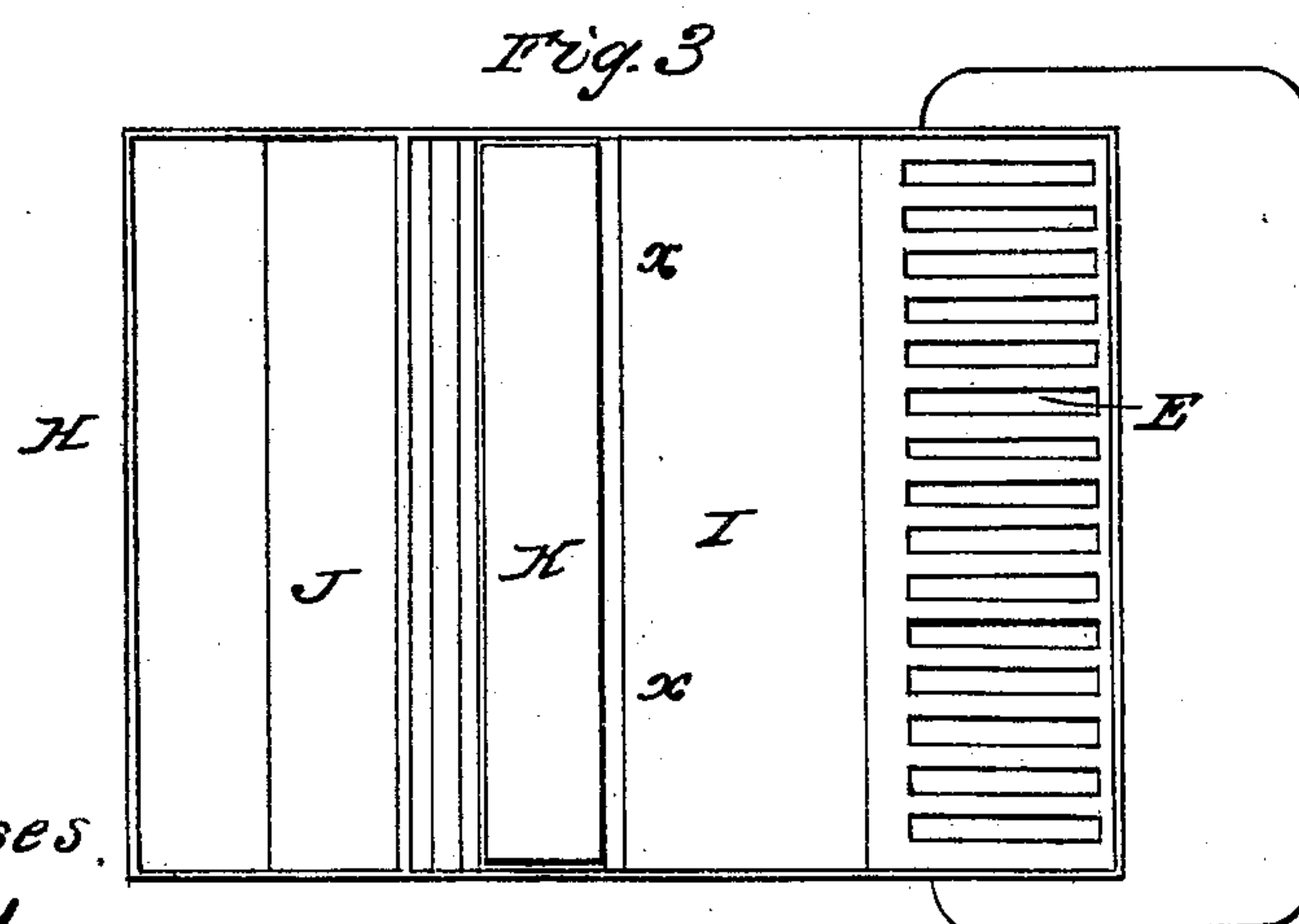
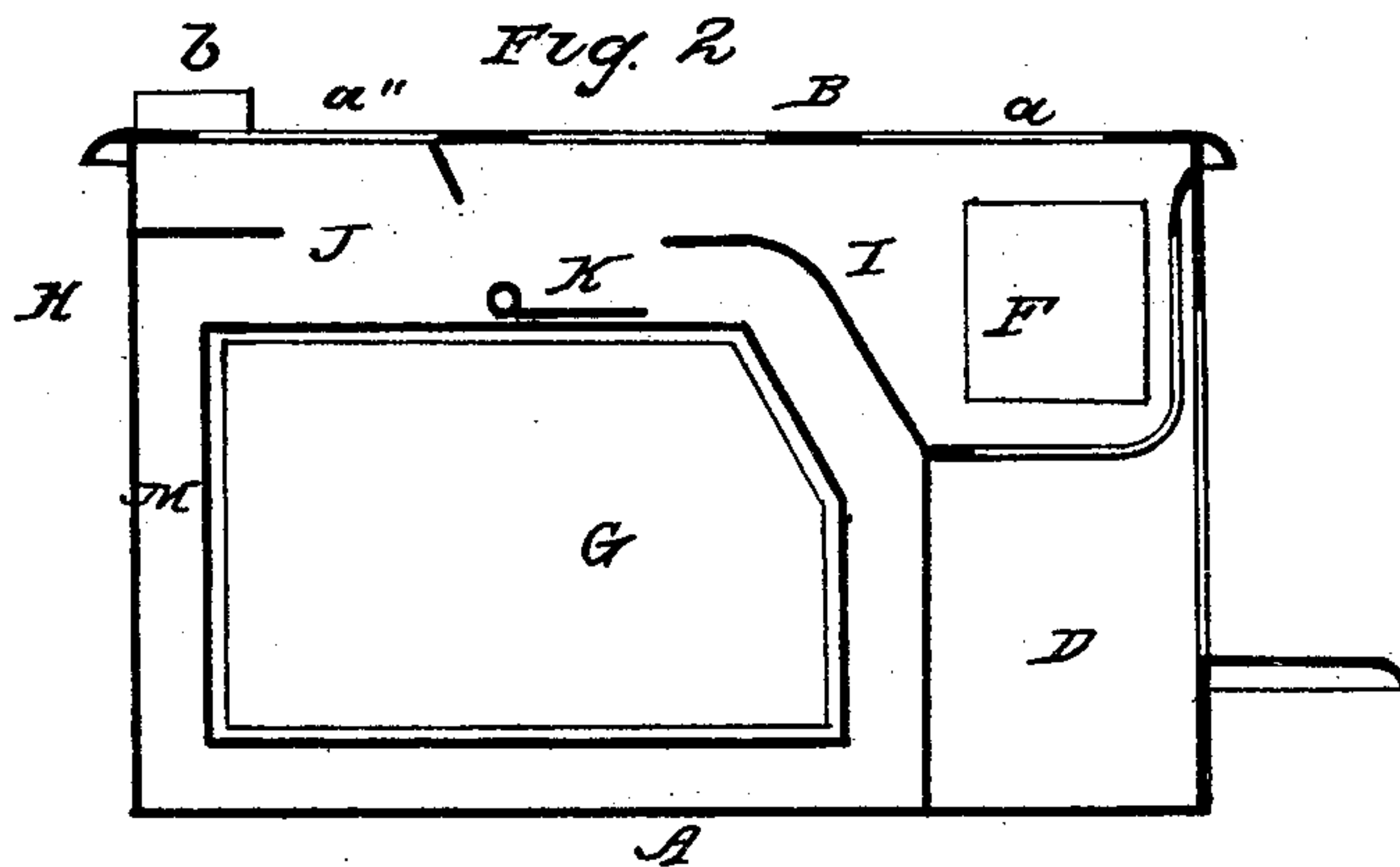
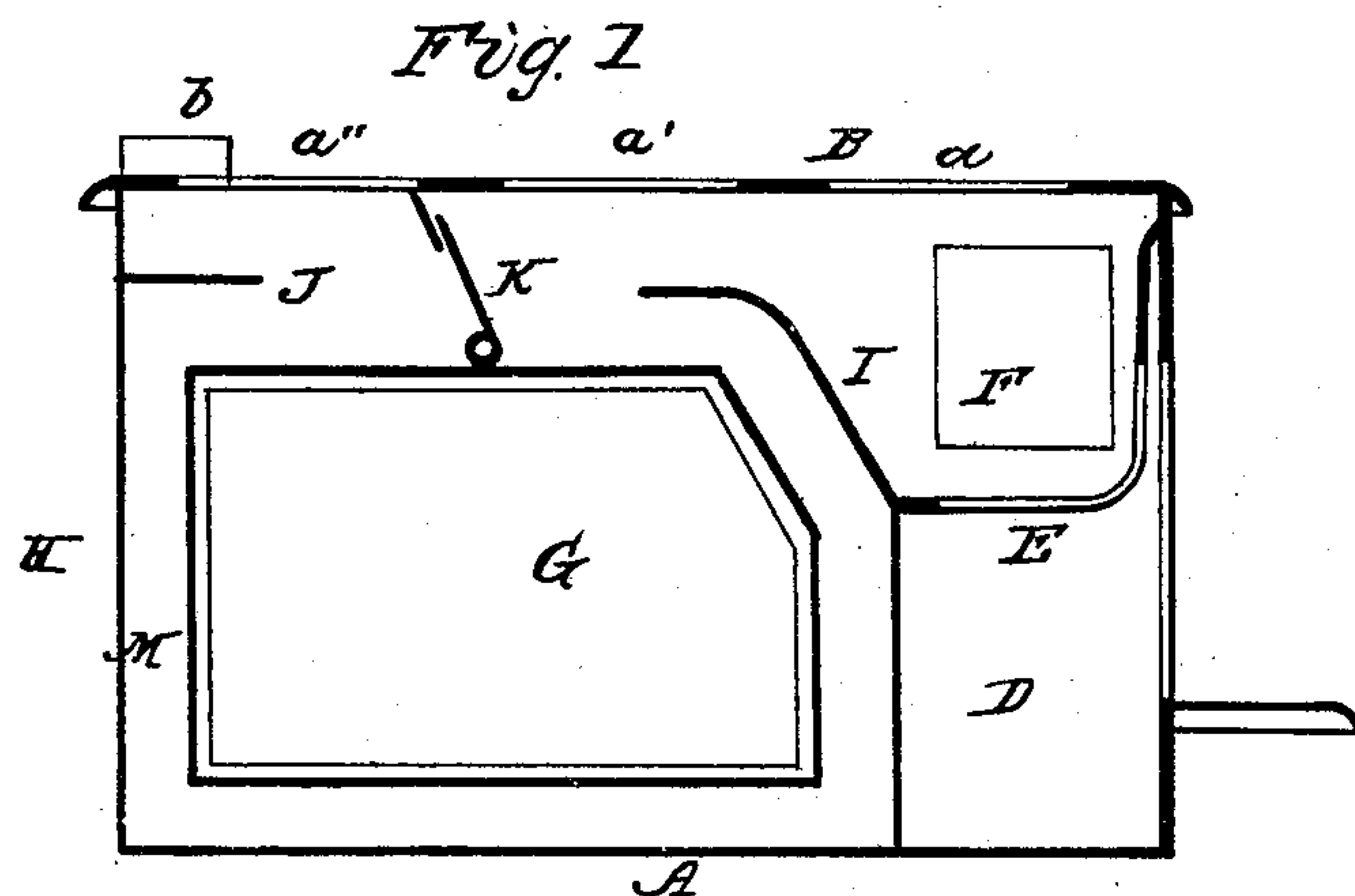


STUART & BRIDGE.

Cooking Stove.

No. 110,400.

Patented Dec. 20, 1870.



Witnesses.

*John B. Harding*  
*John Parker*

Inventors

*D. Stuart & L. Bridge*  
*by his Atty*  
*Howe and Son*

# United States Patent Office.

DAVID STUART AND LEWIS BRIDGE, OF PHILADELPHIA, PENNSYLVANIA,  
ASSIGNORS TO STUART, PETERSON & CO., OF SAME PLACE.

Letters Patent No. 110,400, dated December 20, 1870.

## IMPROVEMENT IN COOKING-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

We, DAVID STUART and LEWIS BRIDGE, both of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improvement in Cook-Stoves, of which the following is a specification.

### *Nature and Object of the Invention.*

Our invention consists of a certain improvement in cook-stoves, too fully described hereafter to need preliminary explanation, whereby a more equal distribution of heat beneath the six boiler holes may be attained than in ordinary cook-stoves.

### *Description of the Accompanying Drawing.*

Figures 1 and 2 are vertical sections of our improved stove; and

Figure 3, a plan view of the same, with the top removed.

### *General Description.*

Our improvement in cooking-stoves partakes of the characteristics of the range for which Letters Patent were granted to us on the 25th day of October, A. D. 1870, as regards the directing of the products of combustion in an undivided volume, first beneath the four boiler holes nearest the fire-place, and then around the oven and beneath the rear boiler-holes to the exit-opening. A cooking-stove, however, differs so much in shape and disposal of parts from a range that, in applying our invention to a stove, a reorganization, which forms the subject of this application, and which we will now proceed to describe, was adopted.

In the drawing—

A is the bottom plate of the stove;

B, the top plate, with its six openings,  $a$ ,  $a$ ,  $a^1$ ,  $a^1$ , and  $a^2$ ,  $a^2$ , and its exit-opening  $b$ ;

D is the ash-pit;

E, the grate, of the form usually adopted in cooking-stoves;

G, the oven; and

H, the rear plate.

At the rear of the fire-place is a plate, I, partly inclined and partly horizontal, as shown in figs. 1 and 2, the horizontal portion terminating at the line  $x$ , fig. 3, which, it will be observed, coincides, or nearly coincides, with the centers of the two middle boiler-holes  $a^1$ ,  $a^1$ , shown by dotted lines.

A shelf or deflector, J, situated between the top of the oven and top plate of the stove, projects from the rear plate H toward the middle of the rear boiler-holes.

Between the top of the oven and top plate of the stove is a valve or damper, K, which, when depressed, as shown in fig. 2, permits the products of combustion to pass directly from the fire-place and beneath the six boiler-holes to the exit-opening  $b$ .

When the damper is raised, however, as shown in fig. 1, the products of combustion will turn downward beneath the middle boiler-holes, pass through the flue in front of the oven beneath the same, and upward through the rear vertical flue H, and on arriving at the shelf J will be directed forward by the latter and be turned beneath the rear boiler-holes before passing through the exit-opening  $b$  to the chimney.

It will be seen, without further description, that the object arrived at, namely, a uniform distribution of heat beneath the whole of the six boiler-holes, is fully attained in a stove of very simple construction.

### *Claim.*

The within-described arrangement of the oven G, fire-place F, the shelf J, damper K, plate I, and flue H, for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

DAVID STUART.  
LEWIS BRIDGE.

Witnesses:

JOSEPH MCCLARY,  
A. H. PERKENPINE.