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UNITED STATES TARIFF COMMISSION

**OPTICAL ELEMENTS:
WOLLENSAK, INC.
ROCHESTER, N. Y.**

**Report to the President on
Investigation No. TEA-F-30
Under Section 301(c)(1) of the Trade Expansion Act of 1962**



**TC Publication 425
Washington, D. C.
October 1971**

UNITED STATES TARIFF COMMISSION

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Note.--The whole of the Commission's report to the President may not be made public since it contains certain information that would result in the disclosure of the operation of an individual firm. 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,
October 12, 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)(1) of that act in response to a petition filed by Wollensak, Inc., Rochester, N.Y.

A petition for the investigation was filed on August 11, 1971. On August 30, 1971, the U.S. Tariff Commission instituted an investigation (TEA-F-30) to determine whether, as a result in major part of concessions granted under trade agreements, articles like or directly competitive with optical elements, whether mounted or not mounted, and blanks for optical elements (of the kinds described in the Tariff Schedules of the United States (TSUS) under items 708.03, 708.05, 708.07, 708.09, 708.21, 708.23, 708.25, 708.27, and 708.29 and items 540.65 and 540.67) produced by Wollensak, Inc., are being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to that firm.

Public notice of the receipt of the petition and institution of the investigation was published in the Federal Register of September 2, 1971 (36 F.R. 17635). No public hearing was requested and none was held.

The information in this report was obtained chiefly from the petitioner, other domestic producers of optical lenses and elements, current and former customers of the petitioner, and the Commission's files.

Finding of the Commission

On the basis of its investigation, the Commission unanimously finds 1/ that articles like or directly competitive with optical elements, whether mounted or not mounted, and blanks for optical elements (of the kinds described in TSUS items 540.65, 708.03, 708.05, 708.07, 708.09, 708.21, 708.23, 708.25, 708.27, and 708.29) produced by Wollensak, Inc., 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 such firm.

Although the Commission's public notice of this investigation indicated that Wollensak, Inc., produced blanks for optical elements of the kinds described in TSUS item 540.67, the Commission's investigation disclosed that the firm did not produce such articles.

1/ Commissioner Moore did not participate in the decision.

Considerations Supporting the Commission's Finding 1/

This investigation relates to a petition filed on behalf of Wollensak, Inc., for a determination under section 301(c)(1) of the Trade Expansion Act of 1962 of the eligibility of that firm to apply for adjustment assistance.

Our determination is in the negative because the criteria imposed by section 301(c)(1) of the Trade Expansion Act of 1962 have not been satisfied. Before an affirmative determination can be made, each of the following criteria must be met:

- (1) Articles like or directly competitive with those produced by the firm must be imported in increased quantities;
- (2) The increased imports must be a result in major part of concessions granted under trade agreements;
- (3) The firm must be seriously injured or threatened with serious injury; and
- (4) The increased imports resulting from trade-agreement concessions must be the major factor causing or threatening to cause serious injury to the firm in question.

In this instance, it is our view that the fourth criterion is not met, and therefore, a negative determination is necessary.

In considering the fourth criterion, the Commission must give consideration to the fact that the petitioning firm did not exist until January 1969, when the present ownership purchased the Wollensak Division of the Minnesota Mining & Manufacturing Co.

1/ Commissioners Leonard and Young concur in the result.

Wollensak, Inc., as did its predecessor, produces optical elements (except ophthalmic) at facilities in Rochester, N.Y. Before the transfer of ownership in 1969, the Rochester facilities had incurred substantial and increasing operating losses for at least the 3 immediately preceding years. In fact, losses in 1968 were twice as large as in 1967. Moreover, the information available indicates that conditions within the domestic optics industry had changed significantly in the years prior to the purchase of Wollensak in 1969. Changes in the product mix had occurred--from a variety of mass-produced lenses to a more sophisticated and technically advanced product line--resulting in higher per unit costs. Wollensak was particularly affected by this change; mass-produced photographic lenses, which 10 years ago accounted for a major part of the firm's total output, now account for significantly less than a fourth. After the change in ownership and management, sales declined, reflecting the loss of a substantial part of the intracompany transfers which had accounted for about 17 percent of annual sales in 1966-68. In January 1970, Wollensak purchased the Electronics and Optics Groups of the Polan Industries Division of the Republic Corp. The Polan Division, which is engaged in contract work for the Government, and which does not produce the same types of articles as made by the Rochester Division, was profitable prior to its acquisition, but incurred a substantial loss in 1970. By December 31, 1970, indebtedness of Wollensak, Inc., including the Polan Division, had reached an amount nearly equal to the total value of assets. Interest

expense in 1970 alone was in excess of 10 percent of sales in that year. Subsequent to December 31, 1970, approximately 40 percent of Wollensak's long-term debt was reduced by issuance of preferred stock to creditors.

In acquiring Wollensak in January 1969, the present ownership was no doubt aware of the situation existing within the Wollensak Division and the optics industry in general, including the competitive aspects of imports. In 1966, imports supplied 34 percent of the domestic market for lenses (except ophthalmic), and in 1967 and 1968 supplied an even larger share--37 and 39 percent, respectively. The share of the market supplied by imports in 1969 (38 percent) was less than in 1968. Moreover, it should be noted that, although the staged reductions in the rates of duty imposed pursuant to the concessions granted during the Kennedy Round of trade negotiations did not become effective until January 1968, the extent of the concessions was announced in 1967. Clearly, the significance of imports in the U. S. market and the possible effect of the new rates of duty were manifest prior to January 1969, when Wollensak, Inc. came into existence.

The quantity of those lenses discussed in the report rose from 8.5 million in 1968, to 9.9 million in 1969 (the year Wollensak, Inc. was established), an increase of 1.4 million. The quantity of imports then decreased to 8.7 million in 1970 and to an annual rate of 8.2 million during the first 6 months of 1971. Thus, lenses, which account for the great bulk of Wollensak's output, have not been imported in increased quantities since 1969. There has, however, been a marked increase in the total value of imports in recent years, reflecting a rise in prices but, more importantly, a change in product mix.

In the light of the evidence available to the Commission, we have concluded that increased imports are not the major factor causing or threatening to cause serious injury to Wollensak, Inc., within the meaning of the Trade Expansion Act.

INFORMATION OBTAINED IN THE INVESTIGATION

Description of the Articles Under Investigation

The articles which are the subject of the Wollensak petition are mounted and unmounted optical elements composed of optically worked glass to be used in various kinds of instruments and apparatus. The major types of optical elements produced by Wollensak's Rochester Division are lenses (except ophthalmic) and lens systems; types of lesser importance are prisms, mirrors, optical flats, diffraction apparatus, and nonspectacle lens blanks.

Optical lenses (except ophthalmic), are made from precise specifications as to chemical composition and freedom from physical defects, depending on end use. Such lenses are primarily used for three purposes: (1) To concentrate light into beams of various configurations as in a searchlight or headlight; (2) to project an image onto a sensitized plate (photographic) or a screen (projection); and (3) to magnify or diminish the size of an image as in a microscope or telescope. For each of these purposes, lenses are produced in a wide range of sizes, shapes, and qualities, depending on the kind of instrument or apparatus for which they are designed. Some types of lenses, however, can be used for more than one application, even without any modification.

Prisms are generally used for forming spectra (a series of radiant energies arranged in order of wave lengths) or for reflecting rays through right angles as in binoculars, periscopes, and rangefinders. Optical mirrors, which are made of optically correct glass coated in silver or other metallic material, are usually incorporated in telescopes, projectors, microscopes, and medical, dental or surgical

instruments.

Optical flats are used for checking the flatness of a surface; diffraction gratings are utilized in the study of spectra and in interference filters used as color filters or for splitting a beam of light.

The glass blanks for optical elements produced by Wollensak, Inc., are of kinds described in item 540.65 of the Tariff Schedules of the United States Annotated (TSUSA), * * * and the optical elements produced by that firm are of kinds described in TSUSA items 708.03, 708.05, 708.07, 708.09, 708.21, 708.23, 708.25, 708.27, and 708.29. Information obtained from Wollensak indicates that nearly 100 percent of the shipments (in terms of value) by its Rochester Division in recent years consisted of articles of kinds described under the 10 aforementioned items combined. * * * Imports in 1970 under these three items accounted for 97 percent of the total value of the imports under the 11 items (including item 540.67) combined.

In view of the importance of lenses and lens systems both in Wollensak's sales and in imports, the remainder of this report relates principally to such articles.

U.S. Tariff Treatment

Blanks for optical elements of the kinds produced by Wollensak, Inc., are currently dutiable under TSUS item 540.65 at 24 percent ad valorem. This rate became effective January 1, 1971, and reflects the fourth stage of the five-stage concession granted by the United States in the sixth (Kennedy) round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). The fifth- and final-stage reduction to 20 percent is to become effective on January 1, 1972 (table 1). The pre-Kennedy-Round rate of 40 percent was the same as the original (1930) statutory rate which had been bound against increase pursuant to a GATT trade-agreement concession effective July 1, 1962.

Optical elements of the kinds produced by Wollensak, Inc., are currently dutiable under one of the TSUS items 708.03, 708.05, 708.07, 708.09, 708.21, 708.23, 708.25, 708.27, and 708.29 at rates ranging from 15 percent (item 708.23) to 25 percent ad valorem (items 708.09 and 708.29), as shown in table 1. These rates also became effective on January 1, 1971, and reflect the fourth stage of the five-stage Kennedy Round concessions. The pre-Kennedy-Round rates on these nine items which ranged from 25 percent to 42.5 percent ad valorem, reflected trade-agreement concessions that had been granted before August 31, 1963, the effective date of the TSUS.

However, for all of these items except item 708.21, the specified rate(s) originally established in the TSUS, represented estimated weighted averages of the several trade-agreement rates that had previously been applicable to the various articles covered in each item.

For item 708.23 (mounted lenses except projection), which accounts for the great bulk of the total imports considered in this investigation (see section on imports), the rate established--25 percent--not only represented the estimated weighted average of the applicable rates but also was the same as the rate on mounted photographic lenses (the principal articles covered) that became effective in January 1948 pursuant to a GATT concession. For item 708.21 (projection lenses), the rate established in the TSUS--35 percent--was the same as the GATT concession rate that became effective in June 1951. For item 708.03 (unmounted lenses), the rate established in the TSUS--28 percent--was the estimated weighted average of trade-agreement rates that ranged from 25 percent to 50 percent ad valorem.

The preceding discussion on tariff rates in the TSUS relates to the column 1 rates, which are applicable to products of all countries except those designated as Communist in general headnote 3(e) to the TSUS. Imports from Communist countries of the kinds of products here under investigation, which have been virtually nil in recent years, are dutiable at column 2 rates ranging from 40 percent to 85 percent ad valorem, as indicated in table 1. In the original schedules of the Tariff Act of 1930, the statutory rates for the kinds of articles considered here also ranged from 40 to 85 percent.

Pursuant to Presidential Proclamation No. 4074, effective August 16, 1971, the column 1 rates of duty on most imported products were increased by the temporary imposition of an additional duty of 10 percent ad valorem or less, as provided for in new subpart C to part 2 of the appendix to the TSUS. On the imports under the 10 TSUS

items considered in this report, the new rates (i.e., the 1971 rates shown in table 1 plus the additional rate) are 10 percentage points higher than the 1971 rates, thus ranging from 25 percent for the imports under item 708.23 to 35 percent for the imports under items 708.09 and 708.29. Goods exported to the United States before August 16, 1971, are exempt from the additional duty, but any such goods entered for warehouse or entered into a foreign-trade zone will be subject to the additional duty unless they are withdrawn for consumption on or before October 1, 1971.

Shipments by U.S. Producers

The Current Industrial Reports published by the Bureau of the Census indicate that there are approximately 25 companies that are engaged in the production of lenses (except ophthalmic) and have shipments (sales) of at least \$100,000 annually. Trade sources tend to substantiate this information. Shipments of such lenses, components, and parts by these firms have increased somewhat irregularly from about \$42 million in 1966 to almost \$52 million in 1969, the latest year for which published data are available (table 2). Preliminary data for 1970 indicate that shipments ranged between \$45 million and \$50 million in that year.

Three or four of the 25 companies are much larger firms than Wollensak, but for each of them * * * **such products** account for only a small portion of total output. The bulk of the domestic production comes from plants located in New York, Pennsylvania, and Massachusetts.

Exports of photographic and projection lenses (the only kinds for which separate official statistics are available) were valued at \$2.2 million in 1966, declined to \$2.0 million in 1967, and then increased without interruption to \$2.8 million in 1970. Exports are shipped all over the world, principally to Canada, the United Kingdom, and Mexico.

U.S. Consumption

Comparable data on U.S. production and foreign trade are not available for estimating the apparent annual U.S. consumption of the kinds of optical elements produced by Wollensak, Inc. In the period 1966-69, the estimated value of apparent annual consumption of lenses (except ophthalmic) increased from about \$61 million in 1966 to nearly \$80 million in 1969, with only a slight downturn in 1967. Preliminary data indicate that apparent consumption declined to about \$79 million in 1970.

Several factors have contributed to the growth in recent years of the U.S. market for the lenses and other optical articles considered here. First, the growing complexity of advanced scientific and technological development has created a need for increasingly precise analytical and control instruments in industrial uses as well as a growing demand for office-type copy machines. Second, education in the field of natural science, was given high priority by the Federal Government, creating heavy demand for instruments utilizing lenses and other optical elements. Third, the use of computers to simulate the testing of new lens systems mathematically has cut costs and helped in designing optical devices too complex to be built by trial and error. And fourth, consumers have been spending part of their increased disposable income on optical goods for use in their leisure-time activities.

The role of imports in the rising U.S. market for lenses and other optical elements has also increased significantly in recent years. The reported (foreign) value of imports of lenses increased by

64 percent from 1966 to 1970. Simultaneously, the share of apparent U.S. consumption supplied by imports rose from 34 percent to 43 percent.

U.S. Imports

Trend

Because of changes in the classification of optical lenses (except ophthalmic) in U.S. import statistics after August 1963, data are not available to show the trend of imports before 1964 except for photographic lenses, which were probably the principal kind imported prior to 1964 as they have been in more recent years. From 1946 to 1962, U.S. imports of photographic lenses increased manyfold in terms of both quantity and value, as shown in the following table.

Photographic lenses: U.S. imports for consumption, 5-year averages 1946-60, annual 1961 and 1962

Period	Quantity	Value
	<u>1,000</u>	<u>1,000</u>
	<u>units</u>	<u>dollars</u>
5-year average:		
1946-50-----	28	413
1951-55-----	179	2,206
1956-60-----	473	4,600
Annual:		
1961-----	458	5,139
1962-----	406	5,242

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

During the period covered in the foregoing table, there was only one change in the import duty. Prior to 1948, because of a trade-agreement concession that became effective in 1939, imports of photographic lenses valued at \$5 or more each were dutiable at 30 percent

ad valorem, whereas imports of cheaper lenses were still dutiable at the statutory rate of 45 percent ad valorem. In 1948 all imports of photographic lenses, regardless of unit value, became dutiable at 25 percent ad valorem pursuant to a concession granted under the GATT.

U.S. imports of photographic lenses, as well as of the other kinds of lenses here under review, continued to increase sharply after 1963, as shown in table 3. From 1964 to 1967, a period when there were no changes in the rates of duty, the total value of imports here considered (both unmounted and mounted optical lenses of all kinds except ophthalmic) nearly doubled, rising from \$11.2 million in 1964 to \$22.0 million in 1967. In the same period, imports under each of the four statistical classifications also increased sharply in terms of quantity. In the period 1968-70, when there were annual reductions in the rate of duty as a result of concessions granted in the Kennedy Round, the value of annual imports of all lenses increased to \$34.1 million, or 55 percent above the value of the 1967 imports. In terms of quantity, imports under each of the statistical classifications increased significantly from 1967 to 1969, but were smaller in 1970 than in 1969, primarily reflecting a change in the product mix, which is discussed below.

Supplying countries and product mix

Until 1950 the United Kingdom and Germany were the leading suppliers of U.S. imports of photographic lenses. The reported value of annual imports was approximately the same during the late 1940's as in the years immediately preceding World War II. In 1939, as in 1946

and 1947, imports of the higher valued lenses were somewhat greater in quantity and several times greater in value than those of the lower value bracket. In those years, the imported lenses were largely special~~ties~~ for use in cameras.

In 1950, Japan became ~~the~~ leading source of imports (in terms of quantity), supplying 47 percent of the units and 20 percent of the value. Since then Japan has been the leading supplier in terms of both quantity and value during most years. By 1968 Japan supplied 87 percent of the total units and 67 percent of the total value of the lenses considered here (table 4). In 1970, Japan's share of total imports was 69 percent of both quantity and value (table 5).

Detailed information on the product mix of imports since 1950 is fragmentary. The available information indicates that most of the imported photographic lenses are specifically designed for use with imported cameras, which have supplied the great bulk of the U.S. market for cameras of most types in recent years. For example, virtually all the 35 mm cameras sold in the United States today are imported. The photographic lenses imported from European countries (principally West Germany, France, and Switzerland) are generally much higher priced than the imports from Japan. Information from the trade indicates that the imports from West Germany include sophisticated lenses and other optical elements for use in systems manufactured under Government contracts.

Imports from Japan of lenses other than photographic are usually used in the manufacture of slide viewers, opera and field glasses, and similar articles, whereas most of the imports of such lenses from West Germany are used as replacement lenses in imported instruments or are made of a kind of glass not usually produced in the United States. Since 1968 there has been a noticeable upgrading of the imports from Japan. The Japanese industry is reported to have diversified, and significant quantities of lenses for copy use and other individual uses are being shipped to the United States.

The average unit value of imports of photographic lenses increased from \$5.89 in 1968 to \$9.56 in 1970, and the average unit value of imports of other lenses (except projection) increased from \$5.42 to \$10.23 (tables 4 and 5).

Data Relating to Wollensak, Inc.

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APPENDIX A
STATISTICAL APPENDIX



Table 1.--U.S. rates of duty applicable to optical elements of the kinds produced by Wollensak, Inc., Aug. 31, 1963-
Dec. 31, 1967, and fourth and final stages of Kennedy Round concessions

TSUS item No.	Description	(Percent ad valorem)			
		Rate of duty 1/			
		Column 1 rate	Kennedy Round	Column 2 rate	Column 2 rate
		Aug. 31, 1963- Dec. 31, 1967	Fourth stage (effective Jan. 1- Dec. 31, 1971 2/)	Final stage (effective Jan. 1, 1972)	
	Lenses, prisms, mirrors, and other optical elements (except ophthalmic lenses):				
	Not mounted:				
708.03	Lenses-----	28	16.5	14	40
708.05	Prisms-----	40	24.0	20	65
708.07	Mirrors-----	40	24.0	20	45
708.09	Other-----	42.5	25.0	21	85
	Mounted:				
	Lenses:				
708.21	Projection-----		21.0	17.5	45
708.23	Other-----	35	15.0	12.5	45
708.25	Prisms-----	40	24.0	20.0	65
708.27	Mirrors-----	40	24.0	20.0	45
708.29	Other-----	42.5	25.0	21.0	65
540.65	Lens blanks (except spectacle) of optical glass-----	40	24.0	20.0	40

1/ The column 1 rates are applicable to the products of all countries except the countries designated as Communist in General Headnote 3(e) of the TSUS. Products of Communist countries are dutiable at the column 2 rates; imports of optical elements from Communist countries have been negligible in recent years. Philippine products are subject to the column 1 rates or to fractional parts thereof, as provided in General Headnote 3(c) (in 1971 such rates were equivalent to 80 per cent of the column 1 rates); U.S. imports of Philippine optical elements have been negligible in recent years.

2/ Pursuant to Presidential Proclamation No. 4074, effective Aug. 16, 1971, the rates of duty on most imported products were increased by the temporary imposition of an additional duty of 10 percent ad valorem or less, as provided for in new subpt. C to pt. 2 of the appendix to the TSUS. On the imports under the TSUS items considered here, the new rates (i.e., the 1971 rates plus the additional rate) are 10 percentage points higher than the 1971 rates. Goods exported to the United States before Aug. 16, 1971, are exempt from the additional duty, but any such goods entered for warehouse or entered into a foreign trade zone will be subject to the additional duty unless they are withdrawn for consumption on or before Oct. 1, 1971.

Table 2.--Optical lenses (except ophthalmic): U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, 1966-70

Year	Shipments	Imports	Exports	Apparent consumption	Ratio of imports to consumption
	<u>1,000 dollars</u>	<u>1,000 dollars</u>	<u>1,000 dollars</u>	<u>1,000 dollars</u>	<u>Percent</u>
1966-----	42,014	20,728	2,211	60,531	34
1967-----	39,096	21,992	1,981	59,107	37
1968-----	42,931	26,142	2,171	66,902	39
1969-----	51,907	30,503	2,696	79,714	38
1970-----	<u>1/</u> 47,500	34,105	2,835	78,770	43

1/ Data on shipments relate to Standard Industrial Classification product code 38311 98; data on imports, to TSUSA items 708.03, 708.21, and 708.23; data on exports, to Schedule B number 861.1210.

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

Note.--The dollar value of imports shown in this table is generally the market value in the foreign country and therefore excludes U.S. import duties, freight, transportation insurance, and other charges incidental to duty-paid delivery at the U.S. port of entry. If these charges were added to the value of imports, the ratio of imports to consumption would be somewhat larger than shown above.

Table 3.--Optical lenses (except ophthalmic): U.S. imports, 1964-70 and January-June 1971

Period	Lenses, mounted												Total value, all mounted lenses dollars	
	Lenses, unmounted (708.03)						Lenses, mounted							
	Tariff rate	Quantity	Value	Tariff rate	Quantity	Value	Tariff rate	Quantity	Value	Tariff rate	Quantity	Value		
Percent ad valorem	<u>1,000</u> units	<u>1,000</u> dollars	Percent ad valorem	<u>1,000</u> units	<u>1,000</u> dollars	Percent ad valorem	<u>1,000</u> units	<u>1,000</u> dollars	Percent ad valorem	<u>1,000</u> units	<u>1,000</u> dollars	Percent ad valorem	<u>1,000</u> units	<u>1,000</u> dollars
1964-----	1/ 28	2,815	907	2/ 35	649	1,046	1/ 25	617	7,151	143	2,047	10,244		
1965-----	28	4,476	1,642	35	1,178	1,902	25	879	8,766	340	3,597	14,265		
1966-----	28	5,034	2,103	35	1,124	2,461	25	1,171	11,783	414	4,380	18,624		
1967-----	28	4,271	2,595	35	1,087	2,285	25	1,164	11,968	573	5,143	19,396		
1968-----	25	4,845	2,390	31	1,070	2,655	22	1,787	14,400	809	6,697	23,752		
1969-----	22	5,817	2,653	28	1,606	3,457	20	1,936	16,751	632	7,642	27,850		
1970-----	19.5	5,199	2,317	24	1,334	3,566	17	1,645	20,175	560	8,047	31,788		
1971 (Jan.- June)-----	16.5	2,559	1,221	21	587	1,473	15	697	11,218	164	3,204	15,895		

1/ Rate effective Aug. 31, 1963, pursuant to the Tariff Classification Act of 1962 (Public Law 87-456); it represents the estimated weighted average of the several trade-agreement rates that had previously been applicable to the various articles covered in the TSUSA item.

2/ Trade-agreement rate effective June 6, 1951, when the statutory rate of 45 percent ad valorem was reduced.

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

Table 4.--Optical lenses (except ophthalmic): U.S. imports for consumption, by principal sources and by types, 1968

Source	Mounted			Un-	Total
	Pro- jection	Photo- graphic	Other optical	(Other optical)	
Quantity (1,000 units)					
Japan-----	1,013	1,631	682	4,088	7,414
West Germany-----	51	137	70	165	423
France-----	<u>1</u>	5	4	88	97
Switzerland-----	1	4	13	1	19
United Kingdom-----	2	1	11	445	459
All other-----	3	9	29	58	99
Total-----	1,070	1,787	809	4,845	8,511
Value (1,000 dollars)					
Japan-----	2,428	9,613	3,695	1,890	17,626
West Germany-----	147	3,297	1,485	207	5,136
France-----	11	566	592	190	1,359
Switzerland-----	35	247	266	8	556
United Kingdom-----	15	138	321	64	538
All other-----	19	539	338	31	927
Total-----	2,655	14,400	6,697	2,390	26,142
Unit value (each)					
Japan-----	\$2.40	\$5.89	\$5.42	\$0.46	\$2.38
West Germany-----	2.88	24.07	21.21	1.26	12.14
France-----	-	113.20	14.80	2.16	14.01
Switzerland-----	-	61.75	20.46	8.00	29.26
United Kingdom-----	-	138.00	29.18	.14	1.17
All other-----	6.33	59.89	11.66	.53	9.36
Total-----	2.48	8.06	8.28	.49	3.07

1/ Less than 500 units.

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

Table 5.--Optical lenses (except ophthalmic): U.S. imports for consumption, by principal sources and by types, 1970

Source	Mounted			Unmounted (other optical)	Total
	Projection	Photographic	Other optical		
Quantity (1,000 units)					
Japan-----	1,296	1,486	416	2,841	6,039
West Germany----	4	130	61	144	339
France-----	<u>1/</u>	4	3	186	193
Switzerland-----	1	3	12	5	21
United Kingdom--	31	6	15	1,937	1,989
All other-----	2	16	53	86	157
Total-----	1,334	1,645	560	5,199	8,738
Value (1,000 dollars)					
Japan-----	3,227	14,199	4,257	1,681	23,364
West Germany----	198	4,245	2,206	144	6,793
France-----	24	523	470	225	1,242
Switzerland-----	57	331	288	38	714
United Kingdom--	45	170	363	62	638
All other-----	17	707	463	167	1,354
Total-----	3,566	20,175	8,047	2,317	34,105
Unit value (each)					
Japan-----	\$2.49	\$9.56	\$10.23	\$0.59	\$3.87
West Germany----	49.50	32.65	36.16	1.00	20.04
France-----	-	130.75	156.67	1.21	6.44
Switzerland-----	57.00	110.33	24.00	7.60	34.00
United Kingdom--	1.39	28.33	24.20	.03	.32
All other-----	8.50	44.19	8.74	1.94	8.62
Average-----	2.67	12.26	14.37	.45	3.90

1/ Less than 500 units.

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



