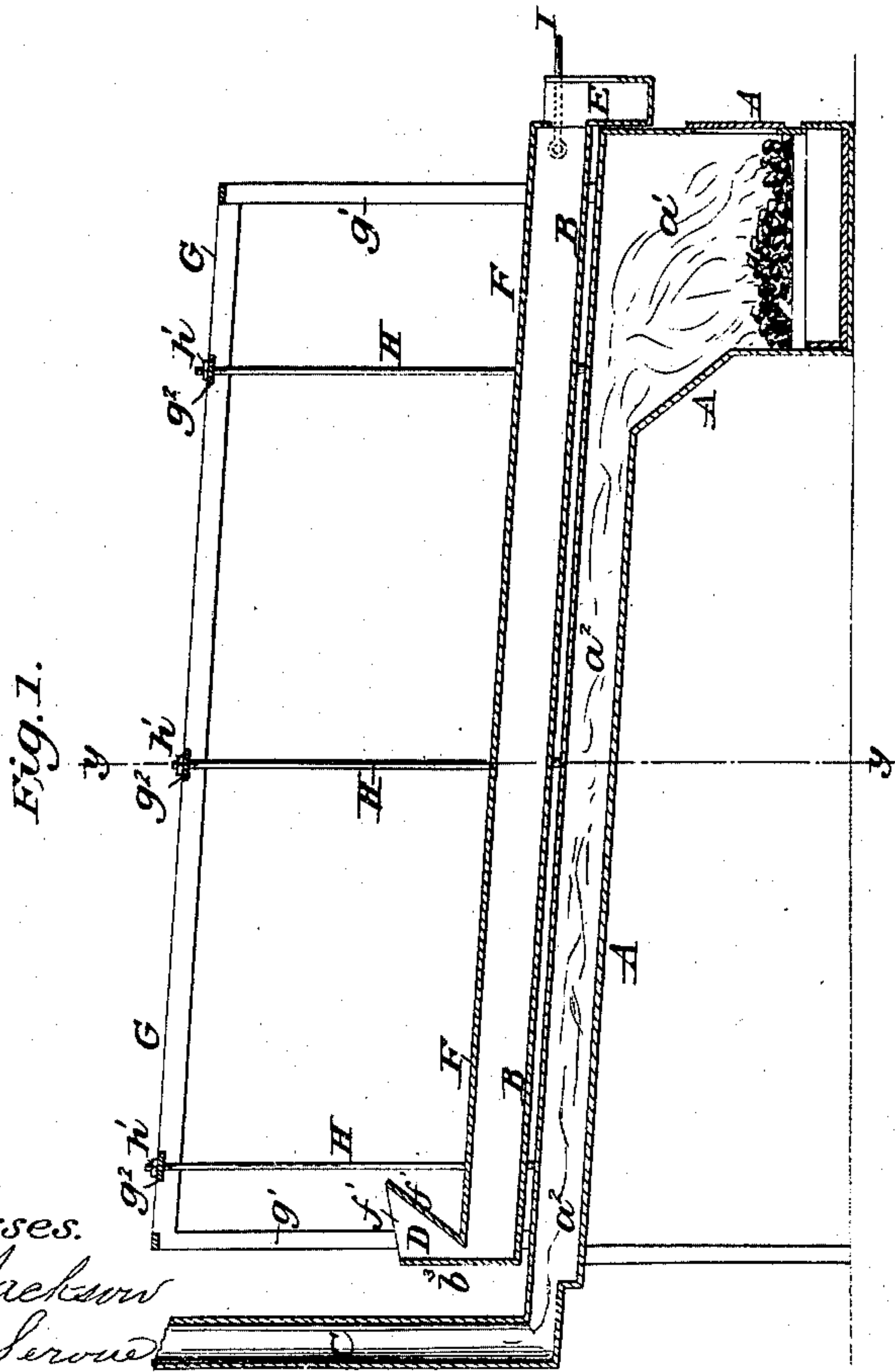
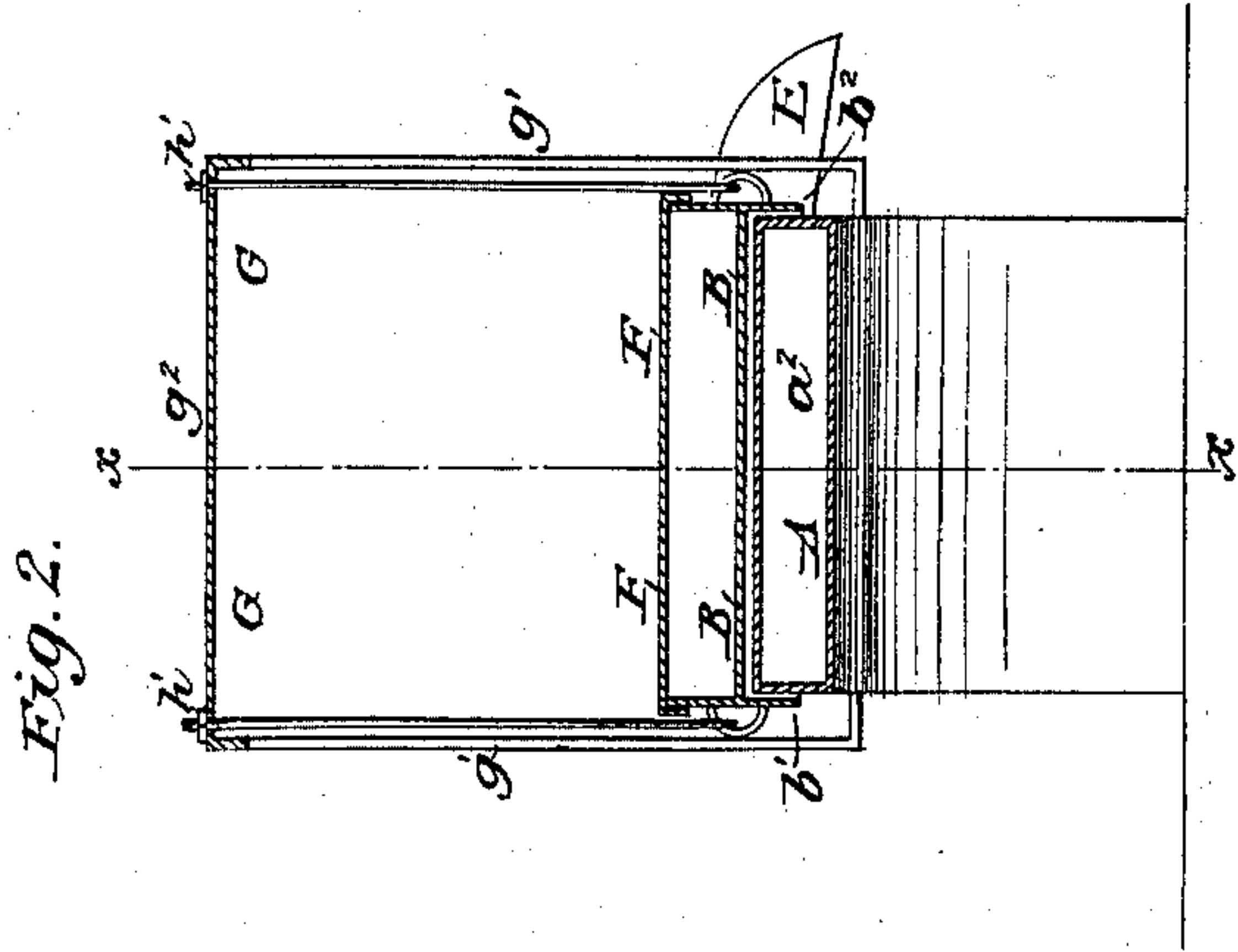


J. R. EVERTSON.  
GRAIN DRIER.

No. 59,989.

Patented Nov. 27, 1866.



Witnesses.

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# United States Patent Office.

## IMPROVEMENT IN GRAIN DRYERS.

JOHN R. EVERTSON, OF MOUNT VERNON, INDIANA.

*Letters Patent No. 59,989, dated November 27, 1866.*

### SPECIFICATION.

#### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN R. EVERTSON, of Mount Vernon, in the county of Posey, and State of Indiana, have invented a new and useful Improvement in Grain Dryer; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved grain dryer, taken through the line *x x*, fig. 2.

Figure 2 is a vertical cross-section of the same, taken through the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved portable apparatus for drying grain, meal, malt, and similar substances quickly and conveniently; and it consists, first, in the oscillating slide or pan, in combination with the furnace and with the supporting frame; second, in the combination of the hopper and cover or lid with the slide or pan, and, third, in the combination and arrangement of a discharging spout with the slide or pan; the whole being constructed and arranged as hereinafter more fully described.

A is the furnace, the fire-chamber,  $a^1$ , of which is extended into a long, broad, and shallow flue,  $a^2$ , which underlies the whole extent of the slide or pan B. C is the chimney into which the smoke passes from the flue  $a^2$ . B is the slide or pan, which is made shallow, and with downwardly-projecting flanges,  $b^1$  and  $b^2$ , on its edges, which pass down on each side of the furnace, A, and serve as guides to the pan as it oscillates, and which also serve to confine the heat beneath the bottom of said slide or pan. The end,  $b^3$ , of the slide B, which is toward the chimney, *c*, is vertical, and extends up above the upper edges of the said pan, so as to form the side of the hopper, D. The other end of the slide or pan, B, is open, and leads directly into the spout, E, so that the grain or other substance being dried may pass freely into the spout, E, upon reaching the end of the said slide or pan, B. The spout E is made inclined, so that the grain may flow quickly from it into the receptacle placed beneath its mouth. F is the cover of the slide or pan, B, and which is made with downwardly-projecting flanges, which overlap the upper edges of the slide, B, and serve to keep the said cover in its place. To the end of the cover F are attached the plates  $f^1$ , which, when the cover F is in its place, form, in connection with the upwardly-projecting end  $b^3$  of the slide B, the hopper D, through which the grain or substance to be dried may be introduced into the dryer. G is a rectangular frame, to which are attached, and which is supported by, the uprights  $g^1$ , the lower ends of which uprights are attached to the furnace A, as shown in fig. 2. To the sides of the slide or pan B are pivoted the lower ends of the rods H, the upper ends of which pass through the cross-bars,  $g^2$ , of the frame G, and terminate in screws. These rods are held in their places so as to support the slide B at the desired elevation above the top of the furnace A, by nuts  $h^1$ , as shown in the drawings. If desired, the rods H may be jointed a little below the cross-bars  $g^2$ ; and this construction I prefer, as the slide then oscillates more freely. I is a pitman, one end of which is pivoted to the side of the slide or pan B: and to the other is connected the crank or cam by means of which the said slide is oscillated.

I claim as new, and desire to secure by Letters Patent—

1. The oscillating slide or pan B, constructed as described, in combination with the furnace A, and with the frame G, substantially as and for the purpose set forth.

2. The combination of the cover F, and hopper D, constructed as herein described, with the slide or pan B, substantially as and for the purpose set forth.

3. The combination and arrangement of the discharging spout E, with the slide or pan B, substantially as described and for the purpose set forth.

JOHN R. EVERTSON.

Witnesses:

CHAS. F. LEONARD,

JOHN BURTIS