(No Model.) 3 Sheets—Sheet 1

S. C. CORDER.

BAND CUTTER AND FEEDER.

No. 263,687. Patented Sept. 5, 1882.

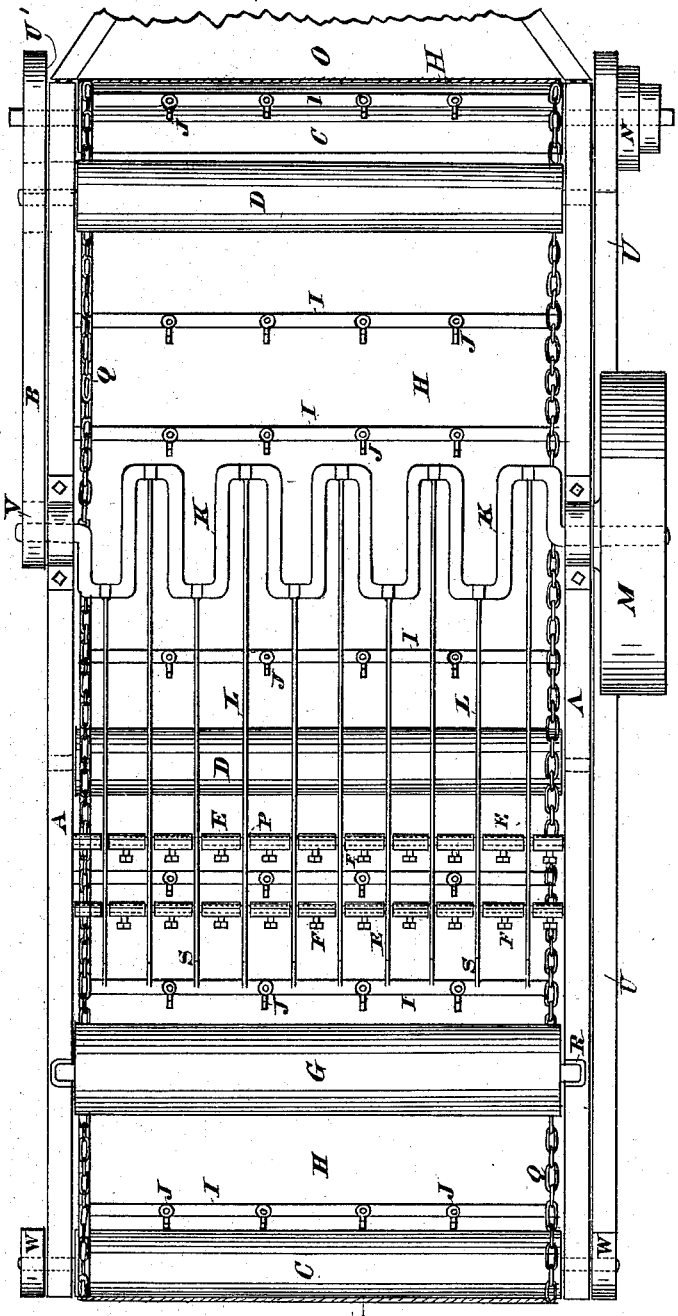

Fig. 1.

WITNESSES

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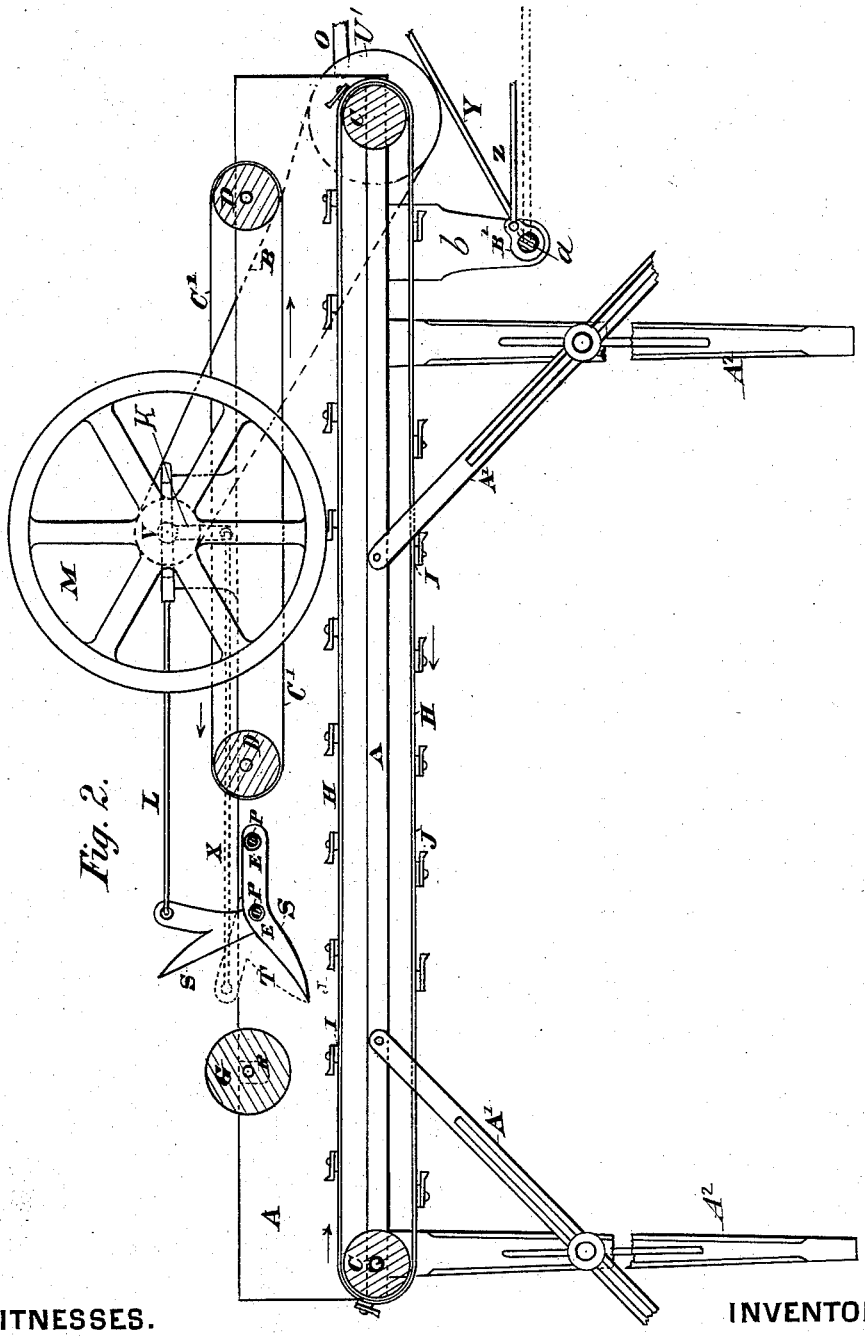

Fig. 2.

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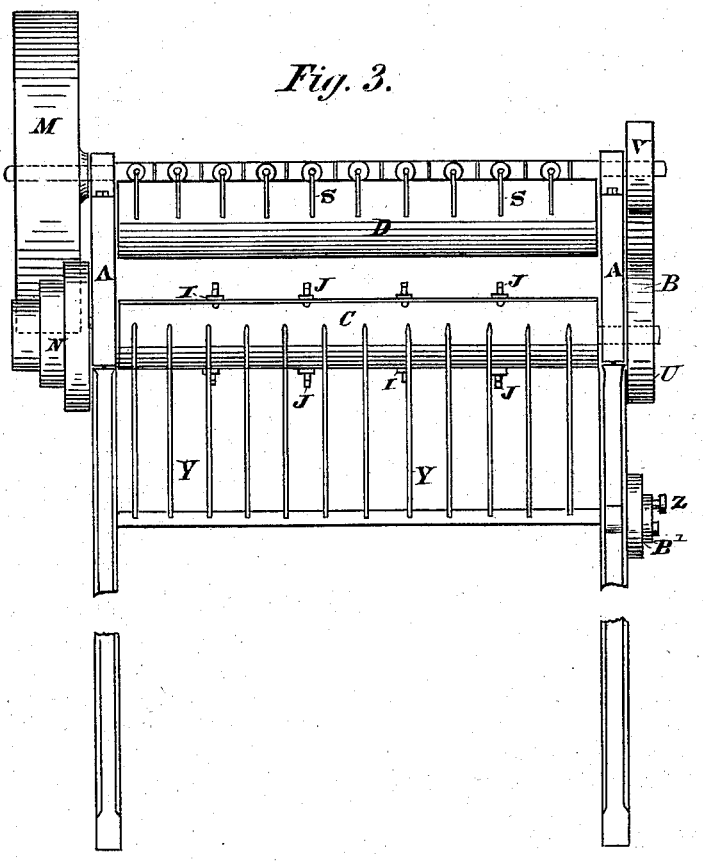
Fig. 3.



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UNITED STATES PATENT OFFICE.

STEPHEN C. CORDER, OF OLMSTEAD, KENTUCKY, ASSIGNOR OF THREE-FOURTHS TO J. GUTHRIE COKE, DAVID P. BROWDER, AND THOMAS J. BROOKS, ALL OF LOGAN COUNTY, KENTUCKY.

BAND CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 263,687, dated September 5, 1882.

Application filed July 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN C. CORDER, a citizen of the United States, residing at Olmstead, in the county of Logan and State of Kentucky, have invented certain new and useful Improvements in Band Cutters and Feeders; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in band cutters and feeders; and it consists in the construction and combination of parts, as will be hereinafter more fully set forth.

In the annexed drawings, Figure 1 is a plan view of my improvement. Fig. 2 is a side elevation, partly in section; and Fig. 3 is an end elevation.

Like letters indicate like parts in the several views.

My improved machine is intended to be attached to the mouth of a thrashing-machine, huller, &c.

The frame A of the machine has a suitable floor, and is held together by rods and bolts in a substantial manner.

A^2 represents the legs of the machine.

Pivoted to the side of the frame are the shifting-braces A′, by means of which the machine can be set firmly on uneven ground. This is readily effected by reason of the braces being slotted and connected by means of set-screws with the legs, which latter are also slotted and so constructed as to be capable of extension independent of each other.

C C are rollers extending across the machine and journaled or pivoted in the side of the frame A. These rollers, which are placed one at each end of the machine, carry the main apron or canvas H, upon which the sheaves are conveyed to the shears S. This main canvas or apron H is supported on two endless chains, Q, which pass over the rollers C C. Strips I, of hard wood or other suitable material, extend across the apron H, and to them and the apron are riveted iron hooks J, at proper intervals. These hooks rise above the strips I about an inch, and are so arranged as to draw the grain to the shears S.

D D are rollers extending across the machine, and arranged to carry the upper canvas or apron, C′. It will be observed that the upper apron, C′, is situated beyond the shears S, and assists the main apron, H, in carrying the grain into the thrasher after the bands are cut.

G represents a yielding roller, extending across the machine a short distance in front of the shears and at a proper distance above the main apron to permit the sheaves to pass between. The journals of this roller G fit in slots R in the frame and play up and down therein, according as larger or smaller sheaves pass under said roller.

K represents a cranked shaft, extending across the machine, and journaled in proper bearings on the frame A. This shaft consists of a series of cranks, which carry pitmen for operating the shears.

To the cranked shaft K, on one side of the machine, is keyed a fly-wheel, M, and on the other side a pulley, V.

At the rear end of the machine is journaled on one side a cone or speed pulley, N, and on the other side a pulley, U′.

B is a driving-belt, which passes around the pulleys U′ and V and drives the shaft K, which operates the shears S when the power is applied to the cone-pulleys N.

To the cranks K are attached the pitmen or connecting rods L, each of which is fastened to the upper blades of the shears S. (See Fig. 2.) These shears, of any desired number, are mounted upon rods P P, which extend across the machine and are secured in the frame A.

E are washers or collars placed on the rods P and movable, so that the shears can be tightened when necessary.

F are set-screws, by means of which the washers E can be set and held, thus holding the shears firmly in their positions on the rods P.

A belt, U, from the speed-pulley N extends

along the side of the machine to the pulley W on the shaft of the roller C, at the opposite end of the machine, and gives motion to said roller. By means of the speed-pulley N the speed of the apron H can be increased or diminished, thus supplying a greater or less quantity of grain, according to the capacity of the thrasher.

A shaft, *a*, journaled in brackets *b*, extends across the rear of the machine and under the floor of the same, and has secured to it at proper intervals a number of pins or fingers, Y. On one end of this shaft *a* is secured an eccentric, B′, to which is attached a connecting-rod, *z*, from any motive power, by means of which the shaft *a* is partially rotated to give the fingers Y an up and down motion of about forty-five degrees to loosen the bunches of grain as they pass into the thrasher.

O represents a board hinged to the rear of the machine, which can be raised or lowered to suit the mouth of any sized thrasher.

The operation of the machine is as follows: The sheaves of grain are placed on the canvas apron H and are carried along by it under the yielding roller G to the shears S, which will cut any kind of bands with which the sheaves may be bound, whether the bands are made of straw, twine, or wire. The lower blades of the shears are fixed or rigid on their rods P and pass into the sheaves under the bands, while the upper blades, operated by means of the connecting-rods L and cranks K, descend and close with the lower blades, as shown in Fig. 2 by the dotted lines T and X, to cut the bands. The bundles now pass along under the canvas apron C′, thus moving the same to the hinged board O, where they are loosened by the fingers Y, and then pass into the mouth of the thrashing or other machine there placed to receive them.

It will be observed that the machine is so constructed that the draft of grain going into the thrasher is always the same. It cannot be choked. There is therefore no need of constantly regulating the fan. The grain and chaff are separated equally well, whatever the attempt to "crowd" the machine. Moreover, the machine is provided with legs or supports capable of adjustment to correspond with irregularities of the ground, and by means of the hinged board O it can be set to suit the capacity of any thrashing-machine.

When desired, the shears, with their operative mechanism, may be removed, and the machine be then operated as a feeder only, doing effective work, as in the case of hulling clover or getting out other kinds of seed where there are no bands to be cut.

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

1. The combination of the frame A, having hinged board O, the rollers C C, apron H, having strips I and hooks J, rollers D D, apron C′, and fingers Y, substantially as and for the purposes shown and described.

2. The combination of the hooked apron H, yielding roller G, apron C′, shears S, and suitable operating mechanism, substantially as and for the purpose described.

3. A band cutter and feeder comprising the frame A, rollers C C, apron H, having strips I, provided with hooks J, rollers D D, apron C′, yielding roller G, shears S, separated by washers E, pitmen L, cranks K, hinged board O, shaft *a*, having fingers Y, eccentric B′, and connecting-rod *z*, substantially as shown and described.

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

STEPHEN CALVIN CORDER.

Witnesses:
CHAS. S. GRUBB.
S. M. BARGER.