UNITED STATES TARIFF COMMISSION

BAGATELLE, BILLIARD, AND POOL BALLS

Report to the President on Investigation No. TEA-I-19 Under Section 301 (b) of the Trade Expansion Act of 1962



TC Publication 374
Washington, D.C.
March 1971

UNITED STATES TARIFF COMMISSION

Glenn W. Sutton

Bruce E. Clubb

Will E. Leonard, Jr.

George M. Moore

J. Banks Young

Kenneth R. Mason, Secretary

Address all communications to
United States Tariff Commission
Washington, D.C. 20436

TABLE OF CONTENTS

•	Page
Introduction	1
Finding of the Commission	2
Statements of Commissioners:	
Views of Presiding Commissioner Sutton and	
Commissioner Leonard	3
Views of Commissioners Clubb and Moore	4
Information Obtained in the Investigation:	
Description and Uses	A-l
U.S. Tariff Treatment	A-4
U.S. Consumption	A-4
U.S. Producers	A-6
U.S. Production, Sales, and Exports	A-7
U.S. Imports:	
Importers	A-9
Trend of imports and supplying countries	A-9
Marketing:	
Product differences	A-11
Channels of distribution	A-11
Selling	A-12
Prices:	
Cast-resin balls	A-13
Injection-molded balls	A-14
The Brunswick Corp: * * *	A-14
Employment	A-14
Profit-and-loss experience of domestic producers	A-15
Statistical Appendix	A-10
TABLES	
Table 1Full-sized billiard balls: U.S. production, imports	
for consumption, and apparent consumption, 1961 and 1964-70	A-17
Table 2Cast-resin billiard balls: U.S. production, imports	
for consumption, and apparent consumption, 1961, and 1.964-70	A-18
Table 3Injection-molded billiard balls: U.S. production,	
total, and of those of adspecified size and weight, 1964-70	A-19
Table 4Billiard balls of all sizes and weights: U.S. imports	
for consumption, by principal sources, 1964 and 1966-70	A-20
Table 5Cast-resin billiard balls: U.S. rates of duty and	
	A-21
Table 6Average prices for cast-resin billiard balls of first	
quality produced in the United States and comparable balls im-	
ported from Belgium, by firm, and comparable style, 1965-70	A-22

	Page
Table 7Cast-resin billiard balls: Percentage of total sales in the U.S. market of the U.S. producer and of each Belgian producer, grouped according to competitive styles and brands, 1965-70	A 02
Table 8Financial experience of the Albany Billiard Ball Company establishment in which billiard balls are produced	
1965-70	·
molded billiard balls, 1965-69	A-25

Note.—The whole of the Commission's report to the President, including the statistical appendix, may not be made public since it contains certain information that would result in the disclosure of the operations of individual concerns. This published report is the same as the report to the President, except that the above-mentioned information has been omitted. Such omissions are indicated by asterisks.

REPORT TO THE PRESIDENT

U.S. Tariff Commission March 19, 1971.

To the President:

In accordance with section 301(f)(1) of the Trade Expansion Act of 1962 (76 Stat. 885), the U.S. Tariff Commission herein reports the results of an investigation made under section 301(b) of that Act, relating to bagatelle, billiard, and pool balls.

The investigation to which this report relates was undertaken to determine whether--

bagatelle, billiard, and pool balls, provided for in item 734.05 of the Tariff Schedules of the United States

are, as a result in major part of concessions granted thereon under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing like or directly competitive products.

The investigation was instituted by the Commission on October 8, 1970, upon petition filed under section 301(a)(1) of the Trade Expansion Act of 1962 by the Albany Billiard Ball Company.

Public notice of the institution of the investigation and of a public hearing to be held in connection therewith was given in the <u>Federal Register</u> of October 15, 1970 (35 F.R. 16210). The hearing was held on December 15, 1970. All interested parties were afforded opportunity to be present, to produce evidence, and to be heard. A transcript of the hearing and copies of briefs submitted by interested parties in connection with the investigation are attached. 1/

parties in connection with the investigation are attached. 1/ 1/ The transcript and briefs were transmitted with the original report to the President.

Finding of the Commission

On the basis of its investigation, the Commission finds unanimously that bagatelle, billiard, and pool balls, provided for in item 734.05 of the Tariff Schedules of the United States, are not, as a result in major part of concessions granted under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing like or directly competitive products.

Statements of Commissioners 1/

Views of Presiding Commissioner Sutton and Commissioner Leonard

In this case the Commission must determine whether, as a result in major part of concessions granted under trade agreements, billiard balls are being imported in such increased quantities as to cause or threaten to cause serious injury to the domestic industry producing like or directly competitive products.

The petitioner -- Albany Billiard Ball Co. -- has complained about imports of cast-resin billiard balls. Like our colleagues, we find that such billiard balls are being imported in increased quantities. Entries into the United States in 1970 amounted to about 2.3 million balls. compared with 1.4 million balls in 1964. We do not find, however, that such increased imports resulted in major part from trade-agreement concessions. Under the Tariff Act of 1930, billiard balls were dutiable at a rate of 50 percent ad valorem. In 1948, as a result of the principal concession on billiard balls that the United States has made in trade agreements, the rate was reduced to 25 percent ad valorem. Then, in the early 1960's, the rate was reduced, in two stages, by a modest amount to 20 percent ad valorem. These concessions--the greater one made nearly 25 years ago and the smaller, nearly a decade ago--could scarcely have been the major factor causing the increased imports. Rather, the principal cause can be found in the remarkably booming popularity of the game of pocket billiards in the United States, which has stimulated both the domestic production and imports of castresin billiard balls. In the light of these circumstances, we have reached a negative decision.

^{1/} Commissioner Young concurs in the result.

Views of Commissioners Clubb and Moore

This investigation has been conducted in response to a petition filed by the Albany Billiard Ball Co. of Albany, New York. Albany is the only domestic producer of cast-resin billiard balls; it has been the sole manufacturer for 15 years or so. Virtually all of the imported billiard balls have consisted of cast-resin balls. Four other domestic firms manufacture injection-molded billiard balls. The injection-molded ball is generally of much poorer quality, sold at a much lower price, and furnished to the consumer on much lower priced billiard tables, than the cast-resin ball. Since there is little direct competition between the two types of balls, we have concluded that the domestic industry producing articles like or directly competitive with the imported billiard balls (cast-resin) consists of the domestic production facilities devoted to the production of cast-resin balls, i.e., the facilities of the Albany Billiard Ball Co.

Under section 301(b) of the Trade Expansion Act, four requirements must be met for the Commission to make an affirmative determination:

- (1) Imports must be increasing;
- (2) The increase in imports must be a result in major part of concessions granted under trade agreements;
- (3) The industry producing like or directly competitive articles must be seriously injured, or threatened with serious injury; and
- (4) The increased imports resulting in major part from trade-agreement concessions must be the major factor causing or threatening to cause the serious injury.

On the basis of the investigation, we are satisfied that the first and second requirements have been met. Cast-resin billiard balls are being imported into the United States in increased quantities. Annual imports amounted to about 2.3 million balls in each of the years 1968-70-a high level of entries that was several times greater than a decade earlier. In 1968-70, the imports supplied about two-thirds of the U.S. market for cast-resin billiard balls.

The increased imports, moreover, have resulted in major part from trade-agreement concessions. The import duty has been reduced from 50 percent to 20 percent ad valorem. But for those tariff reductions, the prices of virtually all styles of imported cast-resin balls would exceed those of the comparable domestic ball.

We have concluded, however, that the third requirement has not been met, namely, that the Albany Billiard Ball Co., which constitutes the domestic industry, is neither seriously injured nor threatened with serious injury. Albany's sales of billiard balls were level in the 2 years 1965-66 (\$760,000), jumped to a materially higher plateau in the 3 years 1967 - 69 * * * , and then * * *

The question to be decided is whether the company's experience, here briefly described, meets the test of serious injury. In the context of the statute, serious injury is an important, crippling or mortal injury—one having lasting consequences. Serious injury would raise doubts about the company's long-range ability to survive, as distinguished from the short-term ups and downs of business life that may temporarily afflict a firm or industry. 1/ The statute is intended to afford

^{1/} Pianos and Parts, Inv. No. TEA-I-14, December 1969, p. 6.

protection from serious injury, but not to shield the company from temporary business fluctuations.

It is clear that in this case the statutory requirement has not been met. Albany in 1970 sustained injury, but certainly not crippling injury. The survival of the company, and hence the industry, is not in doubt. Moreover, the petitioner is not presently threatened with serious injury within the meaning of the Act. To the contrary, the company gives evidence of being a vital concern; it currently is undertaking * * * If successful, Albany will regain its profitable position.

We have concluded that the domestic industry (Albany) is not now seriously injured nor threatened with serious injury. We have, therefore, made a negative determination. We would note, however, that under the Trade Expansion Act Albany may file a new petition with the Tariff Commission after one year; thus, if its * * * is not successful and profitable operations do not materialize, the company can then seek relief.

INFORMATION OBTAINED IN THE INVESTIGATION

Description and Uses

There are numerous games of pool and billiards, and the tables on which such games are played are made in a wide range of sizes. Balls used for pool or billiards differ from one another in size and color; the trade, however, generally refers to all types of such balls as billiard balls. 1/ Balls used in bagatelle--a game played with a cue and usually nine balls on an oblong table having cups or both cups and arches at one end--have little or no commercial significance in the United States. Hereinafter in this report bagatelle, billiard, and pool balls will be referred to only as billiard balls or balls, unless otherwise stated.

Although billiard balls are produced in the United States in sizes ranging from less than 1 inch in diameter to nearly 2-1/2 inches in diameter, the major part of production in recent years consisted of balls that were 2-1/8 inches or more in diameter, most of which were 2-1/4 inches in diameter. Balls 2-1/8 inches or more in diameter are intended for use on tables ranging in size from 4 feet x 8 feet to 5 feet x 10 feet. Although balls less than 2-1/8 inches in diameter are produced domestically in large quantities and imported in small quantities, such balls are not generally considered by the trade to be competitive with regulation size balls, i.e., those at least 2-1/8

^{1/}Balls sold as billiard balls are sold three balls to a set and are usually 2-3/8 inches in diameter; those sold as pocket pool balls, are sold 16 balls to a set and are usually 2-1/4 inches in diameter.

inches in diameter and at least 5 ounces in weight. 1/ The regulation-sized balls will be referred to hereinafter as full-sized balls; those smaller in diameter or lighter in weight will be referred to as small-sized balls.

cast molding or injection molding; nearly all of the imports—and all of those produced by the petitioner—are cast molded. In the cast—molding process, phenol and formaldehyde are blended with certain other chemicals under controlled conditions to produce a castable phenolic resin. A rough—cast ball is produced from the resin by two or more casting operations, each involving the pouring of resin into molds and the curing of the resin by heat. Finally, several grinding and buffing operations are required to bring the ball to almost perfect sphericity. The entire manufacturing process for a given ball takes from 5 to 12 days to complete. Billiard balls manufactured by this process do not contain voids, thereby assuring proper balance.

The cost of manufacturing individual cast-resin balls (sometimes referred to as cast-phenolic-resin balls) varies, in part, from their different appearance. Because more manufacturing operations are involved, it is costlier, for example, to produce higher-numbered balls (9-15) which are striped, than to produce lower-numbered balls (1-8) which are solid colored. All billiard balls manufactured by this process for sale in the United States are 2-1/8 inches or more in

^{1/} The Billiard Congress of America specifies a weight of 5-1/2 ounces for U.S. balls 2-1/8 inches in diameter. However, some imports of high-quality balls 2-1/8 inches in diameter weigh only 5 ounces.

diameter and weigh from 5 to 6 ounces. Approximately 95 percent of the total quantity of imports have consisted of cast-resin balls.

In the injection-molding process, styrene resin 1/, which has been reduced to a liquid under high temperature and pressure, is injected into molds where it solidifies. The entire molding process takes approximately 3 minutes to complete. An inherent disadvantage in this process is that it tends to produce a ball with voids, thereby imparting improper balance; injection-molded balls, moreover, are less durable than cast-resin balls. Since 1967 only about 5 percent of the total U.S. sales of injection-molded balls have been 2-1/8 inches or more in diameter weighing from 5 to 6 ounces (the dimensions of balls generally used on tables 4 feet x 8 feet or larger).

Balls produced by the cast-molding process are universally considered by those in the trade to be superior in quality to those made by the injection-molding process; they sell at prices two to four times higher than full-sized injection-molded balls. Cast-resin balls are generally used on tables that retail for \$400 or more, and injection-molded balls, on tables selling at retail for less than \$200. Depending on the individual table manufacturer, balls made by either process may be furnished with tables selling between \$200 and \$400 retail. However, most tables sold in this price range are furnished with cast-resin balls.

^{1/} One manufacturer has used both styrene and cellulose acetate.

U.S. Tariff Treatment

Imported billiard balls are provided for under item 734.05 of the Tariff Schedules of the United States (TSUS) and are currently dutiable at a rate of 20 percent ad valorem. Before the effective date of the TSUS (August 31, 1963) billiard balls were classified under the provisions of paragraph 1512 of the Tariff Act of 1930 which provided for "dice, dominoes, draughts, chessmen, and billiard, pool, and bagatelle balls, and poker chips, of ivory, bone, or other material." The rate of duty originally applicable to such articles under the Tariff Act of 1930 was 50 percent ad valorem. Pursuant to a concession initially negotiated with France under the General Agreement on Tariffs and Trade (GATT), the rate was reduced to 25 percent ad valorem, effective January 1, 1948. Following a concession negotiated with the European Economic Community under the GATT, the rate was reduced in two annual stages to 22-1/2 percent ad valorem, effective July 1, 1962, and to 20 percent ad valorem, effective July 1, 1963.

U.S. Consumption

Within the past decade, annual U.S. consumption of full-sized billiard balls (cast-resin and injection-molded) has increased dramatically, owing largely to increased sales of billiard tables for home use and to increased popularity of coin-operated billiard tables in commercial establishments. Domestic consumption of full-sized balls rose from about 924,000 balls in 1961 to 4.3 million balls in 1967. Thereafter, consumption declined to * * * million balls in 1970. Most of the decline in annual consumption in 1968-70 reflected decreased sales

of full-sized injection-molded balls. Sales of full-sized injection-molded balls were about 70 percent smaller in 1970 than in 1967, while cast-resin balls (both domestic and imported) were * * * percent smaller. Imports accounted for about half of annual consumption of full-sized balls during 1961-67, and for about 62 percent during 1968-70 (table 1).

U.S. consumption of <u>cast-resin</u> billiard balls increased annually from an estimated 878,000 balls in 1961 to * * * million balls in both 1968 and 1969, and then declined to * * * million in 1970. Prior to 1952 (when S.A. Les Usines de Callenelle, the larger of the two Belgian producers, began exporting balls to the United States), virtually the entire domestic market was supplied from domestic output. Imports supplied 50 percent of consumption in 1961, about 66 percent annually in each of the years 1964 to 1969, and * * * percent in 1970 (table 2).

The domestic consumption of <u>injection-molded balls of all sizes</u> increased from about 3.6 million balls in 1964 to nearly 9 million balls in 1970 <u>1</u>/. Consumption of such balls totaled only about 50,000 in 1961. During 1961-70, consumption was supplied almost entirely from domestic output. Consumption of full-sized injection-molded balls totaled about 676,000 balls in 1964, and increased to 1 million balls in 1967; thereafter, such consumption declined sharply to about 315,000 balls in 1970. Full-sized injection-molded balls were equal to an annual average of about 16 percent of consumption of all injection-molded balls during 1964-67, but to only a 5-percent annual average

^{1/} Imports of low-quality balls (presumbably injection-molded) from Hong Kong totaled 350,000 balls in 1970.

during 1968-70 (table 3). The decline in consumption of such balls in the latter period is attributable principally to the greater availability of cast-resin balls $\underline{1}$ / and to a decrease in the U.S. production of tables that retail for more than \$200 and are furnished with full-sized injection-molded balls.

U.S. Producers

The Albany Billiard Ball Co. of Albany N.Y., the petitioner in this investigation, has been the only domestic manufacturer of castresin billiard balls for about 15 years. 2/ The company was established as a manufacturer of billiard balls in 1868; it has produced cast-resin balls since the late 1940's. In 1925, the firm purchased the Niagara Insul Bake Specialty Co. of Niagara Falls, a molder of Bakelite products, and moved that concern's operations to Albany. In 1965, the Albany Plastic Corporation was formed to purchase the Albany Billiard Ball Co. and its subsidiary, the Niagara Insul Bake Co. In 1970, the Albany Plastic Corp. was merged, as a division, into the Albany International Corp., a \$100 million corporation, operating 34 plants in 13 countries. The equipment of the Albany Billiard Ball Co. for the production of billiard balls is located in a building in which only; such balls are produced; Niagara Insul Bake occupies an adjacent building in which it produces a variety of molded plastic parts for industrial use. * * *

 $[\]frac{1}{2}$ / The only other firm known to have produced cast-resin balls was the Brunswick Corp. This firm, probably the largest U.S. producer of billiard and pool tables in the United States, discontinued the manufacture of balls in the mid-1950's * * *

There are four manufacturers of injection-molded billiard balls, situated in Portland, Maine; Chatham, N.J.; New York, N.Y.; and Miami, Fla. A fifth producer, also situated in Miami, discontinued the production of billiard balls in 1969; this producer, however, was not a significant factor in the industry. All of these firms, except the one in Maine, began producing billiard balls in the period 1962-65; the producer in Maine began such production in 1913. In 1969, sales of injection-molded billiard balls by the four producers ranged from about 5 percent to 36 percent of each firm's total sales. These producers are engaged principally in the production of a variety of other products, such as poker chips, marine electronic equipment, precision ball bearings, and various molded plastic products and parts.

U.S. Production, Sales, and Exports

Aggregate U.S. production of full-sized billiard balls (cast-resin and injection-molded) increased markedly during the past decade. The production of cast-resin balls and full-sized injection-molded balls totaled 474,000 in 1961, and rose annually to 2.1 million balls in 1967. Thereafter, such production declined to * * * million balls in 1968, rose in 1969 to * * * million balls, and dropped to * * * million balls in 1970 (table 1).

The production of <u>cast-resin</u> balls in the U.S. increased from 428,000 balls in 1961 to 1.1 million balls in 1967, ***

Sales by the U.S. producer of cast-resin balls generally approximated production; consequently, yearend inventories were small during the period 1961-70. The following table shows sales of domestically produced cast-resin balls by this firm in 1961 and 1964-70. 1/

Cast-resin billiard balls: Sales by Albany Billiard Ball Co., 1961 and 1964-70

Year	Quantity	:	Value	:	Unit value
•		:	1,000	:	
.	Thousands	:	dollars	:	<u>Each</u>
1961:	428	:	417	:	\$0.97
1964:	770	:	832	:	1.08
1.965:	844	:	757	:	.90
1966:	875	:	763	:	.87
1967:	1,140	:	965	:	85
1968 1/:	* * *	:	* * *	:	* * *
1969 1/:	* * *	:	* * *	:	* * *
1970 1/:	* * *	:	* * *	:	* * *
:		:_		:	
1/ * * *	* *	(*		*

The following table shows Albany's annual capacity (operating two shifts a day, 5 days a week), the ratio of actual operations to capacity, and U.S. consumption of cast-resin billiard balls during 1965-70.

Cast-resin billiard balls: Annual capacity of the Albany Billiard Ball Co., ratio of actual operations to capacity, and U.S. consumption, 1965-70

Total domestic production and sales of injection-molded balls of all sizes increased from 3.6 million in 1964 to 8.6 million in 1970. Yearend inventories have been small. Production and sales of

^{1/} For information on prices see section on prices, p. A-13.

full-sized injection-molded balls totaled 676,000 balls in 1964, rose irregularly to 1 million in 1967, but declined sharply thereafter to 315,000 balls in 1970 (table 3).

Since 1961 (the period for which data are available), there have been no exports of cast-resin billiard balls or of full-sized injection-molded balls. 1/

U.S. imports

Importers

In recent years the great bulk of U.S. imports of billiard balls have been entered by domestic billiard table manufacturers and distributors of billiard accessories; such concerns, about 20 in number, accounted for about * * * percent of total imports. The remaining imports were entered by the Albany Billiard Ball Co.

The Albany Billiard Ball Co. has for many years imported unfinished cast-resin billiard balls from the United Kingdom. Such imports averaged about * * * balls annually during 1964-70. * * *

Albany also imported billiard balls from Belgium during 1965-69. These imports, most of which consisted of unfinished cast-resin balls, averaged about * * * balls annually; * * *

Trend of imports and supplying countries

There were no known imports of billiard balls until 1949; imports in that year totaled about 12,000 balls. Imports remained small until

^{1/} One producer of injection-molded balls reported exports averaging \$15,900 annually during 1965-69. These balls, however, were all the small-sized balls.

the mid-1950's when they began to increase. By 1964, when separate import data were available, imports of billiard balls aggregated 1.5 million, valued at \$806,000, and then rose to 2.5 million balls, valued at \$1.3 million, in 1968; imports declined somewhat in quantity the following year, then increased to their highest level--2.6 million balls, valued at \$1.3 million--in 1970 (table 4).

Belgium has been by far the principal source of imported billiard balls. Imports from that country have accounted for 86 percent of the total quantity and 92 percent of the total value of imports since 1963; Belgian billiard balls consist entirely of balls made by the cast-molding process. Most trade sources rate them as approximately comparable in quality to the domestic cast-resin balls.

Most of the remaining imports were supplied by the United Kingdom (see section on importers above); imports from that source consisted of unfinished cast-resin balls. On the basis of the unit values of imports, it appears that imports from all other sources, except those from Hong Kong and Taiwan, also consisted of cast-resin balls (table 4).

Data on imports of cast-resin balls, by tariff rates, are shown in table 5 for the period 1947-70.

Marketing

Because the domestic and imported cast-resin billiard balls differ little in physical specifications or durability, price is probably the most important marketing factor affecting their sales. Domestically produced injection-molded billiard balls serve a market largely separate from that of cast-resin balls.

Product differences

Trade sources are in general agreement that full-sized injection-molded billiard balls are largely noncompetitive with cast-resin balls. The variations in sphericity and weight distribution that exist between individual injection-molded balls cause such balls to be largely unacceptable for use on higher priced, better quality tables. The physical differences between the domestic and Belgian cast-resin balls apparently are not sufficient to affect most consumers' preference for either. The tolerances of both domestic and imported cast-resin balls with respect to sphericity and diameters are such that few users, if any, can distinguish between them with regard to their playability. 1/While there is a perceptible difference in the gloss of the Albany Go. ball compared with the Belgian ball, a preference for either is a matter of taste; appearance does not appear to be the predominant factor influencing most purchases.

Channels of distribution

The great bulk of billiard balls are sold directly to billiard table manufacturers for distribution as accessories with tables. Other sales are made to distributors which, in turn, sell to table manufacturers, wholesalers, vendors of coin-operated tables, and retailers.

1/ * * * * * * *

* * * * * * * *

Less than half of the imports of Belgian billiard balls went directly to billiard table manufacturers. Two major importer/distributors of Belgian balls, accounting for * * * percent of the total volume of imports from Belgium in 1969, reported that * * * percent of their sales were made to billiard table manufacturers in 1965, compared with * * percent in 1969. Most of their remaining sales were made to wholesaler/distributors, with a few sales to retailers.

In both 1965 and 1969, domestic producers of injection-molded balls of all sizes sold about 80 percent of their output to billiard table manufacturers, 15 percent to wholesaler/distributors, and 5 percent to retailers.

Selling

Since sales are usually made directly to table manufacturers and distributors, company officials make presentations to such customers, on occasion, at trade shows such as the promotions of the National Sporting Goods Association and certain toy manufacturers. 1/Advertising, on a limited basis, is placed in association publications and trade journals by billiard ball manufacturers and distributors. By far the largest amount of advertising is paid for by billiard table manufacturers and retailers to increase total and particular brand demand for billiard tables (and, therefore, balls).

^{1/} Callenelle reported attending the U.S. trade shows sponsored by the National Sporting Goods Association and subsequently received orders as a result of that effort.

* * * * * * *

Prices

Most billiard balls are sold in sets of 16 balls each. Prices referred to herein are for 16-ball sets, f.o.b. point of shipment (producer's warehouse or importer's dock or warehouse). Discounts for early payment are not granted by most suppliers. * * * Injection—molded balls competitive in size with cast—resin balls generally sell at prices one—fourth to one—half the price of cast—resin balls.

For purposes of making price comparisons in this report, castresin balls produced by various suppliers have been grouped into style categories. Balls classified in a particular style category are similar in appearance with respect to the position of the number on the ball, the method of affixing that number, and/or distinctive features (such as a black band around the number, as in the case of Albany's Centennial and the comparable Callenelle ball). The Callenelle and Albany balls differ in general appearance with respect to gloss and shade of color, but those in the same style category are considered by the trade to be directly competitive with one another.

Cast-resin balls

The prices of domestic and imported cast-resin billiard balls were stable for the most part between 1965 and 1967, but thereafter the prices of some major styles of domestic balls were reduced, while those of some major styles of imported balls were increased (table 6).

* * * * * * *

Injection-molded balls

All domestic producers of injection-molded balls make full-sized balls, i.e., balls 2-1/8 inches or more in diameter and weighing 5 ounces or more. Most of the domestic output of injection-molded balls 2-1/8 inches or more in diameter during 1965-70, however, weighed less than 5 ounces. Two of the four domestic producers make balls smaller than 2-1/8 inches in diameter; such output accounts for a significant volume of their production but only a minor part of the value of their sales.

Three of the four domestic producers of injection-molded balls provided price data to the Commission on their best selling brands.

* * * * * * *

The Brunswick Corp.: * * *

* * * * * * * * *

Employment

Most production workers engaged in the manufacture of billiard balls are classified as unskilled or semiskilled, performing the jobs of "casters," grinder operators, "fillers," buffers, inspectors, or material handlers. In the production of cast-resin billiard balls, the only skilled workers are the foremen and the technicians mixing the resin.

* * * * * * * *

Production and related workers employed by the Albany Billiard Ball Co., man-hours worked, production, and number of balls made per man-hour, 1965-70

* * * * * * *

Callenelle reported that the number of billiard balls produced per man-hour by its workers increased from 6.03 in 1963 to 10.58 in 1970. While both Albany and Callenelle have enjoyed a significant productivity gains, * * *

Employment data provided by the four U.S. producers of injection-molded billiard balls were incomplete; the average number of production and related workers employed in the production of all products in the four establishments were reported as follows: 1965--366; 1966--346; 1967--375; 1968--370; 1969--395; 1970--377.

Profit-and-loss experience of domestic producers

 Statistical Appendix

Table 1.--Full-sized billiard balls: 1/ U. S. production, imports for consumption, and apparent consumption, 1961 and 1964-70

:	U.,	S. production	on		Im-	: : Apparent :	Ratio of
Year :	Cast- : resin :	Injection- molded	:	Total	DOTUS 27	consump-:	imports to con-
	balls :	balls	:	;	•	:;	sumption
:Th	ousands:	Thousands	:]	[housands	Thousands	Thousands:	Percent
:	:		:		•	:	
1961:	428 :	. 46	:	474 :	: <u>4</u> /450 :	: <u>4</u> / 924 :	<u>4</u> / 49
1964:	770 :	676	:	1,446 :	: 1,449	: 2,895 :	- 50
1965:	838 :	653	:	1,491 :	:4/ 1,525	: 4/3,016:	4/51
1966:	879 :	912	:	1,791	1,783	3,574 :	50
1967:	1,132:	1,016	:	2,148 :	2,192	: 4,340:	51
1968:5/	/ * * * :	324	:	* * * :	2,249	* * * * :	* * *
1969:5/	/ * * * :	430	:	* * *			* * *
1970:5/	/ * * * :	315		* * *			* * *
: _	:		:	;	: _	:	

^{1/} Excludes balls less than 2-1/8 inches in diameter and weighing less than 5 ounces.

Source: Production compiled from data obtained from the domestic producers; imports compiled from official statistics of the U.S. Department of Commerce, except as noted.

^{2/} Imports entered from Hong Kong and Taiwan consisted of "toys" and "trick" balls, respectively, not competitive with those in the data for U.S. production and are thus excluded. Such imports totaled 350 thousand balls from Hong Kong and 38 thousand balls from Taiwan in 1970.

^{3/} There were no exports of injection-molded balls in the larger sizes or of cast-resin balls.

^{4/} Estimated. 5/ * * *

Table 2.--Cast-resin billiard balls: U.S. production, imports for consumption, and apparent consumption, 1961 and 1964-70

Year	U.S. Pro- duction	:	Imports	:	Apparent consumption 1/	Ratio of imports to apparent consumption
•	Thousands	:	Thousands	:	Thousands	: Percent
:		:		:		:
1961:	428	:	2/450	:	2/ 878	: 2/51
1964:	770	:	1,449	:	- 2,219	: 65
1965:	838	:	2/1,525	:	2/ 2,363	: 2/65
1966:	879	:	1,783	:	2,662	: 67
1967:	1,132	:	2,192	:	3,324	: 66
1968:	3/ * * *	:	2,249	:	* * *	_
1969:	3/ * * *	:	2,261		* * *	* * **
1970:	<u>3</u> / * * *	:	2,256	:	* * *	* * * *
:		:		:		:

^{1/} There were no exports of cast-resin billiard balls during the period covered here.

Source: Production supplied by the domestic producer; imports compiled from official statistics of the U.S. Department of Commerce, except as noted.

^{2/} Estimated.

<u>3</u>/ * * *

Table 3.--Injection-molded billiard balls: U.S. production, total and of those of a specified size and weight, 1964-70

	:	Total	:		hes or more in diameter g at least 5 ounces					
Year	:	quantity	:	Quantity	:	Percent of total				
	:	Thousands	:	Thousands	:					
	•		:		:					
1964	-:	3 , 566	:	676	:		19			
1965	-:	4,693	:	653	:		14			
1966	-:	5,422	:	912	:		17			
1967	-:	7,429	:	1,016	:		14			
1968	-:	7,371	:	324	:		4			
1969	-:	7,108	:	430	:		6			
1970	-:	8,575	:	315	:		4			
	:		:		:					

Source: Compiled from data obtained from the domestic producers.

Table 4.--Billiard balls of all sizes and weights: U.S. imports for consumption, by principal sources, 1964 and 1966-70

Source	1964	1966	196	7	1968	:	1969	:	1970
:	Quantity (thousands)								
Belgium United Kingdom West Germany Taiwan Japan Hong Kong All other	1,347 : 90 : 9 : - : 3 : 19 :	157 - - - 46	: 1 : :	10: 75: -4: 45:	2,104 143 - 22 1 231	:		:	2,011 190 40 38 2 350
Total:	1,468:	1,829	2,2	36 :	2,502	:	2,422	:	بلبا6, 2
:		V	alue (1,000) dolla	rs))		
Belgium United Kingdom West Germany Taiwan Japan Hong Kong All other Total	742 : 55 : 5 : - : 4 : 1/ : 806 :	883 80 - - 3 - 966	,	89 : - : 2 : 3 : 2 :	1,177 70 - 4 1/ 1 1,253 (each)	:	1,193 69 2 13 7 3 - 1,287	• • • • • • • • • • • • • • • • • • • •	1,173 93 22 11 3 2 7 1,311
Belgium	\$0.55 61 56 1.33 2/	\$0.54 .51 - .07 - .53		51 : - : - : 50 : 08 :	\$0.56 .48 .18 .26 2/ 1.00	: : : : : : : : : : : : : : : : : : : :	\$0.57 .49 .67 .52 .54 .02	: :	\$0.58 .49 .55 .29 1.50 .01 .54

Source: Compiled from official statistics of the U.S. Department of Commerce.

 $[\]frac{1}{2}$ Less than \$500. $\frac{2}{2}$ Less than \$0.005.

Table 5.--Cast-resin billiard balls: U.S. rates of duty and imports for consumption, 1947-70 $\underline{1}/$

Year	Rate of duty	Imports
:	Percent ad valorem	: Thousands
1947:	50	: -
1948:	2/ 25	: -
1949:	25	: 12
1950:	25	: 27
1951:	25	<u>3</u> /30
1952:	25	: <u>3</u> /43
•		•
1953:	25	<u>3/43</u>
1954: 1955:	25	<u>3</u> / 45 125
1956:	25 25	221
1957:	25	296
1958:	25	: 159
:	-,	•
1959:	25	: 270
1960:	25	: 326
1961:	25	: 434
	<u>4</u> / 22.5	: 650
1963: 1964:	<u>5</u> / 20 20	1,134
1704	20	· 1,449
1965	20	3/1,525
1966:	20	1,783
1967:	20	2,192
1968:	20	2,249
1969:	20	2,261
1970:	20	2, 256
•	•	•

^{1/} Data for 1947-63 include only imports from Belgium and the United Kingdom. However, entries from those countries accounted for virtually all of the imports of cast-resin balls during that period.

Source: Import data for 1947-63 obtained from 3 foreign manufacturers that accounted for virtually all of the U.S. imports of cast-resin balls; imports for 1964-70 compiled from official statistics of the U.S. Department of Commerce, except as noted.

^{2/} Effective Jan. 1, 1948.

^{3/} Estimated.

^{4/} Effective July 1, 1962.

^{5/} Effective July 1, 1963.

Table 6.--Average prices 1/ for cast-resin billiard balls of first quality produced in the United States and comparable balls imported from Belgium, by firm and comparable style, 1965-70

* * * * * * *

Table 7.--Cast-resin billiard balls: Percentage of total sales in the U.S. market of the U.S. producer and of each Belgian producer, grouped according to competitive styles and brands, 1965-70

* * * * * * * *

Table 8.--Financial experience of the Albany Billiard Ball Co. establishment in which billiard balls are produced, 1965-70

* * * * * * *

Table 9.--Financial experience of U.S. producers of injection-molded billiard balls, 1965-69

* * * * * * *

·

•

•

.

·

.