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W. W. PARSONS.

TOOL FOR FORCING APART THE ENDS OF SPLIT OR TWO MEMBERED BOLTS.

APPLICATION FILED DEC. 8, 1906.

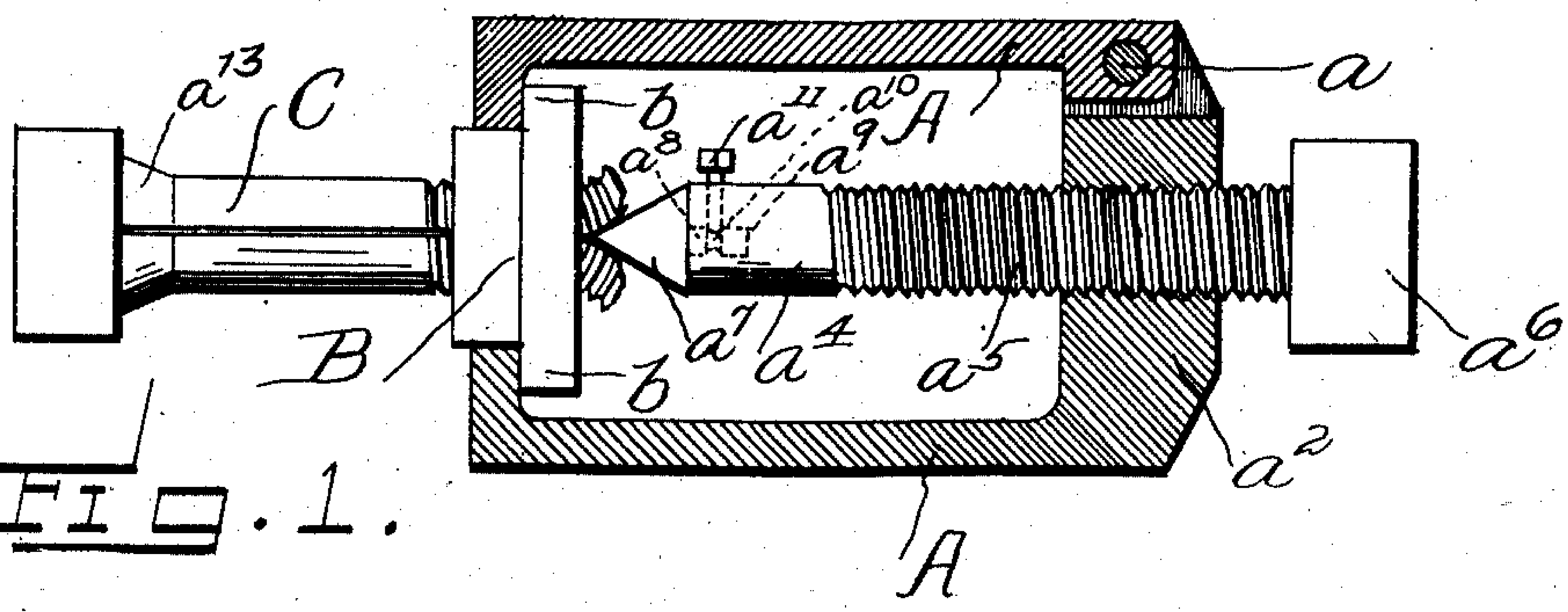
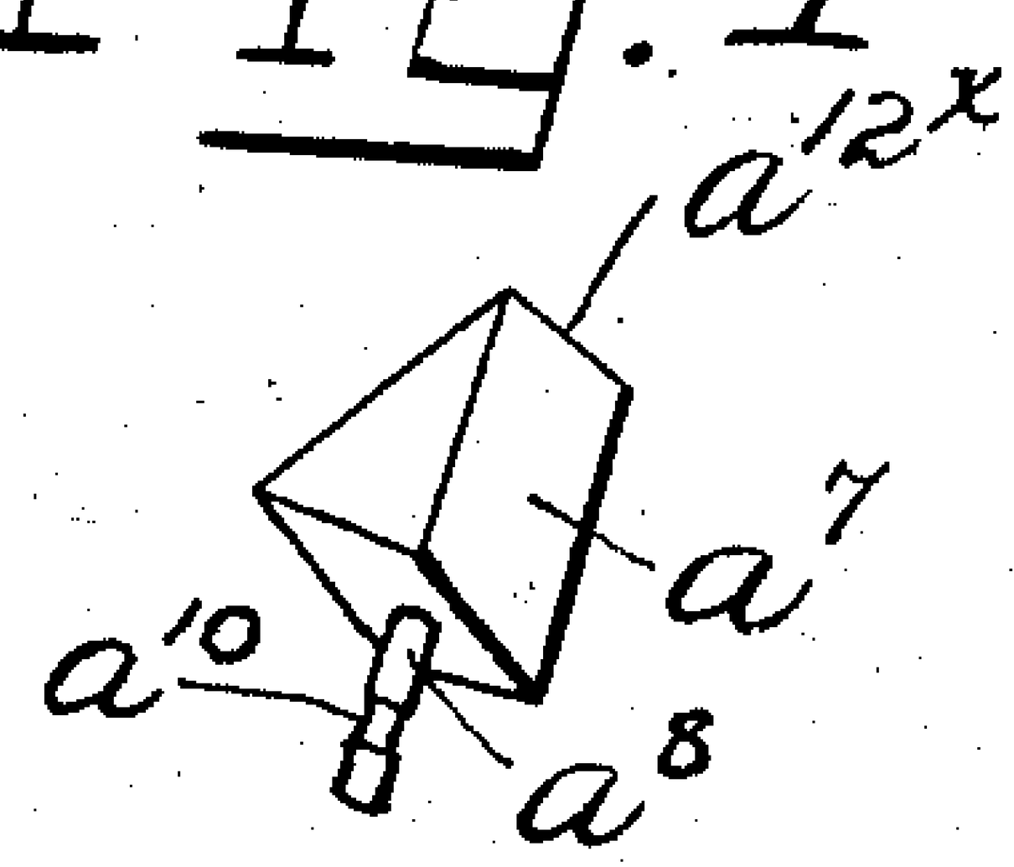


Fig. 1.

Fig. 4



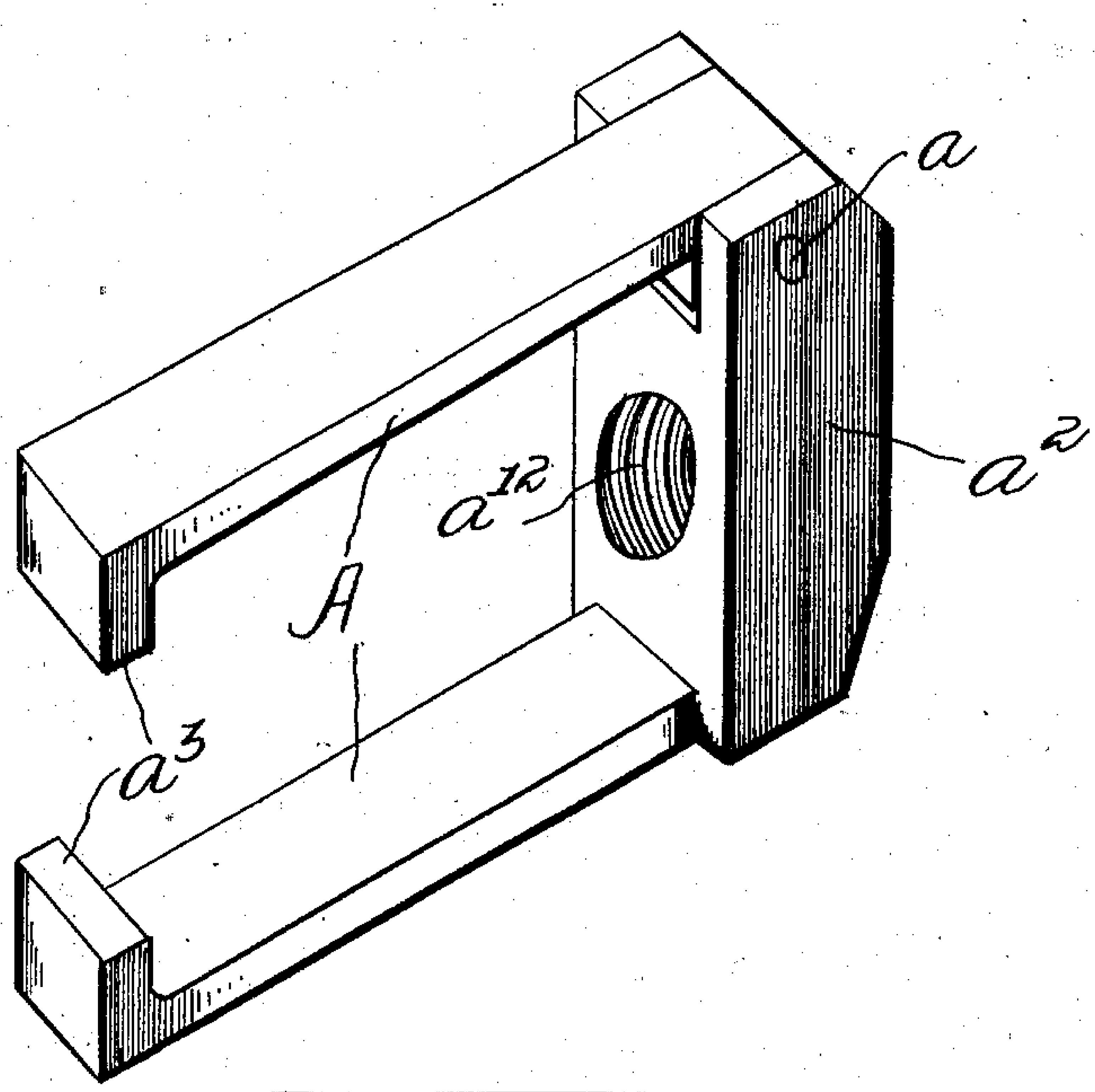


Fig. 2.

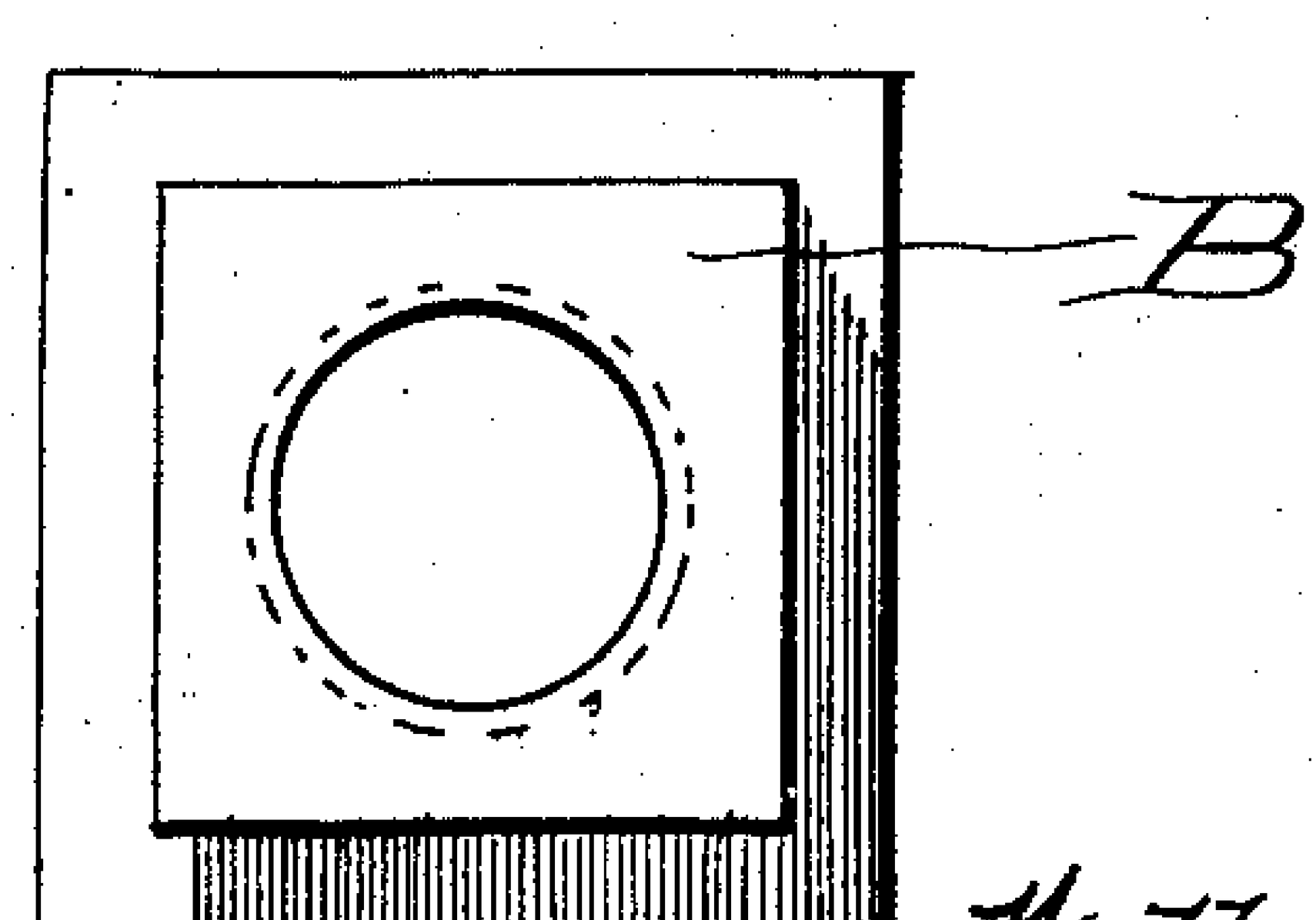


Fig. 3.

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WALLACE WILLIARD PARSONS, OF WASHINGTON, DISTRICT OF COLUMBIA.

TOOL FOR FORCING APART THE ENDS OF SPLIT OR TWO-MEMBERED BOLTS.

No. 864,486. Specification of Letters Patent. Patented Aug. 27, 1907.

Application filed December 8, 1906. Serial No. 346,941.

To all whom it may concern:

Be it known that I, WALLACE WILLIARD PARSONS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Tools for Forcing Apart the Ends of Split or Two-Membered Bolts; and I 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.

The object of my invention is, generally, the provision of a tool for separating or spreading apart the ends of a split bolt or of a two-membered bolt, whereby a thoroughly effective and lasting bolt-lock is effected; this tool being exceedingly simple of construction, efficient in operation, and not liable to break or get out of order.

With this object in view, the invention may be said to comprehend a tool having a body-portion adapted to engage with a nut on a bolt and carrying a movable member provided with an independently-rotatable head adapted to engage the ends of the split or two-membered bolt and force them apart.

More specific details of construction will be fully hereinafter set forth.

In the drawing: Figure 1 is a view of a bolt, a nut thereon, and my improved tool in use, the tool being shown in longitudinal section; Fig. 2 is a perspective view of the body-portion of the tool, the rotatable member therein being removed therefrom; Fig. 3 is an end view of a nut. Fig. 4 is a perspective detail view of the independently-rotatable head removed from the tool.

Referring to the drawing, A designates two arms one of which is desirably pivotally connected, at a, to a cross-piece or bridge a^2, and provided at their other ends with inturned lugs a^3, adapted to engage under flanges b of a nut B on a bolt C; the arms A and the bridge a^2 constituting a body-portion. The bridge a^2 is provided centrally with a screw-threaded opening a^{12} therethrough, engaged by a movable member a^4, consisting of a screw-threaded shank a^5 desirably provided at one end with a head a^6 and at its other end carrying an independently-rotatable head a^7, as shown in detail in Fig. 4, in which it will be noted that the head comprises a wedge-shaped member, terminating in a sharp edge $a^{12\times}$ adapted to engage between the split-ends of the bolt, as shown in Fig. 1, whereby to spread or force them apart. The preferable manner for mounting this head for independent rotatable movement is to furnish the same with a pin a^8 disposed in an opening a^9, or recess, in the shank a^5, and provided with a circumferential channel a^{10} engaged by the end of a set-screw, or the like, a^{11} carried by the shank a^5.

The operation is as follows: The pivoted arms A of the tool are made to engage, by their lugs a^3, with the flanges b of the nut B, and the movable member a^5 screwed down until the pointed head a^7 engages between the ends of the two-membered or spilt bolt C. Continued screwing down of the member a^5 will cause the pointed head a^7 to separate or force apart the ends of the two-membered or split bolt C, forming a thoroughly efficient bolt-lock. The pivoted arms A are then swung outward, which releases the pointed head from engagement between the ends of the two-membered or split bolt, when the tool may be easily removed.

From the above description, taken in connection with the drawing, it will be seen that I have provided a tool for separating or forcing apart the ends of a split-or two-membered bolt, which tool is thoroughly efficient and durable in use, and not likely to get out of order.

It will also be noted that I do away with all hammering, or the like, in forcing apart the ends of the two-membered bolt, because I have found that all such hammering and violence is exceedingly injurious to the bolt and nut, and does not result in effecting an efficient bolt lock.

Having thus fully described my invention, what I claim as new and desire to secure by Letters-Patent, is:

1. A tool for forcing apart the ends of a split- or two-membered bolt, comprising a supporting member, a movable member carried thereby, and an independently-movable, wedge-shaped head, terminating in a sharp edge, carried at the lower end of the movable member, and bearing against said lower end.

2. A tool for forcing apart the ends of a split- or two-membered bolt, comprising a skeleton body-portion, a movable member carried by the body portion, and an independently-movable, wedge-shaped head, terminating in a sharp edge, carried at the lower end of the movable member, and bearing against said lower end.

3. A tool for forcing apart the ends of a split- or two-membered bolt, comprising a skeleton body-portion and a movable member screwed into the body-portion, and provided with an independently-movable head formed wedge-shaped and terminating in a sharp edge.

4. A tool for forcing apart the ends of a split- or two-membered bolt, comprising an armed body-portion, a movable member carried thereby and provided with an independently-movable head formed wedge-shaped and terminating in a sharp edge, and a set-screw for preventing separation of the head from the movable member.

5. A tool for forcing apart the ends of a split- or two-membered bolt, comprising an armed body-portion, a movable member carried thereby, an independently-movable

head formed wedge-shaped and terminating in a sharp edge, and provided with a pin, circumferentially grooved, adapted to enter the inner end of the movable member, and a set screw passing transversely into the movable member and engaging the circumferential groove of the pin.

6. A tool for forcing apart the ends of a split- or two-membered bolt, comprising a supporting member provided with a pivoted arm, a movable member carried by the supporting member, and an independently-movable, wedge-shaped head, carried at the lower end of the movable member, and bearing against said lower end.

In testimony whereof, I affix my signature, in the presence of two subscribing witnesses.

WALLACE WILLIARD PARSONS.

Witnesses:

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