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| Applicant/ Real Party in Interest | : | BLAKLEY, BRIAN A. |
| Serial Number | : | 10/424,676 |
| Filed | : | 04/25/2003 |
| For | : | TRIGGER FORWARD DISPLACEMENT SYSTEM AND METHOD |
| Examiner | : | CHAMBERS, TROY |
| Group Art Unit | : | 3641 |
| ATTORNEY DOCKET | : | BD92/01 |

CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing Appeal Brief is being deposited with the U.S. Postal Service with sufficient First Class postage addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 this 8th day of November 2005.

Jeanne M. Carrell

Commissioner for Patents
Alexandria, VA 22313-1450

## APPLICANT'S APPEAL BRIEF

This is an appeal from the Examiner's Final Rejection of 06/08/2005.

## REAL PARTY IN INTEREST

The real party in interest in this appeal is applicant BRIAN A. BLAKLEY.

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## RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences which will directly affect, or be directly affected by, or have a bearing on, the decision in the pending appeal.

## STATUS OF THE CLAIMS

The status of the claims in this application is:

A. TOTAL NUMBER OF CLAIMS IN APPLICATION: 9

Claims originally filed in this application are:

Claims 1 - 6.

Claims added by amendment: Claims 7 - 9.

B. STATUS OF ALL THE CLAIMS.

| | | | |
|---|---|---|---|
| 1. | Claims allowed | : | None |
| 2. | Claims objected to | : | None |
| 3. | Claims rejected | : | Claim 8 & 9 |
| 4. | Claims withdrawn | : | Claims 1 - 7 |
| 5. | Claims canceled | : | None |

C. CLAIMS BEING APPEALED : Claims 8 & 9.

## STATUS OF AMENDMENTS

Amendment after Final submitted 08/05/2005, has been entered. Note the Advisory Action of 08/17/2005.

## SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 8 claims a method of accelerating the firing cycle of a semi-automatic firearm comprising several steps.



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First provided is the step of "depressing a firearm trigger with a finger to discharge the firearm" (Claim 8, Lines 1 - 4; Specification, Page 20, Lines 1 - 9 and Page 21, Lines 4 - 20).

The next step is "activating a reciprocating mechanism within the firearm" (Claim 8, Lines 5 - 6; Specification, Page 20, Lines 1 - 9 and 14 - 21 and Page 21, Lines 4 - 20) "that causes a second mechanism, in a single motion, to simultaneously push the trigger forward into a ready to fire position" (Claim 8, Lines 5 - 6; Specification, Page 20, Lines 14 - 21, and Page 21, Lines 4 - 20) "and hold the trigger forward in the ready to fire position until the reciprocating mechanism has reached an approximately closed, ready to fire position", (Claim 8, Lines 6 - 10; Specification, Page 20, Lines 14 - 21 and Page 21, Lines 4 - 20).

Claim 9 claims a method of accelerating the firing cycle of a semi-automatic firearm consisting of several steps.

The first step is the step of "depressing a firearm trigger with a finger to discharge the firearm" (Claim 9, Lines 5 - 6; Specification, Page 20, Lines 1 - 9 and 14 - 21, and Page 21, Lines 4 - 20).

The next step is the step of "activating a reciprocating mechanism within the firearm that causes a second mechanism, in a single motion, to simultaneously push said finger forward into a ready to fire position and hold the finger forward in the ready



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to fire position until the reciprocating mechanism has reached an approximately closed, ready to fire, position" (Claim 9, Lines 6 - 11; Specification, Page 20, Lines 10 - 21 and Page 21, Lines 10 - 21).

STATEMENT OF EACH GROUND OF REJECTION PRESENTED FOR REVIEW

Claims 8 and 9 stand rejected "under 35 U.S.C. 102(b) as being clearly anticipated by U.S. 4023465 issued to Inskip. Refer to Inskip, col. 5, line. 55 to col 6, line 2 and applicant's own specification pgs 24-25 describing Inskip."

ARGUMENT

The Examiner has rejected applicant's Claims 8 and 9 based on 35 U.S.C. 102(b) as being clearly anticipated by Inskip (US 4,023,465). The present invention, however, represents a significant improvement over Inskip 4,023,465 (hereinafter "Inskip").

It may be beneficial to reiterate the analysis of the function of Inskip. The principal object of the Inskip device is to move the firearm's trigger into the forward, unpulled position. As one skilled in the art would understand, modern semi-automatic firearms function with a single pull of the trigger discharging a single round. One way of accelerating the rate of fire is to enable the user to pull the trigger at a



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faster rate. One method is to provide a device that will move the trigger forward, against the finger pressure of the operator, and to retain the trigger in that forward position until the firing cycle has completed. At that point the firearm has chambered a new round and has returned to "battery".

It is important to appreciate that there are two effects required in order for the overall accelerating effect to succeed:

1) the trigger must be pushed forward to the ready to fire position, and;

2) the trigger must be positively retained fully forward until the firing cycle has completed and the weapon is again ready to fire.

If either of the above listed effects, or functions, is not fully achieved, the overall accelerating effect will fail. Elaborating briefly, if the first effect (moving the trigger forward) is not complete, the disconnector of the firearm will capture the hammer and the overall effect will fail. If the second effect (retaining the trigger fully forward) fails -- either by not retaining the trigger, or by allowing the trigger to move even slightly out of the fully-forward position, the same will occur -- the disconnector will capture the hammer and the overall effect will fail.

Inskip accomplishes these two discrete effects, or functions, as separate processes, with separate apparatuses.



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Referring to the figure on the cover sheet for Inskip, the parts numbered 118, 132, 134, 136, and 140 cooperate with the bolt carrier 33 to displace the trigger into the un-pulled position. When, and if, the trigger moves forward a sufficient distance, a second apparatus comprised of the parts numbered 100, 98, 106, 108, and 110 is activated and moves to retain the trigger in the forward position. Thus, two motions by two apparatuses are required to enable the effect produced by the Inskip teachings. Inskip, therefore, uses two distinct mechanisms to accomplish the two distinct tasks, moving the trigger forward, and holding it forward until the firearm is ready to again be fired.

The fact that the two fundamental functions are performed independently, by two different apparatuses, is a critical weakness in Inskip. The tolerances and timing required to allow two independent apparatuses to cooperate to move and then hold the trigger forward presents significant design and manufacturing obstacles. The problem is that generally the fire control components of most semi-automatic firearms operate within tight tolerances to begin with. In order to prevent capture of the hammer by the disconnector, the trigger generally must not be permitted to be anything but fully-forward.

While difficult to intuit from drawings, using two apparatuses to perform the two functions (moving and holding) requires some tolerance gap so that the holding apparatus has

clearance to move into position after the moving apparatus moves the trigger. This required tolerance gap then permits the operator's continued trigger finger "pulling force" to move the trigger slightly rearward after the effect of the moving apparatus subsides. As previously indicated, this will allow the disconnector to capture the hammer and terminate the intended effect. One skilled in the art would recognize that time is necessary to provide sufficient movement of the apparatuses to overcome the tolerances built into the Inskip design. Because each of the functions of Inskip occur through various linkages, they cannot happen "simultaneously". Therein lies the difference between the present invention and the prior art, Inskip.

By contrast, in the present invention, the function of moving the trigger to the fully-forward position, and the function of maintaining the trigger in the forward position, are accomplished in a single motion, by a single apparatus, performing both functions at the same time. This novel operation is set forth in Claims 8 and 9, wherein "a reciprocating mechanism. . .causes a second mechanism, in a single motion, to simultaneously push the trigger forward into a ready to fire position and hold the trigger forward in the ready to fire position until the reciprocating mechanism has reached an approximately closed, ready to fire position".



Atrius Ex. 1014--0007

Referring to Figure 1 of the present application, the parts numbered 66, 64, and 68 cooperate with the bolt carrier 20 to displace the trigger into the un-pulled position. Due to the manner and mechanism of this displacement, the trigger is simultaneously retained in the fully-forward position without the need for any other motion, action, or apparatus. Thus the design, manufacturing, timing and tolerance issues of Inskip are avoided completely.

## CONCLUSION

In view of the deficiencies of the prior art cited and applied by the Examiner, it is requested that the rejections to the claims be withdrawn and the present application be allowed and passed to issue.

Reconsideration, a reversal of the Examiner's position, and a Notice of Allowance are requested.

Respectfully submitted,

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