

G. D. COLLINS.
DOOR FASTENER.
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929,287.

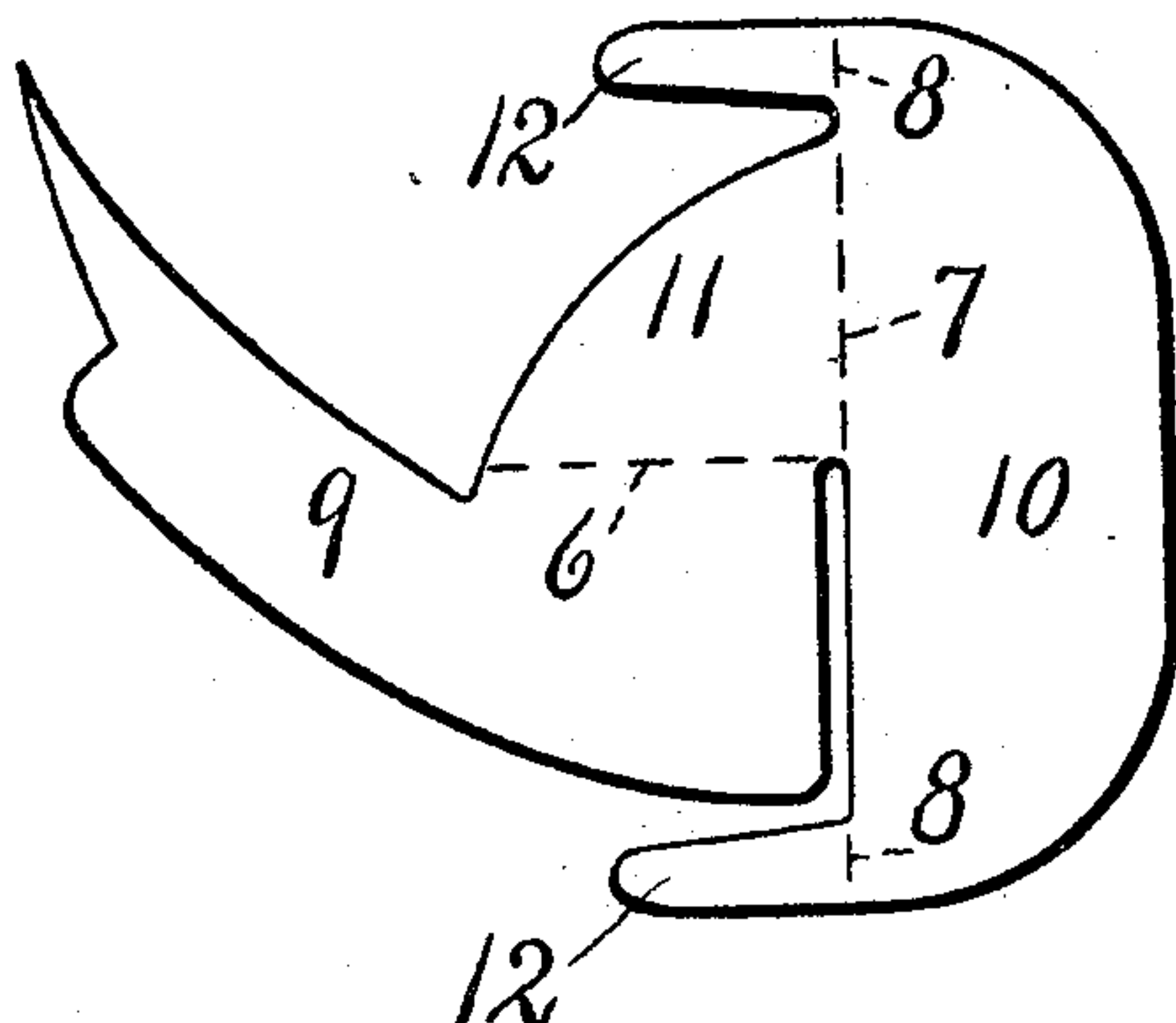


FIG. 1.

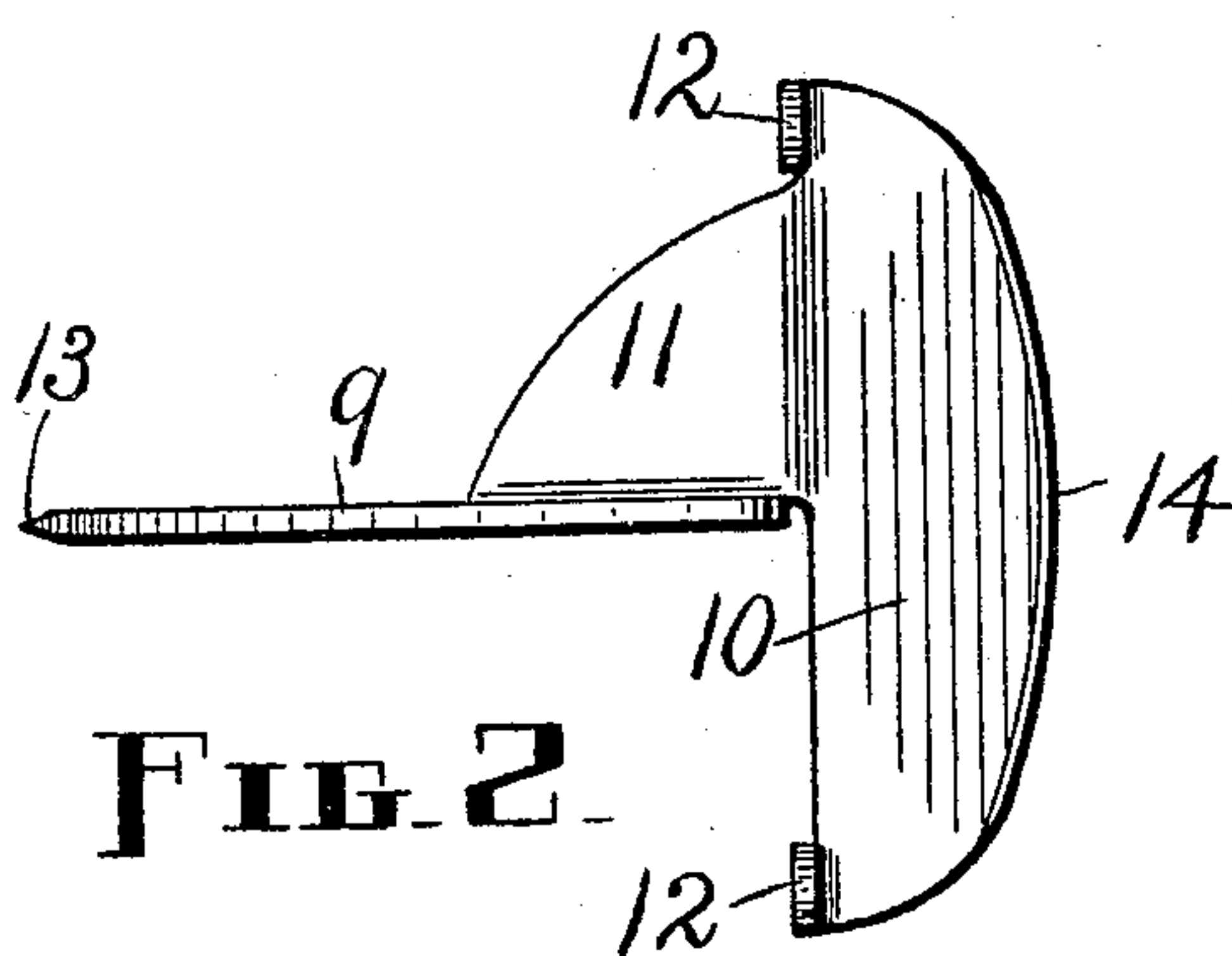


FIG. 2.

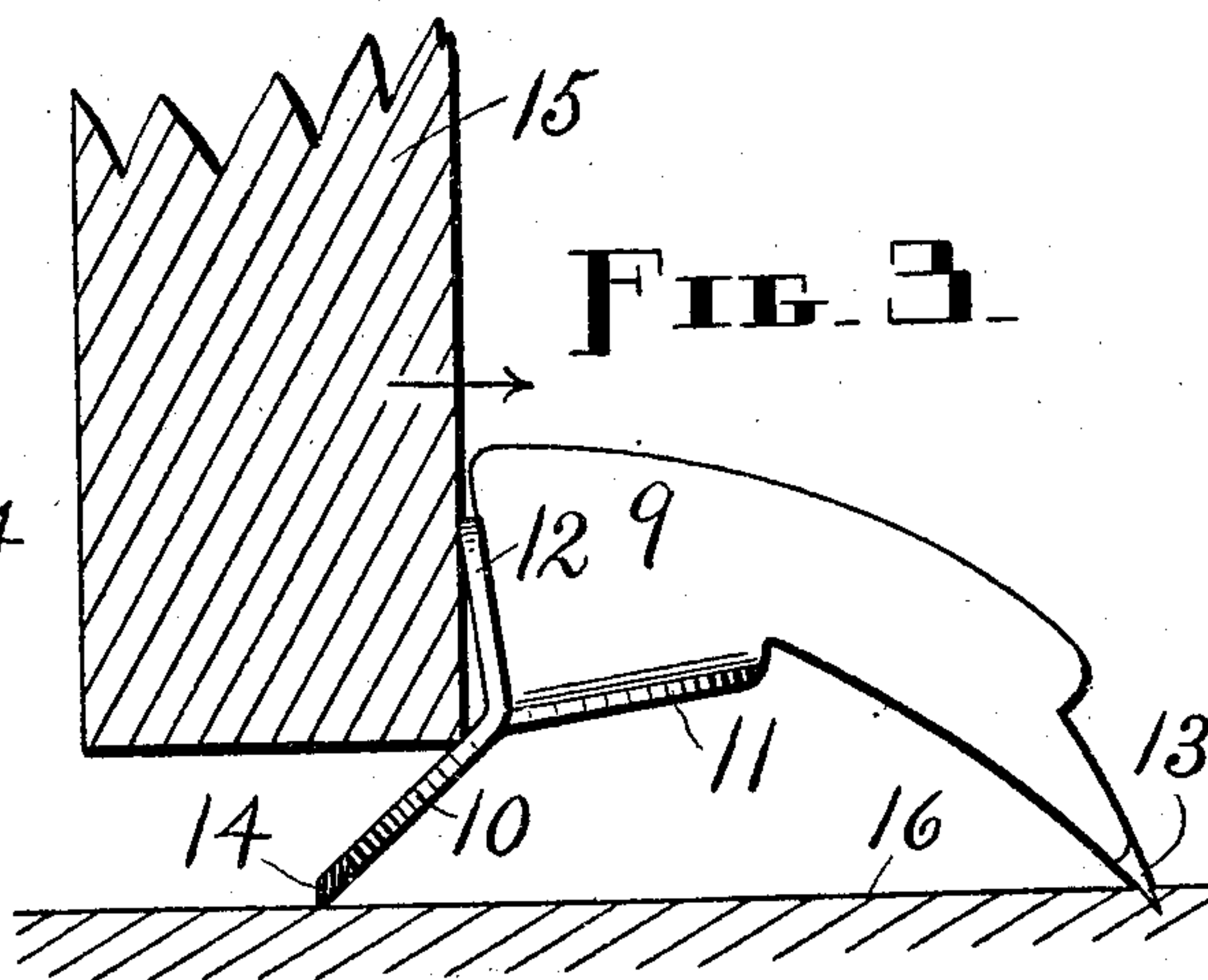


FIG. 3.

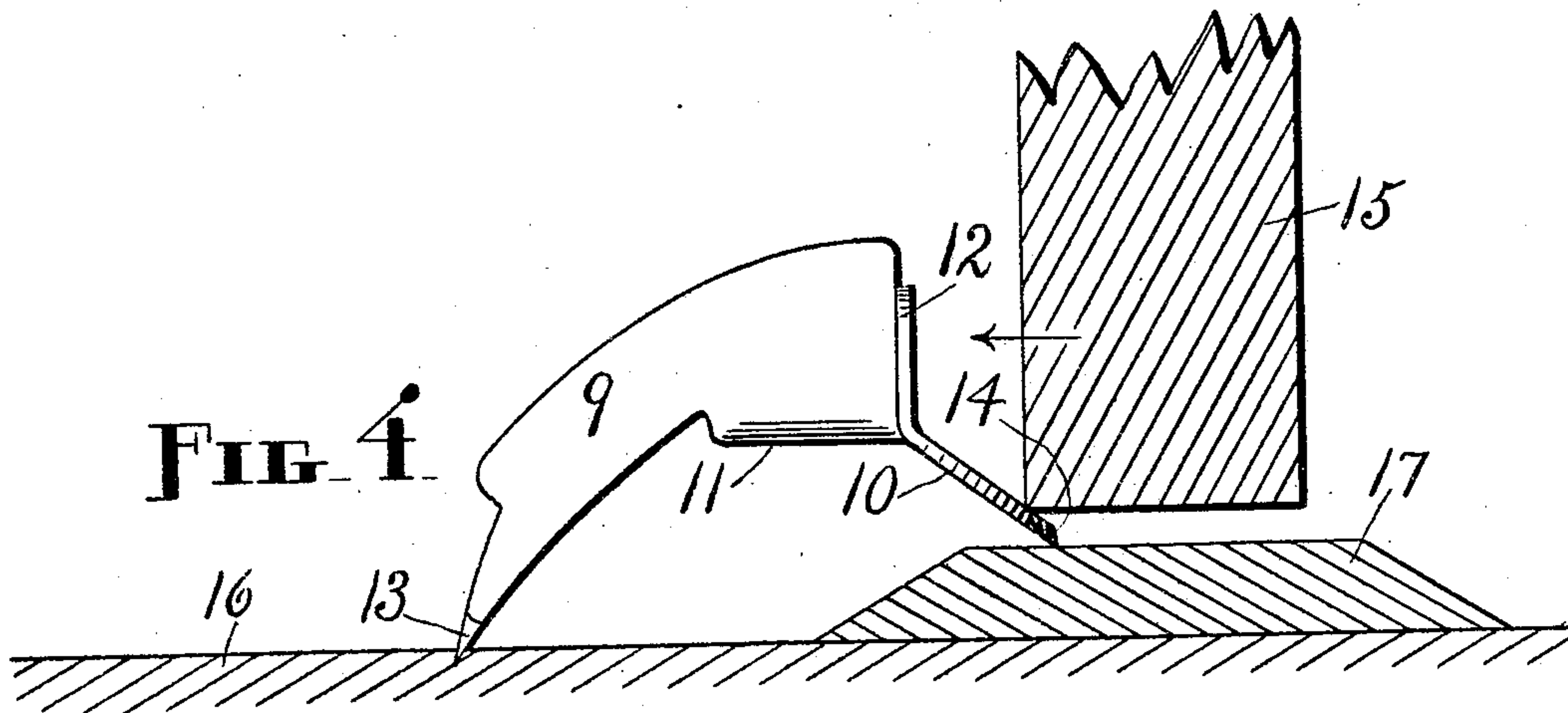


FIG. 4.

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GEORGE D. COLLINS, OF SPRINGFIELD, MASSACHUSETTS.

DOOR-FASTENER.

No. 929,287.

Specification of Letters Patent.

Patented July 27, 1909.

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To all whom it may concern:

Be it known that I, GEORGE D. COLLINS, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Door-Fastener, of which the following is a specification.

My invention relates to improvements in devices used for checking and securing doors at the bottom, and consists of a flat beak sharp at its rear end, an oblique flat blade which is preferably provided with upwardly-extending lugs or fingers, and a connecting wing between said beak and said blade, such wing extending laterally from the front part of the beak at the bottom and such blade extending downward and forward from the front edge of said wing. The blade is designed to enter between the bottom of a door and either the floor or the saddle or threshold beneath said door, and the beak to engage the floor inside of the door by sticking into the former, while the fingers afford means for properly placing or adjusting the fastener relative to the door and afford also a backing for the latter, under certain conditions which will be explained hereinafter.

The object of my invention is to produce a device which is capable of checking a door being opened and of holding a door shut, a device in short which is adapted to catch and fasten or secure a door in almost any position against force exerted on the door to swing it open, such device being inexpensive to manufacture, simple in construction, and efficient and reliable in operation.

The fastener may be employed, too, to hold a door open, as will be made to appear in the course of this description.

I prefer to make my fastener of sheet-metal stamped out and struck up or bent into proper shape, although it might be made from some other material in a different manner.

I attain the above-mentioned objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the blank out of which the fastener shown in the other views is formed; Fig. 2, a top view of the fastener as it stands in Fig. 4; Fig. 3, a side elevation of said fastener showing its relation to a door, and, Fig. 4, an elevation of the opposite side of the fastener showing it in a different relation to a door, a threshold being present in this view but absent from the preceding view.

Similar figures refer to similar parts throughout the several views.

Assuming that the fastener is constructed of sheet-metal, a blank is first cut out in the shape shown in Fig. 1, and this blank is then bent on the dotted lines 6, 7, and 8—8 to produce a beak 9 and a blade 10 with a connecting wing 11, and two fingers 12, the dotted line 6 indicating the location of the bend between said beak and wing, the dotted line 7 indicating that of the bend between said wing and blade, and the dotted lines 8 indicating the locations of the bends between said blade and said fingers. It will thus be seen that the wing 11 extends outward from one side of the front part of the beak 9 at the bottom, with which said wing forms a right-angle, the blade 10 drops downward from the front edge of the wing at an obtuse angle to the latter, and the fingers 12 project upward from the back edge of said blade at the ends, the angles between the blade and said fingers being obtuse also.

The beak 9 has a generally curved appearance and its rear end is shaped to form a spur 13 which is the part that engages the floor. The front edge of the blade 10 is preferably beveled or sharpened somewhat, as shown at 14, to facilitate inserting the same beneath a door when there is a mere crack between the bottom of the door and the floor or threshold, and in any event to afford a better engagement with the floor or threshold.

In practice the blade 10 is introduced beneath the door as far as it will go and the spur 13 of the beak is thrust into the floor which it penetrates a sufficient distance to hold said door against pressure from the side opposite to that where the fastener is located. The more force applied to the door to move it against the fastener the deeper the spur is driven into the floor and the more securely the door is held. These results are produced by reason of the downward and rearward pressure on the fastener due to the shape of the beak and to the obliqueness of the blade. The door may only engage the blade as shown in Fig. 4, or it may engage both blade and fingers as shown in Fig. 3, according to the amount of space under said door, and it might engage the fingers alone where the amount of the aforesaid space is usually large, but in any event the result is the same. Sometimes the door will ride up on the blade 10 until it encounters the fin-

gers 12, when it will be prevented thereby from further movement in that direction.

In each of the Figs. 3 and 4 the bottom part of a door is represented at 15 and the floor at 16, and in the second of said views a saddle or threshold appears at 17. The arrows in these views indicate the directions in which the doors 15 open. The back edge of the beak 9 might be depended on to check or engage the door when the blade 10 does not do so, in place of the fingers 12, were it not for the fact that in case the fastener is not placed very carefully at right-angles to the adjacent side of the door or approximately so said door would very likely knock said fastener sidewise and thus render it non-effective, but said fingers prevent this since the engagement of either one alone by the door results in moving the fastener into proper position with the other finger against the door. Moreover the fingers furnish a better and more substantial backing for the door than would the back edge of the beak. The fastener is brought into proper relation to the door in substantially the same way as that above explained in connection with the fingers when said door makes first an oblique contact with the blade.

When employed to hold a door open the fastener is placed with its beak in engagement with the floor in front of the door and with its blade beneath said door. Fig. 3 will serve as an illustration of this use, in addition to that previously described. The shape of the fastener may be departed from in some minor details provided the general

construction is maintained, and as has been intimated the fingers may be omitted, but not it is believed without impairing the efficiency of the device to some extent.

I am aware that other devices adapted to engage both the door and the floor for the purpose of securing the former at the bottom have been produced, hence I do not seek to claim such a device broadly.

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a door fastener comprising a beak for engagement with a floor, a blade for engagement with the bottom of a door and the threshold or floor under the same, and a wing connecting the forward part of said beak at one side with a portion of the rear edge of said blade.

2. As an improved article of manufacture, a door fastener comprising a beak for engagement with a floor, a blade provided with upstanding fingers at its rear edge, the blade being adapted to engage the bottom of a door and the threshold or floor under the same and the fingers to serve as abutments for the door, and a wing connecting the forward part of said beak at one side with the rear edge of said blade between a point adjacent to the front end of the beak and one of said fingers.

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Witnesses:

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