

No. 768,249.

PATENTED AUG. 23, 1904.

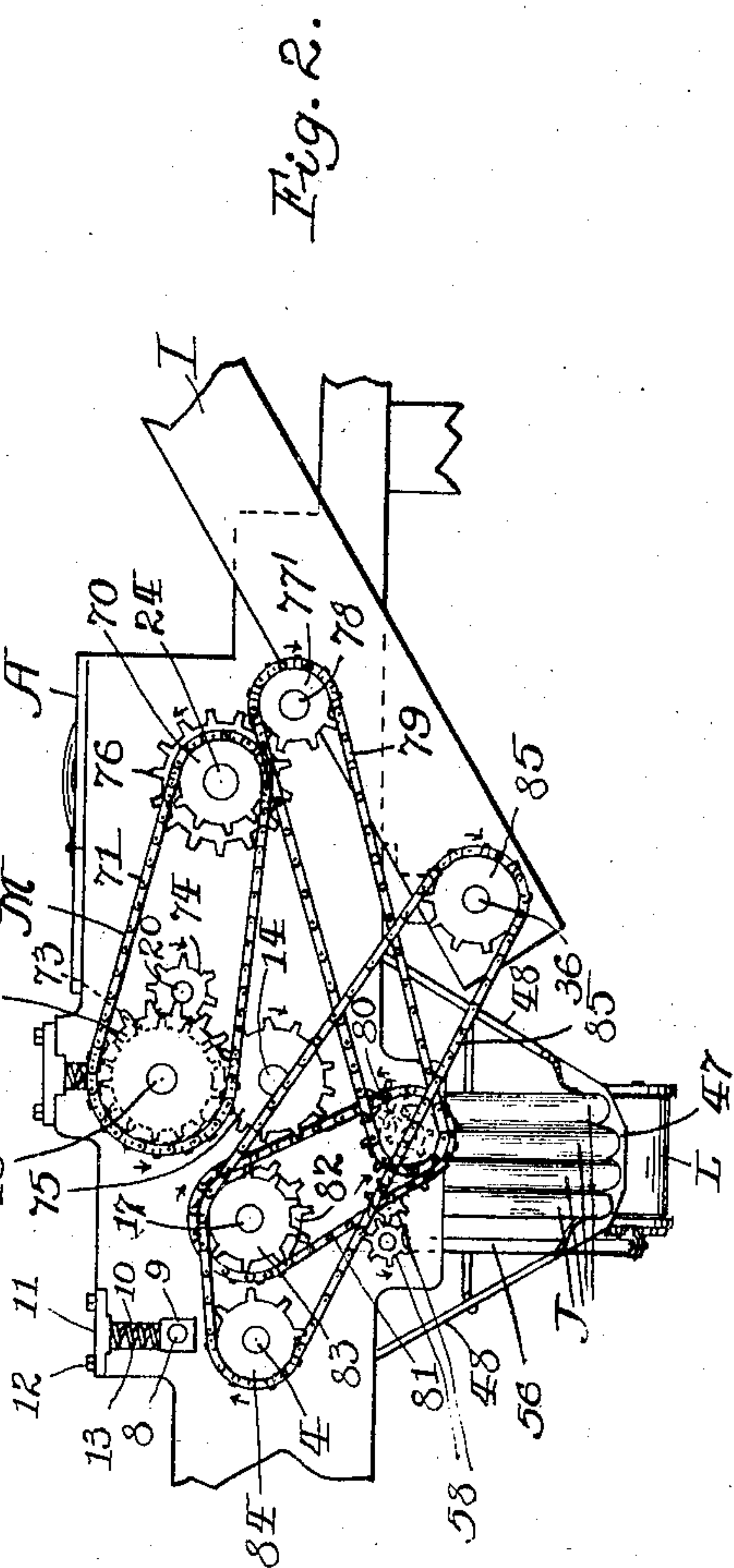
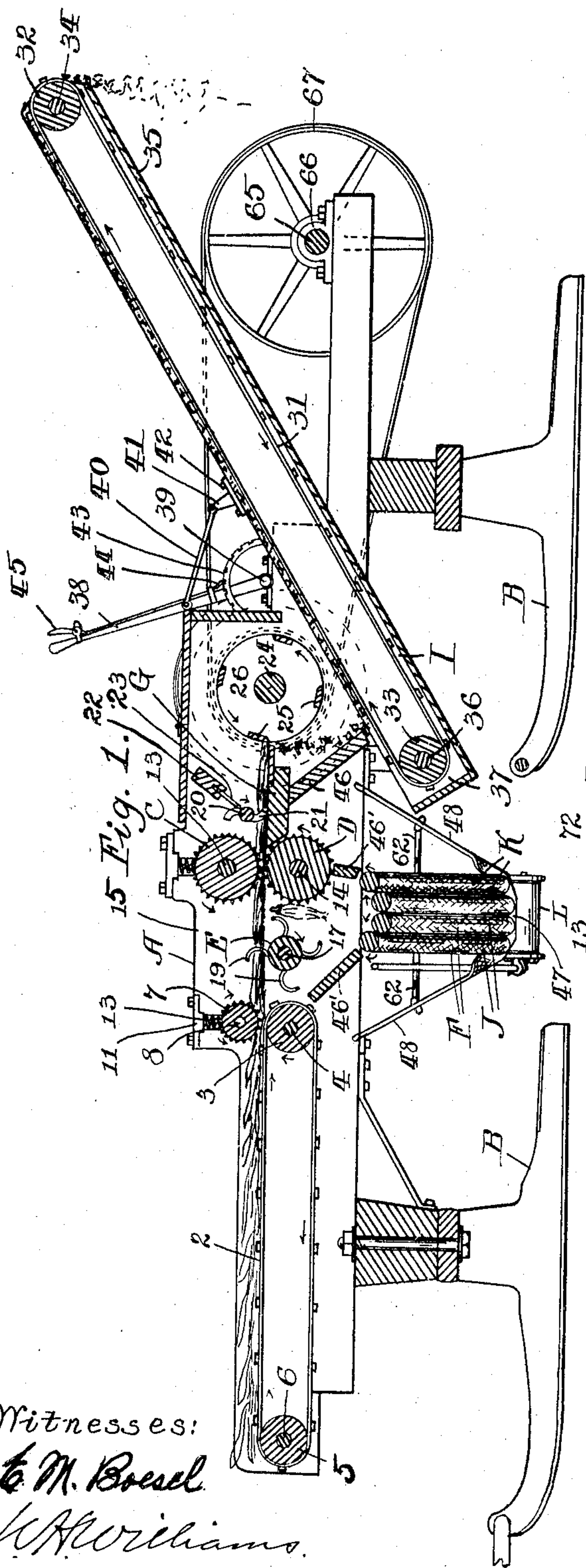
F. VEJROSTA.

CORN HUSKING AND FODDER PREPARING MACHINE.

APPLICATION FILED FEB. 24, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:

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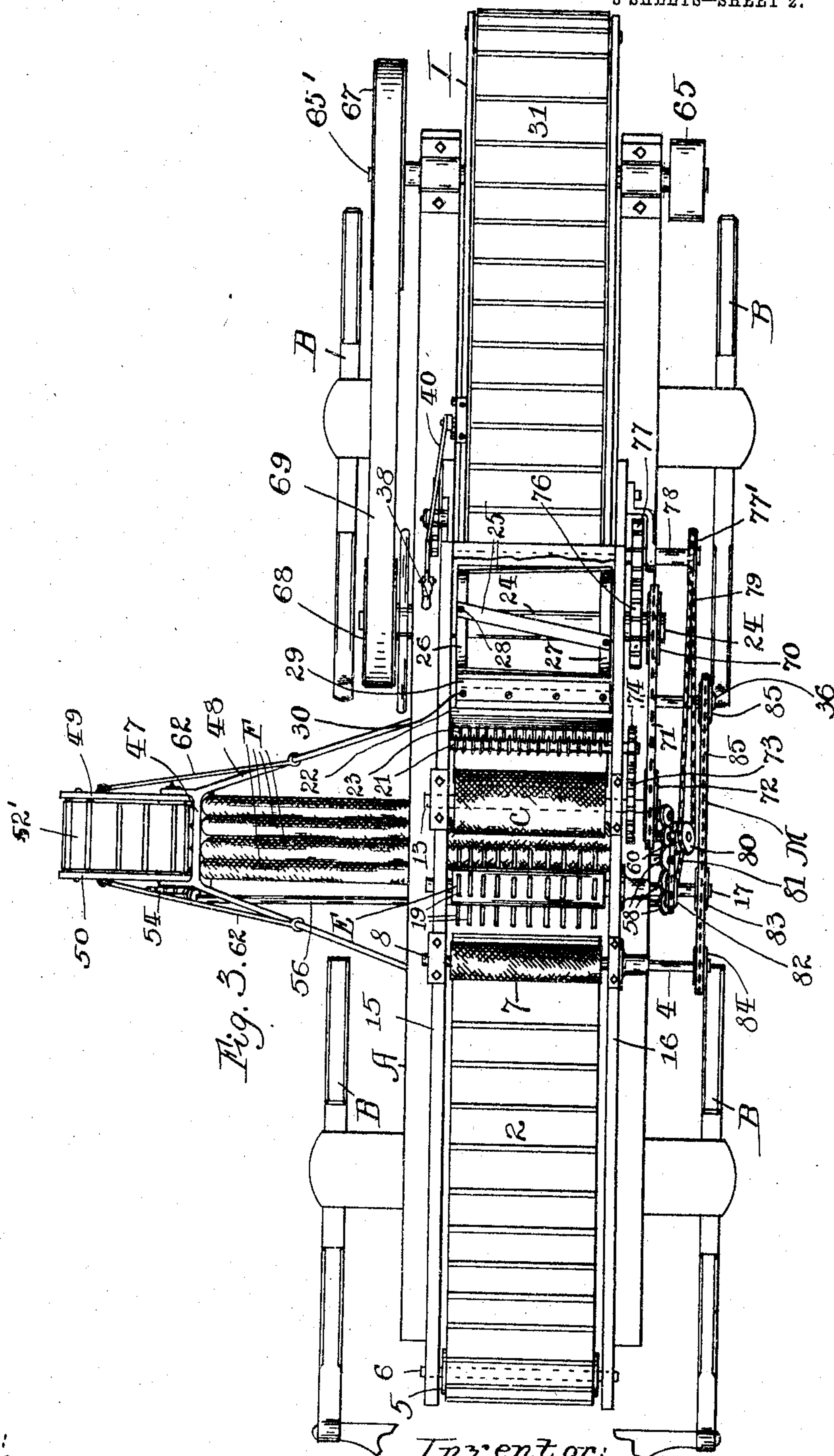


Fig. 3. 62

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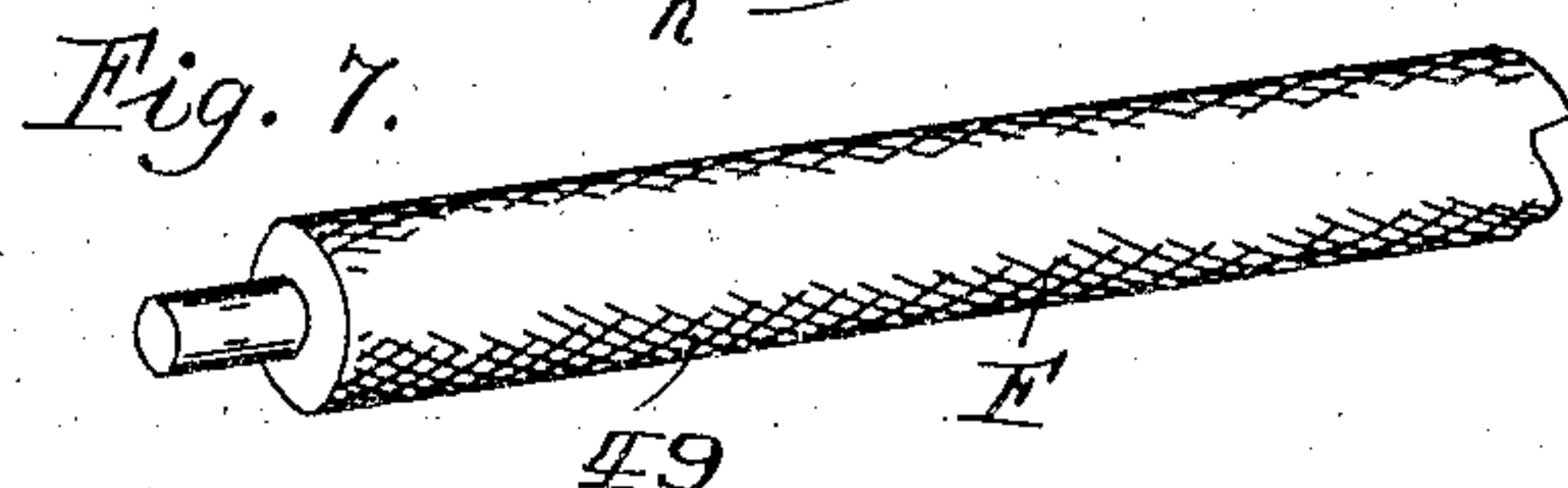
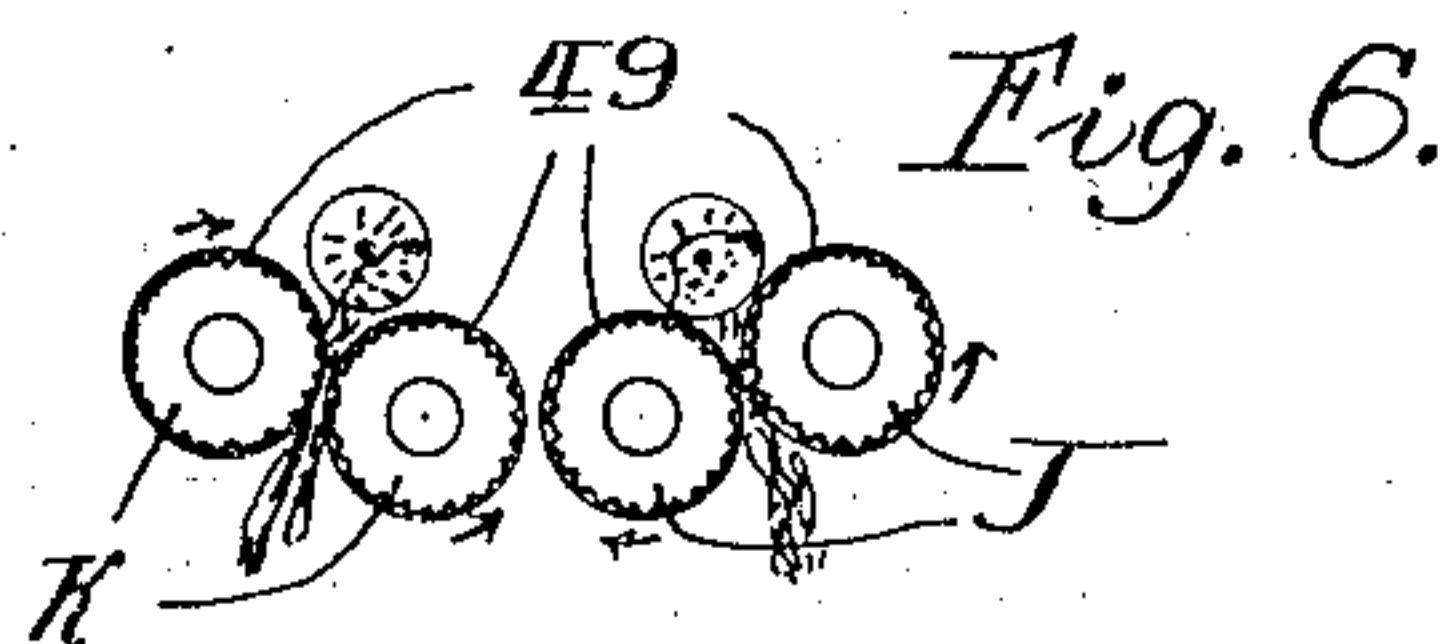
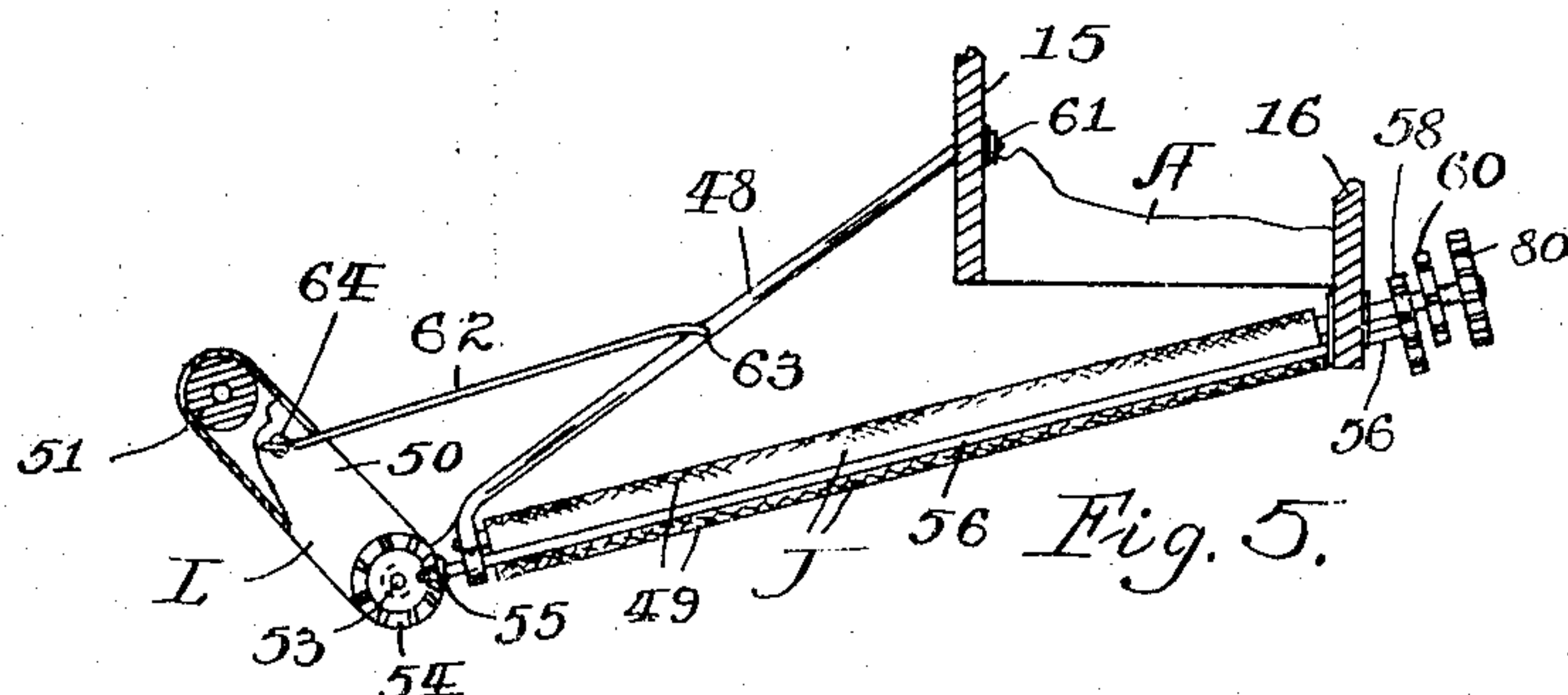
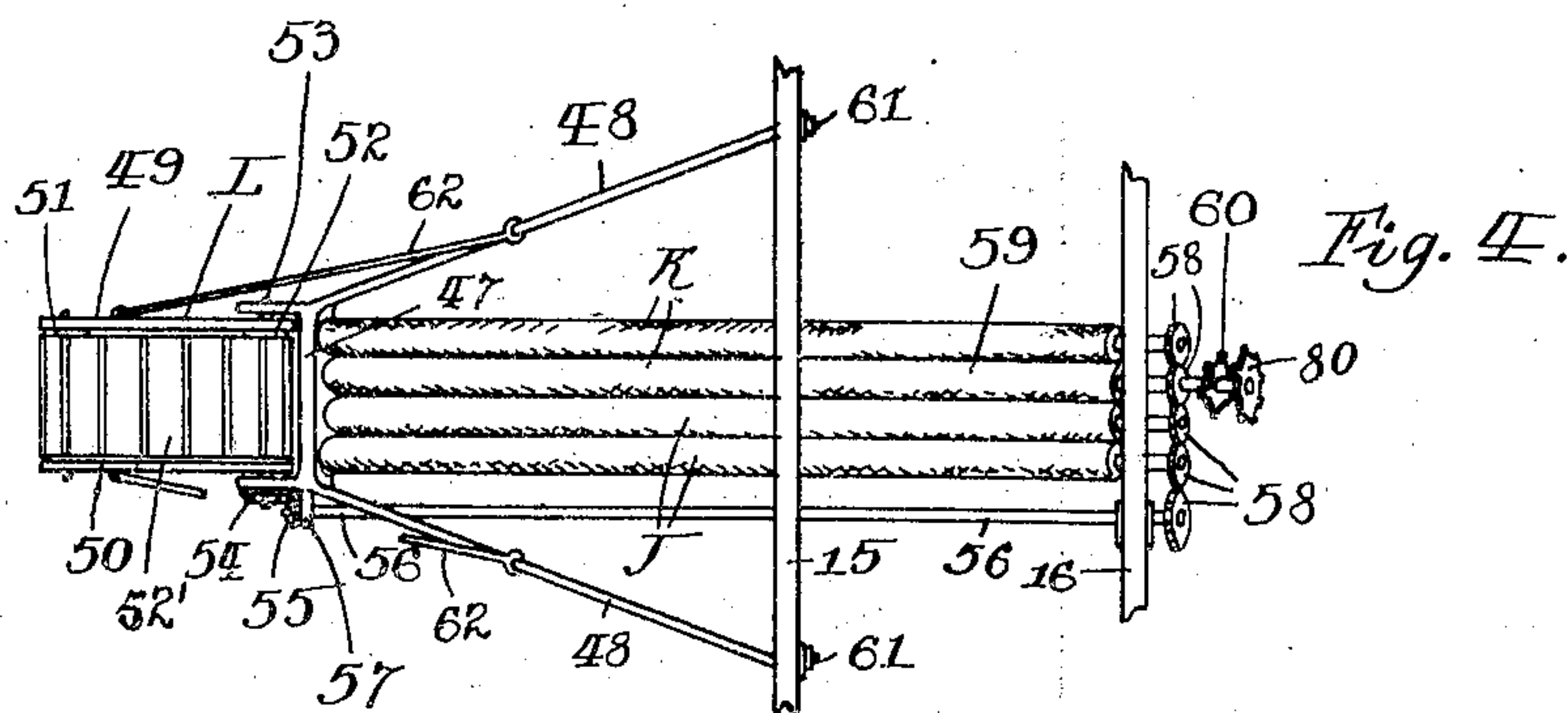
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CORN HUSKING AND FODDER PREPARING MACHINE.

NO MODEL.

3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

FRANK VEJROSTA, OF SILVERLAKE, MINNESOTA.

CORN-HUSKING AND FODDER-PREPARING MACHINE.

SPECIFICATION forming part of Letters Patent No. 768,249, dated August 23, 1904.

Application filed February 24, 1903. Serial No. 144,561. (No model.)

To all whom it may concern:

Be it known that I, FRANK VEJROSTA, a citizen of the United States of America, and a resident of Silverlake, in the county of McLeod and State of Minnesota, have invented certain new and useful Improvements in Corn-Husking and Fodder-Preparing Machines, of which the following is a specification.

My invention relates to improvements in corn-husking and fodder-preparing machines, the object being simplicity of construction together with speed and effectiveness in use.

To these ends my invention consists of the elements, features of construction, and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation in section of my improved machine. Fig. 2 is a detail side view showing the mechanism by which the parts are operated. Fig. 3 is a plan view. Fig. 4 is a detail plan view of the corn-husking mechanism. Fig. 5 is a detail side view, partly in section, of Fig. 4. Fig. 6 is a diagrammatic view of the corn-husking rollers, and Fig. 7 is a detail perspective view of one of said rollers.

In the drawings, let A represent the frame of the machine, which is supported upon the runners B for ease in transportation. It is obvious that wheels may be substituted for these runners when desired. The operating parts of said machine are mounted upon said frame and consist as follows: A horizontal feed-belt 2 is positioned near the front end of the machine and passes around the drive-roller 3 (which is mounted upon the shaft 4) and the loose roller 5, (which is journaled upon the shaft 6.) A pressure-roller 7 is journaled on the shaft 8 immediately above the roller 3, so that the cornstalks which are carried by the conveying-belt 2 are caught between the rollers 3 and 7 and fed into the machine. The shaft 8 is mounted on the blocks 9, which are adapted to slide in the vertical grooves 10. A plate 11 is fastened over each groove by means of the bolts 12. A spring 13 is placed between each plate and the block 9 so as to press the roller 7 down toward the surface of the conveying-belt, and thus provide

for unevenness of the stalks and the ears of corn as they are fed into the machine. A pair of snapping-rollers C and D are placed beyond the delivery end of the belt. Shafts 13 and 14, upon which the rollers C and D are mounted, are journaled on the sides 15 and 16 of the frame. An auxiliary device E is located between the delivery end of the belt and the pair of snapping-rollers and consists of a shaft 17, journaled on the sides 15 and 16 of the frame and carrying a plurality of arms 19, which are curved and radiate therefrom, as shown in Fig. 1. This shaft 17 is operated in the direction of the arrows indicated in the drawings. The arms 19 revolve and beat against the ears of corn, thus loosening the husks and preparing them to be removed by the snapping-rollers, which subsequently cause them to fall from the stalks upon the husking-rollers F, to be hereinafter more particularly described. The auxiliary device also loosens the husks on the ears and tends to flatten the husks out, so that the husking-rollers affect them more readily. The table G is so positioned as to receive the cornstalks from said feeding-rollers, as indicated in Fig. 1. A transverse shaft 20 is journaled on the sides of the frame and positioned above said table. This shaft carries a series of cutting-knives 21, which revolve over the table and cut the cornstalks into narrow strips and remove the leaves therefrom. A cross-bar 22 is mounted on the frame above said knives and is provided with teeth 23, which project down and between the knife-blades. The cross-bar 22 and teeth 23 form a comb, which removes any parts of the cornstalks that may tend to catch and clog the knives when the machine is in operation. A pair of disks 26 and 27 are mounted on the shaft 24, which is journaled in the sides 15 and 16 of the frame A. These disks carry the transverse cutting-knives 25, which are fastened to the disks by means of the screws 28. These knives slant in relation to the shaft, and their cutting edges coact, so as to shear across the edge of the plate 29 when the shaft is revolved. This plate 29 is fastened, by means of screws 30, to the delivery end of the feed-table. As the cornstalks are fed

longitudinally by means of the feed apron and rollers and after they have been cut longitudinally by means of the knives 21 they are cut transversely into small pieces suitable for fodder by means of the knives 25. The pieces of cornstalks suitable for fodder then fall upon the conveyer I, which slants up and is adapted to deliver them into any suitable receptacle. (Notshown.) This conveyer consists of the belt 31, which passes around the idle roller 32 and drive-roller 33. The idle roller is journaled by its shaft 34 on the sides of the trough 35. The drive-roller 33 is mounted on the drive-shaft 36, which in turn is journaled on the frame A. The lower end 37 of the trough 35 is mounted on the shaft 36. The upper end of the conveyer is supported by means of the lever 38, which is pivoted at 39 on the frame. A link 40 connects said lever with the bracket 41, which is attached to the trough 35 of the conveyer by means of the bolts 42. A toothed segment 43 is mounted on the frame, and a lock-bolt 44 is adapted to engage the teeth of the segment when operated by means of the handpiece 45 and the lever 38, adjusted to raise or lower said conveyer. A guard 46 is positioned below the cutting-knives 25, so as to direct the small pieces of cornstalks onto the conveyer. Two guards 46' are also placed below the feed apron and rollers, so as to direct the ears of corn onto the husking-rollers J.

Two pairs of husking-rollers J and K are inclined, as shown in Fig. 5, below the device E. The upper ends of these rollers are journaled in the side 16 of the frame and their lower ends in the cross-bar 47 at the lower end of the brace 48. These husking-rollers are close together and parallel to each other and are revolved in the direction of the arrows, as indicated in Fig. 6. Each of the husking-rollers has a serrated surface, as indicated at 49 in Figs. 6 and 7, so as to catch the husks during the longitudinal movement of the ears of corn on the husking-rollers and tear them loose and remove them from the corn, as indicated in Fig. 6. A conveyer L is positioned at the delivery end of the husking-rollers. This conveyer is of ordinary construction and consists of the side pieces 49 and 50, upon which the idle roller 51 and the drive-roller 52 are journaled. A belt 52' is passed around these rollers. The drive-roller has the shaft 53 and carries the miter-gear 54. The pinion 55 meshes with said miter-gear and is carried by the drive-shaft 56, which is journaled in the lug 57 (see Fig. 4) on the brace 48. The upper end of the shaft 56 is journaled in the side 16 of the frame. The upper ends of the husking-rollers and said drive-shaft carry drive-gears 58, which mesh together, as shown in Fig. 4. The upper end of the husking-roller 59 also carries a sprocket 60 for connecting with the driving mechanism M, to be hereinafter more particularly de-

scribed. The brace 48 is attached to the side 15 of the frame by means of the bolts 61, and the conveyer L is supported by means of the shaft 53, which is journaled on said brace, also by means of the links 62, which are attached to the brace at 63 and hooked to the side pieces 49 and 50 at 64. When the machine is not in use, the conveyer L may be folded back upon the husking-rollers by unhooking the links 62.

Power is supplied to the machine for operating the mechanism described by means of the drive-pulley 65 and shaft 65', which is journaled in the journal-boxes 66 on the sides and at one end of the frame. This drive-shaft carries a drive-pulley 67, which is operatively connected with the pulley 68 by means of the belt 69. The pulley 68 is mounted on the drive-shaft 24 and revolves the transverse cutting-knives 25. A drive-sprocket 70 is also mounted on the shaft 24 and connected by means of the chain 71 with the sprocket 72 on the shaft 13. A gear 73 is mounted on the shaft 13 and meshes with the pinion 74 on the shaft 17, which causes the cutting-knives 21 to revolve. Another gear 75, which is mounted on the shaft 14, meshes with the gear 73 and causes the lower feed-roller D to revolve. A gear 76 is mounted on the shaft 24 and meshes with the counter-gear 77, which is journaled on the shaft 78. The shaft 78 is mounted on the side 16 of the frame. A chain 79 connects the counter-sprocket 77', which is also on shaft 78, with the sprocket 80. This sprocket 80 is mounted on the end of the husking-roller 59. By this means and the intermeshing gears 58 the husking-rollers and the conveyer-shaft 56 are operated. Another sprocket, 60, is mounted on the end of the husking-roller 59 and is connected, by means of the chain 81, with the sprocket 82 on the shaft 17. This connection causes the stripping device E to revolve. A second sprocket, 83, is mounted on the shaft 17, and sprockets 84 and 85 are respectively mounted on the shafts 4 and 36. A chain 85 passes around the sprockets 83, 84, and 85, and by this means the feed-belt 2 and the conveyer-belt 31 are operated. The operating parts of this machine are revolved in the direction of the arrows indicated in the drawings.

The operation of this machine in brief is as follows: The cornstalks are fed into the machine longitudinally by means of the belt 2 and the feed-rollers C and D. These feed-rollers and belt are adapted to hold the stalks while the device E revolves and removes the ears of corn, which drop onto the husking-rollers. The cornstalks are fed upon the table G, while the knives 21 revolve and cut the stalks into thin strips. These strips are then presented by the feed-table to the revolving knives 25, which cut them into small pieces. These small pieces, suitable for fodder, are carried by the conveyer I into any convenient

receptacle. The ears of corn after being separated from the cornstalks arrange themselves longitudinally between one or the other pair of husking-rollers. The husks are torn from the ears of corn by the husking-rollers and fall below them. The ears are delivered onto the conveyer L, which feeds them into any convenient receptacle.

Having described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. A machine of the class set forth, consisting, in combination with stalk cutting and shredding mechanism, of a feed-apron, a pair of snapping-rollers, a shaft adjoining said rollers and between the same and said apron, a plurality of arms on said shaft for beating out the husks on the ears of corn, a plurality of inclined rollers below said snapping-rollers for husking the ears of corn, an elevator at the foot of said rollers, means for folding said elevator back upon said husking-rollers and supporting it when extended, a suitable supporting-frame, and means for driving said parts.

2. A machine of the class set forth, consisting of feed mechanism, snapping mechanism adjoining said feed mechanism, an auxiliary device in front of the snapping mechanism for loosening the husks on the ears of corn, a plurality of rollers arranged in pairs below said snapping mechanism for husking the ears of corn, a folding elevator at the delivery end of said rollers for the ears of corn after they have been husked, means for supporting said elevator in extended position, a series of revoluble shredding-knives beyond the snapping mechanism, a comb cooperating with said

shredding-knives, transverse cutting-knives beyond the shredding-knives, and means for operating said parts.

3. A machine of the class set forth, consisting of feed mechanism, snapping mechanism adjoining said feed mechanism, an auxiliary device in front of said snapping mechanism and between the same and said feed mechanism for loosening the husks on the ears of corn, a plurality of rollers arranged in pairs below said snapping mechanism for husking the ears of corn, a series of shredding-knives beyond the snapping mechanism, a comb coacting with said shredding-knives, means for cutting the stalks transversely beyond said shredding-knives, and drive mechanism.

4. A machine of the class set forth, consisting of feed mechanism, snapping mechanism beyond said feed mechanism, an auxiliary device in front of said snapping mechanism and between the same and said feed mechanism for beating the husks on the ears of corn, husking mechanism below said snapping mechanism, shredding-knives beyond said snapping mechanism, a comb cooperating with said shredding-knives, means for cutting the stalks transversely beyond the shredding-knives, an elevator to receive the pieces of the stalks, means for adjustably supporting said elevator, and means for driving said parts.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK VEJROSTA.

Witnesses:

JOHN TUPA,
FRANK H. HAKEL.