

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte DEAN P. SCHUMACHER

---

Appeal No. 99-0629  
Application No. 08/778,059<sup>1</sup>

---

ON BRIEF

---

Before NASE, CRAWFORD, and BAHR, Administrative Patent Judges.  
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 17 through 27. Claims 1 through 13, 15 and 16, the only other claims still pending in this

---

<sup>1</sup> Application filed November 1, 1996, for reissue of U.S. Patent No. 5,359,985 (Application No. 08/027,623, filed March 8, 1993).

application, have been indicated as allowable (final rejection, page 4).<sup>2</sup>

We AFFIRM-IN-PART and REMAND.

BACKGROUND

The appellant's invention relates to a projectile apparatus adapted to be worn on the hand of a user. An understanding of the invention can be derived from a reading of exemplary claims 17 and 25, which appear in the appendix to the examiner's answer.<sup>3</sup>

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

Breneman et al. (Breneman)	3,453,774	Jul. 8,
1969		
Tsao	4,848,307	Jul.
18, 1989		

---

<sup>2</sup> We remind the appellant and the examiner that 37 CFR § 1.175(b)(1) requires that, for any error corrected which is not covered by a reissue declaration, "applicant must submit a supplemental oath or declaration stating that every error arose without any deceptive intention on the part of the applicant."

<sup>3</sup> As noted by the examiner (answer, page 3), the copies of claims 17 through 26 in the appendix to the appellant's brief do not accurately reflect the claims in the record.

Wilson 5,158,208 Oct. 27,  
1992 An additional reference made of record by this panel  
of the Board is:<sup>4</sup>

Steiner 2,888,004 May 26,  
1959 The following rejections are before us for review.<sup>5</sup>

1. Claims 17 through 27 stand rejected under 35 U.S.C. §  
112, second paragraph, as being indefinite for failing to  
particularly point out and distinctly claim the subject matter  
which the appellant regards as the invention.

2. Claims 25 and 27 stand rejected under 35 U.S.C. § 103 as  
being unpatentable over Breneman in view of Tsao.

3. Claims 17 through 22, 24 and 26 stand rejected under 35  
U.S.C. § 103 as being unpatentable over Breneman in view of  
Wilson.

The complete text of the examiner's rejections and  
response to the argument presented by the appellant appears in

---

<sup>4</sup> A copy of this patent is appended hereto.

<sup>5</sup> The rejections of claims 17 through 24 under 35 U.S.C. § 112, first  
paragraph, and of claim 27 under 35 U.S.C. § 251 are assumed to be withdrawn  
in view of the examiner's failure to carry these rejections forward and  
restate them in the answer. Ex parte Emm, 118 USPQ 180, 181 (Bd. App. 1957).  
The appellant appears to concede that claim 27 should be withdrawn (brief,  
page 3). Nevertheless, we shall decide the appeal of the 35 U.S.C. §§ 103 and  
112, second paragraph, rejections of claim 27, since the appellant has not  
expressly withdrawn the appeal as to this claim.

the final rejection (Paper No. 6, mailed August 7, 1997) and the examiner's answer (Paper No. 9, mailed March 18, 1998), while the complete statement of the appellant's argument can be found in the brief (Paper No. 8, filed December 8, 1997).

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

Rejection 1

The examiner considers claims 17 through 27 to be indefinite because the term "trigger" used in the claims cannot be found in the appellant's specification. Further, apparently with regard to claims 17 through 24, the examiner asserts:

Appellant argues that the phrase "trigger means" may include a single trigger that operates plural discharge chambers. No support can be found in the specification for this structure. In the specification, each discharge means is connected to only one respective chamber such that actuation of a

single discharge means launches a single respective projectile [answer, page 4].

Claims 17 through 27 are each directed to a combination of elements, including an element ("trigger means for triggering said first discharge means and said second discharge means") expressed in means-plus-function format. As explained in In re Donaldson, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848-49 (Fed. Cir. 1994), the PTO must treat means-plus-function limitations in accordance with the statutory mandate of 35 U.S.C. § 112, paragraph 6, which reads:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Although paragraph six statutorily provides that applicants may use means-plus-function language in a claim, applicants are still subject to the requirement of paragraph two of section 112 that a claim "particularly point out and distinctly claim" the invention. In re Lundberg, 244 F.2d 543, 547-48, 113 USPQ 530, 534 (CCPA 1957). Therefore, if one employs means-plus-function language in a claim, one must set

forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.

A means-plus-function claim limitation satisfies the second paragraph of section 112 if: (1) the written description links or associates particular structure, materials or acts to the function recited in a means-plus-function claim limitation or (2) it is clear based on the facts of the application that one skilled in the art would have known what structure, materials, or acts perform the function recited in the means-plus-function limitation. See In re Dossel, 115 F.3d 942, 946, 42 USPQ2d 1881, 1885 (Fed. Cir. 1997).

In this case, the appellant's specification describes five projectile reception chambers (24, 26, 28, 30, 32) adapted to receive projectiles (34). The specification describes each of the chambers as follows:

As shown, chamber 32 includes a first narrow portion 50 which has a diameter slightly larger than the diameter of the body 51 of dart 34. In this

manner, dart 34 is frictionally secured within portion 50. Moreover, chamber 34 [*sic*, 32] also includes a dart discharge member 52 having a first portion 54 which is longitudinally deployed within chamber 32 and a second flanged portion 56 which is coupled to a spring 58. As shown, portion 58 [*sic*, 56] further includes an outwardly and horizontally projecting portion 60 having a recessed portion 61 which is in selective engagement with member 64. Member 64 is pivotally deployed within chamber 32 and includes a rounded portion 66 which is adapted to substantially encircle thumb 20.

In operation, member 56 is pushed or biased against spring 58 before dart 34 is deployed within chamber 32. After such biasing has occurred, member 64 is moved to a first locking position in which portion [*sic*, member] 64 engages and is contained in recessed portion 61 thereby preventing the biased spring from moving member 56 within the chamber 32. Subsequently, dart 34 is frictionally deployed within portion 50 of chamber 32. When it is desired to shoot or discharge dart 34, portion 66 is moved downward thereby disengaging portion 61 from portion 60 [*sic*, member 64]. Upon such disengagement, biased spring 58 pushes member 56 in a longitudinal manner within chamber 32. Such movement, shown in phantom in FIG. 5, causes air residing within the chamber to be compressed and to force dart 34 outward from apparatus 10. In a similar manner, each of the other darts 24-30 may be concurrently or successively dispensed or shot from apparatus 10 by the movement of identical portions 66 within each of the other chambers 24-30 [column 2, lines 19 through 52 of U.S. Pat. No. 5,359,985].

Notwithstanding that the term "trigger" does not appear in the appellant's specification, we are satisfied that one of

ordinary skill in the art would have known, from reading this disclosure in the appellant's specification, that the members (64) constitute the structure that performs the function of triggering the first discharge means and second discharge means (dart discharge member 52).

In making this rejection, the examiner points out that 37 CFR § 1.75(d)(1) requires that the words and phrases used in the claims must appear in the specification (final rejection, page 2). While it is true that 37 CFR § 1.75(d)(1) provides, in part, "the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description," compliance with 37 CFR § 1.75(d)(1) is not required for compliance with the second paragraph of 35 U.S.C. § 112 and, as such, is not relevant to the rejection before us.

As to the examiner's suggestion that the appellant's specification fails to set forth an adequate disclosure of the "trigger means . . ." in that it does not disclose a single trigger that operates plural chambers, the "broadest reasonable interpretation" that an examiner may give

means-plus-function language is that statutorily mandated in paragraph six of section 112. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination. Donaldson. In this case, as discussed above, the appellant's specification describes a plurality of members (64) each associated with a corresponding one of a plurality of discharge members (52) within reception chambers (24, 26, 28, 30, 32). Thus, the "trigger means for triggering said first discharge means and said second discharge means" must be construed to cover only that structure and its equivalents.<sup>6</sup> If a single trigger member that actuates plural discharge means in plural discharge chambers is not an equivalent of the disclosed structure, the claim cannot be read to include such structure. However, whether such a structure is an equivalent of the disclosed structure is not germane to the issue before

---

<sup>6</sup> Although, as discussed above, we assume the examiner has withdrawn the rejection of claims 17 through 24 under 35 U.S.C. § 112, first paragraph, we also note, for the record, that the above-mentioned disclosure was included on pages 3 and 4 of the appellant's specification as originally filed in Application 08/027,623. Accordingly, the "trigger means for . . ." limitation is fully supported by the appellant's original disclosure as required by 35 U.S.C. § 112, first paragraph.

us, since section 112 does not require an applicant to disclose each and every equivalent of the claimed structure.

For the foregoing reasons, we cannot sustain the examiner's rejection of claims 17 through 27 under 35 U.S.C. § 112 on the basis that the appellant's specification fails to provide adequate disclosure of "trigger means for triggering said first discharge means and said second discharge means."

However, as the appellant has not challenged the examiner's further findings that "an air comprising portion" in claim 25 and "comprising" in claim 27 are not clear (final rejection, page 2), we shall summarily sustain the examiner's rejection of claims 25 and 27, and claim 26 which depends from claim 25, under 35 U.S.C. § 112, second paragraph, on these bases.

#### Rejection 2

Breneman discloses a rifle (28) adapted for mounting over the forearm and hand of a user by means of a mechanical hand (1). The rifle (28) comprises a barrel (30), a bullet (32), a firing pin (33), a firing spring (34) compressed between a shoulder (47) of the firing pin and the bullet, a trigger (36) and an activator means (8) comprising a finger grip (15)

connected by means of connection rods (18) to a trip pin (38). When the user pulls the finger grip (15), the trip pin (38) causes the trigger (36) to rotate clockwise as shown in Figure 2, thereby releasing a bullet (32), which is fired from the barrel under the force of the spring (34). It does not appear to be in dispute that Breneman discloses a projectile apparatus as recited in claims 25 and 27, except that the Breneman discharge means (firing pin 33 and spring 34) expels the bullet (32) by direct impact with the bullet rather than by air compression.

In rejecting claims 25 and 27, the examiner states that

[Tsaio] teaches the use of an air compressing portion 41 for propelling a projectile 8. Trigger means 14 coupled to discharge means 5 for triggering discharge means 5. It would have been obvious to a person having ordinary skill in the art at the time of [appellant's] invention to modify the gun of Breneman as taught by [Tsaio] for the purpose of increasing the life of the propelling mechanism, [Tsaio], col. 1, lines 18-24 [final rejection, page 3].

The appellant argues that it would not have been obvious to modify the apparatus of Breneman to provide an air compression discharge means because Breneman teaches away from the

appellant's air compressing mechanism (brief, page 6). The appellant does not set forth any specific basis for this assertion.

Like the examiner (answer, page 5), we find that Breneman merely teaches one means for launching projectiles. Tsao recognizes air compression as an alternative to the type of propulsion mechanism disclosed by Breneman and suggests advantages, such as safety and durability, of using an air compression mechanism (column 1, lines 5 through 36). For the foregoing reasons, we are satisfied that the combined teachings of Breneman and Tsao would have suggested to one of ordinary skill in the art modification of the Breneman apparatus by replacing the direct impact mechanism with an air compression mechanism.

As to the specific question of "teaching away," our reviewing court in In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130, 1331 (Fed. Cir. 1994) stated:

A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.

We can find no teaching or suggestion in Breneman which would discourage one of ordinary skill in the art from providing an alternate mechanism, such as air compression, for transferring an expulsion force to the bullet. Simply that there are differences between two references (in this case, different means of transferring expulsion force to a projectile) is insufficient to establish that such references "teach away" from any combination thereof. See In re Beattie, 974 F.2d 1309, 1312-13, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).

Accordingly, we shall sustain the examiner's rejection of claims 25 and 27.<sup>7</sup>

### Rejection 3

We shall not sustain the examiner's rejection of claims 17 through 22, 24 and 26 under 35 U.S.C. § 103 as being unpatentable over Breneman in view of Wilson.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18

---

<sup>7</sup> In view of the appellant's argument directed to claims 17 to 22, 24 and 26 on pages 6 and 7 of the brief, we presume the appellant's grouping of claim 26 with claim 25, rather than with claims 17 through 22 and 24 to have been an inadvertent error.

USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

Claims 17 through 22, 24 and 26 require first and second reception chambers and first and second discharge means associated with the first and second chambers, respectively. Breneman discloses only one chamber or barrel (30) and one discharge means (firing pin 33 and spring 34). The examiner relies upon Wilson to show that the use of either a single reception chamber and trigger or a plurality of reception chambers and triggers is a matter of design choice (final rejection, page 4).

Wilson discloses a water cannon apparatus comprising a single-chamber pressurized fluid storage tank (11) connected by a fluid conduit (16) to a single outlet port (17) of a glove (15), shown in Figure 3, for permitting discharge of the fluid upon actuation of a single trigger valve (19) or, alternatively, a multiple-chamber tank (11a) connected via multiple conduits to respective multiple outlet ports (41 to 44) of a modified glove (15a), shown in Figures 9 and 10 (column 3, line 42 to column 4, line 31). The multiple outlet port embodiment comprises a trigger valve (45 to 48) for each

port, thereby permitting selective flow from each chamber, so that "various fluids may be utilized, such as fluids with water soluble dyes to impart a desired effect upon a target" (column 4, lines 34 to 40). As the Breneman apparatus is directed to expulsion of solid projectiles, we are of the opinion that the teaching by Wilson to use multiple pressurized chambers, outlet ports and trigger valves for selective use of various fluids would not have motivated one of ordinary skill in the art to modify the Breneman apparatus to provide multiple barrels and firing mechanisms.

REMAND TO THE EXAMINER

The application is remanded to the examiner to consider, on the record: (1) the applicability of the "recapture doctrine" in this application and (2) the applicability of prior art references teaching multiple-barrel projectile devices to the reissue claims.

(1) *The recapture rule*

An attorney's failure to appreciate the full scope of the invention qualifies as an error under 35 U.S.C. § 251 and is correctable by reissue. In re Wilder, 736 F.2d 1516, 1519, 222 USPQ 369, 370-71 (Fed. Cir. 1984). Nevertheless,

"deliberate withdrawal or amendment . . . cannot be said to involve the inadvertence or mistake contemplated by 35 U.S.C. Section 251." Haliczer v. United States, 356 F.2d 541, 545, 148 USPQ 565, 569 (Ct. Cl. 1966). The recapture rule, therefore, prevents a patentee from regaining through reissue the subject matter that he surrendered in an effort to obtain allowance of the original claims. See Mentor Corp. v. Coloplast, Inc., 998 F.2d 992, 995, 27 USPQ2d 1521, 1524 (Fed. Cir. 1993). Under this rule, claims that are "broader than the original patent claims in a manner directly pertinent to the subject matter surrendered during prosecution" are impermissible. Id. at 996, 27 USPQ2d at 1525. In other words, if the reissue claim is as broad as or broader than the canceled or amended claim in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim; if the reissue claim is narrower in an aspect germane to a prior art rejection, and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim. In re Clement, 131 F.3d 1464, 1470, 45 USPQ2d 1161, 1165 (Fed. Cir. 1997). In addition, to determine whether an applicant

surrendered particular subject matter, the PTO must look to the prosecution history for arguments and changes to the claims made in an effort to overcome a prior art rejection. See Mentor, 998 F.2d at 995-96, 27 USPQ2d at 1524-25; Ball Corp. v. United States, 729 F.2d 1429, 1436, 221 USPQ 289, 294-95 (Fed. Cir. 1984).

With this as background, we remand the application to the examiner to consider, on the record, whether reissue claims 17 through 27 attempt to regain through reissue subject matter surrendered during prosecution of Application No. 08/027,623 in Paper No. 12 therein, in an effort to overcome a prior art rejection. We direct the examiner's attention particularly to the following items in the record of Application NO. 08/027,623: (1) claim 9 as presented prior to the filing of Paper No. 12, (2) the amendments made in Paper No. 12 and (3) the appellant's remarks bridging pages 7 and 8 of Paper No. 12.

(2) *Prior Art Multiple-Barrel Projectile Devices*

We also remand the application to the examiner to consider the patentability of the reissue claims, most notably claims 17 through 22, 24 and 26, over Breneman (alone, or in

combination with other prior art) in view of prior art solid projectile devices having multiple-barrels, multiple firing mechanisms and multiple triggers. We direct the examiner's attention, for example, to Steiner<sup>8</sup>, which teaches a toy dart gun having multiple barrels, firing mechanisms and triggers.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 17 through 24 under 35 U.S.C. § 112, second paragraph, is reversed, but the examiner's decision to reject claims 25 through 27 under 35 U.S.C. § 112, second paragraph, is affirmed. The decision of the examiner to reject claims 25 and 27 under 35 U.S.C. § 103 is affirmed. The examiner's decision to reject claims 17 through 22, 24 and 26 under 35 U.S.C. § 103 is reversed. Additionally, the application is remanded to the examiner for consideration of the issues discussed above.

In addition to affirming the examiner's rejection of one or more claims, this decision contains a remand. 37 CFR § 1.196(e) provides that

---

<sup>8</sup> Steiner is classified in class 124, subclass 27, and cross-referenced in class 124, subclass 16.

Whenever a decision of the Board of Patent Appeals and Interferences includes or allows a remand, that decision shall not be considered a final decision. When appropriate, upon conclusion of proceedings on remand before the examiner, the Board of Patent Appeals and Interferences may enter an order otherwise making its decision final.

Regarding any affirmed rejection, 37 CFR § 1.197(b)

provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision . . . .

The effective date of the affirmance is deferred until conclusion of the proceedings before the examiner unless, as a mere incident to the limited proceedings, the affirmed rejection is overcome. If the proceedings before the examiner do not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejections, including any timely request for rehearing thereof.

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

AFFIRMED-IN-PART AND REMANDED

JEFFREY V. NASE )  
Administrative Patent Judge )  
 )  
 )  
 )  
 )  
 ) BOARD OF PATENT  
MURRIEL E. CRAWFORD ) APPEALS  
Administrative Patent Judge ) AND  
 ) INTERFERENCES  
 )  
 )  
 )  
JENNIFER D. BAHR )  
Administrative Patent Judge )

JDB/pgg

Kennedy and Kennedy  
400 Northpark Town Center Ste. 1250  
1000 Abernathy Road  
Atlanta, GA 30328