

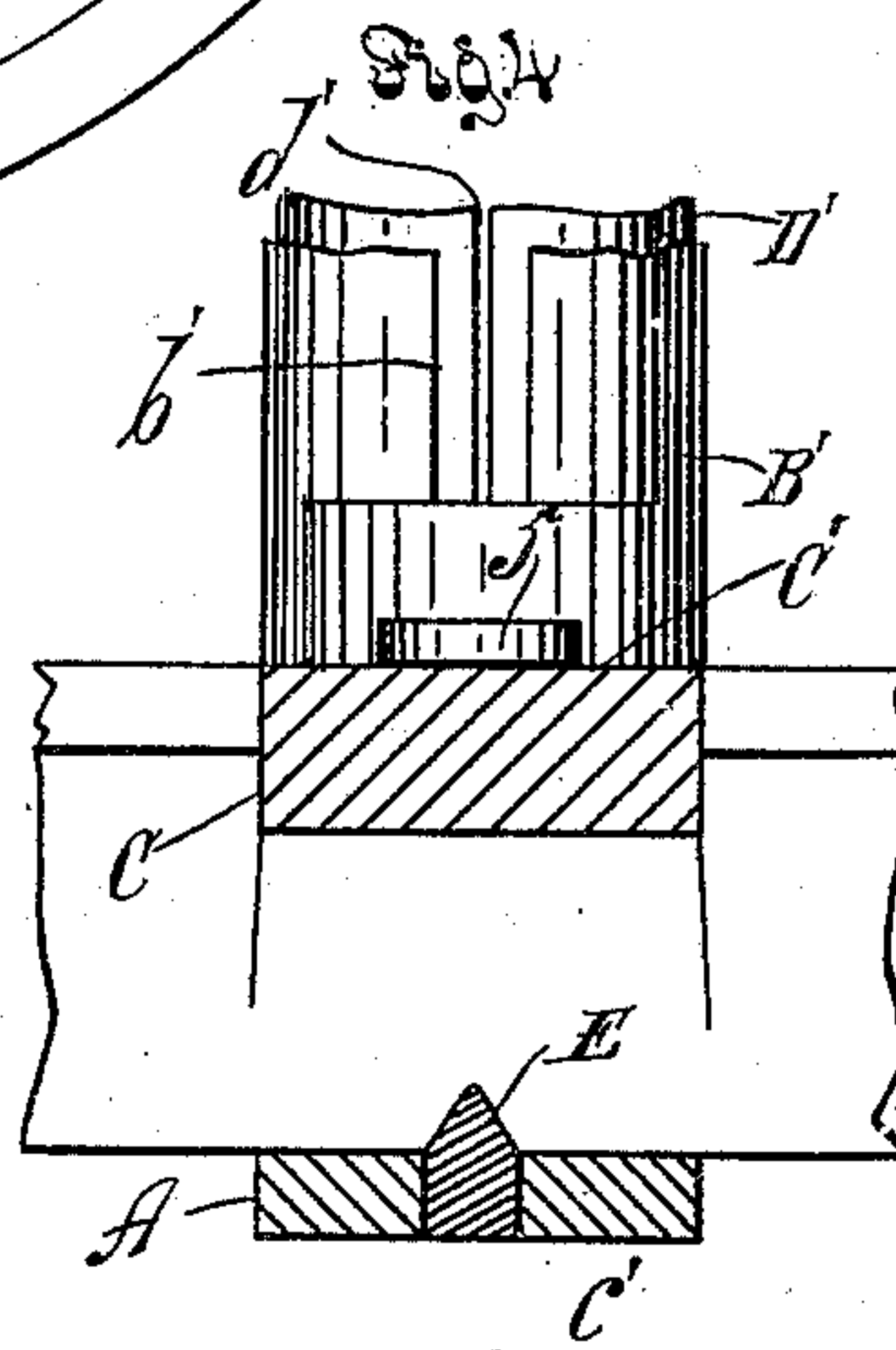
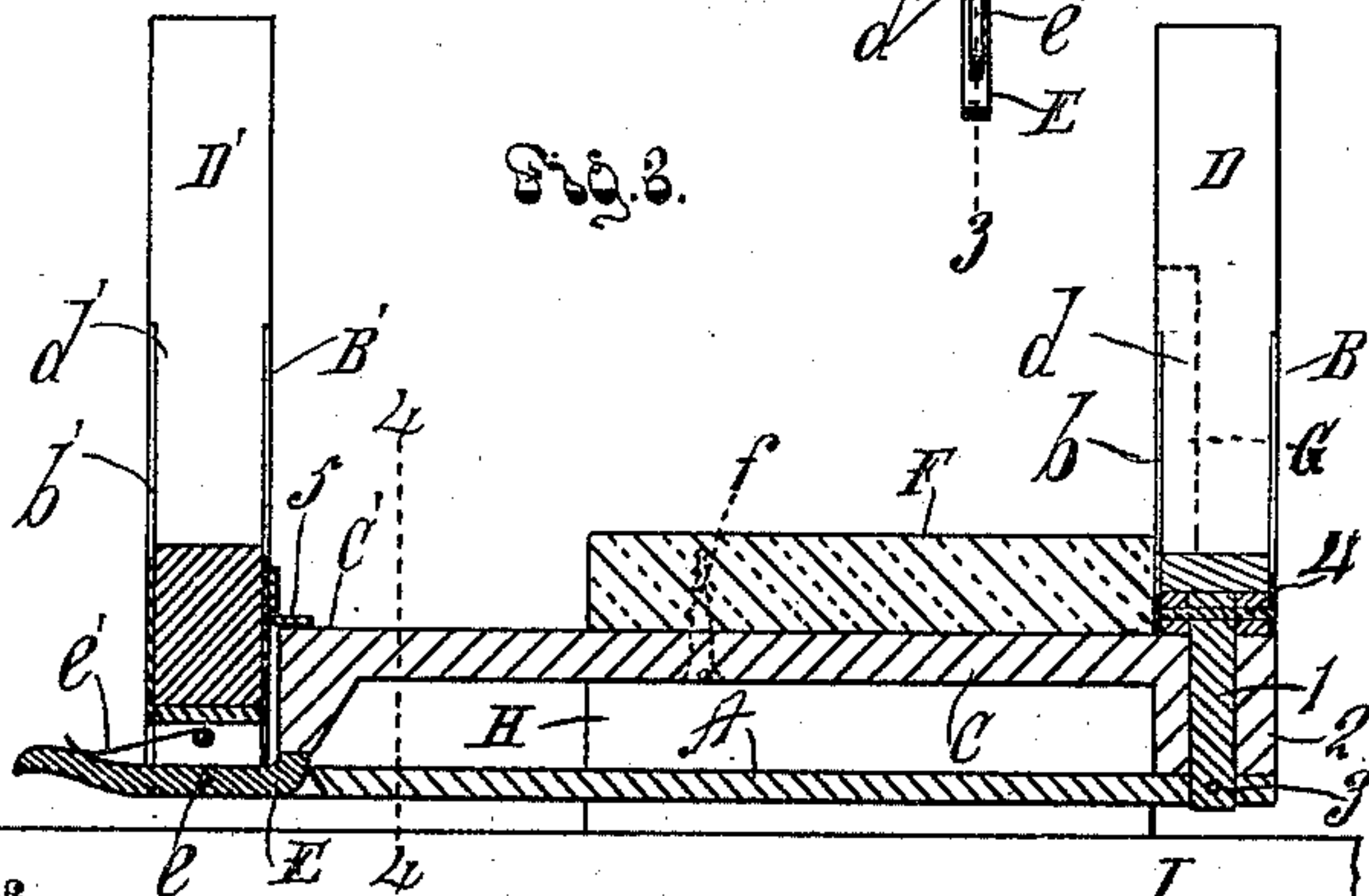
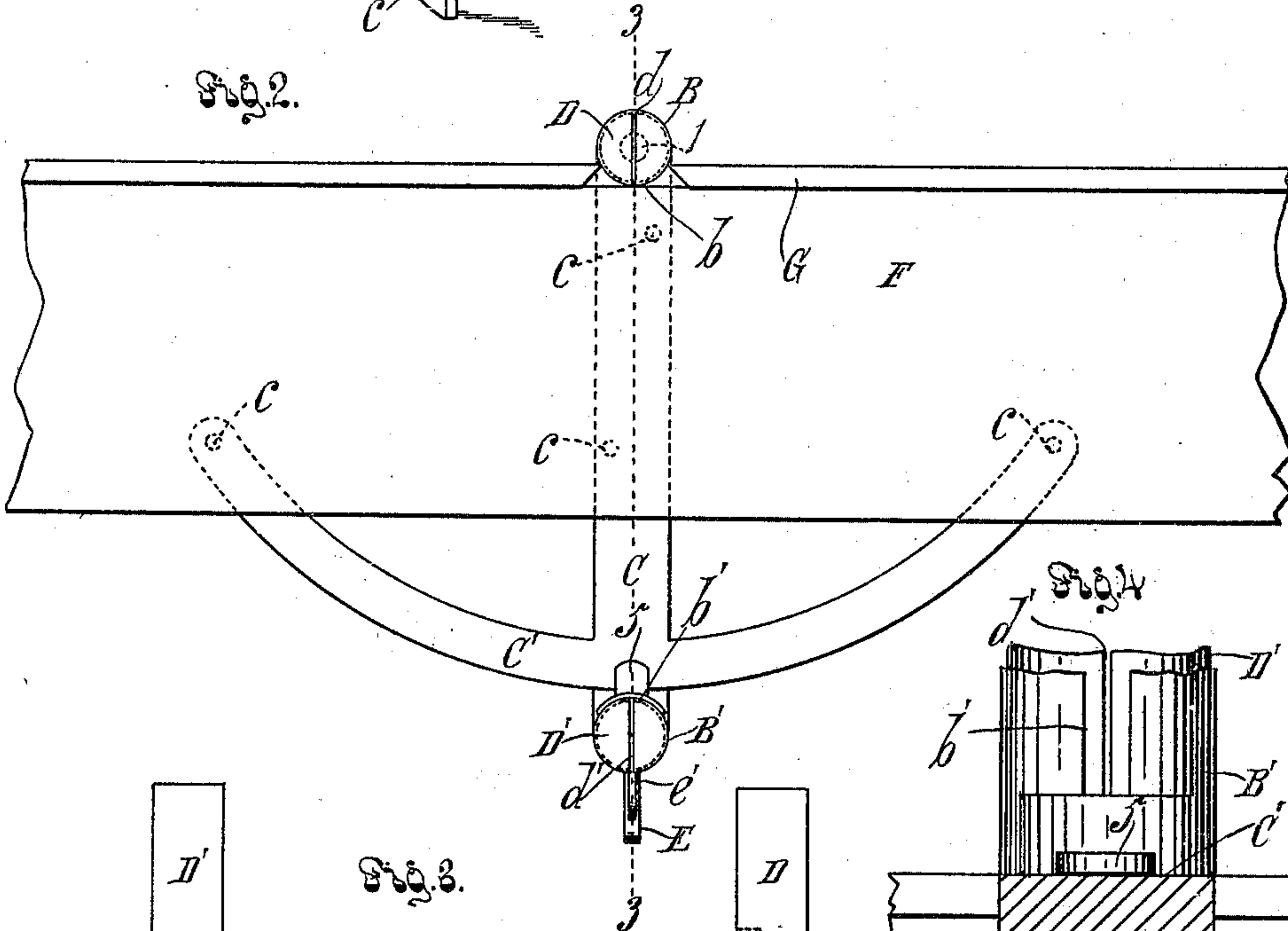
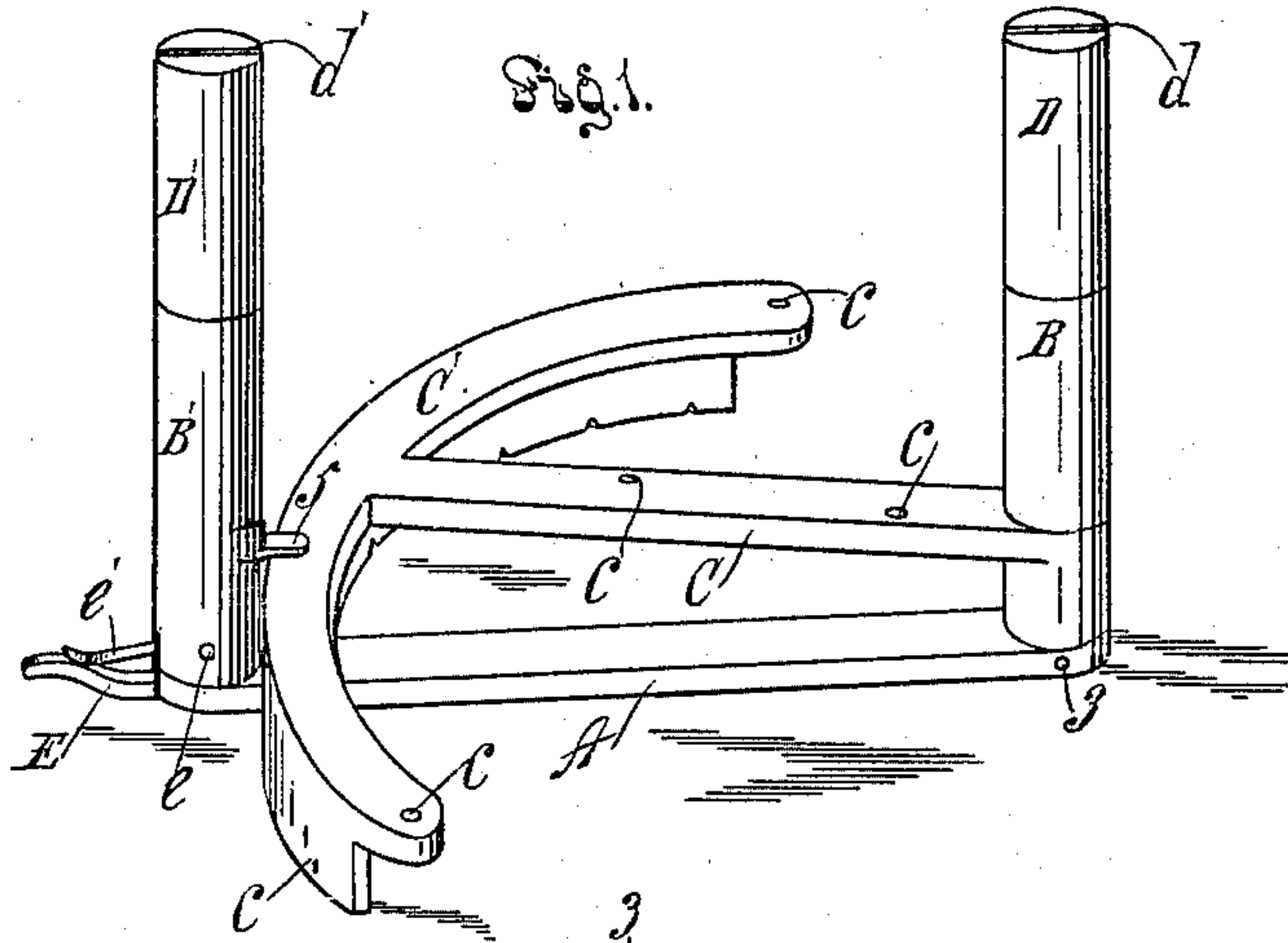
No. 639,388.

Patented Dec. 19, 1899.

P. A. HOLMBERG.
MITER BOARD ATTACHMENT.

(Application filed Mar. 27, 1899.)

(No Model.)



Witnesses
Society Kingman.
E. A. Katerman.

Signature
Peter A. Holmberg
By Townsend
his Atty.

UNITED STATES PATENT OFFICE.

PETER A. HOLMBERG, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO EDWIN A. LEAF, OF SAME PLACE.

MITER-BOARD ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 639,388, dated December 19, 1899.

Application filed March 27, 1899. Serial No. 710,695. (No model.)

To all whom it may concern:

Be it known that I, PETER A. HOLMBERG, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Miter-Board Attachment, of which the following is a specification.

The object of my invention is to provide a light, simple mitering device which can be packed in small space, so that the mechanic can carry the same in his tool-chest without inconvenience; also, to provide a miter-box which can be used not only for back-saws but also for panel-saws or any other hand-saw of any size.

A further object of my invention is to provide a miter-box which is handy and convenient for use in inconvenient places—such, for instance, as scaffolds and high and cramped positions—and it is of great importance that with a miter-box in such position the saw should be free and that any kind of a saw may be used, so that the mechanic will be able to cut joints of any angle without inconvenience.

My invention is distinguished from former miter-boxes in that it is a miter-box attachment readily portable and easily carried to high places on buildings, where it can be fitted up as a miter-box by using any strip of lumber of a suitable size or can be readily fastened to the scaffold, so as to be free from any danger of falling.

My invention comprises a skeleton frame consisting of a swinging arm, to which the slitted posts are fixed, and a T-shaped arc arm, to which the timber or board which is to form the miter-box can be readily attached and detached.

It is important for a carpenter working outside and at great disadvantage—for example, on a high scaffold—that the attachment be fastened so that it will not fall and that the saw shall be loose from the miter-box, so that it can be readily put out of the way. This is provided for by my invention. The saw being loose for ordinary use will not be in the way, but can be used either in or out of the miter-box at pleasure, and the device will take up very little room and will practically be out of the way of the carpenter, though fastened to the scaffold.

Another object of my invention is great strength combined with light weight, so that there is practically no danger of breakage, although the device adds but little additional weight to the tool-chest when packed away, the miter-board being detached before the appliance is stowed away.

By thus dispensing with the miter-board and manufacturing only the skeleton attachment therefor the expense of the mitering device is brought far below what it otherwise would have to be.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of my newly-invented miter-board attachment ready to be attached to a miter-board. Fig. 2 is a plan view of the attachment attached to a miter-board and set to cut at an angle of ninety degrees. Fig. 3 is a vertical mid-section on line 3 3, Fig. 2. Fig. 4 is a fragmental sectional elevation from the right on line 4 4 in Fig. 3.

A indicates the swinging socket-arm, to the opposite ends of which are fixed the hollow slitted posts or socket-pieces B B'. The hollow post B is mounted on the arm A by means of a pin 1, which is fastened to the post B by a bolt 4 and is fastened to the arm A by a bolt 3.

C indicates a T-shaped arm, the T-head C' of which consists in a flanged arc, which rests upon the arm A at the post B'. The other end of the T-arm is provided with a downwardly-projecting hub 2, through which the pivot 1 passes, so that the T-arm C and the arm A are pivoted together on the axis of the hollow post B. The hub and flange are of the same depth, and both rest upon the top of arm A, as shown in Figs. 3 and 4.

5 indicates a keeper projection on the hollow post B' to extend over the arc C' to hold the head of the T in place on the arm A.

D and D' indicate two removable posts solid at the base and slitted from the top downward to some point above the level of the top of the arm C. *d* and *d'*, respectively, indicate these slits.

b *b'*, respectively, indicate slits in the hollow posts B and B'. The slits *b* and *b'* are somewhat wider than the slits *d* and *d'*, as clearly indicated in Fig. 4, so that the wooden

posts prevent the saw-teeth from engaging with the hollow posts.

E indicates a catch to catch in the notches c' of the flange of the arc to hold the arms at different positions relative to each other.

The T-shaped arm C, with its arc C' , is provided with screw-holes c , so that the wooden miter-board F can be easily attached by screws and can be readily removed therefrom. The arc, being at the end of the arm C, is of a considerable radius, and its arms are extended, so that the chord of said arc intersects the stem or body of the arm C approximately at the middle of the arm, so that a comparatively narrow board may be used for the base or bottom of the miter-box, to which the upright plate G is to be fastened.

f indicates screws screwed through screw-holes c into the miter-board.

The catch E consists of a lever pivoted at e to the socket-arm A.

e' is a spring which presses down on the outer arm of the lever and throws the inner arm of the lever up to enter the notches c' , which are provided in the under edge of the arc to mark the angles commonly used. The notches are preferably V-shaped, and the edge of the lever corresponds thereto, so that the catch tends to center in the notch and assists in bringing the arms to the proper relative positions.

The slitted posts D D' are of hard wood and fit their respective sockets snugly. The slits $d d'$ in the posts are just wide enough to receive the saw; but the slits $b b'$ in the socket are wide enough to be out of the way of the saw-teeth. The socket-pieces are fixed on the socket-arm, and the slits therein are in line with each other.

In practice posts of any suitable length may be used, and when the saw-slits $d d'$ in them become too wide through wear of the saw-teeth new posts may be readily supplied.

In practice the mechanic can readily provide a board F for the miter-box whenever the same is to be used, and when the work is done the attachment will be removed from the board and placed in the tool-chest.

G indicates the upright plate of the miter board or box, and H indicates a block at either end of the board F to support the same above the bench I or other support upon which the miter-board will be placed for use.

The slitted wooden posts D and D' are slitted from the top toward the bottom, leaving an unslitted solid base, and the lower portion of the post is fitted in the slitted hollow posts or sockets, so that the saw can be inserted downward into the slitted posts and the saw is free at all times. The slitted post D is detachably attached to the swinging arm A by the pivot 1, which passes through the hub 2 of the arc arm, so that by removing the bolt 3 the slitted post and the arc arm can be re-

moved from the swinging arm for greater convenience in packing.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A skeleton miter-board attachment comprising an arm provided at its opposite ends with oppositely-projecting slitted socket-pieces; a flanged T-shaped arm pivoted at one end to one of the socket-pieces, the head of the T forming an arc; a catch being provided to hold the socket-arm and arc arm at different relative positions; and slitted posts being in the sockets.

2. In a miter-board attachment, the combination of a swinging socket-arm; a hollow post or socket-piece mounted on the arm by means of a pin fastened to the post and fastened to the arm; a hollow post or socket-piece mounted at the other end of the arm; a T-shaped arm, the T-head of which consists in an arc which rests upon the swinging socket-arm at one post, the other end of the arm being provided with a downwardly-projecting hub to rest upon the other end of the swinging socket-arm; a pivot fastened to the socket-arm and passing through the hub and fastened at its upper end to the slitted hollow post substantially as set forth.

3. A miter-board attachment provided with a swinging arm having slitted hollow posts or socket-pieces and posts fitted in the socket-pieces and being solid at the bottom above the slits of their respective socket-pieces and slitted upward to the top; a T-shaped arc arm being pivoted to one end of the swinging arm and arranged to be detachably fastened to a miter-board.

4. A miter-board attachment comprising a swinging arm; an arc arm; a slitted post fastened to one end of the swinging arm; a pivot fastened to the other end of the swinging arm and passing through the hub of the arc arm; and a slitted post detachably attached to the swinging arm by the pivot which passes through the hub of the arc arm.

5. In a miter-board attachment, the combination of an arm provided with a downwardly-extending hub and a downwardly-extending arc flange; an arm pivoted thereto by a pivot extending through the hub; an upright slitted socket-piece mounted on the upper end of said pivot; an upright slotted socket-piece fixed to the other end of the pivot-arm and provided with a projection which extends over the arc flange; slitted posts in the sockets; and a catch on the pivoted arm to detachably attach it to the arc at different positions.

PETER A. HOLMBERG.

Witnesses:

JAMES R. TOWNSEND,
F. M. TOWNSEND.