In the matter of:

CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR

Investigation No. 337-TA-37

USITC PUBLICATION 926

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United States International Trade Commission / Washington, D.C. 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Joseph O. Parker, Chairman
Bill Alberger, Vice Chairman
George M. Moore
Catherine Bedell
Paula Stern

Kenneth R. Mason, Secretary to the Commission

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Washington, D.C. 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

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CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	Investigation No. 337-TA-37

NOTICE AND ORDER CONCERNING
COMMISSION DETERMINATION

Upon consideration of the presiding officer's recommended determination and the record in this proceeding, the Commission (Chairman Parker dissenting and Commissioner Stern not participating) hereby orders the termination of investigation No. 337-TA-37, Certain Skateboards and Platforms Therefor, on the basis of a determination that no violation of section 337 of the Tariff Act of 1930, as amended, exists.

Copies of the Commissioners' opinions in support of their determinations are available to the public during official working hours at the Office of the Secretary, United States International Trade Commission, 701 E Street NW., Washington, D.C. 20436. Notice of the institution of the investigation was published in the Federal Register on November 11, 1977 (42 F.R. 58792).

By order of the Commission:

Kenneth R. Mason
Secretary

Issued: November 13, 1978

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.
November 13, 1978

In the Matter of CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	Investigation No. 337-TA-37

OPINION OF COMMISSIONERS
GEORGE M. MOORE AND CATHERINE BEDELL 1/ 2/

Upon consideration of the presiding officer's recommended determination and the record in this proceeding, we have determined that pursuant to section 337 of the Tariff Act of 1930, as amended, 3/ there are no unfair methods of competition or unfair acts in the importation of certain skateboards and platforms therefor into the United States, or in the sale of certain skateboards and platforms therefor in the United States by the owner, importer, consignee, or agent of either, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States. The basis for this determination is our finding that claims 1, 2, 7, and 8 of U.S. Letters Patent 3,565,454 are invalid for purposes of section 337 as obvious in view of the prior art pursuant to 35 U.S.C. 103.

1/ The views of Chairman Joseph O. Parker and Vice Chairman Bill Alberger are set forth in separate opinions.

2/ Commissioner Stern did not participate in this investigation as she assumed her duties as a Commissioner on Oct. 16, 1978, and was thus not a Commissioner during most of the investigative period.

3/ 19 U.S.C. 1337.

Procedural history

The present investigation was instituted by the United States International Trade Commission (hereinafter "the Commission") on November 4, 1977, on the basis of an amended complaint filed pursuant to section 337 of the Tariff Act of 1930, as amended, by Mr. Richard L. Stevenson, doing business as Makaha International. Notice of the Commission's investigation was published in the Federal Register of November 11, 1977 (42 F.R. 58792). The amended complaint alleges that unfair methods of competition exist in the importation of certain skateboards, each with an "inclined foot-depressible lever", by reason of the alleged coverage of such skateboards by claims 1, 2, 7, and 8 of U.S. Letters Patent 3,565,454 (hereinafter "the Stevenson patent or "the patent in controversy"), owned by complainant Stevenson. The effect or tendency of such importation was alleged to be to destroy or substantially injure an industry, efficiently and economically operated, in the United States.

The scope of the Commission's investigation was defined by the following language contained in its notice of investigation:

> . . . pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), an investigation (is) instituted to determine, under subsection (c) whether, on the basis of the allegations set forth in the amended complaint and the evidence adduced in this proceeding, there is a violation of subsection (a) of this section in the unauthorized importation of--
>
> (i) skateboards each with an inclined foot-depressible lever, or
>
> (ii) skateboard platforms each with an inclined foot-depressible lever

> into the United States, or in their unauthorized sale, by reason of such skateboards and platforms allegedly being covered by claims 1, 2, 7 and 8 of U.S. Letters Patent 3,565,454, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States. . . .

Named as respondents in the notice of investigation were five domestic importers and five foreign manufacturers and/or exporters:

Domestic importers

Sportsmaster Inc., P.O. Box 2073, Cincinnati, Ohio 45201.
National Sporting Goods Corp., 1107 Broadway, New York, N.Y. 10010.
Woodline Products Co., 260 22-H Cape Drive, Laguna Niguel, Calif. 92677.
Marco Polo Co., 12600 South Broadway, Gardena, Calif. 90061.
Dixie Trading Co., P.O. Box 903-96, Atlanta, Ga. 30364.

Foreign manufacturers/exporters

New Zeal Enterprises Co., Ltd., 6 fl., No. 163, Chang-An E. Rd., Section 2, Taipei, Taiwan.
Prophet International Co., Ltd., China Plastics Building, Section 4, Taipei, Taiwan.
Amapala Marine, 4A Avenue No. 611, Tegucigalpa, Honduras. 1/
Lido Trading Co., Ltd., P.O. Box 7-341, Taipei, Taiwan.
Hardy Enterprise Corp. 3-F74, Omei Street, Taipei 100, Taiwan.

Upon institution, this matter was referred to Chief Administrative Law Judge Donald K. Duvall (hereinafter "the presiding officer") who held a hearing at which all interested parties were afforded an opportunity to be heard. On July 17, 1978, the presiding officer issued a recommendation that the Commission determine that there is no violation of section 337 in the importation and sale in the United States of skateboards and platforms therefor by reason of the fact that said skateboards and platforms do not infringe any valid and enforceable U.S. Letters Patent. More particularly,

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1/ By order of the presiding officer dated Mar. 31, 1978, the name of this respondent was corrected to S.K.B. de Honduras.

the presiding officer recommended that claims 1, 2, 7, and 8 of the patent in controversy be held invalid for purposes of section 337 since they would have been obvious at the time the invention was made to one of ordinary skill in the art, and that claims 1, 2, 7, and 8 be held unenforceable for purposes of section 337 because of the patentee's failure to disclose the existence of certain relevant prior art to the U.S. Patent Office. The presiding officer also recommended that the skateboards imported into the United States by respondents be held to infringe the patent in controversy, if that patent were valid. Exceptions to the presiding officer's findings of fact and/or conclusions of law were filed by complainant and by respondents New Zeal Enterprises Co., Prophet International Co., Lido Trading Co., Hardy Enterprise Corp. and Marco Polo Co. Complainant took exception to the presiding officer's conclusions of law that claims 1, 2, 7, and 8 of the patent in controversy were invalid and unenforceable for purposes of section 337. Respondents took exception to the presiding officer's conclusion of law that the patent in controversy was infringed for purposes of section 337 by skateboards imported by respondents. Thereafter, the Commission received briefs and heard oral argument on the presiding officer's recommended determination from counsel representing complainant, the aforementioned respondents, and the Commission investigative staff.

Consideration of the issues presented 1/

Under section 337, the Commission must determine whether there is a violation of that statute and, if there is, what statutory remedy, if any, is

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1/ The following abbreviations are used in this opinion:
Atr. -- transcript of oral argument before the Commission;
FF -- presiding officer's finding of fact;
Htr. -- transcript of hearing before presiding officer;
RD -- recommended determination;
RX -- respondents' exhibit; and
SX -- Commission investigative staff exhibit.

appropriate. Having considered the presiding officer's recommended determination and the record compiled in this proceeding, we have determined that there is no violation of section 337 in the importation of the subject skateboards and/or platforms therefor into the United States, or in their sale, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States. Specifically, we find that for the purpose of section 337, claims 1, 2, 7, and 8 of the Stevenson patent are invalid as obvious in view of the prior art. Moreover, we find that, if valid, the Stevenson patent would be infringed by the skateboards imported by respondents. Since we have determined that there is no violation of section 337, we do not address the questions of remedy, bonding, and the public interest. We hereby adopt the findings of fact and conclusions of law of the presiding officer insofar as they are not inconsistent with the determinations that follow.

1. Invalidity of the Stevenson patent.

For purposes of section 337, we find that the Stevenson patent is invalid as obvious in view of the prior art. Our reasons for this finding are set forth below.

a. Legal framework. -- Section 103, title 35, of the United States Code provides as follows:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. (Emphasis added.)

The analytical procedure to be used in applying section 103 has been set forth by the U.S. Supreme Court in the case of Graham v. John Deere Co. There the Court stated that under section 103 --

> the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure by others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy. 1/

b. The Stevenson patent. 2/ -- The patent in controversy was granted to Richard L. Stevenson on February 23, 1971, upon an application filed on June 12, 1969. 3/ The subject matter of the Stevenson patent is a skateboard. Skateboards are sport maneuvering devices consisting of elongated platforms mounted on wheels. The Stevenson patent is directed to a skateboard, the aft section of which comprises an inclined foot-depressible lever (commonly referred to as a kicktail) sloped upwardly and rearwardly from the skateboard. By depressing the lever with his rear foot, a rider of the skateboard is able to facilitate turning the board through various spinning maneuvers known in the sport as wheelies or kick turns.

There is general agreement that the object of the kicktail invention was to improve the maneuverability and safety of skateboards, and thereby

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1/ Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966).

2/ Hereafter in this opinion, we limit our discussion of the Stevenson patent to claims 1, 2, 7, and 8 thereof, the only claims put in issue by complainant. While occasionally we refer to these claims specifically, we do not intend to speak to all claims unless we do so expressly hereafter.

3/ A copy of the Stevenson patent is included in the appendix following the opinions in this investigation.

contribute to the revitalization of the U.S. skateboard industry. FF 33. More specifically, the kicktail invention was intended to eliminate or minimize the problems of foot slippage and grounding, and to enhance a rider's "foot feel" and leverage. FF 33, Atr. 7. Foot slippage refers to the tendency of a rider's foot to slip off the rear end of the board when that end is depressed in the performance of spinning maneuvers. Grounding is the scraping of the back tip of the board on the ground when the rear end is depressed.

c. Scope and content of the prior art; differences between claims at issue and the prior art. -- Of the numerous items of prior art cited by respondents and the Commission investigative attorney, the only one which we find relevant on the issue of obviousness is the so-called rocker skateboard produced by several skateboard manufacturers, including the complainant, during the mid-1960's. FF 30. The rocker skateboard differs from the kicktail skateboard in that the platform of the rocker skateboard is continuously curved from end to end, whereas that of the latter is composed of two flat surfaces meeting at an obtuse angle. The rocker board is unpatented, and there is no indication that the Patent Office was aware of its existence at the time complainant's patent was issued.

Respondents have strongly urged the relevancy as prior art of two patents in the field of water sports -- the Abbott slalom water ski patent 1/ and the Kelly hydroplane surfboard patent. 2/ The presiding officer also regards these patents as relevant prior art. We do not. In our view the Abbott water ski and Kelly surfboard patents are not relevant prior art

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1/ U.S. Letters Patent 3,056,148 issued to J.P. Abbott et al. on Oct. 2, 1962. A copy of this patent is included in the appendix.

2/ U.S. Letters Patent 3,111,695 issued to J.M. Kelly on Nov. 26, 1963. A copy of this patent is included in the appendix.

because the problems addressed by them are not the problems (foot slippage, grounding, foot feel, and leverage) meant to be solved by the complainant's kicktail invention. Application of Heldt, 433 F.2d 808, 812 (CCPA 1970). Thus, an inventor setting out to solve the problems addressed by the Kicktail skateboard would not be expected to turn to Abbott and Kelly for guidance. Therefore, we have not considered Abbott and Kelly as constituting part of the relevant prior art.

d. Ordinary skill in the art. -- The pertinent art in this investigation is that of skateboard design. Flat boards and rocker boards were both well known in the skateboard industry at the time complainant filed his patent application in 1969. FF 20, 29. Rocker boards had been manufactured by at least three firms during the mid-1960's. FF 30. We find that at the time complainant's invention was made, a person of ordinary skill in the art of skateboard design would have been familiar with the design and functioning of flat and rocker skateboards constructed of wood, or of one-piece molded plastic or fiberglass. FF 24, 29, 30; RD 32.

e. Obviousness. -- Having determined the scope and content of the prior art, the differences between prior art and the claims at issue, and the level of ordinary skill in the art, we must determine whether a person of ordinary skill in the art would have found the kicktail invention obvious at the time it was made. Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966).

The functional advantages of the kicktail skateboard relative to the rocker skateboard arise from the fact that the front portion of the former is flat whereas that of the latter is curved. The continuously curved shape of the rocker board causes a dip in the center portion of the

board that deepens as the curvature of the board increases. This dip can cause balance problems for the rider attempting to perform "wheelies", as well as increasing the likelihood that the center portion of the board will scrape against the ground. The presiding officer found that it would have been obvious to a person of ordinary skill at the time the kicktail invention was made to eliminate the rocker board's balance and grounding problems by simply flattening its center and forward portions. RD 35. We agree. A rocker board with its front and center sections flattened is practically indistinguishable in shape from a kicktail board. In fact, both complainant and his expert witness, patent attorney Kelly, admitted that a rocker board with its front and center portions flattened out would infringe the Stevenson patent. Htr. 233, 395.

We are mindful of the fact that patents are presumed valid pursuant to 35 U.S.C. 282. The presumption of validity remains in existence until rebutted, and the burden of persuasion is upon those asserting invalidity. The burden of persuasion may be more easily carried by evidence consisting of prior art more pertinent than any considered by the Patent Office examiner. Solder Removal Co. v. U.S. International Trade Commission, 199 U.S.P.Q. 129, 132-133 (CCPA 1978). In the instant case, we find the presumption of validity to have been rebutted by evidence regarding the rocker board. The rocker board is the closest prior art of which we are aware, yet it was apparently not considered by the examiner.

Complainant has strongly urged the commercial success of the kicktail skateboard as evidence of nonobviousness. The evidence shows that at present the kicktail board accounts for more than 90 percent of the U.S.

skateboard market. FF 38. However, it is well established that secondary indicia of nonobviousness, such as commercial success, can only tip the scales in favor of patentability in close cases. Digitronics Corp. v. New York Racing Association, Inc., 553 F.2d 740, 748 (2nd Cir. 1977). Because we find the Stevenson patent plainly obvious in light of the rocker board, secondary factors such as commercial success need not be considered. It is worth noting, however, that the reason or reasons for the commercial success of the kicktail board are unclear. There is testimony of record indicating that consumers' preference for the kicktail board is due, at least in part, to the stylish or sporty look imparted to the board by its upswept kicktail, rather than to its functional advantages. Htr. 353, RD 27. 1/

2. Infringement of the Stevenson patent

Although we have found claims 1, 2, 7, and 8 of the Stevenson patent invalid for purposes of section 337, we have considered the issue of infringement in order that we may render a decision on all the appealable issues presented to us. 2/ We conclude that the Stevenson patent, if valid, would be infringed by the skateboards imported by respondents.

a. Direct infringement. -- In order for a patent to be infringed, only one claim of that patent need be infringed. Claim 1, the broadest of the 13 claims in the Stevenson patent, reads as follows:

1/ Commissioner Moore finds that there is insufficient evidence in the record to support the presiding officer's recommendation that claims 1, 2, 7, and 8 of the Stevenson patent be held unenforceable because of complainant's failure to disclose the existence of the rocker board to the Patent Office. He notes, moreover, that if the Stevenson patent is nonobvious in view of the rocker board, then the enforceability issue is moot because it would then surely not have been misleading to fail to bring the rocker board to the attention of the Patent Office.

2/ The U.S. Court of Customs and Patent Appeals suggested that the Commission decide all appealable issues presented to it in Coleco Industries, Inc. v. U.S. International Trade Commission, 573 F.2d 1247, 1252 (fn. 5) (CCPA 1978).

1. A sport maneuvering device comprising:

a. An elongated platform for supporting a person, the platform having a forward end section and a rearward end section;

b. wheels coupled to and beneath the platform; and

c. an inclined foot-depressible lever coupled to the rearward end section of the platform, the lever being oriented so its plane slopes upwardly and rearwardly from the platform wherein a person positioned with one foot on the platform and the other foot resting on the lever may tilt the platform to a desired position by depressing the lever.

Complainant has asserted that claim 1 (as well as other claims) of his patent is infringed by the kicktail skateboards imported by respondents. Respondents seek to avoid a finding of direct infringement by pointing out that the platforms 1/ of the imported boards are constructed of a single piece of molded plastic, whereas claim 1 of the Stevenson patent covers "an inclined foot-depressible lever coupled to the rearward end section of the platform." (Emphasis added.) Respondents interpret the word "coupled" to require a two-piece construction, and therefore assert that claim 1 does not read directly on the imported boards. Since we find to be credible the unrebutted expert testimony of patent attorney Kelly to the effect that the word "coupled" encompasses many forms of physical attachment, including molecular bonding and adhesion, we concur with the presiding officer and hold the Stevenson patent directly infringed by the imported skateboards.

b. Infringement under the doctrine of equivalents. -- Even if there were no direct infringement of the Stevenson patent, there would still be infringement by the doctrine of equivalents. Under that doctrine, an accused device is held to infringe the claims of a patent, even though the claims do

1/ The term "platform" refers here to the skateboard less its wheels and wheel mounts, i.e., to "platform" plus "lever" as those terms are used in claim 1 of the Stevenson patent.

not read directly on the device, provided the accused device employs substantially the same means to achieve substantially the same results in substantially the same way as the patented device. Graver Tank & Mfg. Co., Inc. v. Linde Air Products Co., 339 U.S. 605, 608 (1950).

In the instant investigation, there can be no doubt that the imported skateboards employ substantially the same means (an upwardly sloped lever at the rear of an otherwise flat skateboard platform) to achieve substantially the same results (performance of spinning maneuvers with greater ease and safety) in substantially the same way (rider raises nose of board off ground by depressing rear lever with foot and pivots board about rear wheels) as the skateboard disclosed by the Stevenson patent. 1/ We therefore find the Stevenson patent to be infringed by the imported skateboards under the doctrine of equivalents.

3. Conclusion

For the foregoing reasons, we determine there is no violation of section 337 of the Tariff Act of 1930, as amended, in the importation into, or sale in, the United States of certain skateboards and platforms therefor by reason of the facts that claims 1, 2, 7, and 8 of the Stevenson patent are for purposes of section 337 invalid as obvious in view of the rocker board within the meaning of 35 U.S.C. 103.

1/ Compare the Stevenson patent (reproduced in the appendix) with SX-5 (kick-tail skateboard imported by one of the respondents) and with RX-13 (rocker skateboard).

SEPARATE OPINION OF
COMMISSIONER BILL ALBERGER

I am in general agreement with the views expressed in the opinion of Commissioners Moore and Bedell. I concur in the portions of their opinion which find that the Stevenson patent is invalid as obvious in view of the rocker board, and that, if valid and enforceable, the Stevenson patent would be infringed by the skateboards imported by respondents. However, I differ from Commissioners Moore and Bedell on the issues of (1) whether the Kelly hydroplane surfboard patent is relevant prior art and (2) whether the Stevenson patent is enforceable.

1. The Kelly hydroplane surfboard patent is relevant prior art.

While I agree that the Abbott slalom water ski patent 1/ is not relevant prior art, I disagree with this conclusion with regard to the Kelly hydroplane surfboard patent. 2/ I feel that the Kelly patent is relevant prior art. The problems of leverage and grounding addressed by the Stevenson patent are also addressed by the Kelly patent. Leverage refers to the greater ease of depressing the rear end of a board by virtue of its upwardly and rearwardly sloped configuration, while grounding refers to contact between the back tip of the board and the riding

1/ U.S. Letters Patent 3,056,148 issued to J.P. Abbott et al. on Oct. 2, 1962. A copy of this patent is included in the appendix.

2/ U.S. Letters Patent 3,111,695 issued to J.M. Kelly on Nov. 26, 1963. A copy of this patent is included in the appendix.

surface. Leverage is certainly an important factor in surfing as it allows for increased maneuverability. A surfer steps or leans on the rear end section of a surfboard, thereby releasing weight from the front section, which allows for greater turning power. This is not unlike what a skateboarder does to facilitate wheelie maneuvers on land. Grounding is also an important problem in surfing. The Kelly patent prevents the rear end of the board from becoming submerged under water, thereby avoiding excessive "drag" which slows down the surfer's speed. This problem of "drag" is essentially the same problem as that of grounding, although many of the complex aspects of hydrodynamics do not apply to skateboard art. A person of ordinary skill in the art of skateboard design would have knowledge of these developments of design in the surfboard industry. 1/ Although I feel that the Kelly patent is relevant, I agree that the rocker skateboard is more relevant.

2. The Stevenson patent is unenforceable.

The presiding officer found claims 1, 2, 7, and 8 of the Stevenson patent unenforceable because of complainant's inequitable conduct in not disclosing the existence of the rocker board to the Patent Office. I agree.

Because patent applications are processed by the Patent Office on an ex parte basis, and because of the exclusive rights granted to patentees, the courts have consistently held patent applicants to a high level of candor in dealing with the Patent Office. As the U.S. Court of Customs and Patent Appeals has stated --

> The highest standards of honesty and candor on the part of applicants in presenting . . . facts to the (Patent Office) are . . . necessary elements in a working patent system. We would go so far as to say they are essential. 2/

1/ See Recommended Determination, p. 32.
2/ Norton v. Curtiss, 433 F.2d 779, 794 (CCPA 1970).

In the instant investigation, complainant was aware of the rocker board at the time his application for the kicktail patent was filed. Indeed, he himself had manufactured rocker boards in the past. 1/ Yet the existence of the rocker board was never disclosed to the Patent Office. Complainant's patent application referred only to skateboards with flat platforms. 2/ By referring only to flat skateboards in his application, complainant impliedly asserted to the Patent Office that such skateboards were the closest prior art of which he had knowledge. Such an assertion amounts to a misrepresentation of the actual state of the prior art, and in my view constitutes inequitable conduct requiring that claims 1, 2, 7, and 8 of the Stevenson patent be held unenforceable for purposes of section 337.

Complainant has testified that the reason the rocker board was not brought to the attention of the Patent Office was that the rocker board is, in his view, so dramatically different from the kicktail board as to be totally irrelevant as prior art. Because I find the rocker board so closely related to the kicktail board as to render the latter obvious within the meaning of 35 U.S.C. 103, I agree with the presiding officer that complainant's position is "not reasonably tenable". 3/

Moreover, a patent applicant's good faith and subjective intent in dealing with the Patent Office are not necessarily controlling. The Court of Customs and Patent Appeals has stated that --

> Under ordinary circumstances, the fact of misrepresentation coupled with proof that the party making it had knowledge of its

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1/ Presiding Officer's finding of fact number 30.

2/ The application refers (p. 2, lines 28-29) to the rear overhang sections of conventional skateboards as being "aligned in coplanar relationship with the rest of the board." (Emphasis added.)

3/ Recommended Determination, p. 39.

> falsity is enough to warrant drawing the inference that there was a fraudulent intent. Where public policy demands a complete and accurate disclosure it may suffice to show nothing more than that the misrepresentations were made in an atmosphere of gross negligence as to their truth. 1/

While I decline to infer a fraudulent intent on complainant's part under the facts of this case, 2/ I do find that complainant's misrepresentation regarding the actual state of the prior art was made in an atmosphere of gross negligence requiring that claims 1, 2, 7, and 8 of the Stevenson patent be held unenforceable for purposes of section 337. Absent a fraudulent intent, only gross negligence on complainant's part can explain his failure to apprise the Patent Office of the rocker board.

1/ Norton v. Curtiss, supra, pp. 795-796.
2/ See Presiding Officer's findings of fact numbered 53 through 56.

SEPARATE OPINION OF CHAIRMAN JOSEPH O. PARKER

Upon review of the entire record in this investigation, I determine that there is a violation of section 337 in the unlicensed importation into the United States of certain skateboards by reason of the coverage of such skateboards by one or more claims of U.S. Patent No. 3,565,454, 1/ the effect or tendency of which is to destroy or substantially injure an efficiently and economically operated U.S. industry.

Validity of complainant's patent.

Pursuant to 35 U.S.C. 282, an issued patent is presumptively valid and the burden of overcoming the presumption of validity is upon those asserting invalidity. Thus, in this investigation respondents have the burden of overcoming the presumption of validity of complainant's patent. In my judgment, respondents have not overcome this presumption in this investigation.

In order to result in a valid utility patent, an invention must be new, useful and nonobvious. The utility of the kicktail skateboard is not seriously at issue in this investigation; and, although respondents maintain that the kicktail skateboard is not new in view of the prior art, the presiding officer found to the contrary, a finding in which I concur. 2/ There remains the issue of nonobviousness.

1/ In order to be consistent with the terminology adopted in the other opinions in this investigation, I will hereafter refer to this patent as "the Stevenson patent."

2/ See presiding officer's conclusion of law number 7 and pp. 40-41 of his Recommended Determination.

The presiding officer found claims 1, 2, 7, and 8 of the Stevenson patent invalid as obvious in view of the prior art. 1/ The prior art principally relied upon by the presiding officer in finding the Stevenson patent obvious is the so-called "rocker skateboard." 2/ While the rocker board may be deemed to be prior art in the sense that it is one of several types of skateboards known and used prior to complainant's invention of the kicktail skateboard, and while I agree that a person of ordinary skill in the art of skateboard design would have been acquainted with the rocker board, I do not agree that the subject matter of the Stevenson patent would have been obvious at the time the invention was made to one of ordinary skill in the pertinent art.

In my view, the rocker skateboard is fundamentally different from the kicktail board because the rocker board cannot perform effectively as a kicktail board. As complainant testified at the hearing held before the presiding officer --

> (w)hen you talk about effectiveness, the rocker board. . .does not function as a kicktail. It cannot for a couple of reasons. First of all, any advantage that is accrued by any contrivance of raising the rear as a result of the continuous art (arc) merely results in a total negation of the advantages accrued by the rear foot, by the disadvantages that are accrued by the front foot. So, the higher you place the rear foot on the (rocker) board, the lower you have to place the front foot; and you end up where you started. You are off balance; you are out of position; everything is altered. 3/

In other words, there are severe problems of rider imbalance associated with attempting to perform acrobatic maneuvers on the rocker board.

1/ Presiding officer's conclusion of law number 5.
2/ Recommended Determination, p. 35.
3/ Transcript, pp. 217-218.

In light of the significant difference in performance between the rocker board and the kicktail board, the latter would not, in my judgment, have been obvious in view of the former. In making this determination, I have considered certain "secondary" indicia of nonobviousness which the Supreme Court has stated may be taken into account in deciding whether the subject matter of the patent is obvious within the meaning of 35 U.S.C. 103. 1/

The first such factor is the undeniable commercial success of the kicktail board. Kicktail boards have taken over in excess of 90 percent of the U.S. skateboard market. The presiding officer found that at least a part of the kicktail board's commercial success is attributable to its functional advantages over non-kicktail boards. 2/ These advantages are the greater ease and safety with which riders of kicktail boards are able to perform the pivoting maneuvers known in the sport as "kick turns" or "wheelies". In my judgement, the great popularity of the kicktail board is persuasive evidence of nonobviousness. 3/ I would note in this regard that, although the advent in 1974 of the polyurethane wheel may have contributed to the resurgence of skateboarding in general, it cannot be said to account for the present popularity of the kicktail board. This observation follows from the fact that polyurethane wheels are capable of being mounted on flat boards and rocker boards as well as kicktail boards.

Another factor is the long felt but unsolved need for a safer skateboard met by the kicktail skateboard. The collapse of the U.S.

1/ Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966).
2/ Recommended Determination, p. 27.
3/ See Stiegele v. J. M. Moore Import-Export Co., 312 F.2d 588, 591 (2d Cir. 1963).

skateboard industry in 1966 was due in large measure to safety problems with the then existing flat and rocker skateboards. Municipal authorities in many localities banned skateboarding as unsafe. It was not until after complainant's invention in 1969 of the kicktail skateboard and the development in 1974 of the polyurethane wheel that the skateboard industry recovered. While some of the credit for the recovery must go to the polyurethane wheel, the greater inherent safety of kicktail boards vis-a-vis flat boards and rocker boards was also a vital factor. 1/ The rocker board was developed in 1965, a year prior to the 1966 collapse of the skateboard industry.

Although the rocker board was not among the prior art cited by the examiner when the Stevenson patent issued, the presumption of validity is not destroyed. As the U.S. Court of Customs and Patent Appeals stated in the case of Solder Removal Company v. U.S. International Trade Commission:

> Though the presumption of validity remains in existence until rebutted and the burden of persuasion continues throughout the litigation on him who asserts invalidity, the burden of persuasion may be more easily carried by evidence consisting of more pertinent prior art than that considered by the examiner. 2/

In my judgment complainant has not carried the burden of persuasion notwithstanding the reference to the evidence regarding the rocker board. The Stevenson patent is enforceable.

The presiding officer also found claims 1, 2, 7, and 8 of the Stevenson patent unenforceable because of complainant's failure to disclose

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1/ There is evidence of record that kicktail boards are safer to ride than flat boards or rocker boards. See complainant's exhibit 46 (affidavits of 5 expert skateboard riders); complainant's exhibit 47 (survey of 225 skateboard riders); and complainant's exhibit 48 (report entitled "Kicktail Skateboard Analysis" at p. 5-2)).

2/ See Solder Removal Co. v. U.S. International Trade Commission, 199 U.S.P.Q. 129, 133 (CCPA 1978).

the existence of the rocker board to the Patent Office. 1/ In my judgment, the facts developed in the investigation do not warrant such a finding.

In the case of Norton v. Curtiss the U.S. Court of Customs and Patent Appeals stated that in deciding cases involving alleged inequitable conduct --

> courts appear to look at the equities of the particular case and determine whether the conduct before them -- which might have been admittedly less than fraudulent in the technical sense -- was still so reprehensible as to justify the court's refusing to enforce the rights of the party guilty of such conduct. 2/

In my view, the record in this investigation reveals no conduct on the part of complainant (or his patent attorney) "so reprehensible" as to justify refusing to enforce the Stevenson patent. The record is devoid of any evidence that complainant acted with fraudulent intent in not apprising the Patent Office of the rocker board. Indeed, the evidence is to the contrary. The record shows that complainant was quite open about informing his patent attorney, Mr. Kelly, of the rocker board. A drawing of the rocker board was included among materials complainant gave to Mr. Kelly. 3/ However, complainant's disclosures to his patent attorney regarding the rocker board were never made a part of his patent application. Complainant's attorney testified that he simply overlooked the drawing of the rocker board given to him by complainant. 4/

A number of federal court cases 5/ have held that, in order to amount to inequitable conduct justifying a refusal to enforce a patent, the patent

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1/ Presiding officer's conclusion of law number 6; Recommended determination, pp. 38-40.

2/ Norton v. Curtiss, 433 F.2d 779, 793 (CCPA 1970).

3/ Presiding officer's finding of fact number 53.

4/ Presiding officer's finding of fact number 54.

5/ See, for example, Pfizer, Inc. v. International Rectifier Corp. 538 F.2d 180, 186 (8th Cir. 1976) and Xerox Corporation v. Dennison Manufacturing Company 322 F.Supp. 963, 968 (S.D.N.Y. 1971).

applicant's conduct must contain some element of wrongfulness, willfulness, or bad faith. No such element has been established in this investigation.

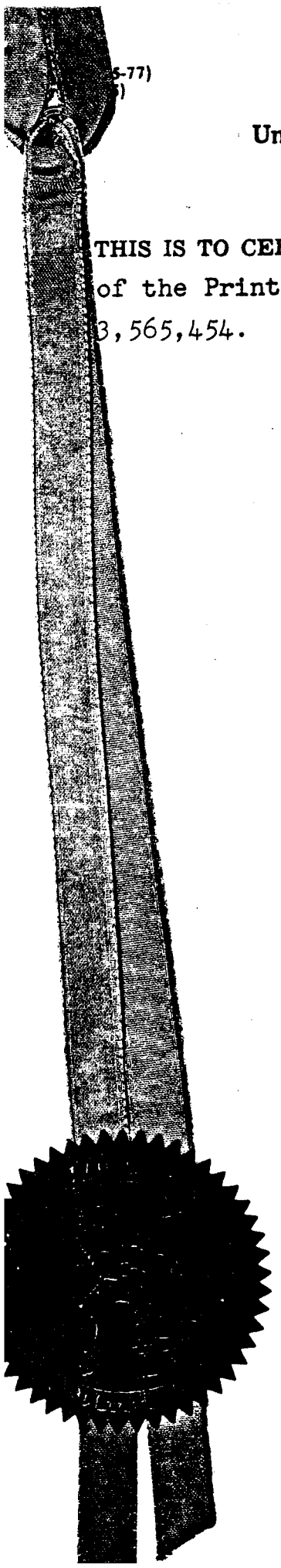
Further, I do not find that complainant's conduct amounted to gross negligence sufficient to render his patent unenforceable. In light of the significant difference in performance between the rocker board and the kicktail board, complainant's view of the rocker board as irrelevant insofar as his kicktail invention was concerned is understandable.

Conclusion

Because I find the Stevenson patent valid, enforceable, and infringed by the kicktail skateboards imported by respondents, and inasmuch as the parties have stipulated that the U.S. skateboard industry is efficiently and economically operated, and that importation of respondents' skateboards has the effect or tendency to substantially injure that industry, I determine that there is a violation of section 337. As a majority of the Commission has found no violation of the statute, I will not address the issues of remedy, bonding, and the public interest.

A P P E N D I X

1. U.S. Letters Patent 3,565,454 (Stevenson patent).
2. U.S. Letters Patent 3,056,148 (Abbott water ski patent).
3. U.S. Letters Patent 3,111,695 (Kelly surfboard patent).



U. S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

September 23, 1977
(Date)

THIS IS TO CERTIFY that the annexed is a true copy from the records of this office of the Printed Specification and Drawings of U. S. Patent 3,565,454.

By authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

Mary C. Conlon

Certifying Officer.

United States Patent

[11] 3,565,454

[72] Inventor **Richard Lawrence Stevenson**
1516 1/2 Amherst Ave., West Los Angeles, Calif. 90025

[21] Appl. No. **832,559**
[22] Filed **June 12, 1969**
[45] Patented **Feb. 23, 1971**

[54] **SKATEBOARD WITH INCLINED FOOT-DEPRESSIBLE LEVER**
13 Claims, 5 Drawing Figs.

[52] U.S. Cl. **280/87.04, D34/15**
[51] **Int. Cl.** **B62b 11/00**
[50] **Field of Search** ..... 280/87.04, 87.04 (A); Des 34/15 (26)

[56] **References Cited**

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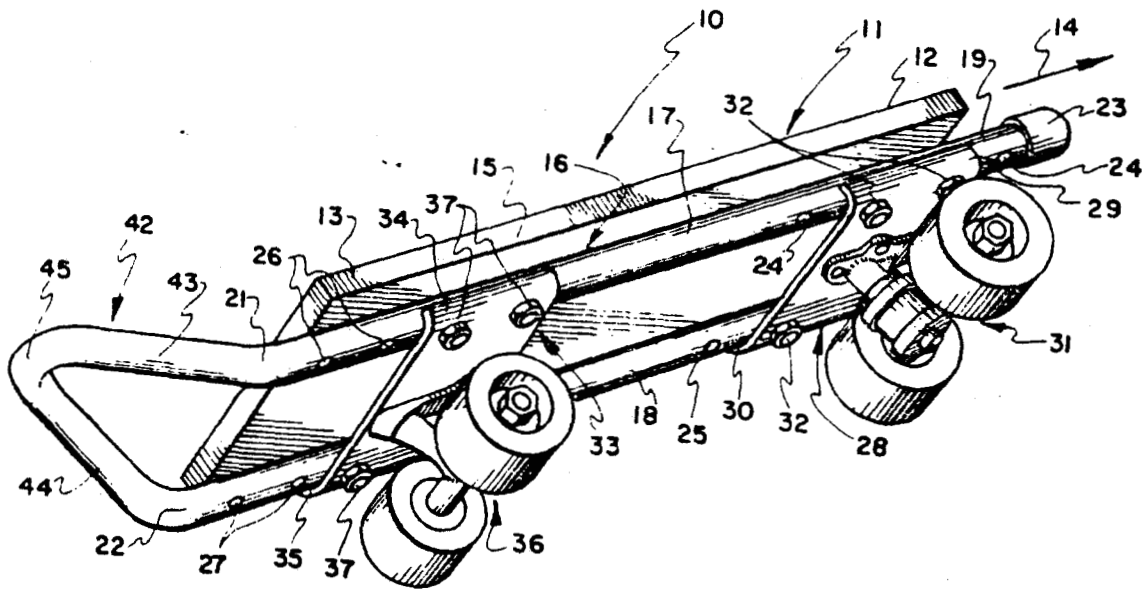
Primary Examiner—Leo Friaglia
Attorney—Elliott & Pastoriza

ABSTRACT: The rear end section of a skateboard mounts an inclined lever that is sloped upwardly and rearwardly from the skateboard. In order to practice otherwise difficult spinning or pivoting maneuvers such as wheelies with much improved balance and safety, a person places his rear foot upon and depresses the lever to tilt the skateboard upwardly into a position for the desired maneuver.



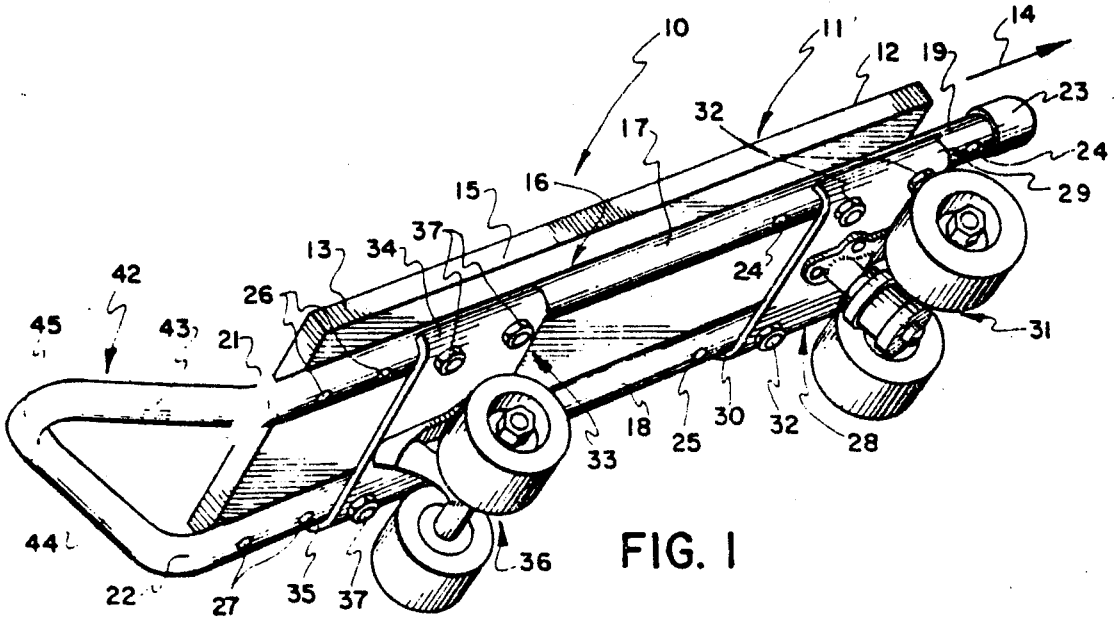


FIG. 1

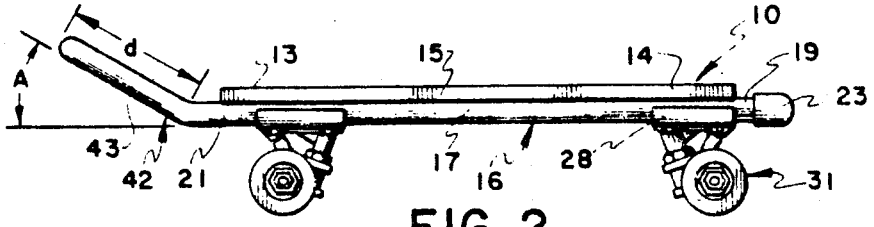


FIG. 2

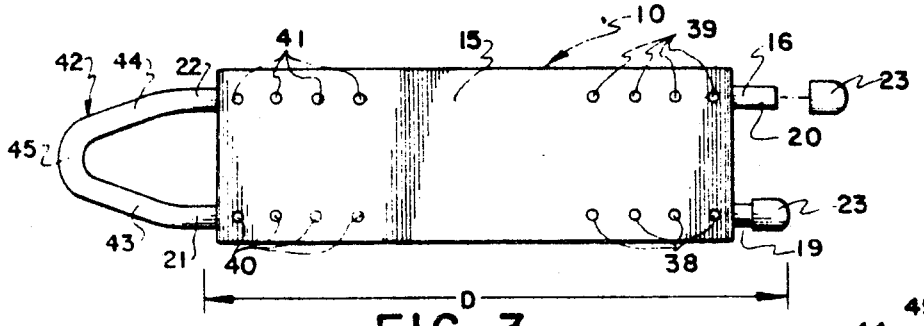


FIG. 3

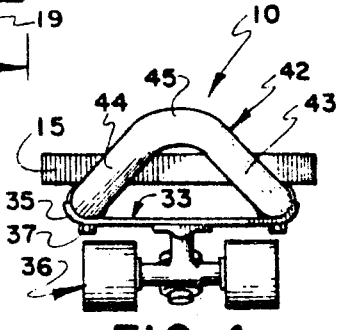


FIG. 4

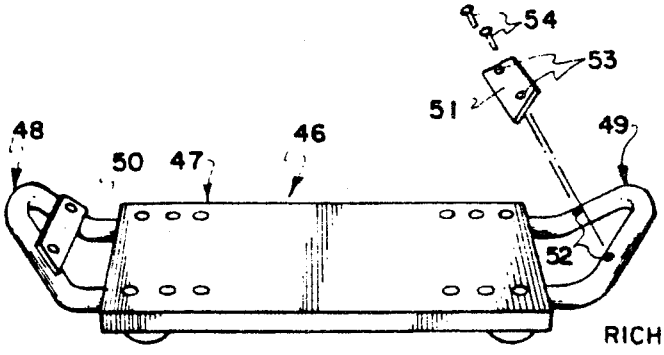


FIG. 5

INVENTOR:
RICHARD LAWRENCE STEVENSON
BY
Elliott & Pastoriza
ATTORNEYS

SKATEBOARD WITH INCLINED FOOT-DEPRESSIBLE LEVER

BACKGROUND OF THE INVENTION

The present invention relates to skateboards and more specifically to a skateboard with an inclined lever that is conveniently positioned for a person to depress with one foot in order to facilitate spinning the skateboard through a wheelie maneuver or the like.

Skateboarding is regarding by many people as an ideal sport for developing agility, maneuverability, control, balance and coordination. Conventional skateboards have an elongated plank or board sized for supporting a person in a standing position and sets of fore and aft wheels secured beneath the board. The rear set of wheels is positioned inwardly from the skateboard trailing or rearward edge to constitute a rear overhand section of the board.

As imaginative people gradually created different acrobatic styles and competition became increasingly popular, the risk to a person of losing his balance and tumbling from the skateboard became increasingly more serious. Inexperienced people trying to accelerate the development of their skills in spinning through wheelies or the like would not infrequently topple from the skateboard and become injured. Consequently some parents discouraged their children from operating skateboards since skateboards became regarded by these parents as hazardous and a threat to physical well-being.

Two basic situations make conventional skateboards more dangerous than they ought to be. As shall be explained these two conditions result from the fact that the rear overhang section of the board is both too long and is aligned in coplanar relationship with the rest of the board. The overhang section must be sufficiently long to enable a skateboarder to rest his foot upon the overhang section in order to press it downwardly to tilt the skateboard. With the skateboard tilted the person is then capable of attempting to spin around through a wheelie maneuver or the like while using the rear wheels as a fulcrum. Unfortunately, the necessary length of the overhang section often causes it to bump or scrape on the ground when the skateboard is tilted through only a slight angle relative to the ground. As a result the person is often tossed off the skateboard.

The other basic potential danger confronting people arises when a person, attempting to practice a wheelie, shifts his weight to his rear foot. As the skateboard is increasingly tilted the person's balance becomes more difficult to maintain since his rear foot must maintain a firm purchase on an ever-increasing sharp incline. A point is often reached, before the overhang section scrapes against the ground, when the rear foot unavoidably slips or slides off the skateboard with the adverse result that the person loses his balance and is toppled from the skateboard.

As shall be fully described this invention is aimed at overcoming the above mentioned skateboard dangers and providing a skateboard that will enable a person to quickly and safely acquire skateboarding skills.

BRIEF SUMMARY OF THE INVENTION

Briefly state this invention comprehends a skateboard constructed to assist a person in developing and enhancing balance and athletic skills with an accompanying much diminished risk of tumbling from the skateboard and becoming injured.

The skateboard is characterized by an elongated platform for supporting a person in a standing position, the platform having a forward end section, a rearward end section and a longitudinal center line. Sets of wheels are coupled to and positioned beneath both the forward end section and rearward end section of the elongated platform. A foot-depressible lever is coupled to the end section of the platform and is oriented so its plane slopes upwardly and rearwardly from the plane of the elongated platform.

To alter the skateboard from its normal traveling position and prepare it for a wheelie or spinning maneuver for example, the person shifts his weight rearwardly and depresses the lever in order to lift the platform upwardly until it assumes the desired optimum tilt.

In a preferred embodiment of this invention the platform is characterized by a tubular frame with two laterally spaced side runners and an elongated board that rests upon and is secured to the runners. The lever is a generally U-shaped tube whose tubular ends are coupled to corresponding rearward ends of the runners. The arms of the U-shaped tube may converge rearwardly and carry a pad that spans across the tubular arms and can be used to support a person's foot. An optimum angle defined by the planes of the platform and lever is between 20° and 50°.

The two sets of wheels are mounted to corresponding wheel plates which in turn are adjustably coupled to forward and rearward portions of the runners. The plates may be shifted longitudinally of the platform and repositioned to accommodate the special personal style of the skateboarder.

BRIEF DESCRIPTION OF THE DRAWINGS

The numerous benefits and unique aspects of the present invention will be fully understood when the following detailed description is studied in conjunction with the drawings in which:

FIG. 1 is a perspective view of the skateboard, showing the inclined foot-depressible lever coupled to the rear section of the skateboard and how the wheels are adjustably mounted to the platform;

FIG. 2 is a side view of the skateboard;

FIG. 3 is a top plan view of the skateboard;

FIG. 4 is a rear end view of the skateboard; and

FIG. 5 is a partially exploded perspective view of another embodiment of this invention, showing dual foot-depressible levers coupled to the rearward and forward end sections of the skateboard.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now primarily to FIG. 1 and also to FIGS. 2, 3 and 4 a skateboard 10 is shown that is constructed with a flat elongated platform 11 characterized by a forward end section 12 and a rearward end section 13. A person travelling on a skateboard 10 under normal circumstances would move in the general direction indicated by arrow 14. Platform 11 is constituted by an elongated rectangular board 15, which may be constructed from five plies of suitable laminated material, and a tubular frame 16 which may be constructed from chrome-plated steel tubing.

The tubular frame 16 includes a pair of parallel and laterally spaced runners 17 and 18 having forward ends 19 and 20 and rearward ends 21 and 22 respectively. The forward runner ends 19 and 20 are covered with caps or glides 23 which serve as bumpers and, alternatively, may receive the ends of a suitable bumper bar (not shown). Forward segments of runners 17 and 18 are formed therethrough with vertically extending securement holes 24 and 25. In a similar manner rearward segments of runners 17 and 18 are formed with vertically extending holes 26 and 27.

Spanning across and spaced from the underside of the board 15 is a forward wheel plate 28 with upwardly curved or curled ends 29 and 30. Curled ends 29 and 30 are contoured to snugly fit around corresponding portions of runners 17 and 18. Wheel plate 28 centrally mounts a set of wheels 31 and its curled ends 29 and 30 are formed with securement holes (not shown) for receiving lock bolts 32. Bridging across the undersurface of board 15 is a similarly constructed rearward wheel plate 33 with upwardly curved ends 34 and 35 that are contoured to fit around corresponding sections of runners 17 and 18. Rearward wheel plate 33 centrally mounts a set of wheels 36 that are tandemly aligned in back of set of wheels 31.

Wheel plate 33 is held firmly against tubular frame 16 by lock bolts 37.

In contrast with the arrangement described above conventional wheel assemblies are usually secured directly to the board or plank by wood screws or the like. that have a tendency to tear away from the board material after a fairly short time of rigorous skateboard use. Board 15 is coupled to sets of wheels 31 and 36 indirectly through intermediate wheel plates 28 and 33 which arrangement effects a much more durable, balanced and safe condition.

In order to accommodate the style of a particular person wheels 31 and 36 can be easily adjusted to different positions along the longitudinal axis of platform 11. To permit adjustment of the wheels marginal edges of the board, referring to FIG. 3, are formed with securement holes 38, 39, 40 and 41 that register with the runner securement holes 24, 25, 26 and 27 respectively as shown in FIG. 1. Thus, with regard to the wheel position shown in FIG. 1, rearward wheels 36 can be easily shifted backwardly by loosening and relocating lock bolts 37, and, forward wheels 31 can be shifted either forwardly or backwardly by loosening and relocating lock bolts 32.

An inclined foot-depressible lever 42 is secured to the rearward end section 13 of platform 11. In this preferred embodiment lever 42 is shown as a generally U-shaped tube characterized by a pair of arms 43 and 44 that converge rearwardly and terminate at and merge with a cross piece 45. The inner ends of arms 43 and 44 are rigidly coupled to the rearward runner ends 21 and 22 respectively. For construction convenience the tubular frame 16 and lever 42 are integrally formed from a single bent or shaped tubular segment.

Referring to FIG. 2 the intersection angle A defined by the planes of platform 11 and lever 42 is preferably between 20° and 50°, although any upwardly inclined acute angle from platform 11 is regarded as within the scope of this invention. In contrast with conventional skateboards, a person with his rear foot resting upon lever 42; (1) can tilt skateboard 10 by exerting less pressure, (2) is able to maintain superior balance, and (3) can negotiate wheelie or other spinning maneuvers with assurance that lever 42 is not likely to scrape or strike the ground.

Referring to FIGS. 2 and 3 the end-to-end length of lever 42 is between 10 percent and 35 percent of the overall end-to-end length D of platform 11. This relative size of lever 42 will furnish proper balance and an adequate area for supporting the rear foot of a person.

Referring now to FIG. 5 an embodiment of this invention is shown wherein a skateboard 46 has a platform 47 and dual or double inclined foot-depressible levers 48 and 49 extending from both the forward end section and rearward end section of platform 47. Skateboard 46 is essentially symmetrical so that a person is capable of straddling the skateboard with his feet resting simultaneously upon levers 48 and 49. This construction would be desired when a person contemplated a cakewalk maneuver characterized alternately swinging opposing ends of a skateboard 46 through slight arcs in order to progressively move in a given direction.

A pair of covers or pads 50 and 51 are bridged across and coupled to levers 48 and 49. As indicated by pad 51 which is exploded away from lever 49, pad 51 may be secured to lever 49 by registering lever bolt holes 52 with pad bolt holes 53 and then inserting and tightening bolts 54.

OPERATION

Keeping the above construction in mind it can be understood how many of the previously described advantages of conventional skateboards are overcome or substantially eliminated by the present invention.

A person may initially carry skateboard 10 to a level area of concrete pavement such as a sidewalk or a driveway by looping his hand around the inclined foot-depressible lever 42 and grasping the cross piece 45. The forward set of wheels 41 and rearward set of wheels 36 are then adjusted to desired locations along the longitudinal center line of platform 11.

To start the skateboard moving forwardly in direction 14 the person places either foot on the rearward platform section 13 and pushes off with the other foot. In order to spin or pirouette through a wheelie maneuver the person's rear foot is positioned on inclined lever 42 and downward pressure is exerted to depress lever 42 and tilt platform 11 to the desired attitude.

Since lever 42 is tilted preferably at an angle between 20° 20° and 50° from the plane of plat form 11 the person need not fear that lever 42, unlike overhang sections of conventional skateboards, will scrape or bump against the ground. Moreover, the person's rear foot is comfortably set upon lever 42 and is unlikely to slip off skateboard 10.

As a result beginner can quickly learn to perform wheelies with confidence and assurance that his physical well-being is safeguarded by the construction of skateboard 10.

From the foregoing it will be evident that the present invention has provided a skateboard with an inclined foot-depressible lever in which all of the various advantages are fully realized.

I claim:

1. A sport maneuvering device comprising:
   a. an elongated platform for supporting a person, the platform having a forward end section and a rearward end section;
   b. wheels coupled to and beneath the platform; and
   c. an inclined foot-depressible lever coupled to the rearward end section of the platform, the lever being oriented so its plane slopes upwardly and rearwardly from the platform wherein a person positioned with one foot on the platform and the other foot resting on the lever may tilt the platform to a desired position by depressing the lever.

2. The structure according to claim 1, wherein an intersection angle defined by the planes of the platform and lever is between 20° and 50°

3. The structure according to claim 1, wherein the lever has a pair of side edges that converge in a rearward direction.

4. The structure according to claim 1, including a second inclined foot-depressible lever coupled to the forward end section of the platform, the second lever being oriented so its plane slopes upwardly and forwardly from the plane of the platform.

5. The structure according to claim 1, wherein:
   the platform includes a tubular frame with two laterally spaced side runners, and, an elongated board secured to the runners; and,
   the lever is a generally U-shaped tube connected at its ends to corresponding rearward ends of the runners.

6. The structure according to claim 5, including a pad aligned across and coupled to the U-shaped tube for supporting a person's foot.

7. The structure according to claim 1, wherein the end-to-end length of the lever is between 10 and 35 percent of the end-to-end length of the platform.

8. A skateboard comprising:
   a. an elongated platform for supporting a person, the platform having a forward end section, a rearward end section and a longitudinal center line;
   b. a first set of wheels coupled to and positioned beneath the platform forward end section;
   c. a second set of wheels coupled to and positioned beneath the platform rearward end section; and
   d. an inclined foot-depressible lever coupled to the platform rearward end section, the lever being oriented so its plane slopes upwardly and rearwardly from the plane of the platform wherein a person positioned with one foot on the platform and the other foot resting on the lever may tilt the platform to a desired position by depressing the lever.

9. The structure according to claim 8, wherein:

the elongated platform includes a tubular frame with two laterally spaced side runners, and a flat elongated rectangular board secured to the runners; and,

the lever is a generally U-shaped tube connected at its ends to corresponding rearward ends of the runners.

10. The structure according to claim 9, including:

a first wheel plate that mounts the first set of wheels and has opposing sides coupled to forward sections of the runners; and,

a second wheel plate that mounts the second set of wheels and has opposing sides coupled to rearward sections of the runners.

11. The structure according to claim 10, including adjustment means for selectively adjusting at least one wheel plate along the platform longitudinal center line.

12. The structure according to claim 11, wherein an intersection angle defined by the planes of the board and lever is between 20° and 50°.

13. The structure according to claim 12, wherein the end-to-end length of the lever is between 10 and 35 percent of the end-to-end length of the platform.

Oct. 2, 1962 W. P. ABBOTT ETAL 3,056,148

WATER SKI

Filed July 3, 1959 2 Sheets-Sheet 1

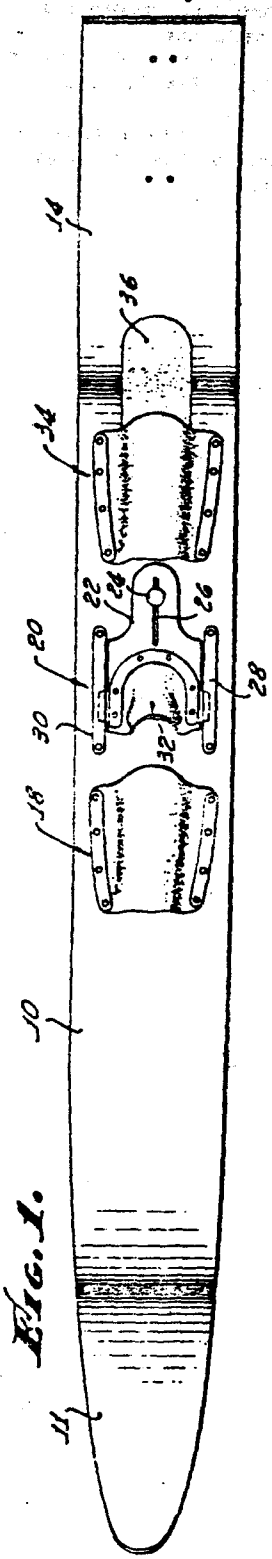


Fig. 1.

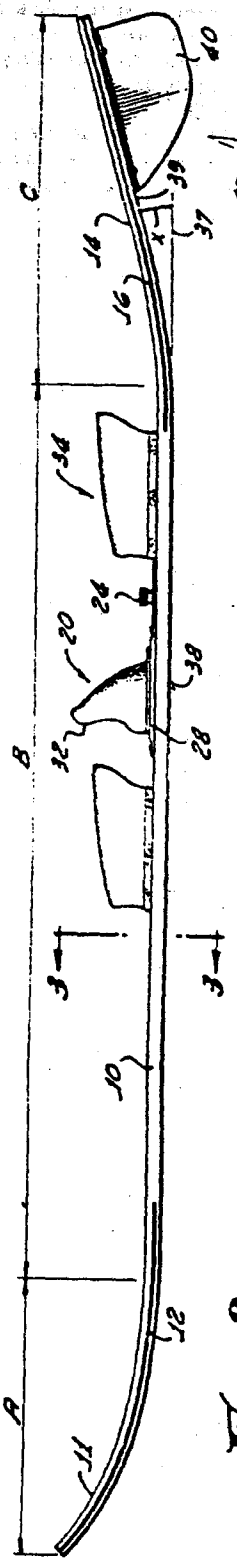


Fig. 2.

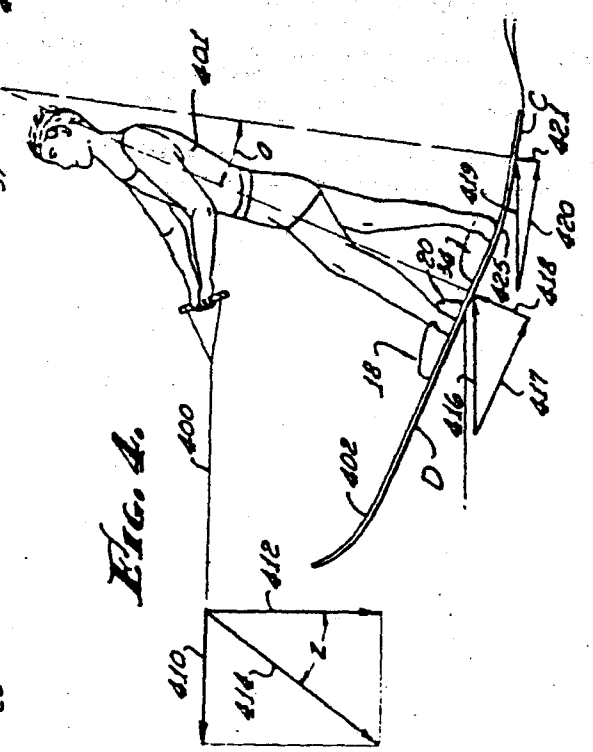


Fig. 4.

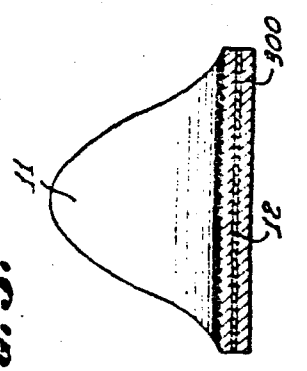


Fig. 3.

INVENTORS
WILLIAM P. ABBOTT
KENNETH A. WALTS
BY
ATTORNEY.

EXHIBIT 29
CX 29

Oct. 2, 1962 W. P. ABBOTT ETAL 3,056,148

WATER SKI

Filed July 3, 1959 2 Sheets-Sheet 2

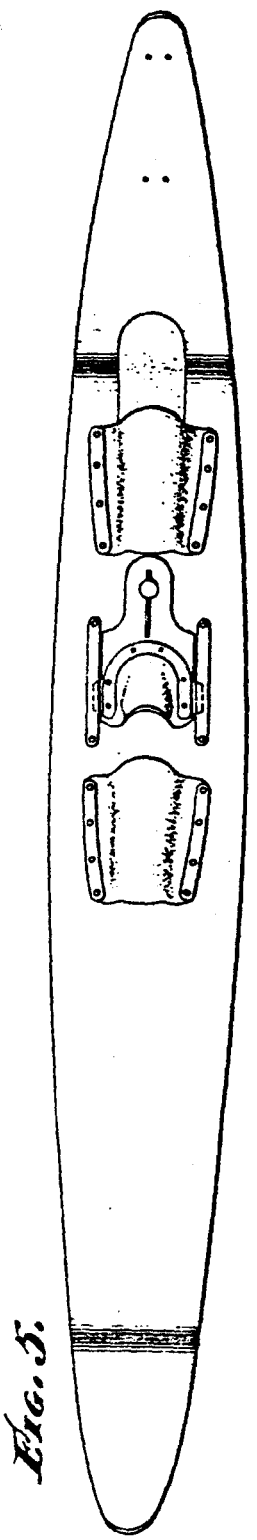


Fig. 5.

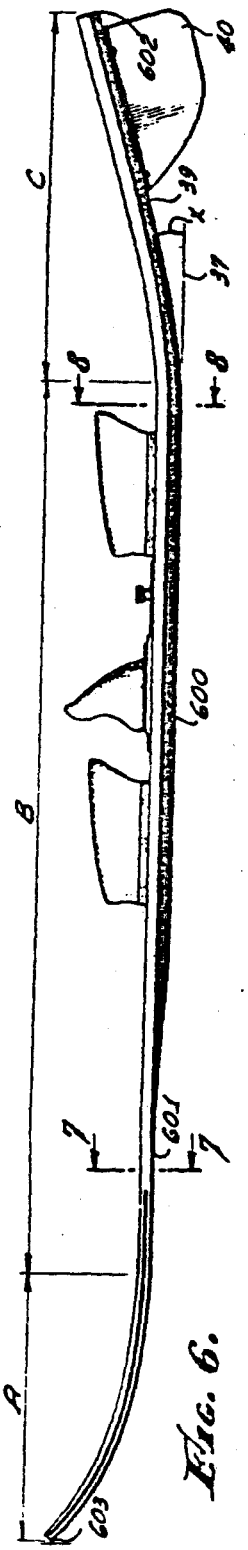


Fig. 6.

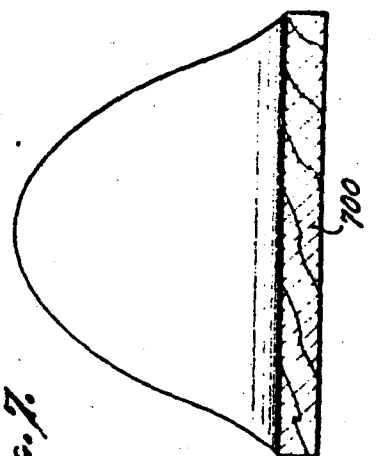


Fig. 7.

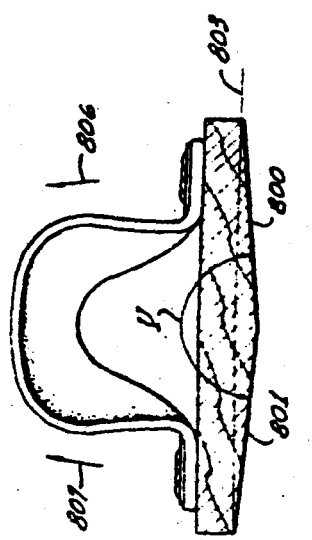


Fig. 8.

INVENTORS
WILLIAM P. ABBOTT
KENNETH A. WALTS
BY
Nicholas T. Vuono
ATTORNEY

United States Patent Office 3,056,148 Patented Oct. 2, 1962

3,056,148

WATER SKI

William P. Abbott, Pasadena, and Kenneth A. Walts, Modesto, Calif., assignors to W. J. Voit Rubber Corp., a corporation of California

Filed July 3, 1959, Ser. No. 824,845
7 Claims. (Cl. 9—310)

This invention relates to water skis and more particularly to the so-called slalom water skis. The slalom skiing is that type of skiing in which only one ski is used for supporting the rider as differentiated from the normal use of two skis in water skiing. Only those obtaining a better than basic knowledge of water skiing are capable of using the so-called slalom ski.

The conventional water skis have a continuous flat bottom surface running the full length of the ski from the upwardly curved front end to the rear, or aft, end of the ski, the rear end of the ski ending in a flat rectangular end. At average speed of water skiing approximately 70 to 50% of the rear flat surface of the water ski is in direct contact with water and the resultant force, supporting the rider, its direction, and the point of its application are such that by far the greater weight of the rider is supported by his rear leg rather than his front leg when only one ski is used for skiing. Such weight distribution produces disproportionate tiring of the rear leg and an uncomfortable straining on the calf of the rear leg. Moreover, because of the flat nature of the surface, such ski provides only a limited maneuverability, self-rectifying balance and the concomitant stability.

The invention discloses a water ski which furnishes greater maneuverability, a more uniform weight distribution between the two legs of the rider, and, also, greater inherent stability which is obtained by providing a V-shaped hull, and, also, by providing an upturned aft plane, this latter plane providing greater lift and decreasing the overall drag of the ski.

It is, therefore, an object of this invention to provide a water ski provided with an upturned aft plane portion for improving stability, maneuverability, lift and decreasing drag, and for obtaining a more uniform weight distribution between the two legs of the rider.

It is an additional object of this invention to provide a water ski of the above type which also has a V-hull for improving the smoothness of the ride and for providing such ski with a self-rectifying balance.

In accordance with the invention, the water ski is provided with an upturned toe portion, a flat mid-portion and an upturned aft plane portion, the latter constituting approximately 10% of the weight supporting plane of the ski when the latter is in use at low to average speed. This aft plane forms an angle which is not less than 7° and not more than 16° with the front portion of the ski. By providing such upturned aft plane, one obtains two resultant forces acting on the two planes of the ski, the first plane being the front plane, and the second plane being the upturned aft plane. Since these two planes, or these two surfaces, subtend an angle of 165°, there is a first resulting force having one direction determined by the angle of inclination of the first surface with respect to the water and a second force determined by the inclination of the upturned aft plane with respect to the water. The angle between these two reaction forces is a function of the angle between the two planes and also is a function of the speed of the ride. The directions, as well as the magnitudes of these two reaction force vectors are such that they produce a more even distribution of the forces between the two legs of the rider, namely that both legs evenly contribute to the transmission of the resultant force to the ski and, therefore, there is a greater stability of the rider on the ski provided with an aft plane. In the prior skis, having only a single flat surface, and having no upturned aft plane, as mentioned previously, it is the rear leg that is primarily responsible for supporting the rider and for transmitting the resultant force to the ski, while the front leg remains, in the main, idle. When the resultant force thus is transmitted through one point contact (one leg of the rider), the equilibrium of such vectorial relationship of the forces is more precarious as compared to the two counter, or reaction, forces acting upwards and the two direct forces counter balancing them and acting downwards, the two upward forces forming an angle with respect to each other, and the two downward forces also forming a corresponding angle with respect to each other. With such distribution of the force vectors, the equilibrium possesses an inherent self-rectifying characteristic in that if one of the vectors is decreased, then the other vector is automatically increased with the resultant tendency to restore the balance to its equilibrium position. The equilibrium, described above, is in the plane of the force exerted on the skier by the pulling rope.

The stability in the transverse plane is also improved by providing a V-hull construction in which the flat surfaces, that are normally in contact with water, are composed of four surfaces at an angle with respect to each other. The two front surfaces, corresponding to the front bottom portion of the ski, are inclined with respect to each other and subtend an angle in the order of 160°, and the two aft surfaces, on the upturned aft plane, are also inclined with respect to each other and subtended at an angle of approximately 160°. In this manner, when the pressure exerted on one inclined surface is decreased because of the shift in the direction of the forces acting on the ski, then the pressure exerted on the complementary, adjacent inclined surface is increased with the result that it also tends to rectify or restore the position of the ski to its normal position, or that position in which the pressures exerted on the two slanted surfaces are equal to each other. This type of V-hull construction produces a better response on turns and it also decreases the drag produced between water and the ski because of the concomitant change in the boundary layer between the water and the ski.

Referring to the drawings:

FIG. 1 is a plane view of a slalom ski with a rectangular aft end.

FIG. 2 is a side view of the same ski.

FIG. 3 is a transverse cross sectional view of the same ski taken along line 3—3 illustrated in FIG. 2.

FIG. 4 illustrates the position of the ski and of the skier in the skiing position.

FIG. 5 is a plain view of another version of the ski having a tapered aft end and a V-hull.

FIG. 6 is a side view of the ski illustrated in FIG. 5.

FIG. 7 is a transverse sectional view of the ski, shown in FIGS. 5 and 6, taken along line 7—7 illustrated in FIG. 6.

FIG. 8 is a transverse sectional view of the ski of FIGS. 5 and 6 taken along line 8—8 illustrated in FIG. 6.

The shape of the first version of the water ski is illustrated in FIGS. 1, 2 and 3. It includes the front upturned toe portion "A," the mid portion "B" and the upturned aft portion "C." The body 10 of the ski is made of inlaid mahagony and the toe 11 of the ski is made of laminated mahagony and maple, the laminations being illustrated by line 12 in FIG. 2. The upturned aft portion "C," which is also numbered as portion 14 in FIGS. 1 and 2, is also of laminated construction, identical to that used in making toe 12 of the ski. The laminations of the upturned aft portion are illustrated by lines 16 in FIG. 2. The slalom ski is provided with conventional toe and

heel assemblies 18 and 20, the heel assembly being provided with an adjustable plate 22 and a knurled stud 24 which fits into a slot 26 in plate 22. Plate 22 forms a sliding contact with the side bars 28 and 30 of the heel assembly and it is also provided with a flexible heel 32 made of such materials as neoprene rubber, or any suitable synthetic resin such as polyvinyl chloride. The position of the heel is adjusted by loosening and tightening slide 24 and sliding the adjustable metallic plate to a desired position. The ski is also provided with a second toe assembly 34 and a friction foot pad 36 also made of neoprene rubber with a knurled surface so as to provide a skid proof base for the second leg of the skier. The upturned aft portion "C" forms an angle X with a line 37, which represents a continuation of a line 38 defining the bottom surface of the mid portion "B" of the ski. Therefore, angle X is the angle between lines 37 and 39, line 39 being the longitudinal axis of the upturned aft straight portion "C" of the ski. Angle X is not an especially critical angle but it has been determined experimentally that with the speeds currently used by the skiers, which is determined by the speeds of the boats used for towing the skiers, this angle should be not less than 7° and not more than 16°.

The upturned aft portion is provided with a fin 40 which can be made either of synthetic resin, or zinc which resists corrosion in salt water. The approximate proportions of the 71" slalom ski, illustrated in FIGS. 1 and 2, are as follows: Part "A" is approximately 14" long, part "B" is approximately 40" long and part "C" is approximately 17" long, or approximately 40% of the length of the mid portion "B." Parts "C" and "B" merge into each other by means of a gradual smooth curve which interconnects the upturned straight portion "C" with the straight mid portion "B." The upturned aft portion "C," therefore, includes two parts: the upturned curved aft portion and a straight aft portion. The above mentioned dimensions may be varied to a limited extent (the length of the aft portion may be from 30% to 50% of the length of the mid-portion) and are suitable for a slalom ski for a skier of average weight, such as 100–190 lbs. when the X angle is in the order of 10° and the ski is 7¾" wide.

The ski, illustrated in FIGS. 1 and 2, has a rectangular cross section 300, illustrated in FIG. 3, which also illustrates the upturned toe 11. The upturned aft plane portion of the ski in FIGS. 1, 2 and 3 has a uniform width, equal to the width of the central portion "B," and its aft end has a rectangular end. The bottom surface of the ski is a flat surface.

Referring now to FIGS. 5 and 6, which illustrate the second version of a slalom ski provided with a V-shaped hull and a tapered upturned aft portion, the plan view of this aft end has an outline of a bisected ellipse joined to the aft end of the central portion "B" of the ski. This semi-elliptic end increases the maneuverability of the skis as compared to the rectangular end shown in FIG. 1. The side view of this ski, illustrated in FIG. 6, indicates that the ski is provided with a V-shaped portion 600 which extends from point 601 to the trailing end 602 of the ski. The ski has a flat bottom from point 601 to point 603, which is the tip of the upturned toe of the ski. The front portion of the ski has a rectangular cross section 700, illustrated in FIG. 7 and, therefore, this portion of the ski is identically shaped to the ski illustrated in FIGS. 1, 2 and 3. Section 8—8 of this ski is illustrated in FIG. 8 which illustrates the transverse V-shaped section of the ski hull, provided with two inclined surfaces 800 and 801 which subtend an angle Y. It is these two inclined surfaces 800 and 801 that form the V-shaped hull of the ski and this V-shaped hull extends from point 601 all the way to the aft end of the ski. The ski, illustrated in FIGS. 5, 6, 7 and 8 is also provided with an upturned aft portion "C" which is identical to the upturned aft portion "C" in FIG. 2, except that it has a semi-elliptic outline in plan view. It also forms an angle X between the lines 37 and 39 which, as mentioned previously, is not less than 7° and not more than 16°. The ski is also provided with rudder 40 of the type illustrated in FIG. 2.

The V-shaped hull with the surfaces 800 and 801 provides the additional lateral stability to the ski by always presenting either a flat inclined surface 800, or a flat inclined surface 801 to the water, when the position of the ski is shifted for a turn or when the skier follows a zig-zag pass. Such V-shaped bottom, or hull, produces a quicker and easier response on the turns and a greater stability in that the ski with this type of hull does not slide laterally from under the skier when it is placed into a slanted position with respect to a horizontal plane during the turns. Because of the inclination of the two surfaces 800 and 801 with respect to each other, if for instance, the ski is rotated counter clockwise in FIG. 8 with respect to the horizontal line 803, the pressure on surface 800 is decreased, while the pressure on surface 801 is increased with the result that a turning couple acts on the ski, which rotates it in a clock-wise direction. This turning couple is produced due to the decrease in the force 806 and the increase in the force 807 diagrammatically illustrated in FIG. 6 by the vectors 806 and 807 perpendicular to the inclined surfaces 800 and 801. The same turning couple also takes place when the ski is rotated in the clock-wise direction with respect to line 803, except that in this case the turning couple will endeavor to turn the ski in the counter-clock-wise direction so as to restore the position of the ski to its horizontal position illustrated in FIG. 8. It is this creation of the turning couples by the V-hulls that is referred to in this specification as being a self-rectifying property of the ski in a transverse plane, or in a plane perpendicular to plane of the pulling force exerted on the ski and the skier by a tow-rope 400 in FIG. 4.

Referring now to FIG. 4, it illustrates the position of the skier 401 on a slalom ski 402 when he is towed by the tow-rope 400. The forces exerted by the tow-rope and the skier may be represented by the horizontal force 410 and a vertical force 412, the resultant force acting on the ski being force 414, which forms an angle Z with respect to the vertical force 412. Force 412 will remain constant as long as the same skier is considered and force 410 is a function of the speed of the boat and its tow-rope, this force gradually increasing with the increase in this speed. The resultant counter force, or the reaction, acting on the ski, obviously should be equal and opposite in direction to the resultant force 414 as long as the skier maintains his equilibrium on the ski. This resultant counter force may be resolved so as to produce the vector triangles including vectors 416, 417 and 418 acting on surface "D" of the ski and the vectors 419, 420 and 421 acting on the upturned aft plane "C" of the ski. Vectors 416 and 419 are two horizontal vectors and vectors 418 and 421 are perpendicular to the respective surfaces "D" and "C" of the ski. Therefore, these two forces 418 and 421 form an angle "a" which is equal to angle X in FIG. 2. Such vectorial representation of the reaction forces, acting on the two planes of the ski, indicates that the ski will also have a turning couple approximately at the point of its bend 425 which is produced by the vectors 418, 421. One can very readily see that if vector 421 increases, vector 418 will at once decrease with the result that a counterclockwise turning action will be produced on the ski so as to restore it to the position indicated in FIG. 4. The opposite turning force will act on the ski if the ski is turned counterclockwise. Because of the existence of the two forces 418 and 421, which form an angle "a" with respect to each other, the ski has the self-rectifying properties in the plane of the force vectors 410, 412, 414, 416, 421, etc., this self-rectifying action being comparable to that provided by the V-hull. No such self-rectifying action exists in a flat ski, having a

flat end and having no upturned aft plane, because in such a ski there is only one vectorial triangle comparable to that illustrated by vectors 416, 417 and 418 which is not capable of producing two vectors at an angle with respect to each other in the manner illustrated in FIG. 4. In the flat skis known to the prior art, with the straight aft portion, the resultant vector acting on the ski which is equal and opposite in direction to vector 414 passes primarily through that portion of the ski which is directly under the rear leg of the user with the result that, as mentioned in the introductory part of the specification, the rear leg of the skier is the one which provides by far the greatest part of the support, while the front leg plays only a minor role. This is not so in the case of the ski having an upturned aft plane because this plane has a tendency to shift the resultant counter force into the position half way between the legs and it also changes its direction so that the weight of the ski is uniformly distributed between the two legs.

It should be also noted here that since the ski with the upturned aft plane offers a lower resistance than the flat ski, vector 410 in this case will be smaller than it is the case in connection with the flat ski, and, therefore, angle Z will be smaller in this case than with the flat ski. Therefore, there is not only a readjustment of the magnitude in the vectorial relationship but also a readjustment between their angular relationships which contribute to the stability of the rider and produce a more uniform weight distribution between the two legs. This, in turn, contributes to the maneuverability and the ease of control and handling of the ski by the rider.

What is claimed as new is:

1. A water ski having three portions, an upturned toe portion, a straight mid-portion and an upturned aft portion including an upturned curved aft portion and a straight aft portion with a stationary fin attached to the end of said straight aft portion, the first mentioned aft portion having a length in the order of 40% the length of said mid-portion, whereby the first mentioned aft portion produces a significant part of the lift of said ski along the water line when said ski is in use, said upturned curved aft portion forming a smooth junction with the mid-portion of the ski, the first mentioned upturned aft portion comprising the dominant portion for supporting a skier when said water ski is travelling at high speed.

2. The structure of claim 1 wherein the first mentioned upturned aft portion forms an angle with said mid portion which is in the order of from 7° to 16°.

3. The water ski as defined in claim 1 wherein said ski is also provided with a V-hull, said V-hull extending through the greater portion of the mid-portion of the ski and through the entire upturned aft portion of the ski.

4. The water ski as defined in claim 3 wherein said ski also includes one complete heel and toe assembly centrally positioned at the mid-portion of the ski, and a toe assembly positioned at the aft end of the mid-portion of the ski.

5. A slalom water ski having an upturned toe, a straight mid portion, said toe merging into said straight mid portion by means of a continuous curve, and an upturned aft portion, said aft portion including a curved aft portion and a straight aft portion, said straight mid portion merging into said curved aft portion, said straight aft portion forming an angle in the order of from 7° to 16° with said straight mid portion.

6. The ski as defined in claim 5 in which said upturned aft portion has a substantially semi-elliptic plan view, and a V-hull extending through the greater portion of the straight mid portion and through the entire upturned aft portion of said ski.

7. A slalom water ski having a toe portion, a mid-portion having a pair of foot-receiving members disposed in tandem thereon, said mid-portion being adapted to provide a first lift force during ski operation, and an aft portion disposed rearward of the rearwardmost one of said foot-receiving members for providing a significant auxiliary lift force during ski operation, said aft portion including an upturned curved aft portion, forming a continuation of said mid-portion, and a straight aft portion forming a continuation of said curved aft portion, said straight aft portion being inclined angularly upward to the extended plane of said mid-portion, the first mentioned aft portion constituting from 30% to 50% of the length of said mid-portion.

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Nov. 26, 1963 J. M. KELLY, JR 3,111,695

HYDROPLANE SURFBOARD

Filed Sept. 25, 1962 2 Sheets-Sheet 1

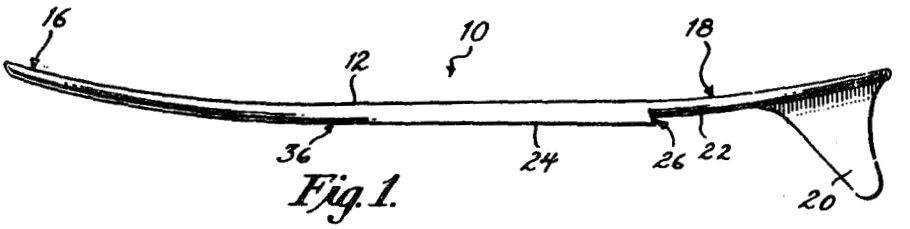

Fig. 1.

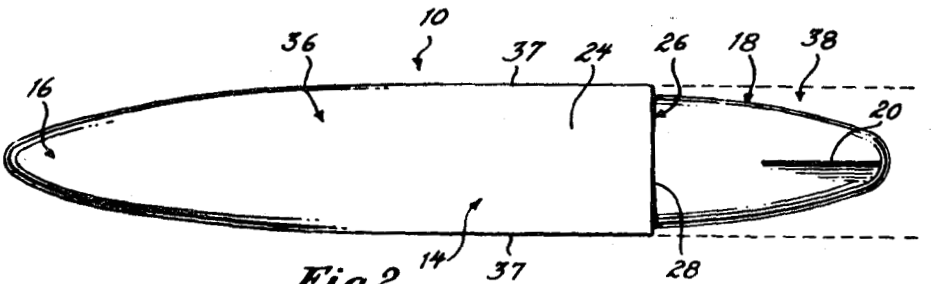

Fig. 2.

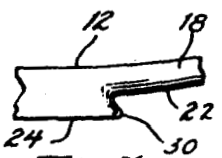

Fig. 3.

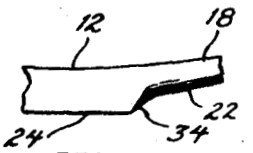

Fig. 4.

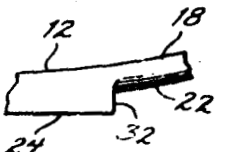

Fig. 5.

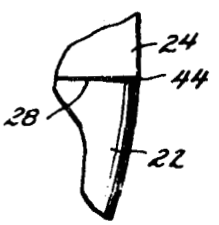

Fig. 8.

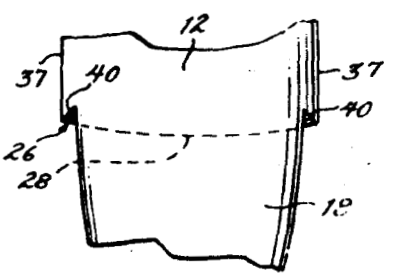

Fig. 6.

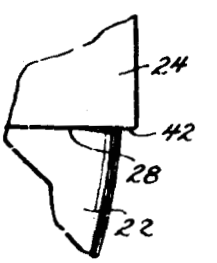

Fig. 7.

INVENTOR.
JOHN M. KELLY, JR.

BY
Millman and Jacobs
ATTORNEYS.

Nov. 26, 1963 J. M. KELLY, JR 3,111,695

HYDROPLANE SURFBOARD

Filed Sept. 25, 1962 2 Sheets-Sheet 2

Fig. 9.

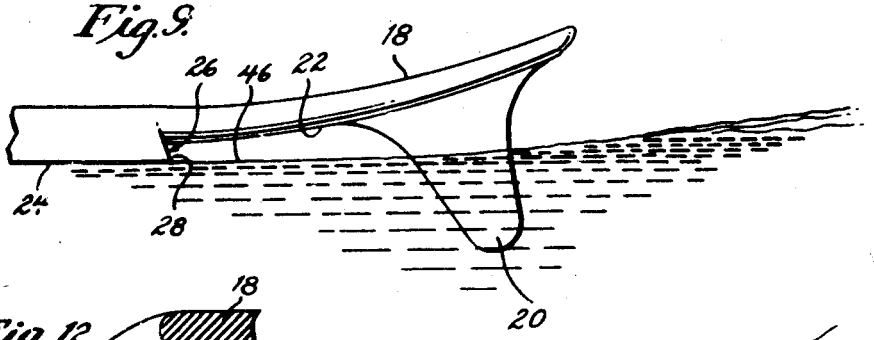

Fig. 12.

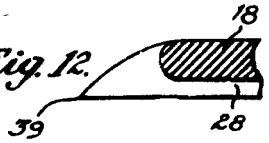

Fig. 10.

Fig. 13.

Fig. 11.

INVENTOR.
JOHN M. KELLY, JR.

BY
Millman and Jacobs
ATTORNEYS.

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3,111,695
HYDROPLANE SURFBOARD

John M. Kelly, Jr., 4117 Black Point Road, Honolulu, Hawaii

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12 Claims. (Cl. 9—310)

This invention relates to a surfboard.

Most surfboards now in use are made with curved longitudinal profiles which rock about their centers of gravity in a manner to aid the rider in maintaining his fore-and-aft balance and to allow the board to approximate the curvature of the forward slope of the wave. The major disadvantage in such a rocker construction is that the board drags a quantity of water when moving directionally over and through the water thereby inhibiting its speed which limitation cannot be overcome by the rider. While drag may be desirable when the rider wishes to "stall" and thus ascend to a higher position on the wave, he also needs maximum speed capability to "shoot the curl," i.e. to plane across the face of the wave, perhaps the most desirable riding maneuver. At any moment, the rider may need to stall again or to turn at high speed to avoid hitting another rider, to avoid rocks or to navigate wind chops or unevenness on the wave's slope.

Other surfboards now designed for use exclusively in big surf, i.e., for waves above 10 feet in height, are constructed to maximize speed by minimizing the rocker curvature and providing sharp breakaway edges around the stern. However, because of their elongated, straight and relatively flat tails which are adverse to the curved path of the surfboard when engaged in turning, these boards are inherently incapable of maneuvering at high or low speeds. Thus, these boards sacrifice maneuverability to achieve high speeds whereas the aforementioned rocker boards sacrifice speed for maneuverability.

The primary object of the invention is to overcome the aforementioned disadvantages resident in the conventional surfboards by combining in a single surfboard accessibility of both extremely high as well as low speeds and increased maneuverability at all speeds. This combination of heightened functions is accomplished by providing a planing surface and a scorpion tail which are physically differentiated by a transverse shoulder so that the rider, by body movement or shift in weight, can bring the planing surface into partial or full play or bring the drag into effect thereby achieving a wide range of speeds while maintaining maneuverability throughout.

Another object of the invention is to provide a surfboard which readily enables the rider to attain a wide range of speeds as well as accentuated maneuverability at all speeds by the functional coaction between a number of features which comprise a planing surface and a scorpion tail which are differentiated physically by a transverse shoulder thereby creating discretely separated bottom surfaces, the tail curving upwardly above the wake and tapering towards its tip away from the shoulder to provide a cutaway at the sides of the board in the location of the tail. The cutaway, taking advantage of the clean partition of the water from the board at the sharp breakaway edge of the transverse and vertical indentations at the bottom and sides, acts as a means to prevent the water from being sucked in around the stern and create a drag from which the rider cannot release himself. The same is true for the lift of the tail.

Another object of the invention is to provide a surfboard which enables the rider to attain a wide range of speeds, a greater maximum speed, and accentuated maneuverability, yet the board is relatively simple in design construction and easier to operate than other models.

These and other objects and features of the invention

will become more apparent as the following description proceeds in conjunction with the accompanying drawings, wherein:

FIG. 1 is a side elevational view of the surfboard;

FIG. 2 is a bottom plan view thereof;

FIGS. 3, 4 and 5 are fragmentary elevational views of modified forms of shoulders;

FIG. 6 is a fragmentary top plan view of a modified form of a board at the location of the shoulder;

FIGS. 7 and 8 are fragmentary bottom views of further modified shoulder constructions;

FIGS. 9, 10 and 11 are fragmentary enlarged views of the tail end of the surfboard illustrating respectively low, partial and maximum drag;

FIG. 12 is a fragmentary vertical sectional view through the board just aft of and looking at the shoulder and illustrating one type of side edge at the planing surface; and

FIG. 13 is a view similar to FIG. 12 illustrating another type of side edge at the planing surface.

Specific reference is now made to the drawings wherein similar reference characters are used for corresponding elements throughout.

The surfboard of the instant invention is generally indicated at 10 and is an elongated member capable of being fabricated of a wide variety of materials, preferably fiberglass-covered air-expanded plastic foam or balsam wood. The rider engages the upper or deck face 12 while the opposite or bottom face 14 is adapted to engage the water. The bow 16 is tapered and preferably upwardly curved to provide a scoop, whereas the stern includes an upwardly curved scorpion tail 18 having a skeg 20 depending from its bottom or tail surface 22.

The bottom face 14 includes two separate and distinct surfaces, one the tail surface 22 and the other a planing surface 24 forward thereof. These surfaces are differentiated by providing a transverse shoulder 26 formed in the bottom face, which consists of a break in the lines of the side and bottom profiles in such a manner that the tail surface 22 is elevated about the planing surface 24. The depth of the shoulder, i.e. the distance by which the tail surface 22 and the planing surface 24 are separated, may vary from one-eighth to four inches depending upon the body weight and preferences of the riders as to height of the waves to be ridden, the degree of slope of the waves at which the higher speeds are desired and the degree of braking effect desired, the depth of maximum efficiency for all desired capabilities being approximately one inch for surfboards averaging eight to ten feet in overall length. Along the longitudinal axis of the surfboard, the location of the shoulder may vary from a point approximately six inches from the stern to a point midway between the bow and stern depending upon the overall length of the board and the preferences of the riders as to maximum speed desired, degree of braking effect and sharpness of turning ability, the optimum location for desired capabilities being approximately twenty-five to thirty inches from the tip of the stern for surfboards averaging eight to ten feet in overall length.

The transverse line of juncture 28 of the planing surface 24 and the shoulder 26 is a breakaway edge which provides maximum efficiency when it is sharp, i.e., with a radius of curvature no greater than one thirty-secondth of an inch and when the inclination of the shoulder is clearly differentiated in angle from the horizontal planing surface 24. To provide simplicity of final surfacing in manufacture, as well as to reduce danger of too sharp a breakaway edge, the same may be rounded to a radius of curvature of approximately one-quarter of an inch, as shown at 30 in FIG. 3. It should be understood, however, that a sharper breakaway edge is functionally

preferable due to hydrodynamic action of fluids in separating from plane surfaces. The shape of the shoulder as viewed from the side may vary from a deep recess or acute angle as shown in FIGS. 1, 2, 3, 6 and 9–11, through a substantially right angular recess 32 as shown in FIG. 5 to a shallow recess 34 somewhat in excess of ninety degrees as shown in FIG. 4. The breakaway edge 28 may be transversely curved convexly in the direction of the stern as shown in FIG. 6, instead of straight or concave, to help ease the air around the edge of the shoulder thus enabling more effective release of the scorpion tail from the water.

The planing surface 24 functions at maximum efficiency when it is flat, both transversely and longitudinally, although it may be curved both longitudinally and transversely, the degree of longitudinal curvature being least at the shoulder and greatest where the planing surface and bow scoop merge as at 36, see FIG. 1. The side edges of the planing surface may be rounded as shown at 37 in FIG. 13 to cause the board to groove slightly into the wave but for maximum efficiency they fair down gently from the deck at an angle of approximately forty-five degrees to end in sharp side breakaway edges as shown at 39 in FIG. 12 and which are substantially parallel to the axis of the surfboard as suggested at 37 in FIG. 2. The radius of curvature of each side edge from the shoulder forward a distance approximately equal to the length of the planing surface, for maximum efficiency, should not exceed one-thirty-secondth of an inch, the edge becoming rounded as it merges with the rounded sides of the board at the bow end.

The dimensions of the planing surface 24 may vary according to the overall dimensions of the board and height, weight and individual preferences of the rider but should be between seventeen and twenty-six inches transversely, and longitudinally, i.e. from the shoulder 26 to the scoop point 36, it should comprise approximately one-fifth to one-third of the total bottom surface of the board. The instant board can have a straight instead of an uplifted bow, in which case the planing surface extends from the shoulder forward to the bow extremity of the board thereby comprising a major portion of the total bottom surface.

The entire section aft of the shoulder 26 is the scorpion tail 18 which is elevated above the planing surface in the manner indicated hereinbefore with reference to the depth of the shoulder. The scorpion tail is curved both longitudinally and transversely and upwardly from the plane of the planing surface, the upward curvature varying from slightly above the plane to a maximum of approximately eight inches measured from the tip of the tail to the extension of the plane aft of the shoulder.

It will be seen from FIG. 2 that the sides of the scorpion tail curve inwardly or taper in diminishing width from the shoulder to the tip of the tail to provide a cutaway 38, which is the space between the extensions aft of the sides of the board beyond the shoulder and the sides of the tail as seen in FIG. 2. The sides of the scorpion tail at the shoulder may be sharply indented by acute angles 40 as shown in FIG. 6 or by right angles 42 as shown in FIG. 7. The sides of the scorpion tail may also be continuous with the curvature of the sides of the board, as shown at 41 in FIG. 8, though the aforementioned indentation affords less drag and greater speed. In either case of indentation or [illegible] the scorpion tail should lie within and not exceed the dimension across the wake area as produced by the shoulder, the planing surface and the maximum width of the surfboard forward of the shoulder.

The edges of the scorpion tail are so curved that the surface 23 fairs gradually upward to meet the deck surface 12 in a high-drag breakaway edge comprising the periphery of tail 18, the radius of curvature being less than one eighth of an inch [illegible] with maximum drag effect being achieved with [illegible]

ture of approximately one and one-half to two inches radius.

The skeg 20 should be long enough to extend from approximately two to twelve inches below the line extending aft of the planing surface 24 and can be positioned at any point from the shoulder to the aft end, depending upon the rider's preference as to sharpness of the turning circle of the board, with maximum efficiency being achievable for turning at all speeds when the skeg is located from about four to twelve inches measured from the aft end of the board to the aftermost trailing edge of the skeg.

In use, the rider stands on the deck of the board and by leaning his weight on the forward foot he brings the planing surface 24 into partial play and by taking a stance farther forward brings it into full play. By leaning back on the foot placed to the rear, he minimizes planing and brings the drag into effect. FIG. 9 shows the condition of the water 46 at low drag yielding high speed, FIG. 10 shows the condition at partial drag yielding intermediate speed and FIG. 11 shows the condition at maximum drag yielding slow speed. The scorpion tail provides a curvature adapted to the shape of the turning circle when depressed into the water thus enabling the rider to attain superior turning capability. The cutaway 38 at the tail enables the water to part clearly from the sides of the board rather than be sucked in around the stern at all times, as on conventional boards, thereby creating drag from which the rider cannot release himself. Thus, with the instant surfboard, the rider can achieve any degree of speed while maintaining maneuverability throughout.

While preferred embodiments of the invention have been here shown and described, it will be understood that skilled artisans may make minor variations without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder.

2. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said forwardly extending surface having an area equal at least to one-fifth that of the total area of the bottom face.

3. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the [illegible]

said shoulder, said tail curving upwardly from said shoulder to its tip.

4. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said forwardly extending portion being substantially flat and having an area equal at least to one-fifth that of the total area of the bottom face, said tail curving upwardly from said shoulder to its tip.

5. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said shoulder forming a sharp breakaway edge at its juncture with said planing surface, said tail curving upwardly from said shoulder to its tip.

6. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one being substantially flat, extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said shoulder forming a sharp breakaway edge at its juncture with said planing surface, said tail curving upwardly from said shoulder to its tip, the sides of said board at the location of said planing surface fairing downwardly from the deck to terminate in sharp breakaway edges along said planing surface.

7. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said tail curving upwardly from said shoulder to its tip, and a skeg depending from said tail surface and terminating below said planing surface.

8. A surfboard comprising an elongated member having a deck and a bottom face, a vertically and transversely extending shoulder formed in the bottom face at a predetermined location dividing the same into two discreet vertically spaced continuous surfaces, the upper one extending aft of the shoulder and constituting a tail surface, the lower one being substantially flat and extending forwardly of said shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail which curves upwardly from said shoulder to its tip and whose sides taper inwardly from said shoulder to its tip to provide a cutaway portion between the sides of said tail and extensions of the sides of the board aft of said shoulder, a skeg depending from said tail surface and terminating below said planing surface, and an upwardly curved bow portion, forwardly of said planing surface, the area of said planing surface from said shoulder to its line of merger with said bow portion comprising at least one-fifth that of the total area of said bottom face.

9. A surfboard comprising an elongated member having a deck and a bottom face, a vertically and transversely extending shoulder formed in the bottom face at a predetermined location dividing the same into two discreet vertically spaced continuous surfaces, the upper one extending aft of the shoulder and constituting a tail surface, the lower one being substantially flat and extending forwardly of said shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail which curves upwardly from said shoulder to its tip and whose sides taper inwardly from said shoulder to its tip to provide a cutaway portion between the sides of said tail and extensions of the sides of the board aft of said shoulder, a skeg depending from said tail surface and terminating below said planing surface, and an upwardly curved bow portion forwardly of said planing surface, the area of said planing surface from said shoulder to its line of merger with said bow portion comprising at least one-fifth that of the total area of said bottom face, said shoulder forming a sharp breakaway edge at its juncture with said planing surface, the sides of said board at the location of said planing surface fairing downwardly from the deck to terminate in sharp breakaway edges along said planing surface, the tapered sides of said tail fairing upwardly from said tail surface to terminate in rounded edges along said tail.

10. A surfboard comprising an elongated member having a deck and a bottom face, a vertically and transversely extending shoulder formed in the bottom face at a predetermined location dividing the same into two discreet vertically spaced continuous surfaces, the upper one extending aft of the shoulder and constituting a tail surface, the lower one extending forwardly of said shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail which curves upwardly from said shoulder to its tip and whose sides taper inwardly from said shoulder to its tip to provide a cutaway portion between the sides of said tail and extensions of the sides of the board aft of said shoulder, a skeg depending from said tail surface and terminating below said planing surface, and an upwardly curved bow portion forwardly of said planing surface, the area of said planing surface from said shoulder to its line of merger with said bow portion comprising at least one-fifth that of the total area of said bottom face, the degree of longitudinal curvature of said planing surface being least at said shoulder and greatest where it merges with said bow portion.

11. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and transversely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said shoulder forming a sharp breakaway edge at its juncture with said planing surface, said tail curving upwardly from said shoulder to its tip, the sides of said board at the location of said planing surface being rounded to cause the board to groove slightly into the wave.

12. A surfboard comprising an elongated member having a deck and a bottom face, and a vertically and trans-

versely extending shoulder in the bottom face dividing said face into two discreet vertically spaced surfaces, the upper one extending aft of the shoulder to the stern and constituting a tail surface and the lower one extending forwardly of the shoulder and constituting a planing surface, the portion of the board aft of said shoulder being a scorpion tail whose sides taper inwardly towards the stern to provide a cutaway portion between the sides of the tail and extensions of the sides of the board aft of said shoulder, said shoulder forming a sharp breakaway edge at its juncture with said planing surface, said tail curving upwardly from said shoulder to its tip, said breakaway edge being transversely curved convexly towards the stern.

References Cited in the file of this patent

UNITED STATES PATENTS

3,015,831	Franke	Jan. 9, 1962
3,056,148	Abbott	Oct. 2, 1962

Library Cataloging Data

U.S. International Trade Commission.
In the matter of: certain skateboards and platforms therefor. Investigation no.337-TA-37. Washington, 1978.

22, A 40 p. 28 cm. (USITC Publication 926)

1. Skateboards I. Title II. Title: Certain skateboards and platforms therefor.

UNITED STATES
INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C. 20436

OFFICIAL BUSINESS

ADDRESS CORRECTION REQUESTED

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MR. KENNETH R. MASON
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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of	)	
	)	Investigation No. 337-TA-39
Certain Luggage Products	)	

NOTICE OF PRELIMINARY CONFERENCE,
PREHEARING CONFERENCE AND HEARING

Notice is hereby given that a Second Preliminary Conference will be held in connection with Investigation No. 337-TA-39, certain Luggage Products, at 10:00 a.m. on April 11, 1978, in Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C. The purposes of this conference are to assess the status of this matter after the Temporary Exclusion Order Hearing, and to resolve any discovery problems which have arisen relating to the preparation for the final hearing.

No discovery shall be obtained after May 9, 1978. Service of prehearing conference, statements by complainant will be completed on or before May 18, 1978, and by Respondents and staff on or before May 25, 1978. A Prehearing Conference will be held at 10:00 a.m. on May 31, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C.

Notice is also given that the hearing on Complainant's permanent relief request in this proceeding will commence at 10:00 a.m. on June 7, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D. C., and will continue daily until completed.

If any questions should arise not covered by these instructions, the parties or their counsel shall call the chambers of the undersigned Presiding Office.

The Secretary shall serve a copy of this Notice upon all parties of record and shall publish this Notice in the Federal Register.

Judge Donald K. Duvall
Presiding Officer

Issued March 30, 1978.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

[332-99]
CONVERSION OF SPECIFIC AND COMPOUND RATES
OF DUTY TO AD VALOREM RATES

AGENCY: UNITED STATES INTERNATIONAL TRADE COMMISSION

ACTION: The Commission is instituting an investigation under the authority of section 332(g) of the Tariff Act of 1930, as amended (19 U.S.C. 1332(g)), to (1) prepare an ad valorem equivalent for each item in the Tariff Schedules of the United States currently having a specific or compound rate of duty and (2) determine the probable economic effect of adopting ad valorem rates in lieu of current specific and compound rates. This investigation was requested to assist the President in the current round of multilateral trade negotiations.

EFFECTIVE DATE: March 28, 1978

FOR FURTHER INFORMATION CONTACT: Mr. Aaron Chesser, Office of Industries, United States International Trade Commission, 701 E Street NW., Washington, D.C. 20436 (telephone: 202-523-0171).

SUPPLEMENTARY INFORMATION: In response to a request received March 16, 1978, from the Special Representative for Trade Negotiations, at the direction of the President, the United States International Trade Commission instituted the above-captioned investigation.

Specifically the Special Representative, acting pursuant to the authority of section 332(g) of the Tariff Act of 1930, as amended (19 U.S.C. 1332(g)), and Executive Order 11846 (3 C.F.R. 971 (1971-1975 Comp.)), as amended, has requested that the Commission report to the President on the following:

1. For each TSUS item which carries a specific or compound rate of duty, an ad valorem equivalent (AVE) of the current Column 1 rate of duty, based on the value of imports of the article concerned in a recent period which the Commission considers to be representative. The base period of imports used for each item will be identified. For items under which no imports have occurred, an estimated ad valorem equivalent will be supplied, together with an indication of the basis of the estimate. For any TSUS items containing a large number of diverse products with widely differing values, the item may be divided into subcategories of products and an AVE reported for each, where the Commission considers it appropriate and desirable.

2. For each of the TSUS items for which an AVE is reported, the Commission's judgment as to whether the changes which would result in the duties collected on imports under the item, if the current Column 1 rates were converted to ad valorem rates at the level of the AVE, would be sufficient to have a significant economic effect upon either the amount or composition of imports over the next three years, or could have a significant detrimental effect on importers or consumers of the article concerned or on a domestic industry producing like or directly competitive products.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of MONUMENTAL WOOD WINDOWS	Investigation No. 337-TA-40

NOTICE OF PREHEARING CONFERENCE AND HEARING

Notice is hereby given that a Prehearing Conference will be held in connection with the above styled investigation at 10:00 a.m. on April 18, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C. No discovery will be obtained subsequent to April 7, 1978. On or before April 14, 1978, the parties will have completed service of Prehearing Conference Statements by order of the Presiding Officer. The purpose of this Prehearing Conference is to review such statements, complete the exchange of exhibits, and resolve any other necessary matters in preparation for the hearing.

Notice is also given that the hearing on Complainant's Temporary Exclusion Order request in this proceeding will commence at 10:00 a.m. on April 24, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C., or at 10:00 a.m. on a date as soon after as practicable, and will continue daily until completed. Counsel shall be ready to proceed on April 24, 1978, subject to at least 48 hour advance oral notification of the hearing's commencement.

The Secretary shall serve a copy of this Notice upon all parties of record, and shall publish this Notice in the Federal Register.

Judge Donald K. Duvall
Presiding Officer

Issued March 30, 1978.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of:	)	
CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	)	Investigation No. 337-TA-37

NOTICE OF INVESTIGATION

Notice is hereby given that a complaint was filed with the United States International Trade Commission on October 6, 1977, and an amendment thereto was filed on October 25, 1977, under section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), on behalf of Richard L. Stevenson d.b.a. Makaha International, Los Angeles, California, alleging that unfair methods of competition exist in the importation of certain skateboards each with an inclined foot-depressible lever into the United States, or in their sale, by reason of the alleged coverage of such articles by claims 1, 2, 7, and 8 of U.S. Letters Patent 3,565,454. The amended complaint further alleges that the effect or tendency of the unfair methods of competition is to destroy or substantially injure an industry, efficiently and economically operated, in the United States. Complainant requests a permanent exclusion from entry into the United States of the imports in question.

Having considered the amended complaint, the United States International Trade Commission, on November 4, 1977, ORDERED--

(1) That, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), an investigation be instituted

to determine, under subsection (c) whether, on the basis of the allegations set forth in the amended complaint and the evidence adduced in this proceeding, there is a violation of subsection (a) of this section in the unauthorized importation of--

(i) skateboards each with an inclined foot-depressible lever, or

(ii) skateboard platforms each with an inclined foot-depressible lever

into the United States, or in their unauthorized sale, by reason of such skateboards and platforms allegedly being covered by claims 1, 2, 7 and 8 of U.S. Letters Patent 3,565,454, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States;

(2) That, for the purpose of the investigation so instituted, the following persons, alleged to be involved in the unauthorized importation of such articles into the United States, or in their sale, are hereby named as respondents upon which the amended complaint and this notice are to be served:

Foreign Manufacturers and Exporters

New Zeal Enterprises Co., Ltd.
6 fl., No. 163
Chang-An E. Rd.
Section 2
Taipei, Taiwan

Lido Trading Co., Ltd.
P. O. Box 7-341
Taipei, Taiwan

Prophet International Co., Ltd.
China Plastics Building
Section 4
Taipei, Taiwan

Hardy Enterprise Corp.
3-F74, Omei Street
Taipei 100, Taiwan

Amapala Marine
4A Avenue #611
Tegucigalpa, Honduras

Importers

Sportsmaster, Inc.
P.O. Box 2073
Cincinnati, Ohio 45201

Marco Polo Co.
12800 South Broadway
Gardena, California 90061

National Sporting Goods Corp.
1107 Broadway
New York, New York 10010

Dixie Trading Co.
P. O. Box 903-96
Atlanta, Georgia 30364

Woodline Products Co.
260 22-H Cape Drive
Laguna Niguel, California 92677

(3) That, for the purpose of the investigation so instituted, Judge Myron R. Renick, United States International Trade Commission, 701 E Street, N.W., Washington, D.C. 20436, is hereby appointed as presiding officer;

(4) That, for the purpose of the investigation so instituted, Donald R. Dinan, United States International Trade Commission, 701 E Street, N.W., Washington, D.C. 20436, is hereby named Commission investigative attorney.

Responses must be submitted by the named respondents in accordance with section 210.21 of the Commission's Rules of Practice and Procedure, as amended (41 F.R. 17710, April 27, 1976). Pursuant to sections 210.16(d) and 210.21(a) of the Rules, such responses will be considered by the Commission if received not later than 20 days after the date of service of the amended complaint. Extensions of time for submitting a response will not be granted unless good and sufficient cause therefor is shown.

Failure of a respondent to file a timely response to each allegation in the amended complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the amended complaint and of this notice, and will authorize the presiding officer and the Commission, without further notice to the respondent, to find the facts to be as alleged in the amended complaint and this notice and to enter both

a recommended determination and a final determination, respectively, containing such findings.

The amended complaint is available for inspection by interested persons at the Office of the Secretary, United States International Trade Commission, 701 E Street, N.W., Washington, D.C. 20436, and in the New York City office of the Commission, 6 World Trade Center.

By Order of the Commission:

KENNETH R. MASON
Secretary

Issued: November 8, 1977

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D. C.

In the Matter of CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	Investigation No. 337-TA-37

NOTICE OF PREHEARING CONFERENCE AND HEARING

Notice is hereby given that a Prehearing Conference will be held in connection with the above styled investigation at 10:00 a.m. on May 9, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D. C. No discovery will be obtained subsequent to April 18, 1978. Service of Prehearing Conference Statements by Complainant will be completed on or before April 27, 1978, and by Respondents and Staff on or before May 3, 1978. The purpose of this Prehearing Conference is to review such statements, complete the exchange of exhibits, and resolve any other necessary matters in preparation for the hearing.

Notice is also given that the Hearing in this proceeding will commence at 10:00 a.m. on May 16, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C., and will continue daily until completed.

The Secretary shall serve a copy of this Notice upon all parties of record, and shall publish this Notice in the Federal Register.

Judge Donald K. Duvall
Presiding Officer

Issued March 30, 1978.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

Certain Fishing Tackle

[TA-201-34]

Notice of Investigation and Hearings

Investigation instituted. Following receipt of a petition on March 21, 1978, filed by the American Fishing Tackle Manufacturers Association and the Tackle Representatives Association, both of Chicago, Ill., the United States International Trade Commission, on March 29, 1978, instituted an investigation under section 201(b) of the Trade Act of 1974 (19 U.S.C. 2251(b)) to determine whether snelled hooks; fishing rods and parts thereof; fishing reels and parts thereof; and artificial baits and flies; provided for in items 731.05; 731.15; 731.20 through 731.26, inclusive; and 731.60 of the Tariff Schedules of the United States, are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

Public hearing ordered. A public hearing in connection with this investigation will be held in Chicago, Ill., beginning on Tuesday, June 13, 1978. The time and place of the hearing will be announced later. Requests for appearances at the hearing should be received in writing by the Secretary of the Commission at his office in Washington, D.C., not later than noon of the fifth calendar day preceding the hearing at which an appearance is requested.

A prehearing conference in connection with this investigation will be held at 9:30 a.m., E.D.T., on May 30, 1978, in Room 117, U.S. International Trade Commission Building, 701 E Street, NW., Washington, D.C. 20436.

Inspection of the petition. The petition filed in this matter is available for public inspection at the Office of the Secretary, U.S. International Trade Commission, 701 E Street, NW., Washington, D.C. 20436 and at the New York City office of the U.S. International Trade Commission located at 6 World Trade Center.

By order of the Commission:

Kenneth R. Mason
Secretary

Issued: March 30, 1978

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D. C.

In the Matter of:	Investigation No. 337-TA-37
CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	

ORDER

Pursuant to my authority as Chief Administrative Law Judge of this Commission, I hereby designate Administrative Law Judge Donald K. Duvall as Presiding Officer in this investigation.

The Secretary shall serve a copy of this order upon all parties of record and shall publish it in the Federal Register.

Myron R. Renick
Chief Administrative Law Judge

Issued January 25, 1978

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D. C.

In the Matter of CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	Investigation No. 337-TA-37

NOTICE OF PREHEARING CONFERENCE AND HEARING

Notice is hereby given that a Prehearing Conference will be held in connection with the above styled investigation at 10:00 a.m. on May 9, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D. C. No discovery will be obtained subsequent to April 18, 1978. Service of Prehearing Conference Statements by Complainant will be completed on or before April 27, 1978, and by Respondents and Staff on or before May 3, 1978. The purpose of this Prehearing Conference is to review such statements, complete the exchange of exhibits, and resolve any other necessary matters in preparation for the hearing.

Notice is also given that the Hearing in this proceeding will commence at 10:00 a.m. on May 16, 1978, in the Hearing Room of the Administrative Law Judge, Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C., and will continue daily until completed.

The Secretary shall serve a copy of this Notice upon all parties of record, and shall publish this Notice in the Federal Register.

Judge Donald K. Duvall
Presiding Officer

Issued March 30, 1978.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of:	
CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	Investigation No. 337-TA-37

NOTICE AND ORDER CONCERNING
COMMISSION DETERMINATION

Upon consideration of the presiding officer's recommended determination and the record in this proceeding, the Commission (Chairman Parker dissenting and Commissioner Stern not participating) hereby orders the termination of investigation No. 337-TA-37, Certain Skateboards and Platforms Therefor, on the basis of a determination that no violation of section 337 of the Tariff Act of 1930, as amended, exists.

Copies of the Commissioners' opinions in support of their determinations are available to the public during official working hours at the Office of the Secretary, United States International Trade Commission, 701 E Street NW., Washington, D.C. 20436. Notice of the institution of the investigation was published in the Federal Register on November 11, 1977 (42 F.R. 58792).

By order of the Commission:

Kenneth R. Mason
Secretary

Issued: November 13, 1978

U.S. INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of:	)
CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	) Investigation 337-TA-37)

NOTICE OF PRELIMINARY CONFERENCE

Notice is hereby given that a Preliminary Conference will be held in connection with the above styled investigation at 10:00 a.m. on Wednesday, January 11, 1978 in Room 610 Bicentennial Building, 600 E Street, N.W., Washington, D.C. Notice of this investigation was published in the Federal Register on November 11, 1977 (42 FR 58792). The purposes of this preliminary conference are to establish a discovery schedule, to discuss the procedures to be followed in pursuing such discovery, to set the dates for the Prehearing Conference and Hearing, and to resolve any other matters necessary to the conduct of this investigation.

If any questions should arise not covered by these instructions, the parties or their counsel shall call the chambers of the undersigned Presiding Officer.

The Secretary shall serve a copy of this Notice upon all parties of record and shall publish it in the Federal Register.

Myron R. Renick
Judge Myron R. Renick
Presiding Officer

Issued December 21, 1977

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of:	
CERTAIN SKATEBOARDS AND PLATFORMS THEREFOR	Investigation No. 337-TA-37

NOTICE AND ORDER

CONCERNING PROCEDURE FOR COMMISSION

DETERMINATION AND ACTION

Notice is hereby given that --

1. The Commission will hold a hearing beginning at 10:00 a.m., e.d.t., Tuesday, October 10, 1978, in the Commission's Hearing Room, 701 E Street, N.W., Washington, D.C., for the purposes of (1) hearing oral argument on the recommended determination of the presiding officer concerning whether there is a violation of section 337 of the Tariff Act of 1930; (2) receiving information and hearing oral argument concerning appropriate relief in the event the Commission determines that there is a violation of section 337 and that relief should be granted; and (3) receiving information and hearing oral argument, as provided for in section 210.14(a) of the Commission's Rules of Practice and Procedure (19 C.F.R. 210.14(a)), concerning bonding and the public interest factors set forth in subsections 337(d) and (f) of the Tariff Act, which factors the Commission is to consider in the event it determines

that there is a violation of section 337 and that relief should be granted. The latter two proceedings are legislative in character, and therefore the hearing on remedy, bonding, and public interest will not be subject to the requirements of 5 U.S.C. 556, 557. Instead, these phases of the hearing will be conducted in accordance with section 201.11 of the Commission's Rules of Practice and Procedure (19 C.F.R. 201.11). These matters are all being heard on the same day in order that this investigation may be completed within the time limits prescribed by the statute and to minimize the burden of this hearing upon the parties.

Parties and agencies wishing to make oral argument with respect to the recommended determination shall be limited in each oral argument to not more than 30 minutes, 10 minutes of which may be reserved for rebuttal by the staff and complainant.

For that part of the hearing devoted to relief, bonding, and the public interest, parties, interested persons, and government agencies will be limited in their presentations to no more than 15 minutes. Participants will be permitted an additional 5 minutes for closing arguments after all presentations have been concluded. Participants with similar interests may be required to share time. The Commission investigative staff will be allotted the full time available to a party.

Requests for appearances at the hearing should be filed, in writing, with the Secretary of the Commission at his office in Washington no later than close of business, Monday, October 2, 1978. Requests should indicate the part of the hearing (i.e., with respect to the recommended determination, relief, bonding, the public interest factors, or any combination thereof) in which the requesting person desires to participate.

2. Briefs concerning exceptions to the presiding officer's recommended determination may be filed by any party or agency. Complainant's brief shall be filed not later than the close of business, Monday, August 28, 1978; respondents' brief and the brief of the Commission investigative staff shall be filed not later than the close of business, Monday, September 11, 1978; complainant's reply brief, if any, shall be filed not later than Thursday, September 21, 1978. The Commission investigative staff is here being required to brief at the same time as respondents because the staff's views are most consistent with those of respondents. We do not suggest by this order that the staff has lost its independent status in this or any other case. Briefs shall be served on all parties of record on the date they are filed. The cover of complainant's brief shall be blue; respondents' brief, red; Commission investigative staff's brief, green; and any reply briefs, gray. Concerned government agencies may file briefs on any issue related to the recommended decision in the same style and at the same time as the Commission investigative staff. Parties, persons and agencies are encouraged to consolidate their briefing where their positions are the same, and to refer to the record.

3. Written comments and information are encouraged by any party, interested person, government agency, or government concerning relief, bonding, and the public interest factors set forth in section 337(d) and (f) of the Tariff Act of 1930, as amended (19 U.S.C. 1337), which the Commission is to consider in the event it determines that there should be relief. Such comments and information shall be filed with the Secretary in one original and ten copies on the dates set forth below, and the comments and information

shall thereafter be available for inspection and copying by any person, except as respects in camera comments and information, which are to be treated as described below.

Comments and information on remedy, bonding and public interest shall be submitted as follows: Complainant shall file a detailed proposed Commission action, including a determination of bonding, on or before Monday, August 28, 1978. Complainant shall, at the same time, file such comments and information as it wishes respecting the effect of its proposed Commission actions upon (1) the public health and welfare, (2) competitive conditions in the United States economy, (3) the production of like or directly competitive articles in the United States and (4) United States consumers (collectively the "public interest" factors). Thereafter, on or before Monday, September 11, 1978, any person, agency, or government may file written comments on and information pertaining to alternatives (if any) to the proposed Commission action and to whether any Commission action ought or ought not to be taken after consideration of the effect of the action upon the public interest factors.

A request for in camera treatment of such comments and information must include a full statement of the reasons for granting in camera treatment. The Commission will either accept such information in camera, or it will return the information.

Notice of the Commission's institution of the investigation was published in the Federal Register on November 11, 1977 (42 F.R. 58792).

By order of the Commission.

Kenneth R. Mason

Secretary

Issued: August 10, 1978