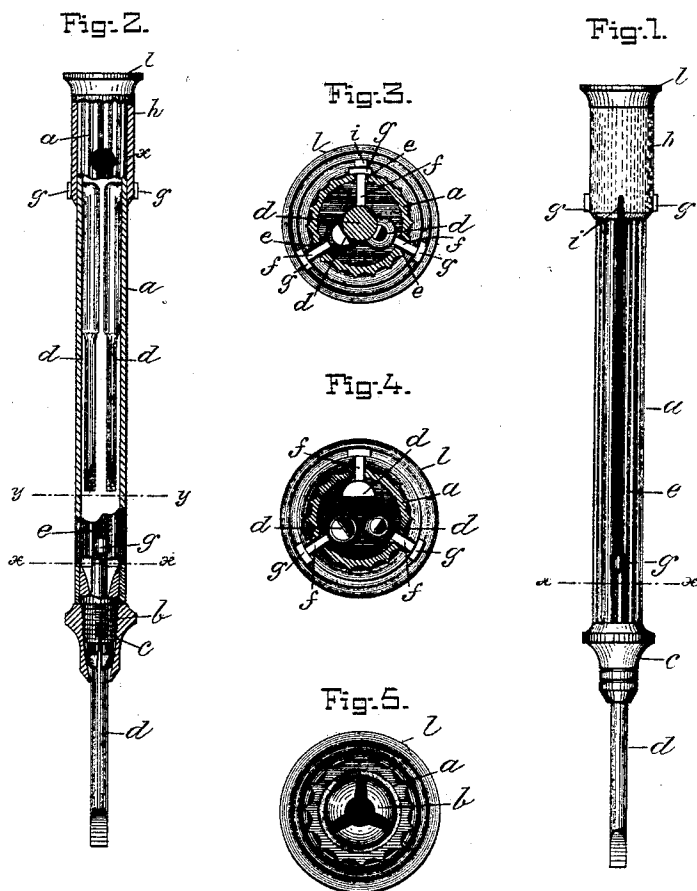


(No Model.)

R. H. FRANKLIN.
MULTIPLE TOOL.

No. 435,890.

Patented Sept. 2, 1890.



INVENTOR:

WITNESSES:

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RHODOLPH H. FRANKLIN, OF BROOKLYN, NEW YORK, ASSIGNOR TO
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MULTIPLE TOOL.

SPECIFICATION forming part of Letters Patent No. 435,890, dated September 2, 1890.

Application filed November 27, 1889. Serial No. 331,829. (No model.)

To all whom it may concern:

Be it known that I, RHODOLPH H. FRANKLIN, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Multiple Tools, of which the following is a specification.

My invention relates more particularly to screw-drivers for watch-makers, jewelers, and other such light work; but is applicable to other tools, as brad-awls and the like; and it consists of a contrivance of several of such tools of different sizes in a hollow handle, so that any one may be readily shoved out of one end and secured in the position for use by a chuck while the rest are retired and confined within the handle, all as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved tool. Fig. 2 is a longitudinal section of the same with some parts of the case in side view. Figs. 3 and 4 are transverse sections on lines *x x* and *y y*, respectively, of Figs. 1 and 2 on an enlarged scale; and Fig. 5 is an end view without the chuck-nut, also enlarged.

I provide a hollow metal case or stock *a* with a taper split and screw-threaded lower end *b*, forming jaws of a chuck, and fit on said jaws a taper-threaded nut *c*, to contract the jaws on the screw-drivers, awls, or other like tools *d* to be used, and make two or more longitudinal slits *e* in said case at uniform distances apart circumferentially and extending nearly the whole length, but terminating a little short of each end, one for each tool, which I make with a lateral spur *f* at the upper end to extend through one of the slits of the case for a projection whereby the tool can be shoved out when required for use and back when not required, and in such a case I arrange as many tools *d* as there are slits side by side, the said tools being of such size as will allow them all to be drawn back one by the side of the other within the case, and the spurs being of such length as will allow the tools to come to the center of the tube when shoved out for use, and having a head *g* at the outer end wider than the slit to pre-

vent the tool to which it belongs from dropping farther into the tube and wedging in between the other tools, some of which, being smaller than the others in part of their length, leave so much space in the tube, especially below the upper portions, which are all of the same size that such result might occur except for the heads. The upper portions are all of maximum size for such length as is gripped by the chuck, in order that the chuck may have uniform range of opening and closing for all. At the upper ends of the slits they are enlarged a little, as at *x*, to allow the heads of the spurs to be inserted through them from the inside, the tools being dropped in from the upper end of the case, and these enlargements are then covered by the short tube *h*, subsequently fitted and secured on the upper end of the case suitable for covering them. This short tube has short slits *i* in its lower end coinciding with the slits in the case and tapering upward to receive the spurs *f* of the tools and hold them by wedging them when forcibly drawn back, both for holding the tools not in use up out of the way of the one to be shoved down into the chuck and for drawing the tools laterally to their respective sides of the case, this latter action being effected by the heads of the spurs running on the greater radial surface of the tube *h*.

For tools of the kind represented, which is a jeweler's screw-driver, the case is fitted with the ordinary rotating finger-cap *l* on the upper end, enabling the tool to be rotated by the thumb and second finger while being pressed on the end by the first finger of one hand; but this is not my invention. It may be used together with my improvements or not.

The spring-jaw part *b* of the chuck is connected to the case *a* by its upper end inserted for a short distance in the end of the case, and the bore is bell-mouthed at the upper end to facilitate the entering of the tools to the center bore of the chuck.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of the cylindrical hollow slotted case, the gripping and releasing chuck on one end of the case, and two or

more tools inclosed in the case and having a lateral spur projecting through a slot and being capable of sliding out and projecting from the chuck, and also being withdrawn into the case and shifted laterally therein.

2. The combination of the slotted case, a chuck on one end of the case, two or more tools inclosed in the case and having a lateral spur projecting through a slot and being capable of sliding out and projecting from the chuck, and also being withdrawn into the case, and the short tube on the upper end of the case having the taper slits coincident with the slots of the case.

3. The combination of the slotted case, the gripping and releasing chuck on the end of the case and central thereto, and two or more tools inclosed in the case and having a lateral spur projecting through a slot of the case and being capable of sliding out and projecting from the chuck, and also being withdrawn

into and shifted laterally in the case, substantially as described.

4. The combination of the hollow cylindrical slotted case, the gripping and releasing chuck on the end of the case and central thereto and having the bell-mouth in the end inserted in the case, and two or more tools inclosed in the case and having a lateral spur projecting through a slot in the case and being capable of sliding out and projecting from the chuck, and also being withdrawn into the case and shifted laterally therein, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 25th day of October, 1889.

RHODOLPH H. FRANKLIN.

Witnesses:

W. B. EARLL,

W. J. MORGAN.