

(No Model.)

2 Sheets—Sheet 1.

C. A. HOWE.
FIREPLACE ATTACHMENT.

No. 470,244.

Patented Mar. 8, 1892.

Fig. 1.

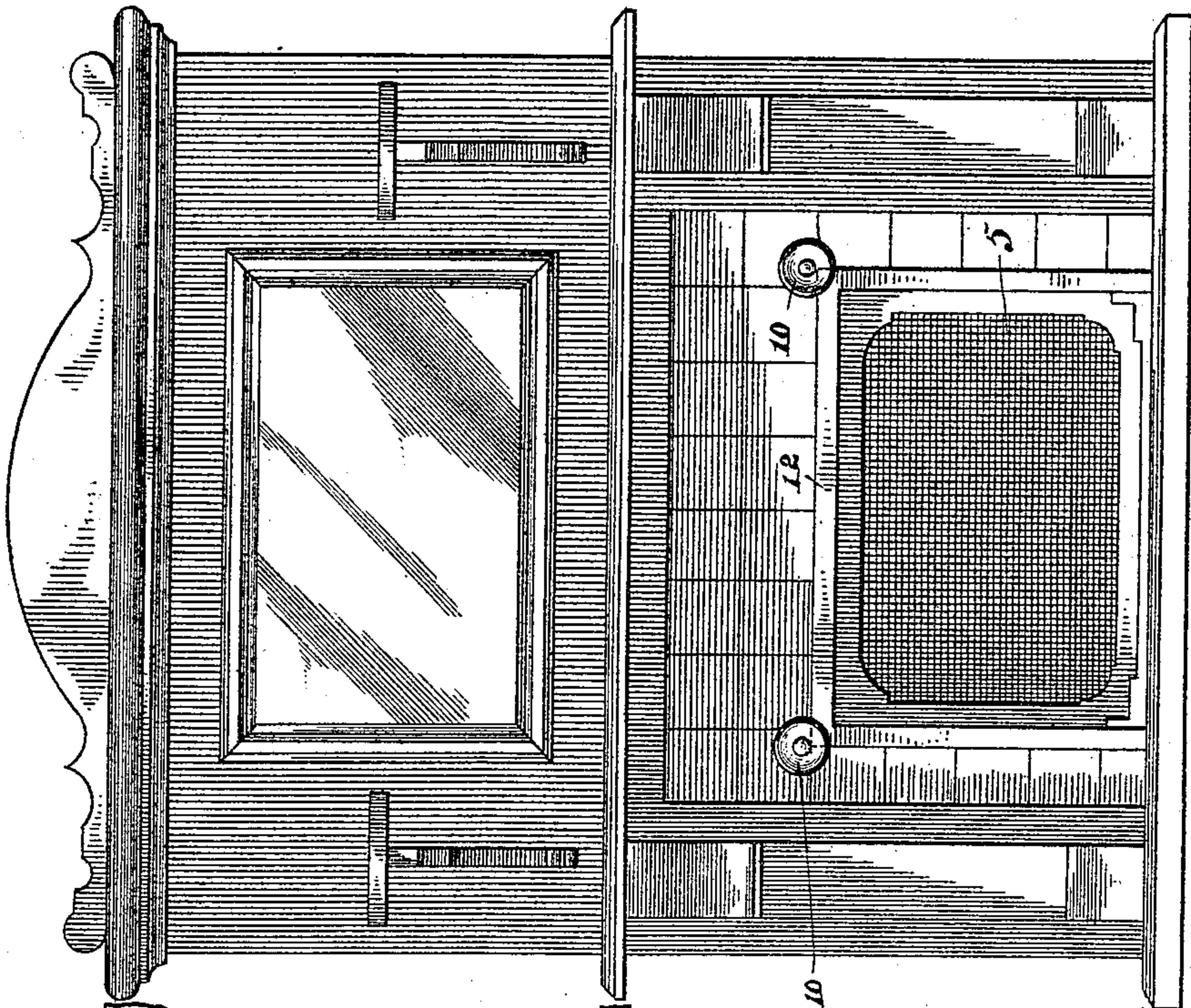
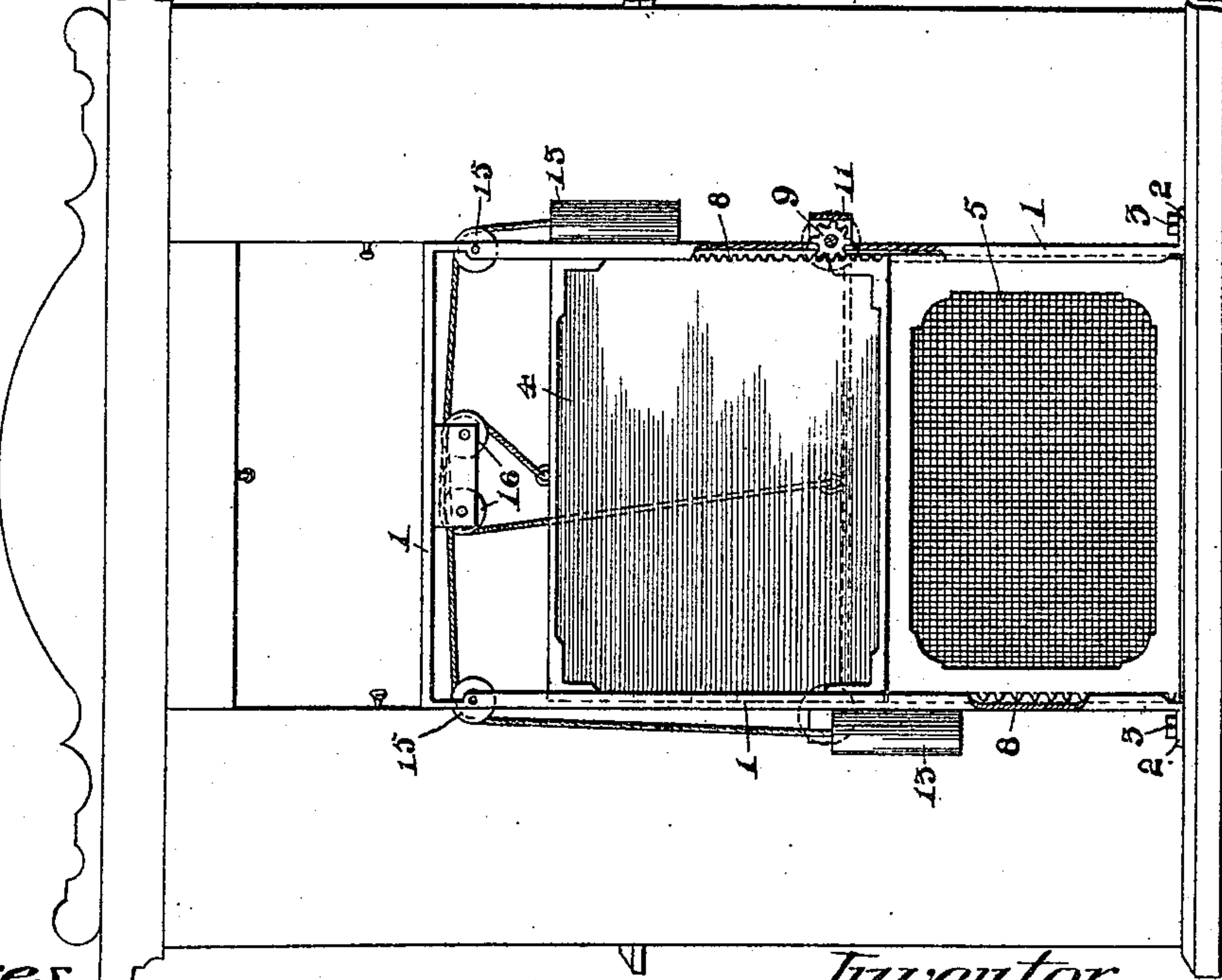


Fig. 2.



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by
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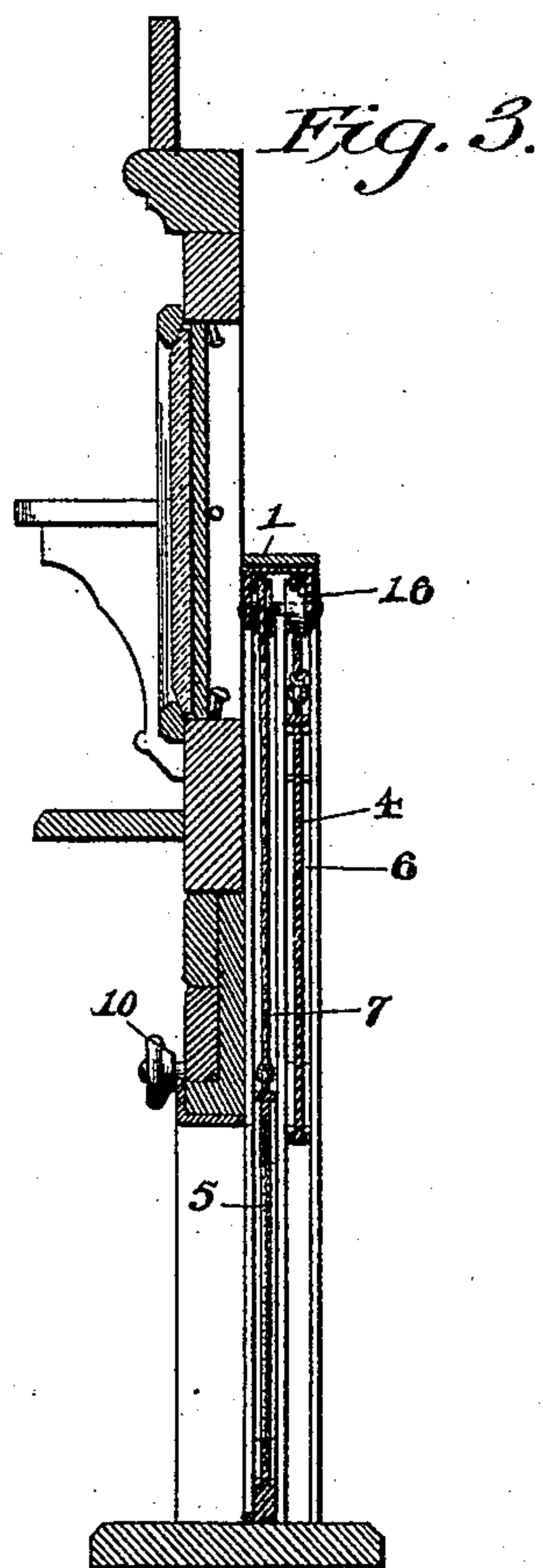
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UNITED STATES PATENT OFFICE.

CHARLES A. HOWE, OF BUCHANAN, MICHIGAN.

FIRE-PLACE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 470,244, dated March 8, 1892.

Application filed August 17, 1891. Serial No. 402,890. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. HOWE, a resident of Buchanan, in the county of Berrien and State of Michigan, have invented certain
5 new and useful Improvements in Fire-Place Attachments; 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 pertains to
10 make and use the same.

The invention relates to an attachment for fire-places, and has for its object to provide a distinct and separate frame to support a screen or blower, which frame and screen or
15 blower are adapted for application to fire-places generally without requiring any modification thereof.

The invention consists in the construction hereinafter described and particularly pointed
20 ed out.

In the accompanying drawings, Figure 1 is a front elevation. Fig. 2 is a rear elevation, partly sectional. Fig. 3 is a transverse vertical section on a central line.

25 Numeral 1 denotes a frame, preferably of cast-iron and of a size corresponding to that of the fire-place within which it is to be placed, which frame can, if desired, have its side and top members detachably secured together to facilitate its introduction into a fire-
30 place. As represented, it is provided with feet or brackets 2.

3 are fastening bolts or screws passing through said brackets to secure said frame in
35 position. Any convenient means for holding the frame in position in a fire-place may be used.

4 indicates a close screen or blower, and 5 a wire or other reticulated or open-work
40 screen adapted to be adjustably held in the grooves 6 and 7, respectively. As shown, these screens are plain or flat, the main body portion of each being in the same plane with the edges which fit and move within the grooves.
45 It is not, however, essential that the plain or flat form may be used in all cases. Each screen is provided on one of its edges with a rack 8.

9 are pinions, each of which gears with a
50 rack and is adapted to move a screen in a vertical plane.

10 are hand-wheels fast on the axis of the

pinions and suitable for turning the pinions to raise or lower the screens.

11 indicates a housing for the pinion, whose
55 shaft or axis has a bearing in the ends of the housing and extends through the fire-place front, preferably just above the jamb 12. Each screen is counterbalanced by a weight
60 13, connected therewith by a chain or wire rope, which passes over pulleys 15 and 16, suitably supported in the frame. The pulleys 15 are immediately over the grooves 6 and
65 7 in the frame, and the pulleys 16 are supported in a bracket or housing at the center of the top cross-bar of the frame, by which arrangement provision is made for attaching
the ropes to the screens at the center of their upper edge.

In operation a screen (either of them if two
70 are employed) is raised or lowered by turning a pinion by means of a hand-wheel, the desired effect being aided by the counterbalancing-weight. The close screen can be used as a blower, and it can also either be raised
75 entirely out of sight or lowered to hide the fire-walls and grate and its contents, as when the fire is to be smothered or during the summer season. A perforated screen will have
80 partial effects of the same kind and will suffice to prevent coal or sparks from being thrown forward out of the fire-place. Preferably screens of both kinds will be used to secure the various effects in any desired de-
85 gree, according to the circumstances of use.

I am aware that adjustable and counterbalanced blowers and screens have heretofore been used, and such devices are not herein
claimed. It is characteristic of my invention that a distinct and separable frame of the
90 character herein set forth, adapted to support a screen or blower and its operating devices, is employed. This frame and its appurtenances can be separately made and applied
95 either when the fire-place is built or subsequently, and constitutes a separate article of manufacture suitable for use with fire-places, either new or old.

The mechanical details may be varied without departing from the invention, provided
100 the principle of construction and of operation are not substantially changed.

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

1. The attachment consisting of the separate removable and portable frame adapted to be inserted within and removed from fire-places, in combination with a screen and devices for raising and lowering the same in the said frame and means independent of the mantel and fire-place front for detachably securing the frame within the front masonry wall of the fire-place, substantially as set forth.

2. The detachable portable frame having the separable side and top members and provided with bearings for pulleys and for pinions, in combination with pulleys, a pinion, a screen provided with a rack, said screen being adapted to be moved in the frame by the rack and pinion and the front wall of the fire-place, and means independent of the mantel and fire-place front for securing the frame within said front wall, substantially as set forth.

3. The separate removable portable frame having the side and top members, the former being grooved, pulleys supported in the frame above the grooves, and a pulley supported centrally in the top member of said frame, a screen, a counterbalance-weight, a rope connecting the screen and weight, and a pinion supported in the frame, said screen having a rack in its edge engaged by the pinion, or said pinion provided with a shaft extending through the front wall of the fire-place and having on its outer end a handle, and means for securing the detachable frame within a fire-place, substantially as set forth.

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

CHARLES A. HOWE.

Witnesses:

JOHN C. DICK,

JOHN W. BEISTLE.