

No. 766,677.

PATENTED AUG. 2, 1904.

C. P. EAGLE.
RIVET MARKER.

APPLICATION FILED DEC. 9, 1903.

NO MODEL.

FIG. 1.

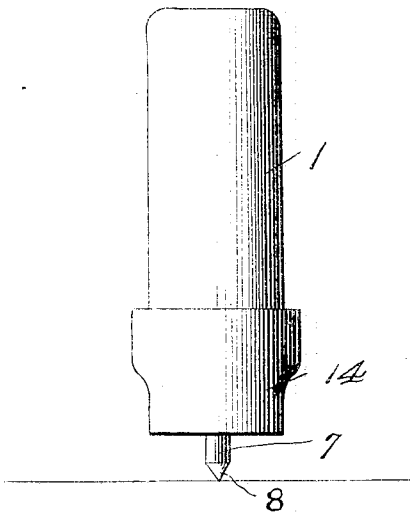


FIG. 2.

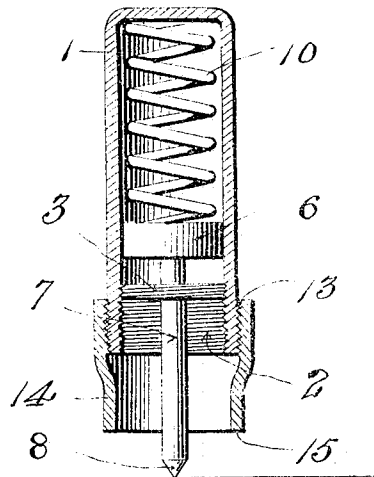


FIG. 3.

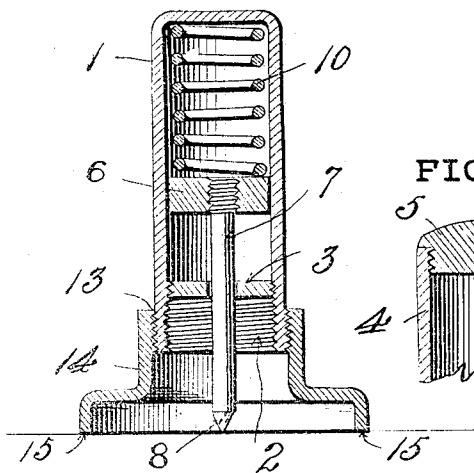


FIG. 4.

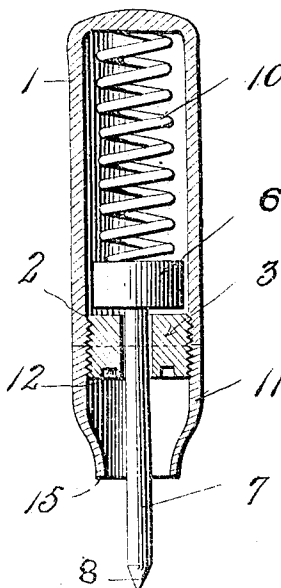
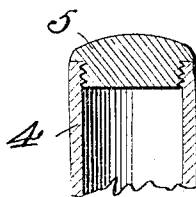


FIG. 5.



Witnesses

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CHARLES POWER EAGLE, OF NEWPORT NEWS, VIRGINIA.

RIVET-MARKER.

SPECIFICATION forming part of Letters Patent No. 766,677, dated August 2, 1904.

Application filed December 9, 1903. Serial No. 184,389. (No model.)

To all whom it may concern:

Be it known that I, CHARLES POWER EAGLE, a citizen of the United States, residing at Newport News, in the county of Warwick and State of Virginia, have invented certain new and useful Improvements in Rivet-Markers, of which the following is a specification.

My invention relates to improvements in rivet-markers, and has for its object the provision of a simple and compact device which shall be simple in construction, rigid and accurate in operation, easy to clean, and capable of use with different sizes of markers for rivets.

It is a fact well known to those employed in structural steelwork that where the marking of the position of individual rivet-holes is necessary the process of punching the holes in plates, angles, &c., is much expedited and the accuracy of that part of the work is greatly increased if the location of the centers of the holes is first fixed by prick-punch marks and the edges of the holes then marked in with circles of some such material as white lead. This process is used in many instances; but the circles are usually made with the end of a piece of brass tube dipped in white lead, the relationship between the circles thus marked and the prick-punch marks being determined by the eye only. For accurate work this is unsatisfactory, as the punchman is guided necessarily by the circles and not by the center marks. It is for the purpose of avoiding this difficulty that I have devised my invention, as well as for the purpose of accommodating the marking to any of the various sizes of holes ordinarily encountered.

With these ends in view my invention consists of a hollow tubular handle, a piston with a central spindle traversing the inside of the handle, a spring to actuate the piston, and a series of marking-rings interchangeably fitted to the handle; and it further consists in certain novelties of construction and combinations of elements, as will be hereinafter described and claimed.

In the accompanying drawings I have illustrated two examples of the physical embodiment of my invention constructed according

to the best modes I have so far devised for the practical application of the principle.

Referring to the accompanying sheet of drawings, Figure 1 is an elevation of the tool in position ready for use. Fig. 2 is a vertical central section thereof, some elements of the device being in elevation. Fig. 3 is a sectional view similar to Fig. 2, but showing a different-size "marker" or marking-ring and also showing the device in the position occupied while in the act of marking a plate or angle. Fig. 4 is a section of another form of my device, showing a marker or marking-ring of smaller diameter than either Fig. 2 or Fig. 3. Fig. 5 is a detail modification of the construction of the cylinder end or top.

In the drawings I have shown the handle as a solid cylindrical casting having one closed end, the other end being tapped, as at 2, to receive the guide-plug 3. However, for manufacturing reasons I may choose to make the handle of tube 4 as shown in Fig. 5 and to close the end with a plug 5, threaded, as shown, and screwed into the end of the tube.

The piston 6, to which is attached by screw-threads or otherwise the spindle 7, is made to fit loosely enough to slide freely within the handle 1 and of sufficient length to afford a guide for the spindle. A further and positive guide is provided in the plug 3, which is pierced centrally by a hole large enough to permit the spindle 7 to slide freely therein.

The end of the spindle is reduced to a conical point, as at 8, the angle of the cone being somewhat less than that of the center punch-mark and still large enough to provide against the too rapid wearing of the tip. The piston or spindle head is pressed against the plug by the spring 10, as shown.

In Fig. 4 the plug is screwed into the handle for only half of its length, the other half being left projecting to take the marking-ring 11, which is threaded internally to fit the plug. The marking-ring, as shown, is drawn to a smaller size at the face than at the plug end, the external diameter of the face corresponding to the diameter of the rivet-hole.

It is intended to have a set of marking-rings of any convenient number to accommodate

the different diameters of rivets for which holes are to be marked. The advantage of this arrangement is evident when it is known that an operator may have to mark three or four different diameters of holes on the same plate; but for the interchangeable rings as many markers would be necessary as there are sizes of holes to be marked. Moreover, the handle and the set of rings may be neatly arranged in a box, thus giving a compact outfit covering the entire range of operations.

It will be seen that the arrangement of the piston and plug affords a rigid and accurate guide for the spindle and insures that the rings printed by the marker shall be central with regard to the guiding-hole.

The apparatus is easily cleaned, the plug 3 being backed out and reseated by a spanner (not shown) fitting into the holes 12 12. In the form shown in Fig. 4 the marking-ring should first be removed and then the plug removed, as in the other case described, or as an alternative by means of a spanner fitting into a slot cut transversely of the outer face of the plug and corresponding to the holes 12 12. With the marker thus disassembled the piston and the interior of the handle may be cleaned and lubricated as well as the spindle and the hole therefor in the plug 3.

In Figs. 1, 2, and 3 the cylinder 1 is threaded at its lower end, as at 13, to which threads are adapted to engage the internal threads on the marking-ring 14.

In operation the marker is held in the hand and pressed against a surface covered with white lead or other semifluid marking substance until the point of the spindle 7 is sufficiently depressed to permit the face 15 to come in contact with the white lead. The marker is then withdrawn, the tip 8 is inserted into the prick-punch mark, and the handle is pressed firmly against the plate or object to be marked until the face 15 has come into

contact therewith, as shown in Fig. 3, and has deposited the white lead thereon. The operation is then repeated, the result being a series of circles of the required diameter and located centrally of the punch-marks.

It will thus be seen that I have provided an apparatus or device of the class described which is at once simple, rigid, accurate, easily assembled or disassembled, and which is adapted by the use of its interchangeable parts for quick and easy manipulation and have secured the additional advantage of providing for all sizes of rivets.

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

1. A rivet-marker, consisting of the hollow handle carrying a marking-ring at its lower end and having interior screw-threads, a disk having a central guide-opening and exterior threads to engage the threads of the hollow handle, a plunger guided in the disk and having its lower end pointed and formed with a head at its upper end, a spring in the handle bearing on said head, and a removable cover in the upper end of the handle.

2. A rivet-marker, consisting of the hollow handle having a removable cap or cover, carrying a marking-ring at its lower end and provided with interior screw-threads, a guide-disk fitting in said screw-thread and having means to receive a device for removing said disk, a plunger guided in the disk and having its lower end pointed and formed with a head at its upper end, and a spring in said handle bearing upon and exerting its tension against said head.

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

CHARLES POWER EAGLE.

Witnesses:

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ALLAN D. JONES.