

(No Model.)

E. THOMPSON

GRAIN DRIER.

No. 259,436.

Patented June 13, 1882.

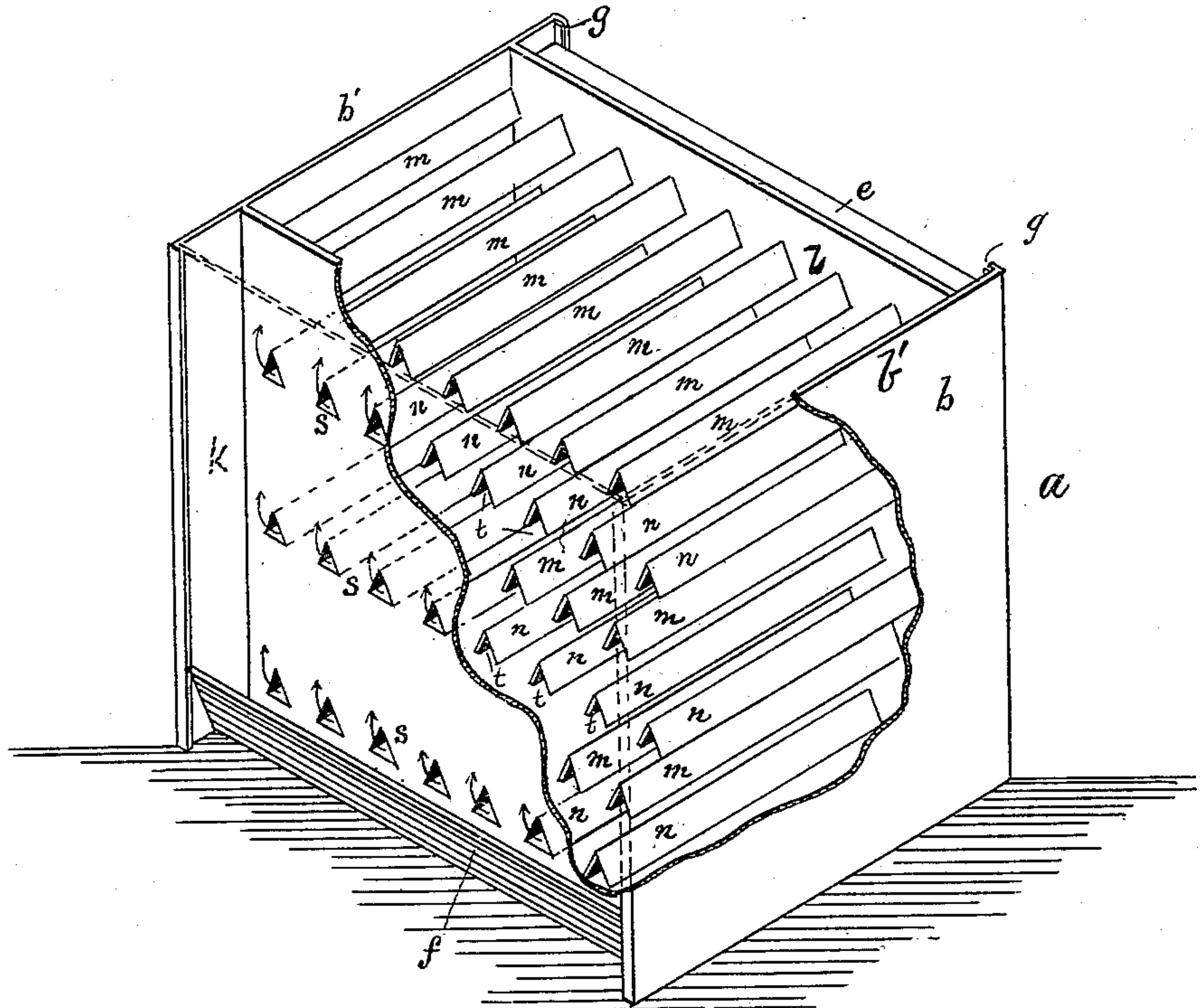


FIG. I.

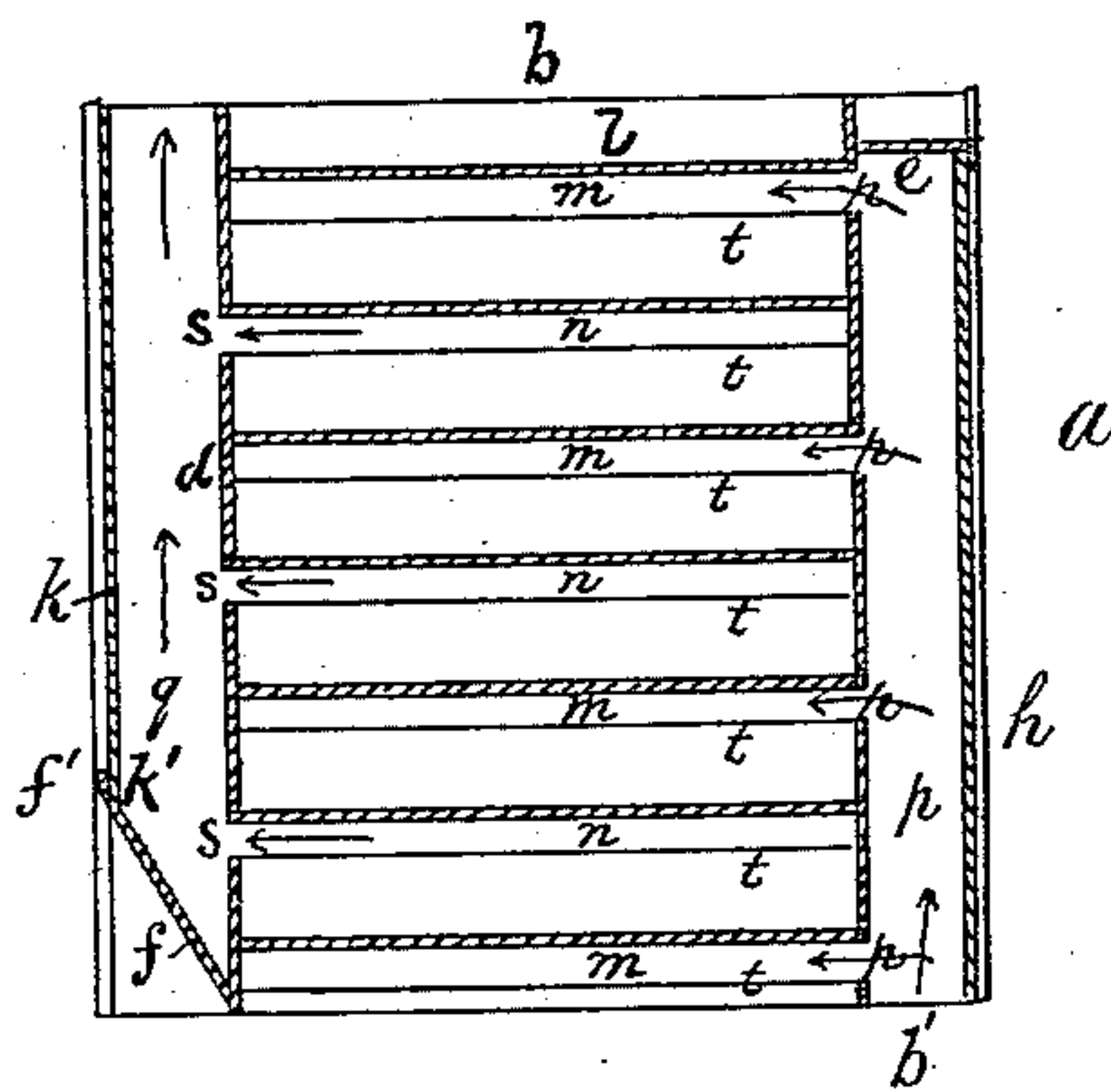


FIG. II.

Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD THOMPSON, OF HOKAH, MINNESOTA.

GRAIN-DRIER.

SPECIFICATION forming part of Letters Patent No. 259,436, dated June 13, 1882.

Application filed March 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD THOMPSON, of Hokah, in the county of Houston and State of Minnesota, have invented certain new and useful Improvements in Grain-Driers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in devices for drying or cooling grain or similar substances.

The invention consists in a bin or box having the construction hereinafter set forth and claimed.

In the annexed drawings, Figure 1 represents an isometrical perspective of the device, the cover and one end being removed; Fig. 2, a vertical section through the exhaust passages or tubes.

The letter *a* indicates a box or bin of suitable size and shape. The sides *b b* extend above and below the top and bottom proper, *c d*, of the bin, as indicated at *b'*. At one end of one side of the top *c* is secured a vertical strip, *e*, and at the other end of the opposite side, *d*, is secured a slanting strip, *f*. One set of ends of the sides *b b* are provided with guide-grooves *g*, in which the edges of the slide *h* take. The other set of ends of the sides *b b* are to be provided with similar grooves for the edges of the plate *k*, the lower end, *k'*, of this plate coming over the edge or lip *f'* of the slanting strip *f*, forming a close lap-joint. When the slide *h* and plate *k* are in place they form chambers or ducts *p* and *q*, one at one side, the other at the other side, of the bin.

Within the chamber or receptacle *l* of the bin are placed the passages or open tubes *m*

and *n*. These lead in alternating series into the ducts *p* and *q* through the apertures *r* and *s*. These open tubes are formed as inverted-V-shaped troughs—that is to say, they are open at the bottoms *t*, as shown, all of them opening in the same direction. The grain or other substance is placed in the receptacle *l* in the ordinary manner, and the slide and plate put in place. The air, hot or cold, as the case may be, is forced by fan or otherwise into duct *p* through aperture *r* along the open tubes *m*, permeating the grain, and then out through tubes *n*, apertures *s*, and duct *q*. The open tubes *m n* are arranged so as to be “staggered”—that is, the members of one series are not immediately in line with those of the other, but come between. This allows of a freer and quicker draft. These tubes are made of rigid material and form braces for the bin, obviating danger of the grain crushing it. The apertures are made so that the grain cannot fall through.

Grain-driers have heretofore been devised to which mine is closely allied and to which it bears considerable resemblance. They have been made in the shape of a box having air-ducts and open tubes running alternately from the ducts, and therefore I lay no claim to such construction.

What I claim is—

The combination of the slide *h*, plate *k*, and ducts *p* and *q*, the said slide and plate closing the ducts, with the inverted-V-shaped tubes *m* and *n*, leading alternately into the ducts *p* and *q*, all arranged as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EDWARD THOMPSON.

Witnesses:

GEORGE GORDON,
G. C. PRENTISS.