

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(2) is not binding precedent of the Board.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. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANTHONY A' COSTA

Appeal No. 96-3021
Application 08/104,452¹

ON BRIEF

Before LYDDANE, ABRAMS and FRANKFORT, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

¹ Application for patent filed August 10, 1993.

Appeal No. 96-3021
Application 08/104,452

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 3 and 5 through 8. Claim 4 has been canceled.

Appellant's invention relates to a combined tactical breaching device and flash suppressor which is threadedly engaged with the muzzle of a firearm, such as a shotgun, and to a method of then using the shotgun to breach a barrier, such as a locked door, by employing frangible ammunition in the shotgun. Independent claims 1, 5 and 8 are representative of the subject matter on appeal and a copy of those claims, as they appear in the Appendix to appellant's brief, is attached to this decision.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Cox	2,166,041	July 11, 1939
Sargeant et al. (Sargeant)	3,226,871	Jan. 4, 1966
Hawley et al. (Hawley)	4,664,014	May 12, 1987
Majors	5,196,647	Mar. 23, 1993
Hoie	6,820	Apr. 29, 1898

Appeal No. 96-3021
Application 08/104,452

(Norwegian Patent)²

Ester 2,083,894 Mar. 31, 1982
(Published British Application)

Also relied upon by the examiner is the admitted prior art found in appellant's specification at page 2, lines 3-18, and a dictionary definition of "shotgun" found in the Glossary of Ordnance Terms, June 1959, Walker W. Holler, Editor. That definition indicates that a "shotgun" is a "smooth-bore shoulder weapon."

Claims 1, 2, 5 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Cox.

Claims 1 through 3, 5 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sargeant in view of Hoie.

Claims 1 through 3 and 5 through 7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hawley.

² Our understanding of this foreign language document is based upon a translation prepared for the U.S. Patent and Trademark Office. A copy of that translation accompanies this decision.

Appeal No. 96-3021
Application 08/104,452

Claim 8 stands rejected under 35 U.S.C. § 103 as being unpatentable over "each of Cox, Sargeant et al in view of Hoie and Hawley et al each in view of the state of the art admitted by applicant at page 2, lines 3-18 of the written description" (answer, page 3 [sic, page 4]).

Claims 1 through 3 and 5 through 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ester in view of Majors.

Rather than reiterate the examiner's full explanation of the basis for the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellant regarding those rejections, we make reference to the examiner's answer (Paper No. 16, mailed February 20, 1996) for the examiner's complete reasoning in support of the rejections, and to appellant's brief (Paper No. 12, filed October 2, 1995) for appellant's arguments thereagainst.

OPINION

In arriving at our decision in this appeal, we have carefully considered appellant's specification and claims, the

Appeal No. 96-3021
Application 08/104,452

applied references, and the respective viewpoints of appellant and the examiner. As a consequence of our review, we have made the determinations which follow. In accordance with appellant's "GROUPING OF THE CLAIMS" (brief, page 3), we need only comment on independent claims 1, 5 and 8. Dependent claims 2, 3, 6

and 7 will stand or fall with their respective independent claims.

Turning first to the examiner's rejection of claims 1, 2, 5 and 6 as being anticipated by Cox, we note that claim 1 on appeal is directed, inter alia, to a combined tactical breaching device and flash suppressor comprising a cylindrical body portion (e.g., 12) having a longitudinal central smoothbore (18), with said body portion recited as being threaded at one end thereof and also as "threadedly engaging the muzzle of a shotgun barrel." Claim 1 goes on to recite "said barrel having a threaded portion in threaded engagement with said one end of said breaching device" (emphasis added). These positive recitations in the body of the claim make it clear to us that appellant's claim 1 on appeal is directed to a combination of the breaching device/flash

Appeal No. 96-3021
Application 08/104,452

suppressor and a shotgun barrel to which the device is threadedly engaged. Claim 1 also recites slots (24) in the opposite end of the breaching device which define a pair of longitudinally extending diametrically opposed furcations (20, 22).

Independent claim 5 differs from claim 1 in that it defines a firearm comprising a smooth bore barrel having a threaded portion at the muzzle end thereof and a tactical breaching device mounted on the threaded portion of the barrel. The details of the tactical breaching device of claim 5 are defined in the same manner as that set forth in claim 1. It is apparent that claim 5 is broader than claim 1, in that claim 5 does not expressly limit the smooth bore barrel therein to being that of a shotgun.

The Cox patent, applied by the examiner, is directed to an explosively actuated, underwater riveting and punching apparatus for driving a projectile, such as the bolt (8) seen in Figure 1 and 2, into or through a resistant body. As generally indicated by the examiner, this apparatus includes a smooth bore barrel (1) and a cylindrical body or muzzle cap (e.g., 22 or 30)

Appeal No. 96-3021
Application 08/104,452

threaded thereon. At the distal end thereof, the muzzle cap has a pair of lateral openings or slots (26 or 31) that form a pair of longitudinally extending diametrically opposed furcations. In this regard, see particularly, Figures 5, 6, 7, 8 and 9 of Cox.

In determining that appellant's claim 1 is anticipated by Cox, the examiner, relying upon the definition of "shotgun" found in the Glossary of Ordnance Terms (cited above), has

concluded that the smooth bore barrel (1) of Cox would be viewed by one of ordinary skill in the art as being that of a shotgun. We do not agree. While it is true that the barrel (1) of Cox has a smooth bore, the riveting and punching device seen therein is clearly not a "shoulder weapon" as set forth in the definition relied on by the examiner. Thus, the barrel (1) of Cox, in our opinion, would not be viewed by one of ordinary skill in the art as being that of a shotgun, and therefore does not anticipate the "shotgun barrel," or the combination of a breaching device/flash suppressor and shotgun barrel as set forth in appellant's claim 1 on appeal. For this reason, the examiner's rejection of claims 1 and 2 under 35 U.S.C. § 102(b) based on Cox will not be sustained.

Appeal No. 96-3021
Application 08/104,452

However, like the examiner, we consider that one of ordinary skill in the art would view the explosively actuated device of Cox as broadly being a "firearm," and thus as being anticipatory of the firearm defined in appellant's claim 5 on appeal. Appellant's argument (brief, pages 3-4) that there is no mention in Cox of a shotgun barrel, has no bearing on claim 5, since this claim does not recite a "shotgun barrel." Thus, the examiner's rejection of claims 5 and 6 under 35 U.S.C. § 102(b) based on Cox is sustained.

We next review the examiner's rejection of claims 1 through 3, 5 and 6 as being unpatentable over Sargeant in view of Hoie. Like the examiner, we are of the opinion that Sargeant (e.g., Figures 8-10) discloses the subject matter of appellant's independent claims 1 and 5 except for the recitation in those claims concerning the breaching device/flash suppressor being threadedly engaged with the muzzle of a shotgun barrel (claim 1), or threadedly mounted to a smooth bore barrel of a firearm (claim 5). While the attachment (8) of Sargeant is clearly fitted onto the end of the barrel (1) of the shotgun therein, as

Appeal No. 96-3021
Application 08/104,452

is noted in column 2, lines 55-64, the connection between the device (8) and the barrel (1) is by way of a snug fit and three or more set screws (10). Hoie, however, discloses a firearm having a smooth bore barrel (a) and an attachment (k), wherein the attachment is threadedly mounted to the muzzle end of the barrel.

In our opinion, it would have been obvious to one of ordinary skill in the art at the time of appellant's invention to employ the more secure alternative threaded attachment of Hoie in place of the set screws of Sargeant in securing the attachment (8) of Sargeant to the barrel (1) of the shotgun therein. Appellant's arguments in the brief, pages 4 and 5, are not persuasive of any error on the examiner's part in combining the teachings of Sargeant and Hoie. Contrary to appellant's perception, it is not the attachment (k) of Hoie which the examiner proposes adding to the shotgun barrel of Sargeant, instead it is merely the examiner's position that it would have been obvious to one of ordinary skill in the art to use the threaded connection taught in Hoie as the means by which the attachment (8) of Sargeant is secured to the barrel (1) therein.

Appeal No. 96-3021
Application 08/104,452

Since we are in agreement with the examiner's position, we will sustain the rejection of claims 1 through 3, 5 and 6 under 35 U.S.C. § 103 based on the combined teachings of Sargeant and Hoie.

Appellant's assertion that it is not clear from the teachings of Sargeant that the device (8) therein is capable of being placed against a target without the risk of grave danger to the user, is noted. However, given that the attachment (8) of Sargeant is so similar in appearance to appellant's device, we are of the view that it would inherently function as a breaching device, and in the same manner as appellant's device -- release the gases and debris from a frangible round through the slots therein with minimal blowback toward the shooter, reduce recoil, and provide an improved degree of flash suppression when used in the manner set forth in appellant's claims on appeal. Appellant has not provided any evidence to the contrary.

The next rejection for our consideration is that of claims 1 through 3 and 5 through 7 under 35 U.S.C. § 102(b) as being anticipated by Hawley. As seen in Figure 1, Hawley

Appeal No. 96-3021
Application 08/104,452

discloses a flash suppressor (1) that is threadedly attached (at 3) to the muzzle end of a smooth bore barrel (2) of a firearm. While Hawley indicates, and shows in Figures 9 through 14, that there may be a plurality of slots in the flash suppressor, it is expressly noted at column 2, line 61, that these slots need only "total at least two." Thus, appellant's argument in the brief (page 5) that Hawley fails to teach a pair of opposed furcations formed by a pair of opposed slots is unpersuasive. As for the assertion that Hawley does not disclose a shotgun as claimed, we note again that independent claim 5 on appeal does not set forth a shotgun or shotgun barrel, and that with regard

to claim 1, one of ordinary skill in the art would have understood from the definition of a "shotgun" in the Glossary of Ordnance Terms that the smooth bore firearm disclosed in Hawley encompasses a shotgun. In this regard, we note that our reviewing Court has indicated that a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention. See In re Graves, 69 F.3d 1147, 1152, 36 USPQ2d 1697,

Appeal No. 96-3021
Application 08/104,452

1701 (Fed. Cir. 1995), cert. denied, 116 S.Ct. 1362 (1996), quoting from In re LeGrice, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962). Accordingly, we will sustain the examiner's rejection of claims 1 through 3 and 5 through 7 under 35 U.S.C. § 102(b) as being anticipated by Hawley.

As for the examiner's rejection of claim 8 under 35 U.S.C. § 103, we note that claim 8 is directed to a method for breaching a barrier comprising: providing a shotgun with a tactical breaching device of the type disclosed by appellant mounted on the muzzle end of the barrel; loading said shotgun with frangible ammunition; placing the furcations of the breaching device against and in contact with a target to be breached;

spacing the muzzle of said shotgun from said target by a predetermined distance "at least equal to the length of said furcations"; and discharging said shotgun. For similar reasons to those expressed above in our treatment of the examiner's rejection of claim 1 based on Cox, we also will not sustain the rejection of claim 8 based on Cox and the admitted prior art at page 2, lines 3-18 of appellant's specification. Cox does not

Appeal No. 96-3021
Application 08/104,452

disclose, teach or suggest a "shotgun," and thus even when considered with the admitted prior art would not have rendered the method as set forth in claim 8 on appeal obvious to one of ordinary skill in the art.

However, in considering the rejection of claim 8 based on either Sargeant in view of Hoie, or Hawley, considered with the admitted prior art, we reach a contrary conclusion. In this regard, we note that it does not appear that the method of claim 8 on appeal requires the furcations of the breaching device to be against and in contact with the target when the shotgun is discharged to breach the barrier/target. Instead, claim 8 sets forth that the muzzle of said shotgun is spaced from said target by a predetermined distance "at least equal to the length of said furcations," thus allowing the muzzle of the shotgun to be spaced

further away from the barrier/target than the length of the furcations when the shotgun is discharged. Given this understanding of appellant's claim 8, we share the examiner's view that the method as broadly defined in claim 8 would have been obvious to one of ordinary skill in the art based on the collective teachings of Sargeant, Hoie and the admitted prior

Appeal No. 96-3021
Application 08/104,452

art, or based on Hawley and the admitted prior art. That is, it would have been obvious to one of ordinary skill in the art at the time of appellant's invention, based on the admitted prior art at page 2, lines 3-18 of appellant's specification, to have loaded either the shotgun of Hawley, or that of Sargeant as modified by Hoie, with frangible ammunition, to then space the muzzle of said shotgun away from said target by a predetermined distance "at least equal to the length of said furcations," that is, at a distance where the muzzle of the shotgun is spaced further away from the barrier/target than the length of the furcations, and then to discharge the shotgun so as to breach the barrier/target. Given this understanding, we will sustain the examiner's rejection of claim 8 under 35 U.S.C. § 103 as being unpatentable over either Sargeant in view of Hoie, or Hawley, considered with the admitted prior art at page 2, lines 3-18 of appellant's specification.

The last of the examiner's rejections for our review is that of claims 1 through 3 and 5 through 8 under 35 U.S.C. § 103 as being unpatentable over Ester in view of Majors. Ester discloses a gun having a smooth bore barrel (i.e., at 13) and a muzzle brake means (35) mounted to the muzzle end of the barrel.

Appeal No. 96-3021
Application 08/104,452

See Figures 1 and 4 of Ester. The muzzle brake means (35) includes a cylindrical portion (36) which can be threaded onto the barrel (page 3, line 16-19) and a casing portion (37) that includes longitudinal slots (37a) which define a pair of diametrically opposed furcations. According to the examiner (answer, page 3 [sic, page 4]), the only difference between Ester and that which is claimed by appellant is "that the subject matter of the placing the breaching device against the target was not set forth." To account for this difference, the examiner has relied upon Majors, which the examiner characterizes as teaching such placing and the advantages thereof, e.g., at column 3, lines 7-9 and 68, and column 4, lines 25-32. The examiner concludes that it would have been obvious to one of ordinary skill in the art that the breaching device of Ester may be placed against the target for the purpose of securing the advantages of Majors.

Looking to claim 1 on appeal, we again note that this claim is directed to a combination of the breaching device/flash suppressor and a shotgun barrel to which the device is threadedly engaged. As was the problem with the Cox patent above, we do not

Appeal No. 96-3021
Application 08/104,452

consider that one of ordinary skill in the art would have viewed the barrel of the gun disclosed in Ester as being a "shotgun barrel," since it is not associated with a "shoulder weapon" as required in the definition found in the Glossary of Ordnance Terms relied upon by the examiner. Accordingly, the examiner's rejection of claims 1 through 3 based on Ester in view of Majors will not be sustained.

With regard to claim 5, we again note that this claim is directed to a firearm comprising a smooth bore barrel having a threaded portion at the muzzle end thereof and a tactical breaching device mounted on the threaded portion of the barrel, and that claim 5 is broader than claim 1, in that claim 5 does not expressly limit the smooth bore barrel therein to being that of a shotgun. With this in mind, we find no structural distinction between the device as disclosed in Ester and that defined in appellant's claim 5. Evidence establishing lack of novelty in the claimed invention necessarily evidences obviousness. Lack of novelty is the ultimate or epitome of obviousness. See In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re Pearson, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974).

Appeal No. 96-3021
Application 08/104,452

Thus, on this basis alone we will sustain the examiner's rejection of claims 5 through 7 under 35 U.S.C. § 103.

Considering independent claim 8, we must agree with appellant that neither Ester nor Majors discloses, teaches or suggests using a "shotgun" with a tactical breaching device threadedly mounted on the muzzle end thereof in the manner set forth in claim 8 on appeal. As noted supra, the gun of Ester would not be viewed by one of ordinary skill in the art as being a "shotgun." Thus, the examiner's rejection of claim 8 under 35 U.S.C. § 103 based on Ester in view of Majors will not be sustained.

Since at least one of the examiner's rejections of each of the appealed claims either under 35 U.S.C. § 102(b) or 35 U.S.C. § 103 has been sustained, it follows that the decision of the examiner rejecting claims 1 through 3 and 5 through 8 is affirmed.

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

Appeal No. 96-3021
Application 08/104,452

AFFIRMED

WILLIAM E. LYDDANE)
Administrative Patent Judge)
)
)
)
)
NEAL E. ABRAMS)
Administrative Patent Judge)
)
)
)
CHARLES E. FRANKFORT)
Administrative Patent Judge)

BOARD OF PATENT
APPEALS AND
INTERFERENCES

Appeal No. 96-3021
Application 08/104,452

Harold H. Dutton, Jr.
8711 Plantation Lane
Suite 301
P.O. Box 3110
Manassas, VA 22110

APPENDED CLAIMS

1. A combined tactical breaching device and flash suppressor, comprising a cylindrical body portion having a longitudinal central smoothbore, said body portion being threaded at one end thereof and threadedly engaging the muzzle of a shotgun barrel, said barrel having a threaded portion in threaded engagement with said one end of said breaching device, a pair of longitudinally extending diametrically opposed furcations formed in the other end of said body portion by a pair of diametrically opposed slots formed in said body portion and extending from said other end toward said one end, said slots being of a length and width such that when said other end is placed against a target and in contact therewith, frangible ammunition may be discharged through said device for breaching the target.

5. A firearm comprising a smooth bore barrel having a threaded portion at the muzzle end thereof and a tactical breaching device mounted on said threaded portion of said barrel, said breaching device comprising a cylindrical body portion having a central bore, said body portion being threaded at one end thereof for threadedly engaging said threaded portion of said barrel, a pair of longitudinally extending diametrically opposed furcations formed in the other end of said body portion by a pair of diametrically opposed slots formed in said body portion and extending from said other end toward said one end, said slots being of a length and width such that when said other end is placed against a target and in contact therewith, frangible ammunition may be discharged through said device for breaching the target.

8. A method for breaching a barrier comprising providing a shotgun having a smooth bore barrel having a tactical breaching device mounted on the muzzle end of said barrel, said breaching device comprising a cylindrical body portion having a longitudinal central bore, said body portion being threaded at one end thereof for threadedly engaging said threaded portion of said barrel, a pair of longitudinally extending diametrically opposed furcations formed in the other end of said body portion by a pair of diametrically opposed slots formed in said body portion and extending from said other end toward said one end; loading said shotgun with frangible ammunition, placing said furcations against and in contact with a target to be breached,

Appeal No. 96-3021
Application 08/104,452

spacing the muzzle of said shotgun from said target by a predetermined distance at least equal to the length of said furcations, and discharging said shotgun.