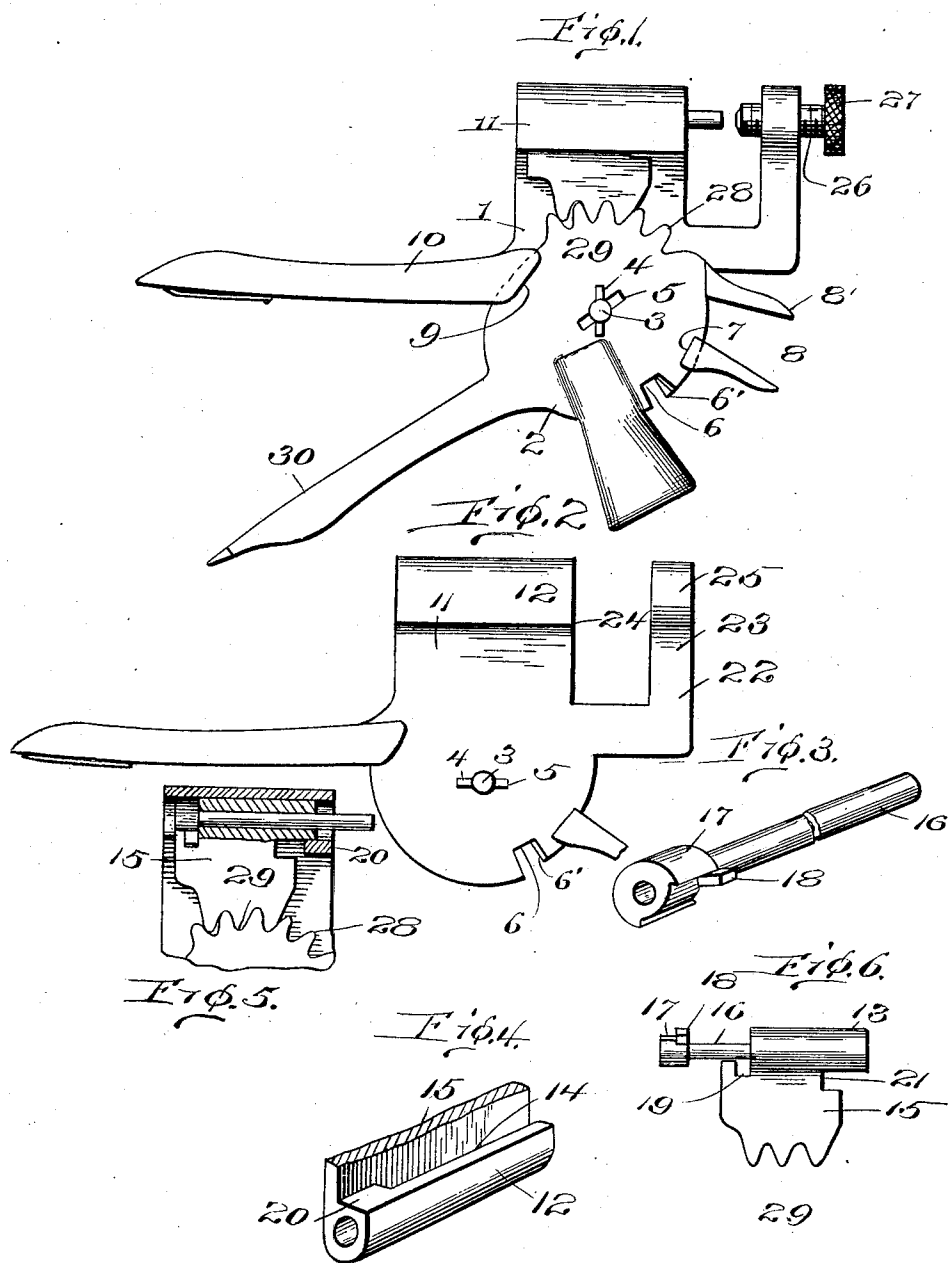


J. W. CROSSLEY.
COMBINATION TOOL.
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1,062,584.

Patented May 27, 1913.



Witnesses

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JAMES W. CROSSLEY, OF BANKS, ARKANSAS.

COMBINATION-TOOL.

1,062,584.

Specification of Letters Patent.

Patented May 27, 1913.

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To all whom it may concern:

Be it known that I, JAMES W. CROSSLEY, a citizen of the United States, residing at Banks, in the county of Bradley and State of Arkansas, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification.

This invention relates to new and useful improvements in combination tools and the main object thereof is to produce a new and efficient bradder or eyeleter and riveter.

The main object of my invention is to produce an eyeleter and riveter especially adapted for the use of teamsters, cobblers and livery stable men.

A further object of my invention is to produce a device that will be simple in construction, efficient in operation and economical.

With the foregoing and other objects in view my invention consists in the novel construction, combination and arrangement of parts as are described in this specification, illustrated in the accompanying drawings forming a part thereof and particularly pointed out in the appended claims.

Referring to the drawing: Figure 1 is a side elevational view of my invention ready for use. Fig. 2 is an elevational view of one of the parts of the tool. Fig. 3 is a perspective view of the small plunger or punch employed. Fig. 4 is a perspective view of the upper portion of the part illustrated in Fig. 2 disclosing the manner in which the large plunger is held reciprocally. Fig. 5 is a segmental, vertical sectional view through that part of the part illustrated in Fig. 2 which is shown in perspective in Fig. 4, also disclosing in part the means whereby the large plunger is reciprocated. Fig. 6 is a side elevational view of the large plunger, also the small plunger being partly removed therefrom, together with the teeth formed integral with said large plunger.

Referring more particularly to the drawings in which like numerals designate like parts throughout, my invention is described as follows: The device is composed of two members 1 and 2 pivotally held together by means of a pin 3. The members are also removably held together by means of the key 4 which extends through the elongated perforation 5 and which may be turned into locked position after the members 1 and 2 have been pivoted together. When it is desired to remove the part 2 from the part 1

the part 2 is swung upon the pivot 3 so that the notch 6 registers with the extension 7 of the jaw 8, while at the same time the key 4 is turned so that it will register with the perforation 5 when the member 2 may be readily removed from engagement with said member 1. An extension 9 is provided upon the end of the handle 10 which also aids in securing the member 2 to the member 1 and in guiding the same. The member 1 has extending upward therefrom a substantially rectangular part 11, which part is provided with a substantially circular enlargement 12 adjacent its upper edge. Said circular part 12 is substantially hollow forming a sleeve wherein reciprocates a large plunger 13. A longitudinal slot 14 is provided in the under face of said circular part 12 permitting longitudinal movement of the downward extension 15 with said large plunger 13 to which it is formed integral. The large plunger 13 is also provided with a central perforation therein from end to end forming a sleeve for the reception of a small plunger 16 provided with a head 17 at its outer end. A lug 18 is formed integral with the head 17 of said plunger 16 upon its outer periphery adjacent its inner edge, said lug 18 being for the purpose of engagement with a notch 19 provided in the downward extension 15. The slot 14 in the under side of the circular part 12 is terminated by means of a crosspiece 20 formed integral with the said circular part. Said crosspiece 20 is for the purpose of forming a stop for the movement of the large plunger together with its downward extension 15, a notch 21 being formed in said downward extension 15 for the reception of the crosspiece 20 as clearly illustrated in Fig. 5. The member 1 is provided with a right angle extension 22 the outer leg 23 of which is parallel to the forward edge 24 of the substantially rectangular member 11. At the upper end of the lug 23 is formed integral therewith a ring 25 provided upon its inner periphery with screw threads which engage screw threads 26 of the adjustable screw 27. The function of this will be readily seen, which is to vary the space between the inner end of the large plunger 13 and the inner end of the screw 27 or the inner end of the small plunger 16 and the screw 27. When the device is being used as an eyeleter the small plunger is in the position which is illustrated in

Fig. 5 or what will be known as punching position. When the device is being used as a riveter the small plunger is in the position illustrated in Fig. 6 or what may be known as out of punching position.

The member 2 is provided with a plurality of teeth 28 upon the upper edge of its curved or substantially circular portion 29. Said teeth 28 engage teeth 29 provided upon the lower edge of the downward extension 15. Said teeth 28 and 29 enable the member 2 to reciprocate the downward extension 15 which in turn reciprocates the large plunger 13 by moving the handle 30 thereof toward and away from the handle 10 of the member 1. The large plunger 13 is heavily magnetized so that it will support the brads in proper position for riveting or bradding and also for the purpose of preventing the small plunger 16 from slipping entirely out of the opening therein when placed in the position shown in Fig. 6. When punching a hole the thumb screw 27 must just touch the end of the plunger 16; when riveting the large plunger must contact or almost contact the end of the screw 27.

My invention may also be used as a hammer, a screw driver or a tack puller. When used as a hammer the member 20 is removed from the member 1 as is likewise when being used as a screw driver. The jaws 8 and 8' constitute a pair of pliers and the device may be used as such when the members are pivoted together. The notches 6 which are provided with cutting edges 6' constitute a wire cutter. As above described the primary use of the device is for punching and bradding.

Although I have specifically described the novel features of construction, combination and arrangement of parts of my invention, yet I do not confine myself to such specific construction but reserve the right to make such changes therein as do not depart from the spirit of the invention or the scope of the appended claims.

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

1. In a riveter and bradder, a member provided with an upwardly extending rectangular portion, said rectangular portion provided along its upper edge with an enlarged substantially circular portion pro-

vided with a groove therein, said groove terminating at one end in a cross piece integral with the enlarged portion, a large plunger provided with a bore of uniform diameter seated in said groove, said plunger provided with a downwardly extending lug or member provided with teeth above its lower edge, said large plunger adapted to reciprocate in the said groove and have its movement in one direction limited by the engagement of the said cross piece with a notch in the downwardly extending lug of the plunger, a small plunger provided with an enlargement on one end, said small plunger seated in the bore of the large plunger, said small plunger provided with a lug adapted to engage a notch in the upper edge of the downwardly extending lug on the large plunger, and a second member, substantially circular, detachably pivoted to the first mentioned member centrally thereof, said second member provided upon its upper edge with a number of teeth adapted to engage the teeth of the lug of the larger plunger to reciprocate said plunger.

2. In a riveter and bradder, a member provided with an upwardly extending rectangular portion and a downwardly extending circular portion, a handle integral with said member, said handle where it joins the member provided with an extension, a second member substantially circular in periphery, said member detachably pivoted to the first member centrally thereof by means of a key, the second member adapted to be guided and held in place by engagement of the extension to the handle bearing upon its outer face, said upwardly extending rectangular portion of the first mentioned member being provided with a bent over portion forming a groove, a large plunger adapted to reciprocate in the groove, said large plunger having a downwardly extending lug provided with teeth, the upper edge of the second member provided with teeth to engage the teeth on the lug to reciprocate the larger plunger, and a small plunger interlockable with the larger plunger, and adapted to reciprocate therewith.

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

JAMES W. CROSSLEY.

Witnesses:

C. C. STEELMAN,
J. D. McFARLAND.