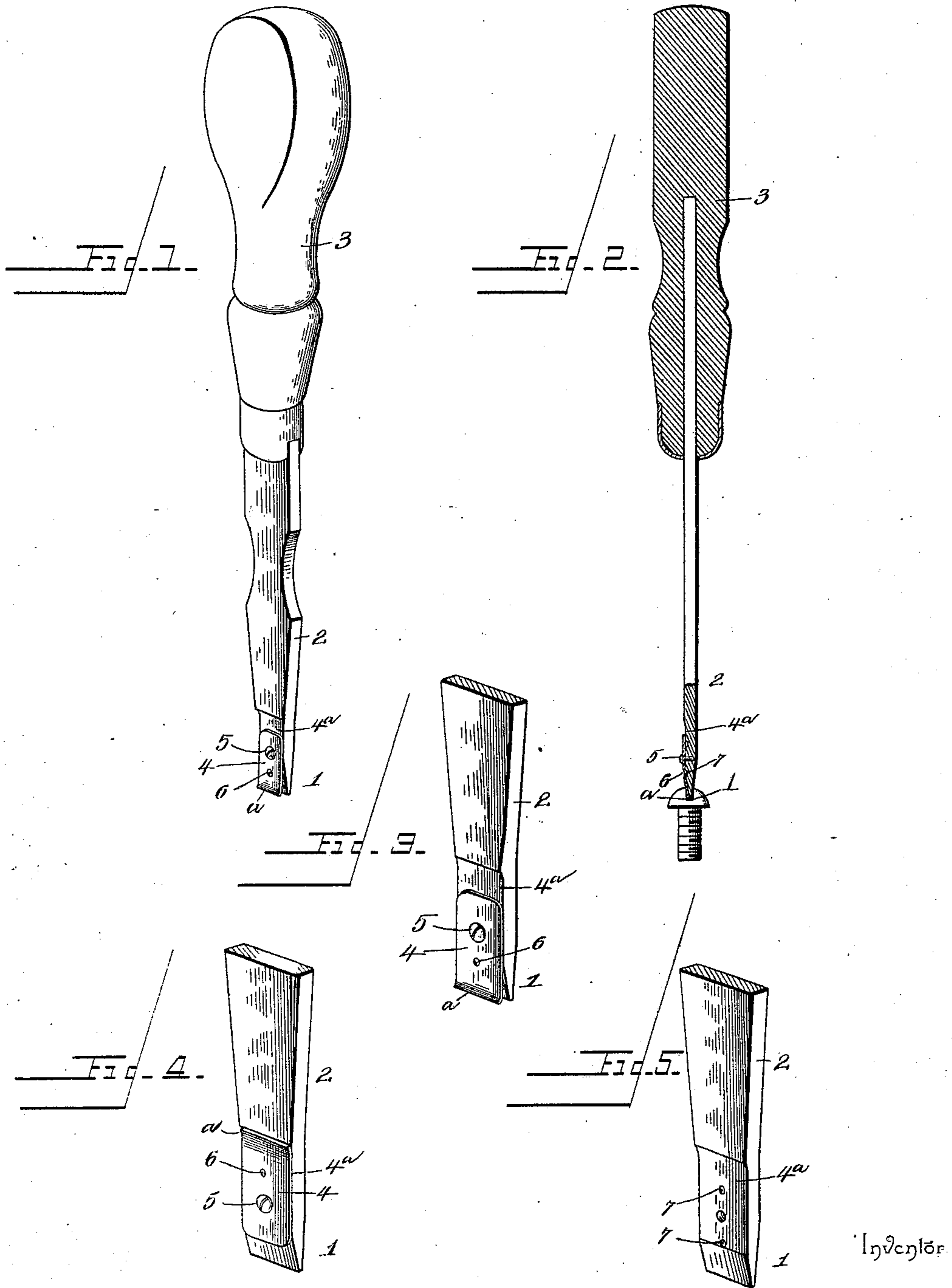


(No Model.)

S. I. SNYDER.  
SCREW DRIVER.

No. 532,830.

Patented Jan. 22, 1895.



Witnesses  
*Thos W Riley*  
*J. B. Owens*

By *his* Attorneys.

*Samuel Snyder,*

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# UNITED STATES PATENT OFFICE.

SAMUEL IDELL SNYDER, OF CLEARFIELD, PENNSYLVANIA.

## SCREW-DRIVER.

SPECIFICATION forming part of Letters Patent No. 532,830, dated January 22, 1895.

Application filed October 22, 1894. Serial No. 526,632. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL IDELL SNYDER, a citizen of the United States, residing at Clearfield, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Screw-Driver, of which the following is a specification.

This invention relates to an improvement on the device of my prior patent, No. 518,472, dated April 17, 1894, wherein a spring arm is formed integral with the point of a screw-driver and given a normal tendency away from the same, but made capable of lying snugly against it. By this construction I am enabled to insert the point of the driver and the end of the arm into the slot of a screw and thereby removably hold the screw on the tool, to the end that it may be inserted into inconveniently-situated places.

Now the present invention differs from the said patented device in that the arm instead of being formed integral with the tool, and incapable of occupying any position other than one directly alongside of the point thereof, is fulcrumed to the screw-driver at a point off the center of the arm so that the arm may be swung on its fulcrum to place it in operative position, or to place it out of operative position, and so that it will not encumber the point of the screw-driver when it is desired to use the same as ordinarily.

In the accompanying drawings: Figure 1 represents a perspective view of a screw-driver constructed after the manner of my invention; Fig. 2, a vertical longitudinal section thereof, it being shown in the act of holding a screw through the medium of the spring arm; Fig. 3, an enlarged perspective of the point of the screw-driver, and showing the arm operatively disposed; Fig. 4, a similar view showing it in the reverse position; Fig. 5, a view of the point of the tool showing the arm detached and illustrating the construction of said point, whereby the attachment of the arm is facilitated.

The reference numeral 1 indicates the point of the screw-driver, which is the terminal of the usual shank 2, and which shank is secured in the handle 3, all of which is well understood. Formed in one side of the point 1 is the reduced or depressed portion 4<sup>a</sup>, provided for the reception of the spring arm

aforesaid, so that the said arm will lie flush with the side of the shank 2, as may be seen by reference to the drawings.

4 indicates the spring arm, of prior mention, and this is constructed of a section of steel plate, fulcrumed to the point of the screw-driver by means of the screw or pin 5, which passes through it and into the point. This pin is passed through the arm 4 at a point off the center thereof, so that the arm will have one portion longer than the other. The difference in length is equal to a little less than two-thirds, though such a ratio is, of course, not essential. The short portion of the arm 4 is left truly straight so that it will lie snugly against the depressed portion 3 of the point 1, whatever be the position of the point, while the remaining portion of the arm is turned up or away from the point 1 to form a free end *a*, which has a normal tendency away from the point, as will be understood.

The arm is so situated, and the longer portion thereof made to have such a length, as will place it precisely commensurate with the point 1; and the width of the arm is also equal to the width of the point. Thus, when the arm is in operative position, the free end *a* lies directly adjacent to the point, but when its tendency is unsuppressed, out of contact therewith. On the other hand, as the arm is moved to an inoperative position, the free end *a* will lie directly adjacent to the shoulder formed by the reduced portion 4<sup>a</sup>, thus making the device neat and without projecting points or portions to detract from the convenience necessary to the commercial utility thereof.

The shorter portion of the arm 4, when it is in the position just referred to, will extend to a point perceptibly inward from the point proper of the screw-driver, thus leaving said point unobstructed and as free as in the ordinary screw-driver. Into this position the parts may be moved when it is desired to use the screw-driver without the arm, all of which is well illustrated in the drawings.

The larger portion of the arm 4 is formed with an indentation 6, which is about midway the length of said enlarged portion, and which is productive of a stud or projection on the inner side of the arm, as may be seen by reference to the sectional view of the drawings.

This stud or projection is adapted to co-operate with the counter-depressions 7 formed in the main depression 3. These counter-depressions 7 are two in number, one on each side of the pin or screw 5; and the one adjacent to the point proper is provided to hold the arm in operative position, while the remaining counter-depression has for its purpose to hold the arm in the position which it assumes when inoperatively arranged. By these means the arm may be held from useless play when arranged to be inoperative, and when arranged to be operative these devices furnish thoroughly efficient means for preventing the accidental displacement of the arms.

The use of my invention will be understood without any further description, and it will suffice for me to say that to grasp a screw with the device all that is necessary is to move the arm into operative adjustment and first press the free end  $\alpha$  of the arm against one side of the slot in the screw, causing said arm to be pushed into close engagement with the point of the screw-driver, and thereby permitting both the point and arm to enter the slot aforesaid, whereupon the arm will move outwardly and bind against the slot so as to hold the screw in connection with the tool. It will now be possible to insert and drive the screw, all of which will be understood.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described the invention, I claim—

1. A screw-driver having connected thereto and adjacent to its point a spring arm having a normal tendency at one end to project away from said point, the arm being capable of swinging on the screw-driver so as to move said end alongside of the point, or out of association therewith, substantially as described.

2. A screw-driver having fulcrumed thereto a spring arm, the said arm being fulcrumed off its center and having its longer end capable of projecting to a point commensurate with the point of the screw-driver and with a normal tendency away from the same, the arm being capable of swinging on its fulcrum so as to place said long end directly adjacent to the point of the screw-driver, or away from the same, substantially as described.

3. A screw-driver having connected thereto and adjacent to its point a spring arm having a normal tendency at one end to project away from said point, the arm being capable of swinging on the screw-driver so as to move said end alongside of the point, or out of association therewith, the screw-driver having formed therein adjacent to the arm a depression, and the arm having formed thereon a stud or projection, said stud or projection being capable of fitting in the depression, whereby the arm is held in position, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAML. IDELL SNYDER.

Witnesses:

W. F. BRADLEY,  
L. C. LANID.