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UNITED STATES TARIFF COMMISSION

**STAINLESS-STEEL WIRE: PRODUCTION,
MAINTENANCE, AND SALARIED WORKERS,
THE CARPENTER TECHNOLOGY CORPORATION
PLANT, NORTH BRUNSWICK, NEW JERSEY**

**Report to the President
on Investigation No. TEA-W-78
Under Section 301(c)(2) of the Trade Expansion Act of 1962**



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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. The 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
April 9, 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(c)(2) of the act in response to a petition filed by a group of workers.

On February 9, 1971, the United Steelworkers of America, AFL-CIO, filed a petition for a determination of eligibility to apply for adjustment assistance on behalf of the workers of the Carpenter Technology Corporation plant, Steel Division, in North Brunswick, New Jersey. The Commission instituted the investigation (TEA-W-78) on March 1, 1971, to determine whether, as a result in major part of concessions granted under trade agreements, articles like or directly competitive with the stainless-steel wire produced at the North Brunswick plant, are being imported into the United States in such increased quantities as to cause, or threaten to cause, unemployment or underemployment of a significant number or proportion of the workers of such plant.

Public notice of this investigation was given in the Federal Register of March 6, 1971 (36 F.R. 4527). No public hearing was requested by any party showing a proper interest in the subject matter of the investigation, and none was held.

The information herein was obtained from the United Steelworkers of America; from Local Union No. 3661; from the Carpenter Technology Corporation; from other producers of stainless-steel wire; from selected producers of stainless-steel wire springs; from the American Iron and Steel Institute; and from the Commission's files.

Finding of the Commission

On the basis of its investigation, the Commission finds unanimously that articles like or directly competitive with the stainless-steel wire produced by the Carpenter Technology Corporation plant, Steel Division, at North Brunswick, New Jersey 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, the unemployment or underemployment of a significant number or proportion of workers at that plant.

CONSIDERATIONS SUPPORTING THE COMMISSION'S FINDING

Section 301(c)(2) of the Trade Expansion Act of 1962 established four conditions which must be satisfied for the Commission to make an affirmative determination. If any one of the four conditions is not met our determination must be in the negative. The four conditions are as follows:

1. Articles like or directly competitive with those produced by the petitioning workers must be imported in increased quantities;
2. The increased imports must be in major part the result of concessions granted under trade agreements;
3. A significant number or proportion of the workers concerned must be unemployed or underemployed or threatened with unemployment or underemployment; and
4. The increased imports resulting in major part from trade agreement concessions must have been the major factor causing or threatening to cause the unemployment or underemployment.

Based on the information obtained during this investigation, we have concluded that condition (2) has not been met.

The output of the North Brunswick plant of the Carpenter Technology Corporation, which closed in October 1970, consisted of stainless-steel wire, most of which was under 0.060 inch in diameter. Raw material in the form of stainless-steel wire rod was normally obtained from the Reading, Pa. plant of the same company. Production consisted of drawing the rod through successive dies until the desired diameter was reached. Depending on the number of drafts required, a varying number of intermediate annealings to restore ductility to the

metal were necessary. It follows that the finer the wire produced the greater the number of drafts and annealings required and the more costly the resulting wire.

Annual U.S. imports of stainless-steel wire increased during 1966-70. Imports of wire in the smaller diameters in which Carpenter specialized (0.060 inch and less) only accounted for about a fourth of the total imports of stainless-steel wire during those years, and for only a sixth of the aggregate increase in imports of such wire. The only trade agreement concession of note granted on stainless-steel wire during the course of the past 12 years (negotiated at the Kennedy Round) amounted to a reduction of 2 percentage points which went into effect in four stages at the rate of one-half of one percentage point per year beginning January 1, 1968. ^{1/} During 1968, the year of the first stage of the rate reduction, both production at, and shipments from the North Brunswick plant were at a 5-year (1966-70) peak. Early in 1969, steel producers in Japan and the European Economic Community (EEC) stated their intention to limit voluntarily their exports of steel-mill products to the United States. While the total tonnage of steel imports was virtually equal to the self imposed quotas in 1969, and considerably below the stated intention in 1970, the major foreign suppliers upgraded the product mix of their exports in each of these years and shipped a larger proportion of the more expensive, more

^{1/} A reduction in the rate of duty on the chromium content of stainless steel was also granted; this reduction, however, was insignificant in terms of the value of the product.

labor intensive steel products, including stainless-steel wire. Imports of stainless-steel wire thus increased substantially in 1969 and again in 1970, in the latter year in spite of an apparently declining market in the United States. These increases in imports, however, were less a result of the Kennedy Round concessions than being placed into effect than an outgrowth of the voluntary export restraints adopted by Japan and the EEC.

In view of the small reduction in the applicable import duty and resultant small impact on prices, as well as the apparent effect of the voluntary restraints on imports of the higher priced products, we have concluded that the increased imports are not in major part the result of concessions granted under trade agreements and have made a negative determination.

INFORMATION OBTAINED IN THE INVESTIGATION

Description and uses

The term "wire", as it applies to steel, is defined in headnote 3(i) to part 2B of schedule 6 of the Tariff Schedules of the United States (TSUS) as "a finished, drawn, nontubular product, of any cross-sectional configuration, in coils or cut to length, and not over 0.703 inch in maximum cross-sectional dimension." The term "wire" also includes a product of "solid rectangular cross section, in coils or cut to length, with a cold-rolled finish, and not over 0.25 inch thick and not over 0.50 inch wide." Round wire, that with a circular cross section, is by far the principal type of wire produced.

Wire is made in virtually all grades of carbon steel, alloy steel, and most of the nonferrous metals, depending on its intended use; however, this investigation is limited to that of stainless steel.

The stainless-steel wire here considered is produced by cold-drawing stainless-steel wire rods which were previously cleaned with acid, rinsed, and coated with lime, borax, or other suitable material. The coating material neutralizes any remaining acid and aids in the lubrication of the wire rods as they are drawn through one die, or continuously through a series of dies, each designed to further reduce the cross-sectional dimension of the wire. The cold reduction of steel by drawing increases its hardness and tensile strength but reduces its ductility. Accordingly, most wire cannot be drawn through a long series of dies without intermediate heat treatment to relieve the stresses induced by the cold working and to restore ductility. By

altering the drawing and heat-treating operations, wire of various mechanical properties can be made from wire rod of the same chemical composition. The most widely used heat-treating process used in wire drawing is annealing, which renders the metal less brittle. Hardening and tempering treatments are widely used to obtain the characteristics necessary to avoid permanent deformations in wire used in springs and other products where its service is severe.

Stainless-steel wire is often coated with tin, lead, or other metals by the wire drawer. For example, spring wire is frequently lead coated to facilitate final drawing and subsequent fabrication; the coating is usually removed by the spring maker following formation of the spring.

Attractive appearance and cleanliness plus stainless and heat-resisting qualities make stainless-steel wire a desirable product for many uses. It can be used for virtually any wire application where these properties are required. Among the important uses for stainless-steel wire are cold-heading stock for the manufacture of bolts, screws, rivets; welding wires; armature bindings (frequently tinned wire) for motors that require high-tensile, nonmagnetic wire; and in the manufacture of industrial wire cloth (weaving wire) for use in sifting and filtering a large variety of materials, many of which are corrosive in nature. Stainless-steel wire is also used in the production of springs of all types (not the least of which are aerosol-can springs), dress-maker pins, ball bearings, ball point pen points, surgical needles, instruments and knife blades, bacon hangers and meat hooks, a

variety of components of electronic equipment, bomb fuses and the like, wire rope for aircraft control cables and guy strands for ships, display racks, and dishwasher and refrigerator shelves and racks. Significant quantities of stainless-steel wire (lasher wire) are used for lashing communications cable to the steel support cable that carries the communication cable from pole to pole. Stainless-steel wire is also used widely to suspend the metal frame used in conjunction with suspended acoustical or decorative ceilings.

The North Brunswick, New Jersey plant of the Carpenter Technology Corporation (CarTech) produced only round stainless-steel wire, the bulk of which was stainless grade 302 (about 18 percent chromium, 8 percent nickel, 0.15 percent or less carbon) for use in the manufacture of springs.

U.S. tariff treatment

Stainless-steel wire.--Stainless-steel round wire was originally classifiable as "round wire of iron or steel, valued over 6 cents per pound" under the provisions of paragraphs 316(a) and 305 of the Tariff Act of 1930 ^{1/} and was dutiable at the aggregate rate of 33 percent ad valorem plus 3 cents per pound on the chromium content in excess of 0.2 percent by weight. Pursuant to concessions granted by the United States in bilateral (Sweden) and multilateral (GATT) trade agreements the aggregate rate under the above noted provisions was reduced by 1958 to 12.5 percent ad valorem plus 1.5 cents per pound on the chromium content in excess of 0.2 percent by weight. Under the TSUS, such wire is provided for under item 609.45--round wire of alloy iron or

^{1/} Under Title I of the Tariff Act of 1930, a "base" rate was provided under several tariff paragraphs depending on the product, i.e., wire, sheet, shapes, etc.; paragraph 305 provided additional duties if the product was made of alloy grades of steel.

steel--and, as a result of further concessions under the GATT, is currently dutiable thereunder at the rate of 10.5 percent ad valorem; the chromium content in excess of 0.2 percent by weight is subject to duty under TSUS item 607.01 at the current rate of 0.9 cent per pound. The changes in the U.S. import duties applicable to round wire of stainless steel (type 302) are summarized below:

Stainless-steel wire (type 302): Changes in U.S.
import duties, 1930-72

Effective date	Rate under--			Authority
	Para- graph 316(a)	Paragraph 305		
	(1)	(2)		
	Percent ad valorem	Percent ad valorem	Cents per pound 1/	
June 18, 1930-----	25	8	3	Tariff Act of 1930.
Aug. 5, 1935-----	20	4	3	Sweden.
Jan. 1, 1948-----	20	4	1.5	GATT.
Apr. 30, 1950-----	10	4	1.5	GATT.
June 30, 1956-----	9.5	4	1.5	GATT.
June 30, 1957-----	9.0	4	1.5	GATT.
June 30, 1958-----	8.5	4	1.5	GATT.
	Item 609.45	Item		
		607.01		
Aug. 31, 1963-----	12.5		1.5	TSUS
Jan. 1, 1968-----	12		1.35	GATT
Jan. 1, 1969-----	11.5		1.2	GATT
Jan. 1, 1970-----	11		1.05	GATT
Jan. 1, 1971-----	10.5		0.9	GATT
Jan. 1, 1972-----	10.5		0.75	GATT

1/ Applicable to chromium content in excess of 0.2 percent (4 pounds per short ton).

Prior to the adoption of the TSUS on August 31, 1963, round wire was also subject to an additional duty under the provisions of paragraph 316(a) if it was plated or coated with metal. The 1930 rate amounted to 0.2 cent per pound. A trade-agreement concession under the GATT reduced this rate to 0.1 cent, effective January 1, 1948; the adoption of the TSUS resulted in the elimination of this additional rate.

The ad valorem equivalent of the specific rate of duty applicable to the chromium content has always been small compared to the aggregate of the applicable ad valorem rates; for example, based on 1970 imports the 3 cents per pound rate is equivalent to 1.3 percent and the 0.9 cent per pound rate is equivalent to 0.325 percent.

Springs.--Springs of base metal were dutiable at far-ranging rates of duty under various provisions of the Tariff Act of 1930 frequently as parts of other articles. With the exception of automotive suspension springs and hairsprings, however, most were classified under the provisions of paragraph 397 and were initially dutiable at the rate of 45 percent ad valorem. Under the TSUS, as amended by the Tariff Schedules Technical Amendments Act of 1965, springs, without regard to the base metal in chief value, are provided for in items 652.84 and 652.85 (automotive suspension springs), 652.86 and 652.87 (hairsprings), and 652.88 and 652.89 (all other types). Springs made from stainless-steel wire are usually of types classified only under item 652.88. The rate history of this provision, which had its origin in paragraph 397 of the Tariff Act of 1930, is shown below:

Stainless-steel springs (except automotive suspension and
hairsprings): Changes in U.S. import duties, 1930-72

Effective date	Rate (percent ad valorem) under paragraph 397	Authority
June 18, 1930-----	45	Tariff Act of 1930.
Jan. 1, 1948-----	22.5	GATT.
June 30, 1956-----	21	GATT.
June 30, 1957-----	20	GATT.
June 30, 1958-----	19	GATT.
	TSUS item 652.88	
Aug. 31, 1963-----	19	TSUS.
Jan. 1, 1968-----	17	GATT.
Jan. 1, 1969-----	15	GATT.
Jan. 1, 1970-----	13	GATT.
Jan. 1, 1971-----	11	GATT.
Jan. 1, 1972-----	9.5	GATT.

U.S. producers

Two general types of producers manufacture stainless-steel in the United States: (1) Integrated and semi-integrated steel concerns that usually produce wire from steel made within their own organization (frequently in the same plant), and (2) the so-called independent wire-drawing concerns that produce wire from purchased rods or, much less frequently, from purchased billets. The latter group tend to be more flexible in their policies concerning their raw material sources. Most of them rely on multiple sources of supply located both in the United States and overseas and contract for individual purchases on the basis of price and quality at the time of purchase.

While there are close to 200 wire-drawing establishments in the United States, a relatively small number of these produce stainless-steel wire; few concentrate exclusively in the manufacture of such wire. Generally, those concerns that draw stainless-steel wire provide a range of wire for a variety of uses; some, however, tend to specialize in a single kind of wire for a specific end use. Very few, if any, fabricate products of stainless-steel wire as do most of the drawers of the common grades of low-carbon steel wire.

Virtually all of the stainless-steel wire drawers market their product countrywide, either through a series of company owned or franchised warehouses or by direct mill shipments. Competition among domestic producers is intense.

U.S. consumption

Estimated U.S. apparent consumption of stainless-steel wire (based on data derived from apparent consumption of stainless-steel wire rod described in the following section of the report) increased from about 125 million pounds in 1966 to about 136 million pounds in 1969 but declined abruptly in 1970 when it amounted to about 115 million pounds (table 1). Imports have supplied an almost steadily increasing share of consumption--rising from 15 percent of total U.S. consumption of stainless-steel wire in 1966 to 29 percent in 1970.

U.S. production and exports

Stainless-steel wire.--The production of stainless steel normally represents about 1.1 percent of the total tonnage of annual steel output in the United States; production of stainless-steel wire represents

about 1.2 percent of total annual wire production and an infinitesimal part of total steel output. Stainless steel does, however, account for a significantly larger proportion of the total value of annual U.S. production of steel.

For the purpose of this investigation, annual production of stainless-steel wire was computed from data on the apparent U.S. consumption of stainless-steel wire rods. It was estimated that about 10 percent of annual consumption of rod was for purposes other than drawing wire; it was also estimated that the normal scrap loss associated with the conversion of rod to wire, and rejects of drawn wire amounted to another 10 percent. Thus, production of stainless-steel wire is less than consumption of wire rods by a little less than 20 percent.

On this basis, annual U.S. production of stainless-steel wire during 1966-69 ranged between 95 million (1967) and 113 million pounds (1968); it was substantially lower in 1970 when it amounted to about 83 million pounds (table 1). The decline in 1970 was not unique for wire as total production of stainless steel declined by 18 percent in 1970 compared with 1969; production of virtually all stainless-steel product categories declined in that year. U.S. production of stainless steel in 1970 was influenced by a number of factors that are difficult to appraise precisely. A relatively expensive metal, demand for it comes under downward pressure in certain uses in a softening economy. Production was also probably limited, at least during the early part of the year, by the world nickel shortage that developed as a result of work stoppage at major nickel producing centers in Canada in the latter half of 1969.

Annual U.S. exports of stainless-steel wire since 1966, while small compared with production and imports, have increased by roughly 100 percent (table 1). Among the principal export markets in recent years are Canada, Ireland, Mexico, the Netherlands, and West Germany.

Stainless-steel springs.--Data on the production of stainless-steel springs are not reported in official statistics. In an attempt to ascertain recent trends, however, the staff undertook to obtain from several U.S. spring manufacturers data on their annual shipments of stainless-steel springs manufactured from wire 0.1875 inch or less in diameter--the size range produced at the North Brunswick plant. The nine concerns selected for this survey were among the principal customers of CarTech and were also believed to be among those U.S. spring producers who, in recent years, have purchased at least some of their stainless-steel wire requirements from foreign sources.

Usable data on shipments of stainless-steel springs made from wire in the size range noted above were forthcoming from four of the nine concerns surveyed. * * * The aggregate value of annual shipments by these four concerns in 1966-70 was as shown below:

Stainless-steel wire springs: Annual shipments by
four U.S. producers, 1966-70

<u>Year</u>	<u>Value of shipments</u>
1966	\$1,810,578
1967	2,052,200
1968	2,135,095
1969	2,174,458
1970	1,778,930

U.S. imports

Stainless-steel wire.--Annual U.S. imports of stainless-steel wire increased almost without interruption during the past several years. Imports of wire in diameter less than 0.060 inch increased in each year from about 5.7 million pounds, valued at \$3.7 million in 1966, to 8.2 million pounds, valued at \$6.5 million in 1970 (table 3). Similarly, imports of stainless-steel wire in diameter 0.060 inch or more increased from 12.6 million pounds, valued at \$5.1 million in 1966, to 25.4 million pounds, valued at \$11.2 million in 1970 (table 4). Aggregate imports in 1970 thus amounted to about 33.6 million pounds, valued at \$17.7 million as shown below:

Stainless-steel wire: U.S. imports for consumption, 1966-70

Year	: Less than 0.060 : inches in diameter	: 0.060 inches or : more in diameter	: Total <u>1/</u>
Quantity (1,000 pounds)			
1966-----	5,733 :	12,582 :	18,314
1967-----	5,919 :	18,119 :	24,038
1968-----	7,165 :	15,583 :	22,748
1969-----	7,220 :	20,691 :	27,911
1970-----	8,201 :	25,384 :	33,585
Value (1,000 dollars)			
1966-----	3,720 :	5,145 :	8,865
1967-----	3,934 :	6,873 :	10,807
1968-----	4,766 :	5,991 :	10,756
1969-----	4,911 :	8,662 :	13,574
1970-----	6,490 :	11,226 :	17,716

1/ Because of rounding, the figures may not add to the totals shown.

Japan is by far the principal supplier of both sizes of stainless-steel wire and in 1970 accounted for 71 percent of the quantity of combined total imports. Sweden is also a substantial supplier of imports and for many decades has enjoyed a reputation of excellent quality stainless steel in all forms.

The imports of stainless-steel wire of less than 0.060 inch in diameter are all within the size range formerly produced at North Brunswick; however, they are not all of the same kind of wire--spring wire--produced there. No data are on hand that would indicate what proportion of imports consist of spring wire. A large part (probably most) of the imported wire 0.060 inch or more in diameter is of a size never produced at North Brunswick; an even larger proportion of this class of imports, compared with imports of the smaller size, is undoubtedly other than spring wire. Despite lack of factual data there is a strong presumption that imports of spring wire probably increased in recent years as did imports of all stainless-steel wire.

The voluntary export restraints entered into by steel producers in Japan and the European Economic Community (EEC), while they may have had some influence on the total tonnage of all grades of steel exported to the United States, in 1969 and 1970, were not effective with respect to stainless steel as a whole or to stainless-steel wire. Since the voluntary restraints have been instituted, foreign producers have upgraded the product mix of their exports to the United States; they have generally shipped a greater proportion of the more expensive, more labor intensive products (such as stainless-steel wire) since the restraints were instituted than before. Had the quotas been effective

with respect to stainless-steel wire, the total quantity of imports in 1969 would have been about 22 percent below imports in 1968 or about 17.7 million pounds; instead, as indicated, imports of stainless-steel wire in 1969 were 27.9 million pounds. Under the voluntary restraints program, imports in 1970 were expected to be about 18.5 million pounds; instead they amounted to 33.6 million.

Stainless-steel springs and other stainless-steel wire products.--

Data on imports of springs made from stainless-steel wire are not reported separately in official statistics. The annual value of imports of all springs of a type classifiable under TSUS item 652.88 (springs other than automotive suspension springs and hairsprings) increased during each recent year from about \$1.2 million in 1966 to \$3.7 million in 1970 or by over 200 percent. It is believed that the great bulk of these imports are of other than stainless steel; nevertheless imports of stainless-steel springs probably increased to some extent.

Annual imports of other identifiable wire products of stainless steel have increased substantially in recent years. The table below indicates the extent to which such imports have increased:

Selected stainless-steel wire products: U.S. imports
for consumption, 1966-70

(In thousands of dollars)

Year	Wire strand	Wire rope	Wire cloth
1966-----	29	238	3,959
1967-----	47	532	4,193
1968-----	53	677	3,866
1969-----	42	496	4,384
1970-----	75	754	5,429

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

Carpenter Technology Corporation

CarTech, with its corporate headquarters located in Reading, Pa., was incorporated in Delaware in 1968 as a wholly owned subsidiary of Carpenter Steel Company, and on November 4, 1968, it merged with its parent company, share-for-share. Previously the parent company was incorporated in New Jersey (November 1, 1904), a successor to a business established in 1889.

The Corporation is presently comprised of three divisions, two subsidiaries, and one affiliate company. The Steel Division has operational plants at Reading, Pa. and Bridgeport, Conn. and produces stainless, tool, alloy, electronic alloy and high temperature alloy steels. (The North Brunswick, N.J. plant, the subject of this investigation, was formerly a unit of the Steel Division.) The Tube Division (Union, N.J.) manufactures pipe and tubing; the Special Products Division (San Diego, Calif.) manufactures special tubing for the aerospace industry.

On August 11, 1969, CarTech acquired the net assets of the Gardner Cryogenics Corp. and transferred the operations of the plants, located in Bethlehem, Pa. and Elkhart, Kan., to a subsidiary of the same name. The main products of the plants are cryogenic hardware and low temperature liquids.

In October 1969 CarTech completed the purchase of Titanium Technology Corp., located in Pomona, Calif. to form its other subsidiary.

The Corporation has also become affiliated, by acquiring one-third interest, with Manguera Flex, S. A. in Mexico. This company is a

producer of flexible tubing, and current plans call for installation of a stainless-steel pipe and tube mill in that plant to supply the Latin American market.

Stainless-steel wire was produced by CarTech at its plants in Reading and North Brunswick until the closure of the latter. The output of the Reading plant * * *; it consists of wire for entirely different markets (i.e., cold-heading, redrawing, and welding) and in diameters usually greater than that drawn at North Brunswick.

North Brunswick, N.J. plant.--The origin of the North Brunswick operation dates back to July 1951, when Carpenter Steel Co. issued 11,450 common shares for the purchase of the Webb Wire Works, located in New Brunswick, N. J. CarTech produced fine-diameter stainless-steel wire at this location until July 1961, when construction of a new plant in North Brunswick, N. J. was completed.

* * * * *

APPENDIX

Table 1.--Stainless-steel wire: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1966-70

(In thousands of pounds)

Year	U.S. production ^{1/}	Imports	Exports	Apparent consumption	Ratio (percent) of imports to consumption
1966-----	107,533	18,314	990	124,857	14.7
1967-----	95,209	24,038	1,476	117,771	20.4
1968-----	112,768	22,748	1,368	134,148	17.0
1969-----	110,036	27,911	1,920	136,027	20.5
1970-----	82,990	33,585	1,856	114,719	29.3

^{1/} Estimated on the basis of apparent consumption of stainless-steel wire rod as shown in table 2 and described on page A-8.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 2.--Stainless-steel wire rods: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1966-70

(In thousands of pounds)

Year	U.S. production	Imports	Exports	Apparent consumption	Ratio (percent) of imports to consumption
1966-----	108,000	25,383	626	132,757	19.1
1967-----	92,000	26,444	902	117,542	22.5
1968-----	110,000	31,858	2,638	139,220	22.9
1969-----	107,400	29,737	1,290	135,847	21.9
1970-----	^{1/} 76,000	27,781	1,324	102,457	27.1

^{1/} Estimated on the basis of shipments in 1970 and the relation of shipments to production in previous years.

Source: Production, American Iron and Steel Institute; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Table 3.--Stainless-steel wire in diameter under 0.060 inch: U.S. imports for consumption, total and by principal sources, 1966-70

Source	1966	1967	1968	1969	1970
	Quantity (1,000 pounds)				
Japan-----	3,111	3,072	4,014	3,393	4,524
Sweden-----	1,675	1,485	1,209	2,029	2,391
Belgium-Luxembourg-----	621	646	809	1,007	737
France-----	23	263	766	464	279
West Germany-----	173	159	157	187	95
Canada-----	77	208	98	61	52
United Kingdom-----	48	58	43	77	55
All other-----	5	28	69	2	68
Total-----	5,733	5,919	7,165	7,220	8,201
	Value (1,000 dollars)				
Japan-----	1,660	1,688	2,364	1,861	2,862
Sweden-----	1,362	1,151	1,041	1,716	2,387
Belgium-Luxembourg-----	387	490	567	710	710
France-----	13	147	398	259	194
West Germany-----	128	134	157	182	119
Canada-----	123	240	157	100	118
United Kingdom-----	41	54	34	67	58
All other-----	6	30	48	16	42
Total-----	3,720	3,934	4,766	4,911	6,490
	Unit value (per pound) ^{1/}				
Japan-----	\$0.534	\$0.549	\$0.589	\$0.549	\$0.633
Sweden-----	.813	.775	.861	.846	.998
Belgium-Luxembourg-----	.624	.759	.701	.705	.963
France-----	.584	.558	.519	.557	.696
West Germany-----	.742	.842	1.002	.973	1.257
Canada-----	1.590	1.155	1.594	1.635	2.288
United Kingdom-----	.868	.930	.782	.870	1.059
All other-----	1.135	1.056	.721	16.846	.612
Average-----	.649	.665	.665	.680	.791

^{1/} Computed on the basis of unrounded figures.

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

Table 4.--Stainless-steel wire in diameter 0.060 inch or more: U.S. imports for consumption, total and by principal sources, 1966-70

Source	1966	1967	1968	1969	1970
	Quantity (1,000 pounds)				
Japan-----	8,898	11,135	7,397	13,994	19,258
Sweden-----	1,460	1,683	2,596	3,247	2,825
France-----	1,789	3,002	2,066	2,110	2,181
United Kingdom-----	132	452	927	875	573
Canada-----	115	298	262	154	137
Belgium-Luxembourg-----	146	661	1,869	175	124
West Germany-----	30	674	426	58	225
All other-----	12	214	40	78	61
Total-----	12,582	18,119	15,583	20,691	25,384
	Value (1,000 dollars)				
Japan-----	3,388	4,273	3,113	5,232	7,658
Sweden-----	1,007	1,068	1,655	2,131	2,154
France-----	528	976	561	761	934
United Kingdom-----	65	115	300	238	185
Canada-----	50	133	115	96	91
Belgium-Luxembourg-----	78	65	130	89	85
West Germany-----	20	148	100	70	85
All other-----	9	95	17	45	34
Total-----	5,145	6,873	5,991	8,662	11,226
	Unit value (per pound) 1/				
Japan-----	\$0.381	\$0.384	\$0.421	\$0.374	\$0.398
Sweden-----	.690	.634	.638	.656	.762
France-----	.295	.325	.272	.360	.428
United Kingdom-----	.492	.255	.324	.272	.323
Canada-----	.432	.445	.438	.624	.665
Belgium-Luxembourg-----	.537	.098	.069	.510	.686
West Germany-----	.681	.220	.235	1.194	.377
All other-----	.771	.443	.410	.591	.553
Total-----	.409	.379	.384	.419	.442

1/ Computed on the basis of unrounded figures.

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

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