

(No Model.)

O. CREPEAU.

FEEDER FOR CLOVER HULLERS, THRASHERS, &c.

No. 558,935.

Patented Apr. 28, 1896.

Fig. 1

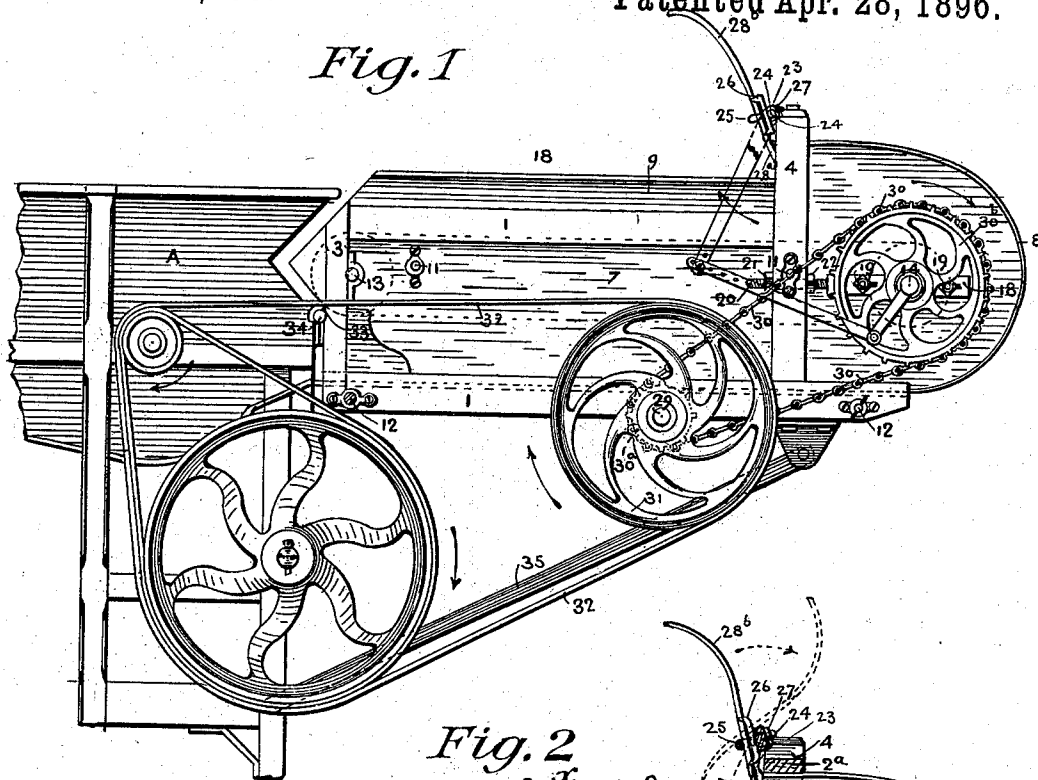


Fig. 2

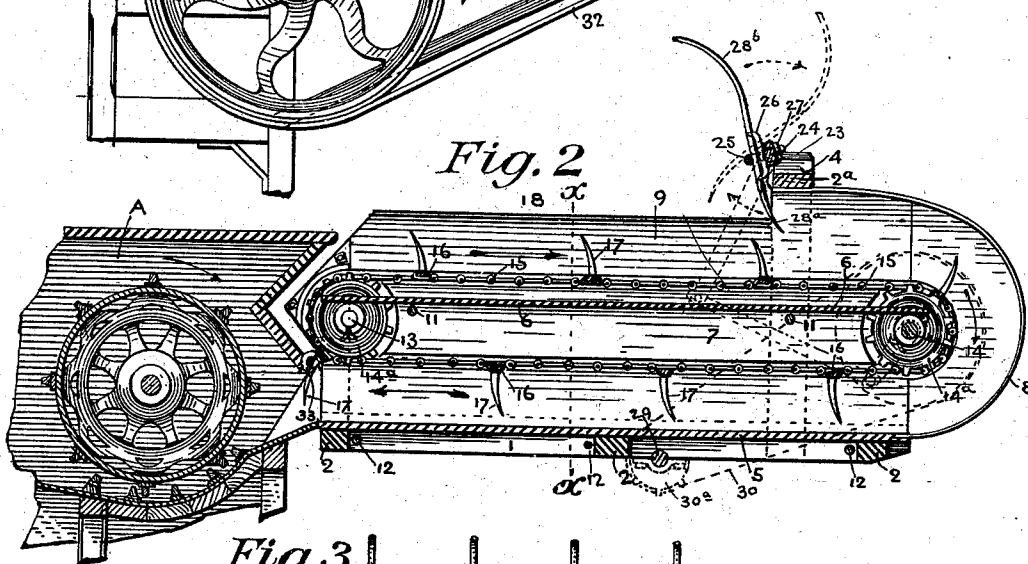
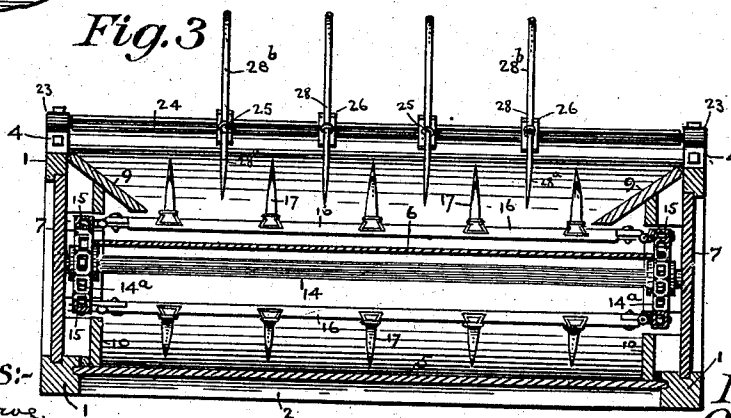


Fig. 3



Witnesses:-

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Inventor:-

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By his Atty. O. B. Reichelt

UNITED STATES PATENT OFFICE.

OVID CREPEAU, OF SOUTH BEND, INDIANA.

FEEDER FOR CLOVER HULLERS, THRASHERS, &c.

SPECIFICATION forming part of Letters Patent No. 558,935, dated April 28, 1896.

Application filed June 12, 1895. Serial No. 552,516. (No model.)

To all whom it may concern:

Be it known that I, OVID CREPEAU, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Feeders for Clover Hullers, Thrashers, &c., of which the following is a specification.

The object of my invention is to provide a feeder for clover-hullers which will effectively feed the straw and unhulled grain to the thrashing-cylinder with great rapidity and regularity no matter how much it may be bunched or packed, and which will not become choked in the feeder whatever may be the condition of the straw, a graduated quantity only being admitted to the machine, thus subjecting the grain to great rapidity, regularity, and thoroughness of treatment.

In the accompanying drawings, Figure 1 is a side elevation of the rear section of a clover-huller with my feed attachment applied thereto; Fig. 2, a longitudinal central section thereof; and Fig. 3, a transverse section in line *x x* of Fig. 1, looking away from the thrashing-cylinder.

The rear end of a clover-huller A is or may be of any well-known or preferred form, and the usual feed table or board (not shown in the drawings) may be removed and my improved feeder attached to the frame of the huller. The feeder frame and casing consists of longitudinal sills 1, transverse sills 2, and posts 3 4, a lower floor 5, an upper floor 6, side casing 7, and end hood or half-cylinder 8, connecting the end of the lower floor 5 with the upper transverse sill 2^a and the inclined hopper side 9 and inner side-boards 10, all joined securely together by transverse brace-rods 11 11 below the upper floor and similar brace-rods 12 12 12 beneath the lower floor.

The posts 3 support the ends of a sprocket-wheel shaft 13 at the thrasher end of the feeder, and a similar shaft 14 is supported at the back end of the feeder-casing, the said shafts carrying sprocket-wheels 14^a at each end of equal diameters. Sprocket-chains 15, passing over the said sprocket-wheels, carry at suitable intervals the ends of cross-bars 16, to which are attached fingers 17, which are curved slightly away from the direction of movement of the belt and thus carry forward

the straw or grass loosely without packing or crowding it rearwardly from the hopper portion 18 of the feeder to the far end of the carrier and around the half-cylinder hood from the upper floor to the lower floor of the huller, thence forwardly upon the lower floor thereof to the thrashing-cylinder end of the huller.

In order that the sprocket-chain may be completely shielded at the end as well as on the sides by the sides 9 and inner boards 10, I connect said boards by a flanged plate 10^a, secured to said sides and having its flange made upon the arc of a circle concentric with the center of conveyer-shaft 13, a sufficient space being left between said flange and the curved end of the board 10 to admit of the passage of the cross-bars 16, which connect the sprocket-chains and carry the fingers 17, thus preventing the chain from flying off into the huller or thrasher between the cylinder and concave should it become broken.

A belt-tightening endwise-adjustable bearing-block 18 is supported upon the side walls of the casing by bolts 19 passing through slots in said bearing-block by which means the said blocks may be securely clamped at any position at which they may be longitudinally adjusted, the longitudinal adjustment of the bearing-blocks being effected by screw-bolts 20, which pass through the vertical end post and are adjusted therein by nuts 21 22, screwed thereon upon opposite sides of said posts.

The upper ends of the posts 4 carry bearings 23, which support the ends of a rock-shaft 24, drilled at intervals to receive eyebolts 25, upon which are bearing-plates 26 upon one side and nuts 27 upon the opposite side of said shaft-carrying fingers 28, which are adjustable in said eyebolts and bearing-plates and held securely at any required adjusted position upon said rock-shaft, as described, to allow the lower or depending fingers 28^a to penetrate a greater or less distance toward the carrier and into the grass or straw, thus serving as a detainer or arrester and regulator to prevent the grass from being carried through in heavy irregular bunches to become choked in its passage to the huller-cylinder and regulate the amount of material carried through the feeder.

The action of the depending fingers 28^a in

pushing back the grass or straw to prevent it from crowding or choking also acts to disentangle, straighten, and separate the straw in an evenly-divided layer or mat and pull it forward as rapidly as it is so acted upon to keep the carrier or feeder well and rapidly supplied with clover in suitable condition to be delivered to the thrashing-cylinder, the grain or straw being thus carried freely and loosely first upon the upper floor rearwardly and then pushed along the lower floor freely until it falls off therefrom onto the apron of the thrasher, the teeth being curved away from the direction of travel of the carrier and being thus free to lift up from the grass or straw without carrying the latter with it back to the upper floor of the feeder.

The upper ends 28^b of the fingers above the rock-shaft are of greater length than the lower ends thereof, and as the latter are drawing the grass that has been caught by them in the direction of movement of the carrier the said upper fingers will beat down upon the grass or straw in the hopper and materially aid in preparing it to be caught by the fingers of the carrier and by the lower ends or short fingers of the detainer and regulator, thus completing the operative mechanism of the feeder. The said devices or operative parts are driven by the thrasher-cylinder in the following-described manner:

A counter-shaft 29 is supported in bearings beneath the frame of the feeder and is geared to the rear carrier-shaft by a sprocket-chain 30, passing over a sprocket-pinion 30^a upon the said counter-shaft and a larger sprocket-wheel 30^b upon the rear carrier-shaft. A larger band-wheel 31 upon the counter-shaft 29 is connected by a belt 32 with pulleys upon the thrasher-cylinder and shaker-shafts, as clearly shown in Fig. 1, thus materially reducing the speed of the thrasher to that required or best suited for the feeder.

The feeder is attachably and detachably supported upon the thrasher end of the huller by hooks 33 on the feeder, which engage with loops 34 of the thrasher, and by means of upwardly-inclined bars 35, connecting the huller with the feeder.

It will be readily seen from the above-described mechanism that a distinguishing feature of my invention is the closed and continuous passage-way first from near the middle upon the upper side to the outer end of the feeder, then down and around the end of the feeder, and thence forward to the inner or cylinder end of the feeder, where the grain is

delivered on a level below the conveyer to the throat of the huller and huller-cylinder. The mouth of the passage-way above referred to being guarded by the rocking depending fingers, the grain is pushed back and the entrance to said passage-way is always kept clear and the grain is thoroughly disentangled before it enters the closed passage-way to be conducted to the hulling-cylinder. An increased travel and area for disentanglement of the grass is thus also secured. As the lower or depending ends of the fingers 28 lift up in the direction of the movement of the grass the upper ends of the said fingers are brought down upon the mat of grass and act as beaters to pack it down sufficiently to insure its entrance to the closed passage-way, as hereinbefore described. The matted, tangled, and generally mixed condition of clover requires a treatment different from that of straw and grain, such as wheat or rye, the difference being so great that horizontally-shaking rakes or shakers would not answer in connection with conveyer-belts for feeding clover.

I claim as my invention, and desire to secure by Letters Patent—

1. A feeder for clover-hullers comprising a carrier adapted to convey the clover hay first away from the hulling-cylinder, a casing forming a closed passage from near the middle above, around the end of, and beneath said carrier and tilting detaining-fingers located at the entrance to said casing, secured to an oscillating shaft and rocked to lift in the direction of the movement of the grain and admit graduated quantities of grain to the feeder, substantially as described.

2. A feeder for clover-hullers, comprising a carrier adapted to convey the clover hay first away from the hulling-cylinder, a casing forming a closed passage from near the middle above, around the end of, and beneath said carrier and tilting detaining-fingers secured to project across an oscillating shaft to pack the clover down upon one side and lift up at intervals upon the other side of said shaft in the direction of the movement of the grain to admit said hay to the passage-way of the feeder, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two subscribing witnesses.

OID CREPEAU.

Witnesses:

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