division, as articles made at one time of a certain material may six months later be made of a different material. Frequently, these changes are brought to the attention of the experts of the commission before the statistical agencies of the government have had an opportunity to observe them. These agencies have responded to suggestions of the commission with the result that production, import, and export statistics, showing details not formerly recorded, of material, type, or use, are now available. For example, additions recently made, for the domestic lace industry, supply details necessary for a tariff study of the factors involved in a comparison of imports and production in the various branches. They indicate that imports of bobbinet are large in comparison with domestic production; that in the Levers lace industry competition is acute; and that in the branches of the industry making Nottingham lace curtains and Barmen laces, domestic production supplies the American markets and imports are negligible.

Changes in the technical phases of an industry are best understood by constant contacts with the trade, but for financial reasons the commission must confine field trips to matters of more than passing importance. One of the outstanding opportunities in the textile field for measuring progress, studying materials and equipment, and interviewing manufacturers is afforded by textile exhibitions, such as the annual knitting arts exhibit held in Philadelphia, and now becoming an international institution.

Field trips are supplemented by careful technical research. Some three dozen periodicals and papers devoted to textile industries are scrutinized for technical information and matters affecting trade. Besides American publications, this list comprises the leading British textile magazine, 3 in French, 3 in German, 1 in Spanish, and 1 in Italian. Practically all the latest books on important textile industries have been purchased by the commission and new books are constantly being added in order that the experts may have accessible the best technical literature available. Whenever new questions arise which can not be solved by research, letters are sent to the trade association concerned, or to leading manufacturers and distributors. Such appeals for cooperation meet with gratifying responses.

(b) SUMMARY OF TARIFF INFORMATION, 1929

At the request of the Committee on Ways and Means a summary of tariff information similar to that published in 1921 was compiled by the commission. Material assembled for the act of 1922 was so out of date and, for many textiles, the tariff classifications of 1913

were so different from those of 1922 that the summary of 1929 was an entirely new piece of work. Within a few weeks, however, it was compiled, printed, and in the hands of the committee in time for the hearings. The early completion of the summary was made possible because information had been accumulated and organized during a period of years in preparation for the time when comprehensive information would be desired on short notice.

Summaries were prepared for four complete textile schedules: (1) Schedule 9, cotton manufactures, which covers 76 printed pages; (2) Schedule 10, flax, hemp, jute, and manufactures of, 56 pages; (3) Schedule 11, wool and manufactures of, 71 pages; and (4) Schedule 12, silk and silk goods, 63 pages. Schedule 12 also includes rayon and rayon goods, given a separate schedule in H. R. 2667. Besides the textile schedules, paragraphs covering textile products enumerated in Schedules 14 and 15 were also considered by the division. These included paragraph 1404, ramie hat braids and manufactures of; paragraph 1430, laces, embroideries, etc.; paragraph 1516, waste bagging; paragraph 1521, binding twine; paragraph 1525, bolting cloth; paragraph 1554, coir and coir yarn; paragraph 1560, raw cotton and cotton waste; paragraph 1582, vegetable fibers not specially provided for; paragraph 1624, otter trawl fishing nets; paragraph 1628, oakum; paragraph 1637, pads for horses; paragraph 1663, silk waste; and paragraph 1664, raw silk.

In the Summary of Tariff Information each item enumerated in the tariff act is considered separately. A short section on the "description and uses" of the article for the purpose of defining the technical language of the act, explaining classification, and pointing out how the industry concerned impinges upon other industries appears first. The meanings of such terms as "cloths woven with eight or more harnesses, or with Jacquard, lappet, or swivel attachments," "flax, hackled, including 'dressed line'," "gill netting," "top waste, slubbing waste, roving waste, and ring waste," "thrown silk, tram or organzine," to choose a few from the tariff act, are not supposed to be matters of common knowledge, and brief explanations are given.

Statistics of production, imports, and exports are accompanied by interpretive comments, brief description of the domestic and the foreign industry, and where necessary, differentiation in the types or qualities of the goods imported and the domestic goods produced for home use or exported. Under "competitive conditions" the salient factors influencing the trend of imports are focused, and the principal advantages and disadvantages of the domestic manufacturer in the domestic market are indicated. A section on customs decisions, prepared by the legal division of the commission, shows the textile paragraphs that have led to litigation and how the courts disposed of the questions raised.

(c) WORK IN CONNECTION WITH TARIFF LEGISLATION

Ways and Means Committee.—Textile hearings held by the Committee on Ways and Means were attended by the experts of the division and digests of the testimony were subsequently prepared by them. When the hearings were completed, subcommittees of the majority members began to study the various schedules and draft changes for consideration at the full meeting of majority members.

First on the program of the textile subcommittees were trips to leading textile centers, North and South, and to New York for conferences with customs officials. Experts of the division were asked to plan the itineraries, to select representative mills to be visited, and to accompany the committee members. As a basis for their tariff work, the subcommittees desired to obtain first-hand knowledge of textile imports at the principal port of entry, and to be shown a cross section of the domestic textile industry. They wished to see the machinery in operation, to have processes which were likely to be subjects of tariff argument explained, to have an opportunity of forming their own conclusions regarding conditions in the industry, and to make comparisons of imports with similar domestic goods.

In compliance with requests made by the subcommittees that experts of the division attend the deliberations of the committees when called upon, the services of the division were available to the subcommittees at all times. From the middle of March until the bill (H. R. 2667) was presented in the House, May 7, 1929, the experts of the division were in almost constant attendance upon the Committee on Ways and Means or the various textile subcommittees, to give information supplemental to that incorporated in the Summary of Tariff Information or to that submitted by witnesses at the hearings. As the work progressed frequent requests came from the various members of the subcommittees for special statistical tables and charts to clarify or to illustrate some point under discussion. With the cooperation of other divisions of the commission the material was prepared and presented to the subcommittees.

One of the major problems confronting the textile subcommittees was formulating tariff classifications for rayon and other synthetic fibers. From a comparatively small production of 15,000,000 pounds in 1921 this group of industries has grown until the estimated production in 1929 was 127,000,000 pounds. Rayon and other synthetic fibers were included in a separate schedule in H. R. 2667, and the subcommittee had the services of the textile division in drafting the new schedule.

Amendments to H. R. 2667 in the House of Representatives.—Amendments affecting many textile paragraphs in H. R. 2667, which were offered on the floor of the House, occasioned further conferences with members of the Committee on Ways and Means, and during this period of discussion of the bill, additional data were frequently furnished. Until the bill was passed by the House of Representatives on May 28, 1929, and sent to the Senate, the division worked in close cooperation with the Committee on Ways and Means.

Finance Committee.—The Committee on Finance, divided into subcommittees, held hearings on the pending tariff bill. Hearings on textile schedules began with cotton manufactures on June 14 and ended with the completion of the rayon schedule on July 9. Experts of the division attended the hearings on the commodities assigned to them and made digests of the testimony on Schedules 9, 10, 11, 12, and 13, and on textile paragraphs in other schedules.

Contrary to the practice followed by the Committee on Ways and Means, the Committee on Finance met in full sessions of the majority members to discuss revision of H. R. 2667. There were, therefore, no formal conferences of the commodity experts with the subcommittees, but individual members of the committee several times summoned

experts to submit data on subjects under review. As preliminary preparation for the meetings of the Finance Committee, the division brought up to date, as far as possible, the tables in the Summary of Tariff Information and obtained data on new aspects of the industry in question brought out at the hearings. The experts were requested by the chairman of the Committee on Finance to be present at committee meetings when the various textile subjects were under discussion in order to furnish or interpret statistical data and to answer technical questions.

In compliance with a request from the ranking minority member of the committee, a report was prepared on the principal textile paragraphs affected by changes as compared with the act of 1922, showing, where possible, domestic production, exports, imports, the tendency of prices, significant changes in technology and other special competitive factors peculiar to the particular industry.

Legislative Counsel.—The chief of the textile division and at times the various commodity experts cooperated with the members of the Legislative Counsel intrusted with the task of drafting the bill in accordance with the changes desired by the Committee on Ways and Means, and by the Committee on Finance.

(d) SURVEYS AND REPORTS

Textile imports and exports, 1891–1927.—The commission published in January, 1929, a statistical tabulation covering the import and export trade of the United States in textiles from 1891 to 1927. The publication consists of 365 pages of tables, including six illustrative charts. For the convenience of persons to whom copies of the tariff law are not easily accessible, the text of paragraphs relating to textiles in the act of 1922 was appended.

Of particular importance are the tables on imports for consumption, showing quantity, value, duty collected, the average unit value, and the equivalent ad valorem rate of duty on each textile item listed in the import classification. Each table begins with the year 1891 or the next earliest year available for the particular item. Covering the operations of the last five tariff acts—1890, 1894, 1897, 1909, and 1913—and the present act of 1922 through 1927, the statistics are divided into tariff periods and the annual average for each tariff period is calculated.

The following table summarizes the trade in 1927 of textile materials and manufactures.

Foreign trade of the United States in textile materials and manufactures in the calendar year 1927

	Textile materials	Textile manufactures
General imports.....	\$597, 113, 678	\$327, 743, 899
Exports of foreign merchandise.....	20, 111, 011	4, 745, 997
Exports of domestic merchandise.....	837, 226, 460	178, 249, 493
Excess of exports (+) or imports (-).....	+260, 223, 793	-144, 748, 409

In textile materials, exports from the United States are principally raw cotton, whereas imports include raw silk, silk waste, wool, wool wastes, mohair, raw cotton, henequen, manila, and jute. The value

of the raw cotton exported is much in excess of the value of the total textile materials imported for manufacture.

In textile manufactures, imports normally exceed exports. Imports are most largely those made of jute and flax, followed by those made of cotton, wool, silk, and rayon, in the order stated. Exports are most largely those made of cotton, followed by those made of silk, but include smaller amounts made of rayon, henequen, jute, and wool.

The detailed tables are combined into summary tables from which trends in the imports of textiles for consumption in the United States may be observed. Total imports of unmanufactured textile materials averaged, in value, approximately \$59,000,000 under the act of 1890 and \$616,000,000 under the act of 1922; total imports of manufactured textiles averaged in value \$113,000,000 under the act of 1890 and \$320,000,000 under the act of 1922. Reversal in the importance of unmanufactured as compared with manufactured textiles has been brought about largely by the post-war demand for raw silk in the American market, imports of this commodity averaging annually over \$388,000,000 in value under the act of 1922, as compared with an annual average of less than \$23,000,000 under the act of 1890. But, notwithstanding the higher level of prices, imports of silk manufactures increased only from an annual average value of about \$32,000,000 under the act of 1890 to approximately \$39,000,000 under the act of 1922. Exports of silk manufactures in 1927 amounted to an approximate value of \$15,000,000, over one-half of which were exports of silk hosiery.

Comparing annual averages, expressed in round numbers, under the act of 1890, with annual averages under the act of 1922, imports of raw cotton increased from \$4,000,000 to \$53,000,000; other vegetable fibers, unmanufactured, from \$19,000,000 to \$56,000,000; raw wool, from \$14,000,000 to \$118,000,000; cotton manufactures from \$27,000,000 to \$78,000,000; manufactures of other vegetable fibers from \$25,000,000 to \$135,000,000; manufactures of wool from \$28,000,000 to \$56,000,000; and manufactures of rayon (not commercially produced in the United States until 1910) amounted to \$12,000,000 under the act of 1922. In the manufactured group, vegetable fibers, other than cotton, have shown the most significant gains, the largest single increase being in imports of burlap from \$6,000,000 to \$71,000,000.

(e) OTHER WORK OF THE DIVISION

Although during the year under review the textile division was engaged mainly in work connected with tariff revision, it also prepared surveys and reports and conducted an investigation of handkerchiefs for the purposes of section 315 of the tariff act of 1922.

SCHEDULE 9. COTTON MANUFACTURES

(a) SURVEYS AND REPORTS

Cotton velvets and plushes, also cotton upholstery cloths, subjects of applications under the provisions of section 315 of the act of 1922, were studied and further information was obtained for the commission in deciding whether cost investigations here and abroad were

warranted. Additional data were obtained for a survey on countable cotton cloths, and more time was devoted to the survey under way on lace and lace articles.

Lace and lace articles.—The survey on lace and lace articles, now nearing completion, deals with the fabrics and articles provided for in paragraphs 920 and 1430 of the tariff act of 1922, particularly with Nottingham lace-curtain machine products, Levers laces, bobbinets, Barmen laces, Alencon laces, and handmade laces.

Imports of Nottingham lace-curtain machine products and of Barmen laces are small, the domestic demand being supplied almost entirely by domestic production. Of the domestic consumption of Levers laces, about two-thirds are of foreign origin. The demand for bobbinets is supplied largely by imports, and for Alencon laces and handmade laces wholly by imports.

All of these articles are subject to changes in style and fashion. Recent developments have tended to decrease the demand for cotton laces and to increase the demand for cotton nets and for silk laces and nets. The following table shows the trend of imports for consumption during the last four years.

Laces: Imports for consumption, 1925-1928

Calendar year	Machine-made laces		Nets, nettings, veils and veillings	
	Cotton	Silk	Cotton	Silk
1925.....	\$7,908,793	\$781,351	\$1,173,478	\$527,832
1926.....	5,355,854	631,488	1,136,014	546,587
1927.....	4,900,073	825,231	1,372,999	557,353
1928.....	4,551,528	1,036,470	1,774,567	970,782

The decreasing demand for cotton laces and the increasing demand for silk laces are further reflected by domestic production data. The last census figures available for Levers laces, those for 1927, show that of a total production of \$6,262,931, cotton laces comprised \$2,728,987 and silk, rayon, and mixed fiber laces totalled \$3,533,944; these figures indicate that domestic mills supply about 23 per cent of the cotton laces and about 62 per cent of the laces of silk and other fibers consumed in the United States.

(b) INVESTIGATION IN PROGRESS FOR PURPOSES OF SECTION 315

Handkerchiefs.—On May 28, 1928, the commission instituted an investigation, for the purposes of section 315 of the tariff act of 1922, of the cost of production of unembroidered linen handkerchiefs, dutiable under paragraph 1016, and of embroidered linen and cotton handkerchiefs, dutiable under paragraph 1430.

Because of the pressure of work incident to the pending tariff legislation, domestic field work was suspended in December, 1928. At that time the field work had been completed in 12 out of 14 domestic mills selected for study. These mills were in New Jersey, New York, and Pennsylvania. Among them were 8 that carry out practically all manufacturing operations of handkerchief manufacture, and 4 that specialize in certain operations, such as embroidering

and hemstitching, and that work on a contract basis for the regular manufacturers. Cost of production data were obtained on 355 specific types of plain cotton and linen handkerchiefs and on machine-embroidered cotton and linen handkerchiefs made in continental United States, and on some hand-embroidered ones made in Porto Rico.

Field work abroad was begun late in September, 1928, at Belfast, Ireland, the world's center of the linen industry. There the representatives of the commission had the cooperation of handkerchief manufacturers and their association and also of the Ministry of Commerce and the Ministry of Labor of Northern Ireland. Costs were obtained from eight handkerchief manufacturing plants at Belfast and vicinity on 170 specific types of plain linen handkerchiefs finished by hand or by machine, and on linen handkerchiefs ornamented or embroidered by hand or by machine. Some cost data on the cambric and sheer linens used in making handkerchiefs were also obtained.

Completing the field work in Ireland the latter part of March, 1929, the representatives of the commission then proceeded to St. Gall, Switzerland, the principal center for machine-made embroideries. Here, as in Belfast, they had the cooperation of handkerchief manufacturers, and organizations connected with the manufacture of handkerchiefs. From four plants in St. Gall and its neighborhood they obtained cost data on 182 specific articles, principally machine-embroidered handkerchiefs of cotton but including some of linen. Early in June work in Switzerland was completed.

Until 1927, handkerchiefs were not shown separately in statistics published by the Bureau of the Census. For that year production by firms engaged primarily in the manufacture of handkerchiefs amounted to \$29,697,000. A résumé of the industry is shown by the following statistics:

Number of establishments.....		115
Wage earners (not including salaried employees).....		6, 659
Wages.....		\$5, 264, 147
<hr/>		
Production:	Dozens	Value
Men's handkerchiefs.....	19, 531, 984	\$15, 022, 350
Women's handkerchiefs.....	20, 073, 315	\$14, 674, 791
	<hr/>	<hr/>
	39, 605, 299	\$29, 697, 141
Embroidered handkerchiefs produced by firms engaged primarily in the manufacture of embroideries.....		\$951, 891
Other products of handkerchief manufacturers.....		\$1, 891, 079
		<hr/>
Total.....		\$32, 540, 111

Plain cotton handkerchiefs, made to retail at 25 cents or less, constitute the bulk of domestic production. In terms of value, about a third of the domestic production, it is estimated, consists of embroidered handkerchiefs.

Imports of cotton and linen handkerchiefs are classified as "not ornamented," and "ornamented with lace, embroidery, etc." The following statistics show the trend of importation in recent years.

Handkerchiefs of cotton and linen: Imports for consumption in the United States, 1923-1929

Year	Cotton		Linen	
	Not ornamented	Ornamented with lace, embroidery, etc.	Not ornamented	Ornamented with lace, embroidery, etc.
1923.....	\$698, 283	\$801, 242	\$2, 223, 139	\$1, 352, 550
1924.....	1, 035, 987	1, 248, 898	2, 855, 706	1, 890, 924
1925.....	1, 220, 198	1, 342, 402	2, 480, 138	1, 642, 220
1926.....	878, 763	1, 281, 288	3, 327, 739	1, 679, 270
1927.....	681, 760	1, 303, 539	3, 974, 998	1, 948, 528
1928.....	615, 548	1, 205, 738	3, 826, 277	1, 967, 452
1929 (10 months).....	565, 968	1, 086, 791	3, 570, 531	1, 761, 569

The principal sources of imports in 1928 are given in the following table.

Handkerchiefs of linen and cotton: Imports for consumption in the United States, in 1928, by countries

Imported from—	Cotton		Linen	
	Not ornamented	Ornamented with lace, embroidery, etc.	Not ornamented	Ornamented with lace, embroidery, etc.
United Kingdom.....	\$493, 561	\$38, 907	\$2, 632, 950	\$982, 752
Switzerland.....	4, 145	906, 552	16, 212	402, 896
Germany.....	3, 967	163, 736	9, 432	81, 241
France.....	88, 555	32, 207	1, 018, 901	244, 640
China.....	2, 863	37, 281	6, 418	95, 059
All other countries.....	22, 295	27, 055	142, 364	157, 864
Total.....	615, 386	1, 205, 738	3, 826, 277	1, 964, 452

Imports of cotton handkerchiefs not ornamented are chiefly from the United Kingdom and generally consist of handkerchiefs made from medium and fine counts of cotton cloth in colored or woven stripes, cords, or borders. Because of the rather limited demand for these handkerchiefs, the domestic manufacturer makes little or no attempt to produce them, with the result that imports are more supplemental than competitive. Imports of cotton handkerchiefs ornamented with lace or embroidery are chiefly machine-embroidered handkerchiefs from Switzerland, and compete with handkerchiefs of domestic manufacture. Lace trimmed or embroidered cotton handkerchiefs imported from other countries are for the most part ornamented by hand; because of the high cost of hand labor, such handkerchiefs are not usually manufactured in the United States. Plain linen handkerchiefs are imported chiefly from the United Kingdom, although appreciable quantities come from France. Many of them have touches of handwork, usually hand-rolled hems, hemstitching, or hand-drawn threads, work not commercially done in the United States. Such imports are to some extent competitive with handkerchiefs of domestic manufacture. Linen handkerchiefs ornamented with embroidery or lace are also imported chiefly from the United Kingdom, but come in appreciable quantities also from Switzerland, France, Germany, and

China. Except handkerchiefs from Switzerland, which are largely machine embroidered, imports of linen handkerchiefs ornamented with lace or embroidery are largely handmade. The cheaper grades of hand-embroidered linen handkerchiefs compete to some extent, at least, on a price basis with machine-embroidered handkerchiefs manufactured in the United States. Some of these imported handkerchiefs ornamented with lace or embroidery are, however, of the higher-priced grades and are supplemental to, rather than competitive with, handkerchiefs of domestic manufacture.

The following table shows domestic exports of cotton handkerchiefs. Exports of linen and silk handkerchiefs of domestic manufacture are not separately recorded.

Cotton handkerchiefs: Domestic exports, 1922-1928

Year	Quantity	Value	Value per dozen	Year	Quantity	Value	Value per dozen
	<i>Dozens</i>				<i>Dozens</i>		
1922-----	360,367	\$251,194	\$0.697	1926-----	258,835	\$178,799	\$0.69
1923-----	396,991	284,638	.717	1927-----	225,367	143,296	.636
1924-----	331,837	240,384	.724	1928-----	237,962	155,849	.655
1925-----	286,115	189,652	.663				

From 1923 to 1927 there was a steady decline in both the quantity and the value of exports of handkerchiefs. Cuba is the principal market, but appreciable quantities go to Canada, Mexico, and the Philippine Islands.

SCHEDULE 10. FLAX, HEMP, JUTE, AND MANUFACTURES OF

(a) SURVEYS AND REPORTS

A survey on linoleum and allied types of hard-surface floor coverings, an advance summary of which appeared in the annual report of the commission for 1928, has been printed and is available for distribution.

Domestic production of linoleum, felt-base floor covering, floor oilcloth, and rubber tile, in the last census year (1927) is compared with imports and exports in that year in the following table.

Linoleum and other hard-surface floor coverings: Domestic production, imports, and exports, 1927

[Source: United States Census for domestic production and Foreign Commerce and Navigation of the United States for imports and exports]

Article	Domestic production		Imports for consumption		Domestic exports	
	Quantity	Value	Quantity	Value	Quantity	Value
Linoleum-----	<i>Square yards</i> 49,921,494	\$42,089,062	<i>Square yards</i> 1,061,564	\$1,149,853	<i>Square yards</i> 1,092,749	\$716,678
Felt-base floor covering-----	111,527,246	34,828,069	None.	None.	3,480,240	1,324,682
Floor oilcloth-----	(²)	(²)	16,540	5,666	-----	-----
Rubber tile-----	975,361	4,503,433	None.	None.	(²)	(²)
Total-----	162,424,101	81,368,564	1,078,104	1,155,519	4,572,989	2,041,360

¹ Imports classified as "linoleum, corticine, and cork carpets, mats, and rugs."
² Not separately recorded, probably negligible.

Our foreign trade in linoleum is largely with the United Kingdom, 82 per cent of our imports in 1927 originated in that country, and 20 per cent of our exports of linoleum went there. Australia took 29 per cent of our exports. In general, we exchange figured linoleum for the heavy plain, and straight-line inlaid linoleum of British manufacture.

The United Kingdom and Australia are also our chief markets for felt-base floor coverings, approximately two-thirds of our exports in 1927 going to these two countries. We import no felt-base floor covering.

Floor oilcloth is not exported from the United States and relatively insignificant quantities are imported. Very little rubber tile is exported from the United States, and there is no record of any imports.

Linoleum imported into the United Kingdom is admitted free of duty; imports into Australia are dutiable at 25 per cent if from the United States and at 10 per cent if from the United Kingdom.

United States and foreign tariff duties on selected typical linoleums as of March 31, 1928, were as follows:

Comparison of relative heights of United States and foreign tariff duties on selected typical linoleums as of March 31, 1928

Detail	Battleship linoleum	Inlaid linoleum		
Gage (thickness).....inch	0.25 (6.35 mm.)	0.142 (3.61 mm.)		
Net weight per square yard.....pounds	14.00	8.00		
Gross weight per square yard.....do	14.90	\$9.40		
Price per square yard.....	\$2.03	\$1.82		
Price per pound.....	\$0.145	\$0.228		
Price per kilogram.....	\$0.320	\$0.501		
Country	Actual or equivalent duty			
	Per square yard	Per cent	Per square yard	Per cent
Soviet Russia.....	\$4.9056	241.66	\$2.8032	154.92
Mexico.....	2.8213	138.98	1.6769	92.14
Cuba (general tariff).....	2.6190	128.87	1.6502	90.67
Cuba (United States preferential).....	2.0940	103.15	1.3209	72.58
Spain.....	1.2824	63.17	.7328	40.26
Czechoslovakia.....	1.1284	55.59	.6448	35.43
Poland.....	1.1130	54.83	.9536	52.40
Italy.....	1.0402	51.24	.6856	37.67
Bolivia.....	.9586	47.22	.6371	35.01
Belgium.....	.9294	45.79	.7792	42.81
New Zealand (general tariff).....	.8120	40.00	.7280	40.00
Canada (general tariff).....	.7105	35.00	.6370	35.00
United States.....	.7105	35.00	.6370	35.00
Hungary.....	.6650	32.76	.5704	31.34
Greece.....	.6444	31.74	.3682	20.23
Argentina.....	.6373	31.39	.3639	19.99
France (United States intermediate).....	.6370	31.38	.8128	44.66
Chile.....	.6236	30.72	.4052	22.26
Latvia.....	.6176	30.42	.3526	19.37
Japan.....	.5684	28.00	.3248	17.85
Brazil.....	.5488	27.03	.3136	17.23
Australia (general tariff).....	.5075	25.00	.4550	25.00
Canada (British preferential).....	.5075	25.00	.4550	25.00
France (minimum tariff).....	.4998	24.62	.4992	27.43
Norway.....	.4578	22.55	.2616	14.37
Sweden.....	.4256	20.97	.2432	13.36
New Zealand (British preferential).....	.4060	20.00	.3640	20.00
Yugoslavia.....	.3066	15.10	.2448	13.45
British India.....	.3045	15.00	.2730	15.00
Philippine Islands.....	.3045	15.00	.2730	15.00
Turkey.....	.2478	12.21	.1416	7.78
Dutch East Indies.....	.2436	12.00	.2184	12.00
Australia (British preferential).....	.2030	10.00	.1820	10.00
Netherlands.....	.1644	8.10	.1474	8.10
Denmark.....	.1526	7.52	.0872	4.79
China.....	.1523	7.50	.1365	7.50
Germany.....	.1512	7.45	.1560	8.57
United Kingdom.....	Free.	-----	Free.	-----

(b) EFFECT OF CHANGES IN DUTY ON COTTON RAG RUGS

Following an investigation and a report by the commission, the President, by proclamation, changed the basis for the assessment of duty from the foreign value to the American selling price on cotton-rag rugs of the type commonly known as hit-and-miss. Other types of cotton floor covering were not affected. The proclamation became effective February 28, 1928. Since that date, imports of hit-and-miss rag rugs and of other types of cotton floor coverings have been as follows:

Hit-and-miss rag rugs and other cotton floor covering: Imports for consumption, 1928 and 1929

Year and month	Carpets, carpeting, mats, and rugs, of cotton					
	Hit-and-miss rag rugs		Other		Total	
	Quantity	Value ¹	Quantity	Value ²	Quantity	Value
	<i>Square yards</i>		<i>Square yards</i>		<i>Square yards</i>	
1928:						
March.....	91,338	\$50,899	149,157	\$101,814	240,495	\$152,713
April.....	250,075	142,031	43,378	55,167	293,453	197,198
May.....	163,353	92,564	60,278	56,641	229,631	149,205
June.....	116,043	64,317	78,844	81,304	194,887	145,621
July.....	303,577	170,435	84,433	92,580	388,010	263,015
August.....	278,668	152,015	92,347	78,126	371,015	230,141
September.....	181,948	103,533	98,674	75,318	280,622	178,851
October.....	260,461	140,650	194,225	127,322	454,686	267,972
November.....	132,531	74,857	271,584	137,423	404,115	212,280
December.....	127,929	72,427	185,255	98,062	313,184	170,489
Monthly average.....	190,592	106,373	126,418	90,397	317,010	196,770
1929:						
January.....	241,219	136,994	460,093	186,011	701,312	323,005
February.....	107,891	59,582	367,225	144,252	475,116	203,834
March.....	187,938	101,518	290,215	117,991	478,153	219,509
April.....	228,033	130,665	292,637	117,058	520,670	247,723
May.....	208,904	120,937	288,171	161,169	497,075	282,106
June.....	234,072	133,181	267,477	132,167	501,549	265,348
July.....	143,065	78,439	260,075	115,071	403,160	193,510
August.....	234,868	133,140	163,578	88,971	398,446	222,111
Monthly average.....	198,251	111,807	298,684	132,836	496,935	244,643

¹ American selling price.

² Foreign value.

The preceding table shows that, following the change in the duty on hit-and-miss cotton rag rugs by proclamation of the President, the monthly average imports of hit-and-miss rugs increased only slightly, whereas the imports of cotton floor coverings other than hit-and-miss rugs increased greatly. The average monthly imports of hit-and-miss rugs (on which the duty was changed) for March to December, 1928, were 190,592 square yards; the average for January to August, 1929, was 198,251 square yards—only 4 per cent greater. Imports of other cotton floor coverings (on which the duty was not changed) for corresponding periods were 126,418 square yards and 298,684 square yards—an increase in 1929 over 1928 of 136 per cent. The trend of imports of hit-and-miss rag rugs and of other cotton floor coverings from Japan and from other countries is shown in the table following.

Hit-and-miss rag rugs and other cotton floor coverings—Monthly average imports from Japan and from other countries, 1928 and 1929

Imports for consumption	Carpets, carpeting, mats, and rugs of cotton			
	Hit-and-miss rag rugs		Other	
	Quantity	Value	Quantity	Value
1928—Monthly average (March–December):	<i>Square yards</i>		<i>Square yards</i>	
From Japan.....	190, 583	\$106, 359	65, 152	\$18, 220
From other countries.....	9	14	58, 745	69, 766
Total.....	190, 592	106, 373	1 123, 897	1 87, 986
1929—Monthly average (January–August):				
From Japan.....	198, 247	111, 795	240, 571	57, 976
From other countries.....	4	12	58, 113	74, 860
Total.....	198, 251	111, 807	298, 684	132, 836

¹ Total does not check with preceding table. The difference, 2,521 square yards per month, valued at \$2,391, warehouse withdrawals, is not available by countries. Warehouse withdrawals of hit-and-miss rag rugs were considered as imports from Japan.

It is understood that the great increase in the imports from Japan, under the lower duty classification, of cotton floor coverings other than hit-and-miss rag rugs, following the change in the duty by presidential proclamation, results in part from the importation of rag rugs composed of the same material and made in the same way as the hit-and-miss rugs but in solid color or definite design, and in part from the importation of yarn rugs.

SCHEDULE 11. WOOL AND MANUFACTURES OF

(a) RAW WOOL .

The production of wool in the United States increased from 261,095,000 pounds in 1922 to approximately 360,000,000 pounds¹ in 1929, or nearly 38 per cent. The domestic production of mohair, 85 per cent of which is grown in Texas, increased from 8,488,000 pounds in 1922 to about 16,000,000 pounds¹ in 1929.

Practically all of the domestic wool consists of the so-called "improved" or "blooded" wools. A few hundred thousand pounds of unimproved or carpet wools are shorn each year from primitive sheep owned by Indians in the Southwest. The Indians use most of this wool in the hand weaving of blankets of the Navajo type.

The reported mill consumption of domestic wools, by grades, during the years 1921 to 1927, inclusive, indicates that fine wool forms about 31 per cent of the domestic production, with half-blood amounting to 20 per cent, three-eighths blood 23 per cent, quarter-blood 22.5 per cent, and low-quarter blood and coarser wools 3.5 per cent. The reported consumption of similar imported wools during this period consisted of 29 per cent of fine, 10.5 per cent of half-blood,² 17 per cent of three-eighths blood,² 31 per cent of quarter-blood,² and 12.5 per cent of coarser wools.²

¹ Preliminary estimate.

² Grades comparable with the domestic "blood" grades with the exception of fine, a part of which is of the American half-blood grade.

The following table shows the domestic production of wool and of mohair, the estimated clean content³ of this production, and the estimated clean content of the imports of improved wool and of mohair and similar hair,⁴ for the years 1923 to 1928, inclusive. The table also shows clean content of both production and imports, and the percentage that production is of this total.

[In thousands of pounds; i. e., 000 omitted]

Year	United States production				Production of wool and mohair, clean content	Imports, wool and hair, clean content	Total of production and imports, clean content	Per cent production is of total in preceding column
	Wool		Mohair					
	Shorn and pulled	Clean content	Shorn and pulled	Clean content				
1923.....	266, 110	121, 652	9, 067	7, 931	129, 583	165, 303	294, 886	44
1924.....	282, 330	128, 117	9, 857	8, 631	136, 748	78, 621	215, 369	65
1925.....	301, 112	135, 035	10, 432	9, 128	144, 163	100, 283	244, 446	59
1926.....	310, 500	140, 898	11, 799	10, 325	151, 223	110, 335	261, 558	58
1927.....	332, 014	149, 369	13, 470	11, 788	161, 157	80, 680	241, 837	67
1928.....	351, 013	156, 970	14, 522	12, 705	169, 675	50, 192	219, 867	77

Imports of carpet wools have increased from 125,526,000 pounds in 1923 to 155,187,000 pounds in 1928, averaging 138,063,000 pounds per year during this period. Of this quantity about 9,100,000 pounds, or slightly over 6 per cent, were dutiable for use chiefly in clothing in which special effects were desired. The remainder—i. e., nearly 94 per cent—entered duty free (under bond) for use in floor coverings. Carpet wools come mainly from Asia, with important entries from Great Britain and South America, and scattering receipts from a wide range of relatively unimportant sources.

The commission has completed a tabulation of prices for comparable grades of domestic and foreign wools.⁵ These prices are on the clean-wool basis in the Boston market for "territory" (western or range) wools and at the London wool auctions for "colonial" (Australasian) wools. The prices and the market differentials—i. e., the spread between Boston and London for the years 1923 to 1928, inclusive, and for the first 10 months of 1929—are shown in the table following. The market differentials shown in this table are less for the fine and half-blood wool than for the medium grades—i. e., three-eighths-blood and quarter-blood. American woolgrowers are now breeding toward the medium grades.

³ The clean wool content, i. e., after the grease and foreign matter are removed.

⁴ The clean yield of the imports of mohair, cashmere, alpaca, and similar hair amounts to about 4 per cent of the clean yield of imports of such hair and improved wools combined.

⁵ Comparability between grades was established as nearly as possible in cooperation with wool merchants and users in this country and England.

Wool: Comparison of prices of "territory" wools in the Boston market and "colonial" wools in the London market, 1923 to October, 1929

[Per pound]

Year	Fine combing			Half-blood combing			Three-eighths-blood combing			Quarter-blood combing			Average
	Boston	London	Difference	Boston	London	Difference	Boston	London	Difference	Boston	London	Difference	Difference, 4 grades
1923-----	\$1.401	\$1.168	\$.233	\$1.258	\$1.014	\$.243	\$1.052	\$0.856	\$.196	\$0.886	\$0.772	\$0.114	\$0.197
1924-----	1.423	1.359	.064	1.300	1.194	.106	1.118	1.003	.115	.972	.896	.076	.090
1925-----	1.396	1.258	.138	1.254	1.027	.227	1.090	.866	.224	1.002	.761	.241	.208
1926-----	1.157	1.029	.128	1.039	.867	.172	.921	.692	.229	.823	.594	.229	.190
1927-----	1.100	1.003	.097	1.000	.888	.112	.895	.757	.138	.805	.680	.125	.118
1928-----	1.158	1.013	.145	1.112	.925	.187	1.042	.817	.225	.976	.756	.220	.194
1929 (10 months)-----	1.001	.809	.192	1.002	.722	.280	.954	.645	.309	.867	.598	.269	.262
Average-----			.142			.170			.205			.182	.180

(b) MANUFACTURES OF WOOL

SURVEYS AND SPECIAL STUDIES

Unprinted surveys on commodities in Schedule 11 include "Felts, not woven, of wool or hair," "One hundred imported wool cloths," and "Wool wearing apparel, not knit or crocheted." Additional recent information has been obtained for use in these surveys, such as import, export, and production data, but the completion of them has been suspended because of the more urgent work in connection with tariff legislation. The information in the surveys, however, has been made available to the Congress for use in connection with the pending legislation.

Anticipating a revision of the tariff act by the Congress, experts of the division made a field trip in July, 1928, to obtain data relative to current conditions in the wool-manufacturing industry. Information obtained from manufacturers and importers of woollens, worsteds, carpets, and wool-felt hats, and from dealers in raw wool and wool by-products was later used in the Summary of Tariff Information, 1929.

Special studies were made of court and Treasury decisions relative to Schedule 11 and an analysis of the articles imported as "manufactures of wool, not specially provided for." This information was made available to the Congress and specific mention has been made in the House and Senate bills of woven machine felts, blankets over 3 yards in length, wool tapestries, and wool-felt hats. A study was also made of imports of cloth in chief value of cotton but containing wool, and these fabrics have been specially provided for in Schedule 9.

Since the enactment of the tariff act of 1922 the domestic carpet and rug industry has developed and placed on the market a new type of rug known in the trade as "American orientals." These rugs are seamless, have a longer pile than the Wilton, have the design woven through to the back as in a real oriental, and are chemically washed to further simulate the appearance of the oriental. In the 9 by 12 foot size they retail for \$150 to \$220. Because of the longer pile these new rugs require more wool than the ordinary Wilton or Axminster, a fact that accounts in part at least for the increased amount of wool used in the industry and the decrease in the number of square

yards produced. The House and Senate committees made provision for such rugs in paragraph 1117 of the tariff bill of 1929.

Subsequent to the hearings held by the Ways and Means Committee on Schedule 11, an expert of the division made a field trip to obtain information relative to the competition of wools not finer than 40s and mohair. Approximately 80 per cent of the manufacturers of mohair fabric in New England, New York, and Pennsylvania were interviewed and a report was submitted to the Senate Finance Committee.

Lessened activity in the domestic wool manufacturing industry as a whole and in the various branches of the industry in 1927 as compared with 1923 is shown in the following table.

Manufactures of wool: Statistics of domestic production for 1923 and 1927 and percentage change¹ in 1927 as compared with 1923

[From Bureau of the Census]

	Number of establishments	Wage earners, average number	Wages	Value of products
Total manufactures of wool:				
1923.....	1,004	237,454	\$280,152,690	\$1,312,719,242
1927.....	891	194,827	224,799,962	1,036,143,196
Change (per cent).....	-11.3	-18.0	-19.8	-21.1
Woolen goods:				
1923.....	513	72,408	\$87,313,708	\$364,287,817
1927.....	471	61,790	72,156,158	301,308,743
Change (per cent).....	-8.2	-14.7	-17.4	-17.3
Worsted goods:				
1923.....	338	122,144	\$135,670,814	\$698,270,621
1927.....	288	92,571	101,665,747	516,669,556
Change (per cent).....	-14.8	-24.2	-25.1	-26.0
Wool carpets and rugs:				
1923.....	79	35,217	\$48,528,430	\$199,480,623
1927.....	65	32,829	42,040,892	166,888,408
Change (per cent).....	-17.7	-6.8	-13.4	-16.3
Felt goods, wool and hair:				
1923.....	53	5,735	\$6,634,964	\$42,036,964
1927.....	50	5,452	6,653,147	41,894,844
Change (per cent).....	-5.7	-4.9	+0.3	-0.3
Wool felt hats:				
1923.....	21	1,950	\$2,004,774	\$8,643,217
1927.....	17	2,185	2,284,018	9,381,645
Change (per cent).....	-19.0	+12.1	+13.9	+8.5

¹ Percentage change based on 1923, (+) indicates increase, (-) decrease.

The above statistics indicate that in number of establishments, average number of wage earners, total wages, and value of products all branches of the wool-manufacturing industry, except the manufacture of wool felt hats, have declined from 1923 to 1927, the greatest decline taking place in the worsted industry. The wool felt hat industry is somewhat peculiar in that the great recent fashion demand for women's felt hats has called forth an increased production and greatly increased imports. Data are not available for the domestic production of wool felt hats in 1928 as compared with 1927, but imports of wool felt hats and hat bodies were nearly three times as large in 1928 as in 1927. Total imports of manufactures of wool increased from \$54,561,000 in 1923 to \$65,040,000 in 1927, as compared with a decrease in the value of domestic wool manufactures during the same period from \$1,312,719,242 to \$1,036,143,196, or about 21 per cent.

The commission reconsidered an application requesting a reduction in the rates of duty on wool gloves and mittens provided for in

paragraph 1114 of the act of 1922. A preliminary investigation made by the commission during the summer of 1928 disclosed that although imports had decreased since 1923, the decrease was not the result of any marked advantage enjoyed by domestic manufacturers, for domestic production had also decreased during the same period. A world-wide style decline seems to have affected foreign as well as domestic producers of wool gloves. In view of the general decline in demand for wool gloves, the commission did not order a cost investigation, but decided to defer action until such a time as changes in the wool glove and mitten industry should make an investigation advisable.

SCHEDULE 12. SILK AND SILK GOODS

(a) SURVEYS AND REPORTS

Valuable material was assembled for use in the amplification of the survey published in 1921, and now out of print, entitled "Silk, Silk Yarns and Threads, and Silk Pile Fabrics." Work on the new edition of this survey is temporarily suspended during the present tariff readjustment.

(b) INVESTIGATIONS AND REPORTS FOR THE PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922

Applications received and preliminary reports thereon.—During the first five months of the current year, work on Schedule 12 consisted largely of special studies on commodities on which requests looking toward a decrease in the existing rates of duty had been received by the Department of State from the French Government and transmitted May 24, 1928, to the commission.

To assist the commission in determining whether investigations here and abroad under the flexible tariff provision were warranted or feasible, preliminary studies involving field work over a period of four weeks were undertaken. Through interviews with importers, manufacturers, retailers, and United States customs officers, first-hand information was obtained as to the comparability of foreign and domestic merchandise, prices, causes and strength of foreign competition, and other pertinent factors. The material gathered was embodied in a series of preliminary reports on the following commodities: (1) Spun silk yarns, (2) silk velvets, (3) silk plushes, (4) silk pile ribbons, (5) broad silks and silk upholstery fabrics, and (6) silk wearing apparel. The general status of competition from France on these articles is sketched below.

United States import trade with France in silk goods.—France has long been the leading source of supply for silk manufactures imported into the United States. Measured in terms of value, goods of French origin constituted in 1928 nearly 44 per cent of the total imports of silk manufactures, both dutiable and free. In that year, silk goods imported from France amounted to \$17,901,000, or more than twice the value of such goods imported from Japan, the closest foreign competitor of France in the American market.

Imports of silk wearing apparel, silk knit goods, silk velvets and plushes, silk velvet ribbons, laces, embroideries, veils and veilings of silk, silk ribbons, all-silk fabrics (printed, dyed, embossed, moiréd, or advanced), and silk-mixed fabrics are supplied chiefly by France. Imports from France of spun-silk yarns, of silk bolting cloth, and of

silk small wares are exceeded only by those from Switzerland. France ranks next in importance to Japan and China as an exporter to the United States of all-silk fabrics woven in the grey and follows Japan as a supplier of silk handkerchiefs and mufflers.

Piece goods, taken in the aggregate, including broad silks, upholstery fabrics, velvets, plushes, and bolting cloth, form the largest item in the import trade with France, amounting in value in 1928 to over \$7,929,000. This sum represents about one-third of the total value of silk cloth imported from all countries and it exceeds in value the silk fabric imports from Japan, which amounted to \$6,727,000 in 1928.

Next in importance in the trade from France is the item of silk wearing apparel, woven, knitted, embroidered, etc., which aggregated \$5,149,000 in 1928, and constituted about two-thirds of the value of the entire importations from all sources.

Laces and lace articles, embroideries, nets and nettings, veils and veilings, form the next largest group of silk imports from France, amounting to approximately \$2,980,000, or about 73 per cent of the total imports of such products. The remainder of the silk purchases from France is composed of silk ribbons and silk velvet ribbons valued at \$430,000, slightly less than three-fourths of the total ribbon imports into this country, and accessories, such as silk handkerchiefs and mufflers, silk small wares, and other miscellaneous silk manufactures not separately classified.

The following table affords a comparison of the imports of silk manufactures in 1928 from France and Japan.

Silk manufactures: General imports in 1928 from France and Japan and total from all countries, classified according to tariff schedules

	France	Japan	All other countries	Total for all countries
Manufactures of silk, dutiable under Schedule 12:				
Spun silk-----	\$570, 401	\$4, 917	\$1, 179, 111	\$1, 754, 429
Broad silks--				
All-silk in the grey-----	68, 093	5, 892, 646	849, 988	6, 810, 727
All-silk, dyed, colored, or advanced-----	3, 642, 685	775, 061	4, 262, 600	8, 680, 346
Mixed, chief value silk-----	386, 364	56, 444	492, 337	935, 145
Silk plushes, velvets, and chemilles-----	3, 812, 044	3, 031	3, 764, 047	7, 579, 122
Silk velvet or plush ribbons-----	300, 653		124, 848	425, 501
Silk ribbons, not over 12 inches wide-----	129, 366	9	42, 339	171, 714
Bandings, beltings, bindings, and other narrow fabrics of silk-----	27, 135	1, 145	75, 209	103, 489
Silk wearing apparel--				
Not knit-----	2, 205, 188	924, 709	740, 149	3, 870, 046
Knit or crocheted-----	142, 304	193	126, 573	269, 070
Silk handkerchiefs and mufflers-----	180, 476	521, 099	247, 103	948, 678
All other manufactures-----	605, 023	170, 745	401, 918	1, 177, 686
Total manufactures of silk dutiable under Schedule 12-----	12, 069, 732	8, 349, 999	12, 306, 222	32, 725, 953
Manufactures of silk, dutiable under Schedule 14: ¹				
Silk wearing apparel embroidered or of lace-----	2, 801, 857	230, 784	481, 181	3, 513, 822
Silk handkerchiefs and mufflers embroidered or of lace-----	29, 147	178, 204	28, 791	236, 142
Laces and lace articles-----	1, 118, 776	4, 138	75, 036	1, 197, 950
Veils and veilings, nets and nettings-----	472, 934	12	475, 092	948, 038
Embroideries-----	1, 158, 031	64, 988	388, 491	1, 611, 510
All other-----	230, 054	15, 597	77, 815	323, 466
Total manufactures of silk under Schedule 14-----	5, 810, 799	493, 723	1, 526, 406	7, 830, 928
Manufactures of silk, free:				
Bolting cloth-----	20, 203		720, 795	740, 998
Wearing apparel ² -----			90, 482	90, 482
Total manufactures of silk-----	17, 900, 734	8, 843, 722	14, 643, 905	41, 388, 361

¹ Par. 1430.

² From Philippines.

Distinctive characteristics and significance of silk imports from France.—Imports of silk goods from France are largely articles valued highly for their originality, exclusiveness, skillful hand labor, or prestige. France manufactures in greater proportion than any other country goods of a distinctive quality of design and of workmanship which find an outlet in the fashionable trade rather than in the quantity markets of the world. Most of the imports of French broad silks, upholstery fabrics, and dress velvets are of this class, consisting to a great extent of novelties—either plain woven or Jacquard woven—of continually changing variety and range. Printed plain-woven silks consisting mainly of hand-blocked fabrics and fabrics elaborately printed on multi-roller machines form a considerable portion of the French imports largely because of the demand for novelty and exclusiveness of design. With their world-wide markets and sales organizations in all leading countries, French manufacturers are able to confine orders to a limited quantity per pattern within specified trade zones. Because of the rapid development of the applied arts in America during and since the war, the superiority of the French printed silk goods has not been so marked in the last decade as formerly. At present, 1929, except where French designs are executed by hand, or are exceptionally elaborate, or sold on “confined” orders, the imports may be regarded as competitive with the better grade output of the domestic mills.

In much the same class as the printed silks, from the competitive point of view, are the Jacquard-figured goods, such as damasks, brocades, brocatelles, and armures, for upholstery, draperies, and apparel, which predominate in the imports from France. American manufacturers have attained a high level of excellence in the manufacture of Jacquard goods, but because they find it more profitable to produce conservative styles which have large sales and are adapted to mass-production methods they do not attempt the execution of designs as elaborate and original as the French patterns. It is in the complicated Jacquard goods and the high-quality trade requiring small orders per pattern that French producers have a competitive advantage.

Imports of French goods have led to the introduction in the domestic industry of many new types of fabrics which have been adaptable for large-scale reproduction. An example of this may be seen in the vogue for georgette crêpe, which, originating with the French two or three years preceding the World War and meeting with an extraordinary demand in this country, stimulated the expansion of American throwing as well as weaving facilities. Another more recent instance is the popularity of the so-called transparent velvet made with rayon pile on a silk ground. This fabric, introduced in 1925 in France and imported at first as a novelty, was copied by domestic velvet manufacturers and produced on an increasing scale until at the present time it constitutes the main item of silk dress velvet manufacture in this country. Production of transparent velvets in this country helped the domestic industry to recover from the depression which resulted after the cessation of demand for the major output of the industry—millinery velvets—following the adoption of the felt hat in women’s headgear. Transparent velvets represent about two-thirds of the total imports of silk-pile fabrics, but as the domestic

supply has been inadequate to meet the exceptional fashion demand, imports have, up to this time, been substantial.

France not only leads in the import trade in transparent velvets but also supplies America with the greater part of its Salome velvet, velvet brocades, fancy metallic velvets, and other high-priced velvet novelties. Silk-pile fabrics at the lower extremes of value, such as cotton-back chiffon velvets with spun-silk pile, are also an important import item from France and these have presented a serious competitive problem for the domestic industry. Another important type of imports of silk products from France is the model gowns from which reproductions or adaptations are made by domestic garment makers. Often the model gowns from which copies have been made are reexported, thereby affording a rebate of the custom duties paid. The practice of purchasing original French models for retailing is less important commercially, as the demand for them is attributable to the prestige of Paris design rather than an intrinsic superiority over American-made goods.

In addition to the models, a considerable number of so-called merchandise dresses in the moderate and inexpensive price range have been imported from France as a result of the development of mass production in Paris in recent years. Such apparel is usually hand finished or skillfully ornamented by hand with beading, embroidery, appliqué, or drawn work. French manufacturers have no competitive advantage over American manufacturers in the inexpensive machine-made apparel, but are successful in exporting in volume hand-finished or hand-trimmed garments during periods when intricacy of detail or elaborateness of ornamentation is sponsored by fashion. It is possible for such imports to undersell domestic apparel. A notable example of such competition is the hand-beaded georgette dress made in France in mass production and exported heavily to the United States during the vogue for that type of dress a few years ago.

Other instances may also be cited where the high percentage of labor involved in the production of the commodity, together with the limited or sporadic demand for it, explains the imports. Such examples are many; they include velvet ribbons, hatters' plush of high pickage and warp density, hand-woven tapestries, hand-blocked printed silks, Chantilly laces involving much hand clipping in the finishing processes, Alençon laces with hand-outlined motifs, and embroideries executed on the hand-operated pantograph machine. Even if the labor costs were not insurmountable, the instability of style and the fluctuating demand for these articles would render their production in the United States financially unattractive.

SCHEDULE 13. PAPERS AND BOOKS

(a) GENERAL STATEMENT

The work of the paper division concerns (1) all commodities provided for in Schedule 13 of the tariff act of 1922, (2) cigarette paper provided for in paragraph 1454, and (3) pulp and paper commodities provided for in the free list (Title II).

During the past year the paper division was occupied almost entirely with preparing information for the use of the Congress in connection with tariff legislation.

Although Schedule 13 consists of but 13 paragraphs, it makes provision for approximately 75 distinct products. Assembling data on these commodities for inclusion in a summary of tariff information required much research work, interviews, and correspondence with individuals and with trade associations.

Members of the division acted in an advisory capacity to the members of the Committee on Ways and Means and to the Senate Finance Committee, as well as to individual Members of the Congress. Following the public hearings of the Committee on Ways and Means, an expert of the paper division accompanied the members of the subcommittee on a field trip arranged for the purpose of acquainting them with the methods of paper manufacture. Reports and memoranda on various phases of the paper and allied industries were prepared for the members of the committees, and the experts were present at the executive sessions of the subcommittee when Schedule 13 of the House bill was drafted.

(b) SURVEYS AND REPORTS

There have been no surveys published during the past year on paper products and pulp, but the information obtained by the commission upon these subjects has been summarized in the Summary of Tariff Information, 1929.

The most important products from the point of view of tariff legislation are newsprint, book paper, light-weight tissues, lithographic products, and fine papers.

Newsprint paper.—In the act of 1922, standard newsprint paper is on the free list. Under the tariff act of 1913, practically all newsprint was free, but if the invoice value exceeded a certain amount ($2\frac{1}{2}$ cents per pound originally; subsequently raised to 5 cents and later to 8 cents per pound during the war) printing paper was dutiable at 12 per cent ad valorem. Under the tariff act of 1909, newsprint was dutiable as printing paper at varying rates based on value, beginning with three-sixteenths of 1 cent per pound.

The domestic consumption of newsprint paper has been approximately 3,500,000 tons annually in recent years, of which about 1,500,000 tons are produced in the United States and about 2,000,000 tons are imported, principally from Canada. The ratio of imports to domestic consumption has increased from 44 per cent in 1923, to 61 per cent in 1928.

More abundant supplies of pulpwood, greater development of hydroelectric power, and more modern, larger, and faster running machines give Canada an advantage over the United States in the production of newsprint paper. Exports of newsprint are relatively small, averaging around 15,000 tons. Prices of newsprint were from \$50 to \$60 per ton in 1929, as compared with about \$45 per ton before the war. At the peak of prices during the war, newsprint quotations ranged as high as \$250 per ton for immediate delivery.

A considerable tonnage of newsprint is used for other purposes than in the printing of newsprint papers, such as in the manufacture of writing tablets and the printing of magazines and catalogues.

Printing or book paper.—Printing or book paper is dutiable at one-fourth of 1 cent per pound and 10 per cent ad valorem. The manufacture of printing or book paper has shown an upward trend in the

United States in recent years, because many mills which formerly made newsprint have turned to the production of book paper. Considerable pulpwood and chemical and mechanically ground wood pulp are imported for manufacture into book paper. Approximately 65 mills, located in 16 States, produce this type of paper, and in 1928 the production was approximately 1,334,000 tons. Imports, which are relatively small are chiefly from Finland, Germany, and the United Kingdom. Exports in 1928 were 12,000 tons and were sent principally to Canada, Cuba, the Philippines, and Australia.

Tissue paper.—The duty on tissue papers weighing not more than 6 pounds per ream is 6 cents per pound plus 15 per cent ad valorem, and weighing 6 to 10 pounds per ream, 5 cents per pound plus 15 per cent ad valorem. These papers are made for a wide variety of uses, such as printing, carbonizing, copying, waxing, electrical insulating, wrapping, and absorbing. The light-weight tissues are of high grade, and require much care and skill in their manufacture. The cheaper grades of tissue papers are those used as fruit wrappers and in the manufacture of towels, napkins, and sanitary products. The manufacture of the light-weight tissues in the United States has not progressed in the same ratio as the manufacture of the heavier grades because the lighter papers do not lend themselves to mass production as readily as the other grades.

Domestic production in 1927 of high-grade tissues was 58,590 tons, with a value of about \$13,000,000. The production of the cheaper tissue in that year was 257,480 tons, valued at \$35,354,212. Imports of tissue paper in 1928 were 1,700 tons, valued at \$2,000,000. These imports were principally papers weighing less than 6 pounds to the ream and with an average foreign value of about 61 cents per pound.

Developments along technical lines occasionally create demands for paper which are difficult to meet immediately. An example of this condition is the condenser tissue used in radio-receiver sets and in talking-picture machines. In this case, the domestic industry has made additional machine installations to meet this particular demand.

Cigarette paper.—Cigarette paper is dutiable at 60 per cent ad valorem. Most of the domestic consumption of cigarette paper made for use in automatic cigarette machines is imported from France. Imports increased from 9,717,757 pounds in 1923 to 13,928,115 pounds in 1928, and in value from about \$2,500,000 to about \$4,000,000. Domestic production of this type of paper is but a small part of the quantity consumed annually in this country.

Lithographic products.—Cigar bands, labels, flaps, ceramic decalcomanias, and transparencies are the representative lithographic products which are imported at varying rates of duty provided in paragraph 1306. Domestic production data for these products are not immediately available because statistics are compiled for the industry as a whole. Imports of cigar bands, labels, and flaps amounted in 1928 to 207,745 pounds, valued at \$255,666. They are imported chiefly from Germany, and to a less extent from France and Cuba. Cigar consumption has not increased with the growth in population of the United States, and the domestic industry has therefore not found an expanding market.

Ceramic decalcomanias are used in the decoration of chinaware. Domestic production in 1924 was in five establishments and of the value of \$1,208,000. Imports in 1927 were 322,809 pounds, valued at

\$428,961. Germany is the principal country shipping to the United States.

Transparencies are lithographically printed advertising signs on thin paper, and are used on display windows and doors. Five lithographic plants in the United States manufacture transparencies, and their sales in 1928 were approximately \$450,000 in value. Imports are principally from Germany, Belgium, and Ireland, and the foreign value of such imports is estimated at \$75,000 or more annually. They are not specially provided for, and are classified as "lithographically printed matter not exceeding eight-thousandths of 1 inch in thickness" at 25 cents per pound. Transparencies are sold by the thousand, and weigh from 7 to 15 pounds per thousand; the selling price ranges from \$50 to \$200 or more per thousand, according to the number of square inches, character of the design, and the number of colors in which printed. On the basis of 25 cents per pound, transparencies weighing 8 pounds per thousand and valued at \$48.50 per thousand would pay a duty of \$2, or an equivalent ad valorem of 4 per cent. Transparencies weighing 13 pounds per thousand and valued at \$115 per thousand would pay a duty of \$3.25, or an equivalent ad valorem of 2.8 per cent.

Fine papers.—Fine papers are dutiable at 3 cents per pound and 15 per cent ad valorem. They include ledger, high-class writing, and light-weight papers. The production of fine paper and Bristol board in the United States in 1927 was 508,808 tons, valued at \$105,000,000. Imports in 1928 were 1,590 tons valued at \$817,248. Although the imports are small as compared with the total domestic production of fine papers, they are of the highest grades, and offer substantial competition with similar papers produced in the United States. Writing, letter, and note paper imports in 1928 were 611 tons, valued at \$410,146. Another large item of fine paper imported is drawing paper, which amounted in 1928 to 739 tons, valued at \$303,000. Considerable of the imported paper is handmade, and comes from France and Italy, where the labor cost is much below the American wage scale. The most intensive foreign competition is in the field of high-grade boxed stationery, or papeteries. The domestic writing paper mills supply about 16 per cent of their total output to the stationery and papeteries manufacturers.

(c) INVESTIGATIONS FOR THE PURPOSES OF SECTION 315 OF THE TARIFF ACT OF 1922

In December, 1928, three applications for investigations for the purposes of section 315 of the tariff act of 1922 were made to the commission. These applications covered papeteries or boxed or packaged writing paper and envelopes.

No report was prepared by the commodity division because of the pressure of work being done for the Congress, but material obtained in 1924, when an earlier application for an investigation of papeteries was being considered, and information recently collected is available for a preliminary report. A brief résumé of conditions in the industry follows.

Papeteries.—The manufacture of packaged writing paper and envelopes constitutes a separate domestic industry. For the most part the paper, paper board, and other materials are not produced

by manufacturers of papeterie, but are obtained from the paper mills. The paper is cut into small sizes, sometimes further processed by printing, embossing, decorating, or deckle-edging, and envelopes are made to match. Paper board and other materials are used together with decorated or fancy papers for making attractive boxes in which packages of paper and envelopes are put up as a unit. The range of papeteries is from the small boxes, retailing at 25 cents or even less, to the artistic combinations in beautiful boxes selling for many dollars.

According to the census of manufactures, the value of domestic papeteries produced in 1927 was more than \$16,000,000.

In the various processes of manufacturing papeterie, much hand labor is involved. Competition with imports is keen, particularly in the cheaper grades. Domestic manufacturers complain of their inability to conduct their business profitably.

Papeteries are not specifically provided for in the tariff act of 1922. Both paper and envelopes are dutiable at the rates provided for the paper from which they are made, with an additional rate of 5 per cent ad valorem on plain envelopes, and 10 per cent ad valorem on envelopes bordered, embossed, pointed, tinted, decorated, or lined.

All of the data on papeteries obtained by the commission were made available to the Congress in its readjustment of the tariff act of 1922. The bills of both committees of Congress carry specific provision for papeteries.

SCHEDULE 14. SUNDRIES

(a) GENERAL STATEMENT

The sundries division deals with all commodities provided for in Schedule 14 of the tariff act of 1922 except the following articles assigned to other divisions: Asbestos, emery and other abrasives, cabinet locks, and calender rolls, to the metals division; thermostatic bottles, to the ceramics division; gas mantles, to the chemical division; and ramie hat braids and laces and embroideries, to the textile division. The division also deals with manufactures of pyroxylin, provided for in paragraph 31, and with articles on the free list related to the dutiable articles coming within its purview. Hides and skins, leather, and boots and shoes are the most important of such articles.

(b) WORK IN CONNECTION WITH TARIFF LEGISLATION

The division has been largely occupied during 1928-29 with work for the congressional committees engaged in readjusting the tariff act of 1922. For the Committee on Ways and Means, a summary of tariff information was completed covering all paragraphs of the sundries schedule. This summary contained a description of the commodities falling within the classification "sundries," a statement as to their uses, and information concerning their production in the United States and in foreign countries, imports, exports, prices, competitive conditions, court and Treasury decisions, and cost-of-production data where the commodity had been the subject of an investigation for the purposes of section 315.

At the hearings held by the Committee on Ways and Means and by the Finance Committee, experts from the sundries division were in

attendance when Schedule 14 was under consideration, and gave information when requested by members of the committees.

The division further served the two committees by making for their use a digest of the hearings; by preparing tables showing compensatory duties on various commodities, and where specific or compound rates were used the equivalent ad valorem duty; and by furnishing other data on special request.

Assistance was also given the legislative counsel in phrasing the schedule so as to carry out the intent of the committees and in appending notes explaining the significance of the changes made.

(c) INVESTIGATIONS UNDER THE GENERAL POWERS OF THE COMMISSION

Calf leather.—In response to Senate Resolution No. 163, dated March 2, 1928, the commission under its general powers instituted an investigation to determine the extent of sales of foreign calf leather in the United States since January 1, 1925, and the wages paid to workers in tanneries processing calf leather in the United States and in competing countries. Beginning May 1, 1928, field work was carried on in the United States and Canada over a period of six weeks, and later in Germany, France, Belgium, Holland, England, and Scotland. At New York and Boston importers were interviewed with regard to the sales price and the grades of calf leather imported, and an analysis was made of invoices of imports at those ports. On February 18, 1929, the Tariff Commission submitted its report to the Senate and sent copies of it to the trade. Domestic tanners questioned certain statements made in the report as to the comparability of domestic and imported calf leather and as to the basis of calculating the number of square feet in the skins reported to have been tanned. The commission thereupon held an informal conference with representatives of the domestic tanners and in May, 1929, sent its agents to the tanneries to verify, from records and books of account, the data submitted by tanners. After making a second analysis of invoices of imports—covering a longer period than was covered by the first analysis—the commission reexamined the data. The revision of the report has been interrupted by the many demands made upon the experts in connection with the tariff legislation.

Goat and kid leathers.—On February 1, 1929, the commission transmitted to the Senate a report¹ on the sales of imported goat and kid leather in the United States since January 1, 1925, and on the wage rates paid in domestic and foreign tanneries to workers on black and colored leathers made from goat and kid skins.

The report contained information as to domestic production, capital invested in the industry, sources of raw materials, imports and exports, prices, and wages paid in foreign as well as in domestic tanneries. To obtain this information the commission's agents visited 23 domestic tanneries and examined their books and records. In addition to the data which they obtained on capital invested, production, and sales, they made an analysis of the pay roll of each tannery for the week ending nearest April 7, 1928. On the foreign kid-leather industry less complete data were obtained by the com-

¹ Printed as S. Doc. No. 217, 70th Con g., 2d sess.

mission's representatives. At two tanneries in Great Britain, and at one tannery in France, they were able to fill out the commission's questionnaire, but in Germany they were refused figures on wages and production and obtained only general information.

Domestic tanners of kid leather depend upon foreign sources of supply for approximately 99 per cent of their raw material. Asia, especially British India, and South America furnish the bulk of the 50,000,000 or more skins that are each year imported. The chief tanning centers are Philadelphia, Pa., Camden, N. J., Wilmington, Del., and Lynn and Haverhill, Mass. The tanneries of Philadelphia, Camden, and Wilmington handle about 80 per cent of the skins tanned in this country. They produce a wide range of black and colored leathers, patent kid, fancy kid, glove kid, and cabretta.

The extent of sales of foreign leather in the United States is best measured by imports for consumption. Imports of goat and kid leather, estimated at about 3 per cent of domestic production in 1927, have increased rapidly in recent years. Between 1923 and 1927 they increased from 453,861 square feet, valued at \$236,040, to 6,784,817 square feet, valued at \$3,524,163. Germany and France are the chief sources of imports. The leather that the two countries shipped to the United States in 1927 was apparently of high grade, the unit value being \$0.616 and \$0.502, respectively. Imports of leather from Great Britain had a unit value of only \$0.212 per square foot. Gold and silver and other fancy and colored kid leather make up the bulk of the imports.

The average sales value of black kid leather, as reported by 13 representative domestic tanneries in 1927, was \$0.2769 per square foot. For colored kid leather, the average sales value, as reported by 20 tanneries in 1927 was \$0.2705 per square foot. Export values of black and colored kid leathers of domestic manufacture averaged \$0.286 per square foot in 1927.

The commission's report gives approximate average wage rates in the three competing countries, but states that hourly wages paid for the various labor operations can not be given without disclosing confidential information.

(d) INVESTIGATIONS FOR THE PURPOSES OF SECTION 315

(1) *Applications received.*—No applications for investigations looking toward changes in the rates of duty on commodities provided for in Schedule 14 have been received since July, 1928.

(2) *Investigations in progress.*—Investigations instituted and carried to advanced stages with respect to imitation solid pearl beads and imitation solid pearls, brierwood pipes, and cork insulation and cork tile, have been temporarily suspended on account of the pending tariff readjustment. For information on these investigations, see the Twelfth Annual Report of the Tariff Commission.

(e) IMPORTS OF SEWED STRAW HATS FOLLOWING THE CHANGE IN DUTY

Straw hats.—Since the President's proclamation changing the rate of duty from 60 to 88 per cent on men's sewed straw hats valued at \$9.50 or less per dozen, effective March 14, 1926, imports of sewed

straw hats have been recorded under two classifications, namely, "Men's sewed straw hats valued at not over \$9.50 per dozen" and "Other sewed straw hats." Imports recorded under "Men's sewed straw hats valued at not over \$9.50 per dozen" are restricted to men's sewed hats composed wholly or in chief value of straw. Imports entered as "Other sewed straw hats" include not only women's hats made of straw but men's and women's sewed hats composed wholly or in chief value of chip, grass, or any of the other material specified in paragraph 1406 of the tariff act of 1922. The classification "Other sewed straw hats" covers also men's sewed straw hats valued at more than \$9.50 per dozen.

Imports of all sewed straw hats show a tendency to increase in quantity and to decrease in value. The average value per hat was 53 cents in 1925, 51 cents in 1926, 49 cents in 1927, 38 cents in 1928, and 34 cents in the first six months of 1929. Italy continues to be the chief competing country, supplying over 90 per cent of the total imports.

Since the President's proclamation assessing a duty of 88 per cent ad valorem on men's sewed straw hats valued at \$9.50 or less per dozen, imports entered under this classification have decreased in number, value, and unit value. In 1927, the first full calendar year after the change in the duty, imports under this classification numbered 1,499,352 hats, valued at \$598,047, with a unit value of 40 cents. In 1928 they declined to 1,005,982 hats, valued at \$338,048, with a unit value of 34 cents; and in 1929 (January through June, inclusive), numbered 863,071 hats, valued at \$316,810, with a unit value of 37 cents.

Men's sewed hats made of chip braid, similar in appearance to and competing with men's sewed straw hats valued at \$9.50 or less per dozen are dutiable at 60 per cent and not at the proclaimed rate of 88 per cent. In 1927, imports of sewed hats dutiable at 60 per cent numbered 750,240; in 1928, 1,808,214; in 1929 (January-June, inclusive), 2,873,084. At the same time the unit value per hat imported under this classification decreased from 68 cents in 1927 to 33 cents in 1929.

XXI. THE LIBRARY

The commission's library consists of a collection of 17,555 books and pamphlets, a large number of unbound and uncounted periodicals, and a selected list of 462 domestic and foreign current trade, technical, and Government periodicals, many of which are printed in foreign languages. As up-to-date information is found in periodicals rather than in books, the commission subscribes to a wide range of periodicals bearing upon industry and trade. In the selection of trade journals bearing on agricultural, chemical, metals, and textile industries the commission has a wide choice because of the vast amount of printed material available on such subjects.

During the past year 1,405 books and pamphlets, and one periodical subscription were added to the library. Fully half of the accessions were gifts or were sent in exchange for publications of the commission. For the convenience of the staff a weekly record of accessions is prepared in the library and distributed among the employees of the commission.

The circulation of books and periodicals through the various divisions during the year amounted to 47,837 copies. This figure includes only charges to various divisions and no account is taken of the circulation within the divisions. There were distributed, besides, 27,650 copies of current dispatches sent by United States representatives in foreign countries.

The commission does not buy books unless it sees for them more than temporary use. In this way the shelves are kept fairly free from dead material. There is, however, a considerable demand for material which the commission does not feel justified in buying and in order to supply this demand books and periodicals are daily borrowed from the Library of Congress and from other libraries. The commission's library, on the other hand, lends its books and periodicals to other Government libraries.

Though no record is kept of the reference and research work done by the library staff, these constitute its principal activities. A rush of work in any of the commodity divisions of the commission is invariably reflected in the library. The staff may be called upon to prepare bibliographies or to suggest and procure authoritative reference books on some problem that has arisen. The question raised concerning a commodity may be a simple one easily answered in a few minutes, or it may be a difficult one entailing exhaustive search through source material in foreign languages—work that may take considerable time.

The library is housed in two rooms. During the past year an additional book stack was installed, but even with the added accommodations, the shelves of both rooms are crowded.

XXII. PERSONNEL

The commission and its staff, as organized at the close of the fiscal year 1929, consisted of 229 persons. This personnel comprised 6 commissioners and 223 employees, 141 of whom were men and 88 women. Fifty-one members of the staff had rendered military or naval service. The total number within the civil service retirement law was 135. The amount of money deducted from their salaries under the law was \$10,307.98.

The allocation of the personnel in the District of Columbia, under the provisions of the classification act of 1923, is shown in the appended table.

Allocation of the Tariff Commission personnel in the District of Columbia as of June 30, 1929

	Number	Service	Grade
Commissioners.....	6	Clerical, administrative, and fiscal.....	15
Chief investigator.....	1	do.....	14
Secretary.....	1	do.....	13
Chief of division.....	1	do.....	12
Assistant chief investigator.....	1	do.....	12
Chief of division.....	1	do.....	10
Accountants.....	2	do.....	10
Assistant to the secretary.....	1	do.....	9
Chief of division.....	1	do.....	9
Accountants.....	10	do.....	9
Do.....	2	do.....	8
Editor.....	1	do.....	8

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Allocation of the Tariff Commission personnel in the District of Columbia as of June 30, 1929—Continued

	Number	Service	Grade
Chief of division.....	1	Clerical , administrative, and fiscal.....	7
Accountants.....	8	do.....	7
Sundries expert.....	1	do.....	7
Tariff report specialist.....	1	do.....	7
Chiefs of sections.....	2	do.....	6
Accountants.....	2	do.....	6
Assistant editor.....	1	do.....	6
Clerk.....	1	do.....	6
Senior clerk.....	1	do.....	5
Clerks.....	4	do.....	5
Secretaries to commissioners.....	6	do.....	5
Clerk-stenographers.....	2	do.....	5
Accountants.....	2	do.....	5
Graphic draftsman.....	1	do.....	5
Chiefs of sections.....	2	do.....	5
Transportation clerk.....	1	do.....	5
Clerks.....	17	do.....	4
Stenographers.....	4	do.....	4
Clerk-stenographers.....	7	do.....	4
Clerks.....	14	do.....	3
Stenographers.....	13	do.....	3
Clerk-stenographer.....	1	do.....	3
Operator office devices.....	1	do.....	3
Stockroom clerk.....	1	do.....	2
File clerks.....	3	do.....	2
Clerks.....	5	do.....	2
Stenographers.....	3	do.....	2
Operator office devices.....	1	do.....	2
Telephone operator.....	1	do.....	2
Clerk.....	1	do.....	1
Chief economist.....	1	Professional and scientific service.....	8
Chief of division.....	1	do.....	7
Chiefs of divisions.....	7	do.....	6
Economists.....	5	do.....	5
Agricultural experts.....	2	do.....	5
Chiefs of divisions.....	3	do.....	5
Metals experts.....	2	do.....	5
Ceramics expert.....	1	do.....	5
Fisheries expert.....	1	do.....	5
Textile experts.....	4	do.....	5
Foreign tariffs expert.....	1	do.....	5
Legal expert.....	1	do.....	4
Textile experts.....	2	do.....	4
Agricultural experts.....	3	do.....	4
Chemical experts.....	3	do.....	4
Foreign tariffs expert.....	1	do.....	4
Textile experts.....	3	do.....	3
Agricultural experts.....	6	do.....	3
Sundries experts.....	3	do.....	3
Metals experts.....	2	do.....	3
Lumber expert.....	1	do.....	3
Foreign tariffs expert.....	1	do.....	3
Ceramics experts.....	2	do.....	3
Librarian.....	1	do.....	3
Sundries experts.....	2	do.....	2
Metals expert.....	1	do.....	2
Assistant economists.....	2	do.....	2
Agricultural expert.....	1	do.....	2
Foreign tariffs experts.....	4	do.....	2
Ceramics expert.....	1	do.....	2
Assistant librarian.....	1	do.....	1
Sundries expert.....	1	do.....	1
Chemical expert.....	1	do.....	1
Junior attorney.....	1	do.....	1
Agricultural expert.....	1	do.....	1
Assistant librarian.....	1	Subprofessional.....	4
Mechanic.....	1	Custodial.....	5
Messengers.....	6	do.....	3
Messenger.....	1	do.....	2

The table which follows presents a comparison of the personnel of the commission, including the field service, as of June 30, 1928, June 30, 1929, and November 30, 1929.

Comparison of personnel, including field service, as of June 30, 1928, June 30, 1929, and November 30, 1929

	June 30, 1928	June 30, 1929	Novem- ber 30, 1929
Commissioners.....	6	6	6
Chief economist.....		1	1
Chief investigator.....	1	1	1
Secretary.....	1	1	1
Assistant to the secretary.....	1	1	1
Chiefs of divisions.....	18	17	16
Librarian.....		1	1
Special experts.....	95	88	85
Clerks, including stenographers and typists.....	88	92	96
Secretaries and stenographers assigned to commissioners.....	8	8	8
Operators, office devices.....	4	2	2
Telephone operators and stock clerks.....	2	2	2
Messengers.....	7	8	8
Skilled laborer.....	1	1	1
Total.....	232	229	229

¹ Included in previous years under chiefs of divisions.

² Including 7 temporary employees engaged in special work in connection with the revision of the tariff act of 1922 by the Congress.

The following changes in personnel occurred during the fiscal year ended June 30, 1929:

Appointments:	
Permanent employees.....	24
Temporary employees.....	18
Total.....	<u>42</u>
Separations:	
Resignations.....	24
Temporary employments completed.....	21
Total.....	<u>45</u>
Net reduction of staff.....	3

XXIII. FINANCES AND APPROPRIATIONS

(1) SALARIES AND EXPENSES

The regular appropriations for the Tariff Commission for the fiscal year ended June 30, 1929, were \$754,000. That amount included \$738,000 for salaries and expenses, exclusive of printing and binding for which there was a special appropriation of \$16,000. By the deficiency act approved March 4, 1929, \$4,000 additional was made available for printing and binding, and \$51,000 was added to provide for increases in salaries through the operation of the amended classification act of May 28, 1928 (Welch Act).

As is shown in detail in other sections of this report, the work of the commission since these appropriations were made has been largely the preparation of material for the use of the Congress, particularly for the House Committee on Ways and Means and of the Senate Committee on Finance, in the drafting and consideration of the pending tariff legislation. The commission has prepared tabulations and other statements of information for the President and for individual members of the Senate and the House of Representatives relating to many separate items in the tariff.

Effort has been made consistently and effectively to conserve the commission's appropriations and to avoid unnecessary expenditures.

Economies have been effected whenever possible without impairing the efficient performance of official duties.

(2) PRINTING AND BINDING

The amount available for printing and binding for the Tariff Commission during the fiscal year ended June 30, 1929, was \$20,000 including \$4,000 appropriated by the deficiency act approved March 4, 1929.

In order to comply with the provisions of the act of September 8, 1916, which created the commission, it is necessary that the commission's reports, representing the results of its research and investigations, shall be issued in printed form. The commission has not in any year had sufficient appropriations to cover the expense of printing all the reports which it has completed, and the past year was no exception. Some reports finished during the fiscal year 1929 have been printed at the expense of the appropriation for the fiscal year 1930. It was necessary also, in order that some of the commission's reports might be available when needed, to have them printed by the Committee on Ways and Means of the House of Representatives. This was true of the Summary of Tariff Information, 1929, and of certain other reports.

The commission's printed reports are distributed almost entirely in response to personal requests. They have been sought by persons of widely diversified interests, including producers, importers, trade associations, public libraries, foreign governments, students, school children, writers on economics, and many others.

(3) EXPENDITURES

The expenditures, including outstanding obligations, by the commission during the fiscal year ended June 30, 1929, were for—

Salaries:	
Six commissioners.....	1 \$54, 000. 00
Employees—	
Departmental service.....	594, 520. 81
Field service.....	27, 621. 37
Field expenses of investigations: 2	
In the United States.....	38, 735. 63
In foreign countries.....	6, 273. 98
Books of reference and publications.....	2, 845. 17
Printing and binding.....	20, 000. 00
Telephone and telegraph.....	2, 204. 29
Rent of office (foreign).....	780. 72
Repairs and alterations.....	495. 53
Office equipment, supplies, miscellaneous expense.....	11, 870. 26
Total.....	759, 347. 76

Respectfully submitted.

THOMAS O. MARVIN,
Chairman.
ALFRED P. DENNIS,
Vice Chairman.
EDGAR B. BROSSARD,
SHERMAN J. LOWELL,
LINCOLN DIXON,
FRANK CLARK,
Commissioners.

¹ Salaries increased from \$7,500 to \$9,000 July 1, under act of May 27, 1928.

² These figures are exclusive of salaries and include only direct expenses in the conduct of field work.

APPENDIX 1.—DATA RELATING TO INVESTIGATIONS BY THE COMMISSION UNDER SECTIONS 315, 316, AND 317 OF THE TARIFF ACT OF 1922, AND UNDER ITS GENERAL POWERS

TABLE I.—Applications received

(A) UNDER SECTION 315

Paragraph No.	Commodity	Date of application	Nature of request	Status
	SCHEDULE 1.—Chemicals, oils, and paints			
1	Formic acid	Sept. 27, 1922	Increase	Withdrawn.
1	Oxalic acid	Sept. 29, 1922	do.	Investigation completed (see Table II).
1	do.	Apr. 4, 1923	Decrease	Do.
1	Tartaric acid	Mar. 17, 1925	Increase	Investigation ordered.
1, 5	Amino acids and salts	Dec. 16, 1922	do.	Do.
2	Aldehyde derivatives	Jan. 12, 1923	Decrease	Investigation not ordered.
2	do.	Sept. 6, 1924	do.	Do.
4	Methanol	May 14, 1925	Increase	Investigation completed (see Table II).
4	do.	Sept. 29, 1927	Decrease	Pending.
5	Barbituric acid	Sept. 19, 1922	Duty on American selling price.	Investigation completed (see Table II).
5	Chemical compounds used for purifying gas.	Mar. 28, 1928	Increase	Investigation not ordered.
5	Ichthyol	Apr. 17, 1923	do.	Do.
5	Hydrogen peroxide	June 9, 1924	do.	Pending.
5	Sodium silicofluoride	Jan. 31, 1925	do.	Investigation completed (see Table II).
5	do.	Feb. 5, 1925	do.	Do.
5	do.	Feb. 10, 1925	do.	Do.
7	Ammonium chloride	Oct. 25, 1922	Decrease	Investigation not ordered.
9	Cream of tartar	Apr. 7, 1925	Increase	Investigation ordered.
9	Raw tartar	May 31, 1928	Decrease	Pending.
12	Barium dioxide	Oct. 16, 1922	Increase	Do.
12	do.	Dec. 1, 1922	do.	Investigation completed (see Table II).
12	do.	Jan. 22, 1923	Decrease	Do.
12	do.	Dec. 1, 1923	do.	Do.
12	Barium carbonate, precipitated.	Feb. 20, 1925	Increase	Do.
12	Barium chloride	May 29, 1928	do.	Investigation ordered.
19	Casein	Dec. 19, 1922	Decrease	Investigation completed (see Table II).
19	do.	Apr. 13, 1923	do.	Do.
19	do.	July 2, 1923	do.	Do.
20	Tailor's chalk	Dec. 14, 1928	Increase	Pending.
20	Whiting	Feb. 25, 1927	do.	Investigation completed (see Table II).
25	Calcium arsenate	Jan. 13, 1923	Decrease	Investigation not ordered.
25	do.	Jan. 14, 1924	do.	Withdrawn.
25	do.	Jan. 17, 1923	do.	Investigation not ordered.
26	Chloral hydrate	Sept. 1, 1922	Duty on American selling price.	Withdrawn.
26	Fertilizer urea	May 29, 1928 ¹	Investigation	Report sent to Senate. ²
26	Thymol	Mar. 21, 1923	Increase	Investigation not ordered.
26	Thymol crystals	Mar. 17, 1923	do.	Do.
27	Cresylic acid	May 3, 1923	Decrease	Investigation completed (see Table II).
27	do.	May 4, 1923	do.	Do.
27	do.	Nov. 12, 1923	do.	Do.
27	do.	do.	do.	Do.
27	do.	Nov. 13, 1923	do.	Do.
27	do.	Nov. 14, 1923	do.	Do.
27	do.	Nov. 15, 1923	do.	Do.
27	do.	do.	do.	Do.
27	Ethyl benzol	July 25, 1925	do.	Investigation not ordered.
27	do.	Aug. 5, 1925	do.	Do.
27	Novadelox or benzoyl peroxide.	Sept. 30, 1922	do.	Do.
27	do.	Oct. 14, 1922	do.	Do.
27	Phenol	Apr. 18, 1923	do.	Investigation completed (see Table II).
28	Biological stains	Sept. 22, 1922	Increase	Investigation not ordered.
28	Certain coal-tar dyes	Oct. 12, 1922	Decrease	Withdrawn.
28	Indigo, natural	Nov. 8, 1922	do.	Investigation not ordered.
28	Phenolic resin	Dec. 28, 1922	do.	Investigation ordered.
36	Licorice root	Jan. 29, 1925	Adjustment of duty.	Investigation not ordered.

¹ Senate resolution requesting investigation.

² Printed as S. Doc. 182, 70th Cong., 2d sess.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
SCHEDULE I.— <i>Chemicals, oils, and paints</i> —Con.				
39	Logwood extract	Sept. 28, 1922	Increase	Investigation ordered.
39	Quebracho extract	Nov. 3, 1922	Decrease	Investigation not ordered.
42	Agar agar	Oct. 31, 1922	do	Do.
42	Casein glue	Aug. 14, 1923	do	Do.
42	Edible gelatin	Dec. 22, 1924	Increase	Investigation ordered.
42	do	Aug. 11, 1926	Decrease	Do.
42	Fish glue	Mar. 1, 1923	do	Investigation not ordered.
42	Glue	June 14, 1924	Increase	Investigation ordered.
44	Inks, printing and litho.	Apr. 14, 1925	do	Investigation not ordered.
48	Licorice extract	Jan. 29, 1925	Adjustment of duty.	Do.
50	Chloride of magnesium	July 26, 1923	Increase	Do.
53	Animal fats	Apr. 26, 1923	Decrease	Do.
53	Fish oils	Mar. 16, 1923	do	Do.
53	Herring oil	do	do	Do.
53	Whale oil	do	do	Do.
54	Linseed oil	Mar. 10, 1923	do	Investigation completed (see Table II.)
54	do	Apr. 18, 1923	do	
54	do	May 5, 1923	do	
54	do	Dec. 4, 1923	Increase	
54	Olive oil	Dec. 22, 1922	Decrease	Investigation not ordered.
54	do	Mar. 10, 1924	Increase	Do.
54	do	June 14, 1926	do	Do.
54, 55	Vegetable oils	Apr. 18, 1923	Decrease	Investigation ordered.
54, 55	do	do	do	Do.
54, 55	do	Apr. 23, 1923	do	Do.
54, 55	do	do	do	Do.
54, 55	do	Apr. 26, 1923	do	Do.
54, 55	do	Apr. 28, 1923	do	Do.
55	Coconut oil	Feb. 2, 1923	do	Do.
55	do	Apr. 18, 1923	do	Do.
55	Cottonseed oil	Apr. 26, 1923	do	Do.
55	Peanut oil	Mar. 15, 1923	do	Do.
55	do	May 31, 1928	do	Do.
55	Soya-bean oil	Mar. 16, 1923	do	Do.
55	do	Apr. 18, 1923	do	Do.
55	do	Apr. 26, 1923	do	Do.
59	Cajeput oil	May 2, 1923	do	Investigation not ordered.
61	Mustard oil	Oct. 9, 1922	Duty on American selling price.	Do.
62	Perfumes	May 31, 1928	Decrease	Pending.
71	Bone black	Apr. 17, 1923	do	Investigation not ordered.
71	Decolorizing carbons	Jan. 25, 1926	Increase	Investigation ordered.
73	Lampblack	Feb. 8, 1923	do	Investigation not ordered.
75	Oxide of iron	Jan. 15, 1924	do	Do.
77	Varnish	Mar. 24, 1923	Decrease	Do.
80	Permanganate of potash	Nov. 12, 1926	Increase	Investigation completed (see Table II.)
80	Nitrate of potash	Jan. 25, 1927	do	Investigation discontinued (see Table II.)
80	do	Feb. 12, 1927	do	Do.
80	Potassium chlorate	Oct. 18, 1922	Decrease	Investigation completed (see Table II.)
80	do	Feb. 17, 1923	Increase	
80	do	Mar. 7, 1923	do	
83	Formate of soda	Sept. 29, 1922	do	
83	Glauber salt	Dec. 14, 1925	do	Do.
83	Salt	Dec. 20, 1923	Decrease	Do.
83	Sodium nitrite	Oct. 12, 1922	Increase	Investigation completed (see Table II.)
83	Sodium phosphate	June 12, 1926	do	Investigation ordered.
87	Strontium nitrate	Feb. 4, 1925	do	Investigation not ordered.
91	Titanium potassium oxalate.	Feb. 16, 1925	do	Do.
SCHEDULE 2.— <i>Earths, earthenware, and glassware</i>				
202	Tiles	May 28, 1925	Increase	Pending.
204	Magnesite	Oct. 27, 1924	do	Investigation completed (see Table II.)
		Nov. 13, 1924		
204	do	Apr. 30, 1923	Decrease	Do.
204	do	Aug. 21, 1923	do	Do.
206	Pumice stone	Feb. 28, 1924	do	Investigation not ordered.
207	China clay	Oct. 29, 1924	Increase	Investigation ordered under general powers.
207	Fluorspar	Apr. 9, 1925	do	Investigation completed (see Table II.)
207	do	Apr. 27, 1925	do	Do.
208	Mica	Dec. 11, 1922	do	Investigation not ordered.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
	SCHEDULE 2.—Earths, earthenware, and glassware—Continued			
212.....	Chemical stoneware.....	June 18, 1923	Decrease.....	Investigation not ordered.
212.....	China.....	June 7, 1923	do.....	Investigation ordered.
212.....	Articles of falence and porcelain.	May 31, 1928	do.....	Pending.
213.....	Graphite.....	Oct. 2, 1922	Increase.....	Investigation ordered under general powers.
213.....	do.....	Oct. 3, 1922	do.....	Do.
213.....	do.....	Dec. 6, 1922	Decrease.....	Do.
213.....	do.....	Mar. 24, 1925	do.....	Do.
213.....	do.....	May 31, 1928	do.....	Pending.
213.....	Crystalline flakes.....	do.....	do.....	Do.
214.....	Fused silica.....	June 6, 1923	Increase.....	Do.
214, 1429.....	Diamond dies.....	Feb. 8, 1923	Decrease.....	Investigation not ordered.
214.....	Feldspar.....	May 21, 1925	do.....	Do.
218.....	Clinical thermometers.....	Dec. 18, 1924	Increase.....	Pending.
218.....	do.....	Apr. 7, 1927	do.....	Do.
218.....	Clinical thermometer blanks.	do.....	do.....	Do.
218.....	Glass-stoppered bottles.....	Nov. 17, 1925	Duty on American selling price.	Investigation ordered.
218.....	Perfume bottles.....	Nov. 23, 1925	do.....	Do.
218, 230.....	Glassware.....	Jan. 11, 1926	Increase.....	Do.
218.....	Blown glassware.....	Aug. 31, 1926	do.....	Do.
218, 230.....	Gauge glasses.....	Mar. 19, 1928	do.....	Pending.
219.....	Window glass.....	Apr. 7, 1927	do.....	Investigation completed (see Table II).
223.....	Mirrors.....	Nov. 16, 1922	Decrease.....	Investigation ordered.
229.....	Electric-light bulbs.....	Sept. 25, 1922	Increase.....	Investigation not ordered.
229.....	do.....	Dec. 12, 1923	do.....	Do.
229.....	Tungsten electric lamps.....	May 15, 1923	do.....	Do.
230.....	Stained-glass windows.....	Oct. 6, 1922	do.....	Do.
231.....	Vitrolite.....	Nov. 27, 1925	do.....	Pending.
232, 233.....	Finished marble.....	Feb. 1, 1924	do.....	Do.
233.....	Agate rings for fishing lines, unmounted.	June 5, 1925	Adjustment of duty.	Do.
235.....	Manufactures of, and unmanufactured granite.	Apr. 16, 1924	Increase.....	Investigation completed (see Table II).
235.....	do.....	Dec. 1, 1925	Decrease.....	Do.
235.....	Granite monuments.....	July 19, 1926	do.....	Do.
235.....	Travertine stone.....	May 27, 1926	Increase.....	Pending.
	SCHEDULE 3.—Metals and manufactures of			
301.....	Pig iron.....	Dec. 13, 1922	Increase.....	Investigation completed (see Table II).
302.....	Ferromanganese.....	June 6, 1925	Decrease.....	Withdrawn.
302.....	Manganese.....	do.....	do.....	Do.
302.....	do.....	Mar. 31, 1927	do.....	Do.
302.....	do.....	Mar. 22, 1926	Increase.....	Investigation ordered under general powers.
302.....	Manganese and alloys.....	Aug. 12, 1927	Decrease.....	Do.
302, 304, 305.....	Tungsten and alloys.....	May 15, 1925	Increase.....	Investigation ordered.
302, 304, 305.....	Tungsten.....	Sept. 22, 1926	do.....	Do.
302, 304, 305.....	do.....	Mar. 5, 1928	do.....	Do.
302, 304, 305.....	do.....	do.....	do.....	Do.
302, 304, 305.....	do.....	do.....	do.....	Do.
303, 304.....	Bars of iron and steel.....	May 1, 1925	do.....	Pending.
303, 304.....	do.....	June 1, 1925	do.....	Do.
303, 304.....	do.....	Sept. 1, 1925	do.....	Do.
304.....	Beams.....	May 1, 1925	do.....	Do.
304.....	Billets.....	June 1, 1925	do.....	Do.
304.....	Ingots.....	Apr. 29, 1925	Investigation under sec. 315.	Do.
304.....	do.....	June 1, 1925	Increase.....	Do.
308.....	Steel sheets.....	Sept. 1, 1925	do.....	Do.
309.....	Steel plates.....	Apr. 29, 1925	Investigation under sec. 315.	Do.
312.....	Angles.....	May 1, 1925	Increase.....	Do.
312.....	do.....	June 1, 1925	do.....	Do.
312.....	do.....	Sept. 1, 1925	do.....	Do.
312.....	Channels.....	May 1, 1925	do.....	Do.
312.....	Girders.....	do.....	do.....	Do.
312.....	Joists.....	do.....	do.....	Do.

² Senate resolution also requesting investigation.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
SCHEDULE 3.—Metals and manufactures of—Con.				
312	Light shapes	Sept. 1, 1925	Increase	Pending.
313, 314	Bands	June 1, 1925	do	Do.
315	Wire rods	Sept. 1, 1925	do	Do.
316	Wire	do	do	Do.
318	Wire cloth	May 23, 1925	do	Do.
325	Anvils	Mar. 2, 1927	do	Do.
327	Cast-iron pipe	Dec. 23, 1927	do	Do.
327	Cast iron pressure and gas pipe.	Feb. 13, 1928	do	Do.
327	do	May 11, 1928	do	Do.
328	Corrugated furnaces	Nov. 22, 1922	Decrease	Investigation not ordered.
331	Upholstery nails	Jan. 22, 1926	Investigation under sec. 315.	Pending.
331	Wire nails	Sept. 1, 1925	Increase	Do.
339	Utensils	Apr. 29, 1925	Investigation under sec. 315.	Do.
340	Jewelers' saws	May 3, 1923	Decrease	Investigation not ordered.
342	Umbrella frames	Oct. 26, 1922	Increase	Pending.
343	Crochet needles	Mar. 11, 1926	do	Do.
343	Latch needles	June 12, 1925	do	Do.
343	Needle cases	Mar. 27, 1923	Decrease	Investigation not ordered.
344	Agate rings for fishing lines, mounted.	June 5, 1925	Adjustment of duties.	Pending.
344	Fishing tackle	July 9, 1923	Increase	Investigation not ordered.
344	do	May 22, 1926	do	Do.
348	Snap fasteners	Mar. 9, 1923	do	Do.
354	Pen and pocket knives	Mar. 3, 1927	Decrease	Pending.
355	Cutlery of stainless steel	Jan. 29, 1923	do	Withdrawn.
355	Kitchen and butcher knives.	May 31, 1928	do	Pending.
358	Razor blades	Oct. 31, 1922	do	Referred to Treasury Department.
359	Surgical instruments	Feb. 15, 1927	Increase	Investigation not ordered.
360	Drawing instruments	Sept. 27, 1922	do	Included in investigation of scientific instruments, under general powers.
360	Scientific instruments	Apr. 23, 1923	Decrease	Investigation under general powers.
360	do	June 15, 1923	do	Do.
362	Swiss pattern files	Nov. 22, 1922	Increase	Investigation ordered.
366	Parts of automatic pistols.	Oct. 22, 1925	Decrease	Investigation not ordered.
368	Escapements	Dec. 8, 1922	do	Do.
368	Taximeters	Dec. 30, 1922	Increase	Investigation completed (see Table II).
372	Hosiery machines	July 8, 1925	Decrease	Investigation not ordered.
372	Machine tools	Dec. 30, 1926	Increase	Pending.
372	Spindles and flyers	Nov. 22, 1922	do	Investigation not ordered.
372	Woolen cards	Nov. 22, 1924	do	Do.
375	Metallic magnesium	May 26, 1923	do	Investigation ordered.
382	Aluminum foil	Nov. 7, 1927	do	Pending.
383	Gold leaf	June 1, 1923	do	Investigation completed (see Table II).
383	do	June 6, 1923	do	Do.
396	Print rollers	Dec. 1, 1922	do	Do.
399	Aluminum pigeonbands.	Dec. 6, 1922	Duty on American selling price.	Investigation not ordered.
399	Christmas tree light reflectors.	May 4, 1925	do	Pending.
399	Wire netting	June 18, 1927	Increase	Do.
399	Bicycle bells	Mar. 28, 1928	do	Do.
399	Bit braces	Apr. 26, 1928	do	Do.
399	Marcel irons	Jan. 2, 1929	do	Do.
399	Straightening combs	do	do	Do.
SCHEDULE 4.—Wood and manufactures of				
401	Logs, Canadian	Dec. 2, 1922	Decrease	Investigation completed (see Table II).
401	do	Apr. 30, 1923	do	Do.
401	do	May 2, 1923	do	Do.
403	Cabinet logs	Dec. 20, 1922	do	Investigation not ordered.
403	Cabinet lumber	do	Increase	Do.
403	Logs, lignum-vitæ	Feb. 5, 1923	Decrease	Do.
403	Veneers of wood	Aug. 14, 1923	do	Do.
403	do	Dec. 20, 1922	Increase	Do.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
SCHEDULE 4.—Wood and manufactures of—Con.				
407.....	Reed and willow products.	Feb. 11, 1927	Increase.....	Pending.
407.....	Willow furniture.....	Feb. 14, 1923	.....do.....	Investigation not ordered.
410.....	Bent-wood chairs.....	Apr. 19, 1923	.....do.....	Investigation ordered.
410.....	.....do.....	Aug. 11, 1923	Duty on American selling price.	Do.
410.....	.....do.....	Sept. 13, 1923	Increase.....	Do.
410.....	.....do.....	.....do.....	.....do.....	Do.
410.....	Carved wood.....	July 25, 1928	.....do.....	Pending.
410.....	Furniture.....	Dec. 20, 1924	.....do.....	Investigation not ordered.
410.....	Paintbrush handles.....	Jan. 15, 1923	Reclassification.	Investigation completed (see Table II).
410.....	Plywood.....	Feb. 14, 1928	Increase.....	Investigation not ordered.
410.....	.....do.....	Feb. 10, 1928	.....do.....	Do.
410.....	Spring clothespins.....	Jan. 23, 1925	.....do.....	Do.
410.....	Wood flour.....	Mar. 9, 1928	.....do.....	Pending.
410.....	Wooden cigar molds.....	May 13, 1926	.....do.....	Do.
SCHEDULE 5.—Sugar, molasses, and manufactures of				
502.....	Molasses.....	{Sept. 20, 1924 Sept. 25, 1924	}Decrease.....	{Investigations under general powers. Do.
502.....	Blackstrap.....	Oct. 3, 1922		
503.....	Sugar.....	Nov. 16, 1922	.....do.....	Investigation completed (see Table II).
503.....	Maple sirup.....	Apr. 25, 1924	.....do.....	Do.
503.....	.....do.....	Sept. 19, 1924	.....do.....	Do.
503.....	Maple sugar.....	.....do.....	.....do.....	Do.
504.....	Rare sugars.....	Dec. 16, 1922	Duty on American selling price.	Investigation ordered.
SCHEDULE 7.—Agricultural products and provisions				
701, 702, 703, 706.	Livestock, meat, meat products.	Sept. 4, 1926	Increase.....	Investigation ordered under general powers.
701, 706	Beef and beef products.....	Feb. 18, 1927	.....do.....	Do.
701, 706	.....do.....	Mar. 7, 1927	.....do.....	Do.
701, 706	.....do.....	Apr. 19, 1927	.....do.....	Do.
701.....	Live and dressed cattle.....	.....do.....	.....do.....	Do.
701.....	Beef.....	Dec. 2, 1924	.....do.....	Do.
701.....	Cattle and livestock.....	Oct. 2, 1922	Decrease.....	Do.
701.....	.....do.....	Feb. 17, 1925	Increase.....	Do.
701.....	.....do.....	Jan. 5, 1924	.....do.....	Do.
701.....	Meat.....	.....do.....	.....do.....	Do.
701.....	Tallow.....	Mar. 16, 1923	Decrease.....	Investigation not ordered.
701.....	.....do.....	Apr. 18, 1923	.....do.....	Do.
701.....	.....do.....	Apr. 2, 1925	Increase.....	Do.
701.....	.....do.....	Apr. 18, 1925	.....do.....	Do.
706.....	Canned meat.....	Feb. 26, 1926	.....do.....	Investigation ordered under general powers.
706.....	.....do.....	Apr. 2, 1925	.....do.....	Do.
706.....	.....do.....	Apr. 18, 1925	.....do.....	Do.
706.....	.....do.....	Feb. 2, 1927	.....do.....	Do.
706.....	Canned and other prepared meats.	May 21, 1927	.....do.....	Do.
707.....	Milk and cream ³	Mar. 19, 1927	.....do.....	Investigation ordered.
707, 710.....	Dairy products.....	June 20, 1925	.....do.....	See Table II for dairy products included in investigations.
707, 709, 710.	.....do.....	Jan. 28, 1926	.....do.....	Do.
709.....	Butter ³	Mar. 10, 1924	.....do.....	Investigation completed (see Table II).
709.....	.....do.....	May 2, 1924	.....do.....	Do.
709.....	.....do.....	May 23, 1924	.....do.....	Do.
710.....	Cheese and substitutes therefor.	May 23, 1924	.....do.....	Investigation not ordered (see Swiss cheese, Table II).
710.....	Cheddar cheese.....	Mar. 31, 1926	.....do.....	Do.
710.....	Cheese of the Cheddar type.	May 25, 1927	.....do.....	Do.
710.....	Swiss cheese without eye formation.	Oct. 19, 1927	.....do.....	Pending.
710.....	Cheese other than Swiss.	May 22, 1926	Increase.....	Investigation not ordered.
711.....	Bobwhite quail.....	May 19, 1925	Decrease.....	Investigation completed (see Table II).

³ Senate resolution also requesting investigation.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
	SCHEDULE 7.—Agricultural products and provisions—Continued			
711.....	Ornamental birds.....	June 9, 1925	Decrease.....	Pending.
711.....	Hungarian partridge.....	Jan. 13, 1928	do.....	Do.
711.....	Wild or game birds ⁴	Oct. 31, 1922	do.....	Investigation not ordered (see Bobwhite quail, Table II).
711, 712.....	Live or dressed turkeys.....	June 23, 1927	Increase.....	Pending.
713.....	Eggs.....	June 20, 1925	do.....	Investigation completed (see Table II).
713.....	Eggs, dried or frozen.....	Sept. 30, 1925	do.....	Do.
713.....	do.....	Dec. 29, 1925	do.....	Do.
717, 718.....	Fish.....	Jan. 5, 1923	Decrease.....	Investigation not ordered.
717, 718.....	do.....	Feb. 9, 1924	Increase.....	Do.
717.....	Lake fish.....	Jan. 27, 1925	do.....	Investigation under general powers completed.
717.....	Salmon.....	Aug. 24, 1925	Decrease.....	Pending.
717.....	Salmon from Canada.....	May 20, 1924	do.....	Do.
718.....	Kippered herring.....	Aug. 24, 1925	do.....	Do.
718.....	Dried fish, salted or unsalted.....	Sept. 26, 1927	Increase.....	Do.
718.....	Stockfish.....	Oct. 12, 1927	do.....	Investigation not ordered.
719.....	Finnan haddie.....	Aug. 24, 1925	Decrease.....	Pending.
720.....	Sardines.....	Sept. 9, 1925	Increase.....	Investigation not ordered.
720.....	do.....	Sept. 21, 1925	do.....	Do.
720, 721.....	Fish, canned.....	Sept. 23, 1922	Decrease.....	Do.
721.....	Caviar.....	Apr. 6, 1927	Increase.....	Do.
723.....	Buckwheat.....	Jan. 24, 1924	do.....	Do.
723.....	do.....	Sept. 5, 1925	do.....	Do.
724.....	Corn.....	Aug. 25, 1924	do.....	Investigation completed (see Table II).
725.....	Alimentary pastes.....	Apr. 28, 1924	do.....	Investigation not ordered.
725.....	do.....	Sept. 19, 1924	do.....	Do.
729.....	Wheat.....	Nov. 1, 1923	do.....	Investigation completed (see Table II).
729.....	do.....	Nov. 23, 1923	do.....	Do.
733.....	Matzos.....	Mar. 30, 1928	Decrease.....	Investigation ordered.
736.....	Raspberries, wild.....	Feb. 23, 1924	do.....	Pending.
736.....	Blueberries.....	Sept. 20, 1926	do.....	Do.
737.....	Cherries, glacé.....	July 5, 1923	Increase.....	Investigation not ordered.
737.....	Cherries, partially prepared.....	Apr. 29, 1925	do.....	Investigation completed (see Table II).
737.....	do.....	Mar. 5, 1926	do.....	Do.
739.....	Citron, candied.....	Oct. 28, 1924	do.....	Pending.
742.....	Currants.....	Jan. 31, 1923	Adjustment of rates.	Investigation not ordered.
744.....	Olives.....	May 12, 1925	Increase.....	Pending.
746.....	Pineapples.....	Oct. 26, 1923	Decrease.....	Investigation not ordered.
746.....	do.....	Apr. 29, 1924	Increase.....	Do.
749.....	Plantains.....	Oct. 23, 1922	Decrease.....	Do.
749.....	do.....	Oct. 31, 1922	do.....	Do.
749.....	Cherries, preserved or prepared.....	Feb. 10, 1928	Increase.....	Pending.
749.....	Glacé fruit.....	Feb. 8, 1928	do.....	Do.
751.....	Flowers, cut.....	Nov. 24, 1922	Decrease.....	Investigation not ordered.
751.....	Cut Narcissus flowers.....	Mar. 9, 1927	Increase.....	Do.
751.....	Iris.....	Mar. 10, 1927	do.....	Do.
756.....	Coconuts, desiccated.....	Sept. 23, 1922	do.....	Do.
757.....	Peanuts ³	May 2, 1923	Decrease.....	Investigation completed (see Table II).
757.....	do.....	Jan. 12, 1926	Increase.....	Do.
757.....	do.....	Jan. 20, 1926	do.....	Do.
757.....	do.....	Feb. 25, 1926	do.....	Do.
758.....	Walnuts and green walnut kernels.....	May 31, 1928	Decrease.....	Pending.
759.....	Imitation sliced almonds (peanuts).....	Sept. 1, 1925	Increase.....	Do.
759.....	do.....	Nov. 8, 1926	do.....	Do.
760.....	Cottonseed ³	Sept. 26, 1922	Decrease.....	Investigation ordered.
760.....	do.....	Nov. 11, 1922	do.....	Do.
760.....	do.....	Dec. 21, 1922	do.....	Do.
760.....	Flaxseed.....	Nov. 28, 1923	Increase.....	Investigation completed (see Table II).
760.....	do.....	Dec. 4, 1923	do.....	Do.
760.....	do.....	Mar. 11, 1926	do.....	Do.
760.....	do.....	Mar. 24, 1926	do.....	Do.
760.....	do.....	May 15, 1926	do.....	Do.
760.....	Soya beans.....	May 26, 1926 ¹	Investigation.....	Investigation ordered.
761.....	Alfalfa seed.....	Sept. 3, 1926	Increase.....	Investigation not ordered.

¹ Senate resolution requesting investigation.³ Senate resolution also requested investigation.⁴ 116 other applications on the same commodity.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
SCHEDULE 7.—Agricultural products and provisions—Continued				
761	Alfalfa seed	Sept. 10, 1926	Increase	Investigation not ordered.
761	Clover seed	Jan. 17, 1925	do	Do.
761	do	Feb. 9, 1925	do	Do.
761	do	Feb. 20, 1925	do	Do.
761	do	Mar. 24, 1926	do	Do.
761	do	May 15, 1926	do	Do.
761	do	Sept. 28, 1926	do	Do.
761	do	Sept. 29, 1927	do	Do.
761	Sorghum seed	Oct. 25, 1922	Decrease	Do.
763	Navy beans	June 14, 1926	Increase	Pending.
766	Mushrooms, preserved	Oct. 17, 1922	Decrease	Investigation not ordered.
766	do	Feb. 21, 1923	do	Do.
766	do	May 31, 1928	do	Pending.
767	Dried peas	July 27, 1927	Increase	Pending.
767	do	Dec. 16, 1925	do	Do.
767	do	Dec. 21, 1925	do	Do.
767	do	Dec. 29, 1925	do	Do.
767	do	Jan. 2, 1926	do	Do.
767	Split peas	May 28, 1924	do	Do.
767	do	Apr. 29, 1927	do	Do.
768	Onions	Mar. 19, 1926	do	Investigation completed (see Table II).
768	do	Mar. 25, 1926	do	Do.
768	do	Apr. 5, 1926	do	Do.
768	do	Apr. 16, 1926	do	Do.
768	do	May 11, 1926	do	Do.
769	Potatoes ³	Feb. 17, 1928	do	Investigation ordered.
769	do	Mar. 12, 1928	do	Do.
770	Canned tomatoes	May 24, 1926	do	Investigation completed (see Table II).
770	do	May 27, 1926	do	Do.
770	do	May 28, 1926	do	Do.
770	do	June 1, 1926	do	Do.
770	do	June 7, 1926	do	Do.
770	do	June 14, 1926	do	Do.
770	do	June 17, 1926	do	Do.
770	do	June 26, 1926	do	Do.
770	do	July 15, 1926	do	Do.
770	do	Aug. 12, 1926	do	Do.
770	Canned tomato paste	July 13, 1927	Decrease	Do.
770	Tomato paste	Oct. 12, 1927	do	Do.
770	Fresh tomatoes	Apr. 15, 1927	Increase	Investigation ordered.
771	Turnips	Aug. 3, 1925	do	Pending.
772	Celery	Feb. 11, 1927	do	Investigation not ordered.
772	do	Feb. 12, 1927	do	Do.
772	do	Mar. 24, 1928	do	Do.
772	Sweet peppers	Apr. 15, 1927	do	Investigation ordered.
773	Pickle onions	Mar. 14, 1925	do	Pending.
775	Cacao butter	July 8, 1924	do	Do.
777	Hay	Aug. 13, 1927	do	Investigation ordered under general powers.
777	do	Aug. 19, 1927	do	Do.
778	Hops	Mar. 21, 1923	Decrease	Investigation not ordered.
778	do	Apr. 9, 1923	do	Do.
778	do	Apr. 11, 1923	do	Do.
778	do	do	do	Do.
779	Cloves and clove stems	Sept. 30, 1922	do	Do.
779	Raw materials for animal fats and vegetable oils.	Mar. 11, 1924	do	Investigation ordered of raw materials for vegetable oils.
SCHEDULE 9.—Cotton manufactures				
903	Nankin ticking	May 28, 1924	Increase	Investigation not ordered.
903-906	Cotton cloth	Apr. 29, 1925	Investigation under sec. 315.	Do.
903-906	Cotton cloth, fine	Mar. 6, 1925	Increase	Withdrawn.
903-906	do	do	do	Do.
903-906	do	do	do	Do.
903-906	Cotton shirtings	Sept. 29, 1922	Decrease	Investigation not ordered.
903, 904, 906, 921.	Cotton textiles	May 12, 1924	Increase	Do.
909	Upholstery fabrics	Aug. 1, 1928	do	Pending.

³ Senate resolution also requested investigation.

TABLE I.—*Applications received*—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
	SCHEDULE 9.— <i>Cotton manufactures</i> —Contd.			
910.....	Velvets and plushes.....	May 31, 1928	Decrease.....	Pending.
912.....	Spreads and quilts.....	Oct. 19, 1922	do.....	Withdrawn.
912.....	Household articles.....	Apr. 29, 1925	Investigation under sec. 315.	Investigation not ordered.
913.....	Woven labels.....	Dec. 12, 1923	Duty on American selling price.	Do.
915.....	Fabric gloves.....	Jan. 16, 1923	Increase.....	Investigation completed (see Table II).
915.....	Gloves.....	Apr. 29, 1925	Investigation under sec. 315.	Do.
916.....	Hosiery.....	Jan. 15, 1923	Duty on American selling price.	Do.
916.....	do.....	Apr. 29, 1925	Investigation under sec. 315.	Do.
918.....	Handkerchiefs.....	Apr. 29, 1927	Duty on American selling price.	Pending.
918.....	do.....	Oct. 6, 1927	Decrease.....	Do.
921.....	Heavy coat lining.....	May 7, 1924	Increase.....	Investigation not ordered.
	SCHEDULE 10.— <i>Flax, hemp, and jute, and manufactures of</i>			
1001.....	Crin vegetal, or African fiber.....	Apr. 9, 1923	Decrease.....	Investigation not ordered.
1001.....	do.....	Feb. 25, 1924	do.....	Do.
1001.....	Hemp.....	Mar. 12, 1923	Increase.....	Do.
1008.....	Brattice cloth.....	Mar. 23, 1928	do.....	Withdrawn.
1016.....	Handkerchiefs.....	Apr. 29, 1927	Duty on American selling price.	Investigation ordered.
1016.....	do.....	Oct. 6, 1927	Decrease.....	Do.
1022.....	Rice-straw rugs.....	Jan. 17, 1924	Increase.....	Investigation not ordered.
1022.....	Rag rugs.....	Dec. 3, 1924	do.....	Investigation completed (see Table II).
1022.....	do.....	Jan. 6, 1927	do.....	Do.
1023.....	Cocoa mats.....	Nov. 7, 1925	do.....	Investigation not ordered.
	SCHEDULE 11.— <i>Wool and manufactures of</i>			
1101.....	Camel hair.....	Nov. 24, 1922	Decrease.....	Investigation not ordered.
1101.....	Wools, Class III.....	do.....	do.....	Do.
1101.....	do.....	Sept. 27, 1922	do.....	Do.
1107.....	Worsted yarn.....	May 28, 1925	Increase.....	Pending.
1108.....	Bedford cord.....	Mar. 23, 1923	Decrease.....	Investigation not ordered.
1108, 1109.....	Worsted cloth.....	May 28, 1925	Increase.....	Pending.
1108, 1109.....	Woven fabrics.....	Apr. 29, 1925	Investigation under sec. 315.	Do.
1111.....	Blankets.....	do.....	do.....	Do.
1114.....	Gloves and mittens.....	do.....	do.....	Do.
1115.....	Wearing apparel for men.....	Dec. 6, 1924	Increase.....	Do.
1115.....	do.....	Nov. 18, 1925	do.....	Do.
1115.....	Wool felt hats.....	Apr. 5, 1928	do.....	Do.
1116.....	Oriental rugs.....	Dec. 16, 1925	do.....	Investigation discontinued (see Table II).
1116.....	do.....	Dec. 28, 1925	do.....	Do.
1116.....	do.....	Jan. 4, 1926	do.....	Do.
1119.....	Wool crêpe.....	Sept. 5, 1923	do.....	Investigation not ordered.
	SCHEDULE 12.— <i>Silk and silk goods</i>			
1202.....	Schappe thread.....	May 31, 1928	Decrease.....	Pending.
1205.....	Fabrics for furniture.....	do.....	do.....	Do.
1205.....	Silk fabrics.....	do.....	do.....	Do.
1206.....	Hatter's plush.....	Nov. 24, 1926	do.....	Investigation not ordered.
1206.....	Plushes, velvets, and ribbons.....	May 31, 1928	do.....	Pending.
1206.....	Velvets.....	Feb. 17, 1928	Increase.....	Do.
1209.....	Handkerchiefs.....	Apr. 29, 1927	Duty on American selling price.	Do.
1209.....	do.....	Oct. 6, 1927	Decrease.....	Do.
1210.....	Garments and articles of silk.....	May 31, 1928	do.....	Do.

TABLE I.—Applications received—Continued

(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
SCHEDULE 13.—Papers and books				
1304.....	Cellucotton.....	Apr. 18, 1924	Increase.....	Investigation not ordered.
1304.....	Onionskin paper.....	May 31, 1928	Decrease.....	Pending.
1305.....	Decalcomanias.....	May 28, 1925	Increase.....	Do.
1305.....	Paper with coated surface.	Aug. 14, 1923	Decrease.....	Investigation not ordered.
1305.....	Sulphurized paper.....	May 31, 1928	.....do.....	Pending.
1307, 1308.....	Papeteries.....	May 5, 1924	Duty on American selling price.	Do.
1307, 1308.....	.....do.....	Dec. 12, 1928	Increase.....	Do.
1307, 1308.....	.....do.....	Dec. 14, 1928	.....do.....	Do.
1307, 1308.....	.....do.....	Dec. 26, 1928	.....do.....	Do.
1310.....	Maps.....	Dec. 1, 1922	Decrease.....	Investigation not ordered.
1310.....	Rag books.....	Dec. 15, 1922	.....do.....	Do.
1313.....	Paper tubes for textile purposes.	July 18, 1927	Increase.....	Pending.
1313.....	Fly ribbons.....	Nov. 2, 1927	.....do.....	Do.
1313.....	Wall pockets.....	Nov. 8, 1922	.....do.....	Investigation completed (see Table II).
SCHEDULE 14.—Sundries				
1401.....	Asbestos shingles.....	Apr. 13, 1923	Increase.....	Pending.
1402.....	Lacrosse sticks.....	Aug. 30, 1926	Decrease.....	Do.
1402.....	.....do.....	Oct. 13, 1926	.....do.....	Do.
1402.....	.....do.....	Oct. 15, 1926	.....do.....	Do.
1403, 1430.....	Beaded bags.....	Oct. 28, 1922	.....do.....	Investigation not ordered.
1403, 1429.....	Imitation pearls.....	Dec. 12, 1925	Duty on American selling price.	Investigation ordered.
1403, 1428.....	Beads, necklaces, pendants, etc., of synthetic phenolic resin.	Jan. 30, 1926	Increase.....	Pending.
1405.....	Silk footwear.....	May 31, 1928	Decrease.....	Do.
1406.....	Harvest hats.....	Oct. 28, 1922	Reclassification	Referred to Treasury Department.
1406.....	Men's sewed straw hats.....	Sept. 1, 1923	Increase.....	Investigation completed (see Table II).
1406.....	.....do.....	Sept. 6, 1924	.....do.....	Do.
1406.....	Straw braids for hats.....	May 22, 1924	.....do.....	Pending.
1410.....	Buttons, horn.....	Mar. 23, 1923	Decrease.....	Investigation not ordered.
1411.....	Agate button molds.....	Jan. 16, 1923	.....do.....	Do.
1411.....	Agate buttons.....	July 2, 1927	Increase.....	Do.
1412.....	Cork insulation in slabs, boards, etc.	May 31, 1924	.....do.....	Investigation ordered.
1412.....	.....do.....	Mar. 18, 1925	.....do.....	Do.
1412.....	Cork tile.....	Apr. 29, 1926	.....do.....	Do.
1414, 399.....	Toy novelties.....	Nov. 21, 1924	.....do.....	Pending.
1419.....	Artificial flowers.....	Sept. 21, 1922	.....do.....	Investigation ordered.
1419.....	.....do.....	May 31, 1928	Decrease.....	Do.
1419.....	Artificial fruit.....	.....do.....	.....do.....	Do.
1419.....	Prepared feathers.....	.....do.....	.....do.....	Pending.
1419.....	Immortelles.....	Oct. 31, 1922	.....do.....	Investigation ordered, included with artificial flowers.
1420.....	Silver fox skins.....	Nov. 21, 1924	.....do.....	Investigation not ordered.
1420.....	Furs and fur skins.....	Oct. 25, 1922	Increase.....	Withdrawn.
1420.....	Sheepskin baby carriage robes.	Apr. 28, 1926	Adjustment of duties.	Pending.
1420, 1421.....	Hatters' fur and rabbit skins.	May 4, 1923	Decrease.....	Investigation not ordered.
1428.....	Mesh bags.....	Aug. 23, 1923	Increase.....	Do.
1428.....	.....do.....	Nov. 26, 1923	Decrease.....	Do.
1428.....	Swivels and rings for watch chains.	Mar. 12, 1926	Increase.....	Pending.
1430.....	Handkerchiefs.....	Apr. 29, 1927	Duty on American selling price.	Investigation ordered.
1430.....	.....do.....	Oct. 6, 1927	Decrease.....	Do.
1430.....	Laces and tulle.....	May 31, 1928	.....do.....	Pending.
1430.....	Lace curtains.....	Nov. 11, 1922	.....do.....	Investigation ordered.
1430.....	Mosquito bars.....	Oct. 23, 1922	.....do.....	Do.
1430.....	Real lace (drawn work).....	Mar. 4, 1926	.....do.....	Investigation not ordered.
1430.....	Ladies' trimmed hats.....	Apr. 25, 1923	.....do.....	Do.
1431.....	Buckskin.....	Mar. 23, 1923	.....do.....	Do.
1431.....	Pigskin.....	Mar. 5, 1923	Reclassification	Referred to Treasury Department.
1432.....	Leather leggings.....	Mar. 26, 1924	Increase.....	Investigation not ordered.
1432.....	Moccasins.....	Nov. 25, 1922	Decrease.....	Do.
1434.....	Raw gut.....	Oct. 17, 1922	.....do.....	Do.
1434.....	Gut and manufactures of.....	Sept. 12, 1925	Increase.....	Pending.
1435.....	Gas mantles.....	Sept. 28, 1922	Decrease.....	Investigation not ordered.

TABLE I.—Applications received—Continued
(A) UNDER SECTION 315—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
	SCHEDULE 14.— <i>Sundries</i> —Continued			
1435	Gas mantles.....	Sept. 13, 1923	Duty on American selling price.	Investigation not ordered.
1443	Pipe organs.....	Sept. 26, 1922	do.....	Do.
1443	Titz-Kunst-harmonium.	Dec. 14, 1922	Decrease.....	Do.
1443	Violins.....	Oct. 30, 1922	do.....	Do.
1443	Wood-wind musical instruments.	Oct. 20, 1924	Increase.....	Pending.
1443	do.....	Oct. 31, 1924	do.....	Do.
1443	do.....	Nov. 5, 1924	do.....	Do.
1451	Crayons or fusains.....	Feb. 15, 1923	Decrease.....	Investigation not ordered.
1451	do.....	Apr. 25, 1923	do.....	Do.
1451	do.....	Apr. 26, 1923	do.....	Do.
1451	do.....	Apr. 27, 1923	do.....	Do.
1451	do.....	June 7, 1923	do.....	Do.
1453	Cameras.....	Oct. 26, 1922	Adjustment.....	Investigation not ordered.
1453	Motion-picture films.....	Feb. 29, 1924	Increase.....	Pending.
1454	Cigarette paper.....	May 31, 1928	Decrease.....	Do.
1454	Smokers' articles of phenolic resin.	Jan. 15, 1923	Duty on American selling price.	Investigation ordered.
1456	Umbrella handles and canes.	June 19, 1925	Increase.....	Pending.
	Yachts.....	Oct. 26, 1922	(³).....	Investigation not ordered.
	SCHEDULE 15.— <i>Free list</i>			
1504	Cream separators.....	Nov. 11, 1922	Decrease.....	No jurisdiction.
1589	Hides.....	Dec. 2, 1924	Increase.....	Do.
1607	Shoes.....	May 18, 1923	do.....	Do.
1662	Dried shrimp.....	Jan. 13, 1923	do.....	Do.

(B) UNDER SECTION 316

	SCHEDULE 1.— <i>Chemicals, oils, and paints</i>			
1, 9	Tartaric acid and cream of tartar.	Mar. 12, 1923	Investigation of alleged dumping.	Investigation not ordered.
54	Olive oil.....	May 19, 1924	Relief from unfair methods.	Do.
83	Sodium nitrite.....	Nov. 10, 1923	do.....	Do.
	SCHEDULE 2.— <i>Earths, earthenware, glassware</i>			
205, 1543	Portland cement.....	May 22, 1924	Investigation re unfair competition.	Investigation not ordered.
211, 235	Canadian granite.....	Feb. 25, 1926	do.....	Do.
218	Thermometers.....	Apr. 1, 1927	do.....	Do.
218	Barometers.....			
218	Combination thermometer and barometer.			
	SCHEDULE 3.— <i>Metals and manufactures of</i>			
316	Wire rope.....	July 1, 1925	Relief from unfair methods of importation.	Investigation not ordered
366	Revolvers simulating Smith & Wesson revolvers.	May 28, 1923	do.....	Investigation completed (see Table II).
399	Wrenches.....	Dec. 26, 1924	do.....	Investigation not ordered.
	SCHEDULE 7.— <i>Agricultural products and provisions</i>			
746	Pineapples.....	Apr. 29, 1924	Relief from unfair methods of importation.	Investigation not ordered.
775	Cacao butter.....	July 8, 1924	do.....	Do.

³ Different duty on yachts brought over on steamers and those brought over on their own bottoms.

TABLE I.—Applications received—Continued

(B) UNDER SECTION 316—Continued

Paragraph No.	Commodity	Date of application	Nature of request	Status
921.....	SCHEDULE 9.— <i>Cotton manufactures</i> Sanitary napkins.....	Apr. 18, 1924	Relief from unfair methods of importation.	Investigation completed (see Table II).
1005.....	SCHEDULE 10.— <i>Flax, hemp, and jute, and manufactures of</i> Manila rope.....	Apr. 14, 1926	Relief from unfair methods of importation.	Investigation completed (see Table II).
1022.....	Rugs, simulating Wear-tex rugs.	Aug. 30, 1927	do.....	Investigation not ordered.
1310.....	SCHEDULE 13.— <i>Paper and manufactures</i> Printing and engraving.	Jan. 17, 1923	Relief from unfair methods of importation.	Investigation not ordered.
1414.....	SCHEDULE 14.— <i>Sundries</i> Dolls and doll hands....	Sept. 2, 1926	Relief from unfair methods of importation.	Investigation not ordered.
1428.....	Mesh bags.....	June 7, 1924	do.....	Do.
1441.....	Laminated products composed of paper or other materials and insoluble and infusible condensation products of phenols and formaldehyde.	Apr. 22, 1927	do.....	Investigation completed (see Table II).
1443.....	Tuning pins.....	Feb. 7, 1925	Investigation of alleged dumping.	Investigation not ordered.
1454.....	Brierwood pipes.....	Jan. 9, 1923	Relief from unfair methods of competition.	Investigation completed (see Table II).
.....	Artificial teeth, facings, and backings.	Feb. 9, 1925	do.....	Investigation not ordered.
.....	Synthetic phenolic resin of Form C and articles made thereof.	Dec. 15, 1925	do.....	Investigation ordered.
.....	do.....	Apr. 10, 1926	do.....	Do.

(C) UNDER SECTION 317

50.....	SCHEDULE 1.— <i>Chemicals, oils, and paints</i> Magnesium carbonate....	Nov. 15, 1922	Investigation re discrimination.	Investigation undertaken.
55.....	Cottonseed oil.....	Jan. 10, 1923	do.....	Do.
80, 83.....	Bichromates.....	Oct. 26, 1922	do.....	Do.
80, 83.....	do.....	do.....	do.....	Do.
369.....	SCHEDULE 3.— <i>Metals and manufactures of</i> Automobiles.....	Oct. 24, 1922	Investigation re discrimination.	Investigation undertaken.
1633.....	SCHEDULE 15.— <i>Free list</i> Refined oil and gasoline..	Dec. 13, 1923	Investigation re discrimination.	Investigation undertaken.
1700.....	Flooring, hardwood.....	Mar. 24, 1923	do.....	Do.
.....	OTHER APPLICATIONS Discrimination in Guatemala.	June 16, 1923	Investigation re discrimination.	Investigation undertaken.
.....	Discrimination in Australian tariff.	Nov. 30, 1923	do.....	Do.

TABLE II.—Investigations instituted and present status thereof
(A) UNDER SECTION 315

Schedule	Para- graph No.	Commodity	Date ordered	Present status
Schedule 1.—Chemicals, oils, and paints.	1	Oxalic acid.....	Mar 27, 1923	Report submitted to the President Dec. 19, 1924. The President proclaimed increase in duty from 4 cents per pound to 6 cents per pound Dec. 29, 1924.
	1	Tartaric acid.....	Mar. 4, 1926	Work suspended.
	4	Methanol.....	July 24, 1925	Report submitted to President Oct. 5, 1926. The President proclaimed increase of duty from 12 cents per gallon to 18 cents per gallon Nov. 27, 1926.
	1.5	Amino acids and salts.....	Aug. 11, 1923	Work suspended.
	5	Diethylbarbituric acid and derivatives thereof (barbital).	Mar. 27, 1923	Report submitted to the President Nov. 6, 1924. President proclaimed that the rate of 25 per cent ad valorem be based and assessed upon the American selling price. Nov. 14, 1924.
	5	Sodium silicofluoride....	July 24, 1925	Report submitted to President Aug. 11, 1928. President proclaimed that the rate of 25 per cent ad valorem be based and assessed on American selling price, Aug. 31, 1928.
	9	Cream of tartar.....	Mar. 4, 1926	Work suspended.
	12	Barium carbonate.....	Jan. 8, 1926	Report submitted to President Mar. 17, 1928. President proclaimed increase in duty from 1 cent per pound to 1½ cents per pound, Mar. 26, 1928.
	12	Barium chloride.....	July 20, 1928	Work suspended.
	12	Barium dioxide.....	Mar. 27, 1923	Report submitted to President May 14, 1924. President proclaimed increase in duty from 4 cents to 6 cents per pound May 19, 1924.
	19	Casein.....	do.....	Report sent to President.
	20	Whiting.....	May 26, 1927	Do.
	27	Phenol.....	May 4, 1923	Report submitted to President Oct. 7, 1927. President proclaimed decrease in rate of duty from 40 per cent based on American selling price and 7 cents per pound to 20 per cent based on American selling price and 3½ cents per pound, Oct. 31, 1927.
	27	Cresylic acid.....	do.....	Report submitted to President June 15, 1927. President proclaimed decrease in rate of duty from 40 per cent based on American selling price and 7 cents per pound to 20 per cent based on American selling price and 3½ cents per pound, July 20, 1927.
	28	Synthetic phenolic resin.....	do.....	Work suspended.
	39	Logwood extract.....	Mar. 27, 1923	Do.
	42	Edible gelatin.....	July 24, 1925	Do.
	42	Glue.....	do.....	Do.
	53, 54, 55, 701	Animal and vegetable oils and fats. ¹	Feb. 8, 1924	Do.
	54	Linseed or flaxseed oil...	May 4, 1923	Report submitted to President June 19, 1929. President proclaimed increase in duty from 3¼ cents per pound to 3½ cents per pound, June 25, 1929.
71	Decolorizing carbons....	Aug. 11, 1928	Work suspended.	

¹ Includes 10 oils upon which specific application has been made.

TABLE II.—Investigations instituted and present status thereof—Continued

(A) UNDER SECTION 315—Continued

Schedule	Para-graph No.	Commodity	Date ordered	Present status
Schedule 1.—Chemicals, oils, and paints—Con.	80	Potassium chlorate.....	Mar. 27, 1923	Report submitted to the President Apr. 3, 1925. The President proclaimed increase in duty from 1½ cents per pound to 2¼ cents per pound Apr. 11, 1925.
	80	Potassium nitrate.....	Apr. 18, 1928	Investigation discontinued. (See p. 64.)
	80	Potassium permanganate.	May 26, 1927	Report submitted to President Nov. 3, 1928. President proclaimed increase of duty from 4 cents per pound to 6 cents per pound, Nov. 16, 1928.
	83	Sodium nitrite.....	Mar. 27, 1923	Report submitted to President Apr. 26, 1924. President proclaimed increase in duty from 3 cents to 4½ cents per pound May 6, 1924.
	83	Sodium phosphate.....	May 26, 1927	Work suspended. Investigation of caustic magnesite and magnesite brick temporarily suspended. Investigation of crude and caustic calcined magnesite completed. Report submitted to President July 6, 1927. The President proclaimed increase in duty on crude magnesite from ⅓ of 1 cent per pound to ⅔ of 1 cent per pound; and an increase in the duty on caustic calcined magnesite from ⅓ of 1 cent per pound to ⅔ of 1 cent per pound Nov. 10, 1927.
Schedule 2.—Earths, earthenware, and glass-ware.	204 } 201 }	Magnesite and magnesite brick.	} Aug. 11, 1923	Investigation of caustic magnesite and magnesite brick temporarily suspended. Investigation of crude and caustic calcined magnesite completed. Report submitted to President July 6, 1927. The President proclaimed increase in duty on crude magnesite from ⅓ of 1 cent per pound to ⅔ of 1 cent per pound; and an increase in the duty on caustic calcined magnesite from ⅓ of 1 cent per pound to ⅔ of 1 cent per pound Nov. 10, 1927.
	207	Fluorspar.....			Jan. 8, 1926	Report submitted to President Oct. 9, 1928. The President proclaimed increase in duty from $5.60 per ton to $8.40 per ton on fluorspar containing more than 93 per centum of calcium fluoride.
	211 } 212 } 218 } 218 (217)	Table and kitchen china and earthenware. Blown glass tableware... Perfume and toilet bottles.	} Mar. 19, 1925 } July 12, 1928 } May 26, 1927	Work suspended. Do. Do.
	219	Window glass.....		do.....	Report submitted to President Mar. 26, 1929. President proclaimed increases in rates of duty varying according to sizes, May 14, 1929. (See pp. 97-99, supra.)
	222	Cast polished plate glass (extension of mirror plate investigation).	May 5, 1923	Report submitted to President Aug. 22, 1928. President proclaimed increases in rates of duty varying according to sizes, Jan. 17, 1929. (See pp. 94-97, supra.)
	223	Mirror plates.....	Mar. 27, 1923	Work suspended.
	235	Granite.....	July 24, 1925	Report sent to President.
	301	Pig iron.....	Mar. 27, 1923	Report submitted to President Feb. 2, 1927. President proclaimed increase in rate of duty from 75 cents per ton to \$1.12½ per ton Feb. 23, 1927.
	302, 305 } 362 }	Tungsten..... Swiss pattern files.....	May 14, 1928 Mar. 27, 1923	Work suspended. Do.
	Schedule 3.—Metals and manufactures of.			

TABLE II.—Investigations instituted and present status thereof—Continued

(A) UNDER SECTION 315—Continued

Schedule	Para-graph No.	Commodity	Date ordered	Present status
Schedule 3.—Metals and manufactures of—Con.	368	Taximeters.....	May 4, 1923	Report submitted to President Oct. 1, 1925. The President proclaimed increase in duty from \$3 per meter and 45 per cent ad valorem to \$3 per meter and 27.1 per cent based on American selling price, Dec. 12, 1925.
	375 383	Metallic magnesium.... Gold leaf.....	July 27, 1923 Apr. 5, 1924	Work suspended. Report submitted to President July 22, 1925. President proclaimed an increase in duty from 55 cents to 82½ cents per 100 leaves (not exceeding equivalent of 3¾ by 3¾ inches). Additional duty on leaves exceeding this size in same proportion, Feb. 23, 1927.
	396	Print rollers.....	May 4, 1923	Report submitted to President Oct. 7, 1925. The President proclaimed increase in duty from 60 per cent ad valorem to 72 per cent ad valorem June 21, 1926.
Schedule 4.—Wood and manufactures of.	401	Logs of fir, spruce, cedar, and western hemlock.	{ July 2, 1923 Apr. 1, 1924	Preliminary hearing held Aug. 6, 1923, in re authority of commission to investigate this paragraph; Oct. 12, 1923, reported to President and investigation discontinued. (See Seventh annual report, pp. 13, 14, 72-85.) Apr. 1, 1924, investigation ordered at request of President. Report sent to President.
	410	Paintbrush handles....	Mar. 27, 1923	Report submitted to President Oct. 2, 1926. The President proclaimed decrease in duty from 33¼ per cent to 16¾ per cent Oct. 14, 1926.
Schedule 5.—Sugar, molasses, and manufactures of.	410	Bent-wood chairs.....	Apr. 23, 1925	Work suspended.
	501	Sugar.....	Mar. 27, 1923	Reports submitted to President July 31 and Aug. 1, 1924. Statement issued by President on June 15, 1925. Report sent to President.
Schedule 7.—Agricultural products and provisions.	503 504	Maple sirup and sugar... Rare sugars.....	Feb. 25, 1927 Aug. 11, 1923	Work suspended.
	707	Milk and cream.....	Mar. 4, 1926	Report submitted to President Jan. 10, 1929. President proclaimed increase in duty on milk from 2½ cents per gallon to 3¾ cents per gallon; and an increase in the duty on cream from 20 cents per gallon to 30 cents per gallon, May 14, 1929.
	709	Butter.....	July 14, 1924	Report submitted to President Feb. 25, 1926. The President proclaimed increase in duty from 8 cents per pound to 12 cents per pound Mar. 6, 1926.
	710	Swiss cheese.....	Aug. 9, 1924	Report submitted to President Apr. 16, 1927. President proclaimed increase in duty from 5 cents per pound but not less than 25 per cent ad valorem, to 7½ cents per pound but not less than 37½ per cent ad valorem, June 8, 1927.

TABLE II.—Investigations instituted and present status thereof—Continued

(A) UNDER SECTION 315—Continued

Schedule	Para-graph No.	Commodity	Date ordered	Present status
Schedule 7.—Agricultural products and provisions—Contd.	711	Bobwhite quail.....	May 19, 1925	Report submitted to the President Sept. 28, 1925. On Oct. 3, 1925, the President proclaimed a decrease in duty from 50 cents each to 25 cents each.
	713	Eggs and egg products..	Aug. 4, 1926	Report submitted to President Feb. 5, 1929. President proclaimed increase in rate of duty from 6 cents per pound to 7½ cents per pound, Feb. 20, 1929.
	717	Halibut.....	Aug. 11, 1924	Report sent to President.
	724	Corn.....	June 24, 1927	Do.
	729	Wheat and wheat products.	Nov. 14, 1923	Report submitted to President Mar. 4, 1924. President proclaimed change of rate of duty on wheat from 30 cents to 42 cents per bushel; wheat flour, semolina, etc., from 78 cents to \$1.04 per 100 pounds; bran, shorts, and by-product feeds, from 15 per cent ad valorem to 7½ per cent ad valorem, Mar. 7, 1924.
	730			
	733	Matzos.....	July 26, 1928	Work suspended.
	737	Cherries.....	Mar. 22, 1927	Report submitted to President Nov 25, 1927. President proclaimed increase in duty from 2 cents per lb. to 3 cents per lb. Dec. 3, 1927.
	757	Peanuts.....	May 26, 1926	Report submitted to President Jan. 10, 1929. President proclaimed increase in duty on peanuts not shelled from 3 cents per pound to 4½ cents per pound; and on shelled peanuts from 4 cents per pound to 6 cents per pound, Jan. 19, 1929.
	760	Cottonseed.....	do.....	Work suspended.
	760	Flaxseed.....	Aug. 4, 1926	Report submitted to President May 2, 1929. President proclaimed increase in duty from 40 cents per bushel of 56 pounds to 56 cents per bushel of 56 pounds, May 14, 1929.
	760	Soya beans.....	May 26, 1926	Work suspended.
	768	Onions.....	July 23, 1926	Report submitted to President Dec. 11, 1928. President proclaimed increase in duty from 1 cent per pound to 1½ cents per pound, Dec. 22, 1928.
	769	Potatoes, white or Irish.	Apr. 20, 1928	Work suspended.
	770	Fresh tomatoes.....	June 10, 1927	Do.
770	Canned tomatoes.....	June 10, 1927	Report sent to President.	
770	Tomato paste.....	Oct. 14, 1927		
772	Peppers, fresh sweet.....	Apr. 18, 1928	Work suspended.	
Schedule 9.—Cotton manufactures.	915	Cotton gloves of warp-knit fabrics.	Mar. 27, 1923	Reports submitted to President June 12, 1925. Statement issued by President Oct. 3, 1925.
Schedule 14.—Sundries..	1430	Cotton warp-knit fabric.		
Schedule 9.—Cotton manufactures.	915	Cotton hosiery.....	do.....	Report sent to President.
Schedule 14.—Sundries..	920	Lace ²	Oct. 25, 1923	Work suspended.
Schedule 14.—Sundries..	1430			
Schedule 10.—Flax, hemp, and jute.	1022	Rag rugs.....	Apr. 24, 1925	Report submitted to the President July 15, 1927. President proclaimed that the rate of 35 per cent ad valorem on cotton rag rugs of hit-and-miss type be based and assessed upon the American selling price, Feb. 13, 1928.

² Includes applications on lace curtains and mosquito bars.

TABLE II.—Investigations instituted and present status thereof—Continued

(A) UNDER SECTION 315—Continued

Schedule	Para- graph No.	Commodity	Date ordered	Present status
Schedule 11.—Wool and manufactures of.	1116	Oriental rugs.....	Oct. 28, 1926	Investigation discontinued.
Schedule 13.—Papers and books.	1313	Wall pockets.....	Mar. 27, 1923	Report submitted to President Oct. 1, 1925. Statement issued by President Oct. 3, 1925.
Schedule 14.—Sundries..	1403	} Imitation pearls.....	May 26, 1927	Work suspended.
	1429		} Men's sewed straw hats.		May 29, 1924
	1406			Report submitted to President Feb. 4, 1926. The President issued proclamation increasing rate of duty on straw hats valued at \$9.50 or less per dozen from 60 per cent to 88 per cent. Duty on other straw hats remained unchanged Feb. 12, 1926.
	1412	Cork insulation and corktile.	May 31, 1928	Work suspended.
	1419	Artificial flowers, fruits, etc. ¹	Mar. 27, 1923	Do.
	1430	} Handkerchiefs.....	May 28, 1928	Do.
	1016			Do.
	1454	Smokers' articles of synthetic phenolic resin.	May 4, 1923	Do.
1454	Brierwood pipes.....	.....do.....	Do.	

(B) UNDER SECTION 316

Schedule	Para- graph No.	Commodity	Date ordered	Present status
Schedule 3.—Metals and manufactures of.	366	Certain revolvers alleged to be manufactured in simulation of the Smith & Wesson product.	June 3, 1924	President approved findings of commission continuing suspension of entry of certain revolvers and revoking suspension as to others.
Schedule 9.—Cotton manufactures.	921	Sanitary napkins.....	Oct. 14, 1924	President approved findings of commission and dismissed complaint.
Schedule 10.—Manufactures of flax, jute, hemp, etc.	1005	Manila rope.....	Apr. 20, 1926	President approved findings of the commission and issued order forbidding importation of rope improperly described as manila rope or bolt rope.
Schedule 14.—Sundries..	1441	Laminated products composed of paper or other materials and insoluble and infusible condensation products of phenols and formaldehyde.	Dec. 23, 1927	President approved findings of the commission and issued orders forbidding importation of certain laminated products.
	1454	Brierwood pipes.....	Aug. 11, 1923	President approved findings of commission and dismissed complaint.
		Synthetic phenolic resin of Form C and articles made thereof.	Apr. 16, 1926	Temporary order of exclusion from entry in effect. Commission's final findings issued. Appeal pending in Court of Custom Appeals.

¹ Includes applications upon 2 specific commodities.

TABLE II.—*Investigations instituted and present status thereof*—Continued
(C) UNDER THE GENERAL POWERS OF THE COMMISSION

Schedule	Para-graph No.	Commodity	Date ordered	Present status
Schedule 1.—Chemicals, oils, and paints.	26	Thymol and thymol crystals.	Aug. 7, 1923	Completed.
Schedule 2.—Earths, earthenware, and glassware.	207	China clay.....	Apr. 20, 1928	In progress.
	213	Graphite.....	do.....	Do.
Schedule 3.—Metals and manufactures of.	-----	Copper-producing industry.	Sept. 23, 1924	Do.
	302	Manganese ore.....	May 26, 1927	Field work completed.
	360	Scientific and drawing instruments.	Apr. 24, 1925	In progress.
Schedule 4.—Wood and manufactures of.	1660	Red-cedar shingles.....	July 22, 1926	Report printed.
Schedule 5.—Sugar, molasses, and manufactures of.	502	Maple sugar and sirup, blackstrap, and edible molasses.	July 23, 1925	Field work completed.
	503			
Schedule 7.—Agricultural products and provisions.	701	Cattle, meat, and meat products.	May 8, 1928	In progress.
	705			
	706	Fresh-water fish.....	Apr. 30, 1925	Report "Lake fish" printed.
	717	Sugar beets.....	Aug. 7, 1923	Final reports printed.
	764	Hay.....	June 15, 1928	In progress.
	777	Calf tannery industry.....	Mar. 5, 1928 ¹	Report in preparation.
Schedule 14.—Sundries..		Goat skin and kid skin..	Mar. 20, 1928 ²	Report sent to Senate. ³

¹ Senate resolution requesting investigation.

² Printed as S. Doc. 217, 70th Cong., 2d sess.

TABLE III.—*Commodities not listed for investigation*

(A) UNDER SECTION 315

Schedule	Para-graph No.	Commodity	Status
Schedule 1.—Chemicals, oils, and paints.	1	Formic acid.....	Withdrawn.
	2	Aldehyde derivatives.....	Dismissed without prejudice.
	5	Ichthyol.....	Do.
	5	Chemicals for purification of gas.	Do.
	7	Ammonium chloride.....	Do.
	25	Calcium arsenate.....	Informally suspended.
	26	Chloral hydrate.....	Withdrawn.
	26	Thymol.....	Dismissed without prejudice.
	26	Thymol crystals.....	Do.
	27	Novadelox or benzol peroxide..	Do.
	27	Ethyl benzol.....	Informally suspended.
	28	Biological stains.....	Do.
	28	Certain coal-tar dyes.....	Withdrawn.
	28	Natural indigo.....	Dismissed without prejudice.
	36	Licorice root.....	Do.
	39	Quebracho extract.....	Informally suspended.
	42	Agar agar.....	Do.
	42	Casein glue.....	Dismissed without prejudice.
	42	Fish glue.....	Do.
	44	Inks, printing and lithograph.	Do.
	48	Licorice, extract.....	Do.
	50	Chloride of magnesium.....	Do.
	53	Animal fats.....	Informally suspended.
	53	Fish oils.....	Dismissed without prejudice.
	53	Herring oil.....	Do.
	53	Whale oil.....	Do.
	54	Olive oil.....	Do.
	59	Cajeput oil.....	Informally suspended.
	61	Mustard oil.....	Do.
	71	Bone black.....	Dismissed without prejudice.
73	Lampblack.....	Do.	
75	Oxide of iron.....	Do.	
77	Varnish.....	Do.	
83	Glauber salt.....	Do.	
83	Formate of soda.....	Do.	
83	Salt.....	Do.	
87	Strontium nitrate.....	Do.	
91	Titanium potassium oxalate..	Do.	

TABLE III.—*Commodities not listed for investigation*—Continued

(A) UNDER SECTION 315—Continued

Schedule	Para- graph No.	Commodity	Status	
Schedule 2.—Earths, earthenware, and glassware.	206	Pumice stone.....	Dismissed without prejudice.	
	207	China clay (kaolin).....	Do.	
	208	Mica.....	Do.	
	212	Chemical stoneware.....	Do.	
	214	} Diamond dies.....	Do.	
	1429		Do.	
	214	Feldspar.....	Do.	
	229	Electric-light bulbs.....	Do.	
	229	Tungsten electric lamps.....	Do.	
	230	Stained-glass windows.....	Do.	
	Schedule 3.—Metals and manufactures of.	328	Corrugated furnaces.....	Do.
		340	Jewelers' saws.....	Do.
		343	Needle cases.....	Informally suspended.
344		Fishing tackle.....	Dismissed without prejudice.	
348		Snap fasteners.....	Do.	
355		Cutlery of stainless steel.....	Withdrawn.	
358		Razor blades.....	Referred to Treasury Department.	
359		Surgical instruments.....	Dismissed without prejudice.	
360		Drawing instruments.....	Do.	
360		Scientific instruments.....	Informally suspended.	
366		Parts of automatic pistols.....	Dismissed without prejudice.	
368		Escapements.....	Do.	
372		Hosiery machines.....	Do.	
372		Spindles and flyers.....	Informally suspended.	
372		Woolen cards.....	Dismissed without prejudice.	
Schedule 4.—Wood and manufactures of.	399	Aluminum pigeon bands.....	Informally suspended.	
	403	Cabinet logs.....	Dismissed without prejudice.	
	403	Cabinet lumber.....	Do.	
	403	Logs, lignum-vitæ.....	Do.	
	403	Veneers of wood.....	Do.	
	407	Willow furniture.....	Do.	
	410	Furniture.....	Informally suspended.	
	410	Spring clothespins.....	Dismissed without prejudice.	
	410	Plywood.....	Do.	
	Schedule 7. Agricultural products and provisions.	701	Tallow.....	Dismissed without prejudice.
701		Cattle and beef.....	Do.	
701, 705, 706		} Meat and meat products.....	Do.	
710			Cheese and substitutes therefor.....	Do.
710		Cheddar cheese.....	Do.	
711		Wild or game birds.....	Informally suspended.	
717, 718		} Fish.....	Dismissed without prejudice.	
718			Stockfish.....	Do.
720		Sardines.....	Do.	
720, 721		} Fish, canned.....	Do.	
721			Caviar.....	Do.
723		Buckwheat.....	Do.	
725		Alimentary pastes.....	Do.	
737		Cherries, glacé.....	Do.	
742		Currants.....	Do.	
746		Pineapples.....	Do.	
749		Plantains.....	Informally suspended.	
751		Flowers, cut.....	Dismissed without prejudice.	
751		Narcissus flowers, cut.....	Do.	
751		Iris, cut.....	Do.	
756		Coconuts, desiccated.....	Do.	
761		Alfalfa seed.....	Do.	
761		Clover seed.....	Do.	
761		Sorghum seed.....	Informally suspended.	
772		Celery.....	Dismissed without prejudice.	
777		Hay.....	Do.	
778		Hops.....	Do.	
779		Cloves and clove stems.....	Do.	
Schedule 9.—Cotton manufactures.		903	Nankin ticking.....	Do.
		903, 906	} Cotton cloth.....	Do.
	903, 906	Cotton cloth, fine.....		Withdrawn.
	903, 906	Cotton shirtings.....	Dismissed without prejudice.	
	903, 904, 906, 921	} Cotton textiles.....	Do.	
	912		Household articles of cotton.....	Do.
	912	Spreads and quilts.....	Withdrawn.	
	913	Woven labels.....	Dismissed without prejudice.	
	921	Heavy coat linings.....	Do.	
	Schedule 10.—Flax, hemp, and jute, and manufactures of.	1001	Crin vegetal.....	Do.
1001		Hemp.....	Do.	
1008		Brattice cloth.....	Withdrawn.	
1022		Rice-straw rugs.....	Dismissed without prejudice.	
1023		Cocoa mats.....	Do.	

TABLE III.—Commodities not listed for investigation—Continued

(A) UNDER SECTION 315—Continued

Schedule	Para-graph No.	Commodity	Status	
Schedule 11.—Wool and manufactures of.	1101	Camel hair.....	Dismissed without prejudice.	
	1101	Wool, Class III.....	Do.	
	1108	Bedford cord.....	Do.	
Schedule 12.—Silk and manufactures of.	1119	Wool crêpe.....	Do.	
	1206	Hatter's plush.....	Do.	
Schedule 13.—Paper and books.	1304	Cellucotton.....	Do.	
	1305	Paper with coated surface.....	Do.	
	1310	Maps.....	Do.	
	1310	Rag books.....	Do.	
Schedule 14.—Sundries.....	1403	} Beaded bags.....	Do.	
	1430			
	1406	Harvest hats.....	Referred to Treasury Department.	
	1410	Horn buttons.....	Informally suspended.	
	1411	Agate button molds.....	Dismissed without prejudice.	
	1411	Agate buttons.....	Do.	
	1420	Silver fox skins.....	Do.	
	1420	Furs and fur skins.....	Withdrawn.	
	1420	} Hatters' fur and rabbit skin.....	Dismissed without prejudice.	
	1421			
	1428	Mesh bags.....	Do.	
	1430	Real lace and drawn work.....	Do.	
	1430	Ladies' trimmed hats.....	Do.	
	1431	Buckskin.....	Informally suspended.	
	1431	Pigskin.....	Referred to Treasury Department.	
	1432	Leather leggings.....	Dismissed without prejudice.	
	1432	Moccasins.....	Informally suspended.	
	1434	Raw gut.....	Dismissed without prejudice.	
	1435	Gas mantles.....	Do.	
	1443	Pipe organs.....	Do.	
	1443	Titz-Kunst harmonium.....	Informally suspended.	
	1443	Violins.....	Do.	
	1451	Crayons or fusains.....	Dismissed without prejudice.	
	Schedule 15.—Free list.....	1453	Cameras.....	Informally suspended.
		1504	Cream separators.....	On free list.
		1589	Hides.....	Do.
		1607	Shoes.....	Do.
1662		Dried shrimp.....	Do.	
		Yachts.....	Informally suspended.	

(B) UNDER SECTION 316

Schedule 1.—Chemicals, oils, and paints.	1, 9	Tartaric acid and cream of tartar.	Dismissed without prejudice.
	54	Olive oil.....	Do.
	83	Sodium nitrite.....	Do.
Schedule 2.—Earths, earthenware, and glassware.	205	} Portland cement.....	Do.
	1543		
	211	} Canadian granite.....	Do.
	235		
218	Thermometers, barometers, combination thermometer and barometer.	Do.	
Schedule 3.—Metals and manufactures of.	316	Wire rope.....	Do.
	399	Wrenches.....	Do.
Schedule 7.—Agricultural products and provisions.	746	Pineapples.....	Do.
	775	Cacao butter.....	Do.
Schedule 10.—Flax, hemp, jute, and manufactures of.	1022	Rugs simulating Weartex rugs.	Do.
Schedule 13.—Papers and books.	1310	Printing and engraving.....	Do.
Schedule 14.—Sundries.....	1414	Dolls and doll hands.....	Do.
	1428	Mesh bags.....	Do.
	1443	Tuning pins.....	Do.
		Artificial teeth facings and backings.	Do.

TABLE IV.—Commodities upon which applications have been received but concerning which investigations have not been instituted

(A) UNDER SECTION 315

Para- graph No.	Commodity	Nature of request
<i>SCHEDULE 1.—Chemicals, oils, and paints</i>		
4	Methanol.....	Decrease.
5	Hydrogen peroxide.....	Increase.
9	Raw tartar.....	Decrease.
20	Tailors' chalk.....	Increase.
62	Perfumes.....	Decrease.
<i>SCHEDULE 2.—Earths, earthenware, and glassware</i>		
202	Tiles.....	Increase.
212	Articles of faience and porcelain.....	Decrease.
213	Graphite.....	Do.
213	Crystalline flakes.....	Do.
214	Fused silica.....	Increase.
218	Clinical thermometers.....	Do.
218	Clinical thermometer blanks.....	Do.
218, 230	Gauge glasses.....	Do.
231	Vitrolite.....	Do.
232, 233	Finished marble.....	Do.
233	Agate rings for fishing lines, unmounted.....	Adjustment of duty.
235	Travertine stone.....	Increase.
<i>SCHEDULE 3.—Metals and manufactures of</i>		
302	Manganese and alloys.....	Increase.
303, 304	Bars of iron and steel.....	Do.
304	Beams.....	Do.
304	Billets.....	Do.
304	Ingots.....	Do.
308	Steel sheets.....	Do.
309	Steel plates.....	Investigation under section 315.
312	Angles.....	Increase.
312	Channels.....	Do.
312	Girders.....	Do.
312	Joists.....	Do.
312	Light shapes.....	Do.
313, 314	Bands.....	Do.
315	Wire rods.....	Do.
316	Wire.....	Do.
318	Wire cloth.....	Do.
325	Anvils.....	Do.
327	Cast iron pipe.....	Do.
327	Cast iron pressure and gas pipe.....	Do.
331	Upholstery nails.....	Investigation under section 315.
331	Wire nails.....	Increase.
339	Utensils.....	Investigation under section 315.
342	Umbrella frames.....	Increase.
343	Crochet needles.....	Do.
343	Latch needles.....	Do.
344	Agate rings for fishing lines, mounted.....	Adjustment of duties.
354	Pen and pocket knives.....	Decrease.
355	Kitchen knives.....	Do.
355	Butcher knives.....	Do.
372	Machine tools.....	Increase.
382	Aluminum foil.....	Do.
399	Christmas tree light reflectors.....	Do.
399	Wire netting.....	Do.
399	Bicycle bells.....	Do.
399	Bit braces.....	Do.
399	Marcel irons.....	Do.
399	Straightening combs.....	Do.
<i>SCHEDULE 4.—Wood and manufactures of</i>		
407	Reed and willow products.....	Increase.
410	Carved wood.....	Do.
410	Wood flour.....	Do.
410	Wooden cigar molds.....	Do.
<i>SCHEDULE 7.—Agricultural products and provisions</i>		
710	Swiss cheese without eye formation.....	Increase.
711	Hungarian partridge.....	Decrease.
711	Ornamental birds.....	Do.
711, 712	Live or dressed turkeys.....	Increase.
717	Salmon.....	Decrease.
718	Dried fish, salted.....	Increase.

TABLE IV.—Commodities upon which applications have been received but concerning which investigations have not been instituted—Continued

(A) UNDER SECTION 315—Continued

Para- graph No.	Commodity	Nature of request
SCHEDULE 7.— <i>Agricultural products and provisions—Con.</i>		
718	Kipperd herring.....	Decrease.
719	Finnan haddie.....	Do.
736	Raspberries, wild.....	Do.
736	Blueberries.....	Do.
739	Citron, candied.....	Increase.
744	Olives.....	Do.
749	Cherries prepared or preserved.....	Do.
749	Glacé fruit.....	Do.
758	Walnuts and green-walnut kernels.....	Decrease.
759	Imitation sliced almonds.....	Increase.
763	Navy beans.....	Do.
766	Mushrooms, preserved.....	Decrease.
767	Split peas.....	Increase.
767	Dried peas.....	Do.
771	Turnips.....	Do.
773	Pickle onions.....	Do.
775	Cacao butter.....	Do.
SCHEDULE 9.— <i>Cotton manufactures</i>		
909	Upholstery fabrics.....	Increase.
910	Velvets and plushes.....	Decrease.
918	Handkerchiefs.....	Increase and decrease.
SCHEDULE 11.— <i>Wool and manufactures of</i>		
1107	Worsted yarn.....	Increase.
1108,	} Worsted cloth.....	Do.
1109		
1108,	} Woven fabrics.....	Investigation under section 315.
1109		
1111	Blankets.....	Do.
1114	Gloves and mittens.....	Do.
1115	Wearing apparel for men.....	Increase.
1115	Wool felt hats.....	Do.
SCHEDULE 12.— <i>Silk and silk goods</i>		
1202	Schappe thread.....	Decrease.
1205	Silk fabrics.....	Do.
1205	Fabrics for furniture.....	Do.
1206	Velvets, plushes, and ribbons.....	Do.
1206	Velvets.....	Increase.
1209	Handkerchiefs.....	Increase and decrease.
1210	Garments of silk.....	Decrease.
1210	Articles of silk.....	Do.
SCHEDULE 13.— <i>Papers and books</i>		
1304	Onionskin paper, etc.....	Decrease.
1305	Decalcomanias.....	Increase.
1305	Sulphurized paper.....	Decrease.
1307	} Papeteries.....	Increase.
1308		
1313	Paper tubes for textile purposes.....	Do.
1313	Fly ribbons.....	Do.
SCHEDULE 14.— <i>Sundries</i>		
1401	Asbestos shingles.....	Increase.
1402	Lacrosse sticks.....	Decrease.
1403	} Beads, necklaces, pendants, etc., of synthetic phenolic resin.....	} Increase.
1428		
1405	Silk footwear.....	Decrease.
1406	Straw braids.....	Increase.
1414	} Toy novelties.....	} Do.
399		
1419	Feathers, prepared.....	Decrease.
1420	Sheepskin baby-carriage robes.....	Adjustment of duties.
1428	Swivels and rings for watch chains.....	Increase.
1430	Laces and tulle.....	Decrease.
1434	Gut and manufactures of.....	Increase.
1443	Wood wind musical instruments.....	Do.
1453	Motion-picture films.....	Do.
1454	Cigarette paper.....	Decrease.
1456	Umbrella handles and canes.....	Increase.

APPENDIX 2.—LIST OF PUBLICATIONS OF THE TARIFF COMMISSION

The scope of the commission's work since its organization in 1917 is outlined by the following list of subjects investigated and reported upon to December, 1929:

ABBREVIATIONS

- † = Available only from Superintendent of Documents.
- * = Printed edition exhausted.
- ** = Not specially provided for, or not provided for eo nomine.
- FL = Free list.
- In prog. = Work in progress.
- Ms. = Manuscript (typewritten).
- M. S. = Miscellaneous series (unnumbered).
- u. s. p. f. = Not specially provided for.
- P. = Printed. (Figures following indicate year of publication.)
- T. I. S. = Tariff information series.
- W. M. = Report to Ways and Means Committee (unnumbered).
- R. P. = Report to President.
- F. C. = Finance Committee report.

Subject	Status	Tariff act of 1913		Paragraph of act of 1922	Report No.
		Schedule	Paragraph		
Abrasive materials (report).....	P 1921.....				B-3
Acetaldehyde.....	Ms.....			2	
Acetic acid.....	P 1921.....	FL.....	387	1	A-2
Acetone and acetone oil.....	P 1921.....	A.....	3	3	A-2
Acids:					
Acetic.....	P 1921.....	FL.....	387	1	A-2
Acetic anhydride.....	P 1921.....	A.....	2	1	A-2
Arsenic and arsenious.....	P 1921.....	FL.....	387	1, 1513	FL-6
Benzoic.....	In prog.....			27, 28	
Boric.....	P 1921.....	A.....	1	1	A-1
Carbolic. (See Phenol.)					
Chromic.....	P 1921.....	FL.....	387	1501	A-18
Citric.....	P 1921.....	A.....	1	1	A-1
Cresylic.....	P† 1927.....	FL.....	452	27	R. P.
Diethylbarbituric.....	P 1925.....	A.....	**1	**5	R. P.
Formic.....	P 1921.....	A.....	1	**1	A-1
Gallic.....	P 1921.....	A.....	1	1	A-1
Glycerophosphoric.....	P 1921.....	A.....	18	26	A-6
H.....	In prog.....			27	
Hydrochloric.....	P 1921.....	FL.....	387	1501	FL-1
Hydrocyanic.....	P 1921.....	FL.....	387	**1	FL-1
Hydrofluoric.....	P 1921.....	FL.....	387	1501	FL-1
Lactic.....	P 1921.....	A.....	1	1	A-1
Muriatic.....	P 1921.....	FL.....	387	1501	FL-1
Nitric.....	P 1921.....	FL.....	387	1501	FL-1
Oleic.....	Ms.....				
Oxalic.....	{ P 1921.....	{ A.....	1	1	A-1, R. P.
	{ P 1925.....				
Phosphoric.....	P 1921.....	FL.....	387	1	FL-1
Prussic (hydrocyanic).....	P 1921.....	FL.....	387	**1	FL-1
Pyrogallic.....	P 1921.....	A.....	1	1	A-1
Pyroligneous.....	P 1921.....	FL.....	387	**1	A-2
Salicylic.....	In prog.....			27, 28	
Silicic.....	P 1921.....	FL.....	387	**1	A-18
Stearic.....	Ms.....			1	
Sulphuric, or oil of vitriol.....	P 1921.....	FL.....	387	1501	FL-1
Tannic.....	P 1921.....	A.....	1	1	A-1
Tartaric.....	P 1921.....	A.....	1	1	A-1
Valerianic.....	P 1921.....	FL.....	387	1501	FL-1
Acids exempt from duty	P 1921.....				
Acids of paragraph 1 and related materials provided for in the tariff act of 1913.	{ P 1920.....				{ T. I. S. -13
Aconite.....	P 1921.....	FL.....	388	35, 1502	A-7, FL-2
Adhesive felt for sheathing vessels.....	P 1923.....	FL.....	481	**1302	FL-14
Agar-agar.....	P† 1921.....	A.....	34	42	A-9
Agate, manufactures of.....	P 1921.....	B.....	98	233	B-11
Agates, unmanufactured.....	P 1921.....	FL.....	390	1503	N-1
Agricultural implements.....	P 1921.....	FL.....	391	1504	FL-3

List of publications of the Tariff Commission—Continued

Subject	Status	Tariff act of 1913		Paragraph of act of 1922	Report No.
		Sched-ule	Para-graph		
Agricultural staples and the tariff:					
Wheat and wheat flour	P† 1920.	FL	644	729	T. I. S.-20
Oats and oatmeal	P† 1920.	G	192	726	T. I. S.-20
Barley and barley malt	P† 1920.	G	188-190	722	T. I. S.-20
Flaxseed or linseed	P† 1920.	G	212	760	T. I. S.-20
Flaxseed or linseed oil	P† 1920.	A	45	54	T. I. S.-20
Potatoes	P† 1920.	FL	581	769	T. I. S.-20
Hay	P† 1920.	G	205	777	T. I. S.-20
Air rifles	P 1920.	C	132	1414	C-14
Alabaster, manufactures of	P 1921.	B	98	233	B-11
Albata	P 1921.	C	145	**380	C-19
Albumen, dried egg	P 1922.	A	4	713	G-11
Alcohol:					
Ethyl (nonbeverage or industrial)	In prog.			4	
Methyl or wood (methanol)	P 1921.	FL	393	4	A-2, R. P.
	P 1927.				
Propyl	In prog.				
Alcoholic compounds, n. s. p. f.	P 1921.	A	16	24	A-5
Aldehyde ammonia	Ms.			2	
Aldol	Ms.			2	
Alizarin assistants	P† 1921.	A	45	56	A-11
Alloy steels	P 1921.	C	110	305	C-7
Almond oil:					
Bitter	P† 1921.	A	46	1631	A-11
Sweet	P† 1921.	A	45	1632	A-11
Almonds	P 1921.	G	223	754	G-34
Aloes	P 1921.	A, FL	**27, **477	35, 1502	A-7
Althea root	P 1921.	FL	544	35, 1502	FL-2
Alum	P 1921.	A	6	6	A-3
Alumina, hydrate of	P 1921.	A	6	**6	A-3
Aluminum:					
Alloys	P 1921.	C	143	374	C-16
Bars, plates, sheets, strips, and rods	P 1921.	C	143	374	C-16
Compounds	P 1921.	A	6	6	A-3
Hollow ware	P 1921.	C	134	339	C-16
Hydroxide or refined bauxite	P 1921.	A	6	6	A-3
Leaf	P 1921.	C	146	382	C-18
Manufactures, n. s. p. f.	P 1921.	C	134, 167	339	C-16
Crude	P 1921.	FL	411	374	C-16
Sulphate	P 1921.	A	6	6	A-3
Amber:					
Gum	P† 1921.	A	36	11	A-9
Manufactures of	P 1921.	N	367	1438	N-19
Ambergris	P† 1921.	A	49	61	A-14
Amberoid, gum	P 1921.	A	36	11	A-9
American valuation as the basis for assessing duties ad valorem, information concerning (report).	P 1921.				W. M.
Ammoniacal gas liquor	P 1921.	A	7	**1459	A-3
Ammonium:					
Carbonate	P 1921.	A	7	7	A-3
Chloride (muriate)	P 1921.	A	7	7	A-3
Liquid anhydrous	P 1921.	A	7	7	A-3
Nitrate	P 1921.	FL	395	7	A-3
Perchlorate	P 1921.	FL	395	7	A-3
Phosphate	P 1921.	A	7	7	A-3
Picrate	P 1921.	A	5	5	A-3
Sulphate	P 1921.	FL	395	7	A-3
Amyl acetate	P 1921.	A	29	**38	A-7
Amyl alcohol	P 1921.	A	33	4	A-9
Amyl nitrite	P 1921.	A	29	**38	A-7
Anchor and parts of, iron or steel	P 1921.	C	106	319	C-5
Anchovies	P* 1921.	G	**216	**721	G-19
Angles, iron or steel	P 1921.	C	104	312	C-3
Aniline, oil and salt	In prog.			27	
Animal hair, n. s. p. f.	P 1921.	FL	503	1586	N-12
Animal and expressed vegetable oils and fats	P† 1921.				A-11
Anise-seed oil	P 1921.	A	46	1631	A-12
Annatto	P 1921.	FL	399	1509	A-8
Annual reports:					
First, 1917	P* 1917				M. S.
Second, 1918	P 1919				M. S.
Third, 1918	P 1919				M. S.
Fourth, 1920	P 1920				M. S.
Fifth, 1921	P† 1922				M. S.
Sixth, 1922	P 1923				M. S.
Seventh, 1923	P 1924				M. S.
Eighth, 1924	P 1924				M. S.
Ninth, 1925	P 1926				M. S.

List of publications of the Tariff Commission—Continued

Subject	Status	Tariff act of 1913		Paragraph of act of 1922	Report No.
		Sched-ule	Para-graph		
Annual reports—Continued.					
Tenth, 1926.....	P 1926.....				M. S.
Eleventh, 1927.....	P 1927.....				M. S.
Twelfth, 1928.....	P 1929.....				M. S.
Thirteenth, 1929.....	P 1929.....				M. S.
Anthraquinone.....	In prog.....				
Antifriction balls and bearings.....	P 1921.....	C.....	106	321	C-5
Antimonial lead (type metal).....	P 1921.....	C, FL.....	160, 637	393	C-17
Antimony:					
Alloys.....	{ P 1920..... P 1921.....	{ C, FL.....	{ 154, 572.....	{ **376.....	{ C-17, T.I.S. 21
Ore and stibnite containing.....	{ P 1920..... P 1921.....	{ FL.....	{ 396.....	{ 1508.....	{ C-17, T.I.S. 21
Oxide, salts, and compounds.....	{ P 1920..... P 1921.....	{ C.....	{ 144.....	{ 8.....	{ C-17, T.I.S. 21
Regulus or metal and matte containing.....	{ P 1920..... P 1921.....	{ C.....	{ 144.....	{ 376.....	{ C-17, T.I.S. 21
Antitoxins, vaccine virus, and all other serums.....	P 1921.....	FL.....	400	1510	FL-2
Anvils of iron or steel.....	P 1921.....	C.....	118	325	C-9
Apatite.....	P 1921.....	FL.....	401	1640	FL-5
Apples, green or ripe and dried.....	P 1921.....	G.....	217	734	G-20
Apricot kernels.....	P 1921.....	G.....	223	760	G-34
Arabic or senegal gum.....	P† 1921.....	A.....	36	11	A-9
Archil liquid.....	P 1921.....	FL.....	564	1509	A-8
Argentine German silver.....	P 1921.....	C.....	145	380	C-19
Argols.....	P 1921.....	A.....	8	9	A-1
Arrowroot.....	P 1921.....	FL.....	402	1511	G-38
Arsenic.....	P 1921.....	FL.....	403	379	FL-6
Arsenic and arsenious acid.....	P 1921.....	FL.....	387	1, 1513	FL-6
Arsenic, sulphide of.....	P 1921.....	FL.....	403	1512	FL-6
Art, works of.....	P 1921.....	N, FL.....	{ 376, 611, 652-657	{ 1449, 1705- 1708	{ N-24
Articles not enumerated but similar to articles enumerated.....	P 1921.....	N.....	386	1460	N-27
Articles not enumerated or provided for.....	P 1921.....	N.....	385	1459	N-27
Artificial flowers.....	P 1921.....	N.....	347	1419	N-6
Artificial silk:					
Manufactures of.....	P 1925.....	L.....	319	1213	L-4
Spun.....	P 1925.....	L.....	**319	1213	L-4
Tops.....	P 1925.....	L.....	**319	**1213	L-4
Waste.....	P 1925.....	N.....	384	1213	L-4
Yarns.....	P 1925.....	L.....	319	1213	L-4
Asafetida.....	P 1921.....	FL.....	405	35, 1502	A-7, FL-4
Asbestos:					
Manufactures of.....	P 1921.....	N.....	367	1401	N-20
Unmanufactured.....	P 1921.....	FL.....	406	1515	N-20
Ashes, wood and lye of, and beet root.....	P 1921.....	FL.....	407	1645	A-16
Asphalt, limestone-rock.....	P 1921.....	FL.....	534	1609	FL-7
Asphaltum.....	P 1921.....	FL.....	534	1609	FL-7
Attar of roses.....	P 1921.....	A.....	46	1631	A-12
Aubusson carpets and rugs.....	P 1923.....	K.....	293, 300	1116	K-6
Automobile equipment, electrical.....	P 1922.....	C.....	**167	**369, 399	C-31
Automobiles and parts.....	P 1921.....	C.....	119	369	C-10
Axes.....	P 1921.....	C.....	**167	**399	C-13
Axles of iron or steel.....	P 1921.....	C.....	121	323	C-10
Axminster carpets and rugs.....	P 1923.....	K.....	293, 300	1116, 1117	K-6
Babbitt metal.....	P 1921.....	C.....	**154	393	C-17
Bag leather.....	P 1922.....	FL.....	**530	1431	N-16
Bagging for cotton, of jute, processed.....	P 1922.....	FL.....	408	1019	J-7
Bags:					
Jute or cotton.....	P 1923.....	I, J.....	{ **266, 281, **284	{ **921, 1018	{ J-9
Leather.....	P 1922.....	N.....	360	1432	N-18
Paper.....	P 1922.....	M.....	324	1305	M-4
Balances and weights.....	In prog.....				
Ball clay.....	P 1921.....	B.....	**76	**207	B-4
Balls and bearings, antifriction.....	P 1921.....	C.....	106	321	C-5
Balm of Gilead.....	P 1921.....	FL.....	409	**34, **1567	A-7, FL-2
Balsam:					
Canada.....	P 1921.....	A.....	9	10	A-3
Copaiba.....	P 1921.....	A.....	9	10	A-3
Gurjun.....	P 1921.....	A.....	**9	**10	A-3
Peru.....	P 1921.....	A.....	9	10	A-3
Tolu.....	P 1921.....	A.....	9	10	A-3
Balsams (see also Drug industry, crude botanical).....	P 1921.....				A-7
Bandings:					
Cotton.....	P 1925.....	I.....	262	**913	I-7
Silk.....	P† 1922.....	L.....	316	**1207	L-2

List of publications of the Tariff Commission—Continued

Subject	Status	Tariff act of 1913		Paragraph of act of 1922	Report No.	
		Schedule	Paragraph			
Band iron or steel.....	P 1921..	C, FL.	{107, 109, 509	} 309, 313, 314	C-4	
Bar iron.....	P 1921..	C.....	103		303	C-2
Barbed wire.....	P 1921..	C.....	645		1697	C-8
Bargaining tariffs. (See Reciprocity and commercial treaties.)						
Barium:						
Carbonate.....	{ P 1921..	} A.....	10	12	A-4, R. P.	
Chloride.....	{ P 1922..					
Dioxide.....	{ P 1921..	} A.....	10	12	A-4, R. P.	
Metal.....	{ P 1924..					
Barium chemical and lithopone industries.	{ P 1920..	} C.....	143	**1562	C-16 A-4, T. I. S.-18	
	{ P 1921..					
Barley and barley malt. (See Agricultural staples and the tariff.)						
Barrel hoops, iron or steel.....	P 1921..	C.....	107	313	C-4	
Barrels.....	P 1921..	D.....	171, 172	405, 406	D-2	
Bars:						
Steel.....	P 1921..	C.....	110	315	C-7	
Wrought iron.....	P 1921..	C.....	103	303	C-2	
Barytes:						
Crude.....	{ P 1920..	} A.....	51	69	{ T. I. S.-18 A-4, T. I. S.-18	
Ground.....	{ P 1920..					
Baskets:						
Bamboo, etc.....	P 1921..	D.....	175	409	D-4	
Leather.....	P 1922..	N.....	360	1432	N-18	
Bath mats, cotton.....	P 1922..	I.....	264	**910, 1022	I-8	
Batteries, electric.....	P 1922..	I.....		320	C-31	
Batting, cotton.....	P 1922..	I.....	264	**921	I-8	
Bauxite:						
Crude.....	P 1921..	FL.....	411	207	C-16	
Refined.....	P 1921..	A.....	6	6	A-3	
Bay rum.....	P 1921..	H.....	242	63	A-14	
Beads.....	P 1921..	N.....	353	1403	N-1	
Beams, iron or steel.....	P 1921..	C.....	104	312	C-3	
Bean industry, American.....	P 1920..				W. M.	
Beans.....	In prog.			763		
Beef and cattle industry. (See Cattle and beef in United States.)						
Beeswax.....	P 1921..	FL.....	412	1458	FL-7	
Beet sugar.....	P 1921..	E.....	177	501	E-1	
Belgium, colonial tariffs. (See Colonial tariff policies.)						
Belladonna leaves and roots.....	P 1921..	A, FL.	{ **27, **477	} 36	A-7	
Bell metal.....	P 1921..	FL.....	413			1519	C-19
Bells.....	P 1921..	FL.....	413	1519	C-19	
Belting and sole leather.....	P 1922..	FL.....	**530	**1606	N-15	
Belting for machinery, cotton or other vegetable fiber.....	P 1925..	I.....	262	913	I-7	
Belting, leather.....	P 1922..	N.....	360	1432	N-18	
Belts and belting, silk.....	P 1922..	L.....	316	**1207	L-2	
Belts, cotton.....	P 1925..	I.....	262	**913	I-7	
Benzidine.....	In prog.			27		
Benzoic acid.....	In prog.			27, 28		
Bergamot oil.....	P 1921..	A.....	46	1631	A-12	
Beta-naphthol.....	In prog.			27, 28		
Bibulous paper.....	P 1921..	M.....	323	1304	M-3	
Bicycles and finished parts of.....	P 1921..	C.....	120	371	C-10	
Billets, steel.....	P 1921..	C, FL.	110, 613	303, 304	C-7	
Billiard balls.....	P 1921..	N.....	341	1413	N-7	
Bimetal sheets.....	P 1921..	C.....	109	309	C-23	
Bindings:						
Cotton.....	P 1925..	I.....	262	**913	I-7	
Silk.....	P 1922..	L.....	316	**1207	L-2	
Birch tar oil.....	P 1921..	FL.....	561	**59	A-12	
Birds, live bobwhite quail.....	P 1925..	FL.....	416	711	R. P.	
Bismuth.....	P 1921..	FL.....	418	377	FL-6	
Salts of.....	P 1921..	A.....	65	22	A-17	
Bitumen.....	P 1921..	FL.....	534	1609	FL-7	
Black pigments.....	P 1922..	A.....	53	73	A-15	
Blackening preparations.....	P 1921..	A.....	11	13	A-5	
Blacksmiths' hammers, tongs, etc.....	P 1921..	C.....	122	326	C-9	
Blackstrap molasses.....	In prog.			502		
Bladders, integuments, tendons, and intestines of animals and fish sounds, n. s. p. f.....	P 1921..	FL.....	419	1655	N-19	
Bladders, manufactures of.....	P 1921..	N.....	367	1438	N-19	
Blades, cutlery.....	P 1921..	C.....	128-130	354, 356-358	C-13	

List of publications of the Tariff Commission—Continued

Subject	Status	Tariff act of 1913		Paragraph of act of 1922	Report No.
		Schedule	Paragraph		
Blanc fixe	P 1921	A	51	69	A-4
Blankets:					
Cotton	P 1922	I	264	912, **921	I-8
Wool	P 1927	K	289	1111	K-2
Blanks, steel	P 1921	C, FL	110, 613	304	C-7
Blasting caps	P 1921	N	346	1418	N-8
Bleaching powder	P 1921	A	12	14	A-5
Blinds of bamboo, wood, straw, or compositions of wood.	P 1921	D	175	409	D-4
Blood char	P 1922	FL	447	71	A-15
Blood, dried, n. s. p. f.	P 1921	FL	420	1524	FL-5
Bloodroot. (See Drug industry, crude botanical.)					
Blooms, iron or steel	P 1921	C, FL	{ 110, 518, 613 }	303, 304	C-2, C-7
Blown glassware. (See Glassware.)					
Boards, sawed, planed, tongued and grooved	P 1922	FL	647	403, 1700	FL-37
Bobwhite quail, live	P 1925			711	R. P.
Boiler plate	P 1921	C	105	307	C-4
Boilers	P 1921	C	127	**328	C-12
Bolting cloth (silk). (See Broad silks.)					
Bolts	P 1922	C	123	330	C-11
Bone:					
Char	P 1922	FL	447	71	A-15
Dust, meal, and ash	P 1921	FL	423	1526	FL-5
Manufactures of, n. s. p. f.	P 1921	N	368	1430	N-21
Bone casings:					
Cotton	P 1925	I	262	**913	I-7
Silk	P 1922	L	316	**1207	L-2
Bones, crude, burned, calcined, etc.	P 1921	FL	423	1526	FL-5
Bonnets, fur	P 1921	N	354	1427	N-13
Book paper	P 1921	M	322	1301	M-2
Bookbinder's leather	P 1922	FL	**530	**1431, **1606	N-17
Books, paper and. (See Paper and books.)					
Boots and shoes	P 1922	FL	530	1607	N-18
Borax, crude and unmanufactured	P 1921	FL	429	1532	A-1
Borax, refined	P 1921	A	67	83	A-1
Boric acid	P 1921	A	1	1	A-1
Bort	P 1921	N	357	**1429	N-1, B-3
Botanical drug industry, crude	P 1920				A-7
	P 1921				T. I. S. 19
Bottle caps	P 1922	C	164	391	C-28
Bottles, glass	P 1921	B	83, 84	217	B-9
Boxes:					
Containing oranges, etc.	P 1921	D	172	406	D-2
Packing, empty	P 1921	D	171	405	D-2
Paper, papier-mâché, etc.	P 1922	M	324	1305, 1313	M-4
Boxwood, rough or sawed	P 1921	D, FL	169, 648	403	D-1
Braces:					
Cotton	P 1925	I	262	913	I-7
Silk	P 1922	L	316	1207	L-2
Brads, iron or steel	P 1921	FL	554	331	C-8
Braid machines	P 1921	C	165	372	C-29
Brass, old	P 1921	FL	430	1533	C-19
Brass rolling-mill products	P 1921	C	167	396	C-19
Brattice cloth	P 1922	J	279	1010	J-7
Brazil nuts	P 1921	G	**226	755	G-34
Breccia:					
Crude and dressed	P 1921	B	97	232	B-11
Manufactures of	P 1921	B	98	233	B-11
Brick:					
Refractory—					
Chrome					
Fire					
Magnesite					
Structural—					
Common	P 1921	B	71	201, 1536	B-1
Sand-lime					
Tapestry and front					
Vitrified					
Brier root and brierwood	P 1921	D	168	402	N-26
Brierwood pipes	P 1927			1454	R. P.
Bristles:					
Not sorted, etc.	P 1921	FL	432	1537	N-4
Sorted, etc.	P 1921	N	337	1408	N-4
Bristol board	P 1921	M	328	1302, 1307	M-1
Britannia metal, old	P 1921	FL	572	**393	C-17
British wool-manufacturing industry, a survey of (report)	P 1920				W. M.
Broad silk manufacture and the tariff	P 1926	L	318	1205	M.S

List of publications of the Tariff Commission—Continued

Subject	Status	Tariff act of 1913		Paragraph of act of 1922	Report No.
		Sched-ule	Para-graph		
Brocades, metallic.....	P 1921.....	C.....	146	382	C-18
Bromine and compounds, n. s. p. f.....	P 1921.....	FL.....	438	46	FL-8
Bronze metal leaf.....	P 1921.....	C.....	146	382	C-18
Bronze powders.....	P 1921.....	C.....	146	382	C-18
Broth corn.....	P 1921.....	FL.....	434	1538	N-3
Broom handles.....	P 1922.....	FL.....	647	**410	FL-37
Brooms.....	P 1921.....	N.....	336	1407	N-3
Brush industry (report).....	P* 1918.....				T. I. S.-8
Brushes.....	P 1921.....	N.....	336	1407	N-4
Brushes, carbon electric.....	P 1921.....	B.....	81	216	B-8
Brussels carpets and rugs.....	P 1923.....	K.....	295	1117	K-6
Buchu leaves.....	P 1921.....	A.....	39	36	A-7, A-10
Buckles of iron or steel.....	P 1922.....	C.....	151	346	C-20
Buckram.....	P 1922.....	J, FL.....	279, 408	907	J-7
Budding knives.....	P 1921.....	C.....	128	354	C-13
Building forms, iron or steel.....	P 1921.....	C.....	104	312	C-3
Building stones.....	P 1921.....	B.....	99	235	B-11
Bulb beams, iron or steel.....	P 1921.....	C.....	104	312	C-3
Bulbs, incandescent.....	P 1921.....	B.....	95	229	B-9
Bullions.....	P 1921.....	C.....	150	385	C-18
Burgundy pitch.....	P 1921.....	FL.....	437	1540	FL-2
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Button industry (report).....	P* 1918.....				T. I. S.-4
Butyl alcohol.....	P 1921.....	A.....	**33	4	A-9
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Cabbage seed.....	P 1925.....	G.....	212	762	G-17a
Cabinet woods.....	P 1921.....	D, FL.....	169, 648	403	D-1
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Cyanamide.....	P 1921.....	FL.....	499	1541	FL-5
Metal.....	P 1921.....	C.....	143	**1562	C-16
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Brussels.....	P 1923	K	295	1117	K-6
Chenille Axminster.....	P 1923	K	293	1116	K-6
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Cascara sagrada. (See Drug industry, crude botanical.)					
Casein.....	{P 1921...}	FL	527	19	FL-15, R. P.
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Cattle and beef in the United States.....	P 1922	FL	619	701	T. I. S.-30
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Cattle industries of the United States and Canada.	P 1925	FL	619	701	M. S.
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Cedar, rough or sawed.....	P 1921	D, FL	169, 648	401, 403, 1700	D-1
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Ceramic glazes, colors, etc.....	P 1922	A	63	231	A-15
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Certain vegetable oils (coconut, cottonseed, peanut, soya bean).	P† 1926			55	(1)
Part I. Cost of production.					
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Chains, iron or steel.....	P 1921	C	126	329	C-12

¹ Preliminary statement of information.

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Chemical stoneware.....	P 1921	B	79	218	B-6
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Court-plasters.....	P 1921	A	50	66	A-14
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² 68th Cong., 1st sess.

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Ground.....	P 1921	G	233	774	A-7
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Darning cottons.....	P 1927	I	251	902	I-2
Deals.....	P 1922	FL	647	1700	FL-37
Deck and bulb beams, iron or steel.....	P 1921	C	104	312	C-3
Dental instruments (see also Scientific instruments).	P 1921	C	**167	359	B-10
Depreciated exchange and international trade.....	P 1922				M. S.
Dextrin.....	P 1921	A	36	86	A-9
Dextrose (grape sugar).....	P 1921	E	178	**503	E-2
Diamond bort.....	P 1921	N	357	**1429	N-1, B-3
Diamond dust.....	P 1921	N	357	1429	N-1, B-3
Diamonds, glaziers' and engravers'.....	P 1921	FL	474	1566	N-1
Diatomaceous earth.....	P 1921	FL	**549	**1619	B-3
Dice.....	P 1921	N	341	1413	N-7
Dictionary of tariff information.....	P* 1924				M. S.
Die blocks or blanks, steel.....	P 1921	C, FL	110, 613	304	C-7
Diethylbarbituric acid.....	P 1925	A	1 or 5	1 or 5	R. P.
Diethyl sulphate.....	Ms			38	
Digitalis. (See Drug industry, crude botanical.)					
Dimethyl aniline.....	In prog			27	
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Distilled and essential oils.....	P 1921	A	46, 561	56, 1631	A-12
Divi-divi.....	P 1921	FL	475	1568	A-8
Divi-divi extract.....	P 1921	A	**30	39	A-8
Domestic potato products industry (report)	P 1919				W. M.
Dominoes.....	P 1921	N	341	1413	N-7
Dragon's blood.....	P 1921	FL	476	1584	FL-17
Drain tile.....	P 1921	B	**81	**214	B-7
Draftsmen's instruments.....	P 1921	C	**167	**360	C-30
Drawing instruments.....	In prog			360	
Dress steels.....	P 1921	C	114	336	C-8
Drug industry, crude botanical (report)	{ P 1920 P 1921 }				{ A-7, T. I. S.-19
Druggets and bockings.....	P 1923	K	301	1117	K-6
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Drugs exempt from duty (report)	P 1921				FL-2
Dumping and unfair foreign competition in the United States and Canada's antidumping law (report).	P† 1919				W. M.
Dutch metal leaf.....	P 1921	C	146	382	C-18
Dye industry 1918 and 1919, costs of production in (report).	P* 1920				T. I. S.-15

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Dyes, natural. (See Tanning materials.)					
Dyes and related coal-tar chemicals (report)	P* 1919				W. M.
Dyestuff situation in the textile industries (report)	P* 1918				T. I. S.-2
Earthenware (see also Pottery):					
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Sanitary	P 1921	B	**79, *80	**212, **213	B-6
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Ebony, rough or sawed	P 1921	D, FL	169, 648	403	D-1
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Embroidery cottons	P 1927	I	251	902	I-2
Embroidery machines and parts of	P 1921	C	165	372	C-29
Emergency tariff act of May 27, 1921, report on	P 1922				M. S.
Emergency tariff act and long-staple cotton	P 1922		467	1560	T. I. S.-27
Emergency tariff and its effect on cattle and beef, sheep and mutton, wool, pork, and miscellaneous meats.	P 1922				T. I. S.-29
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Engraved plates	P 1921	C	137	341	C-15
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Ethyl chloride	P 1921	A	29	38	A-7
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Ethylene dichloride	In prog			2	
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Eucalyptus oil	P 1921	A	**46	59	A-12
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Explosives, n. s. p. f.	P 1921	FL	501	1585	FL-18
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Crude	P 1921	FL	**549	**214	B-4
Manufactured	P 1921	B, FL	**81, 549	**214, **1619	B-4
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Felts, not woven, of wool	In prog			1112	
Fence posts of wood	P 1922	FL	647	**404	FL-37
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Molybdenum.....	P 1921	FL	**549	302	FL-28
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Fish oils.....	P 1921	A	44	53	A-11
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Free zones in ports of the United States (report).....	P 1919				M. S.
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Germany, colonial tariffs. (See Colonial tariff policies.)					
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Window, polished.....	{ P 1921, P 1929 }	B	90	**220	B-9, R. P.
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Cotton.....	{ P 1923, P 1926 }	I	260	915	I-6, R. P.
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Hinges.....	P 1922	C	123	**399	C-11
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Hogsheads.....	P 1921	D	171	405	D-2
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Hones.....	P 1921	FL	507	1590	B-3
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Hydrocyanic acid.....	P 1921	FL	387	**1	FL-1
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Manila.....	P 1925.	FL	497	1582	FL-16
Manila or bolt rope.....	P 1927.			1005	R. P.
Manna.....	P 1921.	FL	541	35, 1502	A-7, FL-2
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Mesothorium.....	P 1921.	FL.....	**585	1650	C-22
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⁵ Preliminary statement of information.

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Pistache nuts	P 1921	G	**226	755	G-34
Pitch of wood	P 1921	FL	626	1681	A-2, FL-17
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Poles, telephone, trolley, electric light, and telegraph.	P 1921	D	170	1701	D-2
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Posts of wood	P 1922	FL	647	404	FL-37
Potash. (See Mineral industries affected by the war.)					
Potash industry (report)	{ P 1919 P 1921 }				A-16, W. M.
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Potassium:					
Bicarbonate	P 1921	A	**5, 64	80	A-16
Carbonate	P 1921	FL	580	80	A-16
Chlorate	{ P 1921 P 1925 }	A	64	80	A-16, R. P. †
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Reciprocity and commercial treaties, summary of report.	P 1919				M. S.
Reciprocity treaty, Cuban, effects of	P 1929				M. S.
Reciprocity with Canada (report)	P 1920				M. S.
Reclassification (suggested) of chemicals, oils, and paints (report).	P 1921				W. M.
Red cedar shingle industry	P 1927			1660	R. P.
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Cresylic acid	P† 1927			27	R. P.
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Crude.....	P 1921.....	FL.....	513	1594	FL-17
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Sago and sago flour.....	P 1921.....	FL.....	590	1654	G-33
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Selenium.....	P 1921.....	FL.....	585	1658	FL-22
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Silkworm eggs.....	P* 1921..	FL.....	601	**1569	L-1
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Argentine, alбата, or German.....	P 1921..	C.....	145	380	C-19
Bullion.....	P 1921..	FL.....	436	1539	FL-20
Coins.....	P 1921..	FL.....	458	1553	FL-20
Leaf.....	P 1921..	C.....	149	384	C-18
Manufactures of, except tableware.....	P 1921..	C.....	**167	399	N-1
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Salts of.....	P 1921..	FL.....	585	21	A-17
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Silverware.....	P 1921..	C.....	**167	**399	C-30
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Cane.....	In prog.			502	
Maple.....	P 1921..	E.....	178	503	E-2
Sirups of cane juice.....	P 1921..	E.....	177	501	E-1
Sisal.....	P 1925..	FL.....	497	1583	FL-16
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Slabs of iron or steel.....	P 1921..	FL.....	518, 613	303, 304	FL-21
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Smokers' articles.....	P 1921..	N.....	381	1454	N-26
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Soda ash. (See Sodium carbonates.)					
Soda crystals. (See Sodium carbonates.)					
Sodium (metal).....	P 1921..	C.....	143	**1562	C-16
Sodium:					
Arsenate.....	P 1921..	FL.....	605	83	A-18
Benzoate. (See Dyes and other coal-tar chemicals, census of 1917-1928.)					
Bicarbonate.....	P 1921..	A.....	67	83	A-18
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Chromate and bichromate	P 1921	A	67	83	A-18
Compounds	P 1921	A, FL	67, 605	83, 84, 1565	A-18
Hydrosulphite, n. s. p. f.	P 1921	A	**5	84	A-18
Hydroxide, or caustic soda	P 1921	A	67	83	A-18
Hyposulphate	P 1921	A	67	**83	A-18
Nitrate	P 1921	FL	605	1667	A-18
Nitrite	P 1921	A	67	83	A-18, R. P.
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Phosphate	P 1921	A	67	83	A-18
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Sulphate, crude, or salt cake and niter cake	P 1921	FL	605	1667	A-18
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Thiosulphate. (See Sodium hyposulphite.)					
Solder	P 1921	C	15'	393	C-17
Sole leather	P 1922	FL	**530	**1603	N-15
Soluble starch	P† 1921	A	36	86	A-9
Soya-bean oil (see also Certain vegetable oils)	P 1920	FL	561	55	A-11, W. M.
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Sperm oil	P† 1921	A	44	53	A-11
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Sponges	P 1921	A	68	1447	A-19
Sprigs	P 1921	FL	554	**331	C-8
Sprinkler tops	P 1922	C	164	391	C-28
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Spunk	P 1921	FL	608	1669	N-8
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II. Ohio	P 1925.	G	198	764	M. S.
III. Nebraska	P 1921.	G	198	764	M. S.
IV. Colorado	P 1921.	G	198	764	M. S.
V. Utah	P 1921.	G	198	764	M. S.
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Weeds, manufactures of.....	P 1921...	N.....	368	1439	N-21
Whalebone:					
Manufactures of.....	P 1921...	N.....	368	1439	N-21
Unmanufactured.....	P 1921...	FL.....	643	1696	N-21
Whale oil.....	{P 1921... P 1929...}	A.....	44	53	A-11
Wheat. (See Agricultural staples and the tariff.)					
Wheat flour. (See Agricultural staples and the tariff.)					
Wheat and flour trade.....	{P 1921... P 1929...}				F. C.
Wheat and wheat products.....	P* 1924...			729	R. P.
Whetstones.....	{P 1921... P 1929...}	FL.....	507	1590	B-3
Whip gut:					
Manufactures of.....	{P 1921... P 1929...}	N.....	366	1434	N-19
Unmanufactured.....	{P 1921... P 1929...}	FL.....	443	1434	N-19
White lead.....	P 1922...	A.....	56	74	A-15
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6 Preliminary statement of information.

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Willow and manufactures of.....	P 1921.....	} D	173	407	D-3
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Window glass.....	P 1921.....	} B	85, 90	219, 220, 224	B-9, R. P.
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Wine lees.....	P 1921.....	A	8	9	A-1
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Aluminum.....	P 1921.....	C	**114	**374	C-16
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Brass.....	P* 1921.....	C	114	381	C-19
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Copper.....	P 1921.....	C	114	381	C-19
Fencing.....	P 1921.....	FL	645	317	C-8
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Heddles.....	P 1921.....	C	114	316	C-8
Insulated.....	P 1921.....	C	114	316	C-8
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Rods.....	P 1921.....	C	113	315	C-8
Rope and strand.....	P 1921.....	C	114	316	C-8
Round.....	P 1921.....	C	114	316	C-8
Wires and cables, electrical.....	P 1921.....	} C	114	316	C-8, C-31
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Wiring devices, electrical.....	P 1922.....	B, C	**80, **167	**216, **399	C-31
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Baskets.....	P 1921.....	D	175	409	D-4
Blinds, curtains, shades, and screens.....	P 1921.....	D	175	409	D-4
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Manufactures, n. s. p. f.....	P 1921.....	D	176	410	D-4
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Toothpicks and skewers.....	P 1921.....	D	174	408	D-3
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	P 1927.....				
Wood and lye, ashes of.....	P 1921.....	FL	407	1645	A-16
Wood chemical industry.....	P 1921.....				A-2
Wood flour.....	P 1922.....	FL	647	410	FL-37
Wood pulp.....	P* 1921.....	FL	649	1616	FL-38
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By-products.....	P 1926.....	FL	651	1105	FL-40
Combed or tops.....	P 1925.....	K	286, 306	1106	K-1
Extract.....	P 1926.....	FL	651	1105	FL-40
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Flocks.....	P 1926.....	FL	651	1105	FL-40
Floor coverings.....	P 1923.....	K	293-303	1117, 1118	K-6
Gloves and mittens.....	P 1921.....	K	288	1114	K-3
Hosiery.....	P 1921.....	K	288	1114	K-3
Knit fabrics.....	P 1921.....	K	288	1114	K-3
Knitted articles, n. s. p. f.....	P 1921.....	K	291	1114	K-3
Mungo.....	P 1926.....	FL	651	1105	FL-40
Noils.....	P 1926.....	FL	651	1105	FL-40
Outerwear, knit.....	P 1921.....	K	**291	1114	K-3
Rags.....	P 1926.....	FL	586	1105	FL-40
Raw. (See Wool-growing industry.)					
Roving.....	P 1925.....	K	286	1106	K-1
Screens.....	P 1923.....	K	303	1118	K-6
Shoddy.....	P 1926.....	FL	651	1105	FL-40
Tops.....	P 1925.....	K	286, 306	1106	K-1
Underwear.....	P 1921.....	K	**291	1114	K-3
Unimproved (carpet). (See Wool-growing industry.)					
Wastes.....	P 1926.....	FL	651	1105	FL-40
Wearing apparel.....	In prog.			1115	
Woven fabrics.....	P 1927.....	} K	288, 289, 290, 305, 309	1108-1111	K-2
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Wool machinery.....	P 1921.....	C.....	**167	**372	C-29
Wool production in Argentina, sheep and.....	P 1922.....				M. S.
Woolens and worsteds.....	P 1927.....	K.....		1108, 1109	K-2
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Cotton.....	P 1920.....	I.....	250	901	T. I. S.-12
Flax, hemp, or ramie.....	P 1922.....	J.....	270	1004	J-1
Jute.....	P 1922.....	J.....	267	1003	J-1
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Zaffer.....	P 1921.....	FL.....	657	1710	FL-6
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Chloride.....	P 1922.....	A.....	62	93	A-15
Dust.....	P 1921.....	C.....	163	395	C-27
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