

(No Model.)

W. E. JORDAN.
GRATE FRONT.

No. 579,987.

Patented Apr. 6, 1897.

Fig. 1.

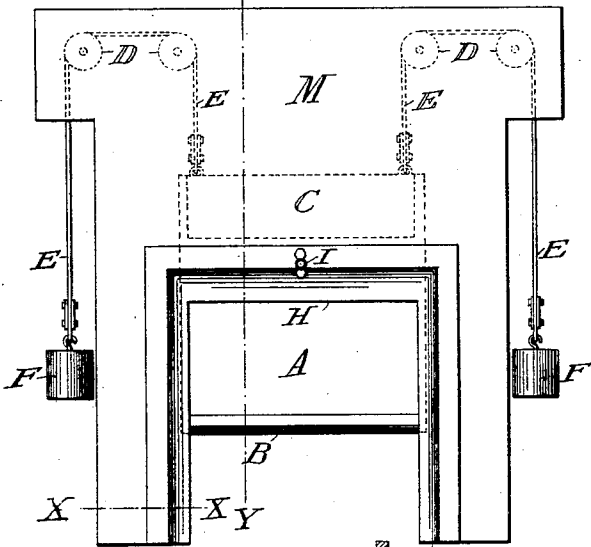


Fig. 2.

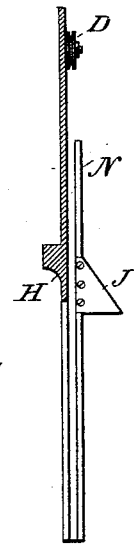


Fig. 3.

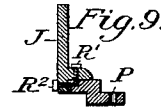
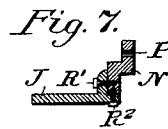
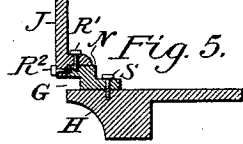
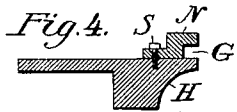
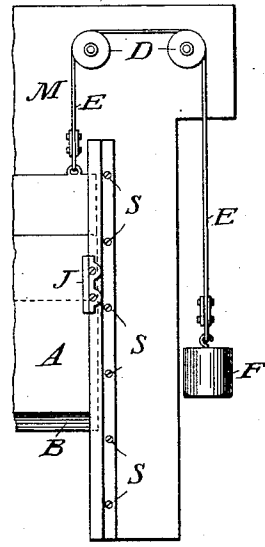


Fig. 10.

Fig. 6.

Fig. 8.

Fig. 11.

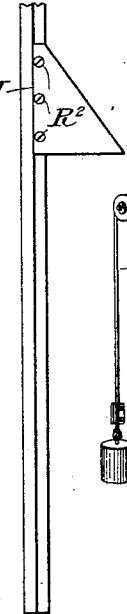
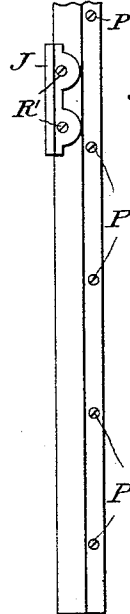
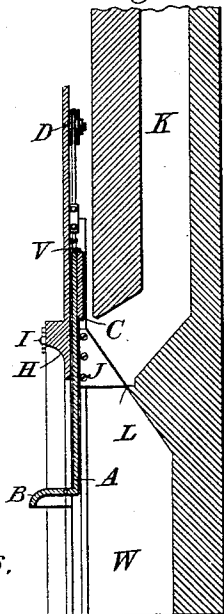
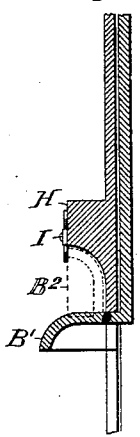
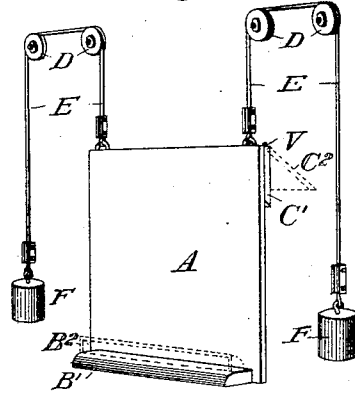


Fig. 12.



Witnesses.

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William E. Jordan

UNITED STATES PATENT OFFICE.

WILLIAM E. JORDAN, OF NASHVILLE, TENNESSEE.

GRATE-FRONT.

SPECIFICATION forming part of Letters Patent No. 579,987, dated April 6, 1897.

Application filed February 8, 1896. Serial No. 578,561. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. JORDAN, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Combination Grate-Front, of which the following is a specification.

My invention relates to an improvement in grate-fronts.

The objects of my invention are:

First. A disappearing summer-front which can be raised entirely out of view when not in use, thus overcoming the inconvenience of having to remove the summer-front from the grate in winter and then replacing it in the summer. This summer-front when not in use is simply raised and disappears behind the mantel, leaving no trace of a summer-front, no hood, no roller, or other unnecessary fixtures on the front of same to mar the appearance of the mantel, the entire mechanism of the summer-front and fixtures for operating same being entirely out of view.

Second. A shutter or cut-off on the back of said summer-front which when front is drawn and fireplace not in use acts in such a manner as to cut off all connection with the flue and prevents the falling of soot or dirt in the fireplace or on the hearth during the summer when grate is not in use.

Third. A smoke-cap at lower end of summer-front, which will catch such smoke as may pull out beyond the arch of grate-front.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows the front elevation of grate-front with summer-front half drawn. Fig. 2 shows a sectional view of grate-front through dotted lines *yy* without summer-front. Fig. 3 is a half-elevation of the back of grate-front, showing pulleys, weights, and fixtures. Fig. 4 is a sectional plan of grate-front through lines *xx*, drawn to a larger scale, showing strip on back of same for holding summer-front in its position. Fig. 5 is the same as Fig. 4, with guide for cut-off attached and drawn to the same scale. Fig. 6 is part of the strip which holds summer-front in position with guide attached. This guide is for guiding the shutter or cut-off on back of summer-front to its position to cut off connection with

the flue. Fig. 7 is a sectional plan of the same, Fig. 6. Fig. 8 is another view of Fig. 6. Fig. 9 is a sectional plan of the same, Fig. 8. Fig. 10 is a section of grate-front, summer-front in its position half drawn with smoke-cap attached to lower end and shutter or cut-off hanging from upper end; also position of guides for guiding shutter to cut-off (when summer-front is drawn) to cut off connection with flue and general connection of grate-front with flue and fireplace. Fig. 11 shows smoke-cap attached to lower end of summer-front, drawn to larger scale. Fig. 12 is a perspective view of summer-front with smoke-cap attached to lower end of same and shutter or cut-off attached on back of upper end of summer-front with fixtures all in their respective positions. This summer-front, smoke-cap, and cut-off can be made of cast or sheet iron, either plain or decorated, if desired. It can be faced with embossed or hammered brass, which would give it a bright and artistic appearance.

Similar letters refer to similar parts throughout the several views.

The front M is the frame upon which the summer-front and fixtures are hung. The summer-front A is held in position by the strips N, one on each side of the opening for fireplace, which forms slots G in Figs. 4 and 5, in which summer-front can be raised and lowered. The summer-front A is balanced by weights F, connected by small wire rope or chain E to summer-front A. The chain E, passing over pulleys D, thus acts in the same relative manner as the sash of a window balanced by weights in its boxes. This summer-front A when not in use can be raised entirely out of view behind the mantel or grate-front M, thus becoming a disappearing summer-front, leaving no trace of a summer-front on the face of the mantel. By this mechanism I overcome the inconvenience of removing the ordinary summer-front (now in common use) in the winter, when the fireplace is needed, and replace it again in the summer. This disappearing summer-front simply rises out of view without the use of a roller or a stationary hood or cap to cover same or any unnecessary fixtures on the face of mantel or grate-front to mar the general appearance of the same.

The strip N is illustrated in several figures. Figs. 6 and 7 show the mechanism of this strip, with holes P to admit screws S for fastening same to back of frame M, and form slots G in Figs. 4 and 5 for holding summer-front A in its position.

The shutter or cut-off C, which is hung like a hinge at V, Figs. 10 and 12, on the back of summer-front and at top of same, is a self-acting cut-off. It works in a self-acting way and cuts off connection with the flue K when the summer-front is in use and drawn, thus preventing the falling of soot and dirt from the flue K into the fireplace W, Fig. 10, during the summer when grate is not in use. In drawing the summer-front A the cut-off C, Fig. 10, comes in contact with the guide J, which guides cut-off C to notch L, cutting off connecting-flue K with fireplace W. Fig. 12 shows cut-off C in two positions C' and C². These guides J are fastened one on each side of fireplace to strip N by screws R' and R², which is attached to frame M by screws S. (See Fig. 5.)

The smoke-cap B, which is attached to summer-front A, is shown in a large scale and in two positions in Fig. 11—B' when cap is in use and B² when cap is not in use and folded back into the concave mold of arch H, fastened by a hook or button I, which prevents it from marring the appearance of the front when not in use as a stationary cap would. I am aware, however, of there being a curtain of asbestos or similar material for acting as a summer-front, a roller-curtain with large hood in front, or a folding apron with more or less fixtures on the face of mantel or grate-front, which greatly mar the appearance of the same. I know of no case in which there is a disappearing summer-front which disappears entirely out of view behind mantel with no fixtures whatever for operating same upon the

front of mantel or grate-front to mar the appearance of the same.

I am aware of there being cut-offs or throats for cutting off draft and connection with flue or chimney, but I know of no case where the cut-off is self-acting, where cut-off acts in harmony with summer-front, being attached to same. This cut-off being self-acting it requires no fixtures on the face of mantel or grate-front to operate it, which I again claim saves the appearance of the front. Smoke-caps have been in use, but I know of no case where they are so attached to summer-fronts as to be raised and lowered, as desired, and can be folded back into the arch of grate-front when not in use.

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

1. The combination with a fireplace of a vertically-movable summer-front adapted to close and disclose the same, of a cut-off hinged to the top of said front and adapted, when the front is lowered, to be swung backward to cover the throat of the chimney.

2. The combination with a fireplace having a vertically-movable summer-front, of a smoke-cap attached to the lower end of the summer-front and projecting from the side of the same, whereby when the front is raised, it will serve to prevent smoke from entering the room.

3. The combination with a fireplace of a vertically-movable summer-front closing the same, having at the front of its lower end a recess, and a cut-off hinged to said summer-front and adapted to be swung into said recess.

WILLIAM E. JORDAN.

Witnesses:

MICHAEL E. BARDON,
DOMNICK E. DENNEDY.