

No. 615,318.

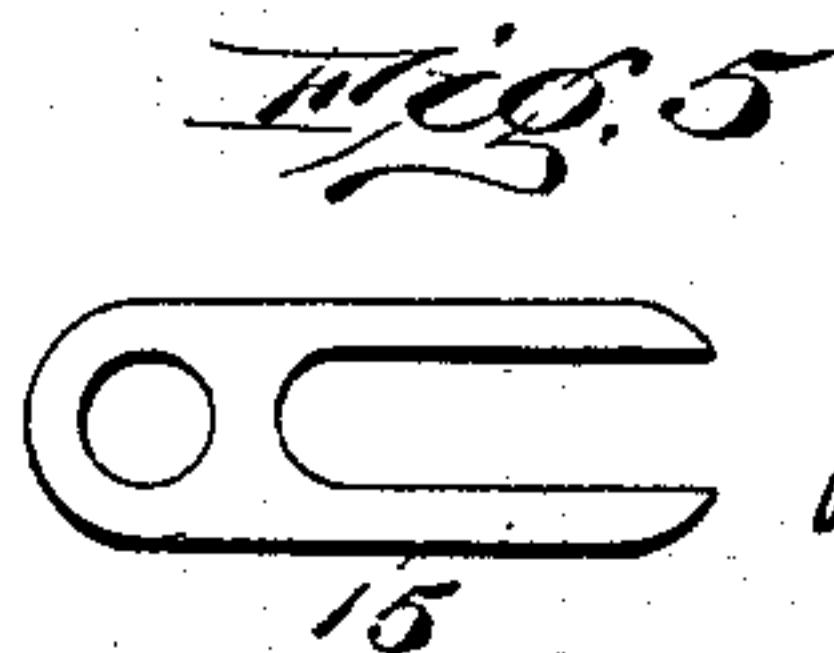
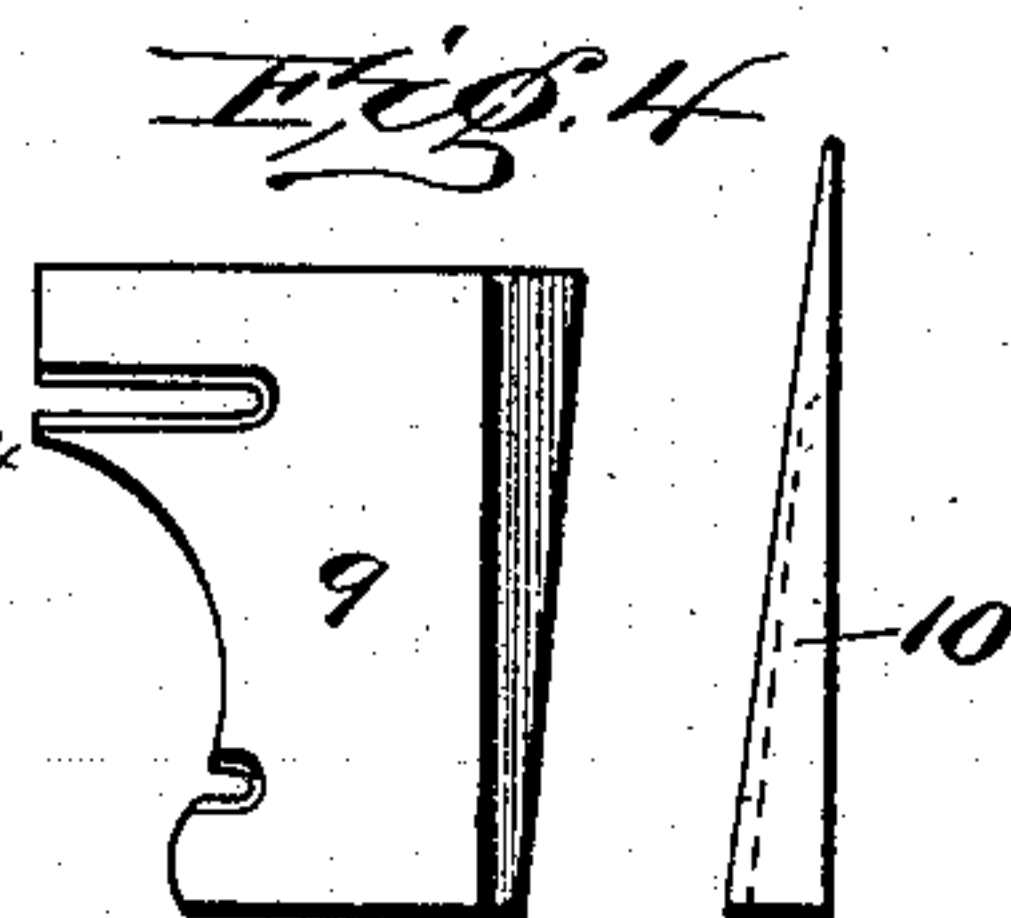
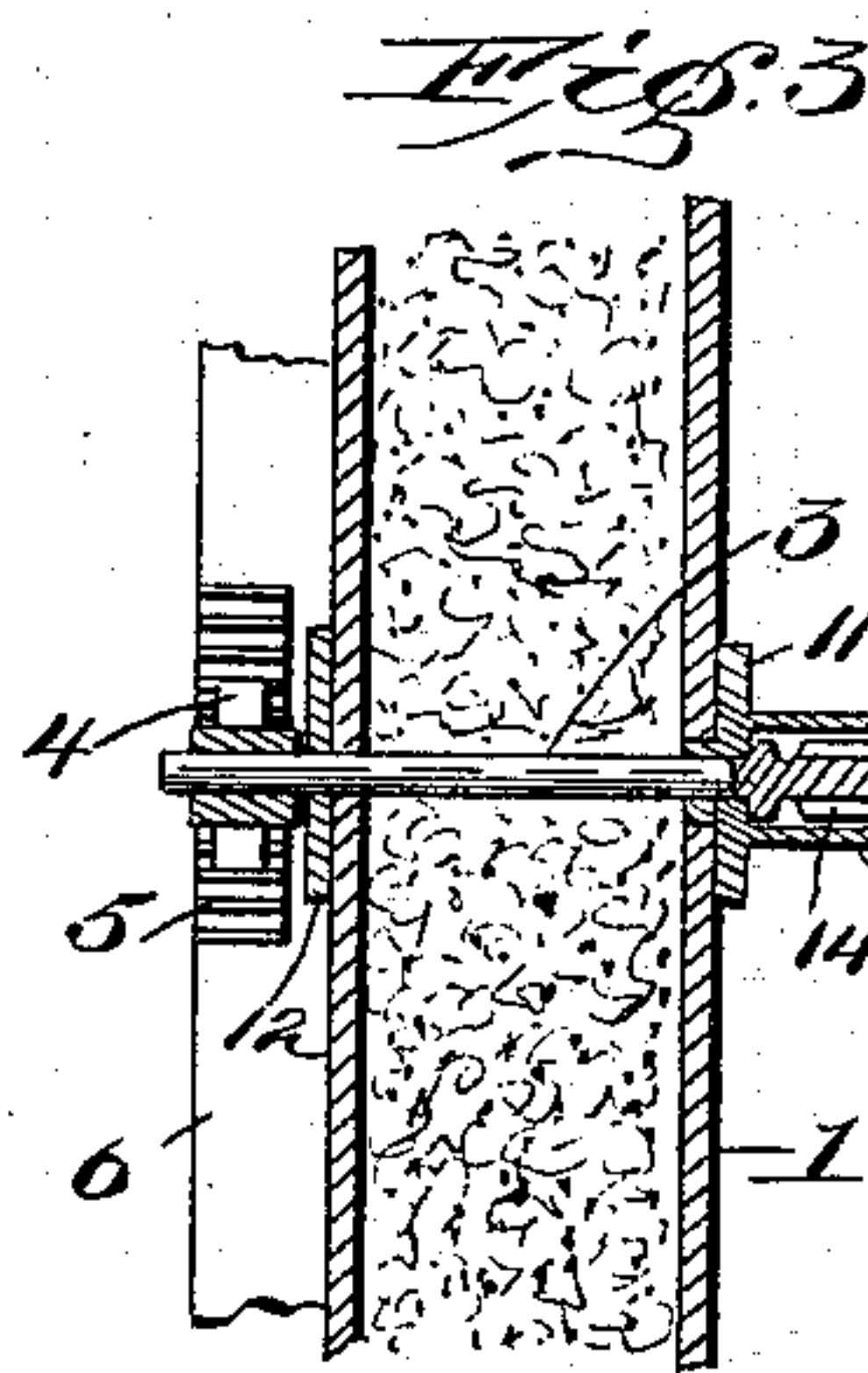
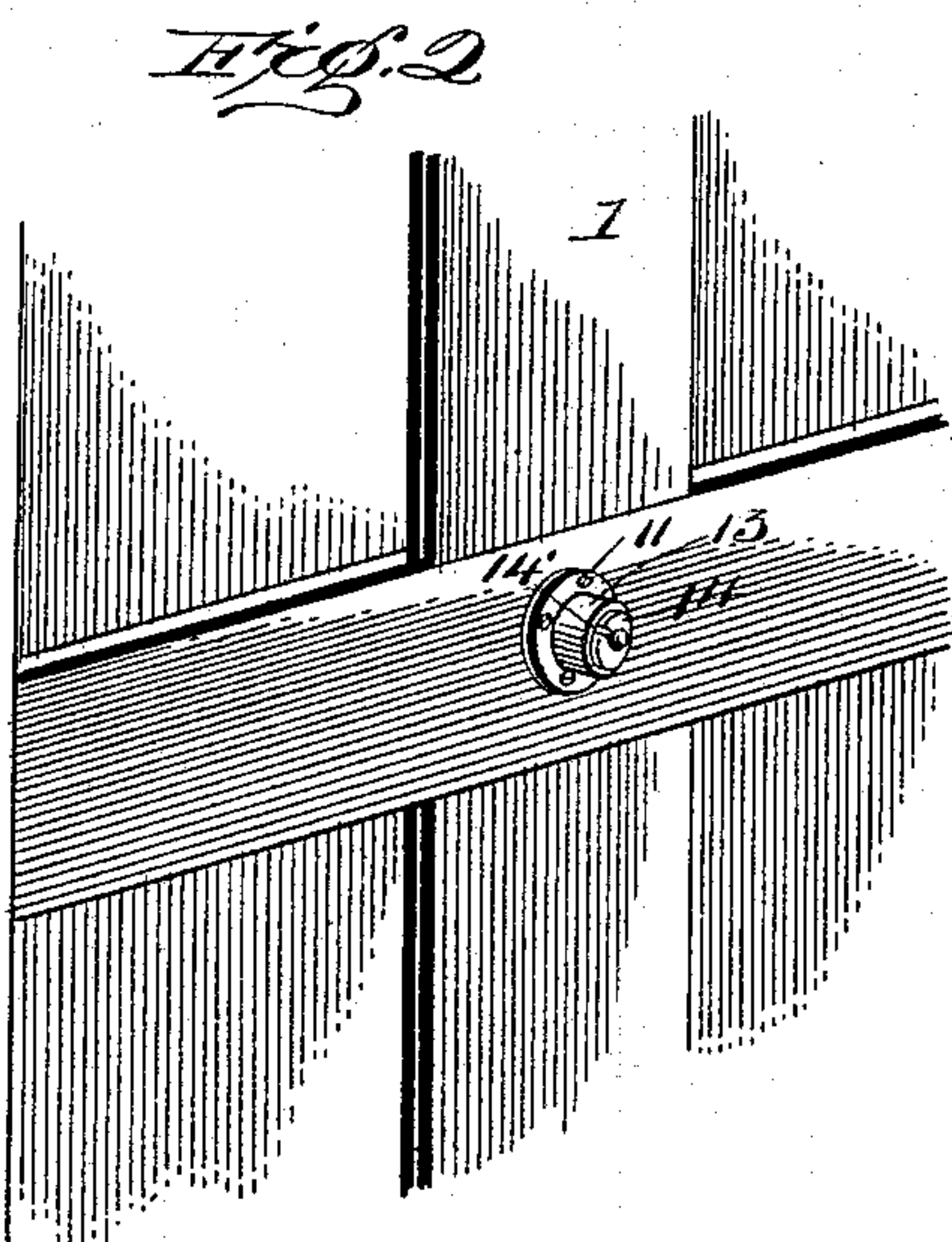
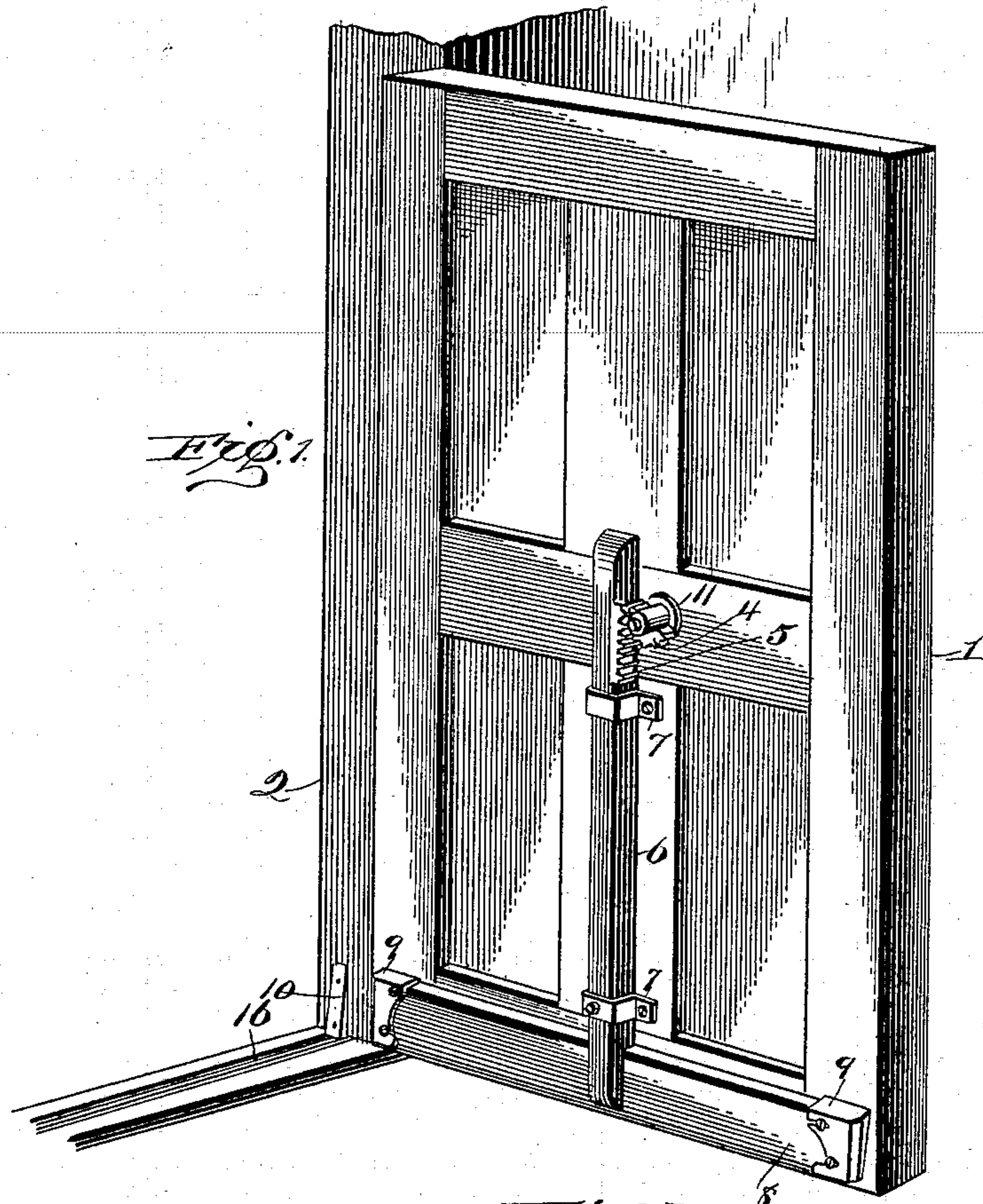
Patented Dec. 6, 1898.

B. A. STEVENS.

DOOR.

(Application filed May 7, 1897.)

(No Model.)



witnesses:

J. M. Fowler Jr.
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UNITED STATES PATENT OFFICE.

BENJAMIN A. STEVENS, OF TOLEDO, OHIO.

DOOR.

SPECIFICATION forming part of Letters Patent No. 615,318, dated December 6, 1898.

Application filed May 7, 1897. Serial No. 635,539. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN A. STEVENS, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Doors; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures of reference marked thereon.

This invention relates to improvements in doors for refrigerators or cold-storage rooms, and has for its object to provide an attachment for such doors whereby any opening or space below the bottom of the door may be effectually closed, preventing the escape of cold air.

The invention consists in certain novel details of construction and combination and arrangement of parts, all as will be now described, and the particular features of novelty pointed out in the claim.

In the drawings, Figure 1 is a perspective view of the inner side of the door and frame. Fig. 2 is a similar view looking from the outside. Fig. 3 is a vertical section through the slide-operating mechanism, the spindle being in elevation. Fig. 4 is a detail view of one of the plates fitting the end of the slide and of the cooperating plate carried by the door-jamb. Fig. 5 is a detail view of the key for turning the spindle.

Similar numerals in the several figures indicate the same parts.

1 indicates the door, and 2 the door frame or jamb.

Journalled in the door, so as to be capable of rotating therein, is a spindle 3, having mounted on its inner end a pinion 4, which meshes with a rack-plate 5, carried at the upper end of the rod or bar 6, movable vertically in the guides or yoke 7, secured to the door. Secured to the lower end of the bar is a slide 8, extending across the door near the bottom thereof and adapted to be moved up and down through the medium of bar 6, as will be presently explained. Fitting over the ends of the slide 8 are plates or castings 9, whose ends incline inwardly from top to bottom, as shown clearly in Fig. 4, and secured to the door-frame are plates 10, having faces inclined in a direction opposite to that of the

ends of plate 9, which cooperate with plate 9 when the slide is forced down to hold said slide fast, as will be understood.

As thus far described, it will be understood that the slide will be raised and lowered by turning the spindle, and this is accomplished in the following manner: The spindle 3 is journaled in face-plates 11 and 12, mounted on the inner and outer faces of the door, the outer plate being provided or formed with a central guard 13. The outer end of the spindle is enlarged, forming a head 14, which extends into guard 13, and on each side is provided with grooves or recesses 14' for the reception of the key 15, whereby the spindle may be turned, a shoulder 16 being also formed on the spindle, constituting a stop for the key.

It will be noted that the guard completely envelops the spindle-head save at the outer end, from which it results that access cannot be had to the spindle save through the open end of the guard, and by providing the grooves in the head it requires a peculiar-shaped instrument to fit in the grooves between the spindle-head and walls of the guard to turn the spindle. If now the slide 8 or an extension thereof be received within a groove 16 in the sill when the slide is pushed down, the door will be effectually locked, inasmuch as it will be impossible to turn the spindle to raise the slide except with the special appliances therefor as just described.

From the above description the operation of the device will be understood.

The door having been shut, the spindle is turned, thereby causing the slide to be pushed down against the sill or floor and held tightly by means of the end plates thereon and the cooperating plates on the jamb, thus closing any space between the bottom of the door and the floor. By this construction, too, all sills may be done away with, leaving a clear floor-space, which is very desirable in cold-storage rooms, where the stock is trucked in and out.

The device is simple, yet effectual, and can be applied to doors already in use.

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

In a refrigerator-door or the like, the com-

5 bination with the face-plates mounted on the inner and outer faces of the door, the spindle passing through the door and journaled in said face-plates, and having the enlarged head at its outer end provided with diamet-
10 rically opposite grooves, the guard formed on the outer face-plate extending outward and inclosing the head of the spindle, the vertically-movable bar carrying the slide at its lower end, the rack-plate at its upper end with which the pinion meshes, the plates fit-
ting over the end of the slide, having the in-

clined ends, the oppositely-inclined plates se-
cured to the door-frame, coöperating with the plates on the slide, and the key adapted to
15 be received in the groove in the spindle-head whereby the spindle may be turned, to elevate or depress the slide, substantially as and for the purpose described.

BENJ. A. STEVENS.

Witnesses:

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W. R. CHILCOTE. *