

No. 894,364.

PATENTED JULY 28, 1908.

O. BRIZARD.  
STOVE.

APPLICATION FILED OCT. 30, 1907.

Fig. 1.

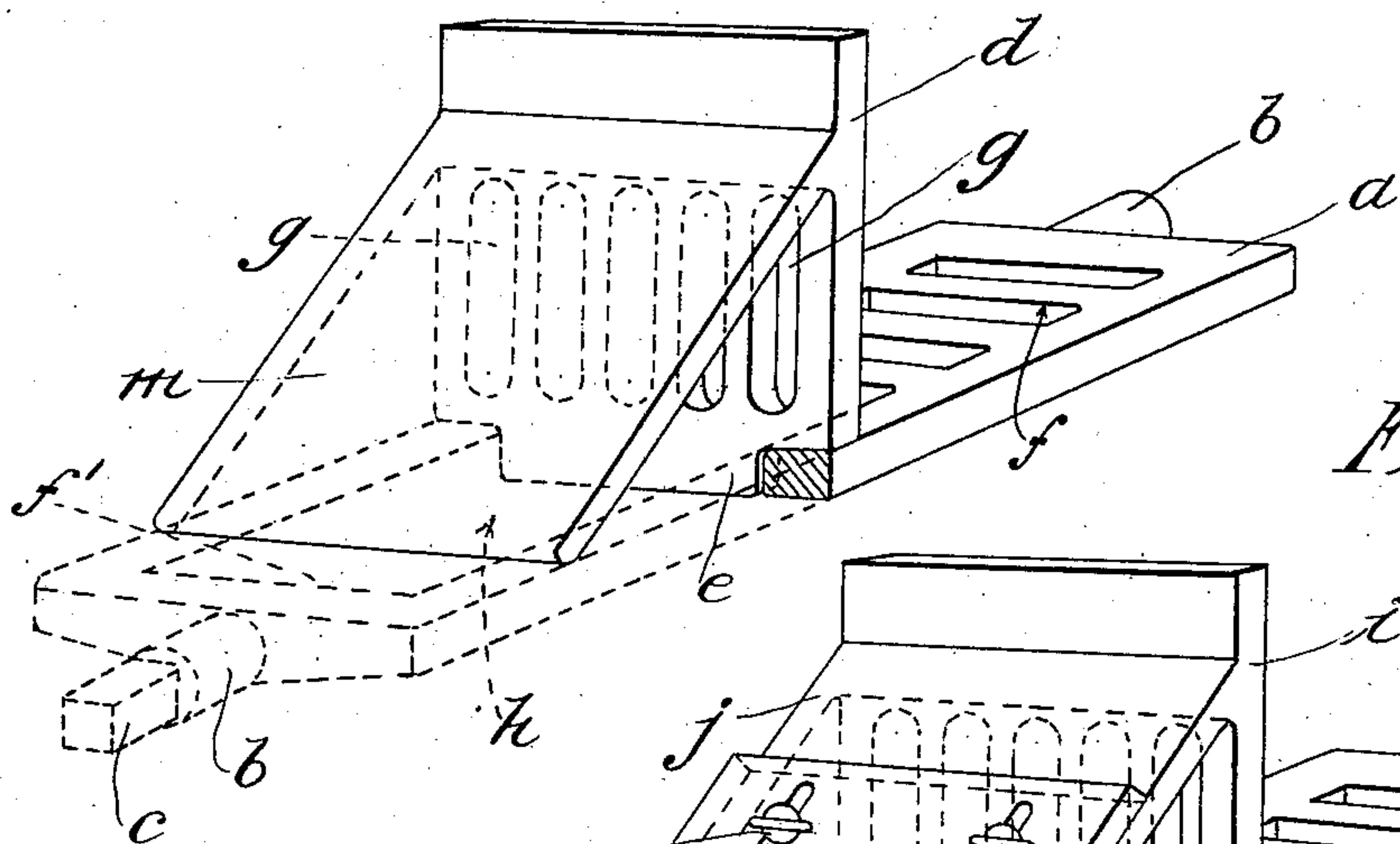


Fig. 2.

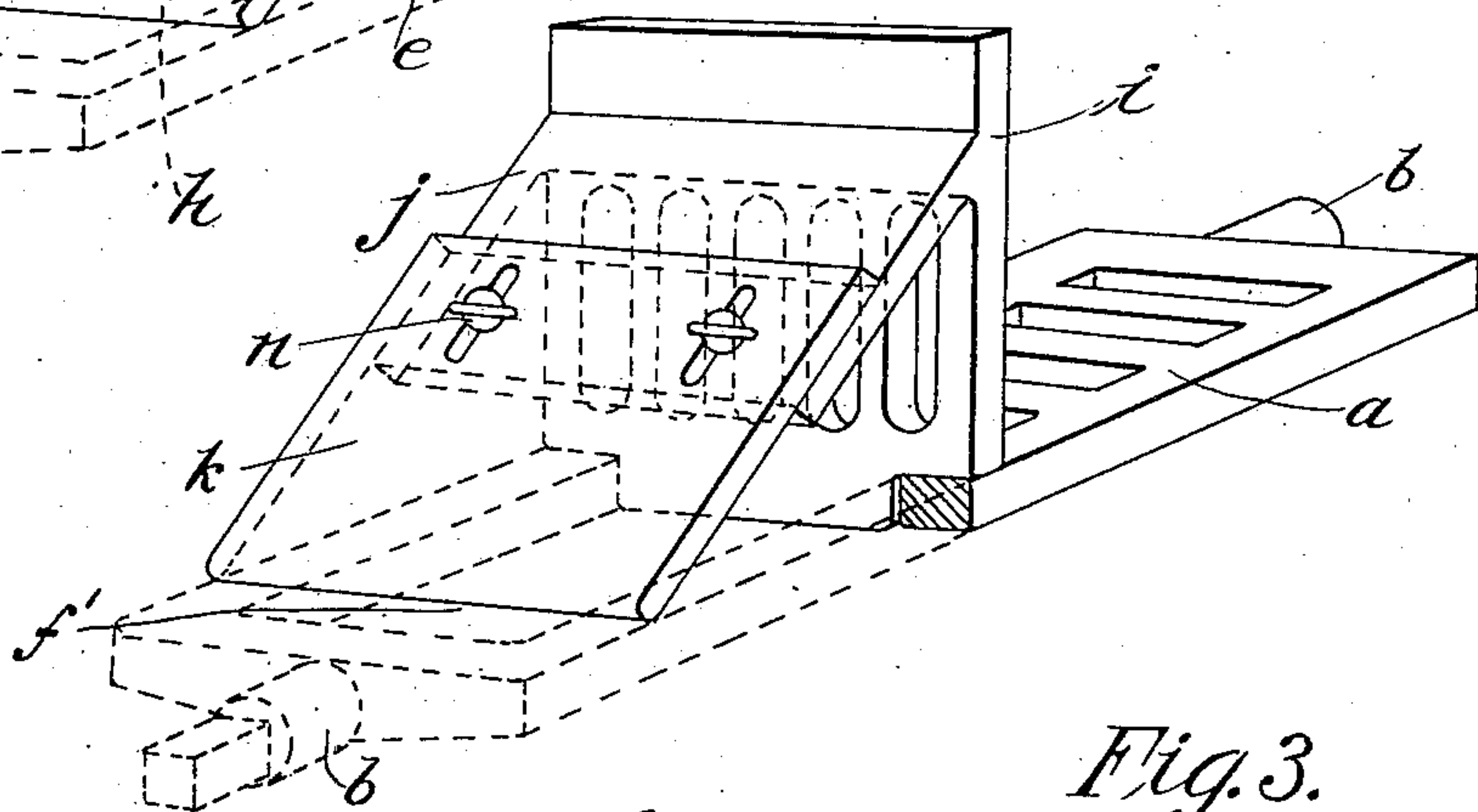
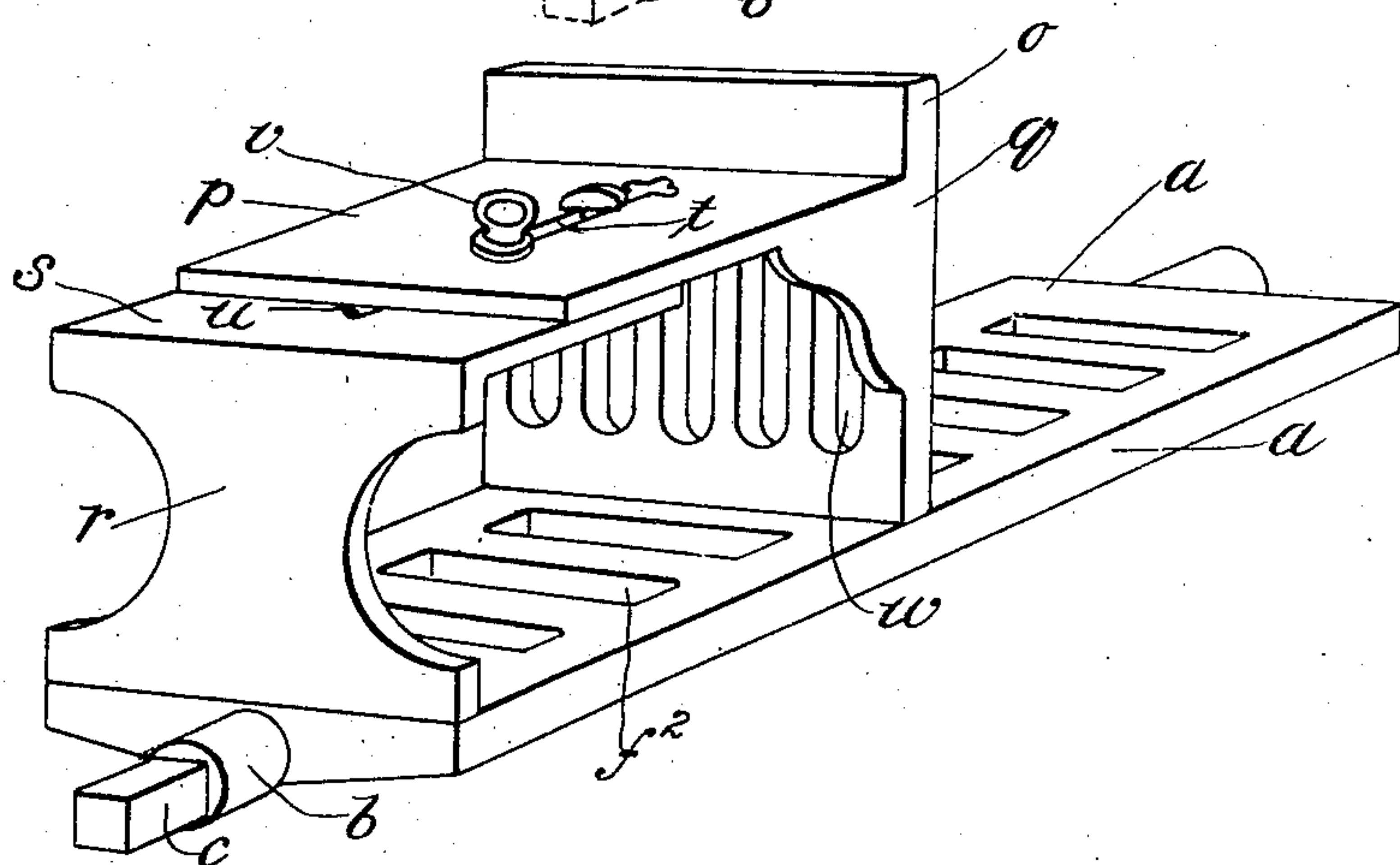


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

OCTAVE BRIZARD, OF HOLYOKE, MASSACHUSETTS.

## STOVE.

No. 894,364.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed October 30, 1907. Serial No. 399,926.

*To all whom it may concern:*

Be it known that I, OCTAVE BRIZARD, a subject of the King of Great Britain, residing at Holyoke, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Stoves, of which the following is a specification.

This invention relates to improvements in stoves, and is particularly confined to devices that are adapted to be associated with the grate-bar of an ordinary cooking range.

The object of the invention is to provide a structure that will readily permit the surface of the grate to be varied according to the requirements of the amount of fire that it is necessary to maintain under different conditions, as for example, in warm weather, when only a small amount of fire is required in the range, thus effecting a saving of heat and fuel at such times.

Broadly stated, the invention consists in providing a movable partition that can be readily attached to, or mounted upon, the grate-bar, and so formed as to be readily adjusted from one end of the same to the other, thus varying the size of the grate to the particular requirements needed.

In the drawings forming part of this application,—Figure 1 is a perspective view of a grate-bar showing associated therewith a movable partition or plate. Fig. 2 is also a perspective view of the grate-bar, but the partition plate is shown associated with a brace element that is made in two parts, as will be fully described, while Fig. 3 is a further modification of a movable partition construction, the same being provided with means for directing the current of air over the burning fuel.

Referring to these drawings in detail, *a* designates a stove grate of ordinary construction since my invention is not confined to any particular form, and the one illustrated merely indicates a structure suitable to my invention, the grate being provided with the usual end trunnions *b*, and a square portion *c* formed on one of the trunnions for rocking the same by means of the usual crank.

*d* designates the movable partition that is provided with a depending portion *e*,—and in use this depending portion fits into one of the openings *f* in the grate. This partition is provided with vertical slots or openings *g* for permitting the draft of air which passes through the grate, (as indicated by the arrows *h*,) to flow over the burning fuel con-

tained on the right-hand end of the grate between the partition *d* and the adjacent end wall of the fire-box (not shown). It is understood that the draft of air can also pass directly upward through the fire by means of the openings *f*. This form of partition does not permit the coal to burn so rapidly since the incoming draft of air is divided between the two portions of the grate, as indicated by the arrows *h* and openings *f*, at the right-hand end of Fig. 1.

Referring to the modification shown in Fig. 2, the partition plate *i* is substantially the same in structure as the partition *d* already referred to, the main difference being in making the brace and deflecting element in this modification in two parts, as designated by the letters *j* and *k*, while in the form shown in Fig. 1 the brace and deflecting element *m* is made in one piece and made integral with the partition *d*. The part *k* is adjustably connected to the part *j* by means of the bolt and slot connection *n*. This construction is designed for permitting the plate to be used in ranges of different sizes; the draft of air in this form, being exactly the same as that described in connection with Fig. 1.

It should be mentioned that the opening *f*<sup>1</sup> permits some of the in-coming current of air to pass directly through the grate without coming into contact with the burning fuel at all.

Referring now to Fig. 3 of the drawings, in which the partition plate *o* is formed integral with an overhanging or horizontally disposed part or plate *p*, a web *q* being employed to connect the same rigidly together: *r* designates an angular piece consisting of the upright part, as shown, and the horizontal portion *s*, the upright part being adapted to rest on the upper surface of the grate *a* while the horizontal portion extends inward and under the plate *p*. Longitudinal slots *t* and *u* are formed in the parts *p* and *s* which register with each other, and a bolt *v* is used for adjustably securing these elements together. In this form, the incoming currents of air through the openings *f*<sup>2</sup> at the left of the plate *o* pass through the vertical openings *w* and over the fire that is contained on the right-hand end of the grate-bar *a*. This form is designed to cause all of the incoming air to pass either through, or over the fire contained in the end of the fire-box while in the other two forms only a por-



tion of the in-coming air is so employed. By varying the position of the partition plate in any of these forms, the active surface of the grate-bar in which the burning  
5 fuel is contained, may be suitably varied according to the requirements, as readily understood.

What I claim, is:—

1. In combination with a grate-bar, a one  
10 piece partition element adjustably mounted thereon and having vertical openings therein for permitting a portion of the in-coming current of air to pass over the fuel contained  
15 between the end of the fire-box and said partition element, and a slot and bolt connection for retaining the partition element in various positions of adjustment, as described.

2. As an improvement in means for confining fuel at one end of a grate, comprising an adjustable partition or element mounted  
20 on said grate, the partition being provided with a series of vertical openings for permitting the current of air to flow from the opposite end of the grate over the fuel confined  
25 between the partition plate and the end of the fire-box, and a horizontally arranged plate integral with the partition, an upright member also located on the grate, and a slot and bolt connection between said plate and the upright member, as described.

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Witnesses:

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