THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte ROBERT E. JEHLE

Appeal No. 95-2533
Application No. 08/018,125[1]

ON BRIEF

Before SCHAFER, Vice Chief Administrative Patent Judge, and MEISTER and FRANKFORT, Administrative Patent Judges.

MEISTER, Administrative Patent Judge.

DECISION ON APPEAL

Robert E. Jehle (the appellant) appeals from the final rejection of claims 1, 2, 4, 12, 15 and 16.[2] Claims 6-9 and 13, the only other claims remaining in the application, stand allowed. We affirm.

By way of background, the instant application was the subject of a prior appeal wherein this merits panel of the Board

[1] Application for patent filed February 16, 1993.

[2] Claim 4 has been amended subsequent to final rejection.

reversed the examiner's rejections of claims 1-9 and 12-15 under 35 U.S.C. § 103 and, pursuant to our authority under the provisions of 37 CFR § 1.196(b), entered new rejections of claims 1-5 and 12-15 under 35 U.S.C. § 103 (see our decision dated November 15, 1995 (Paper No. 18)). Subsequent to that decision (1) claims 1, 4, 12 and 13 have been amended, (2) claims 3, 5 and 14 have been canceled, (3)claims 6-9 and 13 have been allowed and (4) claim 16 has been added.

The appellant's invention pertains to a launcher having a barrel bore through which a projectile is displaced by propelling gas forces. Of particular importance is the provision of an obturator which is formed of a flexible barrier containing a body of fluid. The obturator is positioned between the projectile the propelling gas in such a manner that forces generated by the propelling gas cause the flexible barrier to deform into sliding contact with the barrel during the launch of the projectile for the purpose of providing a seal which prevents leakage of the propelling gas past the projectile. Independent claim 1 is further illustrative of the appealed subject matter and reads as follows:

1. In combination with a launcher having a barrel bore through which a projectile is displaced by propellant forces, obturator means disposed within the barrel bore for sealing gas passages between the barrel bore and the projectile during launch, said obturator means including interfacing means for transmitting the propellant forces to the projectile, a body of shock-absorbing fluid within the barrel bore and flexible barrier means having a non-porous wall portion isolating the body of shock-absorbing fluid and undergoing gas sealing deformation into contact with the barrel bore in response to transfer of the propellant forces by said interfacing means through the body of shock-absorbing fluid during said launch.

The references relied on by the examiner are:[3]

Ashton	634,101	Oct. 3, 1899
Lainé (French Patent)	580,461	Nov. 7, 1924
Talobre (Swiss Patent)	349,902	Dec. 15, 1960

Claims 1, 2, 4, 12 and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ashton in view of the French patent.

Claims 1, 2, 12, 15 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ashton in view of the Swiss patent.

[3] Copies of translations of the French and Swiss patents have previously been provided to the appellant (see Paper No. 18).

The examiner's rejections are explained on pages 2-4 of the answer. Rather than reiterate the arguments of the appellant and examiner in support of their respective positions, reference is made to pages 4-6 of the "new" or substitute brief, pages 1-4 of the reply brief and pages 4-6 of the answer for the details thereof.

OPINION

We have carefully reviewed the appellant's invention as described in the specification, the appealed claims, the prior art applied by the examiner and the respective positions advanced by the appellant in the substitute brief and reply brief and by the examiner in the answer. As a consequence of this review, we will sustain both of the above-noted rejections.

According to the examiner:

> Ashton discloses a launcher having a barrel through which a projectile is displaced, a propellant charge (lines 44 and 45), an obturator A, a rear pusher plate C and a front pusher plate B. The obturator A includes a flexible barrier means containing a body of fluent material (line 30) which is pressed against the wall of the barrel when the charge is detonated so as to (1) form an "efficient gas-check" (line 41) and (2) absorb shock (lines 22-24). French patent discloses an obturator having a flexible barrier means (B',c) filled with a fluid (liquid (a)) for the purpose of providing an obturator which conforms closely to the shape of a barrel "while at the same time providing a perfect obturation" (see translation, lines 1 and 2 of page 60 [sic, 6]). It would have been obvious to one

> of ordinary skill in this art to substitute in Ashton for his obturator A the liquid-filled obturator of French patent in order to achieve the French patent's expressly stated advantage of providing an obturator which closely conforms to the barrel while at the same time providing "a perfect obturation."

We find ourselves in agreement with the above-noted findings and conclusion of the examiner and adopt them as our own.

The appellant argues that the flexible barrier of the French patent is made of felt-covered white wool and thus cannot be considered to be “non-porous” with respect to the fluid contained therein as required by the claims on appeal. In support of this position the reply brief on page 2 states that:

> The French patent never describes or refers to the wad (B’) as being “non-porous” with respect to the moldable core (a). The Examiner’s use of the term “non-porous” to characterize the wad (B’) is therefore not substantiated, and is hereby challenged.

We do not find this contention to be persuasive. Initially, we observe that the French patent does not simply disclose felt-covered white wool as a material for the flexible barrier as the appellant would apparently have us believe. Instead, the French patent discloses that the flexible barrier may be “made of felt-covered white wool **that has been greased around its periphery**” (see the sentence bridging pages 4 and 5 of the translation; emphasis ours). Moreover, while independent claims 1 and 12 each

set forth a "non-porous **wall portion**" (emphasis ours), it is well settled that the claims in a patent application are to be given their broadest reasonable interpretation during prosecution of a patent application (***In re Zletz***, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)) and limitations from a pending application's specification will not be read into the claims (***Sjolund v. Musland***, 847 F.2d 1573, 1581-82, 6 USPQ2d 2020, 2027 (Fed. Cir. 1988)). Turning to the appellant's specification, it is stated therein that the flexible barrier is "in the form of a thin flexible enclosure wall 40 made of a material such as rubber that is non-porous with respect to the fluid 38" (page 5, lines 14-16). Accordingly, consistent with the appellant's specification, one of ordinary skill in this art would interpret "non-porous" as used in the claims to mean -- non-porous with respect to shock-absorbing fluid contained within the flexible barrier --.

Inasmuch as the French patent discloses that the fluid contained within the flexible barrier B' is "an appropriate mixture of wax and grease" (translation, page 4, line 23) or "cup grease" (translation, page 3, line 9), there is a sound basis to conclude that the grease-covered wall portion of the felt-covered white wool wad B' is non-porous with respect to the fluid

contained therein. This is particularly the case since the French patent states that during firing (when the wad is subjected to propellant forces) the fluid wad is "non-compressible or nearly so, [and] is only capable of spreading **without shrinking in volume**" (translation, page 6, lines 3 and 4; emphasis ours).

As to the appellant's "challenge" of the examiner's position that the wall portion of the wad or obturator B' of the French patent can be considered to be "non-porous," where, as here, there is a sound basis to believe that the critical function for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art device, it is incumbent upon an appellant to prove that the prior art device does not in fact possess the characteristics relied on. ***See, e.g., In re Spada***, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); ***In re Fitzgerald***, 619 F.2d 67, 70, 205 USPQ 594, 597 (CCPA 1980); ***In re Best***, 562 F.2d 1252, 1254-55, 195 USPQ 430, 433 (CCPA 1977); ***In re Glass***, 474 F.2d 1015, 1019, 176 USPQ 529, 532 (CCPA 1973); and ***In re Ludtke***, 441 F.2d 660, 664, 169 USPQ 563, 566-67 (CCPA 1971).

It is also the appellant's position that "the type of shock-absorbing material disclosed in the French patent does not enable more effective obturation in response to and during transfer of gas propellant forces" (see substitute brief, page 5). There is, however, no evidence of record to support such a contention.[4] Contrary to the appellant's bald assertion that the flexible barrier and fluid contained therein (i.e., wad B') of the French patent does "not enable more effective obturation," the French patent, after noting the problems of the prior art resulting from propellant gases rushing between a wad and a forcing cone during firing (see the paragraph bridging pages 1 and 2 of the translation), states that it is an object of the invention to provide an obturator wad which is "capable of ensuring its expansion at the rear, so as to make it conform progressively to the shape of the cone" (translation, page 2, lines 19 and 20). Thereafter, the French patent goes on to state that

> as soon as the wad exits slightly from the case, it begins to swell increasingly towards the rear as it exits the case, with the result being that it ends up **conforming closely to the shape of the forcing cone**

[4] Counsel's arguments in the brief cannot take the place of evidence. ***In re De Blauwe***, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984), ***In re Payne***, 606 F.2d 303, 315, 203 USPQ 245, 256 (CCPA 1979) and ***In re Pearson***, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

> **(3)**, while at the same time **providing a perfect obturation** inside of said cone. [See translation, line 22 of page 5 through line 1 of page 6; emphasis ours.]

The appellant also makes much of the fact that the obturation in Ashton occurs in a cylindrical bore whereas the obturation in the French patent occurs in a forcing cone. We observe, however, the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. ***In re Young***, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and ***In re Keller***, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in applying this test, all of the features of the secondary reference need not be bodily incorporated into the primary reference (***Keller,*** 642 F.2d at 425, 208 USPQ at 881) and the artisan is not compelled to blindly follow the teaching of one prior art reference over the other without the exercise of independent judgment (***Lear Siegler, Inc. v. Aeroquip Corp.***, 733 F.2d 881, 889, 221 USPQ 1025, 1032 (Fed. Cir. 1984). Here, we share the examiner's view that a combined consideration of Ashton and the French patent would have fairly suggested to the artisan to substitute in Ashton for his obturator the liquid-filled obturator of the French patent in order to achieve the French patent's expressly stated advantage of providing an obturator

which closely conforms to the barrel while at the same time providing "a perfect obturation."

The appellant additionally argues that the above-noted substitution of obturators would destroy Ashton's invention inasmuch as Ashton's disclosed obturator is formed of a flexible barrier of textile or other material which encloses granulated cork. However, the substitution of a more effective obturator than that disclosed by Ashton would enhance, not destroy, Ashton's invention.

In view of the foregoing, we will sustain the rejection of claims 1, 2, 4, 12 and 15 under 35 U.S.C. § 103 based on the combined teachings of Ashton and the French patent.

Turning now to the rejection of claims 1, 2, 12, 15 and 16 as being unpatentable over Ashton in view of the Swiss patent, the examiner has relied on the teachings of the Swiss patent for a suggestion to effect a "sealing expansion" of a flexible wall of an obturator by means of a shock-absorbing fluid (independent claims 1 and 12) and shock-absorbing gas (independent claim 16). The appellant, however, contends that in the Swiss patent it is the tapered wall portion (2) of the obturator, and "not the cushioning air" that effects the sealing expansion of the

flexible wall of the obturator disclosed therein (see substitute brief, page 6).

We are unpersuaded by the appellant's contention. The Swiss patent discloses a wad or obturator wherein air is compressed within a barrier means during the absorption of the shock of recoil when a projectile is fired (see pages 1 and 3). This wad or obturator is described as being formed of

> two pieces (1 and 2), each in the shape of a hollow cylinder provided with a single bottom, fitting one inside the other. The exterior wall of the exterior piece (1) is cylindrical and has ring-shaped sealing flanges (3), whereas its interior wall is slightly truncated, and flared towards its opening. The exterior wall of the interior piece (2) has the same conicity that the interior wall of the piece (1) has and the dimensions of the two pieces are such that when they are set inside one another, the bottom of the interior piece is flush with the bottom of the exterior piece and the edge of the interior piece is at a certain distance from the bottom of the exterior piece (figure 2). [See the paragraph bridging pages 2 and 3 of the translation.]

After noting that the two pieces are made of a material having flexibility and elasticity, the Swiss patent does thereafter state that the exterior piece becomes distended by the interaction between the tapering surfaces during firing of the projectile in order to effect a seal between the wad or obturator and the barrel of a gun. However, it is further stated in the Swiss patent that "a cushion of air is trapped between the two

pieces and plays the role of the recoil reducer" (see translation, page 3, lines 22-24). Particularly in view of the fact that the two pieces are disclosed as being made of a material having flexibility and elasticity, we are of the opinion that the shock-absorbing compressed air would, at least to some degree, assist in the distention of the exterior piece when the gas seal between the wad or obturator and the barrel of the gun is effected.

From our perspective, it would have been obvious to one having ordinary skill in this art to substitute in Ashton for his means (A,B,C) for achieving shock absorption and a sealing of propellant gases, the analogous shock absorption and means for sealing propellant gases taught by the Swiss patent in Figs. 2 and 3. The artisan would have been motivated to make such a modification in order to achieve the Swiss patent's expressly stated advantage of "ensuring a perfect seal which allows maximum use of the gas pressure" (see translation, page 1). This being the case, we will sustain the rejection of 1, 2, 12, 15 and 16 under 35 U.S.C. § 103 based on the combined teachings of Ashton and the Swiss patent.

In summary:

The rejection of 1, 2, 4, 12 and 15 under 35 U.S.C. § 103 based on the combined teachings of Ashton and the French patent is affirmed.

The rejection of claims 1, 2, 12, 15 and 16 under 35 U.S.C. § 103 based on the combined teachings of Ashton and the Swiss patent is affirmed.

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

AFFIRMED

RICHARD E. SCHAFER, Vice Chief Administrative Patent Judge	)
JAMES M. MEISTER Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
CHARLES E. FRANKFORT Administrative Patent Judge	)

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APPEAL NO. 95-2533 - JUDGE MEISTER
APPLICATION NO. 08/018,125

APJ MEISTER

APJ FRANKFORT

Vice Chief APJ SCHAFER

DECISION: **AFFIRMED**

Typed By: Jenine Gillis

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