

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte DONALD R. ZACHARIAS

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Appeal No. 2001-0220  
Application No. 09/244,044

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ON BRIEF

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Before KIMLIN, OWENS and TIMM, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 13-19 and 24-32. Claims 20-23, the only other claims remaining in the present application, have been objected to by the examiner as being dependent upon rejected claims. Claims 13, 14 and 30 are illustrative:

13. A tundish having a normal maximum operating level of molten steel therein, said tundish comprising:

a floor having an outlet, a pour zone, and side walls extending upwardly from said floor, said side walls extending

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above the normal maximum operating level of molten steel in said tundish;

an impact pad positioned on said tundish floor in said pour zone, said impact pad comprising a base, an impact surface, an upwardly extending sidewall along the periphery of said base, said sidewall having an inner surface with an undercut portion facing incoming steel being poured in a stream into said pour zone, said undercut portion shaped to receive and reverse the direction of flow of the incoming steel stream;

a dam positioned on said floor between said impact pad and said outlet, said dam having at least one hole therein allowing the passage of molten steel therethrough, so that molten steel may flow over said dam and through said at least one opening; and

said dam extending upwardly from said floor a distance between about 40-60% of the normal maximum operating level of molten steel in said tundish.

14. For use in a tundish having a normal maximum operating level of molten steel therein, a floor having an outlet, a pour zone, and side walls extending upwardly from said floor, said side walls extending above the normal maximum operating level of molten steel in said tundish, a tundish furniture kit, said kit comprising:

an impact pad for positioning on said tundish floor in said pour zone, said impact pad comprising a base, an impact surface, an upwardly extending sidewall along the periphery of said base, said sidewall having an inner surface with an undercut portion for facing incoming steel being poured in a stream into said pour zone, said undercut portion shaped for receiving and reversing the direction of flow of an incoming steel stream;

a dam for positioning said floor between said impact pad and said outlet, said dam having at least one hole therein allowing the passage of molten steel therethrough, so that when said dam is installed molten steel may flow over said dam and through said at least one opening; and

said dam having a height such that when installed it extends upwardly from said floor a distance between about 40-60% of the normal maximum operating level of molten steel in said tundish.

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30. A dam for a tundish comprising:

a body of refractory material and having an upstream side and a downstream side;

said dam having holes consisting essentially of a pair of holes substantially uniformly spaced across the width of said dam;

said dam having a bottom, and a top, and a height dimension corresponding to the distance between said bottom and said top; and

wherein the distance from said bottom to the closest edge of each hole is from 25 mm to 50% of the height of said dam, measured on said upstream side of said dam.

In the rejection of the appealed claims, the examiner relies upon the following references:

Soofi (Soofi '175)	5,064,175	Nov. 12, 1991
Soofi (Soofi '667)	5,295,667	Mar. 22, 1994
Schmidt	5,551,672	Sep. 03, 1996

Appellant's claimed invention is directed to a tundish comprising a dam which extends upwardly from the tundish floor "a distance between about 40-60% of the normal maximum operating level of molten steel in said tundish" (claim 13, last two lines). Appellant also claims a kit comprising an impact pad and the dam for use in a tundish, and a dam, per se (claims 30-32).

Appealed claims 13, 15-19 and 24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Schmidt. Claims 30 and 31 also stand rejected under 35 U.S.C. § 102(e) as being

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anticipated by Schmidt, whereas claims 30 and 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by each of Soofi '175 and Soofi '667. In addition, claim 32 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over each of Soofi '667, Soofi '175 and Schmidt.

We will not sustain the examiner's rejection of claims 13, 15-19 and 24 under § 102 over Schmidt. We do not subscribe to the examiner's position that:

[T]he requirement that the dams extend upwardly to 40% to 60% of the normal operating level of the tundish, is a limitation dealing with the use of the claimed apparatus, and it has been well settled that the manner or method of use of an apparatus cannot be relied upon to further limit claims to the apparatus itself [page 3 of Answer, second paragraph].

In our view, the Morales Declaration submitted by appellant establishes on this record that the normal maximum operating level of molten steel in a tundish is readily understood by one of ordinary skill in the art to be a predetermined level for any particular tundish design (see paragraph 3 of Declaration).

Accordingly, "[e]ven though the normal maximum operating level of molten steel in a tundish varies from tundish to tundish" (id.), we are satisfied that appealed claim 13 positively defines a tundish comprising a dam having the recited structural relationship regarding the height of the dam. Accordingly, we

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find that the examiner has committed reversible error in dismissing the claim limitation concerning the dam and not establishing, prima facie, that the tundish/dam arrangement of Schmidt meets the claim limitation.

As for the § 102 rejection of claims 30 and 31, we do not agree with appellants that the claim language "said dam having holes consisting essentially of a pair of holes substantially uniformly spaced across the width of said dam" provides a patentable distinction over Schmidt. We say this because it is not clear what meaning to ascribe to the language "substantially uniformly spaced across the width of said dam," i.e., does the language mean that each of two holes have to be equally spaced from the nearest side edge of the dam, or must the two holes be positioned at locations one-third and two-thirds of the width of the dam. Also, it is not clear to us that the claim language does not encompass any pair of holes depicted by Schmidt that are uniformly spaced across the width of the dam. However, we cannot sustain this rejection because appellant's argument that "there clearly and unequivocally is no teaching of the 25 mm-50% of the height of the dam limitation set forth in claim 30" (page 10 of principal brief, second paragraph) has not been addressed by the examiner. Our review of the examiner's rejection and Response in

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the Answer finds no discussion of how Schmidt describes, within the meaning of § 102, the claim limitation concerning the location of the holes from the bottom of the dam. For the same reason, we will not sustain the examiner's § 102 rejection of claims 30 and 31 over each of Soofi '175 and Soofi '667.

We will sustain the examiner's rejection of claim 32 under § 103 over each of Soofi '667, Soofi '175 and Schmidt. Although the examiner recognizes that none of the cited references discloses the claimed "first and second mounting hooks that are cast into said dam during its manufacture," the examiner has taken official notice that it was "a well known expedient to employ cast in place mounting means in refractory components in order to allow fore [sic, for] easier movement by crane into place" (page 4 of Answer, second paragraph). On the other hand, appellant has not challenged the correctness of the examiner's assertion and has not responded to the examiner's statement that "[a] statement by the applicant that this is not an expedient commonly known in the art . . . would overcome this rejection" (page 6 of Answer, second paragraph). Rather, appellant has simply responded that if this feature was so well known there must be a reference that shows it, and that "[t]he burden is on the Patent and Trademark Office to establish a *prima facie* case,

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not on the appellant to investigate the practical art and provide information thereon to the PTO" (page 12 of principal brief, first paragraph). However, appellant must advance more than a mere bald challenge, and nothing more, of the validity of the examiner's finding. In re Boon, 439 F.2d 724, 728, 169 USPQ 231, 234, (CCPA 1971). As stated by the court in Boon, "[w]e feel it to be perfectly consistent with the principles governing procedural due process to require that a challenge to judicial notice by the board contain adequate information or argument so that *on its face* it creates a reasonable doubt regarding the circumstances justifying the judicial notice." Boon, 439 F.2d at 728, 169 USPQ at 234. In the present case, appellant has failed to present any argument which casts such a reasonable doubt on the examiner's finding. Accordingly, we will sustain the examiner's rejection under § 103 of claim 32. See also In re Fox, 471 F.2d 1405, 176 USPQ 340 (CCPA 1973).

We will also sustain the examiner's § 102 rejection over Schmidt of claims 14 and 25-29 which are directed to a kit comprising an impact pad and a dam having at least one hole therein.<sup>1</sup> In our view, the kit claims, comprising only the

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<sup>1</sup> Appellant states at page 4 of the principal brief that claims 14 and 29 stand or fall together, as do claims 25, 27 and 28.

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recited impact pad and dam, are described by Schmidt within the meaning of § 102 inasmuch as the claim language, "said dam having a height such that when installed it extends upwardly . . .," (emphasis added) is merely a statement of intended use that does not further define the structures for the impact pad and dam. Unlike the claims, such as claim 13, which define a tundish comprising an impact pad and a dam, the kit claims require no tundish or interrelationship between the dam and a tundish. We note that appellant acknowledges at page 4 of the principal brief that Schmidt shows an impact pad like that of the present invention. As for the claimed dam, it can hardly be gainsaid that the dam of Schmidt has at least one hole therein which allows the passage of molten steel therethrough.

This case is remanded to the examiner to consider the obviousness, under § 103, of the tundish of claims 13, 15-19 and 24. Particular attention should be paid to the statement in paragraph 5 of the Morales Declaration which states that "I chose a dam height that was between 40-60% of the normal operating steel level of the tundish because this is the range that I know, from previous experience, gets the best results." While the Declaration establishes that one of ordinary skill in the art would know that every particular tundish has a normal maximum

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operating level of molten steel, it would appear that the declarant states that the claimed dam height was known to him, one of ordinary skill in the art. Accordingly, it is incumbent upon the examiner and appellant to place of record whether the Morales Declaration is evidence that the claimed dam height was known in the art at the time of filing the present application. Also, regarding claim 30 and other appealed claims of similar scope, the examiner should determine whether Figure 5 of Schmidt depicts a dam having a hole that is from 25 mm to 50% of the height measured from the bottom of the dam to the closest edge of the hole.

In conclusion, based on the foregoing, the examiner's rejection of claims 13, 15-19, 24 and 30-32 is reversed, whereas the examiner's rejection of claims 24 and 25-29 is sustained. Accordingly, the examiner's decision rejecting the appealed claims is affirmed-in-part. In addition, this application is remanded to the examiner for the reasons set forth above.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

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This application, by virtue of its "special" status, requires immediate action by the examiner. See the Manual of Patent Examining Procedure, § 708.01(D) (8th ed., Aug. 2001). It is important that the Board of Patent Appeals and Interferences be informed promptly of any action affecting the appeal in this case.

AFFIRMED-IN-PART and REMANDED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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	)	
TERRY J. OWENS	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
CATHERINE TIMM	)	
Administrative Patent Judge	)	

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