

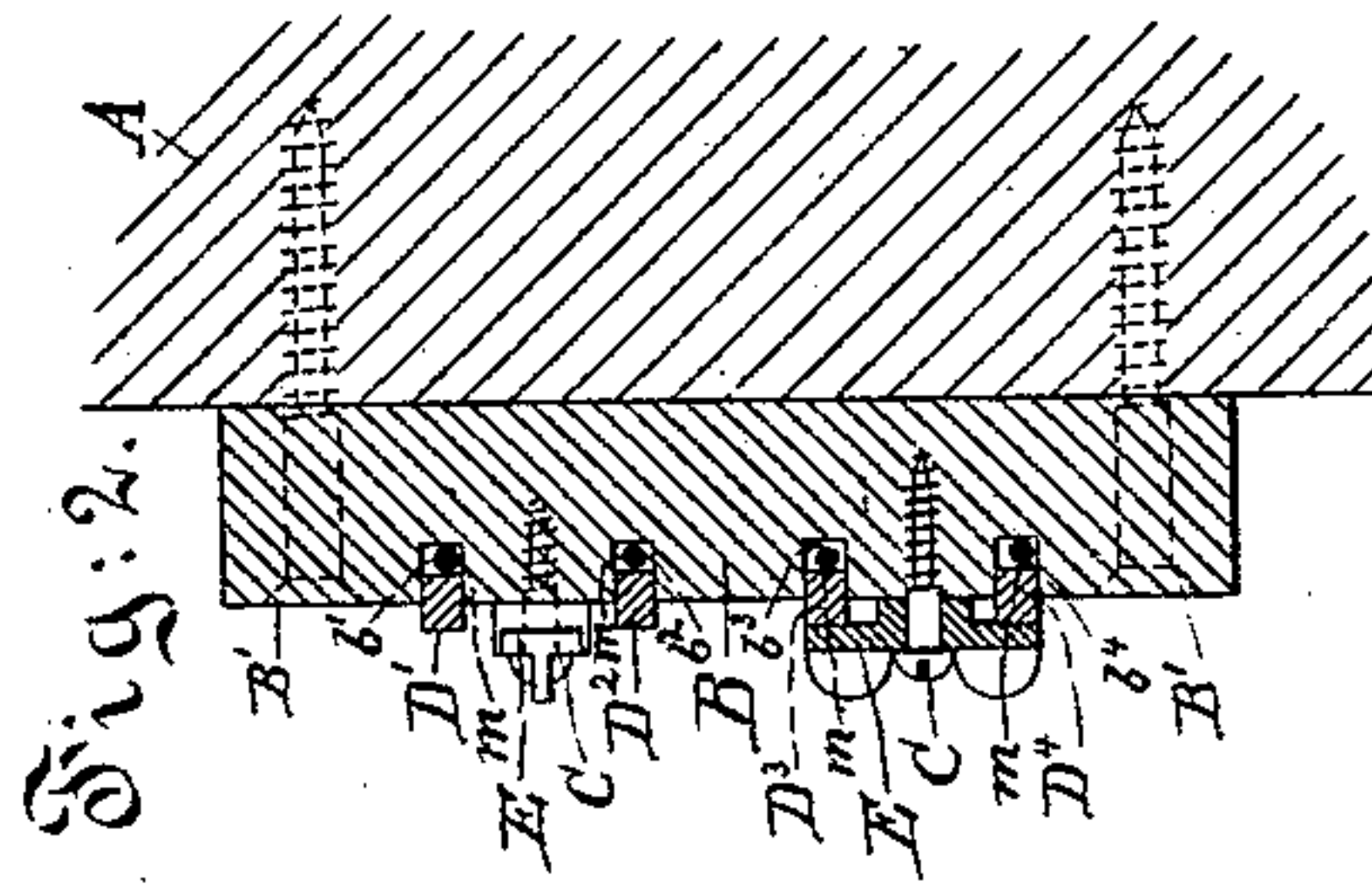
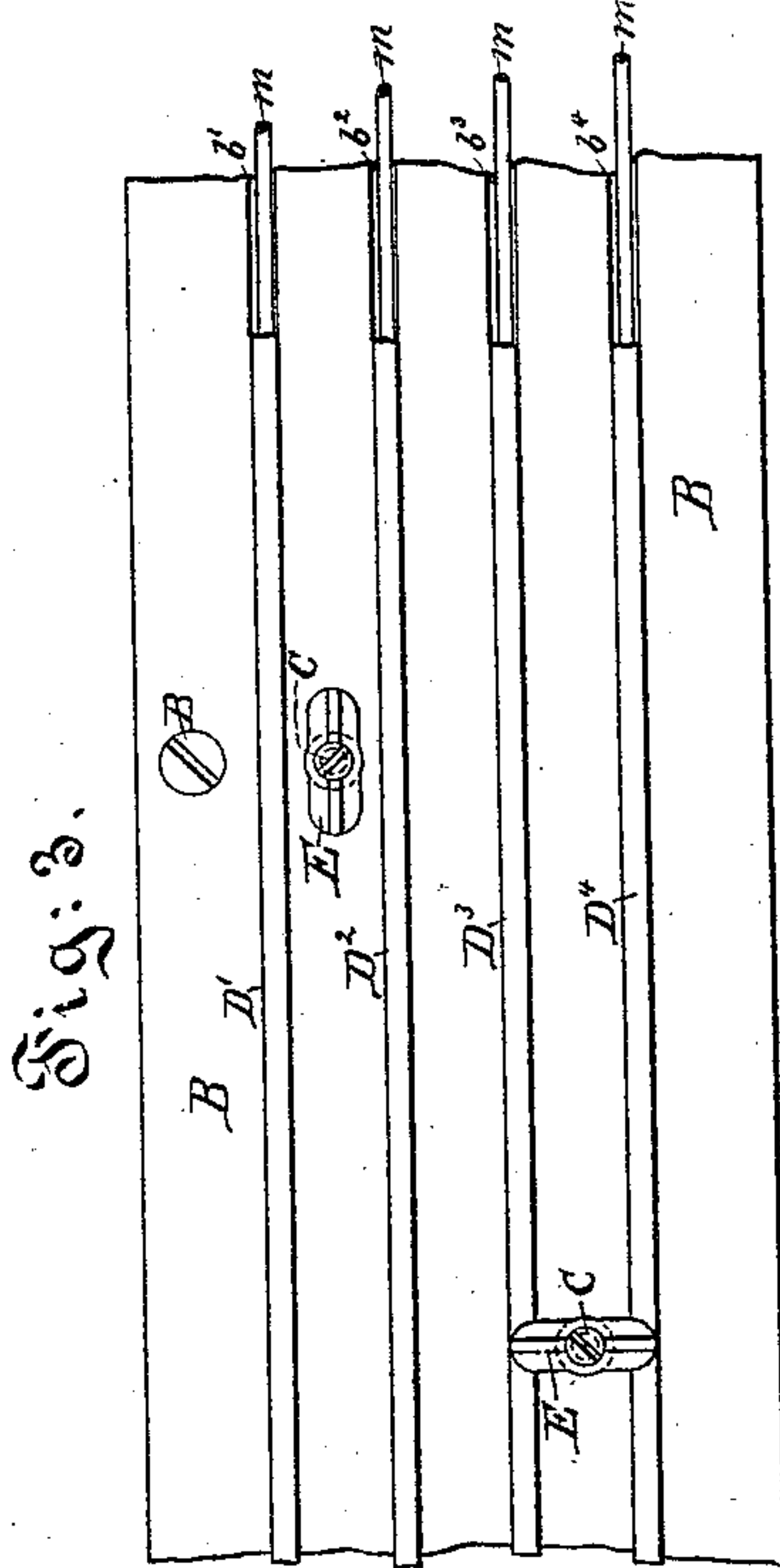
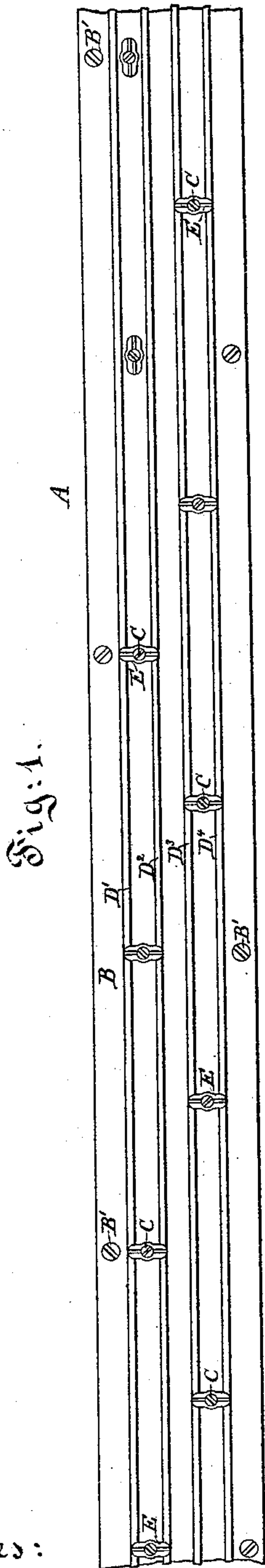
(No Model.)

J. O. COTTRELL.

ELECTRICAL WIRE PROTECTOR.

No. 278,885.

Patented June 5, 1883.



Witnesses:

L. H. Jones
W. F. Boyle

Inventor:

Joseph O. Cottrell
by his attorney
Thomas L. Stearns

UNITED STATES PATENT OFFICE.

JOSEPH O. COTTRELL, OF FANWOOD, NEW JERSEY.

ELECTRICAL-WIRE PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 278,885, dated June 5, 1883.

Application filed January 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH O. COTTRELL, of Fanwood, Union county, in the State of New Jersey, have invented certain new and useful Improvements in Electrical-Wire Protectors, of which the following is a specification.

A form of protector has been proposed, and to some extent used, in which strips of wood or other suitable material of proper thickness are grooved on one face and applied by nails or other fastenings, with the grooved side against the wall, inclosing the wires in the grooves. The operation involves difficulties which the present invention is intended to overcome. I groove the front face instead of the back face of a board to be correspondingly fixed on the wall and to receive the wires in such grooves. I provide strips of wood or analogous material, each of a width just sufficient to tightly fill its groove, and after placing one or more wires in each groove apply such strip and press it into the groove. The construction affords a mechanical protection for the wires and defends other objects from being affected by the electricity passing through the wires. It also preserves the wires from the access of moisture. By the removal of one or more of the strips I can examine the wires, exchange them, or add new ones without disturbing the board or the other wires. I provide convenient means for holding the several strips, so as to allow of their ready removal and replacement when required.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a general front view, showing a considerable length of the structure. The succeeding figures are on a larger scale. Fig. 2 is a cross-section. Fig. 3 is a front view of a portion. The figures show the device in the condition which allows the removal of the covering-strips from a portion of the upper wires.

Similar letters of reference indicate like parts in all the figures.

A is the wall of the building.

B is the board, and $b' b^2$, &c., are the several grooves therein.

B' are screws or other fastenings attaching the board B to the wall A.

$D' D^2$, &c., are the covering-strips. Each is matched to the width of its respective groove as nearly as is practicable. Each is of a thickness sufficient to project or lie with its front face protruded beyond the surface of the board B when it is pressed home upon one or more wires, m .

C C are wood-screws inserted in the board B.

E E are freely-turning cross-pieces or "buttons," adapted to turn on the screws C as pivots. In one position each button presses on the front face of two strips, as $D' D^2$. When turned a quarter around, the button is of no effect, and allows either or both of the strips to be removed.

Modifications may be made in the forms and proportions. I can use a less number of grooves and strips. I can use other material than wood. Papier-maché may serve well for the strips D' , as also for the main portion B. I use the term "board" to indicate a sufficiently firm non-conducting structure, without regard to its precise material.

It will be understood that when more than one wire is inclosed in a groove, as b' , they should be effectually insulated by a coating of gutta-percha, or by other suitable means.

I claim as my invention—

The buttons E and pivots C, in combination with each other and with a series of wires, m , separately removable strips, as $D' D^2$, with the board B, having grooves $b' b^2$, arranged for joint operation, substantially as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH O. COTTRELL.

Witnesses:

W. C. DEY,

W. H. SPRINGMEYER.