

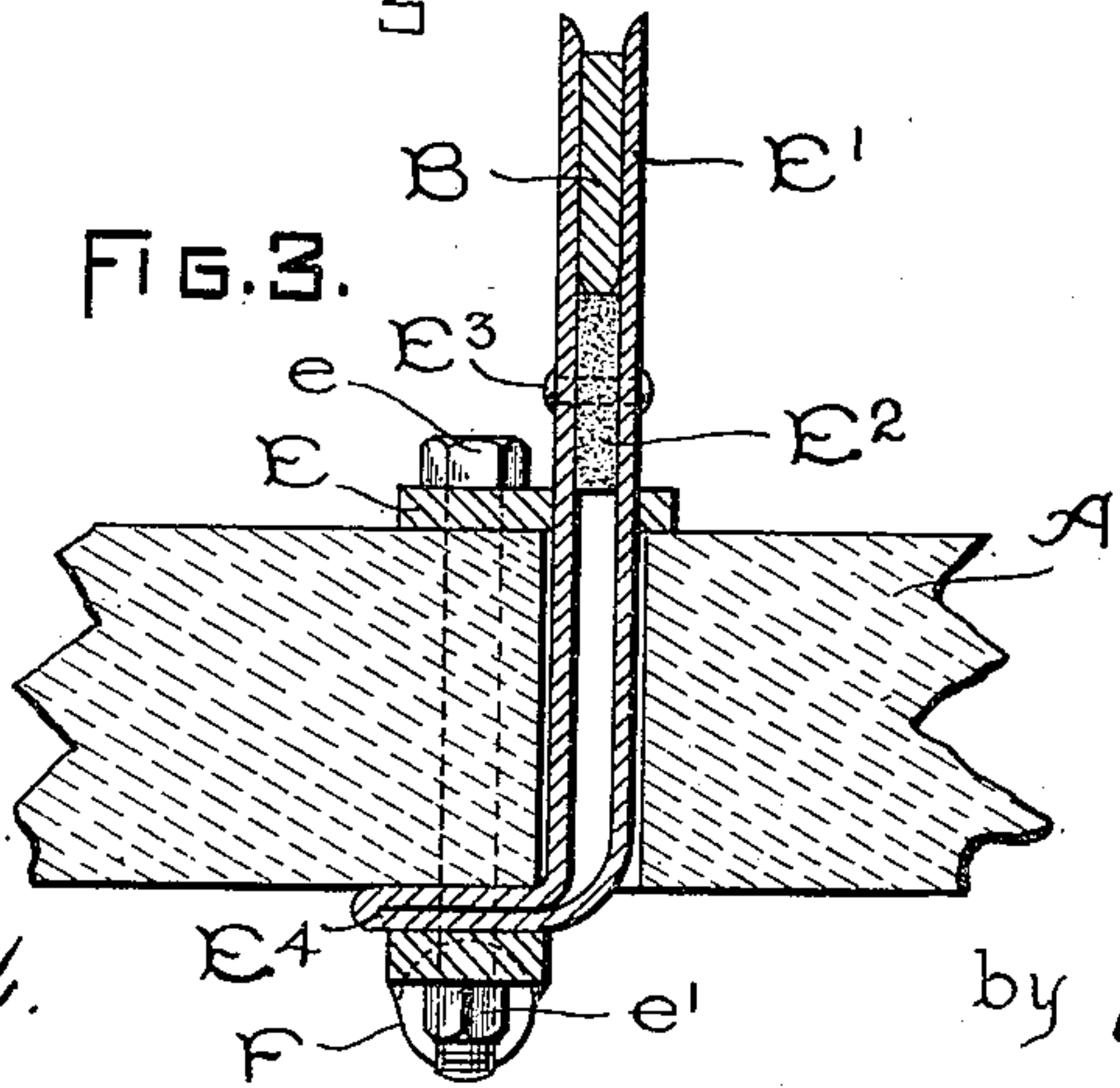
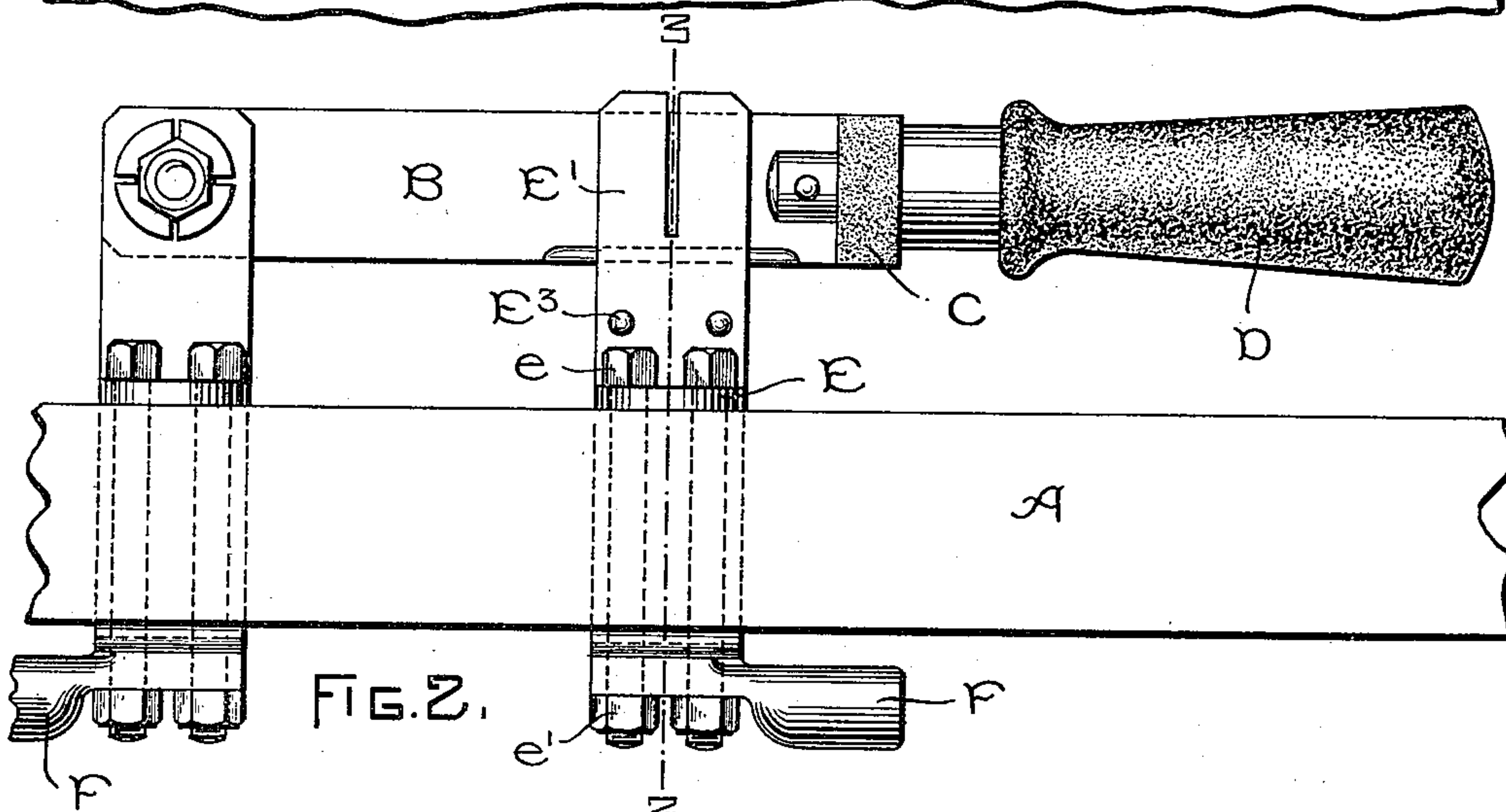
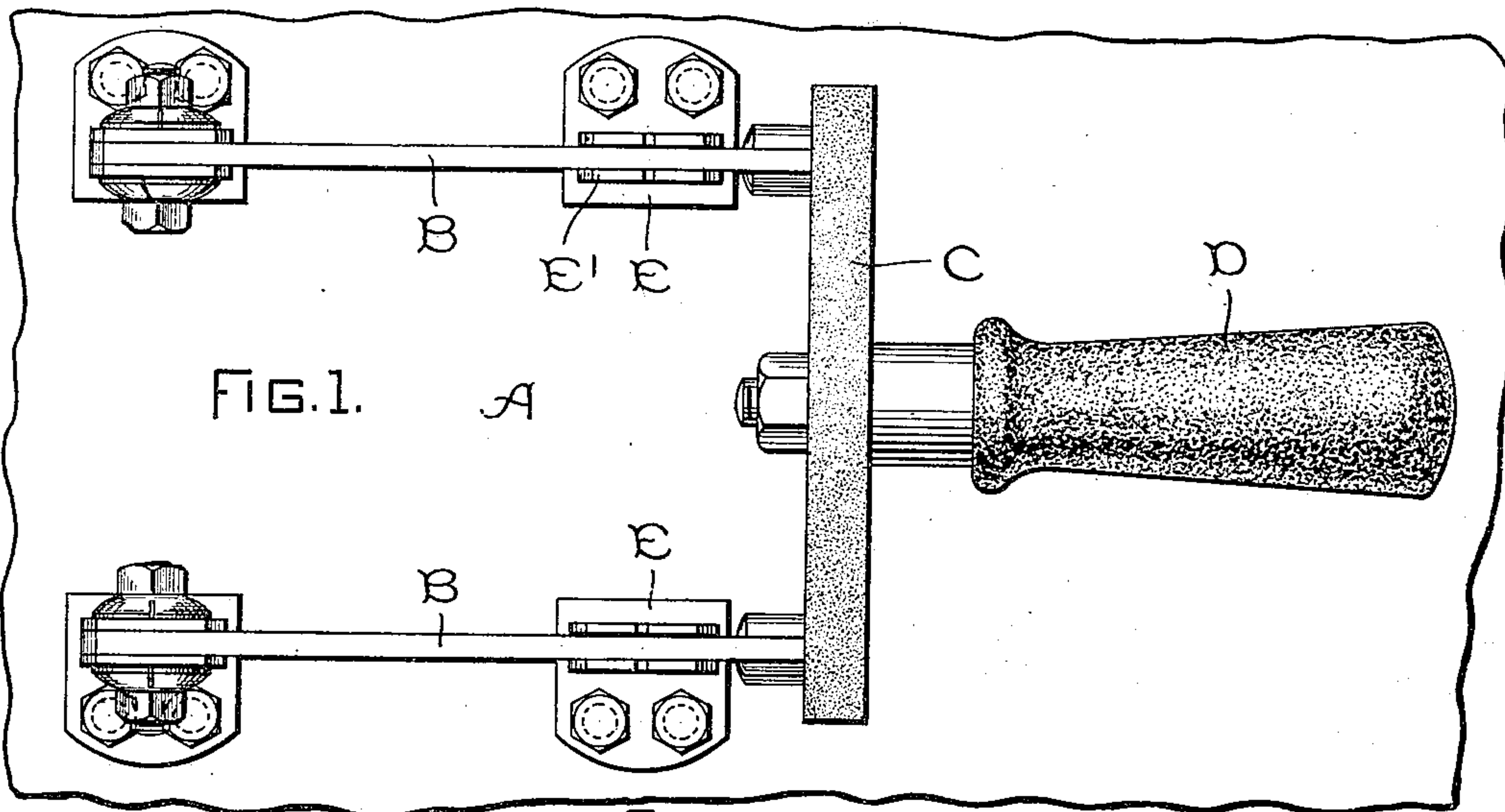
No. 663,496.

Patented Dec. 11, 1900.

E. M. HEWLETT.  
ELECTRIC SWITCH.

(Application filed Feb. 11, 1899.)

(No Model.)



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 663,496, dated December 11, 1900.

Application filed February 11, 1899. Serial No. 705,238. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD M. HEWLETT, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Electric Switches, (Case No. 858,) of which the following is a specification.

My present invention relates to switches for electric circuits. Its object is to provide a cheap and efficient form of switch in which is used a punched clip consisting of an integral strip of conducting metal pressed into form at a single operation. As these switches have heretofore been constructed they have only been adapted to contacts upon the face of the board. It is one object of my present invention to adapt this form of terminal to back-contact switchboards—that is, to those in which the circuit-terminals are brought to the back of the board and the contacts connecting them to the switch are brought through the switchboard. For this purpose I form the clip of an integral strip of conducting metal bent upon itself, having the closed end bent at substantially a right angle, while the free ends have a space between them for the reception of the switch-blade. The closed end is disposed upon one side of the switchboard, the clip projecting through a slot in the board to a sufficient height beyond its front surface to permit the switch-blade to make good contact.

The accompanying drawings show the invention as applied to a double-pole switch, though of course it could be used with any form of knife-blade switch.

Figure 1 is a plan, Fig. 2 a side elevation, and Fig. 3 a section on the line 3 3 of Fig. 2, of such a switch.

A is the base or the main body of a switchboard.

B B are the switch-blades, C is a bar of insulation connecting them, and D is the handle.

E is a plate secured to the base, suitably slotted to allow the clip to pass through it.

E' is the clip, and F F are the circuit-terminals, which, as best seen in Fig. 2, are disposed upon the back of the switchboard.

The details of the clip are best seen in Fig.

3, in which E' is one of the clips, and E<sup>2</sup> is a block spacing the sides of the clip apart. A rivet E<sup>3</sup> secures the block and the sides of the clip in their relative positions. At E<sup>4</sup> is the right-angled bend, to which I have referred. Suitable bolts *e* and nuts *e'* secure the parts in position. It will be observed that the distance-piece E<sup>2</sup> and the slotted plate E coact to hold the terminals or clips in the proper positions.

My improved switch is simple, strong, and cheap, and at the same time is so constructed that the clips are always parallel, which greatly adds to the carrying capacity.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a switch, a blade pivoted to a support, a pair of clips extending through the support and bent to bear against the rear side, a clamp-plate engaging the clips at the front of the support, and a bolt holding the clamp-plate and clip against the support.

2. In a switch, the combination of a blade pivoted to a support, a pair of clips and a spacer riveted together, said clips passing through the support and bent against its rear wall and secured thereto and to a terminal.

3. In a switch, a base, a blade, a clip composed of a single strip of conducting metal bent upon itself, extending through the base, and means for securing the circuit-terminals thereto at the rear of the base.

4. The combination, with the base of an electric switch, of a clip composed of a single strip of conducting metal doubled upon itself, passing through the base, having its closed end bent against the back of the base and connected with a terminal, and its free ends projecting beyond the base to receive a switch-blade.

5. The combination with a base of insulating material, of a switch blade or blades, a punched clip formed of an integral strip of conducting metal doubled upon itself and having its closed end bent at an angle against the back of the switchboard, the free ends projecting through the switchboard and held in place by a slotted plate through which they pass and a block placed between them and secured in position.

6. As a new article of manufacture, a clip

for an electric switch, composed of an integral strip of conducting metal doubled upon itself, having its closed end bent at an angle, thereby providing a double wall of supporting metal at the bent end to afford stiffness  
5 when mounted, and a space between its free ends to accommodate a switch-blade.

In witness whereof I have hereunto set my hand this 10th day of February, 1899.

EDWARD M. HEWLETT.

Witnesses:

B. B. HULL,

EDWARD WILLIAMS, Jr.