

(No Model.)

C. P. GILBERT & H. W. THOMAS.

TOOL FOR FINISHING EDGES OF CARTRIDGE SHELLS AND HEADS.

No. 476,009.

Patented May 31, 1892.

Fig. 1.

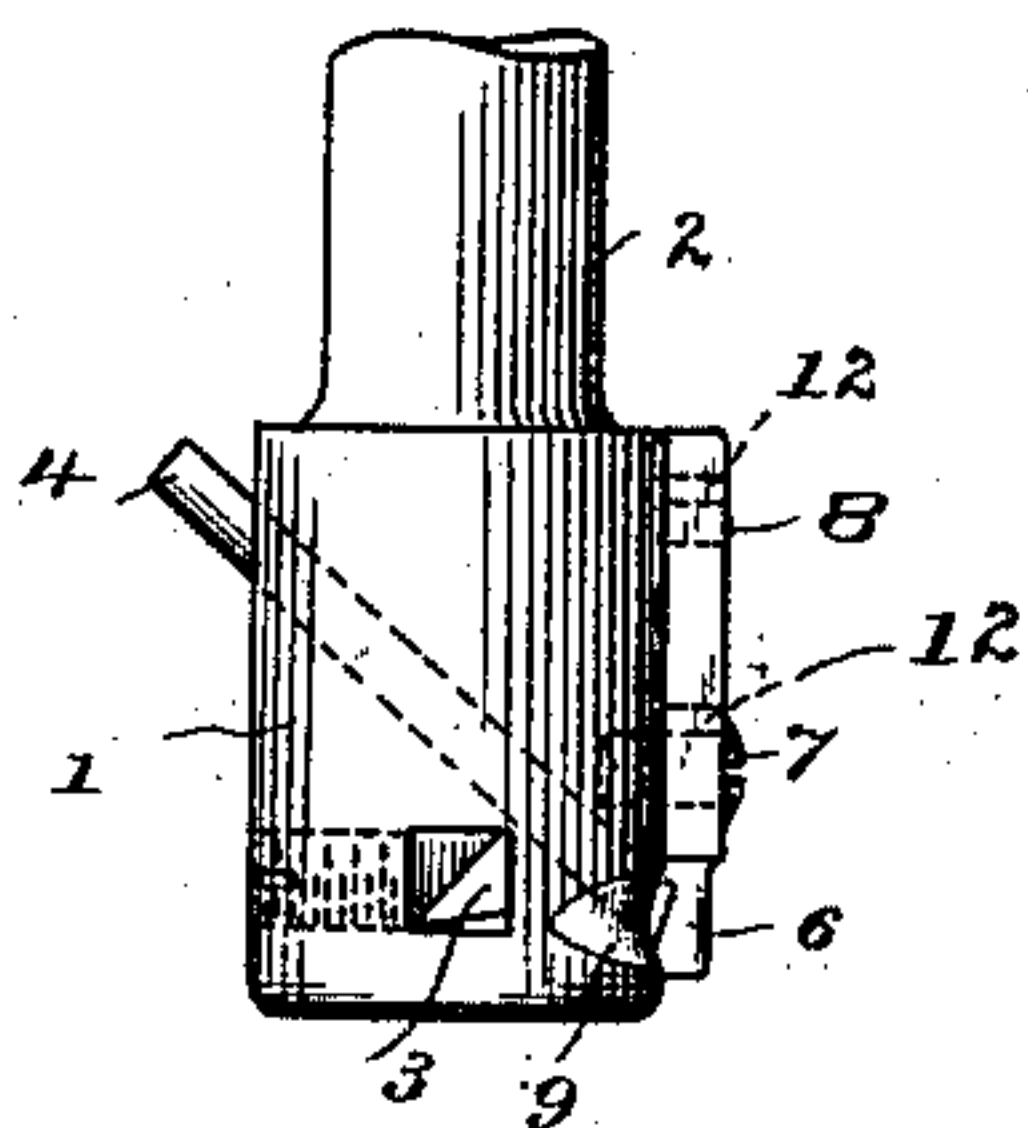


Fig. 2.

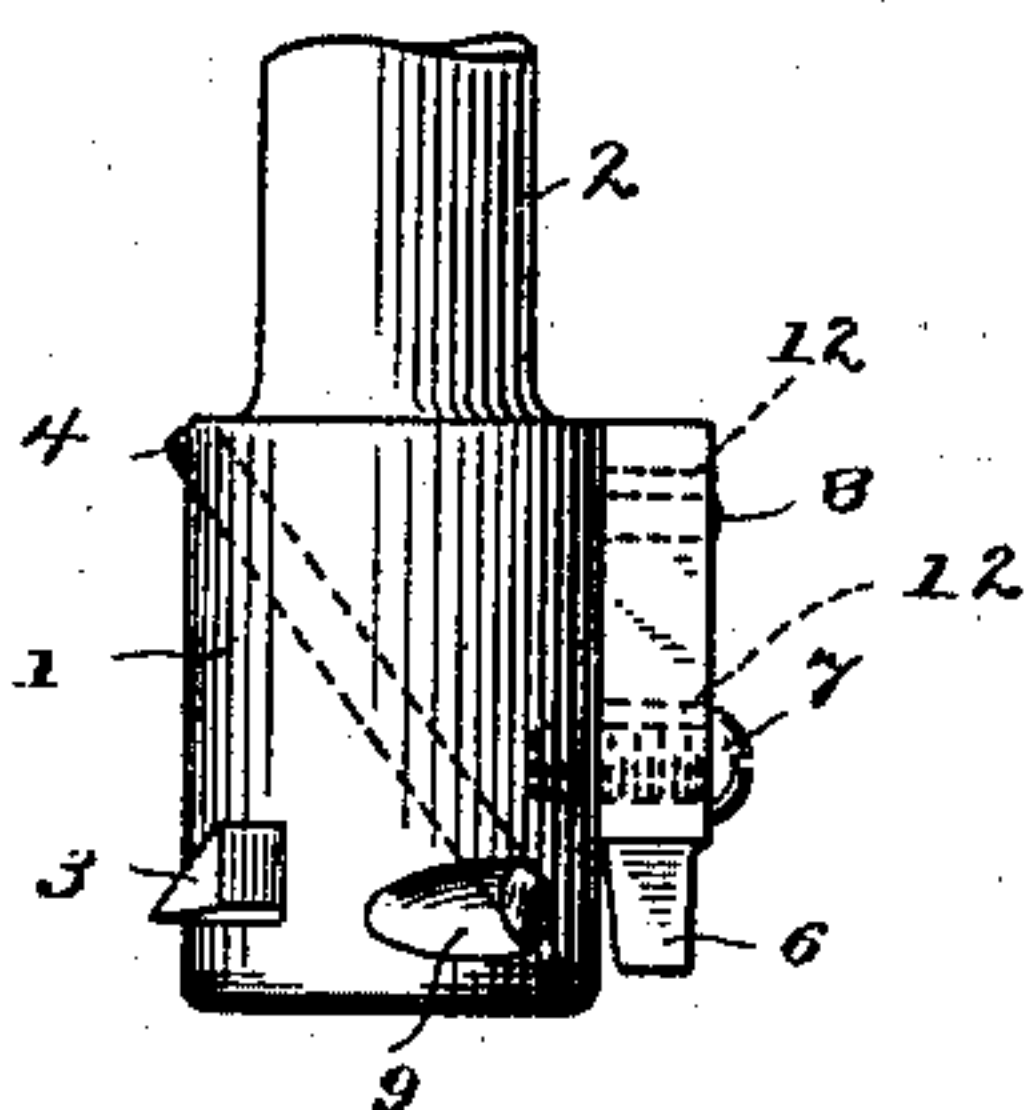


Fig. 3.

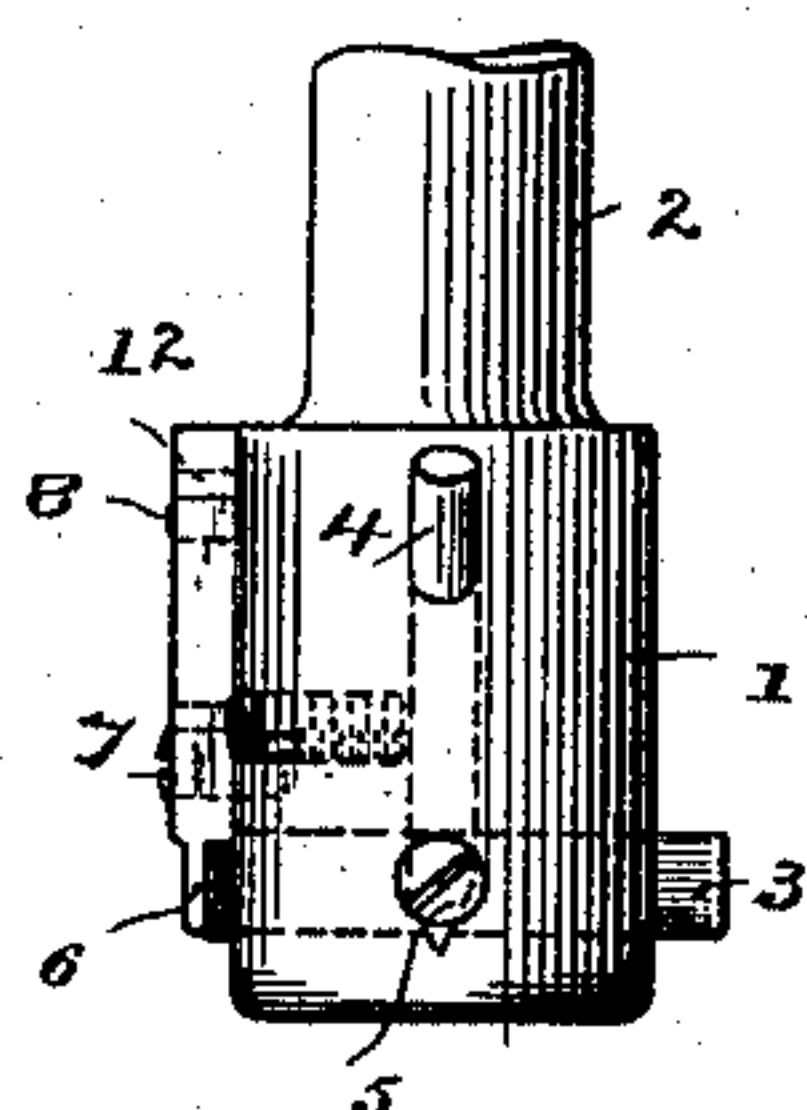


Fig. 4.

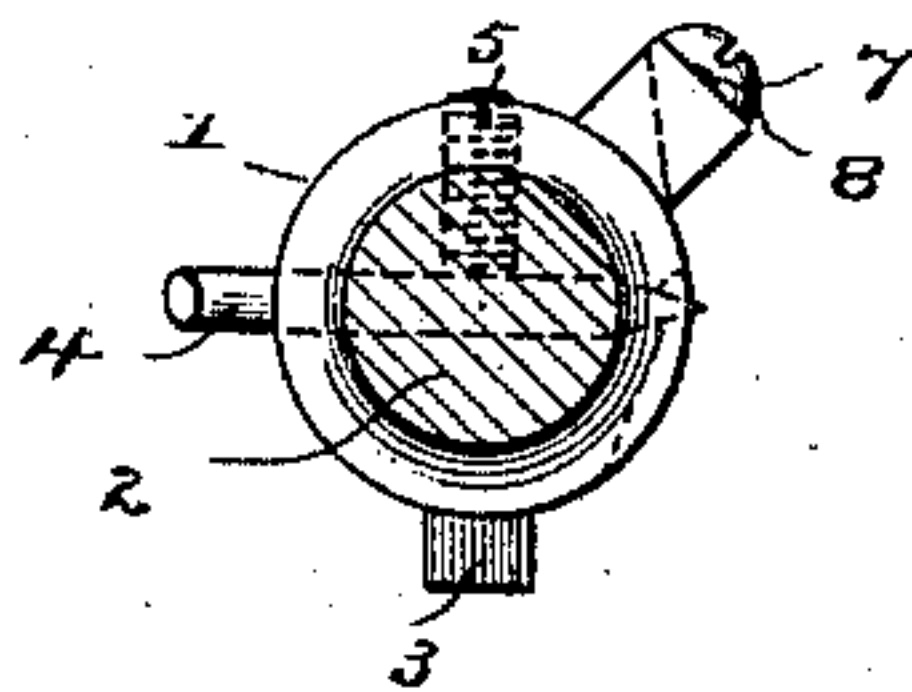


Fig. 5.

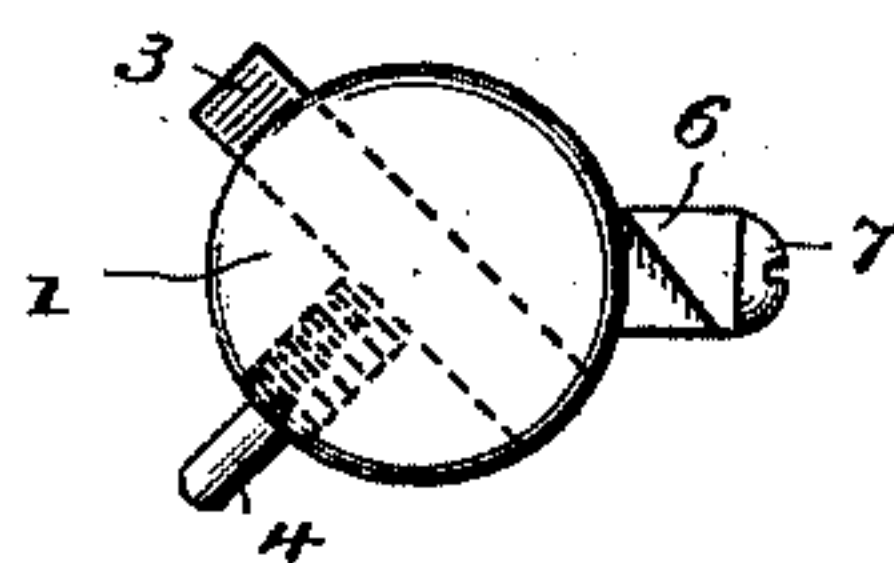


Fig. 6.

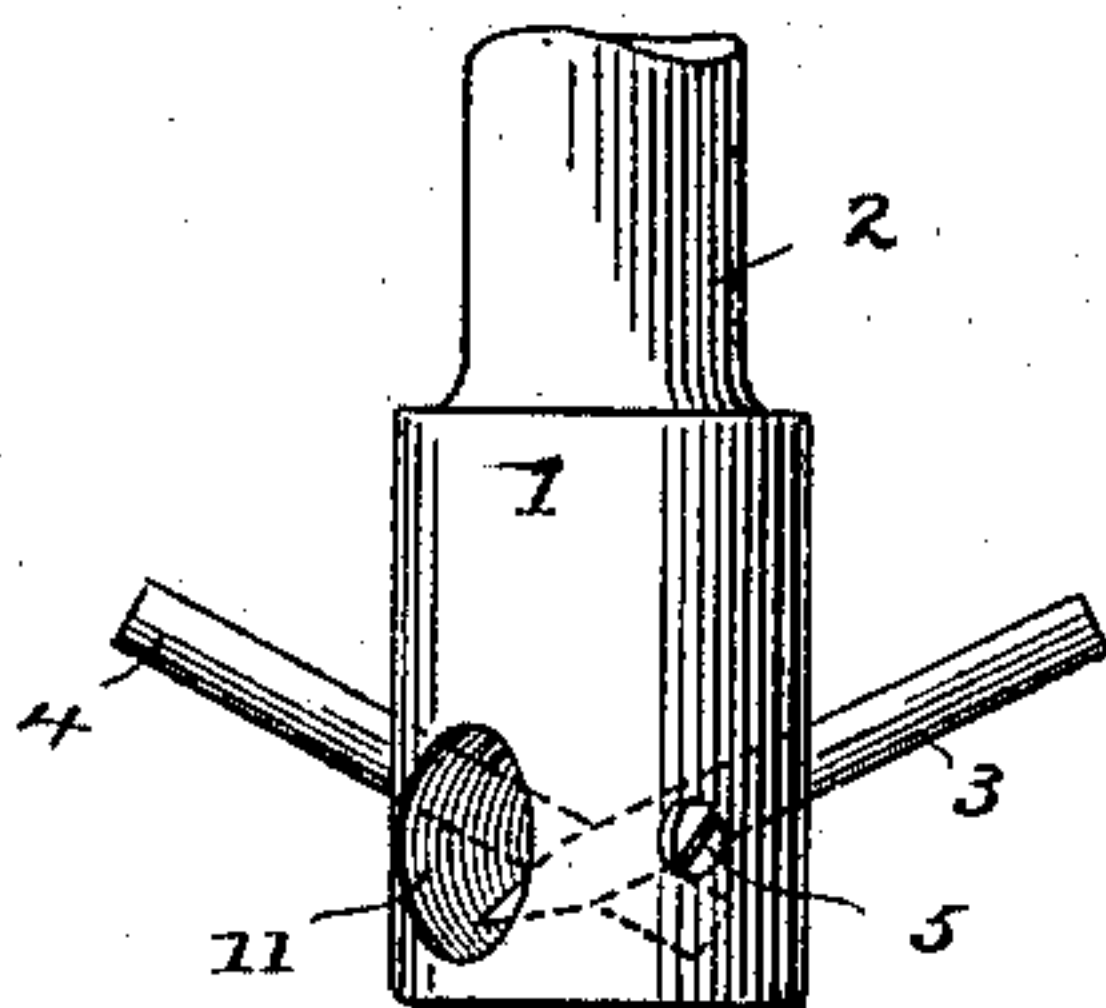


Fig. 7.

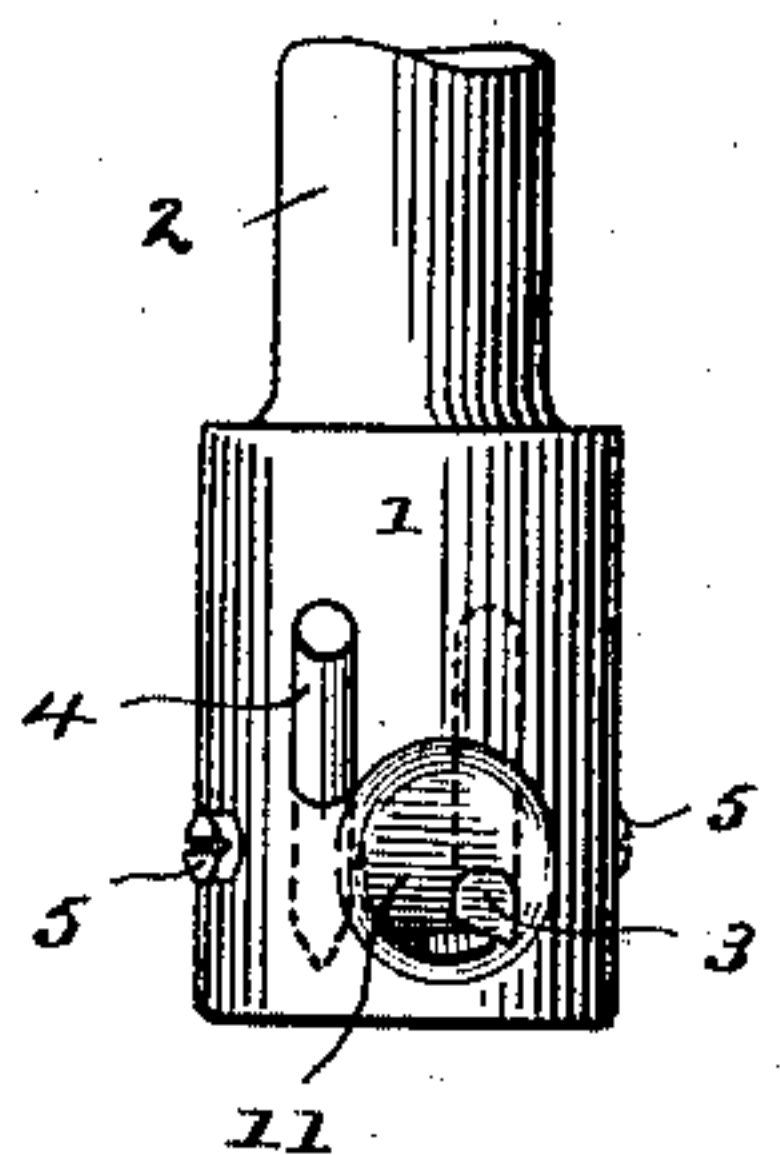


Fig. 8.

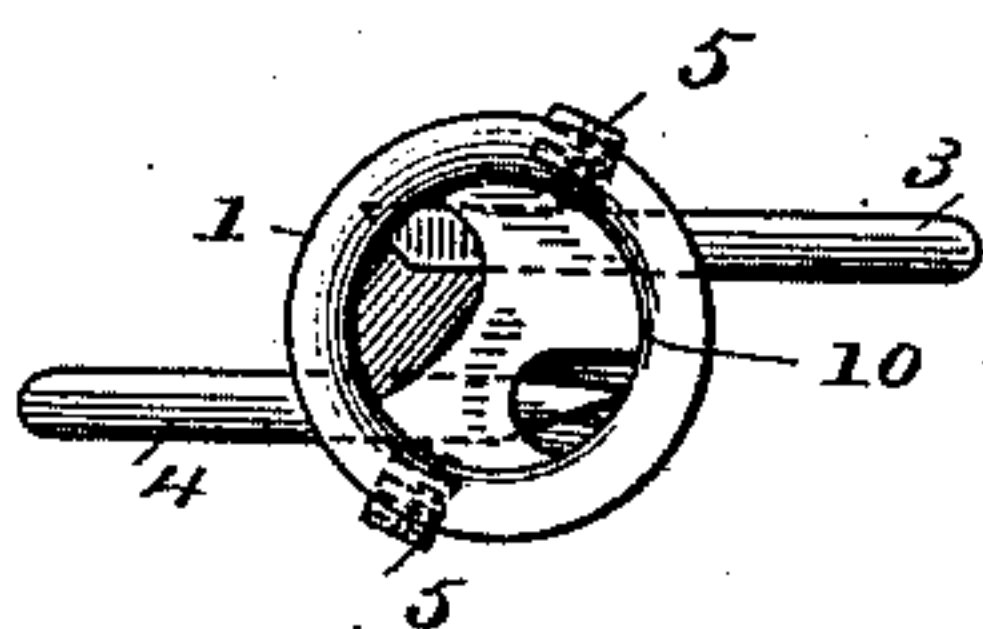
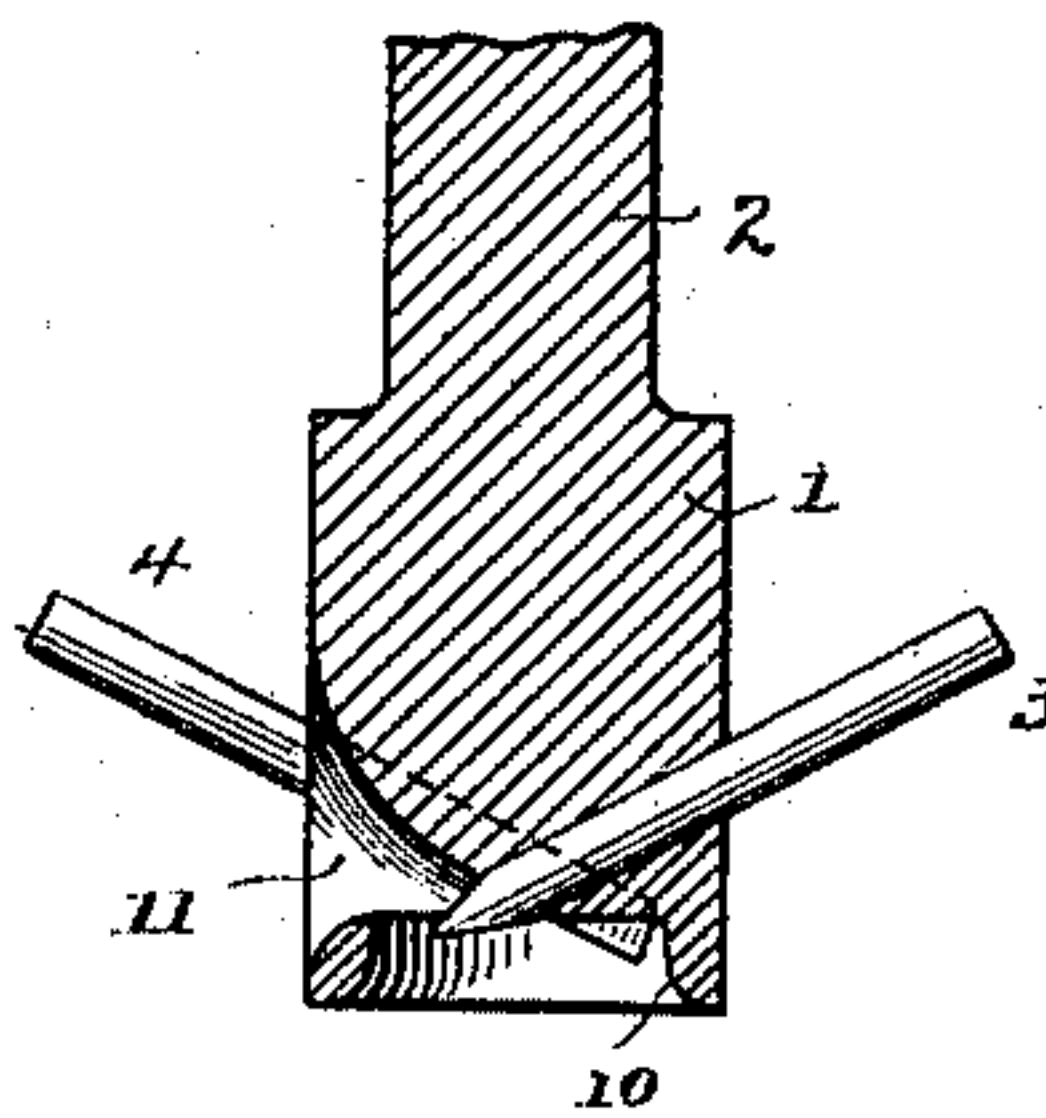


Fig. 9.



WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES P. GILBERT AND HENRY W. THOMAS, OF BRIDGEPORT, CONNECTICUT, ASSIGNORS TO THE UNION METALLIC CARTRIDGE COMPANY, OF SAME PLACE.

## TOOL FOR FINISHING EDGES OF CARTRIDGE SHELLS AND HEADS.

SPECIFICATION forming part of Letters Patent No. 476,009, dated May 31, 1892.

Application filed February 8, 1892. Serial No. 420,746. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES P. GILBERT and HENRY W. THOMAS, citizens of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Tools for Finishing Edges of Cartridge Shells and Heads; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has for its object to provide a simple, durable, inexpensive, and easily-adjusted tool for finishing the edges of metallic cartridge-shells and metallic heads for paper shells. Heretofore several successive and independent operations have been required to finish the edges of both shells and heads.

Our invention enables us to perfectly finish the edges of either shells or heads at a single operation, which may be as quickly performed as either of the several operations heretofore found necessary.

With these ends in view we have devised the simple and novel tool of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to designate the several parts.

Figures 1, 2, and 3 are side elevations from different points of view so as to show the several cutters, illustrating one form in which we have carried our invention into effect; Fig. 4, a plan view corresponding therewith; Fig. 5, an inverted plan view of the same form; Figs. 6 and 7, side elevations from different points of view of another form in which we have carried our invention into effect; Fig. 8, a plan view corresponding therewith, and Fig. 9 is a vertical section of the form illustrated in Figs. 6 and 7.

1 denotes the body, which is provided with a shank 2, by which it may be attached in any suitable manner to a rotating spindle. The body is formed from a single piece of metal and is provided with transverse openings to receive the cutters, which may be either angular or round in cross-section and may be set at any required angle to the plane of rotation of the body.

3 denotes the first cutter to act, which cuts off the end of the shell or head, thereby determining its length, and 4 the second cutter to act, which chamfers out and smoothes the inner edge of the shell or head. These cutters are locked in place by set-screws 5.

In the form illustrated in Figs. 1 to 5, inclusive, and which is more especially adapted for use in finishing the edges of heads for paper shells and the larger sizes of metallic shells, the end of the body passes within the end of the head or shell. We therefore provide an additional smoothing-cutter 6, which is attached to the outer side of the body in any suitable manner—as, for example, by a set-screw 7 and pin 8, which pass through slots 12—so as to insure ample adjustment of the cutter. In this form the metal of the body is preferably cut away from in front of cutter 4, as at 9.

In the form illustrated in Figs. 6 to 9, inclusive, cutter 6 is dispensed with in view of the fact that the body is provided with a rounded flange 10, within which the edge of the shell passes. This form is more especially adapted for finishing small-sized shells, in which the metal is much thinner, so that the outer edges are perfectly finished by the flange and without the use of a smoothing-cutter. In this form the side of the flange is preferably provided with an opening 11 to provide a clearance for the chips made by cutter 3.

It will of course be understood that our invention is not limited to the precise details of construction shown and described, as it is obvious that the shape and location of the cutters may be varied to suit the requirements of the various sizes of shells and heads without departing from the principle of our invention.

We claim—

1. A tool for finishing cartridge shells and heads, consisting, essentially, of a body having suitable openings, a cutter in one of said openings for removing the end of a shell or head, a cutter in the other opening for chamfering out the inner edge of a shell or head, and suitable means for locking said cutters in position.

2. A tool for finishing cartridge shells and

heads, consisting of a suitable body having  
openings, substantially as shown and de-  
scribed, a cutter for determining the length  
of the shell or head, a cutter for chamfering  
5 out the inner edge thereof, suitable means for  
locking said cutters in position, and suitable  
means for smoothing the outer edge of the  
shell or head.

3. A tool for finishing cartridge shells and  
10 heads, consisting of a suitable body having  
openings, a cutter for determining the length  
of the shell or head, a cutter for finishing the  
inner edge thereof, a cutter for finishing the  
outer edge thereof, and set-screws for locking  
said cutters in position after adjustment. 15

In testimony whereof we affix our signatures  
in presence of two witnesses.

CHARLES P. GILBERT.  
HENRY W. THOMAS.

Witnesses:  
GEO. B. THORPE,  
SAML. T. HOUGHTON.