

J. S. ARMSTRONG.

Improvement in Screw-Drivers.

No. 130,614.

Patented Aug. 20, 1872.

Fig: 1.

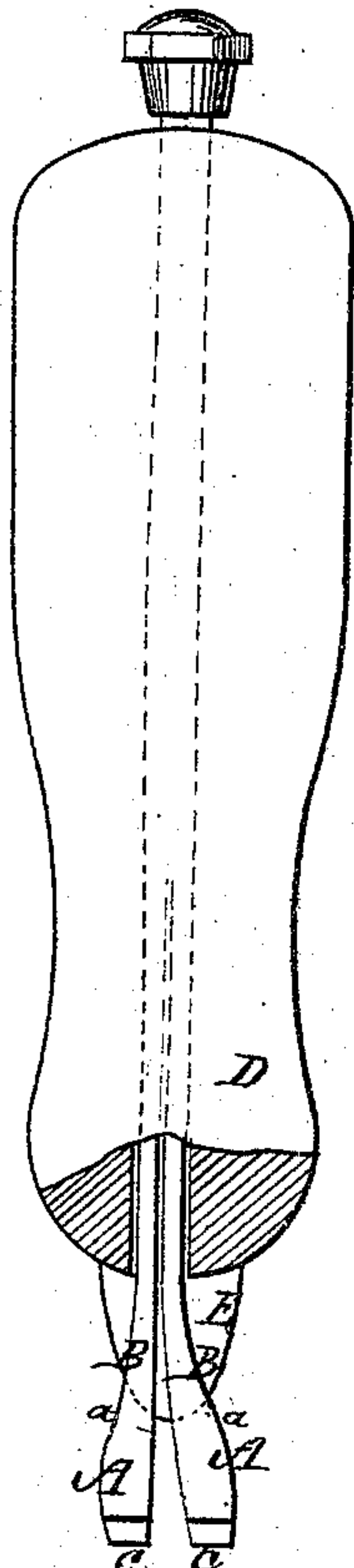


Fig: 5.

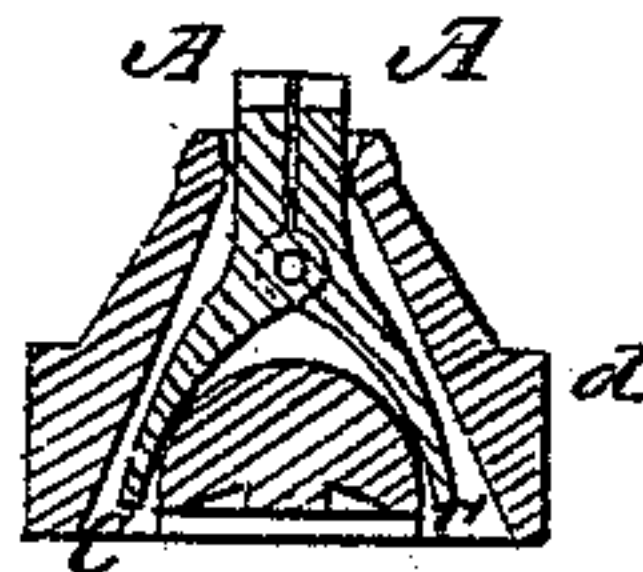


Fig: 4.

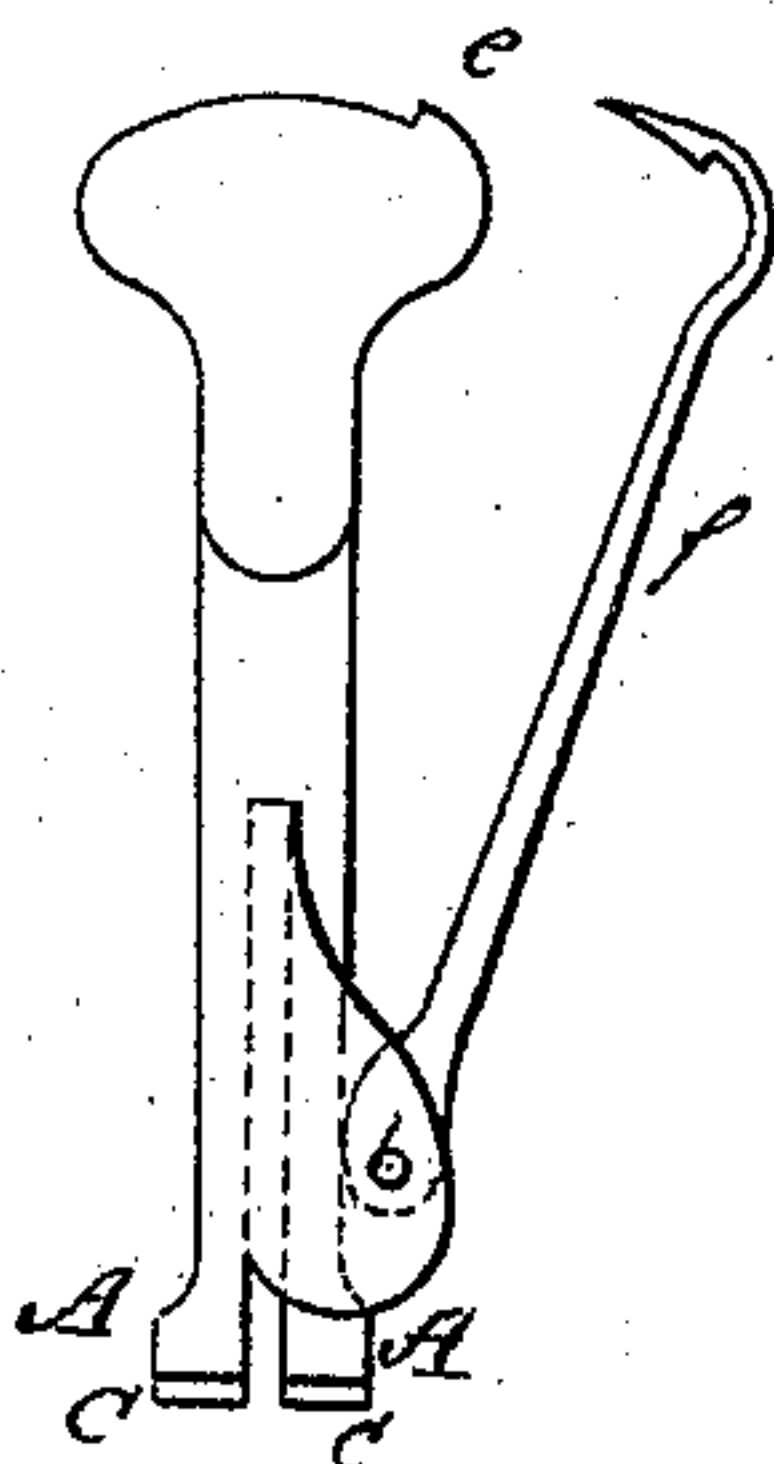
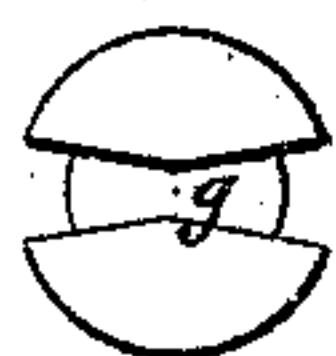


Fig: 2.



Fig: 3.



Witnesses:

Chas. Nida.
W. A. Graham.

Inventor:

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PER

UNITED STATES PATENT OFFICE.

JOHN S. ARMSTRONG, OF ST. JOHN, CANADA.

IMPROVEMENT IN SCREW-DRIVERS.

Specification forming part of Letters Patent No. 130,614, dated August 20, 1872.

Specification describing a new and useful Improvement in Screw-Drivers, invented by JOHN S. ARMSTRONG, of St. John, in the Province of New Brunswick and Dominion of Canada.

My invention consists of a split or divided plate or bar, whose ends for entering the nick of the screw are each in the form of a frustum of a wedge, arranged so that the narrow ends meet when the two parts, which are capable of moving toward and from each other, come together, with which said divided bar is a handle, and a suitable means for forcing the said wedge-ends together when applied to the screw. The said improved screw-driver is designed specially for screws with nicks widest at the ends and contracting toward the middle, the object being to hold the screw on the driver by wedging the latter into the nick, so that the screws may be guided by the driver, and the latter will be prevented from slipping off the screws while turning them, as the common screw-drivers do.

Figure 1 is partly a side elevation and partly a sectional elevation of my improved screw-driver. Fig. 2 is an end elevation. Fig. 3 is a top view of the head of a screw with the nick constructed as I propose for the use of my improved screw-driver. Figs. 4 and 5 represent modifications in the construction of the instrument.

Similar letters of reference indicate corresponding parts.

A represents the two parts of the split or divided bar or plate, which, in my improved driver, correspond with the blade of an ordinary screw-driver. In this case the said bar is divided nearly the whole length. At B the said parts diverge from each other, and they are made to spring thereat, so that the lower ends may be forced together and will spring away when released; but instead of this arrangement the bar may be divided the whole length and the upper ends pivoted, so as to swing to or from each other at the lower ends. The lower ends terminate in the wedge-like bits C, which constitute the part for engaging the nick of the screw, to which they are to be presented when separated, and

then forced toward each other to wedge tightly in the nick, which is represented in the form adapted for this kind of a screw-driver, and as I propose to make it at *g*, Fig. 3. In this case said bits are forced together by the handle D, through which the split bar extends, by the said handle being forced down along the widening parts at *a*. The said handle has strong plates E, which come down nearly to the screw-head when the bits C are so forced together on the two wide sides of the divided plate A, and serve to apply the force to the bits at the lower part of the plate A, where its strength is capable of transmitting said force to the screw.

Instead of forcing these parts of the divided bar together by the handle in the manner above described, I may have a lever or pawl pivoted in the lower end of the handle to act with its short arm on one of the said parts A, as shown in Fig. 4, or I may have the parts jointed together, as shown in Fig. 5, and a sliding piece, *d*, to act on the parts below the pivot to force them into the nick. This arrangement is more particularly adapted for screws with oval heads. The lever *b*, in Fig. 4, may hook up on the handle at *e* when the instrument is not being used.

This improved screw-driver will be found very useful in fine work like watch-making, in which the screws are too small to be held or guided by one instrument while acted on by the screw-driver, because it will hold and guide the screws as well as drive them.

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

1. The combination of the wedge-shaped bits C C, formed on the ends of the bars A, with a device for causing said bits to engage with the neck of a screw, substantially as specified.

2. The combination of the split or divided bar A, handle D, and plates or projections E, all substantially as specified.

JOHN S. ARMSTRONG.

Witnesses:

C. A. MACDONALD,
HALIBURTON WELDON.