

No. 643,540.

Patented Feb. 13, 1900.

J. RUMERY.
WRENCH.

(Application filed Jan. 28, 1898.)

(No Model.)

Fig. 3

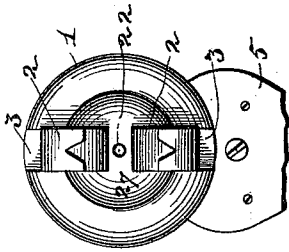


Fig. 5

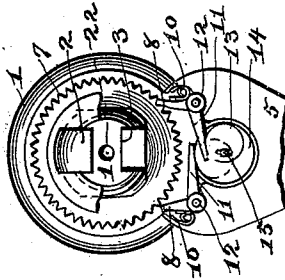


Fig. 2

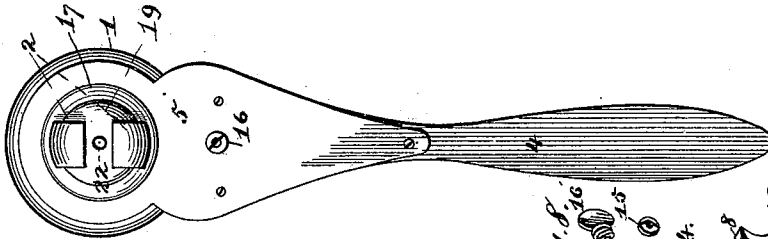


Fig. 4

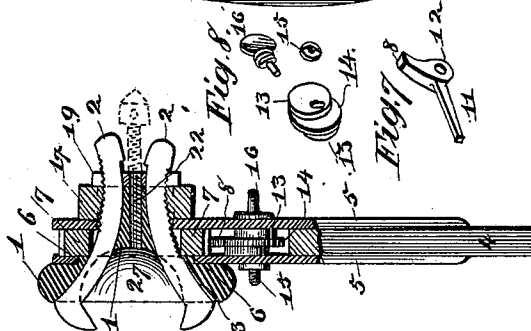


Fig. 1

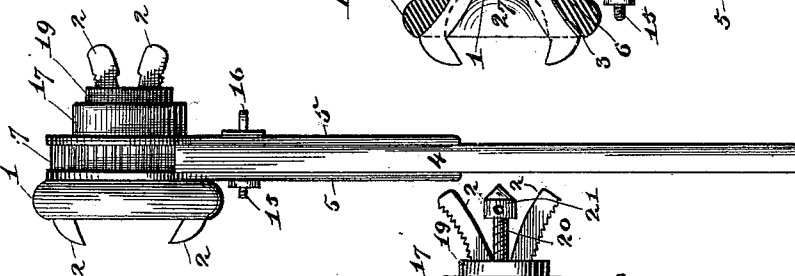


Fig. 6

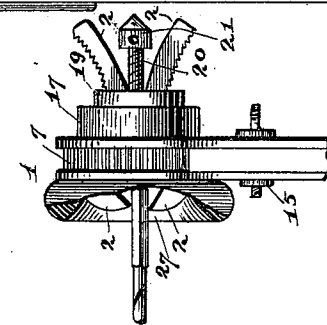


Fig. 7



Fig. 8



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WRENCH.

SPECIFICATION forming part of Letters Patent No. 643,540, dated February 13, 1900.

Application filed January 28, 1898. Serial No. 668,302. (No model.)

To all whom it may concern:

Be it known that I, JOHN RUMERY, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, State of Ohio, have
5 invented certain new and useful Improvements in Wrenches, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use
10 the same.

My invention relates to an improvement in wrenches; and it consists in a head having a conical opening made through it, two plates
15 passed over the head, a handle secured in these plates, and two curved jaws provided with teeth, combined with pivoted pawls, which are provided with arms, a separate spring for operating each pawl, and two cams for operating the springs, as will be more fully
20 described hereinafter.

In the accompanying drawings, Figure 1 is a side elevation of the device; Figs. 2 and 3, front and rear views, respectively. Fig. 4 is a horizontal section through the center line.
25 Fig. 5 is a view with one plate of the handle removed, showing the ratchet mechanism. Fig. 6 is a partly-broken view showing the adaptation of the device to a ratchet-drill. Figs. 7 and 8 show details.

30 In the drawings, 1 is the head containing the sliding jaws 2, which move in the slotted openings 3, inclosing them on alternate sides at the front and rear of the head, and are curved to conform to the curved shape of the
35 jaws diverging toward the inner face of the head. About the center of the head is swung the handle 4 by means of the plates 5, secured to either side of the handle and sleeved over the circular shoulders 6 upon the head adapted
40 to receive them. Between these plates is secured the ratchet-ring 7, which is engaged alternately by pawls 8, pivoted within the handle 9 on either side, and forced into engagement with the ratchet-teeth by means of the
45 spring 10. Arms 11, secured to the hubs 12 of these pawls, are engaged by the eccentrics 13, mounted upon the disk 14, which is rotated by means of the pin 15 and thumb-piece 16, so as to engage the arm of either pawl
50 and make the ratchet movement right or left, as desired.

17 is a ring threaded in its inner surface to engage the sectional screw-threads upon the outer edges of the curved jaws. This ring is
55 sleeved over the head at 18 and secured by

means of the cap 19, which is attached to the end of the hub and fastens all the parts together. By turning the ring 17 either way the jaws are either separated or brought together as they slide in the diagonally-curved grooves
60 which follow the somewhat conical shape of the head. The inner face of the head is provided with a cup-shaped depression 27, in which the nuts to be operated upon are inserted.

20 is a screw-threaded brace-rod provided with the conical head 21. This brace-rod is inserted in the screw-threaded opening 22 through the center of the head and serves as a brace when the tool is employed as a drill,
70 as shown in Fig. 6.

I believe myself to be the first to invent a combined ratchet-drill and monkey-wrench, and therefore claim as my invention and desire to secure by Letters Patent—

1. The head having a conical opening made therethrough, the plates sleeved over the head, the handle secured in the plates, the two curved jaws provided with teeth, the toothed ring for engaging with the jaws, and the
80 ratchet-ring, combined with the two pivoted pawls, provided with arms, a spring for operating each pawl, and two cams for operating the springs so as to cause the pawls to alternately engage with the ratchet-ring, and a
85 handle for causing the cams to revolve, substantially as shown.

2. In a wrench, the circular head having a conical recess in its outer face and provided with slotted openings, the curved jaws which
90 pass through the slotted openings and have their outer ends bearing against the sides of the conical recess in the head, a toothed ring which engages with the outer toothed edges of the jaws, and a ratchet-ring which is placed
95 upon the head, combined with plates which are sleeved over the head upon opposite sides of the ratchet-ring, the two pawls provided with arms, the springs for operating the pawls, the two slotted cams, and an operating-handle
100 upon which they are pivoted; the central portion of the head being provided with an opening to receive a screw, substantially as set forth.

In testimony whereof I set my hand this
24th day of January, 1898.

JOHN RUMERY.

Witnesses:

WM. M. MONROE,
JOHN H. BEHR.