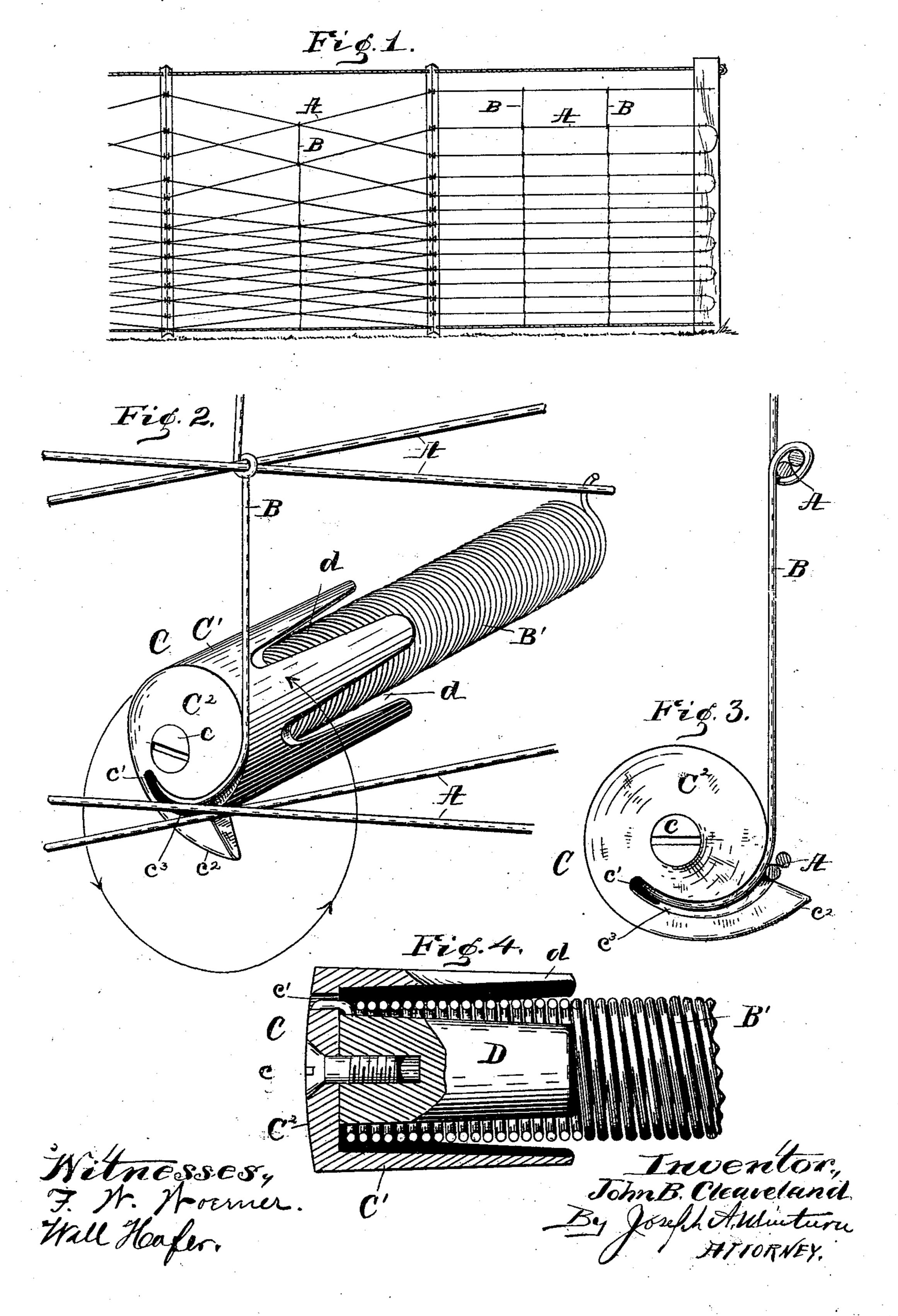
(No Model.)

## J. B. CLEAVELAND. TOOL FOR WIRING FENCES.

No. 562,170.

Patented June 16, 1896.



## United States Patent Office.

JOHN B. CLEAVELAND, OF INDIANAPOLIS, INDIANA.

## TOOL FOR WIRING FENCES.

SPECIFICATION forming part of Letters Patent No. 562,170, dated June 16, 1896.

Application filed October 14, 1895. Serial No. 565,582. (No model.)

To all whom it may concern:

Beitknown that I, John B. Cleaveland, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Tools for Weaving Fence-Wires; 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 appertains to make and use the same.

The objects of this invention are to provide a tool for weaving the transverse wires in a wire fence which are made to connect the longitudinal wires of said fence and to provide a cheap and durable tool that can be used in very limited spaces and that will require less effort to twist the wires than the tools heretofore employed for similar work.

I accomplish the objects of the invention by the mechanism illustrated in the accom-

panying drawings, in which—

Figure 1 represents a wire fence, showing the transverse wires for the application of which this tool is designed. Fig. 2 is a view in perspective of my improved tool in position ready for use and showing the adjacent strands of the fence to which the transverse wire is being applied. Fig. 3 is a detail in end view of the tool and shows the strands of the fence in transverse section. Fig. 4 is a view in longitudinal section of my improved wire-weaving tool.

Similar letters refer to like parts through-

35 out the several views of the drawings.

A represents the longitudinal fence-strands, which may run parallel with each other and with the ground, or may wholly or in part be placed diagonally. B are transverse wires intersecting the longitudinal strands and secured thereto by being twisted or wrapped around the said strands in the manner shown in Figs. 2 and 3.

C is my improved tool, which I will call a

"spider," because it weaves a web in a manner that suggests the insect of that name.

This spider consists of a cup-like shell C', having the integral bottom or head C<sup>2</sup> and also having the central inside stem or core D,

which may be cast integral with the shell C', or it may be made separately and secured by

means of a screw c, as shown in the drawings. The head  $C^2$  will be provided with the slot c' and on its circumference with the spur or lug  $c^2$ .  $c^3$  is a groove or channel extending from 55 the base of the spur  $c^2$  to the slot c', with

which it merges.

The wire B, forming the transverse strands of the fence, is wound into coils, (shown at B'.) One of these coils is slipped into the 60 shell C', over the stem D, as shown in Fig. 4, and the end of the wire is threaded through the slot c' and made fast to the top longitudinal wire. The shell, with its wire coil contained therein, is then grasped by the hand 65 of the operator and forced down till the spur  $c^2$  engages the next lower strand of the fence in the manner shown in Figs. 2 and 3. The wire B, after passing out through the slot c', follows the groove  $c^3$  and forms a friction 70 contact therewith, whereby the tension on the wire can be regulated. When the spur  $c^2$  is caught under the longitudinal strand sought to be wrapped, the spider is given a rotary movement, which carries it and its 75 wire around the said strand in the direction indicated by the darts in Fig. 2. As many wraps can be given as may be desired and the spider carried down to the next strand, weaving its web as it goes.

In order to secure a better handhold on the shell, the longitudinal slots d will be provided in the manner as clearly shown in Fig. 2.

The compact form of my tool and the fact that it has only one spur or point of engage-85 ment with the horizontal strand of the fence enable me to operate between strands which are close together, and in angles and corners not accessible to other forms of tools for this work.

Having thus fully described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. A tool for wiring fences, comprising the shell C' having the slot c', spur  $c^2$ , and the inclosed stem D, and adapted to receive the coiled extension B', which is inserted in the shell and fed through the slot in the manner substantially as described and shown.

2. A tool for wiring fences, comprising a 100 cup-like shell having an inside stem around which stem a coil of wire may be placed, the

bottom of said cupped shell having a slot through which the end of the coiled wire may be threaded, and said shell having a circumferential spur, substantially as described and 5 specified.

3. A tool for wiring fences consisting of the shell C' having the slots d, the head C<sup>2</sup> integral with the shell and having the slot c', spur  $c^2$ , and groove  $c^3$ , and the inside stem D se-

cured in a suitable manner to the head C<sup>2</sup>, 10 substantially as described and specified.

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

JOHN B. CLEAVELAND.

Witnesses:
JOSEPH A. MINTURN,
F. W. WOERNER.