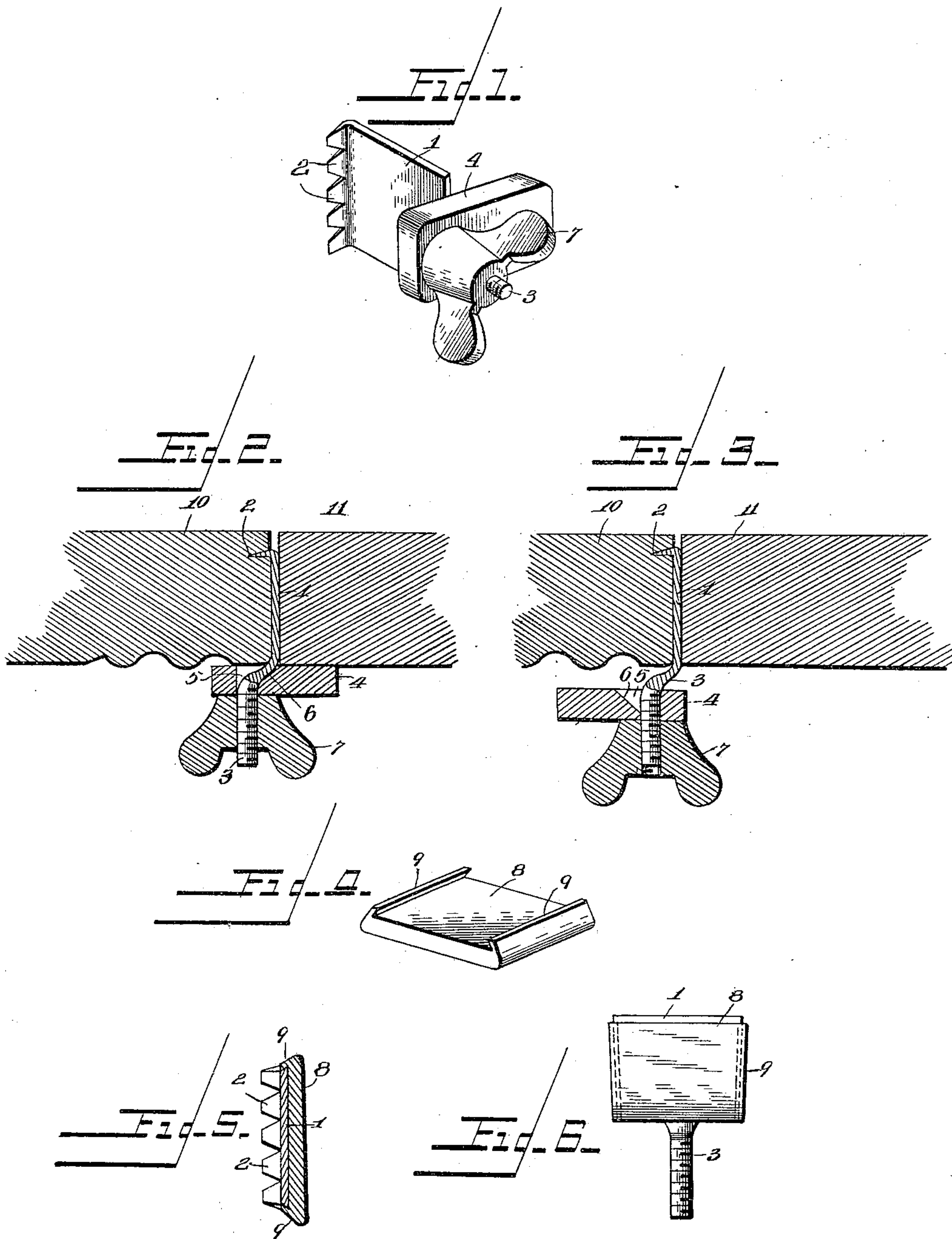


(No Model.)

J. A. FERG.  
DOOR SECURER.

No. 547,004.

Patented Oct. 1, 1895.



Inventor

John A. Ferg.

Witnesses

Thos. H. Riley.

D. B. Owens.

By *his* Attorneys.

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

JOHN ADAM FERG, OF NORFOLK, VIRGINIA.

## DOOR-SECURER.

SPECIFICATION forming part of Letters Patent No. 547,004, dated October 1, 1895.

Application filed January 2, 1895. Serial No. 533,620. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN ADAM FERG, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented a new and useful Door-Securer, of which the following is a specification.

The invention relates to an improvement in that class of door-securers wherein a plate or bar is provided at one end with a transverse spur and at the remaining end with a head or equivalent device, the spur being adapted to engage with the inner portion of the door-frame, while the head is designed to bind against the door, thereby holding the door closed. In this class of devices the pressure of the edge of the door against the plate holds the spur in engagement with the frame and prevents the said spur from becoming disengaged.

The object of my invention is to provide superior means for engaging the device with the door—that is, for performing the function of the head referred to above.

A second object is to provide better means for taking up the space between the door and frame, so that the plate will be held snugly in place.

To these ends the invention consists in a plate having at one end a series of transverse spurs or projections and at the other end a threaded shank, which is offset laterally from the plate and in a direction similar to that to which the spurs or projections point. On this shank an elongated button operates, the button being mounted eccentrically on the shank, so that its long end will be capable of swinging to engage the door and of swinging in the opposite direction to disengage the same. The button is held in place by a thumb-nut and has a peculiarly-shaped opening, which permits it to be firmly seated on the shank.

The invention also includes a supplemental plate having a size commensurate with that of the main plate and having two of its sides bent down to form slightly-dovetailed flanges, which are capable of receiving correspondingly-shaped edges on the main plate. This plate is provided to increase the thickness of the main plate when the space between the door and the frame is such as makes this necessary.

In the drawings, Figure 1 represents a per-

spective view of a door-securer constructed after the manner of my invention. Fig. 2 is a section taken through the same when applied to a door, the parts being shown as in the position which locks the door. Fig. 3 is also a sectional view showing the device applied to the door, but in a position which will permit the opening thereof, such position being that which is assumed directly prior to the fastening and unfastening operations. Fig. 4 is a detail perspective of the supplemental plate. Fig. 5 is a detail section showing the supplemental plate applied to the main plate. Fig. 6 is a plan view of the said supplemental plate and the main plate, dotted lines showing the relative positions of hidden surfaces.

The reference numeral 1 indicates the main plate, which may be formed of cast-steel or malleable iron, as desired, and which is approximately square. Formed integral with one edge of the plate 1 are the spurs 2, which are preferably five in number, but which may obviously be changed to any desired extent. These spurs project transversely from the plate 1 and in practice will be perhaps a little less than one-quarter of an inch in length.

Formed integral with the opposite side of the plate 1 is the shank 3, which comprises a flattened base portion immediately contiguous to the plate and a rounded and threaded portion at the other end of the shank. The flattened or base portion of the shank is bent transversely and in a direction similar to that in which the spurs 2 extend, while the threaded portion proceeds in a line parallel with the disposition of the plate 1.

4 indicates the button, which operates on the shank 3 and which is formed of an elongated rectangular metallic plate having therein and at one end thereof an opening 5. This opening is round at one side of the button, and the remaining side adjacent to the opening is formed with a longitudinally-offset portion 6, which forms a part of the opening 5 and which operates to enlarge the same. This enlarged or offset portion is provided to receive the flattened part of the shank 3, which, being extended transversely and diagonally, must lie within the button 4 before said button can rest directly upon the adjacent edge of the plate 1. Thus, by reference to Fig. 2



of the drawings, it will be seen that the rounded portion of the opening 5 receives the threaded part of the shank 3 and that the offset portion 6 receives the flattened part of said shank. This is the position which the parts assume when the button is moved to lock with the door, and when it is moved in the opposite direction to permit the same to open it will lie with the opening 5 on the threaded portion of the shank and with the long portion of the button projecting in the same direction in which the spurs 2 project, so that it will lie over the frame of the door, as distinguished from the door. This leaves the door free to swing, and the very purpose of the bend in the shank 3 is to permit the plate or button 4 to be seated thereon without interfering with the movements of the door, which adjustment is necessary during the operation of applying and removing the device.

7 indicates a thumb-nut, which operates on a threaded portion of the shank and which is provided to screw down upon the button 4, so that the same will be held in place and prevented from accidental displacement. When once screwed down, the button will be secure and utterly incapable of becoming disengaged from the door.

8 indicates a supplemental plate, which will be in practice about one-quarter of an inch in thickness, although this may vary according to the choice and convenience of the manufacturer, and which has its edges 9 bent down to form flanges. These flanges or bent edges are shaped with a slight dovetail, and the corresponding edges of the plate 1 are shaped so as to fit snugly within them. By these means the plate 8 may be fastened on the plate 1 and the two connected to each other. The plates 1 and 8 taper slightly, the plate 1 from the side having the spurs 2 to the opposite side, the latter side being narrower than the side carrying the spurs. The plate 8 tapers in conformity with this taper, and by these means they may be placed together and the supplemental plate prevented from becoming detached from the main plate by reason of the button 4, which bears against the smaller end of the supplemental plate and makes its movements in that direction an impossibility so long as the button is held from movement by the nut 7.

The use of my invention is illustrated in the drawings, and there it will be seen that the plate 1 is placed so that the spurs 2 will be in position to pierce the inner part of the door-frame, and so that the flattened portion of the shank 3 will project outwardly away from said portion of the door-frame. The button 4 should be moved so that its long portion will lie against the door-frame, as distinguished from against the door, and the operation is completed by closing the door

against the plate 1, which will force the spurs 2 into the door-frame, and by swinging the button 4 so as to lie over the door. The button may be held secure by the thumb-nut 7, as has been explained. If it becomes necessary to use the supplemental plate 8, this may be done by connecting the said plate with the main plate, using the device exactly as described above.

In Figs. 2 and 3 of the drawings the reference-numeral 10 indicates the frame of the door, and 11 the door, all of which will be understood.

Having thus described the invention, I claim--

1. A door securer, consisting of a main plate provided with one or more inwardly extending transverse spurs at one end and a shank at its other end screw threaded at its outer portion and tapered in form and inwardly and obliquely bent at its inner portion, a button eccentrically perforated to receive said threaded shank, said perforation being formed with an obliquely arranged offset at its inner end adapted to receive said tapered shank portion and a thumb-nut, all combined to be adjusted against the inner edge of the door casing so that when the door is closed, the said button may be swung around on the rounded portion of said shank and seated down with the longer end of said button against the door and with the tapered shank resting in the said offset, and the said thumb-nut tightened against said button, whereby the door is secured, substantially as described.

2. A door securer consisting of a main plate approximately square and having at one edge a series of transversely-extending spurs, a shank integral with the edge of the main plate which is opposite the spurs and is offset from the main plate in a direction similar to that in which the spurs extend, the opposite edges of the main plate being beveled and slightly tapered toward the shank, a head operating on the shank and capable of engaging with the adjacent edge of the main plate and to contact facially with the door and door-frame, and a supplemental plate having opposite edges bent to form dove-tailed flanges which engage with the beveled edges of the main plate, the bent edges of the supplemental plate being tapered in conformity with the taper of the main plate, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN ADAM FERG.

Witnesses:

ALBERT RIECK,  
ALBERT KOCH.