

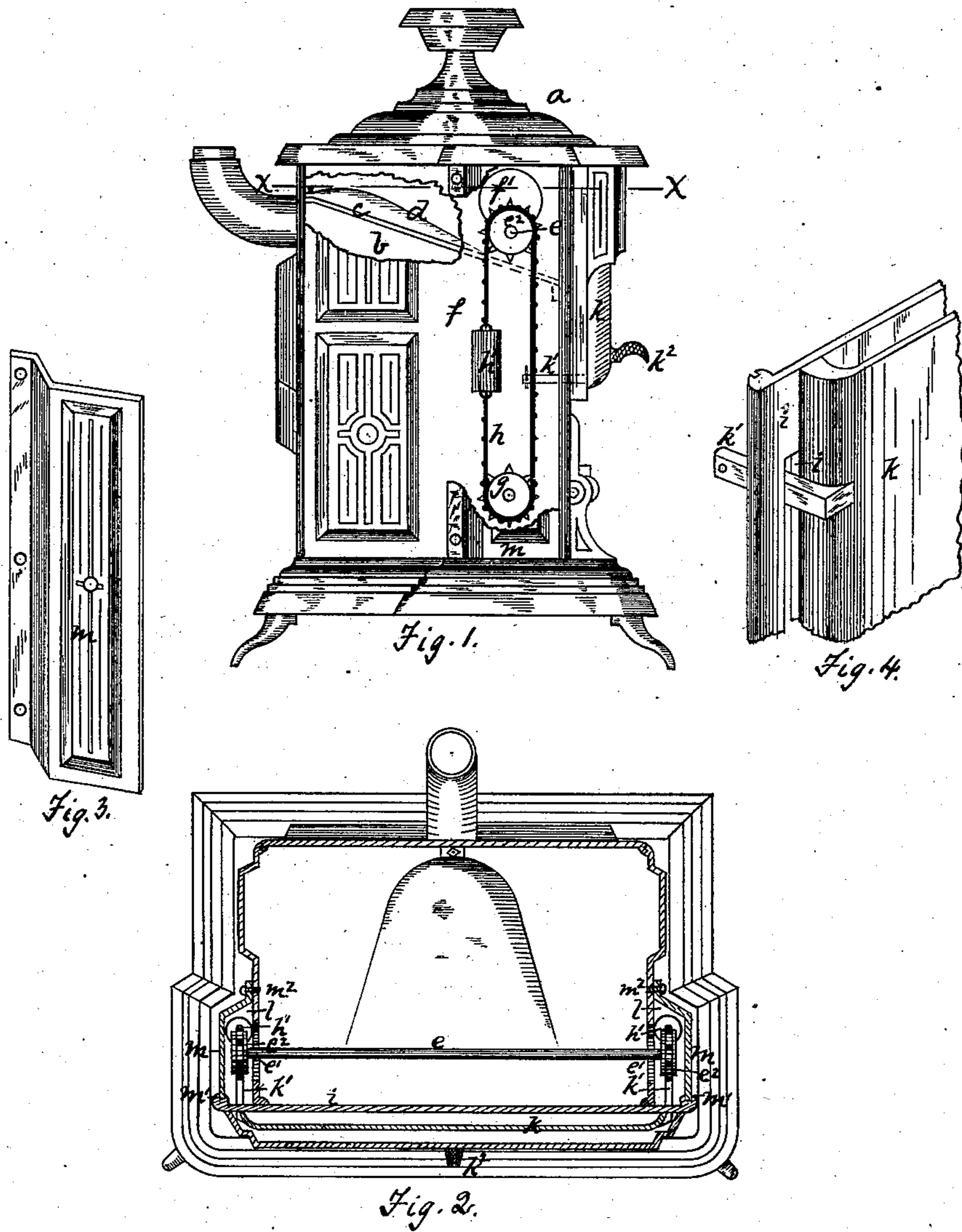
(No Model.)

F. S. BISSELL.

ADJUSTABLE BLOWER FOR FIRE PLACES AND STOVES.

No. 294,569.

Patented Mar. 4, 1884.



Witnesses

W. B. Convin
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Inventor

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UNITED STATES PATENT OFFICE.

FRANK S. BISSELL, OF PITTSBURG, PENNSYLVANIA.

ADJUSTABLE BLOWER FOR FIRE-PLACES AND STOVES.

SPECIFICATION forming part of Letters Patent No. 294,569, dated March 4, 1884.

Application filed July 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. BISSELL, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Adjustable Blowers for Fire-Places and Stoves; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention is an improvement upon the construction shown and described in Letters Patent No. 261,221, dated July 18, 1882, in which a vertically-moving adjustable blower is suspended upon counterweighted cords passing over pulleys mounted rigidly upon a loosely-journaled shaft, the shaft, pulleys, cords, and weights being placed in chambers separated from the fire-chamber of the stove. It has been my experience that the cords and pulleys were more or less affected by the heat of the stove, and the operation of the blower is not perfect under all conditions. To obviate this objection is the object of my improvement.

To enable others skilled in the art to make and use my invention, I will now describe it by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of an open-faced stove, partly in section. Fig. 2 is a cross-section on the line xx of Fig. 1. Fig. 3 is a view of one of the removable side plates. Fig. 4 is a view of a portion of the front.

Like letters of reference indicate like parts in each.

The stove a is of a well-known construction, and has the upper part of its interior separated from the fire-chamber b by means of a plate, c , so as to form a chamber, d , for containing the shaft e . The shaft e rests in suitable bearings, e' , in the side partitions, f , and at its outer ends is provided with sprocket-wheels e^2 , which are keyed to it. Mounted on stationary journals attached to the side plates, f , at a suitable distance below the sprocket-wheels e^2 , are other sprocket-wheels, g , which turn loosely on their journals. Mounted on the sprocket-wheels e^2 and g are endless chains h , each having a weight, h' . In the front plate, i , at each side of the open-faced stove, is a slot, i' . The adjustable blower k is rested

in front in the usual way, and is provided with two pins, k' —one on each side—which project through the slots i' and enter links in the chains h , in which they are secured by a key. The weight h' is sufficiently heavy to counterbalance the weight of the blower k , so that the latter will be held in any position it may be moved to by the weight. The division-plates f are provided with large holes f' , through which the sprocket-wheels e^2 may be inserted. The purpose of this is to enable the shaft e to be removed from the stove without taking off the top. The chains and sprocket-wheels are inclosed in vertical compartments l by means of removable plates m , which are secured in place by cleats m' and screws m^2 . If it is desired to remove the chains and sprocket-wheels, the plates m are taken off, then the wheels g are slipped off of their journals, the chains taken off the sprocket-wheels e^2 , and the shaft e lifted out. This construction enables me to take out these parts without taking down the stove or removing its top, and greatly facilitates repairs. The blower k is provided with a handle, k' , by means of which it may be moved up and down at pleasure. This construction enables me to make the bearings of the parts which are exposed to heat loose, so that there is no danger of their sticking by reason of their expansion when highly heated.

By reason of these improvements I am enabled to make a stove with an adjustable blower which is not open to the objections I have heretofore experienced in the use of such devices.

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

1. The combination, in a stove or fire-place, of a vertically-adjustable blower, with counter-weights carried by endless chains mounted and moving vertically on upper and lower sprocket-wheels journaled in the sides of the stove, substantially as and for the purposes described.
2. The combination of the vertically-adjustable blower provided with pins, endless chains having counter-weights and connected to the blower by the pins, a shaft having sprocket-wheels rigidly attached thereto and sustaining

the pins, and other sprocket-wheels revolving loosely on stationary bearings, substantially as and for the purposes described.

3. The combination, in a stove or fire-place,
5 of the removable shaft and division-plates having holes to permit the lateral removal of the shaft, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 26th day of June, A. D. 1883.

FRANK S. BISSELL.

Witnesses:

W. B. CORWIN,
JNO. K. SMITH.