

(No Model.)

2 Sheets—Sheet 1.

R. E. POINDEXTER.
CORN SPLITTING MACHINE.

No. 506,440.

Patented Oct. 10, 1893.

Fig. 1.

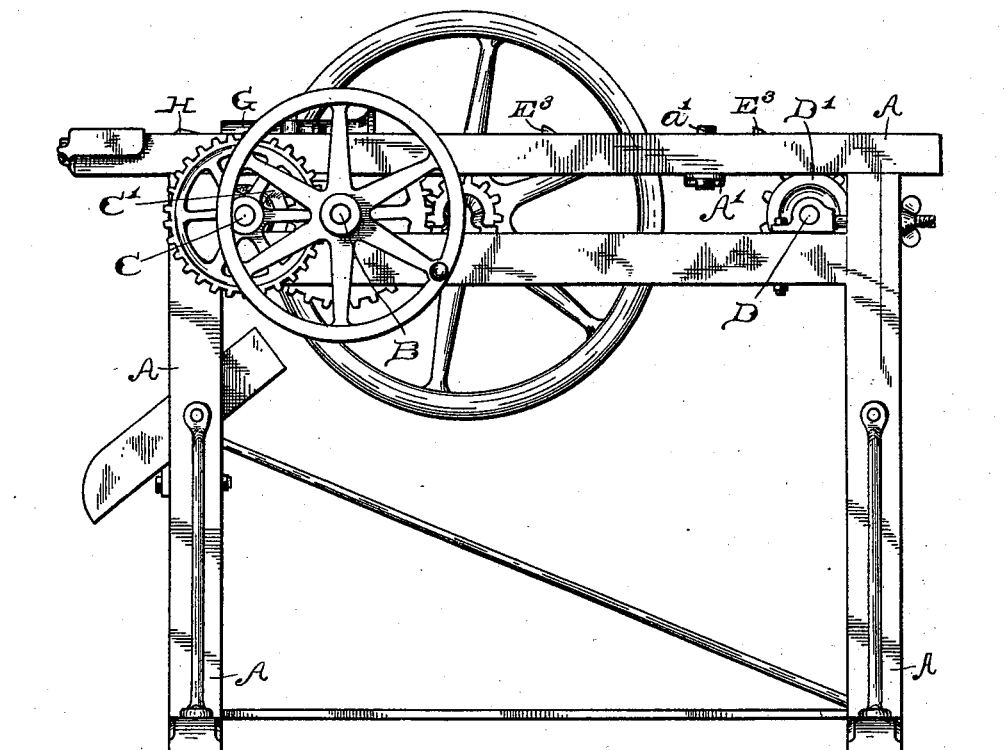
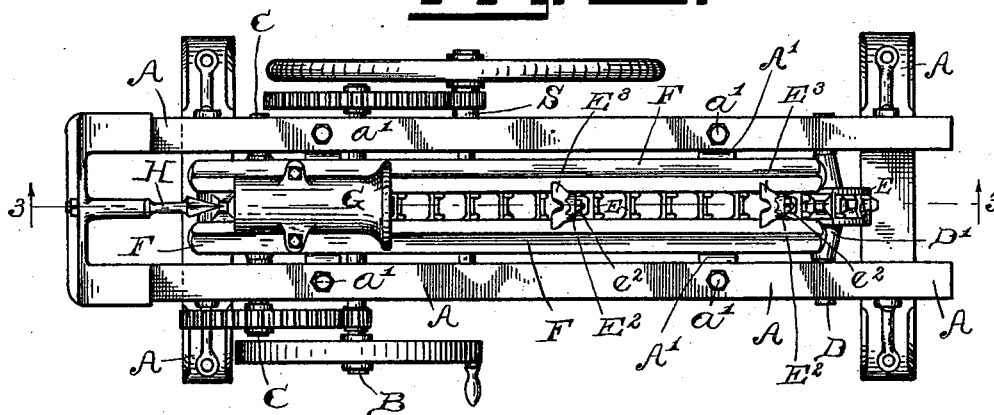


Fig. 2.



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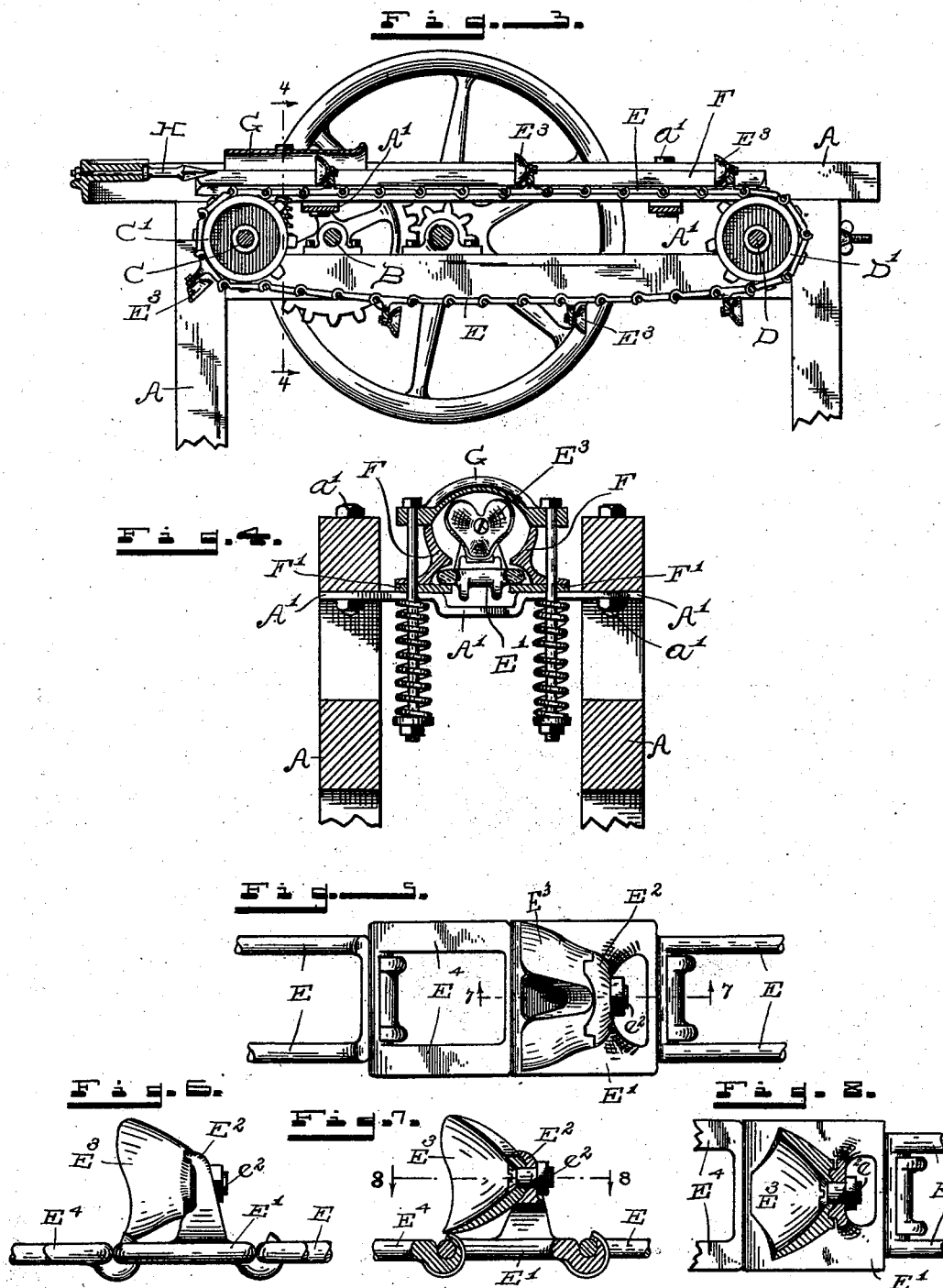
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WITNESSES:

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UNITED STATES PATENT OFFICE.

ROBERT E. POINDEXTER, OF INDIANAPOLIS, INDIANA.

CORN-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 506,440, dated October 10, 1893.

Application filed December 17, 1892. Serial No. 455,475. (No model.)

To all whom it may concern:

Be it known that I, ROBERT E. POINDEXTER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Corn-Splitting Machines, of which the following is a specification.

My said invention consists in certain improvements upon that shown in my pending application, Serial No. 441,652, filed July 30, 1892, whereby a single chain is made to take the place of the double chain therein shown, and whereby the chain and splitting spear are brought into closer proximity at the point where the chain turns downwardly around its wheel, and whereby various other advantages are secured, and the machine simplified and cheapened, all as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a machine embodying my said improvements; Fig. 2 a top or plan view of the same; Fig. 3 a central longitudinal section of the upper portion thereof, on the dotted line 3 3 in Fig. 2; Fig. 4 a transverse sectional view, on an enlarged scale, on the dotted line 4 4 in Fig. 3; Fig. 5 a detail plan view, on a still further enlarged scale, of a portion of the chain; Fig. 6 a side elevation of the corn-propelling cup and the link of the chain to which it is attached; Fig. 7 a central sectional view on the dotted line 7 7 in Fig. 5, and Fig. 8 a horizontal sectional view on the dotted line 8 8 in Fig. 6.

In said drawings the portions marked A represent the frame-work of the machine; B the driving wheel shaft; C and D the chain-wheel shafts; E the ordinary link of the chain; F side pieces extending up alongside the sides of the chain; G a cap piece, and H the splitting spear.

The frame-work A, and the shafts B, C and D, the fly-wheel shafts S, and the several wheels mounted thereon, are all similar, generally speaking, to those shown and described in the aforementioned application, and, therefore, need not be further described herein.

The shafts C and D, of course, only bear one sprocket wheel each, instead of two, as there is but one chain.

The chain, (see particularly Figs. 4, 5, 6, 7 and 8) is of peculiar construction. A portion of the links E are similar to the links of ordinary separable-link chain-belts, and are so shown. One link E' in each section has a standard E² cast integrally therewith, and to this standard are secured the corn-propelling cups E³, generally by means of the bolts e². These cups E³ are cut away on top in the center down almost to the middle, as shown most plainly in Figs. 4, 5 and 7. This is so that they can travel forward on a level almost to the point of the spear, and then turn downwardly over the front sprocket wheel C', without coming in contact with the point of said spear. By this means all springs, wires or other small guides to guide corn onto the splitting spear are dispensed with, as said spear can thus be brought up so close to the place where the ears of corn are discharged from between the chain, sides and cap-piece, that no other guide is necessary. The links E⁴ are like the links E except that their sides are widened out to run in the slides or grooves formed just under the side pieces F, as guides for the chain, being in this particular like the links E', (which they supplement) thus making a longer engagement of the chain in the slides than if the links E' only had these extended sides. As will be readily seen, the strain comes principally upon the front side of the links E', and might cause them to bind, and the machine to run unsteady, except for these links E⁴.

The side-pieces F are securely mounted upon the cross-bars A' on the frame A, which latter are secured to said frame A by the bolts a'. Interposed between the cross-bars A' and these side-pieces F are the plates F', commonly formed of heavy sheet metal, which extend out far enough to receive the edges of the links E' and E⁴, and thus support the chain and form the lower sides of ways in which it shall travel. The side-pieces themselves overhang the edges of the chain somewhat and form the upper sides of said ways, as shown most plainly in Fig. 4. The two sides-pieces F extending up as they do, and

flaring somewhat, form the two sides of a trough-like carrier for the corn, of which the chain itself forms the bottom.

The cap-piece G covers the trough formed by the sides F and the chain E at the forward end, close to the splitting spear, and when at its lowest point rests upon the edges of the sides F close to but preferably not in contact with the cups E³ on the chain. Instead of four bolts, as in my former application, to hold them in place, I use two, and extend them down to below the chain, instead of above, with the springs on the bottom, and I use only a single spring on each bolt, instead of two springs, as before. This arrangement gets the bolts and springs entirely within the frame-work, below the mechanism and out of the way of the operator, and is a cheaper and simpler arrangement, besides being more convenient than that before shown.

The splitting spear H is of substantially the same form, construction and arrangement as that shown in said former application, except that it is arranged closer to the point where the chain descends over the wheel C', as before explained, that being rendered possible by the construction of the corn-propelling cups hereinbefore described.

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

1. The combination, in a corn splitting machine, of a carrier for the corn consisting of side pieces having grooves forming ways for the chain, and said chain having links with projecting sides which fit into said grooves or ways whereby the chain is supported, substantially as shown and described.

2. The combination, in a corn splitting machine, of the splitting spear, a traveling chain having cups or engaging devices thereon for the corn, side pieces alongside said chain forming with said chain a trough or way for the corn, the cap-piece G, and bolts extending down through to below the chain and

provided with springs on their lower ends, whereby said cap-piece is secured in place, substantially as set forth.

3. The combination, in a corn splitting machine, with the splitting spear, of a carrying chain carrying the corn, certain links whereof carry cups or devices for pushing the corn forward and are widened to enter ways, and other links immediately in front of said links also widened to enter said ways and assist in resisting the strain coming upon the cups or corn-pushing devices, substantially as set forth.

4. The combination, in a corn splitting machine, of the frame-work, the splitting spear mounted thereon, the chain wheels, side pieces F extending between said chain wheels, carrier chains E running over said wheels and between said side pieces which therewith form a trough-like carrier for the corn, and cups E³ mounted upon said chain whereby the corn is driven forward into contact with the cutting spear, said several parts being arranged and operating substantially as shown and described.

5. The combination, of a corn splitting machine, of the frame-work, the splitting spear mounted thereon and extending back toward the carrying mechanism to a point above the forward end of said mechanism, said carrying mechanism consisting of chain wheels and the chain belt with cups upon said belt adapted to engage with and drive the corn forward, said cups being cut away at their upper central portions and thus enabled to pass astride the point of the splitting spear, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 6th day of December, A. D. 1892.

ROBERT E. POINDEXTER. [L. S.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.