

M. L. MERY.
Feeder for Thrashing Machines.

No. 201,696.

Patented March 26, 1878.

Fig 1

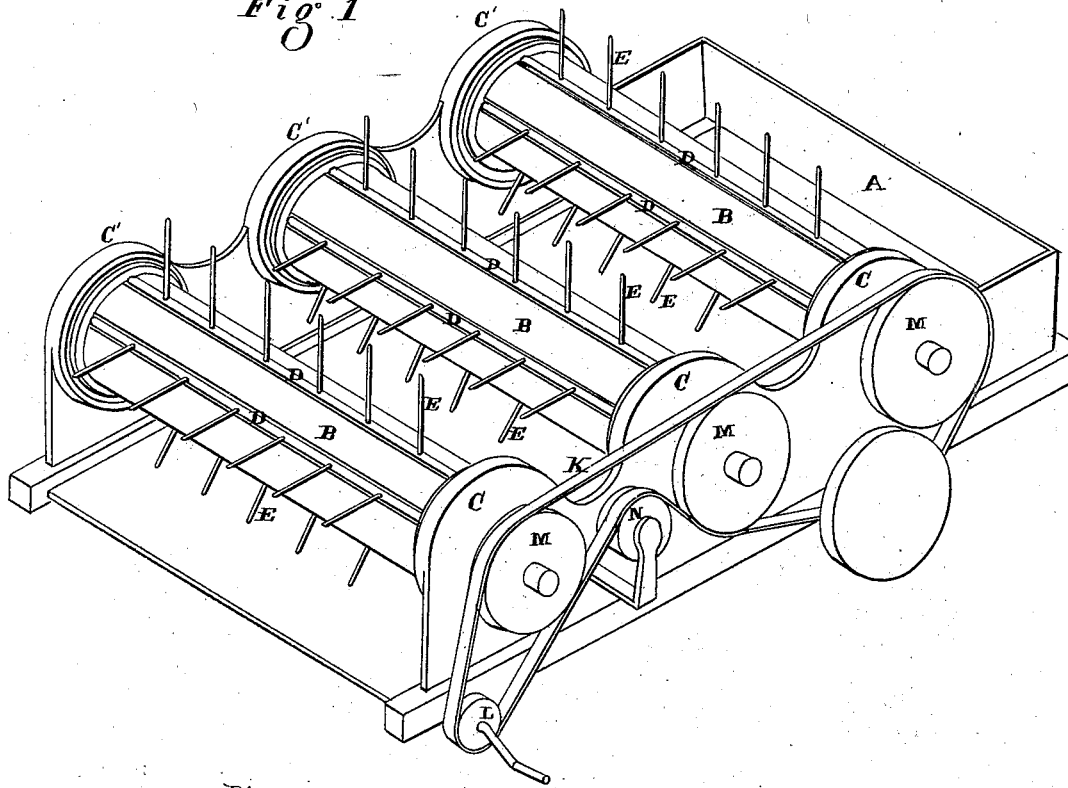
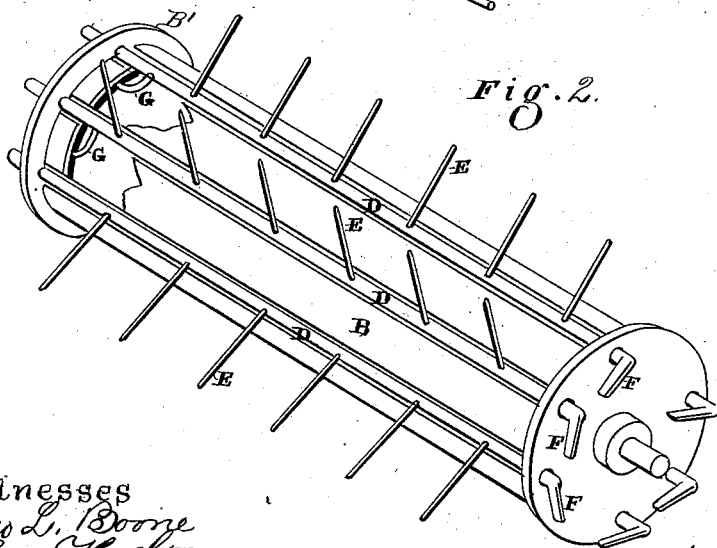


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

MICHAEL L. MERY, OF CHICO, CALIFORNIA.

IMPROVEMENT IN FEEDERS FOR THRASHING-MACHINES.

Specification forming part of Letters Patent No. 201,696, dated March 26, 1878; application filed February 5, 1878.

To all whom it may concern:

Be it known that I, MICHAEL L. MERY, of Chico, county of Butte, and State of California, have invented an Improved Picker and Feeder for Thrashing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to certain improvements in mechanism for feeding unthrashed straw to the cylinder of a thrashing-machine; and it consists in a novel construction of a series of rotary feeders placed one after the other in a feeding trough or spout, and these feeding-cylinders are provided with arms or pickers. The pickers are mounted upon shafts extending from end to end of the cylinders, and the shafts are so operated by cams at the ends as to be alternately moved into a radial position, where they are locked until they have carried the straw to a point where it is to be delivered to the next cylinder, when the arms are allowed to fall and lie against the cylinder, so as to free themselves from the straw, until they have made a partial revolution, when they are again projected to their radial position.

In the accompanying drawings, Figure 1 is a view of my feeder. Fig. 2 is a view of one cylinder with its shafts, picker-arms, and operating devices. Fig. 3 is a section, showing the cams at the ends by which the shafts are operated. Fig. 4 is an end view of a cylinder.

A is a spout or trough, into which the straw is discharged by the elevator; and B are three cylinders, mounted upon shafts turning in the frames or end castings C. These cylinders are each provided with shafts D, which extend from end to end, and slide endwise in the end plates of the cylinders.

The shafts have picker-teeth E projecting from them, as shown, and are provided with the operating arms or cranks F at one end, and the locking-arms G near the other end. The operating-arms F come in contact with a projection, H, in the end casting C, just as they reach a position near the top, and are by it turned so that the teeth project radially from the cylinder. Immediately after this movement the shafts are forced toward the opposite end by a stationary cam, I, within

the head, and the crank-arm G has its projecting point forced into a recess or annular groove formed in the end plate B' of the cylinder, as shown in Fig. 2, so as to hold the shaft stationary, with its teeth projecting radially, until it has seized its load and forced it forward to the point where it leaves it, when a cam, J, in the opposite casting or head C' forces the projecting end of the shaft back, thus disengaging the locking-arm G, so as to permit the picker-teeth to fall down against the cylinder by gravitation and the drag of the straw, and thus clear itself. Each of the following cylinders takes the straw from the preceding one, and carries it forward until it is delivered to the thrashing-cylinder.

These feeding-cylinders are driven by a belt, K, which extends from a pulley, L, upon a counter-shaft, to the ends of the cylinder-shafts. A suitable tightening-pulley, N, serves to adjust the tension of the belt, and the counter-shaft is driven from the thrasher-cylinder.

As the pulleys M are made of different sizes, so that the cylinders nearest the thrashing-cylinder move the fastest, it will be seen that this movement serves to pull and straighten out the straw, so that by the time it reaches the thrashing-cylinder it will be delivered with the principal part of the straw lying in the direction in which it is to move, and this greatly facilitates the labor of thrashing, and lessens the power necessary for that purpose. This difference of movement also causes the cylinders to act as pickers, to distribute the straw and regulate the feed.

Staples (not shown) upon the sides of the frame serve to adjust and hold the elevator in place after setting the machine.

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

1. The feeding-cylinder B, mounted upon journals turning in the end castings C, and provided with the shafts D, having picker arms or teeth E, said shafts being movable endwise, and combined with a locking device, so as to lock or free the shafts, substantially as herein described.

2. The shafts D, having the operating and locking arms F and G, in combination with the recessed cylinder-heads B', the lugs H,

and cam I, by which the shafts are first turned and then moved endwise, so as to be locked in position, substantially as and for the purpose herein described.

3. The longitudinally moving and rotating picker-shafts D, with the turning and locking arms F and G, in combination with the shaft and a releasing device, so as to unlock it, substantially as herein described.

4. The cylinder B, having the longitudinally moving and rotating shafts D, armed with teeth E, said shafts being adapted, by means

substantially as described, to be locked with the teeth projecting or unlocked, so that the shafts may rotate and the teeth may lie close to the cylinder during a part of its revolution, substantially as herein described.

In witness whereof I have hereunto set my hand and seal.

MICHAEL L. MERY. [L. S.]

Witnesses:

SAMUEL FLETCHER,
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