

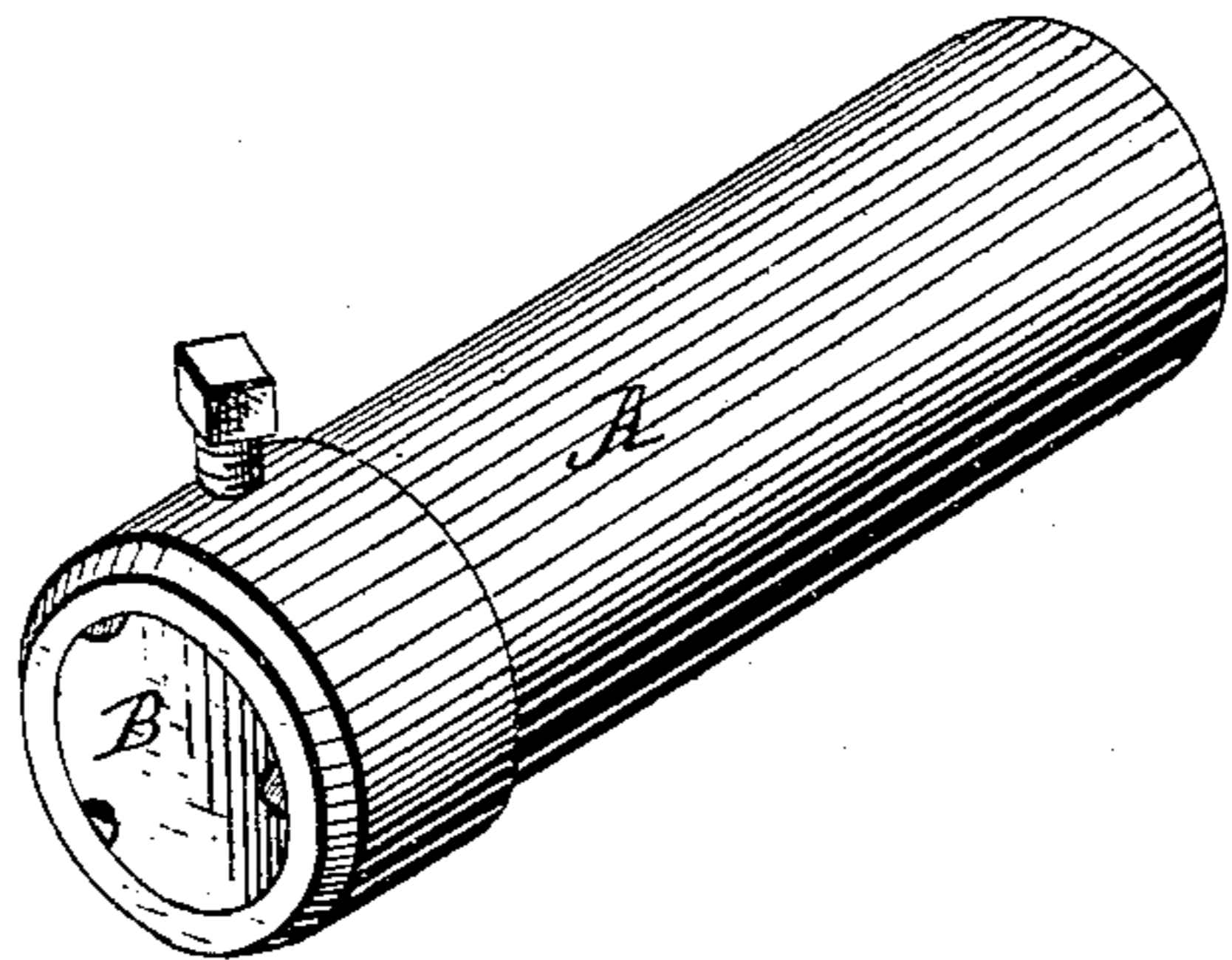
(Model.)

T. T. PROSSER.  
Wire Coiler.

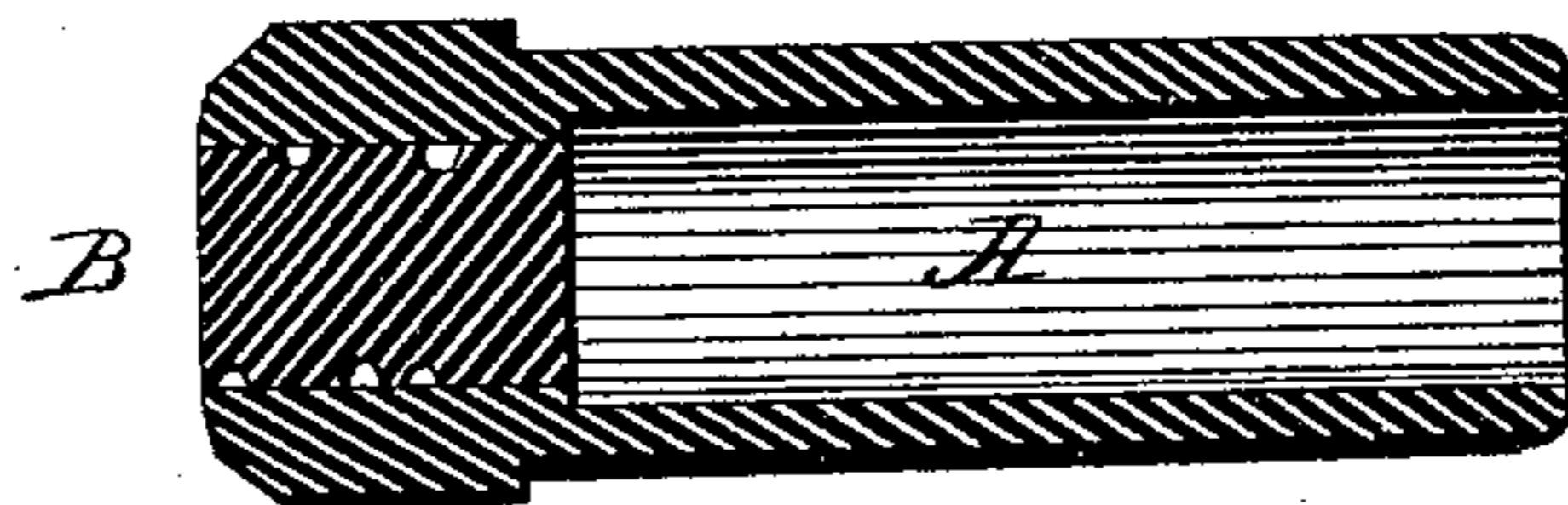
No. 231,093.

Patented Aug. 10, 1880.

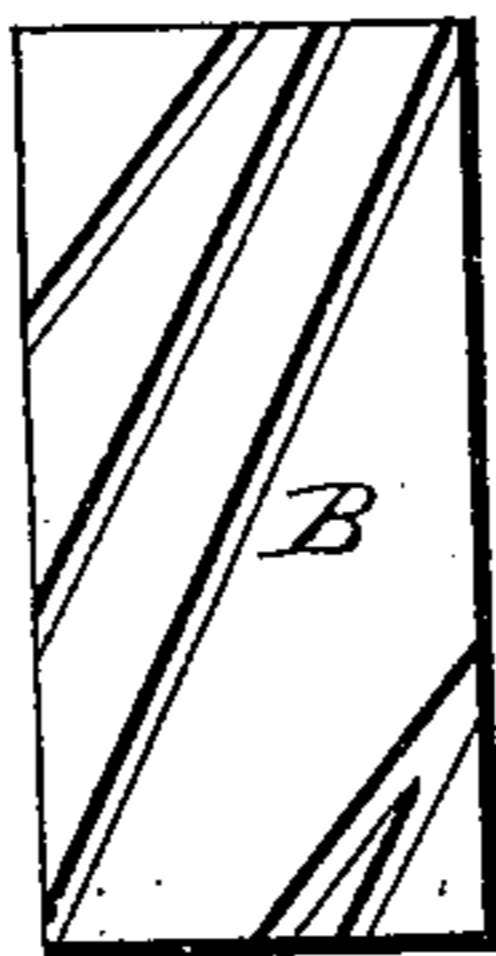
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses.  
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# UNITED STATES PATENT OFFICE.

TREAT T. PROSSER, OF CHICAGO, ILLINOIS.

## WIRE-COILER.

SPECIFICATION forming part of Letters Patent No. 231,093, dated August 10, 1880.

Application filed May 6, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, TREAT T. PROSSER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wire-Coilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-  
10 pertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to devices for convert-  
15 ing straight wire into spiral wire by the action of a fixed coiler or spiral-former through which the wire is pushed by feed-rolls, and which is composed of a spirally-grooved core fixed and snugly fitting in a stationary tube.

20 My invention consists in constructing the core with two or more spiral grooves to adapt it for forming spirals differing in pitch.

In the annexed drawings, Figure 1 is a perspective view of my improved spiral-former. 25 Fig. 2 is an axial section of the same. Fig. 3 illustrates the grooved surface of the core projected upon a plane, the grooves being of different pitch.

30 The same letters of reference are used in all the figures in the designation of like parts.

A refers to the tube of the spiral-former, which is to be held stationary and in proper relation to a tube-guide, through which the wire is pushed by a pair of feed-rolls into the  
35 spiral-former, in manner well understood by those skilled in the art.

B refers to the core of the spiral-former, and is composed of a short solid plug having spiral grooves in its surface, and snugly fitted in one  
40 end of the tube A, where it is held fixed by means of a set-screw, so that it may be adjusted in the tube to change the line of wear on the tube.

45 Fig. 3 represents the surface of a core the grooves in which are of different pitch, so that

it may at different times form spirals differing in pitch. It is not deemed expedient to have the grooves cross one another, because such a construction would render the operation of the former rather uncertain, and might, under some 50 circumstances, render it wholly impracticable. Hence the core is made so short that the longest groove—that is, the one of least pitch—shall have only about one turn around the core. The grooves may thus be all independent of 55 one another, although it is not objectionable to have the discharge ends of two or more grooves meet, as indicated in Fig. 3.

Each groove in the core B may differ in diameter from the others, in order to adapt one 60 core to form spirals in different numbered or sized wires.

The tube A exceeds the core in length to a considerable extent, so as to support and guide the newly-formed spirals for a distance of 65 several turns. The elongated portion of the tube has a bore exceeding in diameter that of the core, to admit of the expansion of the newly-formed spirals, and thus reduce friction.

I do not herein claim a spiral-former com- 70 posed of a short spirally-grooved core and an elongated tube having a bore in its elongated portion exceeding the diameter of the core, as this feature is claimed in another application for a patent filed by me of even date with the 75 application for this patent; but

What I claim herein as new is—

A spiral-former for making spiral wire, composed of a tube and a short core fitted therein, the core being provided with two or more in- 80 dependent non-intersecting spiral grooves of different pitch, substantially as before set forth.

In testimony whereof I affix my signature in presence of two witnesses.

TREAT T. PROSSER.

Witnesses:

H. B. PROSSER,

H. W. ANDERSON.