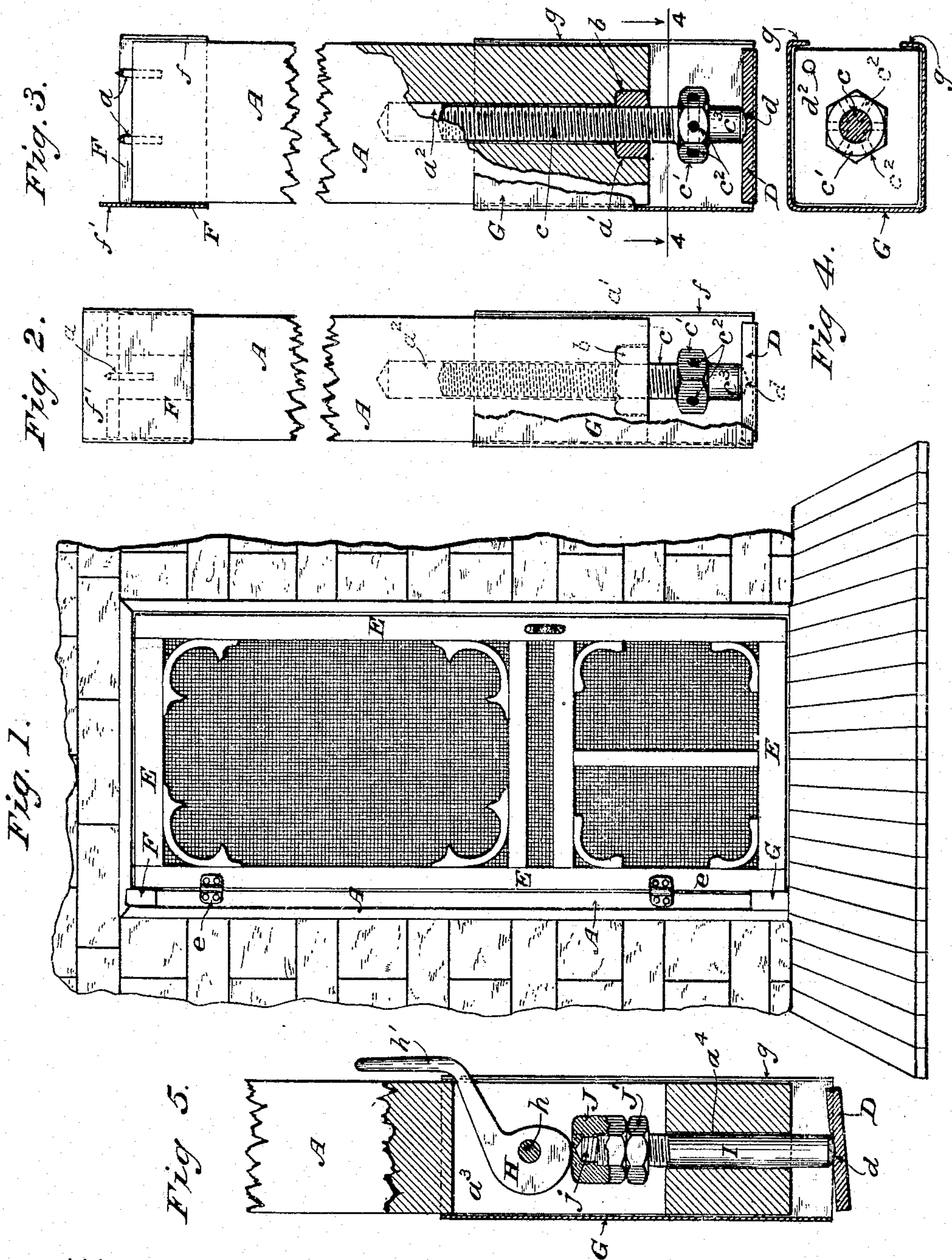


T. GILL.
 MEANS FOR HANGING DOORS, SCREENS, &c.
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Patented Nov. 2, 1909.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS GILL, OF FOLLANSBEE, WEST VIRGINIA.

MEANS FOR HANGING DOORS, SCREENS, &c.

939,004.

Specification of Letters Patent.

Patented Nov. 2, 1909.

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To all whom it may concern:

Be it known that I, THOMAS GILL, a citizen of the United States, residing at Follansbee, in the county of Brooke and State of West Virginia, have invented certain new and useful Improvements in Means for Hanging Doors, Screens, &c., of which the following is a specification that will enable those skilled in the art to which my invention pertains to make and use the same, reference being had to the accompanying drawing, which forms a part hereof.

My invention is specially designed for use with removable screen doors, hinged window screens, light gates or other such structures intended to be removed and restored to place at intervals, as occasion demands, but it is also applicable to, and well designed for, holding permanently in place such structures.

The object of the invention is to form a support or holding device for screen doors and the like that may be quickly and easily applied in a door opening, through any material such as wood, metal or stone, and without the use of any screws or nails or other such fastenings to penetrate the sides of the door opening or casing and mar or deface the surfaces thereof.

It consists, in the main, of a post or column of a length nearly equal to the height of the door opening or casing and provided with a suitable adjusting device for extending its length until it clamps at its ends against the door casing with sufficient force to retain it in place, the door being hinged-connected to this post in the usual manner of connecting it directly to a door casing.

It also consists in such other minor details of construction and fittings as will hereinafter be set forth.

The drawing shows the invention in what I now consider a desirable form, both generally and as to minor details, but I do not mean to confine myself to the precise forms shown, for many changes might be made therein by a skilful mechanic, without the exercise of invention and without departure from the spirit of my invention as set forth in the claims at the end of this specification.

Figure 1 is a front elevation of a screen door showing the application of my invention. Fig. 2 is a face view of the clamping post upon an enlarged scale and partly broken away. Fig. 3 is a side elevation of the same also partly broken away and in

section. Fig. 4 is a transverse section on the line 4, 4 of Fig. 3. Fig. 5 illustrates one of the various modifications of the device for elongating the post and clamping it securely in place in a door opening.

The clamping post A is shown as made of wood, but metal or any other material suitably disposed may be used instead. At its upper end this post is preferably provided with one, two or more projecting points *a* which tend to prick into the door casing and give this end of the post a firmer hold on the surface thereof. At its lower end the post is cut off somewhat shorter than the inside height of the door opening and is formed with a socket *a'* for the reception of a screw nut *b* and drilled, as at *a''*, for the reception of the body of a bolt *c* which passes through the nut *b* and has a flange or head *c'* which may be polygonal to adapt it to manipulation with a wrench, or it may be provided with a series of radial holes *c''* that may be engaged by a spike or wire nail to turn the bolt, or as shown in the drawing, it may have both of these features.

Below the flange or head *c'* is an extension *c'''* of the bolt which is preferably rounded on its lower end. A bearing plate D, having a slightly rounded socket *d*, is provided to rest upon the door sill and take the downward thrust of the bolt, the rounded end of the bolt and corresponding socket in the plate permitting the use of the plate on door sills having the usual slant or inclination.

The door E is connected to the post by hinges *e*, in precisely the same manner that it would be hinged directly onto the door casing. This hinge connection may be done at any time either before or after the setting and securing the post A in position, and when once done it remains as a permanent condition, for upon removal, when the post is unclamped, it and the door come away together and may remain so, the presence of the door not interfering with the re-setting of the post.

In order to form a finish for the ends of the post and to inclose the elongating devices at its ends I form guards or shields F and G, preferably of thin sheet metal, which embrace the front and sides of the post and partly cover the back by narrow flanges *f* and *g* adapted to hold the shield in place. These shields may fit snugly enough at their sides upon the post to clamp it with sufficient frictional force to retain them in place

and yet permit of their being slipped up or down the post. The shield F has a short flange extension f' at the front projecting upwardly and lapping over the door casing as shown. This insures complete closure of any space at the top of the post.

I have shown and described a screw as being the most desirable device for elongating the post but many other means might be employed for clamping the post in position in a door opening.

In Fig. 5 is illustrated a modification of the elongating device consisting of a cam H pivoted at h in a slot a^3 of the post and acting upon the end or head of a bolt I loosely mounted in a hole or guideway a^4 below the slot a^3 in the post. This cam is provided with a handle h' that projects outside of the post.

In order to provide for adjustment, exceeding the throw of the cam, I screw upon the upper end of the bolt a cap nut J having a threaded socket j of sufficient depth to admit of a suitable range of adjustment. A lock nut J' is also provided to hold the cap nut against accidental disturbance. The cam bears upon the top of the cap nut and the operation of this device will doubtless be readily understood.

In operating my invention the post, either with or without the door being hinged thereto, is set in position against the side of the door casing and the clamping device worked to secure it in place with sufficient rigidity to hold it and the attached door against accidental displacement. Its re-

moval is effected with equal ease and rapidity.

My invention is very simple and cheaply made; easy to operate and not liable to get out of order or wear out.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:

1. In a door support, the combination of a post adapted to fit into a door opening, a door hinged thereto, a nut disposed in the lower end of said post, a bolt having a threaded portion arranged to engage the nut, said bolt being provided with a rounded lower end, a bearing plate provided with a socket arranged to receive the rounded end of the bolt and a vertically slidable shield adapted to inclose the lower end of the post and the bearing plate.

2. In a door support the combination of a post adapted to fit into a door opening, a bolt set into the end of the post and adapted to elongate the post, said bolt being provided with an enlarged portion having openings arranged to receive a tool for turning the bolt, and a bearing plate provided with a recess arranged to receive the end of the bolt and to turn about said end.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS GILL.

Witnesses:

J. F. CREE,
C. R. WEIRICH.