

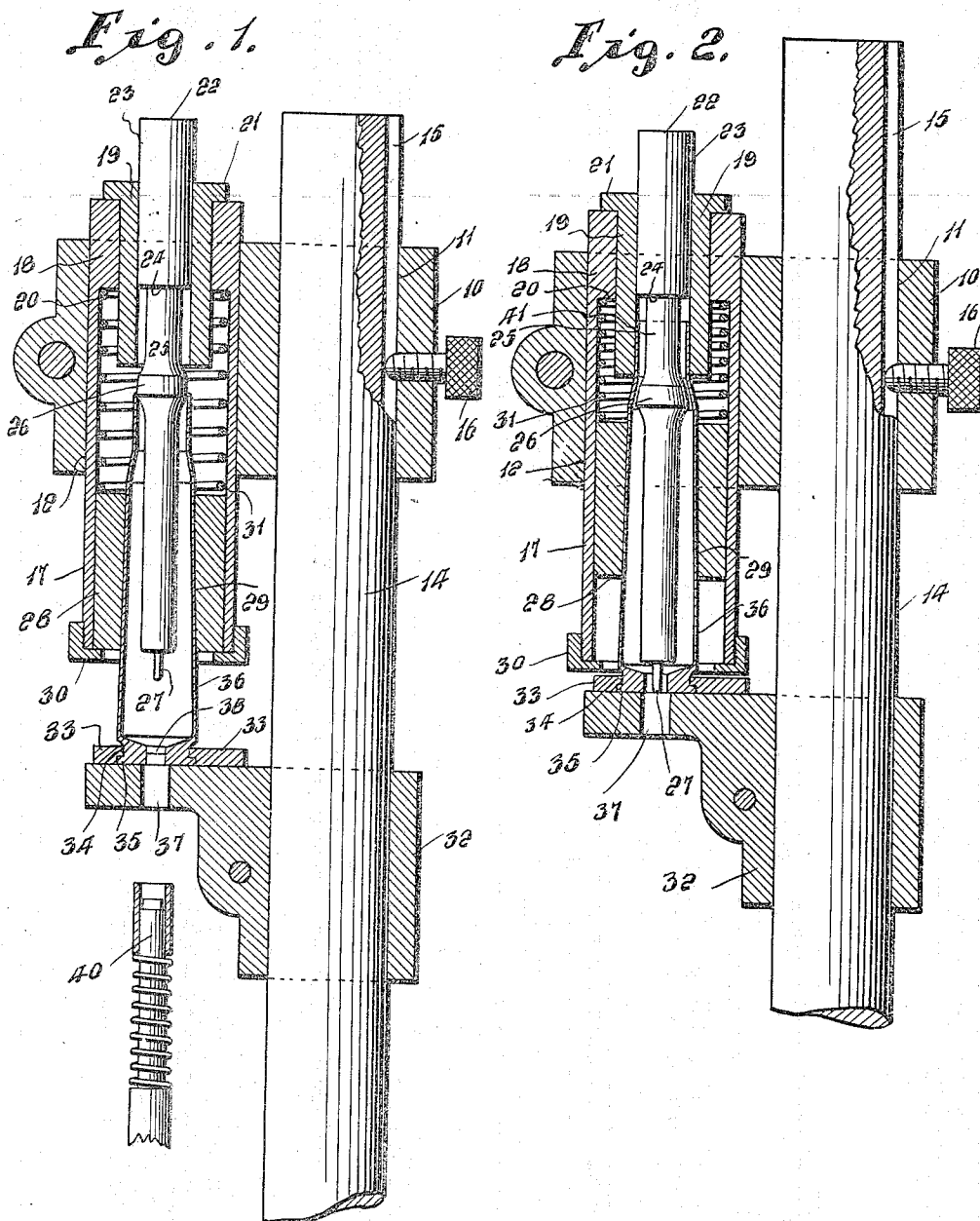
Oct. 11, 1938.

R. L. JAYNE

2,133,198

TOOL FOR RELOADING FIRED OR EMPTY CARTRIDGE CASES

Filed Nov. 19, 1936



Inventor

R. L. Jayne

By L. F. Randolph

Attorney

UNITED STATES PATENT OFFICE

2,133,198

TOOL FOR RELOADING FIRED OR EMPTY
CARTRIDGE CASESRobert L. Jayne, Auburn Township, Susquehanna
County, Pa.

Application November 19, 1936, Serial No. 111,729

2 Claims. (Cl. 86—23)

This invention relates to a tool or mechanism for use in reloading fired or empty cartridge cases.

It is particularly aimed to provide a novel construction wherein the cartridge case has the fired primer removed and is reshaped to accommodate the bullet and to have a new primer attached thereto.

It is particularly aimed to provide a construction wherein the operation will be accurate and the cartridge case to that end, be held by novel means with its axis co-axial with the movable parts and held against cant or wobbling.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawing illustrating an operative embodiment.

In said drawing:—

Figure 1 is a view in vertical longitudinal section through the improved device, and

Figure 2 is a view of the same parts as Figure 1 at a different stage of operation.

Referring specifically to the drawing wherein like reference characters designate like or similar parts, 10 designates a relatively stationary support having parallel bores 11 and 12 extending vertically therethrough. In the bore 11, a shaft or post 14 is suitably mounted for vertical adjustment.

The shaft 14 has a longitudinal groove 15 into which an adjustable screw 16, carried by the support 10, extends, to bind against the shaft 14 to hold it at different adjustments and prevent relative turning movement of the shaft and support.

In the bore 12, a cylinder 17 is rigidly fastened. Cylinder 17 is inwardly thickened at the upper extremity as at 18 and in the latter portion, a tubular die 19 is disposed, extending below the lower end or shoulder 20 of the portion 18 and having a lateral flange 21 resting on the portion 18 at the upper end.

Mounted by the die 19 is an expanding element 22 having an anchoring portion 23 rigidly carried by the die. Portion 23 has a shoulder 24 and below the same a reduced shank 25 depends, being of less diameter than the interior of the die 19 except at an enlargement or expanding portion 26. The lower end of the shank 25 extends below the cylinder 17 as a reduced pin 27.

Slidably mounted within the cylinder 17 is a bushing 28 having a tapered bore 29, the larger end of the taper being lowermost. The bushing 28 is held against downward displacement from the cylinder 17 by a ring 30 of angle form

in cross section, removably or permanently fastened to the cylinder in any desired manner. An expansive coil spring 31 is located within the cylinder bearing at one end against shoulder 20 and at the other end against the bushing 28 to maintain the same in lowermost position.

Operable by any suitable means and slidably mounted on the shaft or rod 14 is an anvil 32 having cleats 33 thereon provided with inwardly extending flanges 34 adapted to overlap flanges 35 of an empty shell or case 36. The anvil has an opening 37 therethrough in line with the primer 38 of the empty shell and beneath which a relatively stationary primer-applying device 40 is located.

In the operation of the device, a shell or case after firing, and preparatory to reloading the same, is disposed as shown in Figure 1 on the anvil 32 retained by the flanges 34 overlapping flanges 35. At the same time, the case or empty shell 36 occupies and extends through the bore 29 of the bushing 28, accurately fitting the same. The device is thereupon actuated in any suitable manner as by lever means to elevate or raise the anvil 32 and empty shell thereon along shaft 14, to the position of Figure 2, the upper end of the empty shell entering the die 19 and thus constricting or reducing the diameter, the upper end portion of the empty shell or case 36 as shown at 41 in Figure 2. The portion 41 as a result will interiorly be of less diameter than the expanding member 26. Thereafter, as the anvil 32 is lowered, the empty case moves therewith so that the portion 41 is pulled downwardly over the expanding member 26 and thus accurately expanded to the exact size necessary for the bullet to be applied thereto.

Particular attention is called to the fact that the taper fit of the case or empty shell 36 in the bore 29 of the bushing 28, causes the case or empty shell and bushing to move as a unit on both upward and downward movement, the case or empty shell thus being held accurately centered and positioned against cant or wobbling.

At the upper extremity of movement of the anvil 32 and case or empty shell 36, the pin 27 engages the primer 38 and displaces it through the opening 37. After the empty shell or case 36 is again lowered, the tool 40 is engaged in the desired sequence to apply a new primer such as 38 to the case or empty shell.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:

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1. A device of the class described comprising a support, a shaft associated therewith, an anvil on said shaft slidable relatively to said support and adapted to mount a case, a cylinder carried by the support in parallelism to the shaft, a tubular resizing die disposed adjacent the upper portion of the cylinder, a floating bushing within the cylinder having a tapered bore fitted by a portion of the case intermediate the ends of the case, and an expanding element depending from the resizing die, the shell being operated on by the die and expanding element through movement of the shell in opposite directions, and the bushing floating with the shell and stabilizing the shell during all operations.
2. A device of the class described comprising a support, a shaft associated therewith, an anvil on said shaft slidable relatively to said support and adapted to mount a case, a cylinder carried by the support in parallelism to the shaft, a tubular resizing die disposed adjacent the upper portion of the cylinder, a floating bushing within the cylinder having a tapered bore fitted by a portion of the case intermediate the ends of the case, and an expanding element depending from the resizing die, the expanding element extending into the die and being spaced from the wall thereof, a distance from the lower end of the die, said element having an expanding portion below the die, said element also having a primer-ejecting part, the shell being operated on by the die and expanding element through movement of the shell in opposite directions, and the bushing floating with the shell and stabilizing the shell during all operations.

ROBERT L. JAYNE.