

(No Model.)

2 Sheets—Sheet 1.

H. H. ARMSTEAD.
CORN HUSKING MACHINE.

No. 381,748.

Patented Apr. 24, 1888.

Fig. 1.

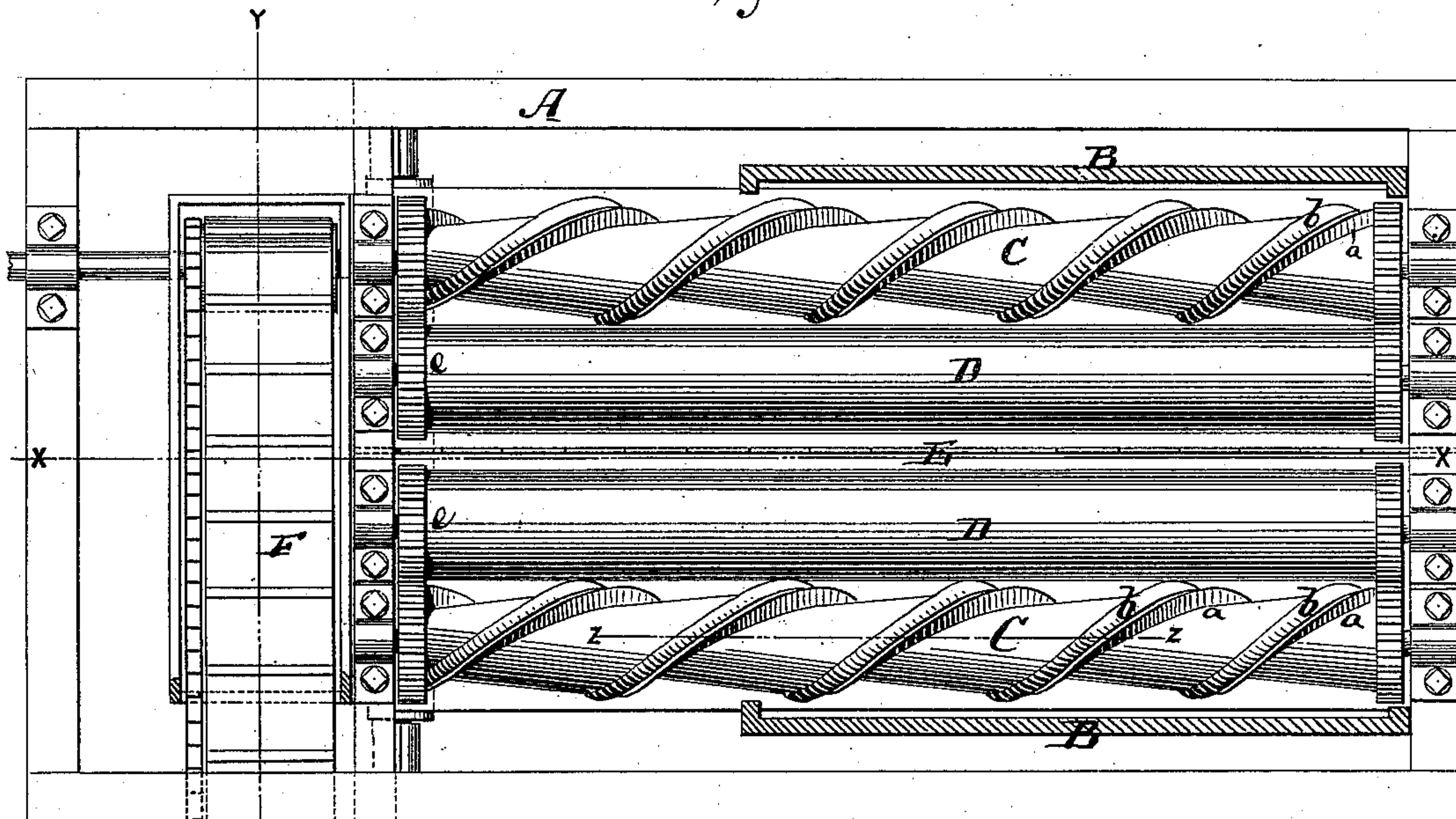
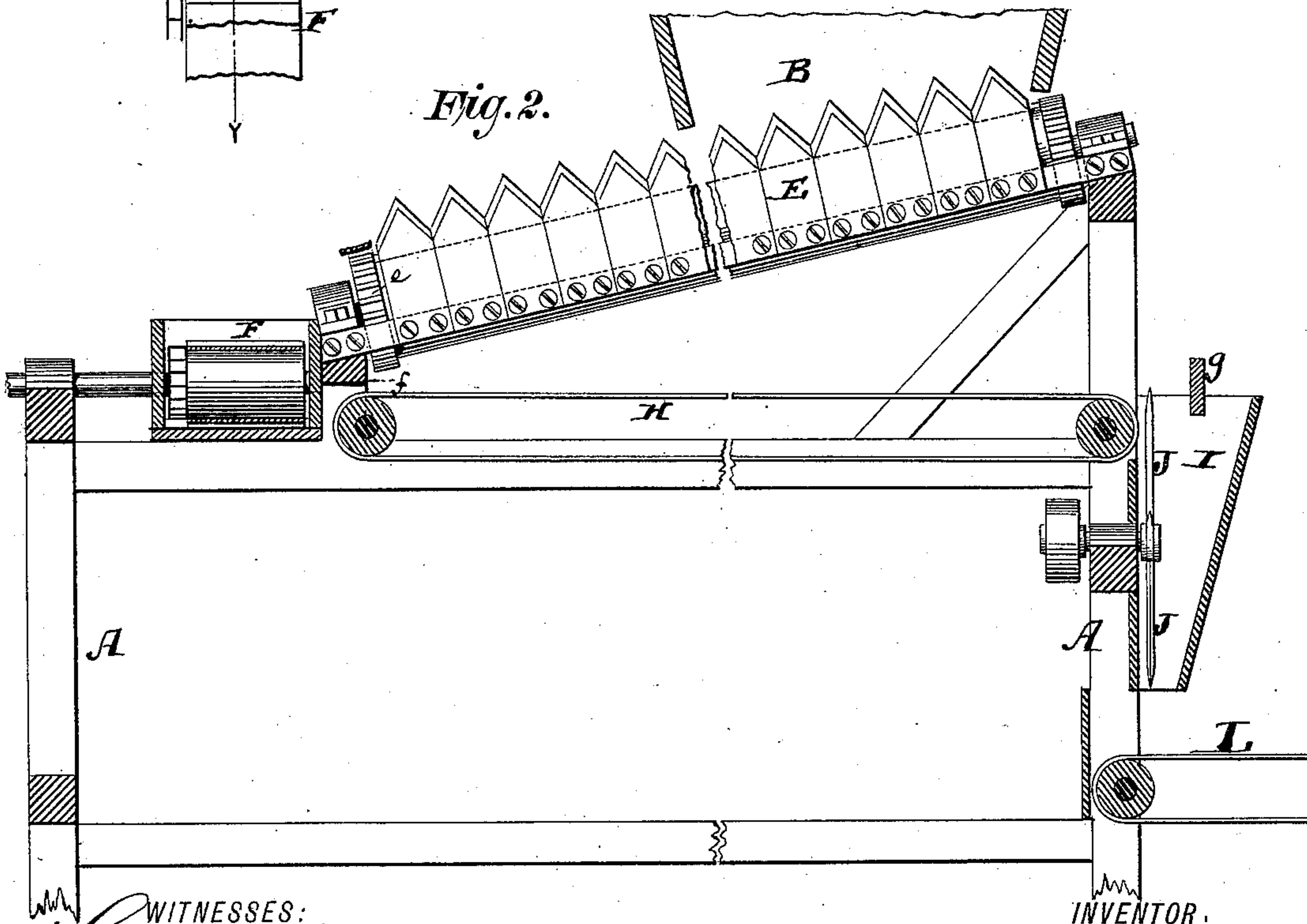


Fig. 2.



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ATTORNEYS.

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Fig. 3.

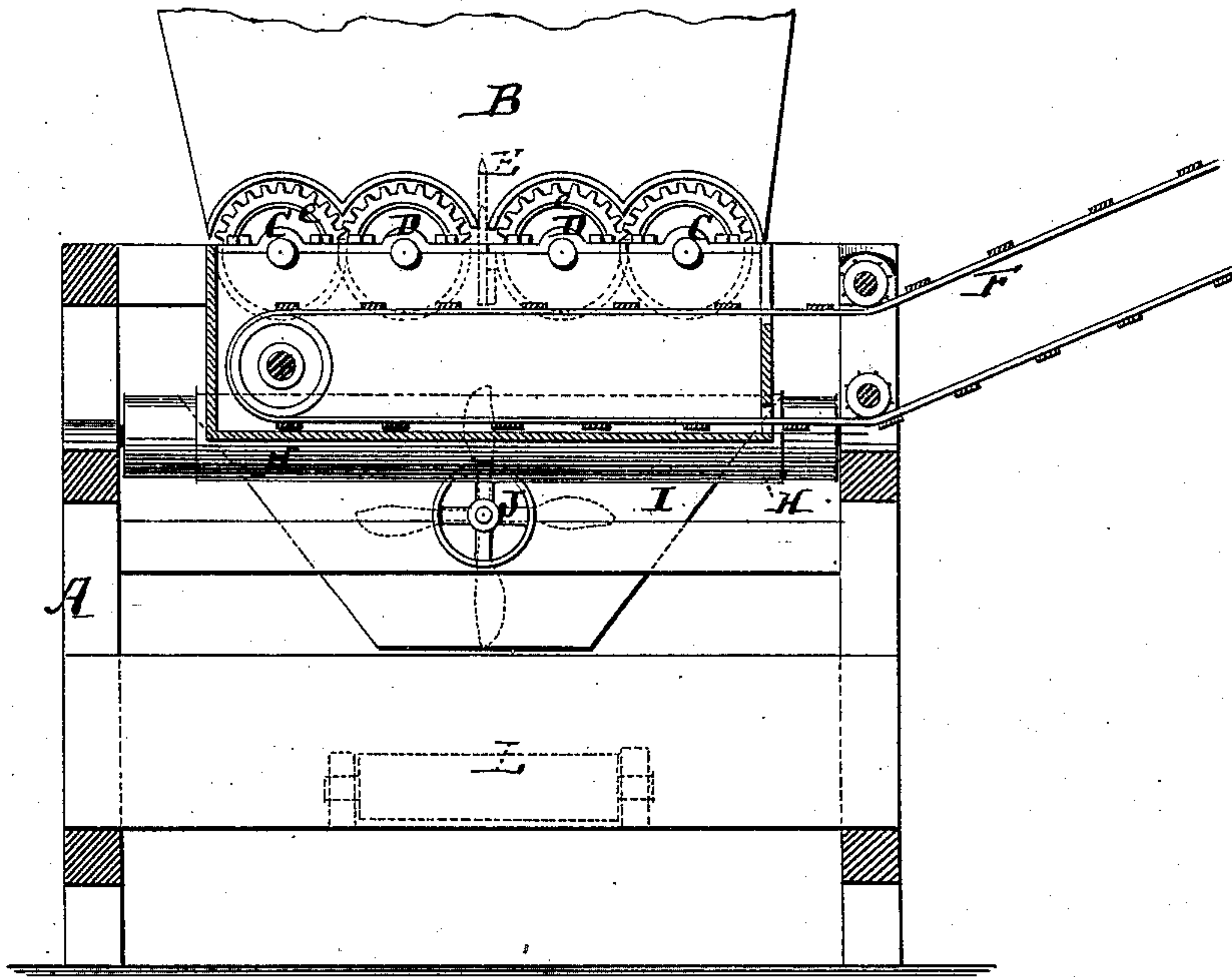


Fig. 4.

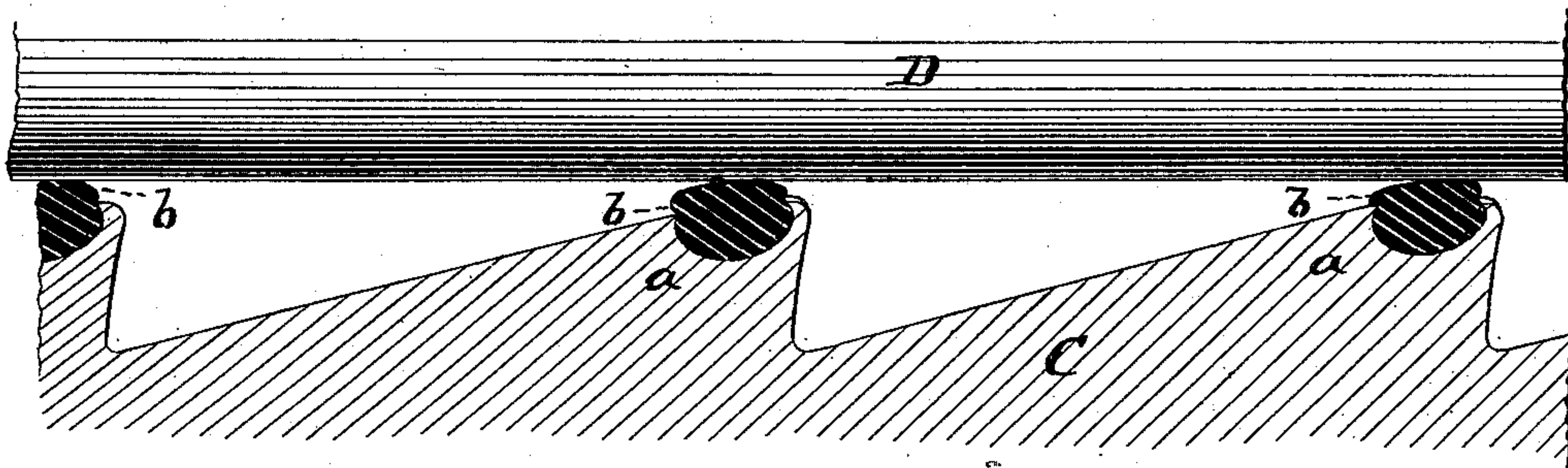


Fig. 5.

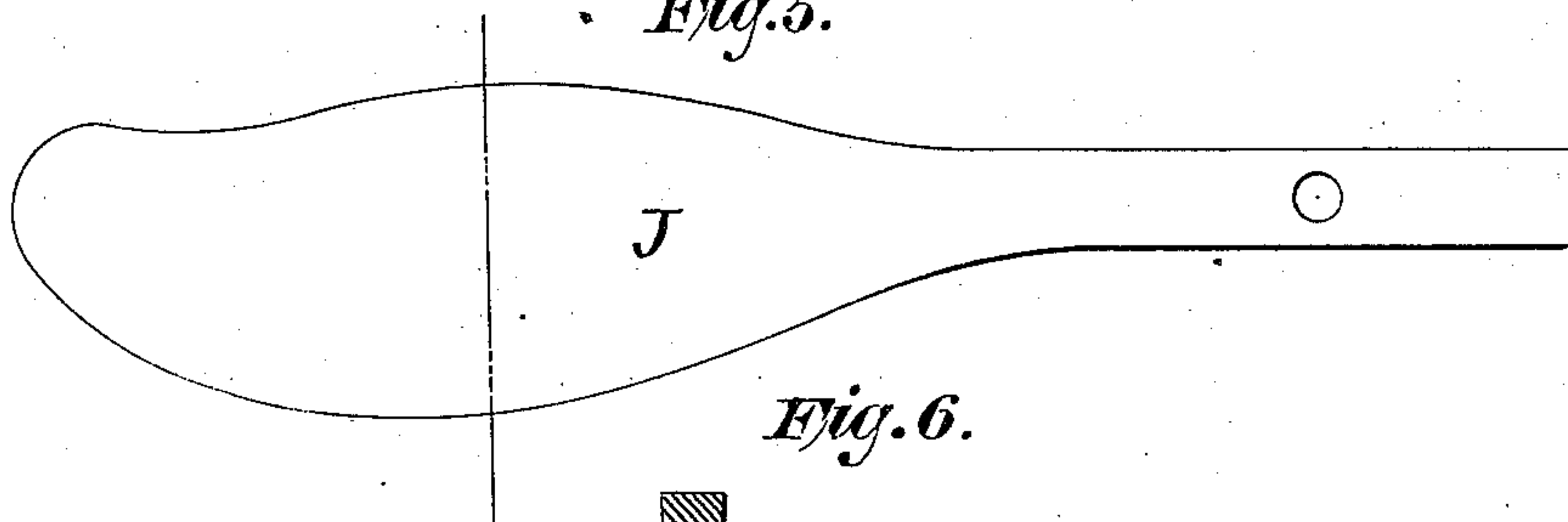


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY H. ARMSTEAD, OF BROOKLYN, NEW YORK.

CORN-HUSKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 381,748, dated April 24, 1888.

Application filed September 24, 1886. Serial No. 214,404. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. ARMSTEAD, a resident of Brooklyn, in the county of Kings and State of New York, have invented an Improved Corn-Husking Machine, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, in which—

Figure 1 is a plan or top view, partly in section, of my improved corn-husking machine. Fig. 2 is a vertical longitudinal section of the same on the line *x x*, Fig. 1. Fig. 3 is a vertical cross-section on the line *y y*, Fig. 1. Fig. 4 is a detail longitudinal view, partly in section, of part of a pair of husking-rollers. Fig. 5 is a detail face view of one of the knives for cutting the stalks and husks. Fig. 6 is a cross-section of said knife.

This invention relates to a new machine for separating the ears of corn from the husks and stalks; and it consists, first, in a new construction of husking-roller, the same consisting of a roller having a spiral projecting thread around its circumference and a spiral elastic thread carried on the edge of said spiral projecting thread for engaging with an adjoining substantially-cylindrical roller.

The invention also consists in the combination of two sets of husking-rollers with an intermediate knife of peculiar kind for cutting the stalks that may lie crosswise in the machine in two, so that each set of husking-rollers may proceed to perform its work upon one-half of such a stalk.

The invention further consists in details of construction and combination of parts, as hereinafter more fully described.

In the drawings, the letter A represents the frame of my machine, which frame supports a hopper, B, through which the unhusked ears of corn, together with the stalks, are introduced. Beneath this hopper are hung in the frame A two pairs of rollers, C D C D, the axes of which are parallel with one another. Between the two pairs of these rollers is carried in the frame A a knife, E, which knife is composed of series of V-shaped cutting-blades, as is more clearly shown in Fig. 2 of the drawings. Each roller C is of the tapering form indicated and has a projecting spiral thread,

a. The spiral *a* may be an integral part of the roller C, or may be made separate and secured thereto. In the outer edge of the spiral *a* is formed a spiral recess, into which recess is pressed an elastic spiral thread, *b*. This elastic spiral thread *b* is more clearly shown in Fig. 4 of the drawings. The elastic outer thread is a spiral band of india-rubber or other elastic substance, and is held by frictional contact in the recess heretofore described. It is in contact with the outer circumference of the substantially-cylindrical roller D. The rollers C and D of each pair are geared together by toothed wheels *e*, to which rotary motion is imparted by suitable mechanism. (Not shown.) It will be seen from Fig. 2 of the drawings that the rollers C D are inclined, being highest underneath the hopper B and lowest at a distance therefrom. Their lower ends are hung in a cross-bar, *f*, of the frame A, near which an endless band, F, is placed across the machine. This endless band has slats or other projections on its face to conveniently carry away to a suitable place of deposit whatever husked ears of corn may be delivered thereto by the action of the rollers. The husks and stalks drop through beneath the pairs of rollers.

Beneath the rollers C D C D is a longitudinal endless belt, H. This belt passes over rollers to which rotary motion is imparted by suitable mechanism. (Not shown.) The belt H deposits the husks, stalks, &c., into a box, I, within which revolves a rotating knife or set of knives, J. The shape of each blade of this knife is more clearly shown in Figs. 5 and 6. The husks and stalks, being carried by the belt H against a stationary bar *g*, are arrested by said bar and cut into short pieces by the revolving knife J, and these pieces then drop through the open bottom of the box I upon a suitable platform or belt, L.

For further statement of the operation of the machine it only needs to be said that the unhusked ears of corn attached to the stalks are placed in the hopper B, so as to be deposited upon the rollers C D. These stalks, that fall lengthwise from the hopper, will be seized by one pair of rollers C D, which will strip the husks from the ears of corn and remove the stalks and husks from the ears by

the frictional contact of the spiral elastic thread *b* of the roller C against the surface of the roller D; but those stalks that fall crosswise from the hopper B will be grasped by both sets of rollers and will be drawn downward so that their middle portions will be cut by the knife E into two parts, leaving each set of rollers C D to operate on one of the parts.

10 Whatever ears of corn have been husked by the rolls will pass upon the apron F and be carried to a suitable receptacle, while the husks and stalks will pass down between the rollers C D to the apron H. This apron conveys them to the box I and to the action of the knife J, which cuts said husks and stalks into short pieces convenient for use as fodder or for other purposes.

I claim—

1. In a corn husking machine, the husking roller C, having spiral projecting thread *a* and spiral elastic thread *b*, carried on the edge of the thread *a*, the space between the metallic threads being uncovered and free, as and for the purpose specified. 20 25

2. The combination of the husking-roller C, having spiral projecting thread *a* and spiral elastic thread *b*, which is secured in a recess in spiral *a*, with the contiguous roller D, as described. 30

3. The combination of two sets of husking-rollers, C D C D, with the intermediate knife, E, for cutting in two the stalks that fall crosswise, as described.

HENRY H. ARMSTEAD.

Witnesses:

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HARRY M. TURK.