

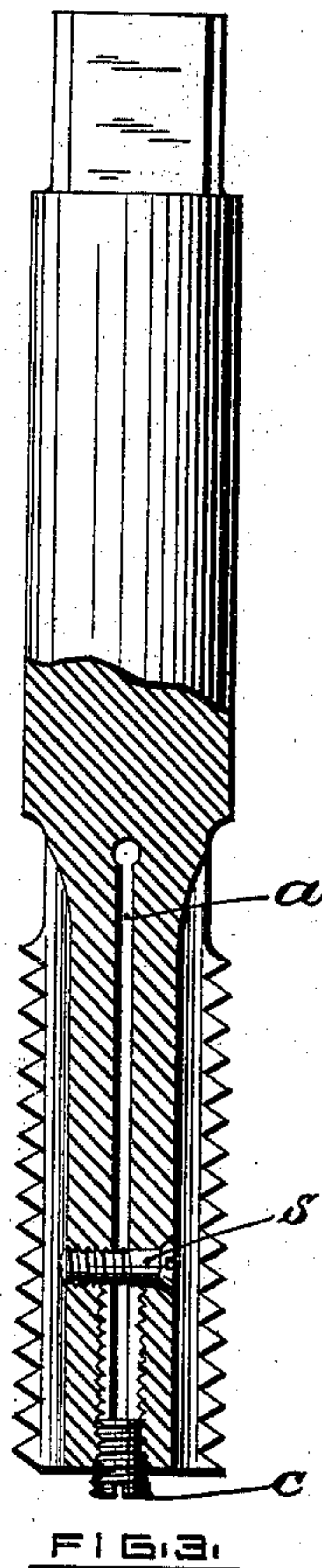
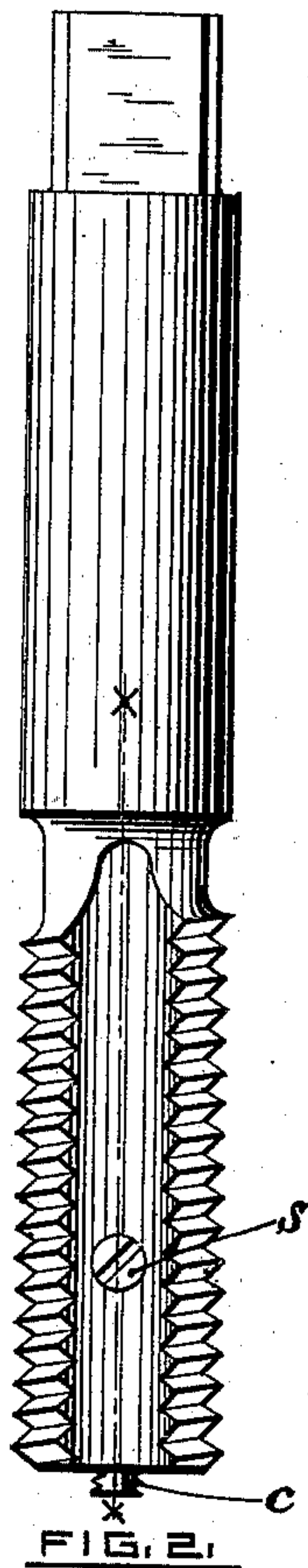
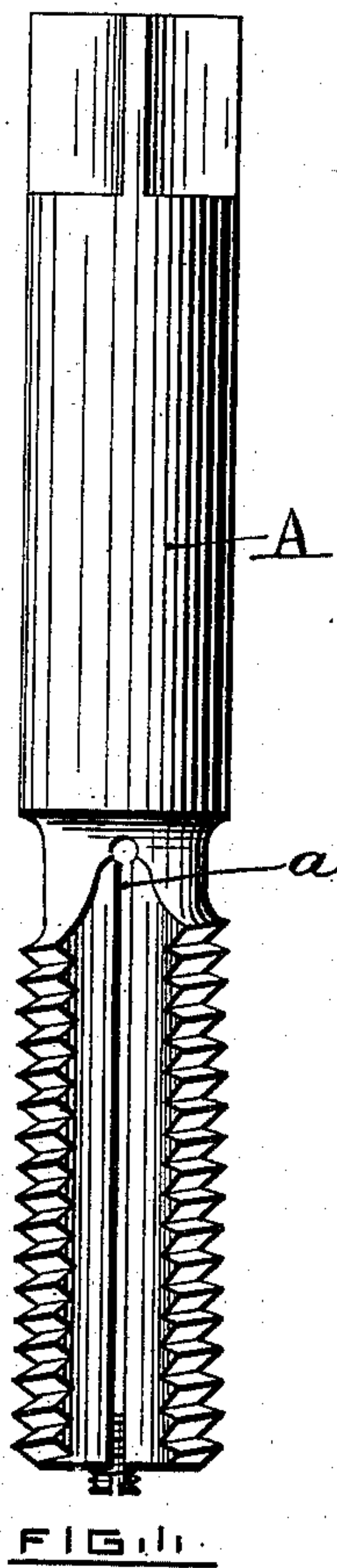
(No Model.)

C. R. C. FRENCH.

SCREW TAP.

No. 270,216.

Patented Jan. 9, 1883.



WITNESSES,

James E. Arnold
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INVENTOR,

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UNITED STATES PATENT OFFICE.

CICERO R. C. FRENCH, OF PROVIDENCE, RHODE ISLAND.

SCREW-TAP.

SPECIFICATION forming part of Letters Patent No. 270,216, dated January 9, 1883.

Application filed August 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, CICERO R. C. FRENCH, of the city and county of Providence, in the State of Rhode Island, have invented certain
5 new and useful Improvements in Screw-Taps, of which the following is a full and correct description, reference being had to the accompanying drawings, forming a part of this specification.

10 The object of my invention is to make a tap that can be adjusted so as to make up for the usual reduction in size from wear, and that shall insure a perfectly uniform size from the top to the bottom of a hole made in solid metal
15 as well as in material that is drilled entirely through.

In the drawings, Figure 1 is a representation of the tap. Fig. 2 shows the same turned one-quarter way around. Fig. 3 is a longitudinal
20 section through the center of the tap in the direction of the line $x x$, Fig. 2.

A is a screw-tap, through the center of which a longitudinal slot, a , is made, extending from the cutting end up through the threaded por-
25 tion of the tap.

c is a screw made slightly tapering from its lower end up, and fitted into a hole in the end of the tap A with a corresponding thread, so that as the screw is turned farther into the
30 tap it shall enlarge its size by spreading the two halves of the tap apart. The outer end of this screw c may be made square to receive a wrench, or it may be slotted for a screw-driver. At a short distance above the end of
35 the screw c a hole is made through the center of the tap across the slot a , into which a stay-screw, s , is fitted, that part of the screw consisting of the head and neck being fitted to
40 part fitted to screw into the other half of the

tap, so that the screw when turned in the right direction shall draw the two parts of the tap together and hold them from being pushed out of place in using.

It has been found very difficult in furnish- 45 ing duplicate parts of engine work and other accurately-fitted machinery to secure a good fit at all times, on account of the wearing away of the tools in use, especially in screw-holes not drilled entirely through the metal, and 50 which have to be tapped with a "bottoming-plug tap," the end of which, wearing away, makes the hole smaller at the bottom than on the outside. This difficulty is entirely over-
come with my improvement, for as the tap 55 wears away the stay-screw s can be slightly loosened and the adjusting-screw c turned a little farther into the end of the tap until it is expanded to its original size, and, what is
60 important, the expansion will be greatest at the end of the tap, where the most wear naturally takes place. This feature, it is believed, is not found in any of the expanding taps in use.

Having thus described my improvement, 65 what I claim as my invention, and desire to secure by Letters Patent, is—

1. A tap for cutting screw-threads, having a slot through its center extending from its cutting end up, substantially as shown and de- 70 scribed, and for the purpose set forth.

2. The combination of a screw-tap, slotted substantially as shown and described, with the stay-screw s and the adjusting-screw c , substantially as and for the purpose set forth.

CICERO R. C. FRENCH.

Witnesses:

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