

No. 721,137.

PATENTED FEB. 24, 1903.

I. D. BATE.
FEEDING MECHANISM FOR HUSKING MACHINES.

APPLICATION FILED APR. 11, 1901.

NO MODEL.

2 SHEETS—SHEET 1.

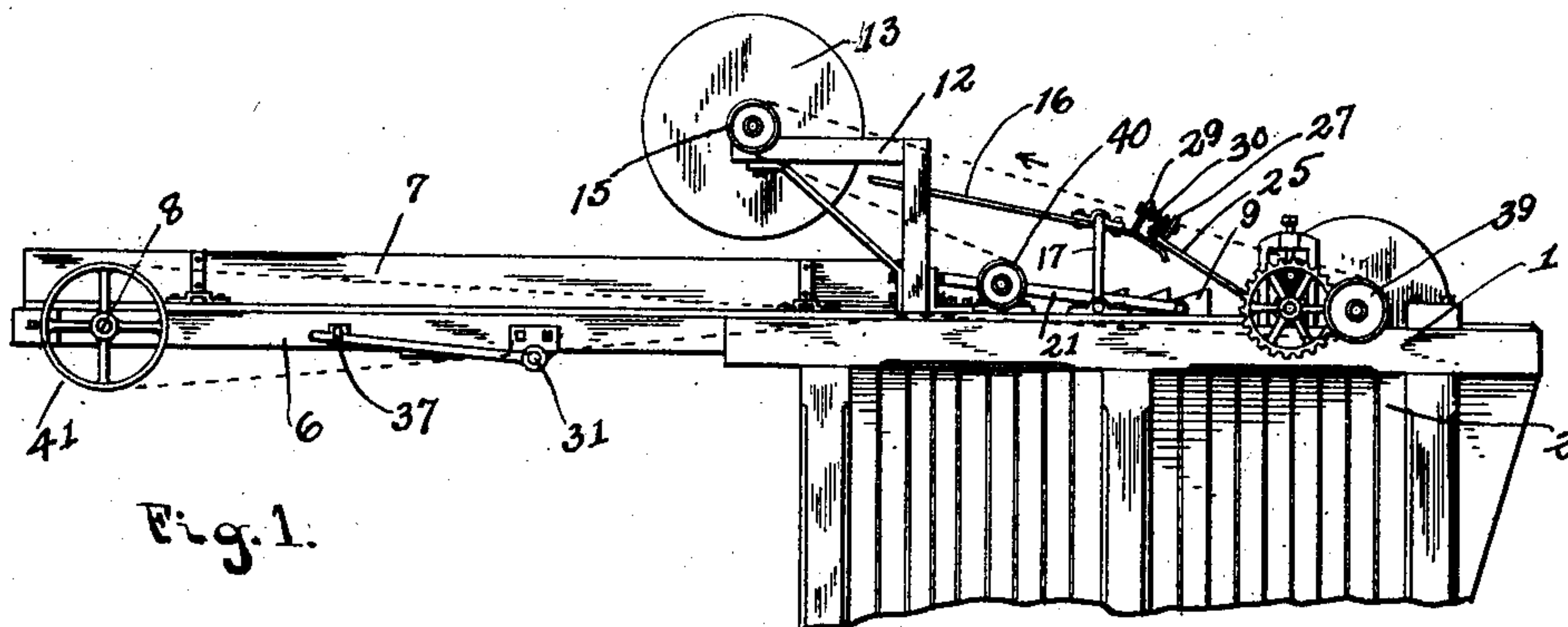


Fig. 1.

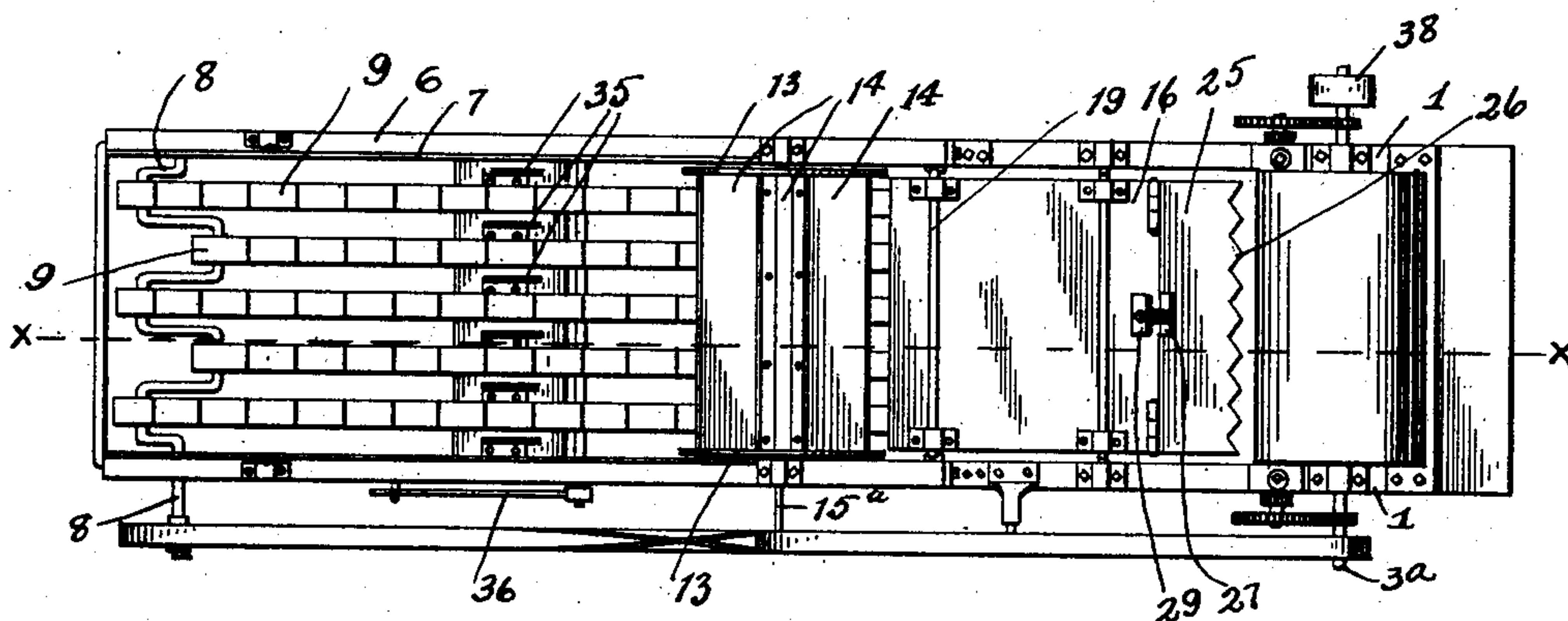


Fig. 2.

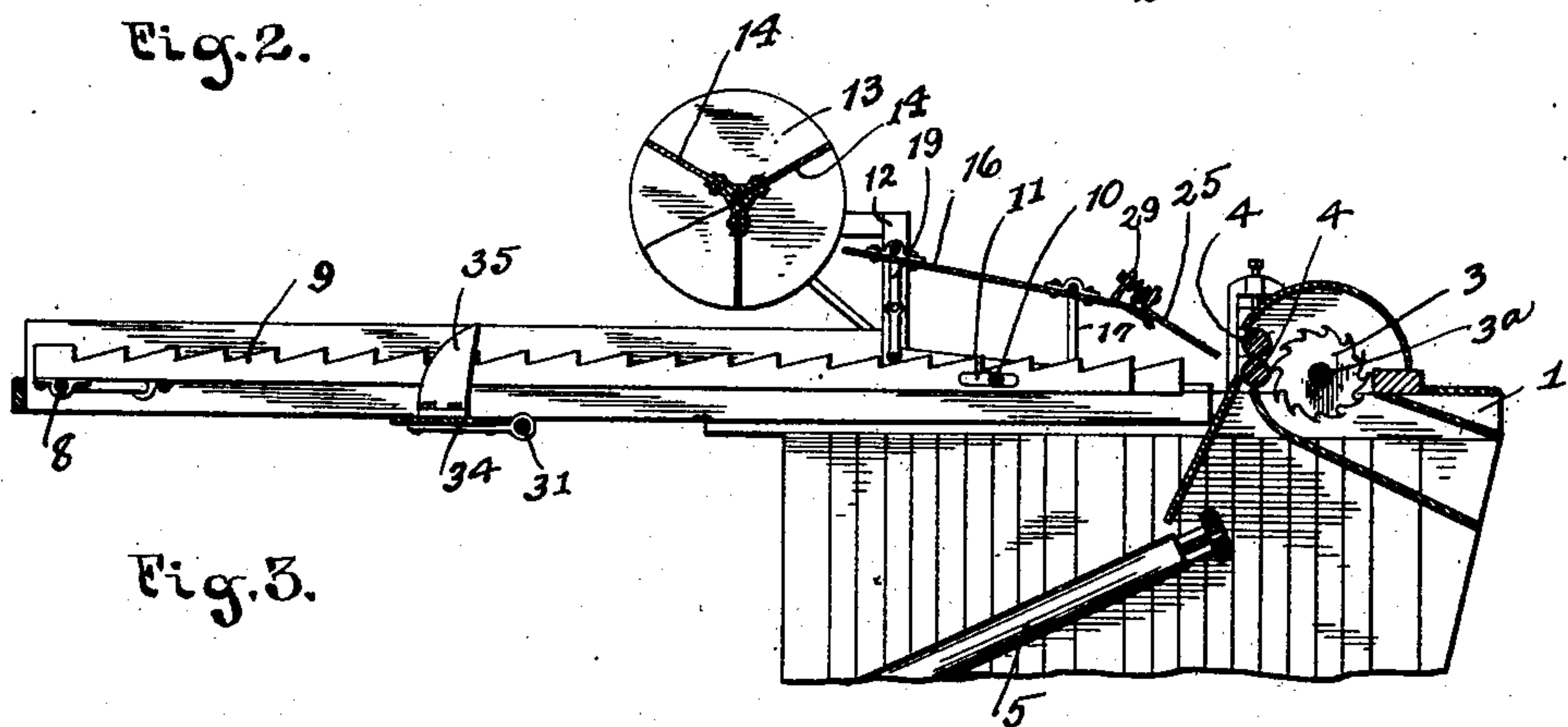


Fig. 3.

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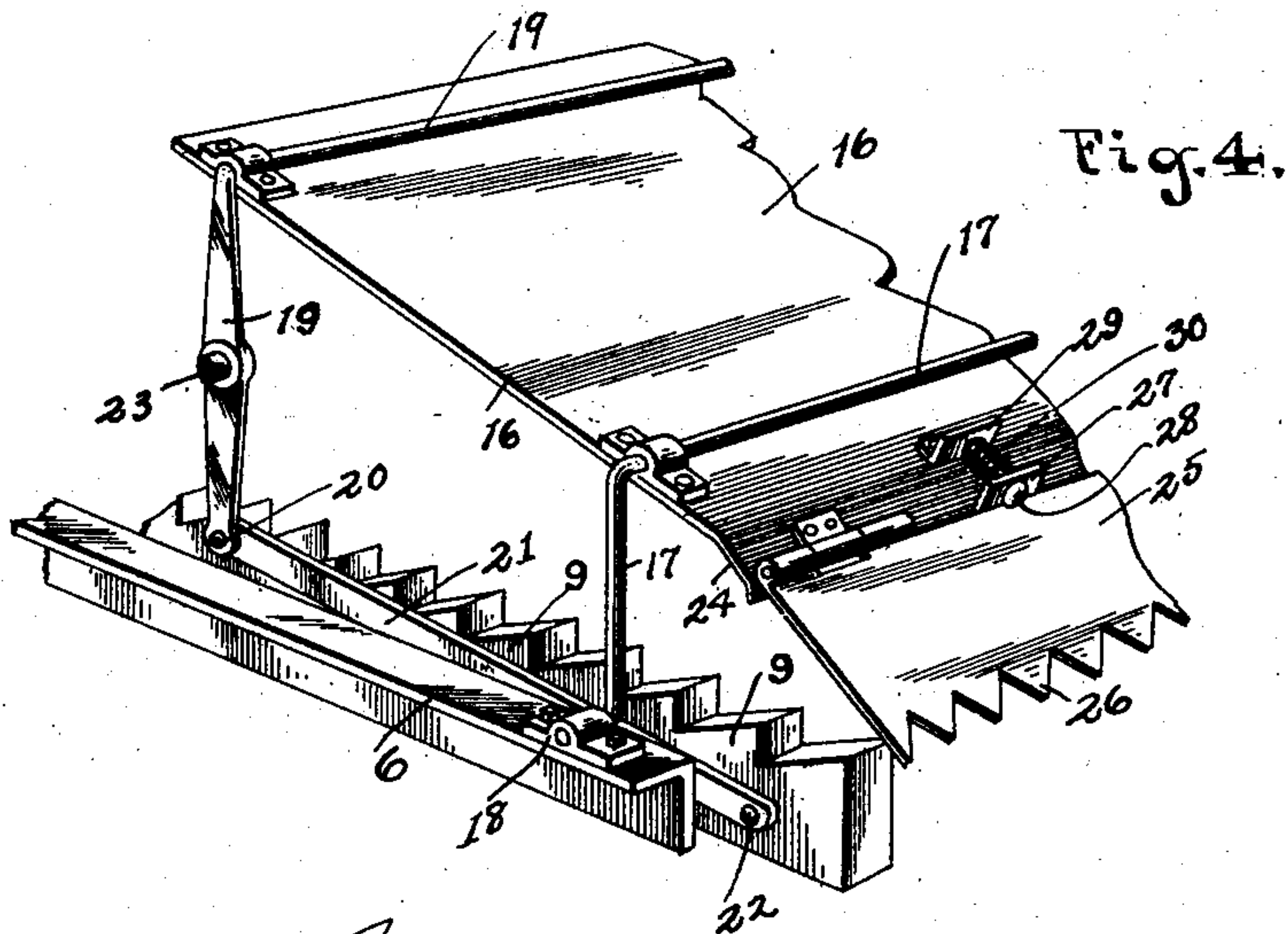


Fig. 4.

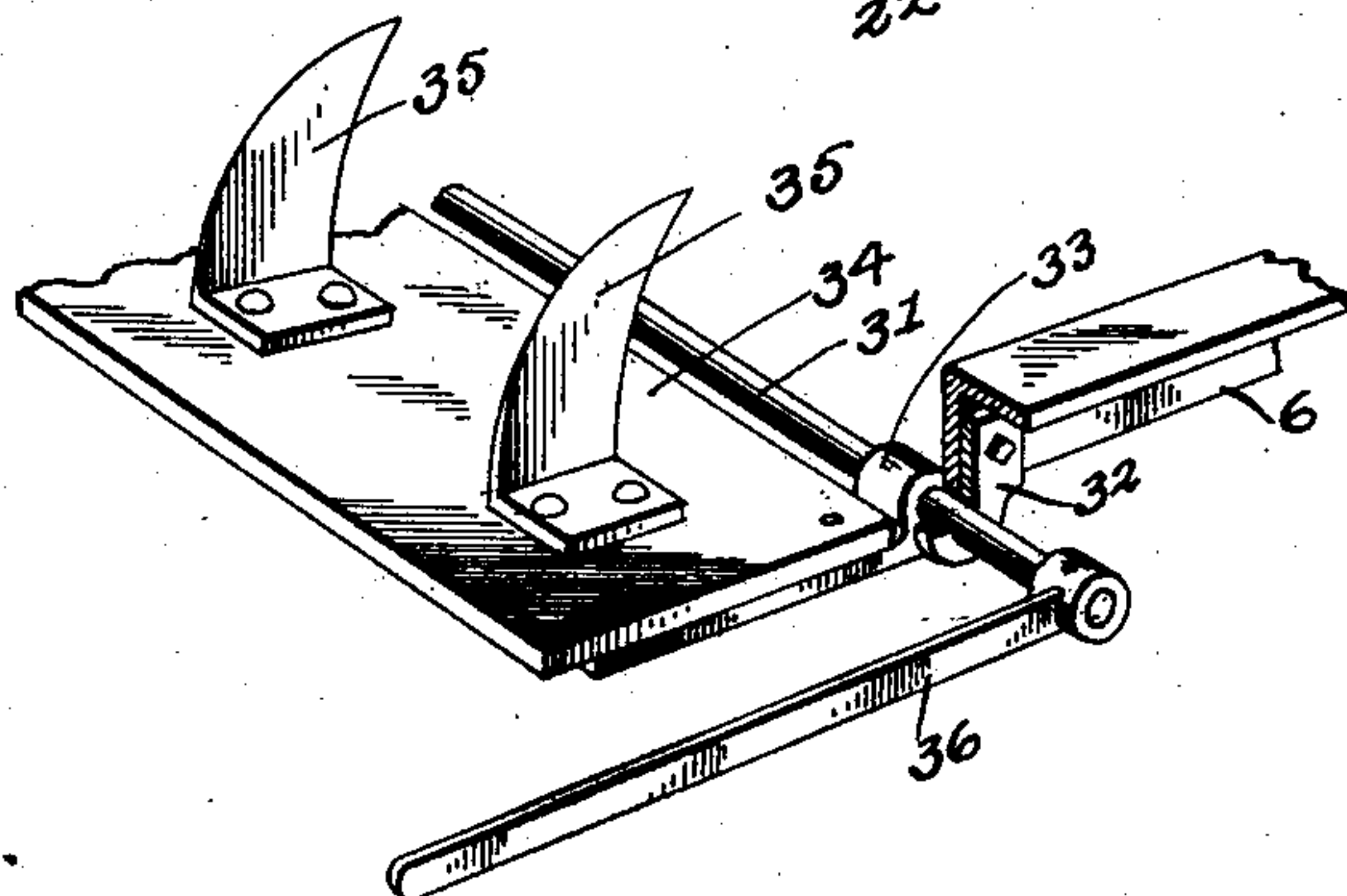


Fig. 5.

Fig. 6.

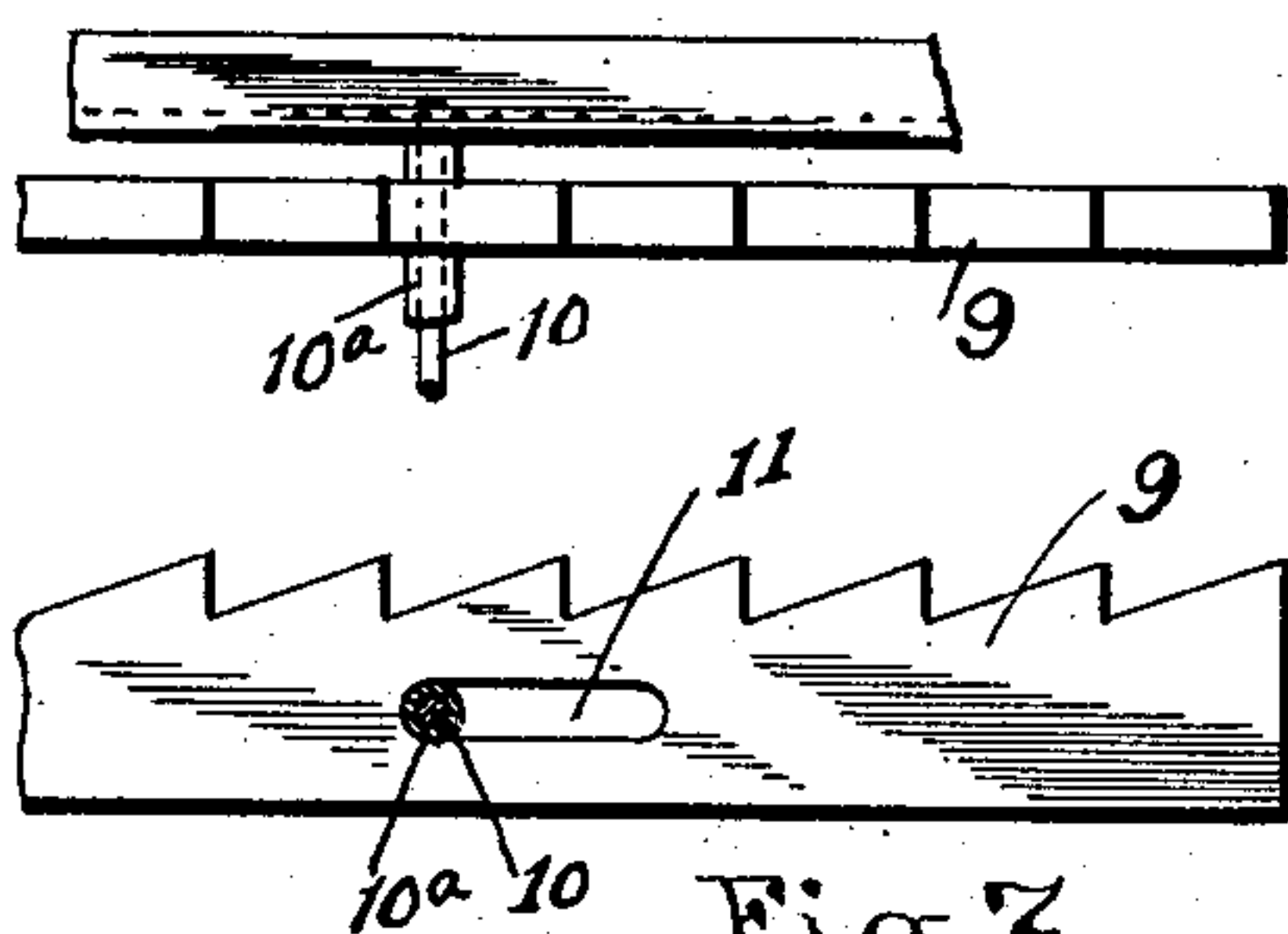


Fig. 7.

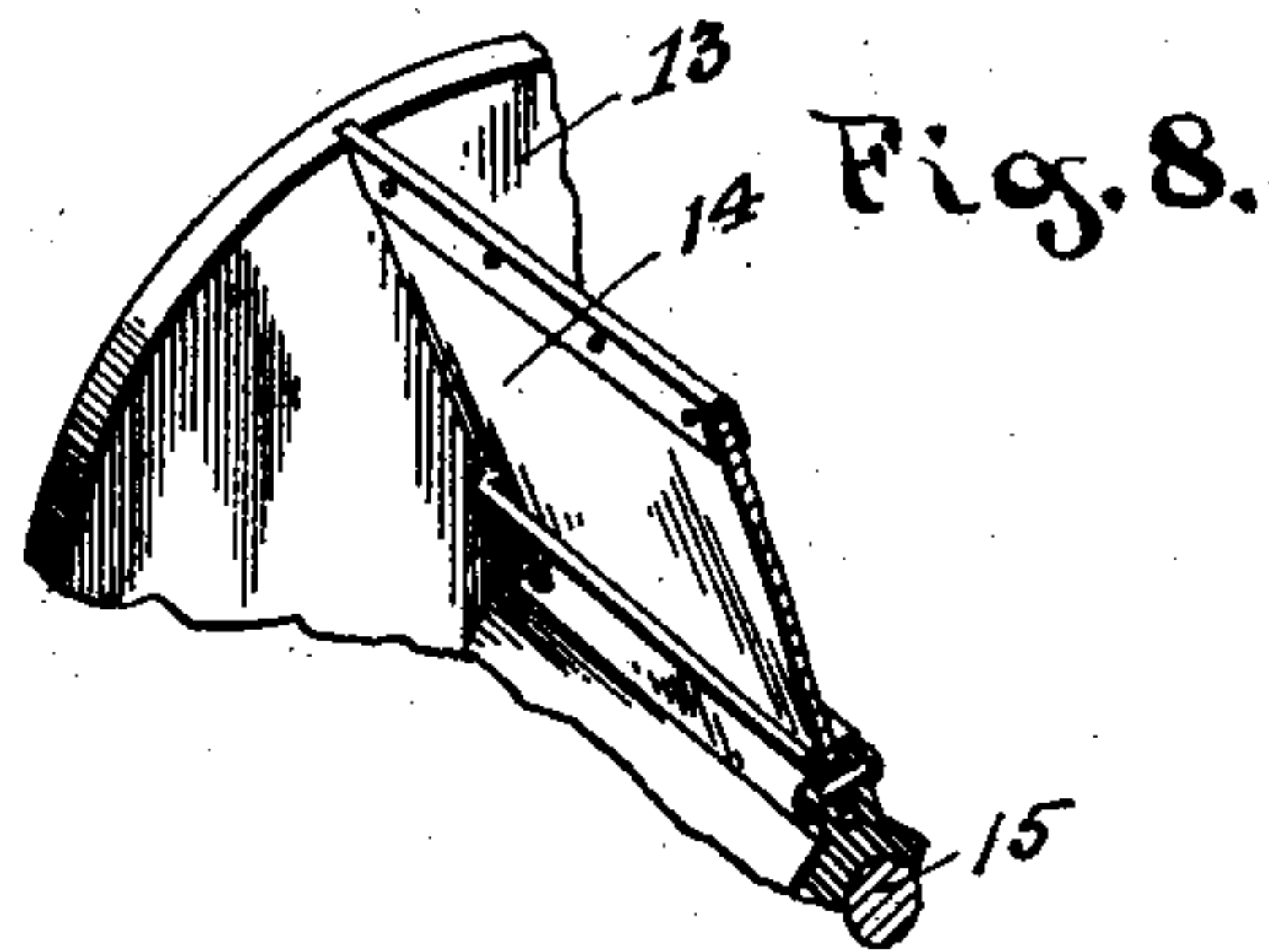


Fig. 8.

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IRA D. BATE, OF WEST JEFFERSON, OHIO.

FEEDING MECHANISM FOR HUSKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 721,137, dated February 24, 1903.

Application filed April 11, 1901. Serial No. 55,314. (No model.)

To all whom it may concern:

Be it known that I, IRA D. BATE, a citizen of the United States, residing at West Jefferson, in the county of Madison and State of Ohio, have invented a certain new and useful Improvement in Feeding Mechanism for Husking-Machines, of which the following is a specification.

My invention relates to the improvement of feeding attachments for corn-husking machines; and the objects of my invention are to provide a simple and reliable construction of feeding attachment whereby the unhusked corn may be fed into the ordinary husking-machine without danger to the hands of the operator and to produce certain improvements in details of construction and arrangement of parts, which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved feeding attachment, showing the same in connection with the corn-husking-machine frame. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view on line *xx* of Fig. 2. Fig. 4 is a detail view in perspective of a portion of the feeding mechanism. Fig. 5 is a detail view in perspective of the binder-cutting device. Fig. 6 is a plan view of a portion of one of the feeding-bars, showing its manner of support. Fig. 7 is a side elevation of the feeding-bar section shown in Fig. 6; and Fig. 8 is a detail view in perspective of a portion of a rotating feeder or stalk-guide, which I employ in the manner hereinafter described.

Similar numerals refer to similar parts throughout the several views.

1 represents the top frame-bars of a power-husking-machine frame 2, these top frame-bars having mounted in the forward portion thereof in the usual manner the rotary shredding-wheels 3 and snapping-rolls 4, from which the unhusked ears are dropped to the usual husking-rolls 5.

In carrying out my invention I secure to the frame-beams 1 in front of the snapping-rolls 4 an outwardly-extending feed-frame comprising side frame-bars 6, from which may rise frame side boards 7. Extending transversely between the side frame-bars 6 and journaled therein adjacent to the outer

ends of the latter is a crank-shaft 8, the latter being provided with a plurality of crank-bends, as indicated more clearly in Fig. 2. On each of these crank-bends is journaled the outer end of a feed-bar 9, these feed-bars extending parallel with each other to a point adjacent to the snapping-rolls 4. The inner end portions of the feed-rolls are supported upon a transverse rod 10, which extends through oppositely-located slotted openings 11 in said feed-bars. As shown more clearly in Fig. 6 of the drawings, the rod 10 is preferably surrounded by a sleeve 10^a. As indicated in the drawings, each of the feed-bars 9 has its upper side formed with teeth or feed-notches.

Rising from the side frame-bars 1 of the husker are the vertical standards of oppositely-located angular brackets 12, upon the horizontal upper arms of which are journaled the spindles or bearing ends of a rotary feeder or beater comprising end disks 13, which are connected by radially-arranged blades 14, this rotary feeder or beater being thus journaled above the feed-bars 9. On the outer end portion of one of the spindles 15^a of the rotary feeder is carried a small belt-wheel 15. In rear of the beater 13 14 or between the latter and the mouth of the husker I provide above the forward portions of the feed-bars 9 an inclined feeding-plate 16, the latter having its inner end portion supported from the horizontal portion of a yoke-shaped rod 17, which is journaled in suitable projections or boxings on the upper side of the plate 16 and the downwardly-extending arms of which terminate in outturned portions, which are journaled in boxings 18, which are mounted on the frame-bars 6. The rear portion of the plate 16 is similarly supported from the horizontal portion of a yoke 19, the side arms of which have their lower ends pivotally connected, as indicated at 20 in Fig. 4, with the outer ends of bars 21, the inner ends of which are pivoted, as indicated at 22, to the sides of the forward end portions of the outer feed-bars 9. The side bars of the yoke 19 are provided with central pin projections 23, which are pivotally supported in the vertical portions of the brackets 12.

The inner end portion of the feeding-plate 16 is provided with a slight downward in-

clination, as shown at 24, to which is hinged at one side of the center of its width a feed-plate extension or inner section 25, the latter having its end portion toothed, as indicated at 26. The feed-plate section 25 is also provided on its rear side with an upwardly-extending lug 27, through which is adapted to work loosely a pin 28, which projects from a bracket 29 on the plate 16, a coiled spring 30 being interposed between the lug 27 and bracket 29, which serves to normally retain the feed-plate section 25 in a depressed position, as shown.

Extending transversely beneath the toothed bars 9 in the outer portion thereof is a rod 31, said rod being journaled in the side frame-bars 6 or from depending bearing-brackets 32. On this rod 31 is fixed the supporting-arms 33 of a transverse bar 34, said bar carrying at regular intervals thereon upwardly-projecting tooth-like blades 35, these blades having their cutting edges curved, as shown more clearly in Fig. 5. On one of the outer ends of the rod 31 is fixed an operating-lever or handle-bar 36, which when elevated is adapted to engage a suitable fixed catch or hook 37 on one of the frame-bars 6. It will be observed from the drawings that when said bar 34 is thus raised to a horizontal position its cutting-blades 35 will project upwardly between the toothed bars 9.

Upon one end of the shaft 3^a of the shredding-wheels is carried a pulley or belt-wheel 38, from which a belt may run to an engine or other source of power. On the opposite end of the shaft 3^a is carried a belt-wheel 39. Upon one of the top frame-bars 1 is journaled an idle wheel 40, and by one end of the crank-shaft 8 is carried a belt-wheel 41.

In the operation of my improved feeding mechanism the material is carried to the snapping-rolls at the mouth of the machine through the alternate reciprocating motions of the toothed bars 9, this motion of said bars being communicated to the belt connection of the wheels 39, 15, and 41, said belt passing from the wheel 39 over said wheel 15, thence over the idler 40, about the wheel 41, and back to the wheel 39. It will also be observed that this belt connection will result in the rotation of the rotary feeder 13, which in its revolutions results, through contact of the blades 14 with the material to be fed into the husker, in pressing the latter downward and assisting it in its inward feeding movement. Owing to the jointed connection hereinbefore described of the feeding-plates 16 and 25 with the outer bars 9 it will be observed that the backward-and-forward or reciprocating motion of these bars will result in a backward-and-forward motion of said feed-plates and in the toothed end of the feed-plate section 25 pushing or feeding the material into the mouth of the machine.

In case the stalks or fodder which is fed into the machine upon the toothed bars 9 is

bound by twine or similar material it is obvious that the knife-bar 34 may be turned upward to a position indicated in Fig. 5, in which position the cutting-blade 35 will be so supported as to exert a cutting influence on the binding or bands of the fodder, thus insuring a severing of the latter before the material enters the husking-machine. When these knives, however, are not needed, it is evident that the lever 36 may be disengaged from its catch 37 and the knife-carrying bar being allowed to drop sufficiently to bring the blade 35 out of contact with the material. From the construction and operation herein described it will be seen that the fodder is not only fed toward the mouth of the machine by the supporting and feeding bars 9, but this feeding action is greatly facilitated by the operation of the compressing and feeding blades 14 and the rocking action of the feeding-plate 16 to 25.

It is customary to feed material into a husking-machine by hand, which operation, as experience has demonstrated, is exceedingly dangerous, often resulting in the mutilation of the hands of the person feeding the same. By the mechanism herein described it will be seen that any danger of catching the hands of the operator or feeder in the snapping-rolls or other operating parts of the machine is avoided and that the means which I employ for this purpose are exceedingly simple and so arranged and constructed as to be positive in their operation.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a feed mechanism for husking-machines, the combination with a husking-machine having husking mechanism, of a feeding mechanism supported from said husking-machine and comprising parallel reciprocating toothed bars 9, a feeding-plate comprising hinged sections 16 and 25 having a rocking connection with said toothed bars and a spring interposed between said plate-sections whereby a forward section is normally retained depressed, substantially as specified.

2. In a feeding mechanism for husking-machines, the combination with a husking-machine having husking mechanism, of a feed mechanism supported from said husking-machine and comprising a set of toothed bars and means for imparting an alternate reciprocating motion and comprising a set of toothed bars and means for imparting an alternate reciprocating motion thereto and a rotary feeding device journaled above said feeding mechanism and comprising heads 13 and blades 14 interposed between said heads and means for rotating the same, substantially as specified.

IRA D. BATE.

In presence of—
LOT D. HULL,
JOHN DAVIS.