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[Continued on next page]

(54) Title: LAW ENFORCEMENT CARBINE WITH ONE PIECE RECEIVER

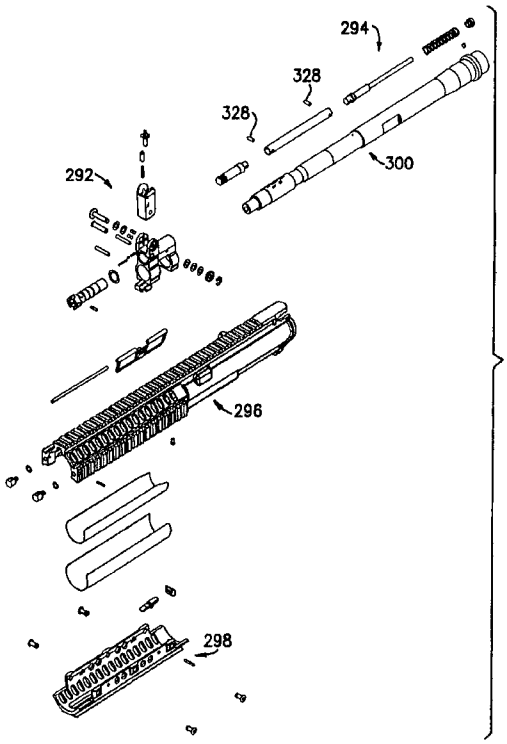


FIG. 17

(57) Abstract: An indirect gas operating system for an M4 type automatic or semi-automatic firearm. The indirect gas operating system has a gas block having a cylinder. The gas block is fitted to a barrel assembly having a bore with the cylinder in communication with the bore. A piston having a piston end and a striking end has the piston end fitted to the cylinder. A bolt assembly having a striking surface is provided. When a cartridge is fired, gas displaces the piston end and causes the striking end to strike the striking surface displacing the bolt assembly. The cylinder and the piston are together removable as an assembly from the firearm without removal of the gas block.

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Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*
— *with information concerning one or more priority claims considered void*

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27 November 2008

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Previous Correction:
see Notice of 10 July 2008

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US07/03277

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **F41A 5/00(** 2006.01),5/18(2006.01),3/54(2006.01)

USPC: 89/191 .01,191.02,192,193,194
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 89/191 .01,191.02,192,193,194

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,824,943 (GUHRTNG) 20 October 1998 (20. 10.1998), column 4 lines 21-28,55-60, column 5 lines 47-60	1-3,5-7
X	US 2006/0026883 Al (HOCHSTRATE) 16 June 2004 (16.06.2004)	20-29
A	US 2006/0260169 (SAMSON) 18 January 2005 (18.01.2005)	1-29

D Further documents are listed in the continuation of Box C.

D See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
21 August 2008 (21.08.2008)

Date of mailing of the international search report
24 SEP 2008

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US07/03277

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 8-13
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Please See Continuation Sheet

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. HI Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US07/03277

Continuation of Box II Reason 2:
Independent claim 8 and the claims which depend from it 9-13 were not searched because it is unclear how the bore of a barrel can be removably connected to the receiver. The examiner understands a bore to be a hole, and it is unclear how a hole can be removed or connected to a receiver.

Claims 8-13 are also objected to as lacking clarity under PCT Rule 66.2(a)(v) because the claims are not fully supported by the description. The description does not disclose the claimed invention in a manner sufficiently clear and complete for the claimed invention to be carried out by a person skilled in the art for the reasons stated above.

BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING
Group I, claim(s) 1-7, drawn to an indirect gas operating system.

Group II, claim(s) 8-13, drawn to a rifle with a barrel and removable bore.

Group III, claim(s) 14-19, drawn to a rifle with a quick release lock mounted to a removable mounting rail.

Group FV, claim(s) 20-29, drawn to a firearm with an integral hand guard with venting features.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature of Group II is the removably connected bore which is not present in any of the other groups. The special technical feature of Group III is the quick release lock which is not present in any of the other groups. The special technical feature of Group IV is the integral hand guard which has venting features for allowing cooling air to pass through, which is not present in any of the other groups. Therefore unity of invention is lacking-