

No. 622,565.

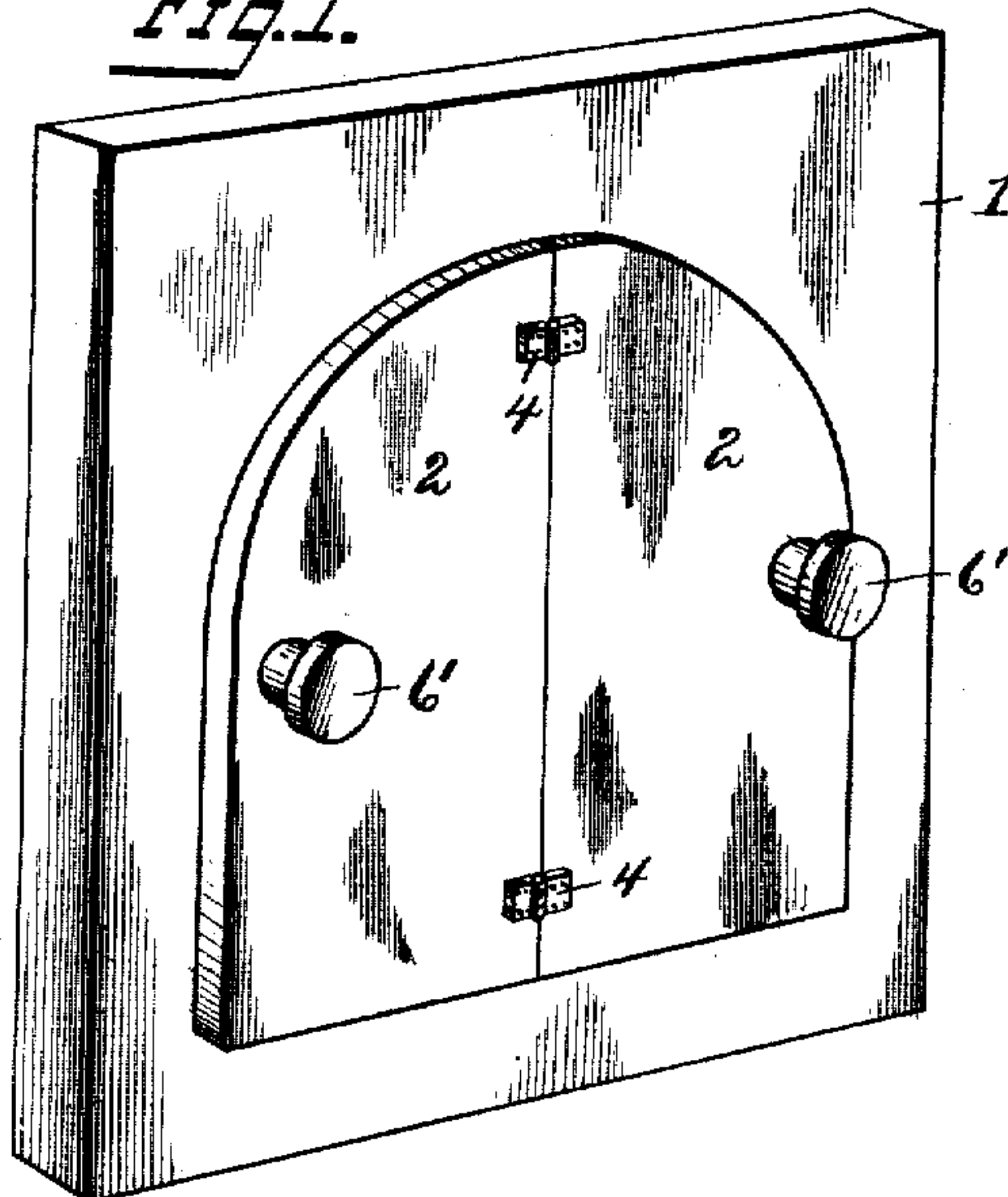
Patented Apr. 4, 1899.

A. H. THARP.  
GRATE CLOSER.

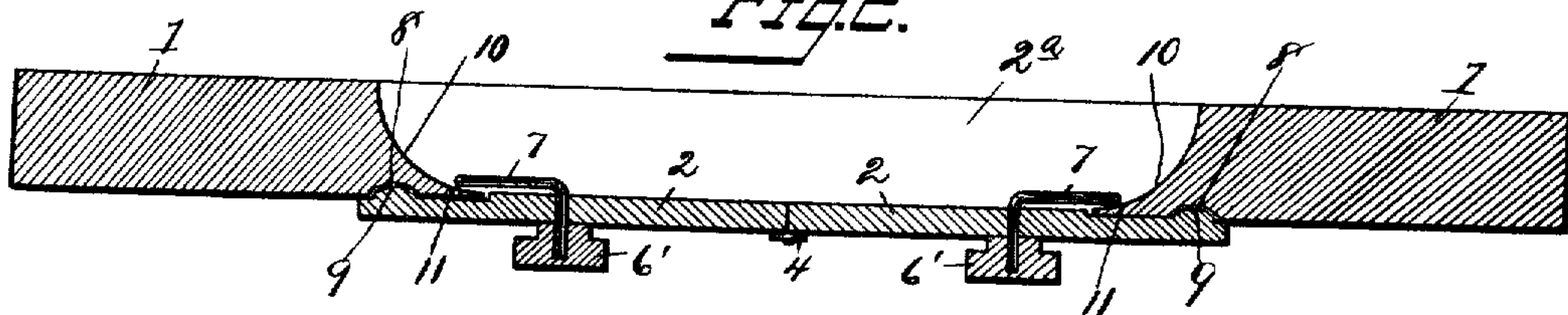
(Application filed Aug. 5, 1897.)

(No Model.)

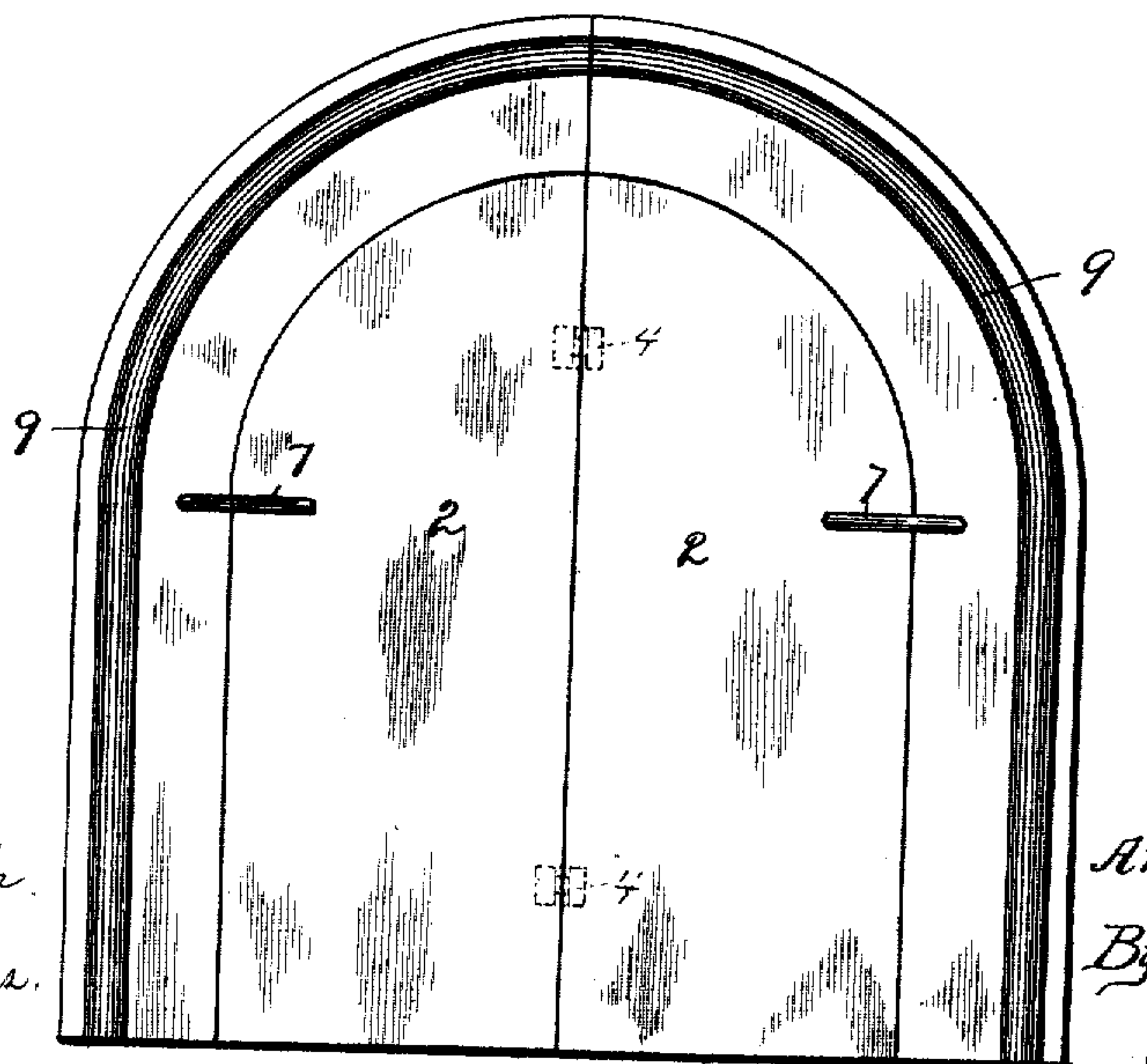
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

ANDREW H. THARP, OF DUFFS, PENNSYLVANIA.

## GRATE-CLOSER.

SPECIFICATION forming part of Letters Patent No. 622,565, dated April 4, 1899.

Application filed August 5, 1897. Serial No. 647,194. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW H. THARP, a citizen of the United States, residing at Duffs, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Grate-Closers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to grate-closers, the object in view being to provide a simple and efficient article of the character referred to which may be quickly applied to and held in position on the frame of an open grate for preventing the passage of soot into a room and also guarding against accidents by fire.

The improved grate-closer is constructed to be folded compactly for storage or transportation when not in use.

The invention consists in an improved fence embodying certain novel features and details of construction hereinafter specifically set forth, illustrated in the drawings, and incorporated in the claims here appended.

In the accompanying drawings, Figure 1 is a perspective view of the grate-front, showing the closer in position. Fig. 2 is a horizontal section through the same, and Fig. 3 is a rear elevation of the grate-closer.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates an ordinary grate-front or fireplace; and 2 designates the improved grate-closer, which is in the form of a door corresponding in shape to but slightly larger than the grate-opening 2<sup>a</sup>.

In order to secure compactness for storage or transportation, the closer 2 is divided on a vertical central line and the two portions or sections are connected together by hinges 4. Adjacent to the division between the two parts of the closer are buttons or other fasteners adapted to be engaged with both portions or sections of the closer for holding the same in their extended position, as shown in Fig. 1. At each side of the closer or door 2 is a short transverse shaft or spindle 6, which extends through the door and is provided upon its outer end with a head or knob 6', whereby it may be turned. The inner end of the shaft

or spindle is either bent or provided with a lateral extending arm 7, adapted to engage behind the inner edge of the fireplace, as shown in Fig. 2. By turning the buttons or knobs 6' the arms 7 may be moved out of engagement with the grate-front, whereupon the closer may be readily removed.

It will of course be understood that the shape of the closer may be varied to suit the shape of the opening in the fireplace and that other changes may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

It is essential to the satisfactory use of grate-closers of the class to which my invention relates to effect a tight dust-proof joint between the inner face of the closer and the frame of the grate. Heretofore it has been proposed to employ a yielding packing between the parts, with means for compressing the packing between the joined parts. The peculiar construction of the elements of my device, as will now be pointed out in connection with Fig. 2 of the drawings, obviates the necessity of employing a packing of any character.

The frame 1 of the grate is provided on its outer side with a groove or recess 8, extending around the top and sides of the opening in the frame and conforming to the outline of said opening. The inner face of the closer is provided with a continuous rib 9, fitting within the recess 8, as clearly shown in Fig. 2. The edges 10 of the opening are beveled to form wedge-surfaces 11, against which the arms 7 contact to closely clamp the closer 2 upon the frame 1. The location of the fastenings 6 and 7 at opposite sides of the frame contributes to secure clamping action, as said fastenings firmly bind the closer at diametrically opposite points.

The division of the closer 2 into two hinged sections permits the grate-opening to be partially exposed for the feeding of fuel or to allow the fire to be inspected without removing the closer when the latter is used as a blower.

I claim as my invention and desire to secure by Letters Patent—

1. The combination with a grate-frame, provided on its outer face with a continuous groove or recess, and on its inner face with

beveled wedge-like surfaces, of a closer having on its inner face a continuous rib to fit said groove, and provided with fastening devices comprising arms adapted to be turned  
5 into contact with the wedge-surfaces of the frame, substantially as described.

2. The combination with a grate-frame provided on its outer face with a continuous groove or recess and beveled at its inner face  
10 to form wedge-like surfaces, of a closer provided with a continuous rib fitting the groove of the frame, and centrally divided and hinged to form independent doors, and fastening de-

vices located at opposite sides of the closer in the same horizontal plane, and comprising 15 arms 7, and means for turning said arms into clamping contact with the wedge-surfaces of the frame, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscrib- 20  
ing witnesses.

ANDREW H. THARP.

Witnesses:

HENRY GLUNT,  
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