

(No Model.)

2 Sheets—Sheet 1.

G. W. NELSON.
CORN SHELLER.

No. 583,542.

Patented June 1, 1897.

Fig. 1.

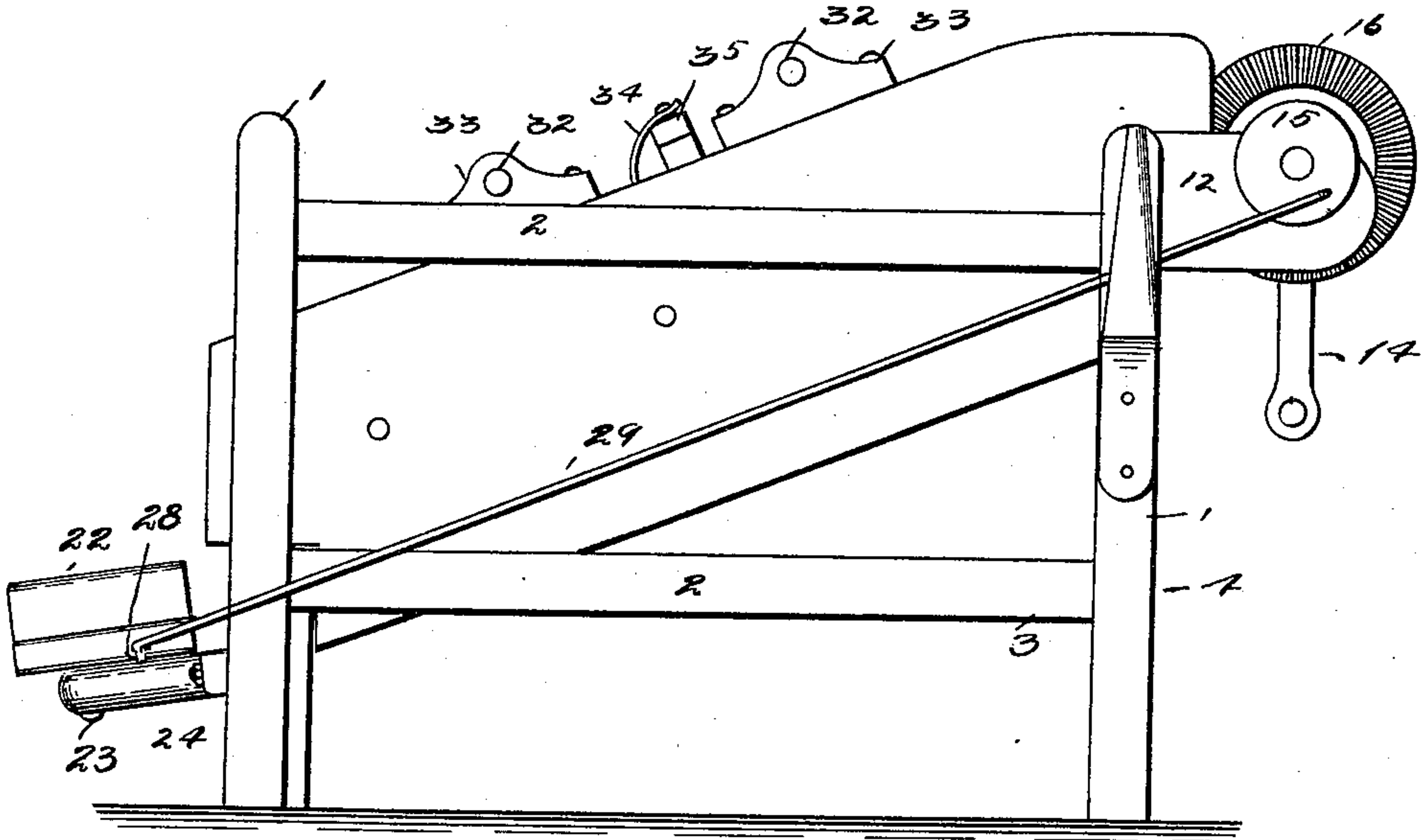
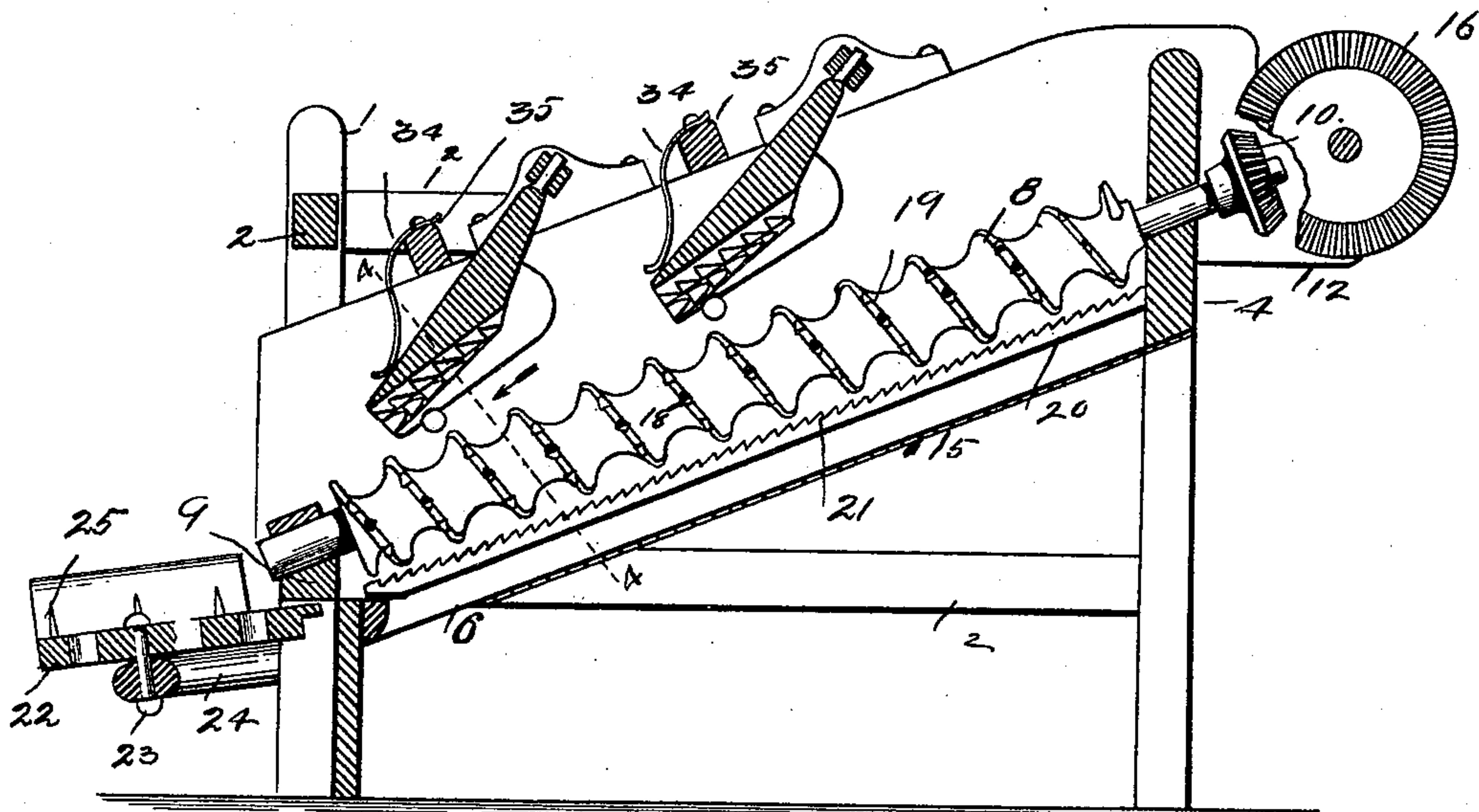


Fig. 2.



Witnesses

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Attorney

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Fig. 3

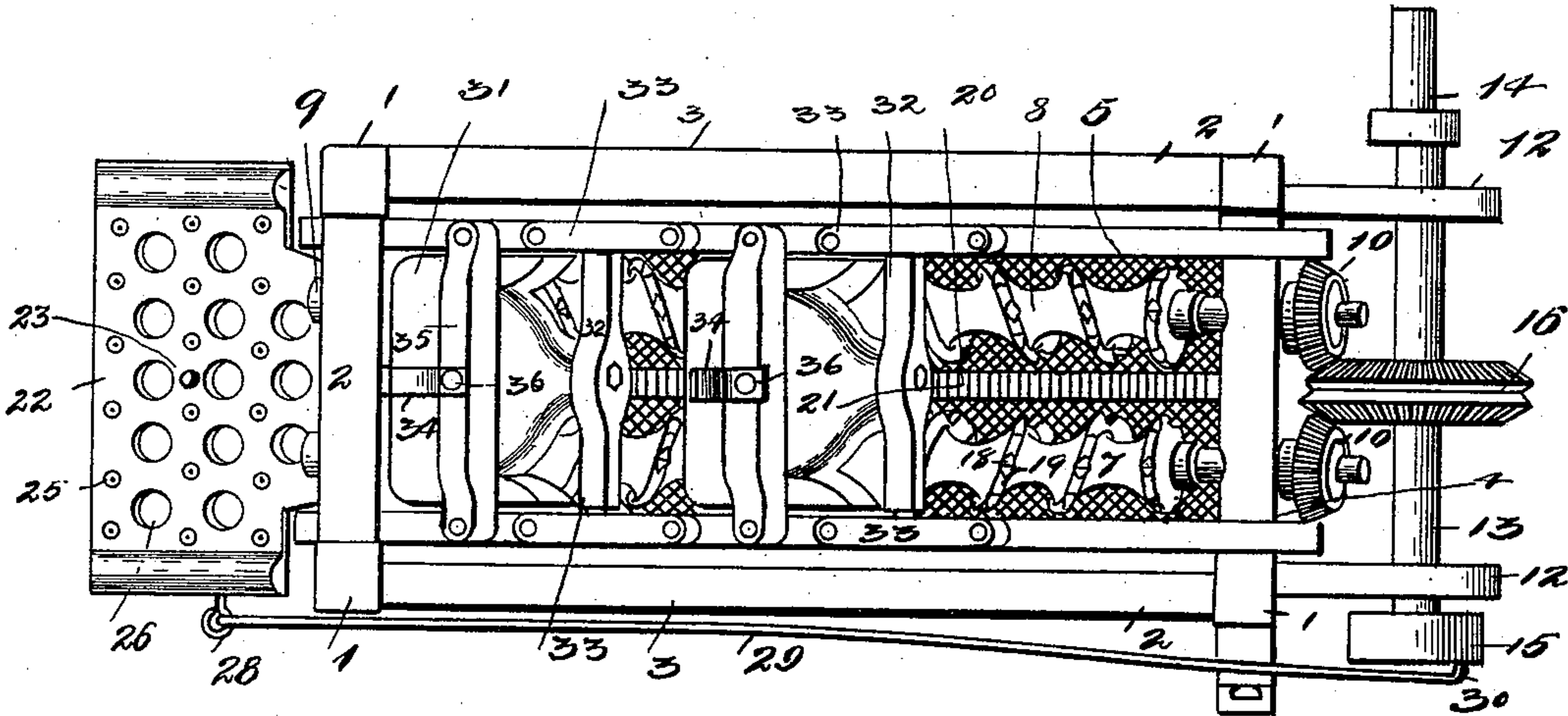
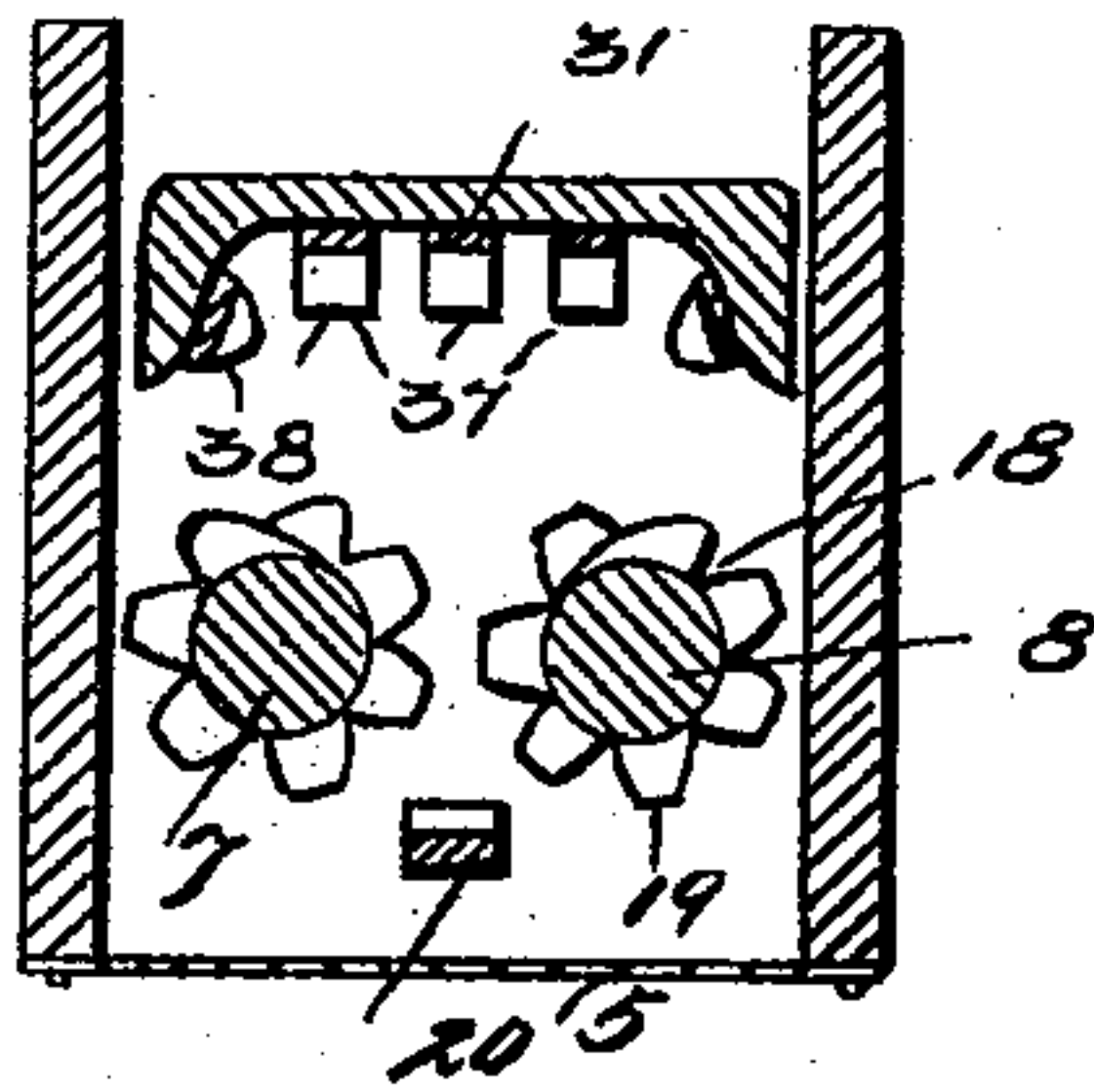


Fig. 4



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UNITED STATES PATENT OFFICE.

GEORGE W. NELSON, OF FIVE FORKS, PENNSYLVANIA.

CORN-SHELLER.

SPECIFICATION forming part of Letters Patent No. 583,542, dated June 1, 1897.

Application filed December 10, 1896. Serial No. 615,144. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. NELSON, a citizen of the United States, residing at Five Forks, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Corn-Shellers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in the construction of corn-shellers, and the object is to provide an effective and reliable device of this kind; and to this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is a side elevation of my improved corn-sheller. Fig. 2 is a longitudinal section of the same. Fig. 3 is a top plan view, and Fig. 4 is a transverse section of the same.

1 1 represent suitable standards provided with the usual longitudinal and cross braces 2 3, all of which constitute the frame of the machine.

3 3 represent the sides, and 4 the front end. 5 is the inclined reticulated bottom, secured to the sides and extending from the front end to within a few inches of the lower end, leaving a space or opening 6 for the passage of the shelled corn.

7 and 8 represent two spirally-fluted shafts extending parallel with each other a short distance above the inclined bottom, their lower ends being journaled in bearings in a cross-brace 9 and their upper or front ends journaled in and extending through the front end 4, where each is provided with a beveled gear 10.

12 12 represent brackets secured to the front end of the machine, in which is journaled a transverse shaft 13, provided with a hand-wheel 14 at one end, and on the other end is fixed a disk 15.

16 represents a two-faced beveled gear-wheel, the oppositely-disposed teeth of which mesh with and simultaneously rotate the

gear-wheels 10 10 in opposite directions, which causes the contiguous parallel peripheries of the spirally-fluted shafts 7 and 8 to turn inwardly toward each other.

The continuous flanges 17 of the shafts 7 and 8 are provided with a series of regularly-disposed V-shaped notches 18, the remaining solid portion of the periphery of the flange constituting a series of teeth 19.

A central longitudinal rib 20 extends between the lower edges of the shafts 7 and 8, and its upper face is provided with a series of forwardly-inclined shelling-teeth 21.

22 represents a shaking-pan centrally pivoted on a stud 23 in a horizontal arm 24 at the rear of the machine. This pan receives the cob as it is discharged from the machine, and its upper face is provided with a series of picker-teeth 25, which remove any loose grains adhering to the cob and allow them to drop through the orifices 26 in the pan, where they fall on an inclined shelf (not shown) and thence back into the receptacle under the discharge-opening 6. This pan 22 is provided with an eyebolt 28, fixed at one end thereof, to which is connected a rod 29, extending to a stud 30 on the outer face of the disk 15, which imparts a shaking motion to said pan when the driving-shaft 13 is rotated.

31 31 represent retarding-shoes mounted on rock-shafts 32 32, journaled in the brackets 33 33, secured to the upper edge of the sides 3 3, said shoes being adjustably held at an angle to the axis of the spirally-fluted shafts 7 and 8 by finger-springs 34, secured to the cross-bars 35 35, and the tension of these springs may be increased or diminished by the regulating-screws 36. The lower face of these retarding-shoes 31 31 is concave in cross-section, and these concave faces are provided with a series of longitudinal parallel bars 37, formed with rearwardly-inclined teeth 38, which serve the double purpose of pressing the ear of corn into intimate contact with the spirally-flanged shafts 7 and 8 and at the same time assisting in the operation of removing the grains from the cob.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such

changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. A corn-sheller, comprising the inclined spirally-flanged parallel shafts 7 and 8, the bevel-gears 10 10 mounted on one end thereof, and the transverse shaft 13 provided with the two-faced bevel gear-wheel 16, in operative connection with both the gears 10 10, in combination with the central longitudinal toothed rib 20, and the pivoted retarding-shoes 31 having their concave faces provided with a series of longitudinal parallel toothed bars 37, substantially as shown and described.

2. A corn-sheller, comprising the inclined spirally-flanged parallel shafts 7 and 8, formed with V-shaped teeth 19, the bevel gear-wheels 10 10 fixed on the contiguous upper ends of

said shafts, and the transverse shaft 13 carrying the two-faced bevel gear-wheel 16, meshing with the gear-wheels 10 10, and provided with the disk 15, in combination with the central longitudinal toothed rib 20, arranged parallel with and between said shafts 7 and 8, the pivoted shaking-pan 22, formed with the orifices 26 and vertical picker-teeth 25, and connected at one end to the disk 15 by a rod 29, the retarding-shoes 31 fixed on the rock-shafts 32 journaled in brackets 33, and the adjustable finger-springs 34, their free ends bearing on the lower end of the shoes 31, substantially as and for the purpose set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

GEORGE W. NELSON.

Witnesses:

GEO. E. TERRY,

A. B. SUTT.