

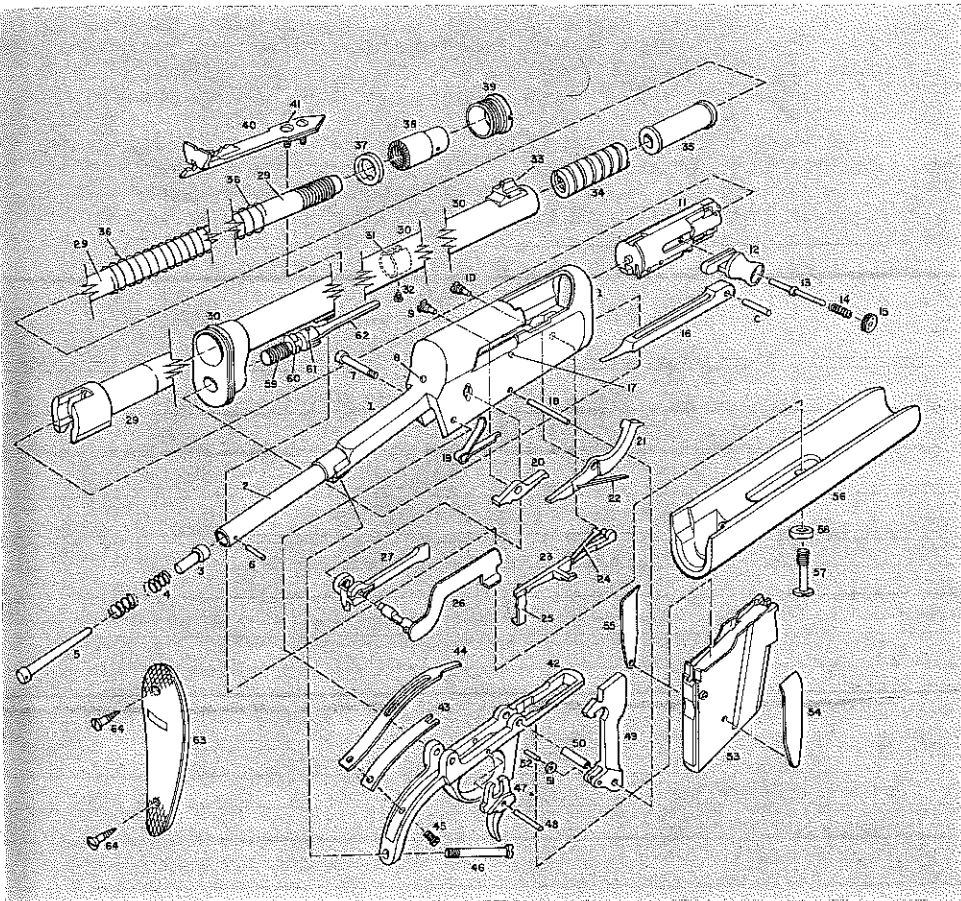
By James M. Triggs

Remington Models 8 & 81 Autoloading Rifles

THE Remington Model 81 Woodmaster autoloading rifle was produced from 1936 until 1950. Except for minor differences, it is mechanically identical to the Remington Model 8 5-shot autoloading rifle produced from 1906 until 1936. Design of the Model 8 rifle was based on U. S. Patent No. 659,786 granted Oct. 16, 1900 to John M. Browning. It was the first successful high power autoloading rifle produced in America. Manufacturing and sales rights were sold to Remington.

The Model 8 rifle has a locked breech long-recoil action wherein the barrel, bolt, and bolt carrier assembly recoil several inches together so that the bullet has cleared the barrel before unlocking begins. The bolt has twin locking lugs which engage locking recesses within the barrel extension. The barrel, suspended in guide bushings, is surrounded by 2 heavy coil-type springs in turn covered by a sheet-metal jacket. These springs are compressed on rearward movement of the barrel bolt and bolt carrier assembly.

At the end of recoil the bolt carrier is locked into rear of the receiver. Energy of the compressed recoil spring then drives the barrel forward, which cams the bolt open to unlock it from the barrel extension. When the barrel extension reaches its forward position, it trips the barrel lock allowing the bolt



Parts Legend

- | | | |
|--|---|---------------------------------|
| 1. Receiver | 22. Barrel lock spring | 43. Trigger spring |
| 2. Action spring tube | 23. Magazine indicator | 44. Mainspring |
| 3. Action spring follower | 24. Magazine indicator spring | 45. Mainspring screw |
| 4. Action spring | 25. Magazine indicator thumbpiece | 46. Tang screw |
| 5. Action spring plug | 26. Safety | 47. Trigger |
| 6. Action spring plug pin | 27. Safety rocker | 48. Trigger pin |
| 7. Trigger plate screw | 28. Safety rocker stop screw (Note: permanently installed inside receiver—removal is not recommended) | 49. Hammer |
| 8. Peep sight plug screw | 29. Barrel | 50. Hammer bushing |
| 9. Bolt carrier latch screw | 30. Barrel jacket | 51. Hammer roll |
| 10. Barrel lock screw | 31. Barrel jacket plug | 52. Hammer roll pin |
| 11. Bolt assembly (complete) | 32. Barrel jacket plug screw | 53. Magazine assembly |
| 12. Operating handle | 33. Front sight assembly | 54. Magazine side spring, right |
| 13. Operating handle plunger | 34. Buffer spring | 55. Magazine side spring, left |
| 14. Operating handle plunger spring | 35. Recoil spring case | 56. Fore-end |
| 15. Operating handle bushing | 36. Recoil spring | 57. Fore-end screw |
| 16. Link (See Fig. 4 for link pin "C") | 37. Barrel nut washer | 58. Fore-end escutcheon |
| 17. Safety detent ball | 38. Barrel nut | 59. Takedown screw |
| 18. Hammer pin | 39. Barrel jacket bushing | 60. Takedown screw washers |
| 19. Bolt carrier latch spring | 40. Bar sight assembly | 61. Takedown lever pin |
| 20. Bolt carrier latch | 41. Bar sight mounting screws (2) | 62. Takedown lever |
| 21. Barrel lock | 42. Trigger plate | 63. Buttplate |
| | | 64. Buttplate screws (2) |
| | | 65. Buttstock (not shown) |

and bolt carrier assembly to move forward under impetus of the compressed action spring which in turn strips a cartridge from the magazine and feeds it into the chamber. When the bolt carrier is fully forward, the bolt is cammed around to lock into the barrel extension. The rifle is then ready to fire.

The action remains open after the

DISASSEMBLY PROCEDURE

To take down rifle, press safety (26) down and retract operating handle (12), locking bolt carrier assembly to rear. Unscrew fore-end screw (57) and remove fore-end (56) by pulling downward and forward. Swing takedown lever (62) sideways and unscrew takedown screw (59). Pull barrel jacket (30) and barrel (29) assembly forward out of receiver (1).

To disassemble barrel jacket, a special spanner wrench (Remington Model 81 part No. 107) is required. Use spanner wrench to unscrew barrel nut (38), preventing breech end of barrel from turning by holding a large screwdriver in slot of breech end of barrel. Pull barrel to rear out of barrel jacket and hold so that muzzle end of barrel is clear of front face of barrel jacket bushing (39). Unscrew bush-

ing from barrel jacket with spanner wrench, taking care not to allow compressed recoil spring (36) to escape forcibly. Remove recoil spring, barrel nut washer (37), recoil spring case (35), and buffer spring (34) from barrel jacket. Removal of plug (31) is not recommended.

To remove trigger and hammer mechanism, remove tang screw (46) and pull off buttstock to rear. Remove trigger plate screw (7) and drive out hammer pin (18). Pull rear end of trigger plate (42) downward and out of receiver. Push magazine assembly (53) up through trigger plate, releasing left and right side springs (54 & 55). Uncock hammer (49) and remove by carefully drifting out hammer bushing (50). Remove mainspring screw (45) and lift out mainspring (44) and trigger spring (43). Drive out trigger pin (48) and remove trigger (47). Reassemble

in reverse order.

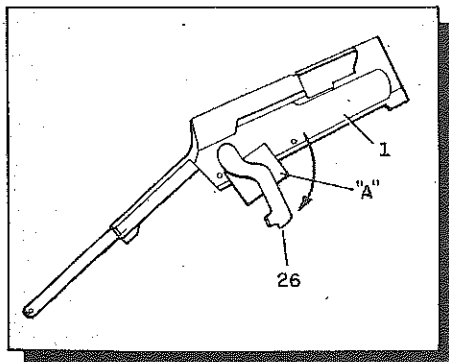
To disassemble receiver components, turn receiver upside down. Depress front end of bolt carrier latch spring (19) from under stud inside receiver and slide rear end of spring off its rear stud. Slide bolt carrier latch (20) off bolt carrier latch screw (9) in left receiver wall. Slide barrel lock (21) off barrel lock screw (10) in left receiver wall. It is not necessary to remove screws (9 & 10) from receiver. Remove magazine indicator assembly (23) from its pivot stud in receiver side wall. Lift safety (26) away from receiver and slip a piece of cardboard or heavy paper between safety and receiver to protect finish. Swing safety down below receiver as shown in Fig. 4. Drive out safety pivot from left to right and remove safety from right. Drop out safety rocker (27). Reassemble in reverse order.

age. Production of the Model 81 in cal. .25 Remington was very limited, and it was not cataloged in this caliber.

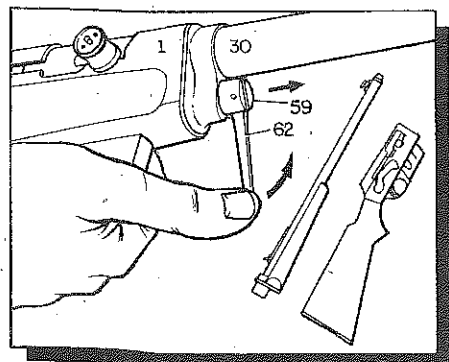
The Models 8 and 81 sporting rifles were never regularly furnished with detachable magazines. The Model 81 Police Special in cal. .30 and .35 Remington was offered with 15-round detachable box-magazine.

in reverse order.

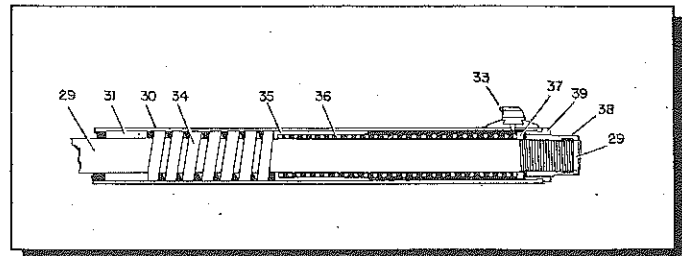
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1 When removing safety (26), slip a piece of paper or cardboard between safety and receiver as shown at 'A'



2 After removing fore-end, swing takedown lever (62) sideways and unscrew takedown screw (59) as shown. Pull barrel jacket and barrel assembly out of receiver to front



3 Section showing assembly of parts inside barrel jacket. Take care to reassemble parts in proper order. When replacing barrel nut washer (37) over muzzle, line up tongue in washer with keyway on barrel before screwing on barrel nut (38)

4 To remove bolt carrier-bolt assembly from receiver, push down front end of barrel lock (21) to release bolt carrier (A) which will then stop on magazine indicator (23). Lift operating handle plunger (13) and slide operating handle assembly (12) forward and out of bolt carrier. Push down magazine indicator thumbpiece (25) on left side of receiver, releasing bolt carrier which will spring out front end of receiver. Take care to catch bolt carrier-bolt assembly on release. To disassemble bolt carrier and bolt assembly, drive out link pin (C) and remove link (16). Drive out firing pin retaining pin (B) and remove firing pin (H) and firing pin buffer spring (J) from rear of bolt carrier. Remove 2 cam pins (D) and pull bolt (P) with extractor (L) forward out of bolt carrier. Remove firing pin spring (K). Drift out bolt lock pin (F) and remove bolt lock (E) and spring (G). Drift out ejector pin (O) and remove ejector (M) and spring (N) from bolt. When reassembling bolt carrier and bolt mechanism in receiver, be sure that rear end of link is seated in action spring follower (3) at rear of receiver. Reassemble in reverse order

Bolt Assembly Parts Legend

- A. Bolt carrier
- B. Firing pin retaining pin
- C. Link pin
- D. Cam pins (2)
- E. Bolt lock
- F. Bolt lock pin
- G. Bolt lock spring
- H. Firing pin
- J. Firing pin buffer spring
- K. Firing pin spring
- L. Extractor
- M. Ejector
- N. Ejector spring
- O. Ejector pin
- P. Bolt

