UNITED STATES TARIFF COMMISSION

SPHYGMOMANOMETERS

Report to the President
on Investigation No. 337-26
Under the Provisions of Section 337 of Title III
of the Tariff Act of 1930, as Amended

TC Publication 468
Washington, D. C.
March 1972

UNITED STATES TARIFF COMMISSION

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UNITED STATES TARIFF COMMISSION
Washington, D.C.

March 15, 1972

In the matter of an investigation) with regard to the importation and) domestic sale of certain sphygmo-) manometers)	Docket No. 26 Section 337 Tariff Act of 1930, as amended

Introduction

On March 18, 1970, the W. A. Baum Co., Inc., of Copiague, N.Y., hereinafter referred to as complainant, filed a complaint with the U.S. Tariff Commission requesting relief under section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), alleging unfair methods of competition and unfair acts in the importation and sale of certain sphygmomanometers (blood pressure apparatus). Complainant alleges that its U.S. Patent No. Des. 203,491 covers certain wall-mounted sphygmomanometers, and that the importation and sale of such sphygmomanometers by Propper Manufacturing Co. of Long Island City, N.Y., hereinafter referred to as respondent, has the effect or tendency to destroy or substantially injure an efficiently and economically operated industry in the United States.

Notice of receipt of the complaint and initiation of the preliminary inquiry was published in the Federal Register (35 F.R. 5641) on April 7, 1970. Interested parties were given until June 1, 1970, to file written views pertinent to the subject matter. Upon written request of the respondent, the Commission extended the time for filing written views until June 8, 1970. Respondent filed a preliminary inquiry response and a motion to dismiss the complaint on that date.

Having conducted a preliminary inquiry with respect to the matters alleged in the said complaint in accordance with section 203.3 of the Commission's Rules of Practice and Procedure (19 CFR 203.3), the U.S. Tariff Commission, on December 7, 1970, ordered a full investigation and scheduled a hearing on the matter for February 2, 1971. No temporary exclusion order was recommended. Notice of the investigation and of the date of the hearing was given in the Federal Register (35 F.R. 18939) on December 12, 1970.

On January 20, 1971, respondent filed a motion to dismiss the proceeding. The Commission denied this motion on January 22, 1971, and the interested parties were notified of this decision.

The scheduled hearing was held on February 2, 1971, and resumed and closed on July 27, 1971. Both the complainant and the respondent made appearances of record at these hearings. Notice of resumption of the hearing was published in the Federal Register (36 F.R. 13071) on July 13, 1971. Respondent filed a supplemental statement on June 18, 1971, and a final brief on August 20, 1971. Counsel for complainant submitted a final brief on August 19, 1971. Copies of the complaint, the notice of investigation and date of hearing, and the notice of resumption of hearing were served upon all known interested parties.

On January 25, 1972, the Commission released its report 1/ containing its finding; notice thereof was published in the Federal Register on January 28, 1972 (37 F.R. 1429). A copy of the Commission's finding was sent to the complainant and respondent.

On February 14, 1972, the Commission received a motion for rehearing filed by attorneys for the complainant. On March 8, 1972, the Commission denied this request because no new evidence had been presented on matters relevant to the finding of no injury under the statute.

Finding of the Commission 1/

The Commission finds no violation of section 337(a) of the Tariff Act of 1930 by unfair methods of competition and unfair acts in the importation and sale of certain sphygmomanometers, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States.

1/ Chairman Bedell and Vice Chairman Parker did not participate in the decision.

Statement of the Commission

On March 18, 1970, W. A. Baum Co., Inc., of Copiague, New York, filed a complaint with the United States Tariff Commission under section 337 of the Tariff Act of 1930, asking that the Commission recommend to the President that certain sphygmomanometers (blood pressure apparatus) be permanently barred from entry into the United States.

The relevant facts are as follows. In January 1966, Baum obtained U.S. Patent No. Des. 203,491 covering an ornamental design for wall-mounted sphygmomanometers. This patent, which expires on January 10, 1980, has never been licensed. In October 1969, Propper Manufacturing Company of Long Island City, New York, began importing wall-mounted sphygmomanometers which were similar to those made in accordance with the design patent.

The Statute

Section 337 of the Tariff Act of 1930 declares unlawful unfair methods of competition and unfair acts in the importation of articles into the United States, or in their sale by the owner, importer, consignee, or agent of either, the effect or tendency of which is (a) to destroy or substantially injure an efficiently and economically operated domestic industry, or (b) to prevent the establishment of such an industry, or (c) to restrain or monopolize trade and commerce in the United States. 1/ In the instant investigation, we find section 337 does not apply.

1/ The effect or tendency of unfair practices to prevent the establishment of an efficiently and economically operated domestic industry or

Effect or Tendency to Injure

First to be considered in an attempt to apply section 337 to a factual situation is whether there is the requisite unfair method of competition or an unfair act. In the past, the Commission has consistently held (and has been sustained upon court review) that the unauthorized importation of articles or sale of such articles made in accordance with a valid U.S. patent is an unfair method of competition or unfair act within the meaning of section 337. 1/

It is not clear that the imported sphygmomanometers were made in accordance with the claim of the patent, but even assuming that they were, the second requirement of the statute--that the effect or tendency of the unfair methods of competition and unfair acts is to destroy or substantially injure an efficiently and economically operated domestic industry--is not satisfied. The evidence adduced at the hearings, through submissions of the parties, and upon independent investigation by the Commission does not indicate that the importation of wall-mounted sphygmomanometers has had the effect or tendency to destroy or substantially injure an efficiently and economically operated domestic industry. It is, therefore, unnecessary to determine whether the imported wall-mounted sphygmomanometers are made in accordance with the claims of the patent.

1/ See In re Von Clemm, 43 C.C.P.A. (Customs) 56, 299 F.2d 441, 443 (1955); In re Orion Co., 22 C.C.P.A. (Customs) 149, 71 F.2d 458, 465 (1934); and In re Northern Pigment Co., 22 C.C.P.A. (Customs) 166, 71 F.2d 447, 455 (1934). See also Frischer & Co. v. Bakelite Corp., 17

In this case the domestic industry consists of the facilities of Baum, devoted to the production of the sphygmomanometers of the type in question. Baum is the only domestic producer under this design patent. The patent has never been licensed and Baum has accounted for virtually all of the sales in the United States of the patented type sphygmomanometers. Sales of sphygmomanometers by the domestic industry increased in each of the years, 1968 and 1969, over the prior year. Competing imports first began in 1969. Although sales have fallen off slightly in 1970, the evidence shows the domestic industry to have been healthy during the entire period from the inception of import competition to the present.

Testimony at the public hearings on February 2, 1971, revealed that Propper had imported a total of not more than 800 units in the years 1969 and 1970. No evidence was discovered indicating there were imports of sphygmomanometers of the type under investigation prior to 1969. This number of imports is miniscule compared to the tens of thousands of wall-mounted sphygmomanometers produced under the patent by the domestic manufacturer during the same years. There is no indication that imports will increase significantly in the future. There does not seem to be any causal relationship between the small volume of imports and the slight business decline that the domestic industry may have suffered in 1970.

The investigation reveals that the domestic industry has experienced an increase in profitability in relation to its net sales in virtually every year since 1966.

Conclusion

In summary, all the evidence shows the domestic industry to have been highly profitable, productive and healthy when imports allegedly made under the instant patent entered the country. We do not believe that imports of wall-mounted sphygmomanometers during the period in question have had the effect or tendency to destroy or substantially injure an efficiently and economically operated domestic industry. Therefore, since all of the requirements of section 337 have not been satisfied, the Commission does not recommend that the President issue an exclusion order.

Alleged Unfair Methods of Competition and Unfair Acts

The importation and sale of sphygmomanometers which are made in accordance with the claim of U.S. Patent No. Des. 203,491, owned by the complainant, are the unfair methods of competition and unfair acts alleged in the instant case. This design patent was issued January 11, 1966, under 35 U.S.C. 171, for a period of 14 years; 1/ it expires in January 1980. The patent has never been licensed.

It is the respondent's position that the sphygmomanometers exemplified by the Commission hearing exhibits No. 6, No. 11, No. 24, No. 25, and No. 26, which respondent has imported, do not infringe complainant's design patent. A copy of the patent is attached as an appendix. It will be noted that the patent has a single claim.

Complainant instituted a patent infringement action against respondent in the U.S. District Court for the Eastern District of New York on February 11, 1970. In its answer in the district court, respondent denied that it had infringed said patent and alleged that the patent was invalid and void primarily because of prior art in the field. Trial has been completed and post-trial briefs were due on December 15, 1971.

1/ 35 U.S.C. 173 provides: "Patents for designs may be granted for the term of three years and six months, or for seven years, or for fourteen years, as the applicant, in his application, elects."

The Issue of Patent Violation

To interpret the single claim of design patent--"The ornamental design for a wall-mounted sphygmomanometer, as shown and described"--it is necessary to refer to the drawings of the patented article. The one claim together with the drawings is typical of all design patents.

By reference to the copy of the design patent in the appendix, it will be seen that the design for the wall-mounted sphygmomanometer illustrated in the patent is characterized by a sheath element having a uniformly constant parabolic cross section and contour throughout its entire length (figs. 1,4,5). This permits the sheath element to be swivel mounted at its ends (figs. 4,5) for rotation through a wide arc about a vertical axis thereof adjacent to the apex of the curved portion of the sheath element (figs. 2,4,5).

Specifically, complainant asserts that the distinctive features of the design of the patent comprise the following:

(a) A sheath element having a uniformly constant parabolic cross section and contour throughout its entire length with a scale bearing numerals and a recessed calibrated tube arranged and supported at the front of the sheath element (figs. 1,4.5).

(b) A wall-mounting bracket upon which the said sheath element is swivel-mounted for rotation thereof through a wide arc about an axis of the element adjacent the apex of the curved portion at the rear thereof (figs. 2,3,4,5).

(c) An extension hose inflation tube connected at the lower end of the element serves to rotate the sheath element on its swivel mounting toward the operator in response to pull on the hose inflation tube, thus providing easy visibility of the scale numerals and the calibrations on the tube (figs. 1,2,5).

It is complainant's position that respondent's wall-mounted sphygmomanometer units (exhibits No. 6, No. 11, No. 24, No. 25, and No. 26) 1/ infringe its design patent because each of the distinctive features set forth previously is present in the accused sphygmomanometers imported by respondent.

Respondent asserts that the models it offered as exhibits at the hearing do not incorporate the ornamental features of Baum's design patent, and therefore do not infringe the patent. It is respondent's position that--

> the only ornamental feature not previously known in the prior art is the rib and groove pattern on the sides of the sheath, as best seen in fig. 2 of Baum's design patent. *** With a different pattern as embodied in Propper's Exhibit No. 6 sphygmomanometer and with the complete elimination of a pattern as embodied in Propper's Exhibit No. 11 sphygmomanometer, it is submitted that the Commission must find that neither of the Propper sphygmomanometers has infringed Baum's design patent.

1/ Models Nos. 24, 25, and 26 were introduced during the resumed hearing on July 27, 1971. Complainant held these models to be infringing in its final brief submitted to the Commission on August 19, 1971.

Description and Use of Sphygmomanometers

Types of sphygmomanometers

A sphygmomanometer (herein referred to as "sfig") is a system of functionally interrelated components used to measure blood pressure. A sfig consists of (1) an inflatable compression bag, enclosed within an inextensible cuff, for application of pressure to an artery, (2) an instrument (manometer) to measure and indicate the applied pressure, (3) an inflation bulb to create pressure in the bag, and (4) an adjustable valve by which deflation of the bag can be controlled at any desired rate.

The basic types of sfigs are mercurial-gravity, aneroid, and electronic. A mercurial-gravity sfig employs a straight glass tube attached to a reservoir containing mercury. The reservoir is connected with the compression cuff by a rubber tube. When pressure is exerted on the mercury in the reservoir, it falls, and the mercury in the glass tube rises. Since the weight of the mercury is dependent upon gravity, a given amount of pressure will always support a column of mercury of the same height in the straight tube of uniform diameter.

The aneroid sfig employs a metal bellows, the inside of which is connected to the compression cuff. Variations of pressure within the system cause the bellows to expand and contract. Movement of the bellows rotates a gear that turns a needle across a calibrated dial.

The major advantages and disadvantages of mercurial-gravity and aneroid sfigs are as follows:

Type	Advantages	Disadvantages
Mercurial-gravity	Optimum accuracy Permanent accuracy Easily replaceable parts	Relatively bulky Breakable glass parts Must be kept in vertical position while in use
Aneroid	Readily portable	Requires frequent calibration Must be returned to factory for repairs.

Electronic sfigs are of recent origin and are highly sophisticated. Most are custom made and utilized in the research field. Some are used as a component of large patient monitoring devices of the console type (measuring heart beat, pulse, blood pressure, respiration, and so forth) in intensive care units of hospitals. The advantage of the electronic sfig over the conventional mercurial or aneroid model is that it makes a permanent record of the blood pressure reading by printing data on a paper tape. Its disadvantage is its price--about $1,500, compared with less than $60 for a complete mercurial or aneroid unit.

Article under investigation

The imported article under investigation is a mercurial swivel-type wall-mounted sfig (SWS). It is designed to be mounted on a wall (behind a patient's bed in a hospital and in an examining or recovery room) t

means of a bracket. The manometer portion of the instrument is contained in a metal sheath whose cross section would form a parabola were it not for its top being a very short straight line. The sfig can be swiveled in a wide arc for easy visibility and convenience of the user. One model of the imported instruments has ribs running at varied intervals the full vertical length of the sheath; others have no ribs. In the middle of the gap between the two ends of the sheath of the models accused of infringement, there is a glass tube somewhat recessed, containing the mercury column; adjacent to it are bright metal plates on which calibrations from 0 to 300 millimeters appear. At the bottom of the manometer there projects a metal tube to which the coiled rubber tubing that connects it with the cuff is attachable. Above the metal tube and below the calibrated portion of the instrument a plate showing the importer's name is attached.

The instrument produced domestically by W. A. Baum Co. has a sheath that is fully parabolic, and vertical uniformly-spaced ribs cover the sheath fully from end to end. The plate at the bottom of the manometer shows Baum's trade name for the instrument.

U.S. Imports

U.S. imports of sfigs are dutiable under item 709.11 of the Tariff Schedules of the United States at a current rate of duty of 6 percent ad valorem. This rate is scheduled to be reduced to a final-stage rate of 4.5 percent ad valorem on January 1, 1972, as a result of concessions granted in the Kennedy Round of trade negotiations.

Data on U.S. imports of sfigs are reported under item 709.1100 of the Tariff Schedules of the United States Annotated, in conjunction with data on imports of tensimeters, oscillometers, and parts of these articles.

In 1970 the port of New York accounted for more than 70 percent of all imports into the United States under TSUSA 709.1100. The Customs examiner stated that about 95 percent of the value of these imports was accounted for by sfigs of all types, and parts thereof.

Propper Manufacturing Co.

In its complaint the W. A. Baum Co. alleged that "several thousand" infringing wall-mounted sfigs were imported into the United States during the period October 1, 1969-February 28, 1970. Baum further stated that it believed that Propper Manufacturing Co., the respondent, was among the importers of such sfigs. (All of Propper's imports of the offending sfigs came from West Germany.) Members of the Commission's staff have examined the invoices and/or other accompanying papers covering about 90 percent of the shipments into the port of New York under TSUSA 709.1100 for the period October 1, 1969 through February 28, 1970. These documents indicated that 500 to 525 wall-mounted sfigs were imported during this period, all entered by Propper, the respondent.

Propper's response of June 8, 1970, admitting importation of 569 SWS's, appears to be more nearly correct than the "several thousand" alluded to by Baum in its complaint.

In the transcript of its testimony at the Commission hearing of February 2, 1971 (at p.81), and in its supplemental statement (at p.13), Propper stated that it had imported a total of not more than 800 units in 1969 and 1970. Responses to the Commission's questionnaires indicate that there were no imports of SWS's before 1969, and that Propper imported a total of less than 800 units in 1969 and 1970 combined.

According to Propper's supplemental statement, dated June 18, 1971, Propper imported 200 SWS's early in 1971. These sfigs differed from those originally accused by the absence of ribs on the sheath. Propper stated further that additional imports of SWS's, during the remainder of 1971, might consist of 600 to 800 units of an instrument "having no ribs on the sheath and a differently shaped and structured bracket." In its final brief, dated August 20, 1971, Propper scaled down its estimate of 1971 importations to a total of 400 SWS's.

Other importers

The Commission is aware of only one other importer of SWS's. This concern entered an insignificant quantity of these instruments late in 1970. The complainant has not made any allegations concerning the SWS's imported by this company.

U.S. Producers and Production

W. A. Baum Co., Inc.

Baum, the complainant, has its executive offices and plant in Copiague, Long Island, N.Y. The firm was founded in 1916 in New York City and moved to its present location in 1952. Baum's facilities are modern, clean, and orderly. The company's capital stock is closely held. A preponderance of the firm's employees are women. Although the industrialization of Copiague and vicinity and the consequent demands for labor have grown appreciably during the past 20 years, Baum has experienced no difficulty in obtaining new employees. The plant is not unionized, and Baum pays lower wage rates than it would have to pay in Manhattan.

The output of the company consists almost entirely of mercurial blood pressure apparatus and replacement parts. The small residual consists of repair services. For many years, Baum has been recognized as the largest U.S. producer of mercurial sfigs; it manufactures them in several models.

In each of the years 1968-69, Baum's production of SWS's (all consisting of one model covered by U.S. Patent Des. 204,491) was larger than in the preceding year. In 1970 production of SWS's was smaller than in either 1968 or 1969. The imports, however, were too small to have substantially affected the level of the complainant's production. Imports of SWS's were nonexistent in 1968, and they were equivalent to less than 2 percent of apparent consumption of SWS's in each of the years 1969-70.

Other producers of mercurial SWS's

Although there are about a dozen other U.S. producers of sfigs, only two of them, Porter Industries, Inc., and Pyman Corp., make mercurial SWS's. Neither company produced them commercially until 1970, when each firm had a very small output. Pymah's commercial production began in September 1970. All of Porter's output of SWS's is made under a contract with National Cylinder Gas Co., a subsidiary of Chemetron Corp. The instrument is distributed under National's brand name. Pymah, on the other hand, sells its SWS's to a limited number of distributors and it uses its own brand name.

At the reopened hearing, counsel for Baum offered Porter's SWS 1/ and Pymah's SWS 2/ in evidence (exhibits No. 21 and No. 22, respectively). When so doing, he stated that he did not consider either one to be an infringement of exhibit No. 1, Baum's design patent.

U.S. Exports of Mercurial SWS's

Available data indicate that W.A. Baum Co. is the only U.S. producer that has ever exported mercurial SWS's. This concern's exports of such sfigs have increased steadily.

1/ Referred to as "the NCG apparatus."
2/ Referred to as "the Pymah apparatus."

Prices

The complainant, Baum, sells directly to hospital equipment and supply dealers and to the Federal Government. It also submits bids to the City of New York. Baum has no other direct customers in the United States. During the years for which data are available, Baum was the only U.S. producer of SWS's until 1970, and there were no importers of such sfigs until 1969 when the respondent, Propper Manufacturing Co., began to import SWS's. Although Baum is no longer the sole supplier at the first level of marketing, Baum has maintained an upward movement of the prices of its SWS's despite the entry of other suppliers or potential suppliers into the markets in which it competes.

On sales to dealers, Propper's net selling prices for SWS's are between 5 percent and 11 percent lower than Baum's, depending on the size of the order.

Although some dealers purchase SWS's from both Baum and one or more competitors, most dealers apparently purchase SWS's from Baum only. Baum has been the only bidder on sales of SWS's to the Federal Government. Prior to January 1970, Baum did not submit bids to the City of New York; it was content to let its New York dealers bid against each other. As Propper had submitted a direct bid in January 1969, and had been the successful bidder against Baum's New York dealers, Baum became a direct bidder in January 1970. Baum's successful bid (for the SWS) was $18.25, compared with Propper's bid of $19.71. In January 1971, however, Baum's bid was $20.25, compared with Propper's winning bid of $16.06. Moreover, Propper was the

successful bidder for all models of sfigs in 1971.

Profit-and-loss Experience of W. A. Baum Co., Inc.

The W. A. Baum Company's operations consist of the manufacture and sale of several models of sfigs and replacement parts, and of repair services. During 1966-70, the firm generally experienced upward trends in (1) net sales of all products, (2) net sales of sfigs (all models considered as a group), (3) net operating profit 1/ on all products, and (4) net operating profit on sfigs.

In each of the years 1967-68, the ratio of net sales of Baum's design-patented SWS to Baum's net sales of all models of sfigs, and to Baum's total net sales, based on all operations, was larger than in the immediately preceding year. In each of the years 1969 and 1970, these percentages differed little from what they had been in 1968. Baum has informed the Commission that it is unable to allocate shares of costs and profits to its operations on its design-patented SWS, Model 33.

On all operations, Baum's ratio of net operating profit to net sales increased irregularly from 1966 to 1970, reaching a peak in the latter year. On all models of sfigs (as a group), Baum's ratio of net operating profit to net sales increased in successive years, during 1967-69. In 1970, however, the ratio was moderately lower than in 1969, but higher than in any of the years 1966-68.

1/ In all instances "net operating profit" means net operating profit before Federal and other income taxes.

Appendix
United States Patent No. Des. 203,491

United States Patent Office

Des. 203,491
Patented Jan. 11, 1966

203,491

WALL-MOUNTED SPHYGMOMANOMETER

George H. Jones, 4 Huron Ave., Massapequa, N.Y.

Filed Apr. 13, 1965, Ser. No. 84,761

Term of patent 14 years

(Cl. D83—12)

FIG. 1

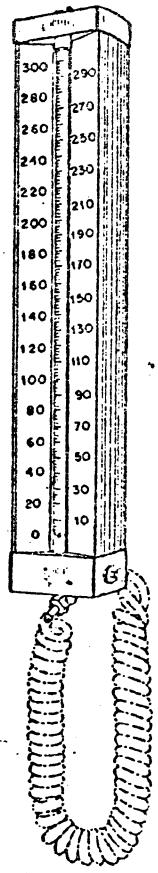

FIG. 2

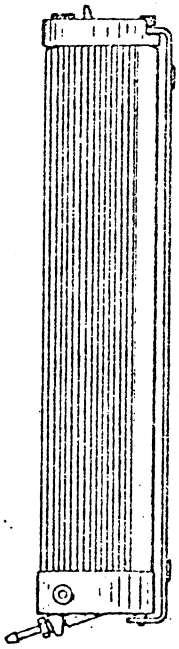

FIG. 3

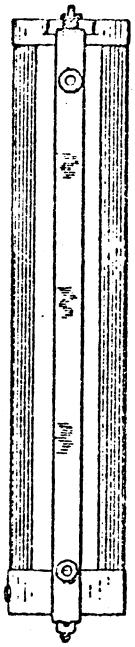

FIG. 4

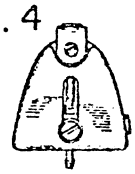

FIG. 5

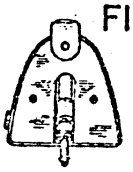

FIG. 1 is a perspective view of the wall-mounted sphygmomanometer with its extension hose,

FIG. 2 is a side elevational view thereof, showing the swivel, wall-mounting bracket,

FIG. 3 is a rear elevational view thereof,

FIG. 4 is a top plan view thereof, and

FIG. 5 is a bottom plan view thereof. The characteristic features of my new design are shown in full in the drawings.

The hose inflation tube has been omitted in FIGS. 2–5 inclusive for convenience of illustration only.

I claim:

The ornamental design for a wall-mounted sphygmomanometer, as shown and described.

References Cited by the Examiner

UNITED STATES PATENTS

D. 146,441	3/1947	Wappner	D52—7
2,571,124	10/1951	Farrand	128—2
2,624,334	1/1953	Epstein	128—2

OTHER REFERENCES

Aloe Hosp. Cat. #189, (c) 1957, p. 663, item D, outdoor thermometer.

BD Products Cat. (Becton, Dickinson), © 1960, p. I, 3, item No. 5308U, wall manometer.

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