

(No Model.)

C. E. GAGE.

GRAIN SCREEN.

No. 287,657.

Patented Oct. 30, 1883.

fig 1

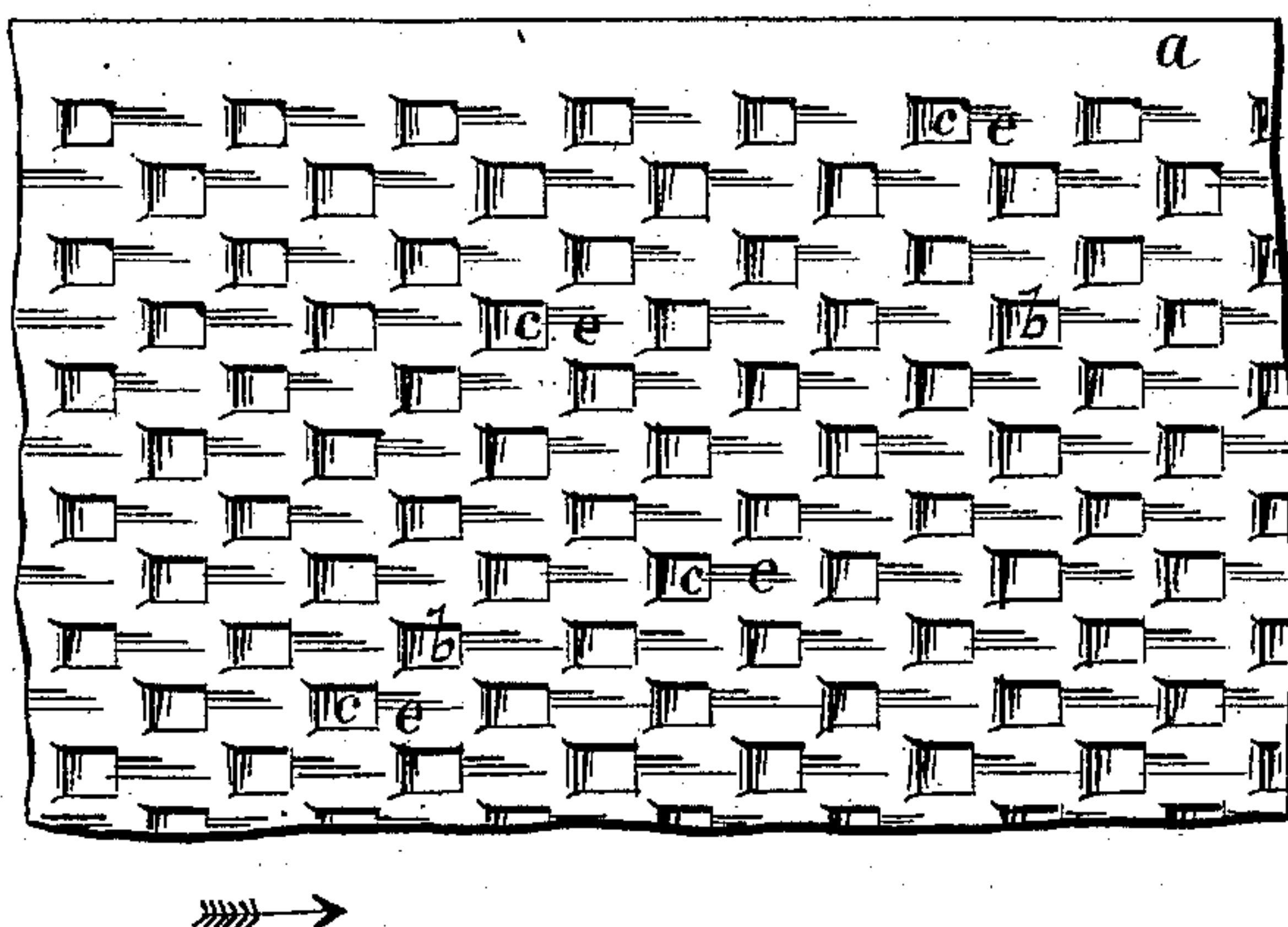


fig 2

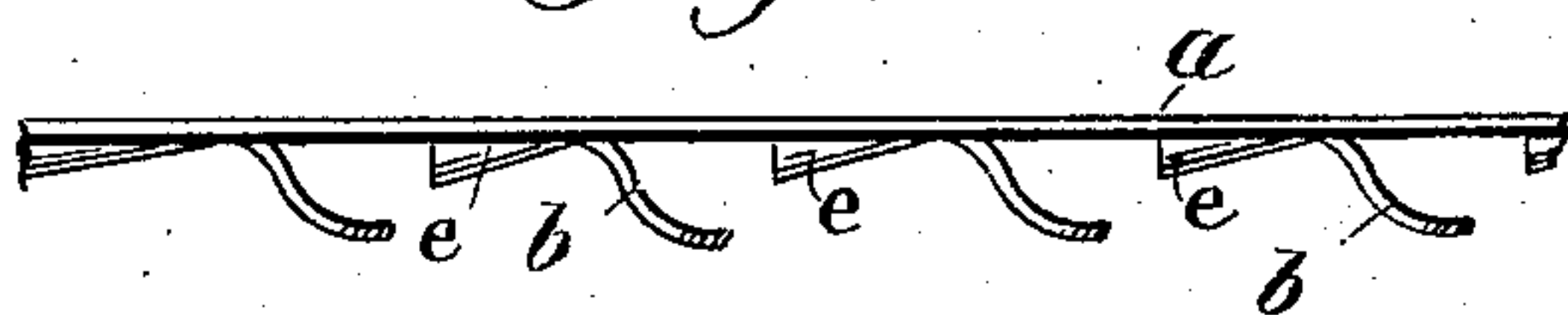


fig. 5.

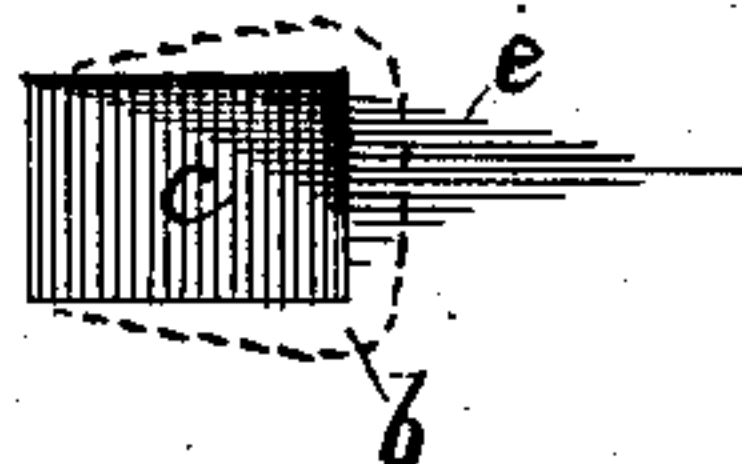


fig 3

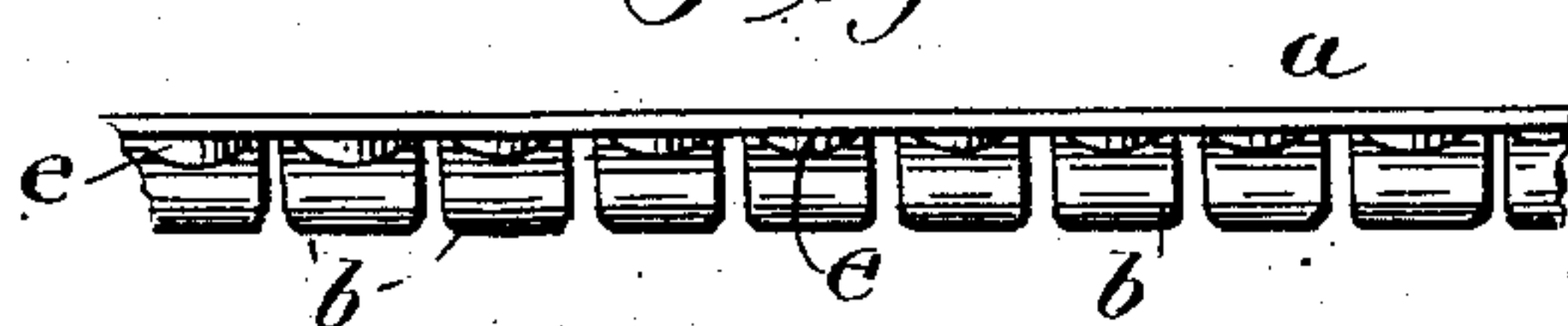
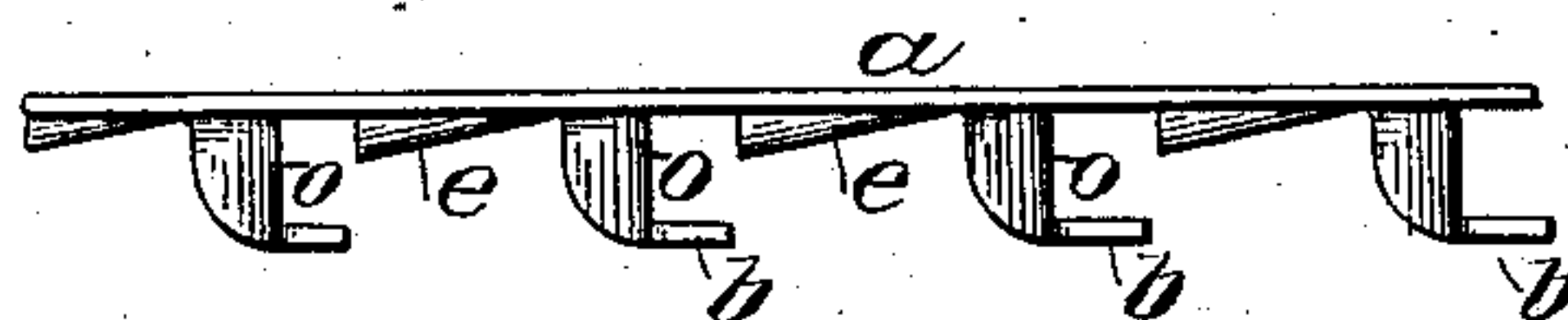


fig 4



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHAPMAN E. GAGE, OF WHITEHALL, WISCONSIN, ASSIGNOR TO HIMSELF
AND JOHN L. KNUDTSON, OF SAME PLACE.

GRAIN-SCREEN.

SPECIFICATION forming part of Letters Patent No. 287,657, dated October 30, 1883.

Application filed June 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHAPMAN E. GAGE, of Whitehall, Trempealeau county, Wisconsin, have invented a new and Improved Grain-Screen, of which the following is a full, clear, and exact description.

My invention relates to improvements in grain-screens; and it consists in the peculiar construction and arrangement of the parts of a grain-screen, as hereinafter more fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of part of a screen constructed in accordance with my invention. Fig. 2 is a side view of the same. Fig. 3 is a rear view of it, and Fig. 4 represents the tongues having sides along portions of the same. Fig. 5 is a detail view of a part of the screen, showing the tongue, under a perforation, elongated and widened.

I take a sheet-metal plate, *a*, of any approved material, and perforate it by punching down tongues *b* from the upper side to make the openings *c*, through which the wheat-grains are to escape from the oats, the line of feed of the grain on the sieve being indicated by the arrow of Fig. 1. In advance or in front of the perforations *c*, I depress the surface of the plate, as at *e*, forming grooves beginning at the back of the preceding perforation, and extending to and discharging into the front side of the next perforation, said grooves gradually increasing in breadth and depth to the junction with the perforations, which may be either square, concave, or V-shaped on the front side, where these grooves discharge.

The tongues *b*, that are thrust down from the perforations and project forward under the plate *a* from the back of the perforations, are drawn out and elongated or lengthened and widened, and shaped in the curved form represented in Fig. 2, whereby they receive the

wheat-grains from above through the perforations and project them forward, while the oats, being too long to be turned up endwise and pass through the perforations, will be thrust up the inclines at the back of the perforations by the shaking of the screen forward and backward, and will be carried along over the lower edge of the screen.

The curvature and elongation of the tongues are represented in Fig. 2, and Fig. 3 shows the increase in the width of the tongues which I make by drawing them out by suitably hammering or pressing them. In some cases I form the tongues with sides, as shown at *o*, Fig. 4, by slitting the edges a shorter distance and drawing the metal down back of the slits.

The advantage derived from elongating, widening, and forming sides *o* to each tongue *b* of each perforation in the screen is to prevent the oats from passing directly through the screen.

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

1. A sheet-metal screen, *a*, having perforations *c* and longitudinal grooves *e* in its upper surface, said grooves extending from one longitudinal perforation to the adjacent one, and tongues *b* projecting downward and forward from the backs of the perforations, substantially as described.

2. A perforated sheet-metal screen, having tongues *b* projecting downward and forward from the back of the perforations, said tongues being elongated and widened, substantially as described.

3. A perforated sheet-metal screen, having tongues *b* projecting downward and forward from the back of the perforations, said tongues being elongated and widened, and having sides *o* a portion of their length, substantially as described.

CHAPMAN E. GAGE.

Witnesses:

JOHN ROGERSON,
E. H. WARNER.