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(12) United States Patent
Luth**(10) Patent No.:** US 6,293,040 B1
(45) Date of Patent: Sep. 25, 2001**(54) INTERCHANGEABLE WEAPON RECEIVER FOR ALTERNATE AMMUNITION****(75) Inventor:** Randy E. Luth, Becker, MN (US)**(73) Assignee:** Defense Procurement Manufacturing Services, Inc., Becker, MN (US)**(*) Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.**(21) Appl. No.:** 09/384,907**(22) Filed:** Aug. 27, 1999**(51) Int. Cl.:** F41A 21/48**(52) U.S. Cl.:** 42/75.01; 42/75.02; 42/75.04; 42/77; 89/128**(58) Field of Search:** 89/29, 128; 42/1.15, 42/75.01, 75.02, 75.04, 77, 105**(56) References Cited**

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DPMS Assembly Drawings—16 sheets.

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An interchangeable upper receiver assembly for use with a hand held weapon and the interchangeable upper receiver assembly in combination with the hand held weapon, where the interchangeable upper receiver assembly includes an integral, unitary breech block and barrel that is operably removably couplable to the lower receiver assembly of the hand held weapon in an engaged disposition. A bolt assembly is slidably disposed within a bolt recess defined in the receiver breech block and barrel. The bolt includes a firing pin slidably disposed therein, the firing pin being selectively actuatable by the trigger assembly when the receiver is in the engaged disposition. A chamber for receiving a secondary ammunition cartridge therein is defined in the receiver and is disposed with respect to the firing pin such that actuation of the firing pin from a cocked position to a firing position acts upon the secondary ammunition cartridge to discharge the cartridge, the interchangeable upper receiver assembly being interchangeable with a primary upper receiver assembly of the hand held weapon.

9 Claims, 5 Drawing Sheets