

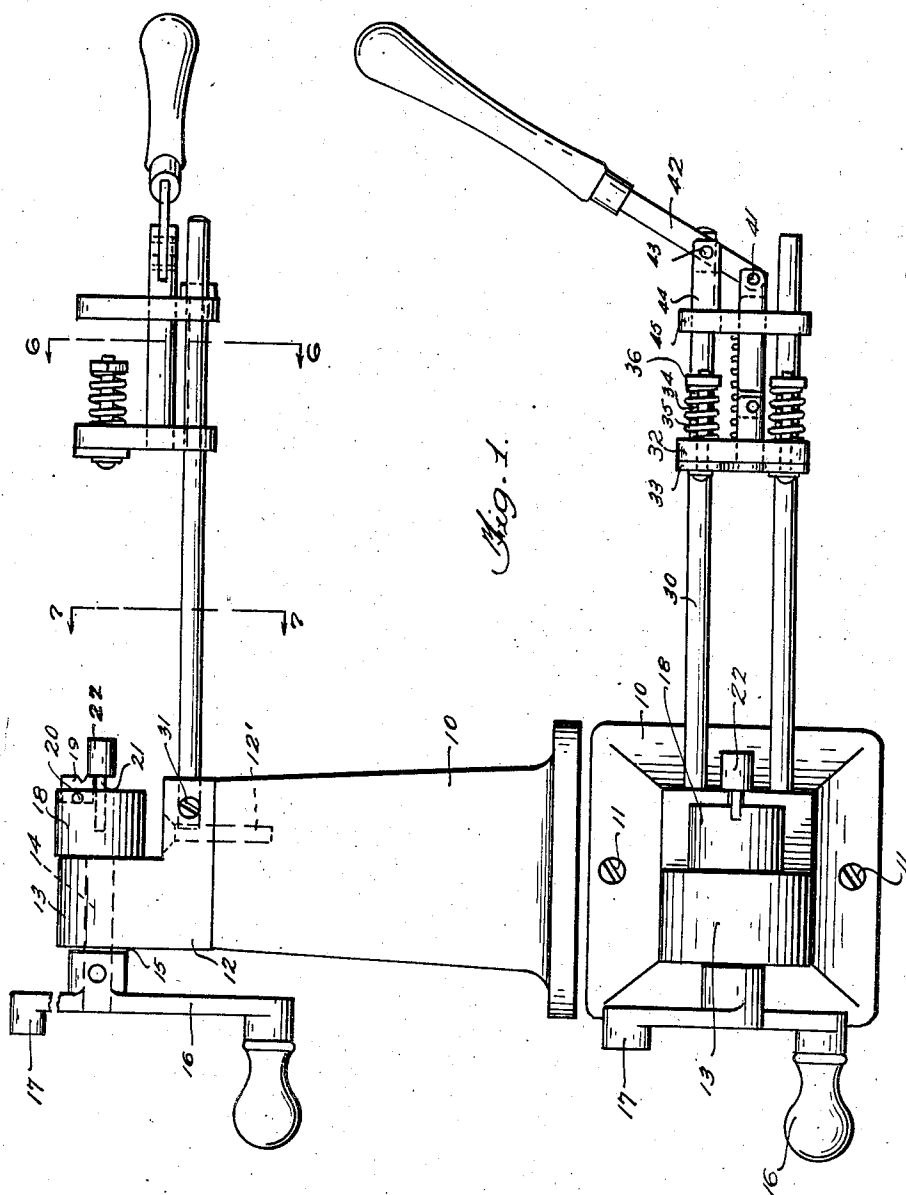
Aug. 20, 1946.

G. T. SMILEY
CARTRIDGE CASE TRIMMER

2,406,170

Filed Nov. 1, 1944

3 Sheets-Sheet 1



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3 Sheets-Sheet 2

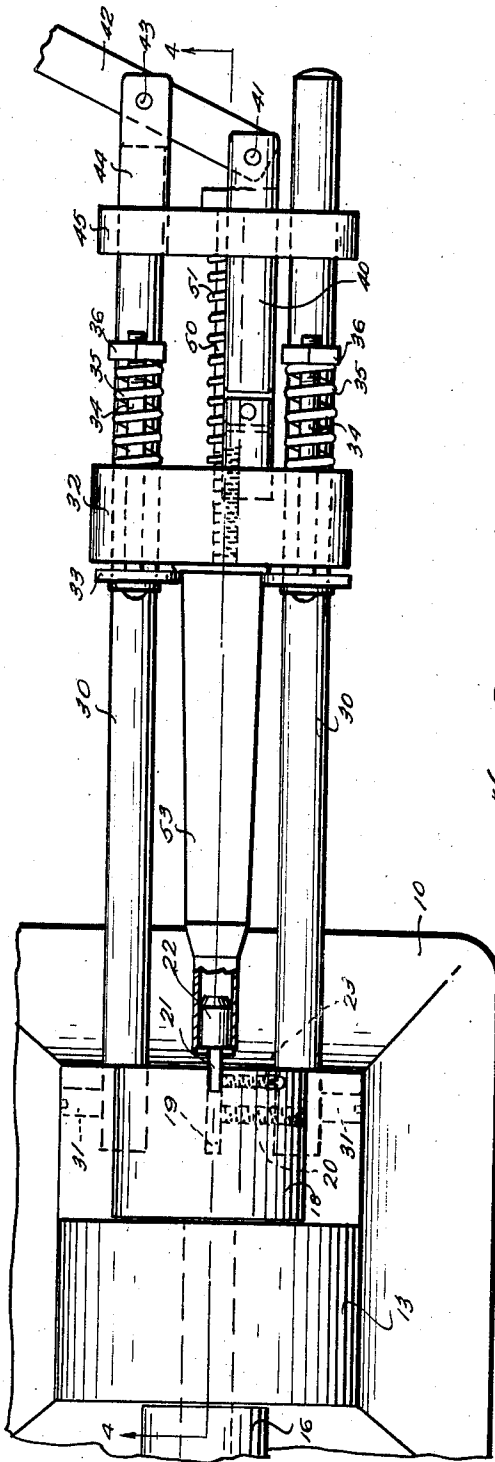


Fig. 3.

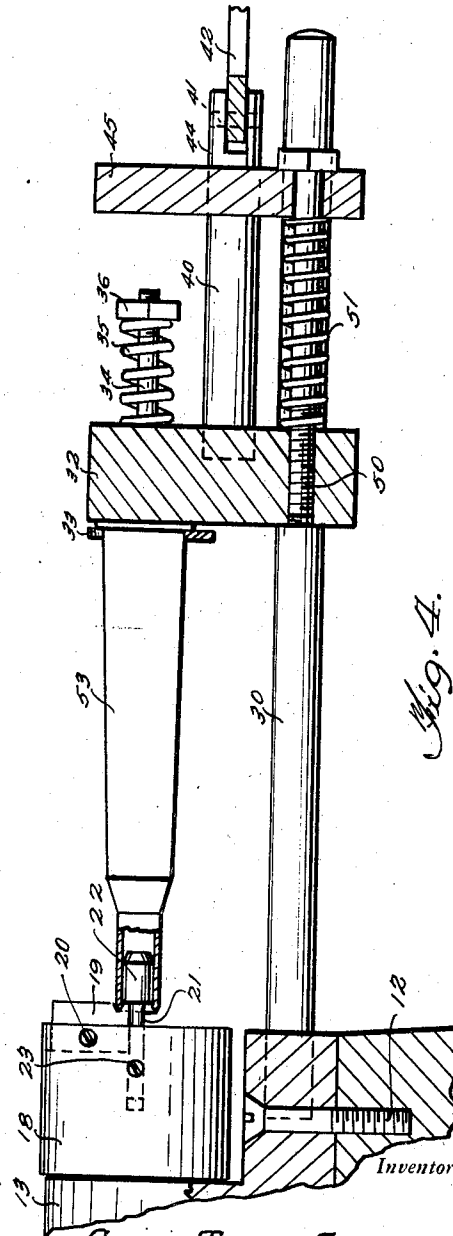


Fig. 4.

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3 Sheets-Sheet 3

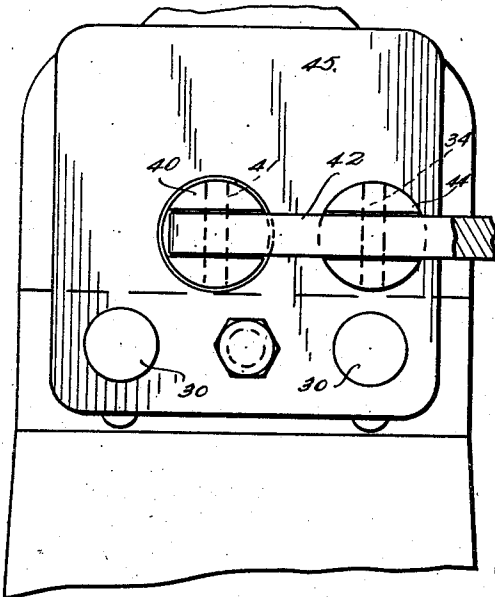


Fig. 5.

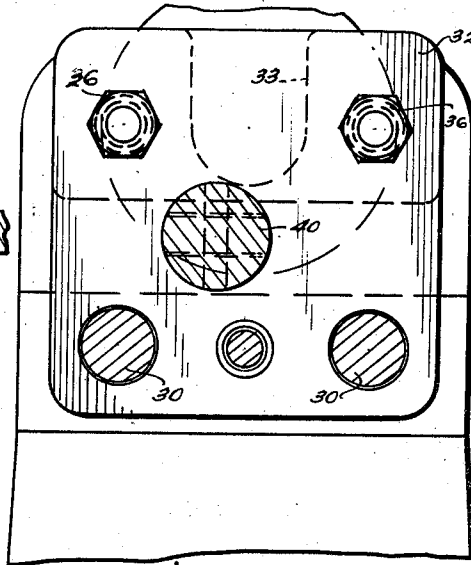


Fig. 6.

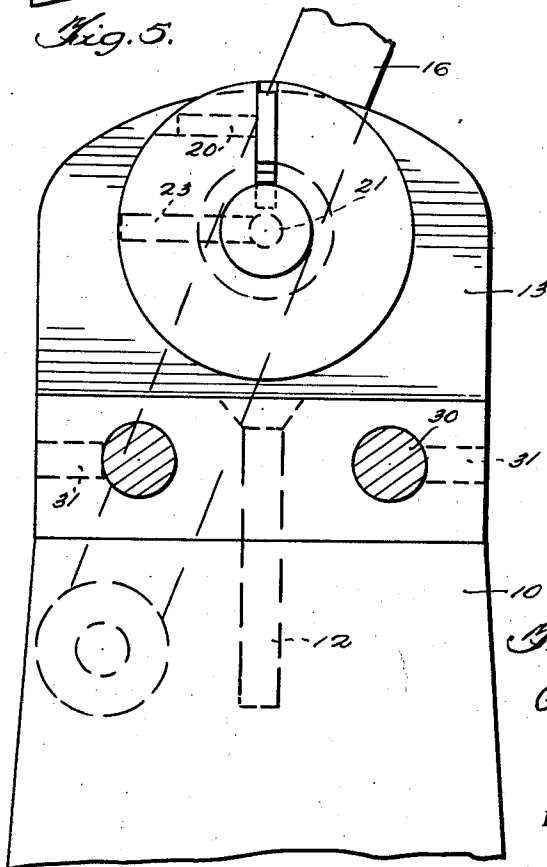


Fig. 7.

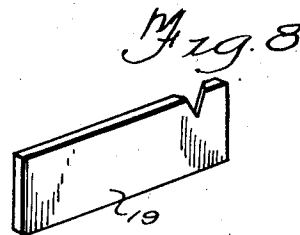


Fig. 8.

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UNITED STATES PATENT OFFICE

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CARTRIDGE CASE TRIMMER

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Application November 1, 1944, Serial No. 561,446

3. Claims. (Cl. 29—1.32)

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This invention relates to a cartridge case trimmer, and more particularly to such a device adapted to be utilized for trimming the cartridges of rifle or revolver ammunition prior to reloading the same.

A primary object of this invention is the provision of an improved cartridge trimmer particularly adapted for the use of sportsmen and others who reload their own ammunition.

As conducive to a clearer understanding of this invention, it may be here pointed out that a cartridge case tends to elongate after being fired a few times. In the interests of accurate marksmanship it is essential that the ammunition be absolutely uniform, a variation in the length of the cartridge cases tending to produce irregularity in firing, and consequent inaccuracy. An important object of the instant invention is, therefore, to provide a device by means of which the cartridge cases may be trimmed and chamfered to absolute uniformity prior to reloading the same.

An additional object of this invention is the provision of such a cartridge case trimmer which will be sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture and assemble.

Other objects reside in combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and disclosed in the accompanying drawings wherein there is shown a preferred embodiment of this inventive concept.

In the drawings:

Figure 1 is a side elevational view of one form of device embodying the features of this invention.

Figure 2 is a top plan view of the device disclosed in Figure 1.

Figure 3 is an enlarged view taken from the top of the device, certain concealed parts thereof being disclosed in dotted lines, and certain other parts being shown in section, showing a cartridge in position in the machine.

Figure 4 is a sectional view taken substantially along the line 4—4 of Figure 3 as viewed in the direction indicated by the arrows.

Figure 5 is an enlarged end elevational view of the device, certain parts thereof being broken away.

Figure 6 is an enlarged sectional view taken substantially along the line 6—6 of Figure 1 as viewed in the direction indicated by the arrows.

Figure 7 is an enlarged sectional view taken

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substantially along the line 7—7 of Figure 1 as viewed in the direction indicated by the arrows, and

Figure 8 is an enlarged perspective view of the cutting blade utilized in conjunction with the device in the instant invention.

Like reference numerals refer to like parts throughout several views of the drawings.

Having reference now to the drawings, there is shown at 10 a standard or support, adapted to be secured to any suitable surface, as a workbench or the like, by means of screws 11. Support 10 is provided with a working head 12 secured thereto as by means of screws 12' or the like. The head 12 is provided with an upstanding lug 13 having a bore 14 therethrough through which extends a shaft 15, on the outer extremity of which is secured a crank 16 counterweighted as at 17. The opposite end of the shaft 15 is provided with a cylindrical member 18, provided with a radial slot, in which is adapted to be positioned a cutting blade 19 secured in position as by a set screw 20. The member 18 is also provided with a centrally positioned recess, within which is adapted to fit the shank 21 of a cylindrical guide member 22, a set screw 23 serving to hold the parts in related assembly. From the foregoing it will now be seen that rotation of the crank 16 serves to rotate the member 18 and correspondingly the blade 19 for a purpose to be more fully pointed out hereinafter.

Extending transversely from the head 12 are a pair of rods or bars 30, adapted to be releasably secured in the head 12 as by means of screws 31. The rods 30 have mounted thereon a block 32 provided with apertures through which the rods 30 are adapted to extend, to the lower or inner face of which is affixed a U-shaped clamping member 33. The member 33 is apertured to provide for the passage of bolts 34 which extend through corresponding apertures in member 32 and are surrounded by coil springs 35. Nuts 36 threaded to the extremities of the bolts 34 serve to retain the parts in related assembly. Thus it will be seen that the springs 35 serve normally to bias the member 33 into close juxtaposition with the member 32 in such manner as to clamp the rim of a cartridge case therebetween, in a manner to be more fully pointed out hereinafter.

A rod or post 40 is fixedly secured in the member 32, and has pivotally secured to its extremity as by pivot 41, an operating handle 42. The operating handle 42 is likewise pivotally secured as by a pivot 43 to a lug 44 mounted on a plate 45

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secured to rods 30, the arrangement being such that movement of the handle 42 toward the head 12 serves to compress the springs 35 and withdraw the member 32 from the member 33, in such manner that the rim of a cartridge may be inserted therebetween.

Means are provided for varying the distance between the member 32 and the rotatable member 18, such means taking the form of a screw 50 engaging in a suitable threaded aperture in block 32, and passed through a bore in the member 45. A spring 51 surrounding the screw 50 serves normally to bias the block 32 in a direction toward the head of the apparatus.

From the foregoing the operation of the device should now be readily understandable. When it is desired to trim a cartridge case 53, the operating handle 42 is moved downwardly, moving block 32 and plate 33 until the extremities of members 34 abut member 45, whereupon the plate 33 is separated from the block 32 against the compression of spring 35 and the flange of the cartridge may be positioned in the U-shaped depression in plate 33. When the handle is released block 32 is biased back to its original position by spring 51, and springs 35 securely clamp the cartridge flange between the plate 33 and block 32. The device may be readily adjusted to a suitable length for a particular type of cartridge by means of screw 50 and, when properly adjusted, release of handle 42 will position the cartridge over the guide member 22 with its edge or rim in engagement with blade 19. The handle 16 is then rotated rapidly, and the blade 19 serves to trim the lip of the cartridge, as well as chamfering the inner and outer faces thereof in a simultaneous operation.

Obviously when the device is once adjusted for the reception of a particular size or caliber of cartridge, all cartridges trimmed by the device will be of identical length.

From the foregoing it will now be seen that there is herein provided a device accomplishing

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all the objects of this invention and others including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinabove shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. In a device of the character described in combination, a base, a frame extending from said base, a rotatable blade carried by said base, and means on said frame for clamping a cartridge in juxtaposed relation to said blade, said means including a block on said frame, a plate having an aperture therein adjacent said block, resilient means biasing said plate toward said block, and means for separating said plate and block.

2. In a device of the character described in combination, a base, a frame extending from said base, a rotatable blade carried by said base, and means on said frame for clamping a cartridge in juxtaposed relation to said blade, said means including a block on said frame, a plate having an aperture therein adjacent said block, resilient means biasing said plate toward said block, means for separating said plate and block, and means for varying the position of said block with respect to said blade.

3. In a device of the character described in combination, a base, a frame extending from said base, a rotatable blade carried by said base, and means on said frame for clamping a cartridge in juxtaposed relation to said blade, said means including a block on said frame, a plate having an aperture therein adjacent said block, resilient means biasing said plate toward said block, means for separating said plate and block, and means for varying the position of said block with respect to said blade, said means including an adjustable screw engaging said block and said frame.

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