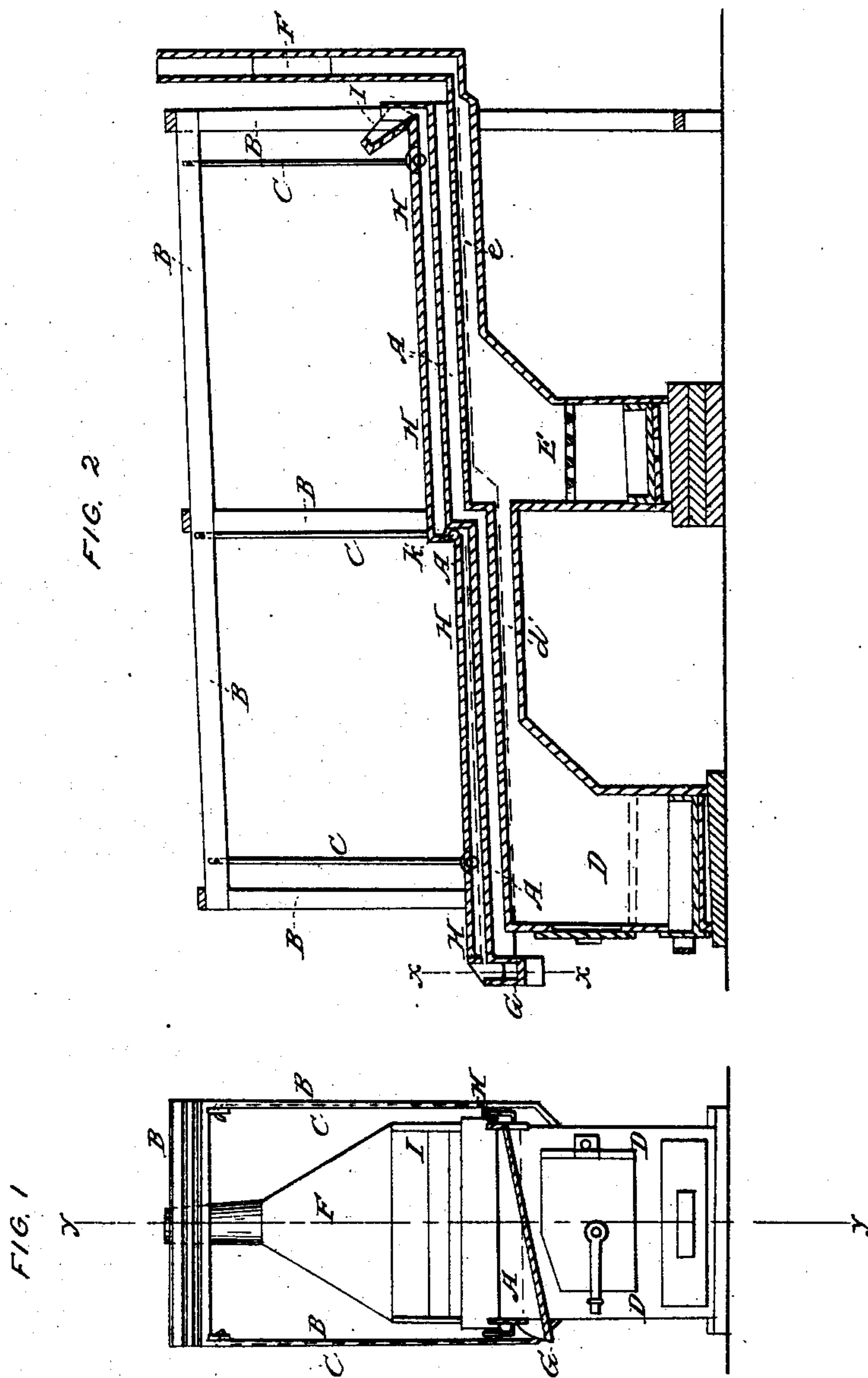


J. R. EVERTSON.

Grain Drier.

No. 69,785.

Patented Oct. 15, 1867.



WITNESSES:

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# United States Patent Office.

JOHN R. EVERTSON, OF MOUNT VERNON, INDIANA.

*Letters Patent No. 69,785, dated October 15, 1867.*

## IMPROVEMENT IN GRAIN-DRIERS.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN R. EVERTSON, of Mount Vernon, Posey county, Indiana, have invented a new and improved Grain and Meal-Drier; 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 an end view of my improved drier, partly in section, through the line *x x*, fig. 2.

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

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of my improved grain-drier patented November 27, 1866, and numbered 59,989, so as to make it more effective in operation, and so that the same effect may be produced with a smaller amount of fuel; and it consists in the combination of one or more additional furnaces, with the furnace and slide or pan, in such a way that the flue of each preceding furnace may lead into the upper part of the succeeding furnace; in forming an offset or shoulder in the pan or slide at or near the point at which the furnaces intersect, and in forming an opening or openings in the cover of the oscillating-pan, at the intersection of the several furnaces; the whole being constructed and arranged as hereinafter more fully described.

A is the slide or pan which is suspended from the frame B by the rods C, and is oscillated in the manner described in Patent No. 59,989. D is a furnace, placed under the forward end of the pan A, and the flue *d'* of which leads back directly beneath the bottom of the pan A, and opens into the upper part of the furnace E. The furnace E is placed beneath the middle part of the pan A, and its flue *e'* leads back directly beneath the rear part of the pan A, and opens into the chimney F. If desired, more than two furnaces may be used, and in the case of very long pans this may be advisable, the flue of each preceding furnace opening into the upper part of the succeeding one, in the manner shown in fig. 2. By this arrangement the rear part of the oscillating-pan A, into which the wet grain, meal, or other substance to be dried is introduced, is or can be made the hottest, so as to thoroughly heat the said substance as it enters the pan so that it may escape at the other end through the discharging-spout G, thoroughly dried. At or near the point or points at which the flue of the preceding furnace opens into the upper part of the succeeding one, is formed an offset, shoulder, or step, *a'*, three inches, more or less, in height, according to the size of the pan. As the grain or other substance to be dried passes down the offset *a'*, it is turned over, so that it may issue from the spout G thoroughly and evenly dried. H is the cover, which fits upon the top of the pan A, and which may be made in one or more pieces or parts, as may be desired or convenient. In the cover H, at or near the offset or offsets *a'*, are formed slits or openings *h'*, extending across or nearly across the said cover H, through which the steam developed from the moisture in the grain or other substance being dried may escape, enabling the drying to proceed more rapidly, and so that the said steam may not be again condensed by coming in contact with the cool grain as it enters the pan through the hopper I.

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

1. The combination of two or more furnaces, D E, with the oscillating-pan A, in such a way that the flue of each preceding furnace may open into the upper part of the succeeding furnace, substantially as herein shown and described and for the purpose set forth.
2. Forming an offset, shoulder, or step, *a'*, in the oscillating-pan A, at or near the point or points at which the flue of the preceding furnace enters the upper part of the succeeding one, substantially as herein shown and described and for the purpose set forth.
3. Forming one or more openings or slits, *h'*, in the cover H, at or near the offset or offsets *a'*, substantially as herein shown and described and for the purpose set forth.

The above specification of my invention signed by me this 8th day of May, 1867.

J. R. EVERTSON.

Witnesses:

CHARLES F. LEONARD,  
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