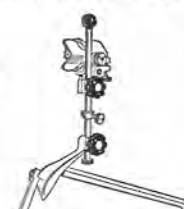
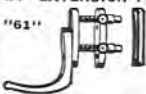


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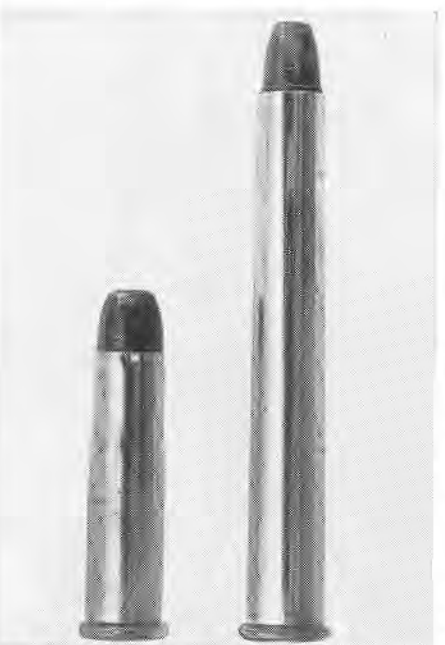
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DOPE BAG continued

the box for height adjustment. A supply of targets was included.

Besides this model for the service pistol, Dotters were made for the model 1917 revolver and for certain military rifles. Construction varied among these as required to adapt the device to the separate arms, but the principle was the same in all.

The Hollifield Dotter worked very well and did provide a means for useful practice when firing was impossible. It enjoyed fair popularity for a decade. Then it dropped out of use, and appears to have passed into history.—E.H.H.



.28-30 Stevens cartridge headstamped REM-UMC (r.), shown with .32-20 Winchester for comparison.

.28-30-120 Stevens Cartridge

Can you identify a centerfire cartridge marked ".28-30" and "UMC"? It is a rimmed type, of small caliber, the over-all length nearly three inches, with a lead bullet protruding only a short way from the case mouth.

Answer: This is the .28-30-120 Stevens cartridge, introduced in 1900 for the Stevens Models 44 and 44½ single-shot rifles. It was the first American-designed 7 mm. cartridge, though most unlike the 7 mm. Mauser and other smokeless high-velocity rounds. In accordance with the then conventional method of describing blackpowder cartridges, the figures in the .28-30-120 designation meant a caliber of .28", a charge of 30 grs. blackpowder, and a 120-gr. bullet.

"U. M. C." means Union Metallic Cartridge Company. It was eventually amalgamated with Remington Arms Co.

The .28-30-120 was a popular target and small game cartridge early in this century. It was considered quite accurate for a small blackpowder cartridge. The famous Harry Pope made target barrels and rifles for it when the .28 caliber was wanted, though in his barrels the bullet and charged

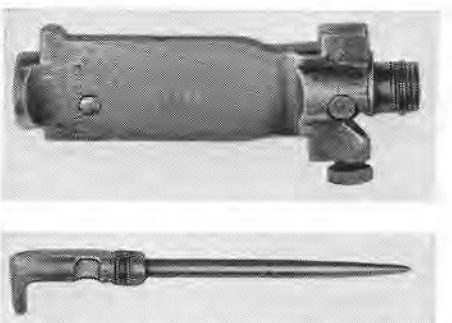
cartridge case were loaded separately.

This cartridge disappeared from manufacturer's listings about the beginning of World War I.—B.R.L.

Caseless Ammunition

A technician tells me that caseless ammunition now under development has been fired from a regular M14 rifle. Is this correct? If so, could such ammunition soon replace cased cartridges?

Answer: Caseless ammunition indeed has been fired from the M14 rifle and some other standard arms, but only after they were modified for the sole purpose of firing experimental caseless ammunition.



Modified bolt and firing pin of the M14 rifle with sealing components for firing caseless ammunition.

These photographs show the M14 rifle modifications—an extension on the bolt to take up the difference in cartridge lengths (caseless cartridges are short because of the volume saved by omitting the case), and seals on the bolt and firing pin. At this stage they are no more than experimental laboratory modifications.

Caseless ammunition development continues because of potential advantages which are important in military armament—lightening the ammunition, making the round shorter, doing away with need to extract and dispose of fired cases in automatic gun installations, and incidentally saving cartridge brass which is usually in short supply in time of war. Caseless cartridges now exist which give nearly normal ballistic performance, are reasonably strong, rigid, and weatherproof, and leave nothing at all to be extracted and disposed of (there is not even a metallic primer cup). There are difficulties still to be overcome in making the round as short as possible (this requires surrounding the projectile by the propellant and working out a special ignition system) and especially in designing small arms basically for such ammunition.

A most excellent account of caseless ammunition development is given in the article "A Caseless Cartridge?" by Col. Jim Crossman (*The American Rifleman*, November 1967, pages 28-32).

In the meantime, the cartridge case is so very useful that it certainly will continue in use for sporting and even military ammunition for a long time.—E.H.H.