(No Model.)

J. LUCAS.

FEED DISTRIBUTER.

No. 565,008. Patented Aug. 4, 1896.

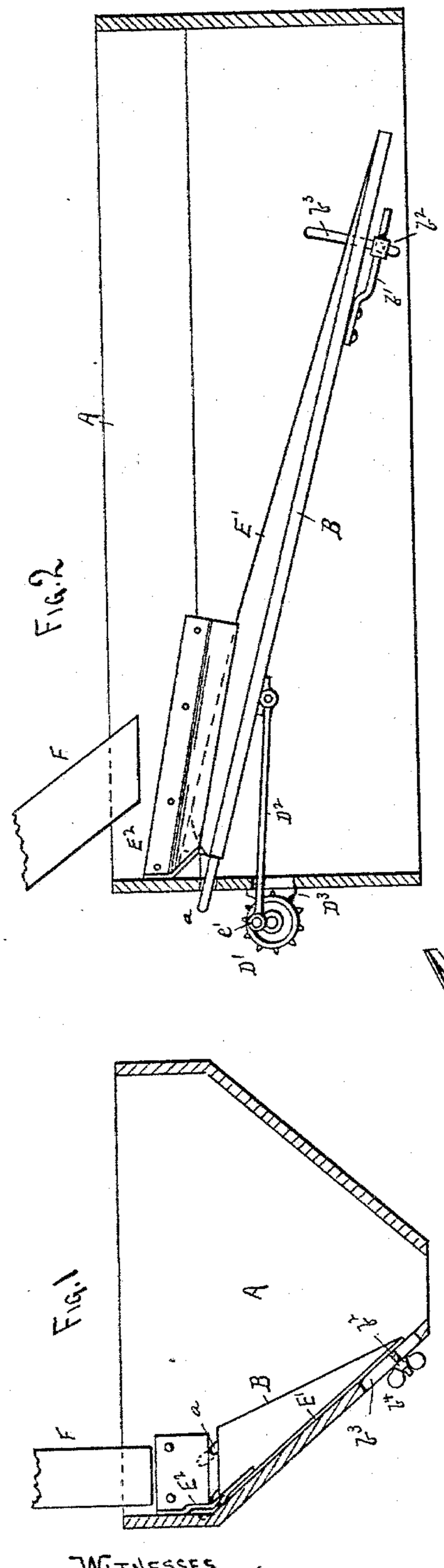

FIG. 2.

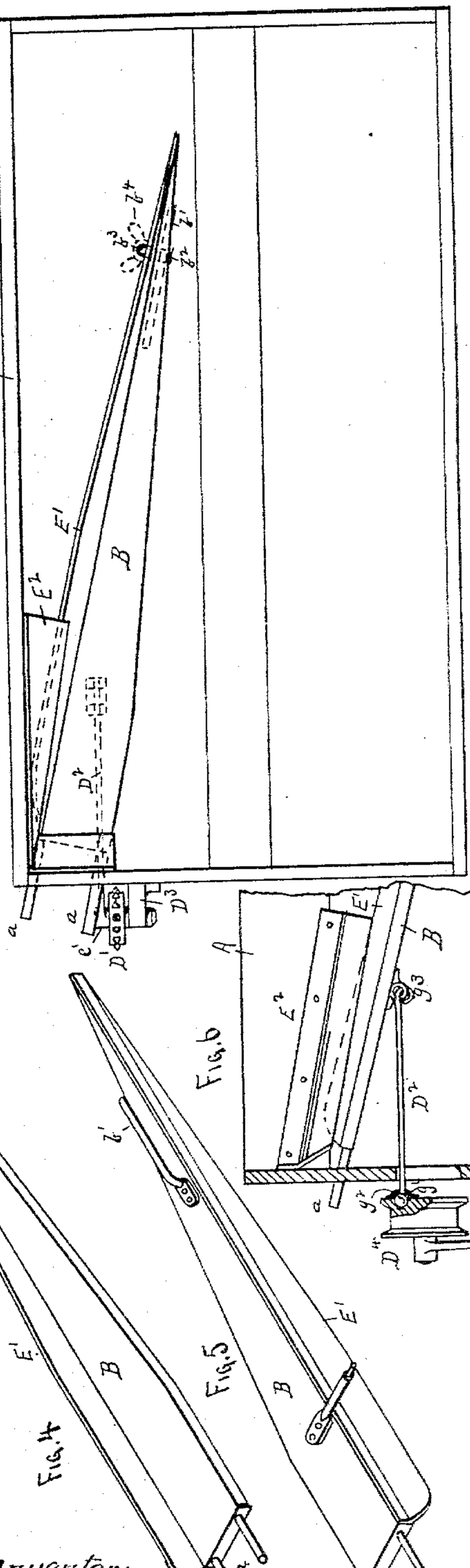

FIG. 3.

FIG. 6.

FIG. 1.

FIG. 4.

FIG. 5.

WITNESSES.
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JOHN LUCAS, OF HASTINGS, MINNESOTA.

FEED-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 565,008, dated August 4, 1896.

Application filed August 4, 1893. Serial No. 482,411. (No model.)

To all whom it may concern:

Be it known that I, JOHN LUCAS, a citizen of the United States, residing at Hastings, in the county of Dakota and State of Minnesota, have invented certain new and useful Improvements in Feed-Distributers, of which the following is a specification.

This invention relates to feed-distributers for grain and seed separating, flour-reducing, and similar machines; and it consists in the construction, combination, and arrangement of parts, as hereinafter shown and described, and specifically pointed out in the claims.

This invention is generally intended to be attached to or arranged in the feed-hoppers, but may be applied in any other required location; and it consists in a wedge-shaped strip set at an incline in the receiving-hopper, and over which the material flows as it enters, and adapted to be agitated or vibrated and adjusted so as to cause the material to be discharged from the hopper uniformly throughout its whole length, so that it will be conducted in a correspondingly-uniform stream to the separating machinery.

In the drawings, Figure 1 is a cross-sectional view, Fig. 2 is a longitudinal sectional elevation, and Fig. 3 is a plan view, of a hopper with my improved feed-distributer arranged therein. Fig. 4 is a perspective view of the feed-strip detached. Fig. 5 is a similar view of the same reversed, and Fig. 6 is a sectional detail view illustrating some modifications in the construction.

A represents the hopper, and B a wedge-shaped strip arranged therein along one side at an incline. The upper larger end of the strip is provided with two small guide-rods *a*, passing out through holes in the end of the hopper A, by which it may be supported and at the same time left free to be vibrated endwise. The lower end of the feed-strip B is provided with a rod b', fitting through an eyebolt b^2, the latter passing out through a curved slot b^3 in the side of the hopper A and adapted to be firmly held at any desired point in the slot by a wing-nut b^4 on its outer end, as shown. The rod b' fits loosely through the head of the eyebolt, so that the strip B and rod b' are free to move endwise, while at the same time, by means of the wing-nut, the lower or smaller end of the strip may be raised and lowered to any required extent within the scope of the slot b^3.

Journaled by suitable stud or shaft upon the hopper or the frame of the machine, at any convenient point, is a crank or face wheel connected by a rod to the strip B, so that the revolution of the crank will vibrate the strip, as will be readily understood.

I have shown in Figs. 2 and 3 a sprocket-pinion D′, having a crank-pin e,′ connected by a rod D^2 to the strip B and mounted by a bracket D^3 to the hopper A, while in Fig. 6 I have shown the preferable means for operating the strip B, consisting in a belt-pulley D^4, journaled in a bracket D^5 at right angles to the strip B and having a spherical socket g' in the side next the strip adapted to receive and support a ball g^2 on the end of the rod D^2, as shown, whereby a "ball-and-socket" joint is formed between them.

The pulley D^4 will set, with the socket g', when at its highest position, about on a line with point of connection g^3 between the rod D^2 and the strip B, and then when the pulley D^4 is revolved the strip B will be drawn endwise by the shortening of the distance between the point g^3 and the upper part of the pulley D^4, as will be readily understood by reference to the drawings. This is a very simple, inexpensive, and convenient way of arranging the parts.

E′ is a plate, preferably of thin metal, attached to the back of the strip B and projecting upward along the side of the hopper A to serve as a guard to prevent the grain or other material flowing over the strip from passing down behind it.

E^2 is a shield arranged upon the side of the hopper A and adapted to cover the upper edge of a portion of the plate E′, so that none of the material falling from the feed-spout F will pass behind the guard-plate. By this simple arrangement the material falling from the spout is distributed along the strip B and falls over its outer edge in a uniform even stream, the gradual reduction of the width of the strip insuring the requisite quantity being carried to the lower end of the hopper, or the end farthest away from the inlet-spout, and preventing any excess of material being fed to the receiving end.

By arranging the strip B so as to be ad-

justed to alter its inclination the strip may be perfectly adapted to the condition or quality of the material, some material requiring a less inclination than others, and vice versa.

Having thus described my invention, what I claim as new is—

1. In a feed-distributer, a feed-hopper having inclined sides and an elongated discharge-opening between them, a wedge-shaped distributing-plate attached adjustably to one of said inclined sides, and set at an incline with its wider end the highest and coming beneath the feed-spout, and means for vibrating said distributing-plate along the side of said hopper, whereby the inflowing material is distributed uniformly along the whole length of the discharge of the hopper, substantially as hereinbefore set forth.

2. In a feed-distributer, a feed-hopper having inclined sides, a wedge-shaped distributing-plate attached adjustably to one of said inclined sides and set at an incline with its wider end the highest and coming beneath the feed-spout, a pulley mounted to run at right angles to the motion of said feed-distributing plate and with its axis below the line of travel thereof, and a rod connecting the side of said pulley to said distributing-plate by flexible joints, whereby the revolution of said pulley will vibrate said feed-distributing plate, substantially as and for the purpose set forth.

3. The combination with the feed-receptacle of grain separating and reducing machines and the like, of a wedge-shaped strip set an incline therein and adapted to receive the material upon its wider end, guide-rods a' upon the wider end of said strip and passing through the casing of said receptacle, a guide-rod upon the lower or smaller end of said strip, and an eyebolt fitting through a slot in the casing of said receiver, and means whereby said eyebolt may be adjusted in said slot, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN LUCAS.

Witnesses:
FRANK LUCAS,
SARAH M. LUCAS.