

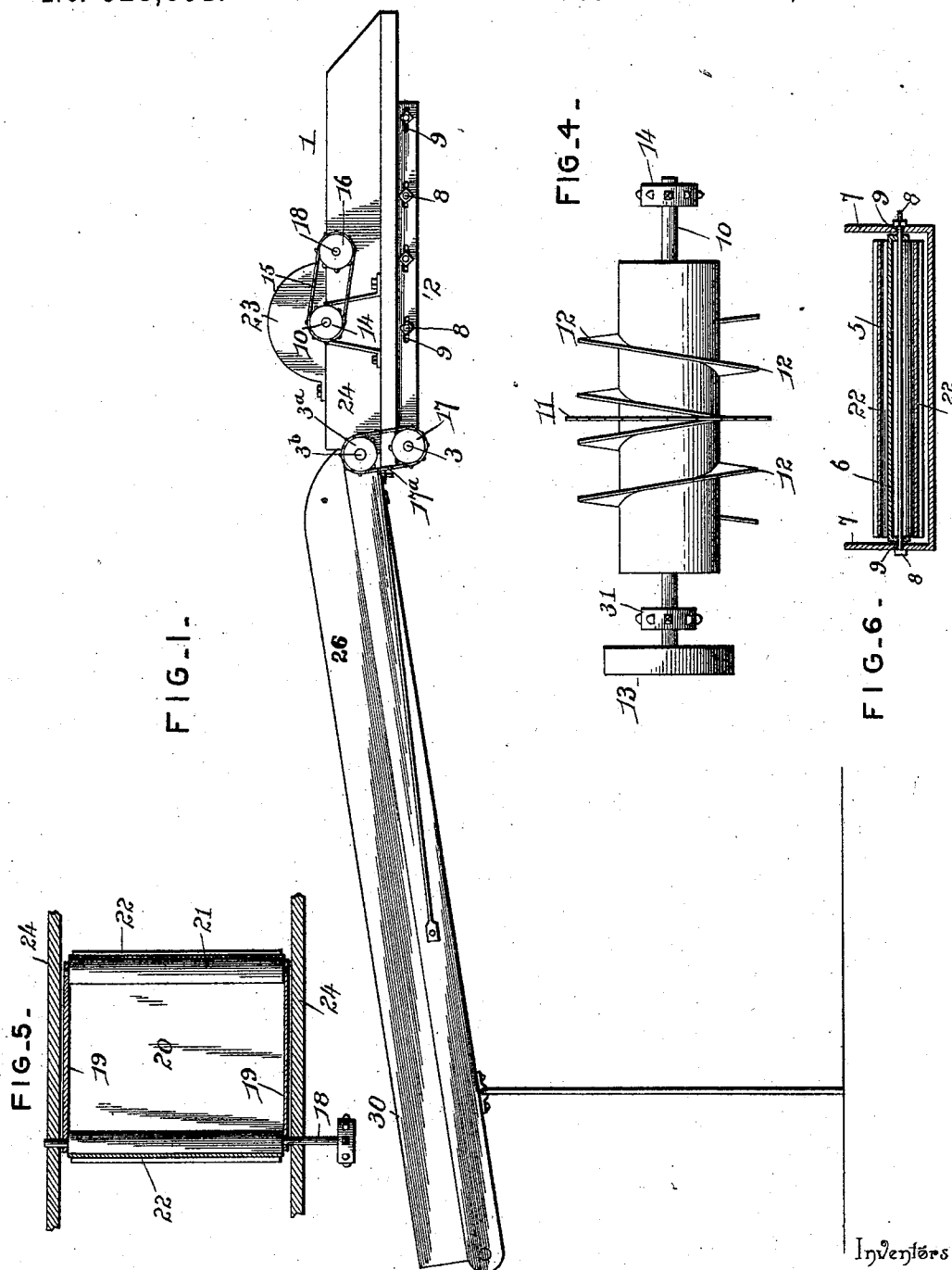
(No Model.)

2 Sheets—Sheet 1.

I. A. CRISP & J. A. STEVENSON.
BAND CUTTER AND FEEDER.

No. 528,861.

Patented Nov. 6, 1894.



Witnesses

James H. McCutcheon
W. E. Hoyle

By their Attorneys.

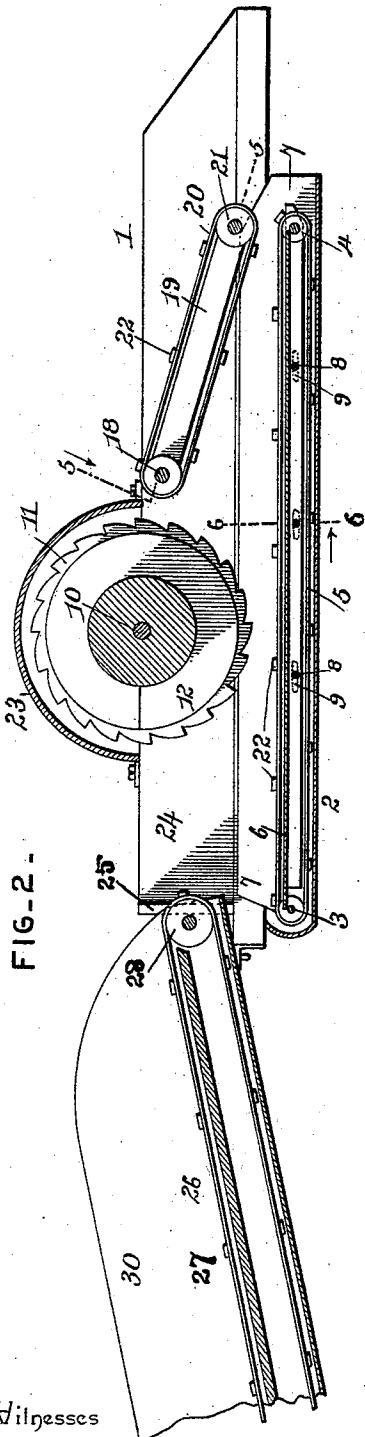
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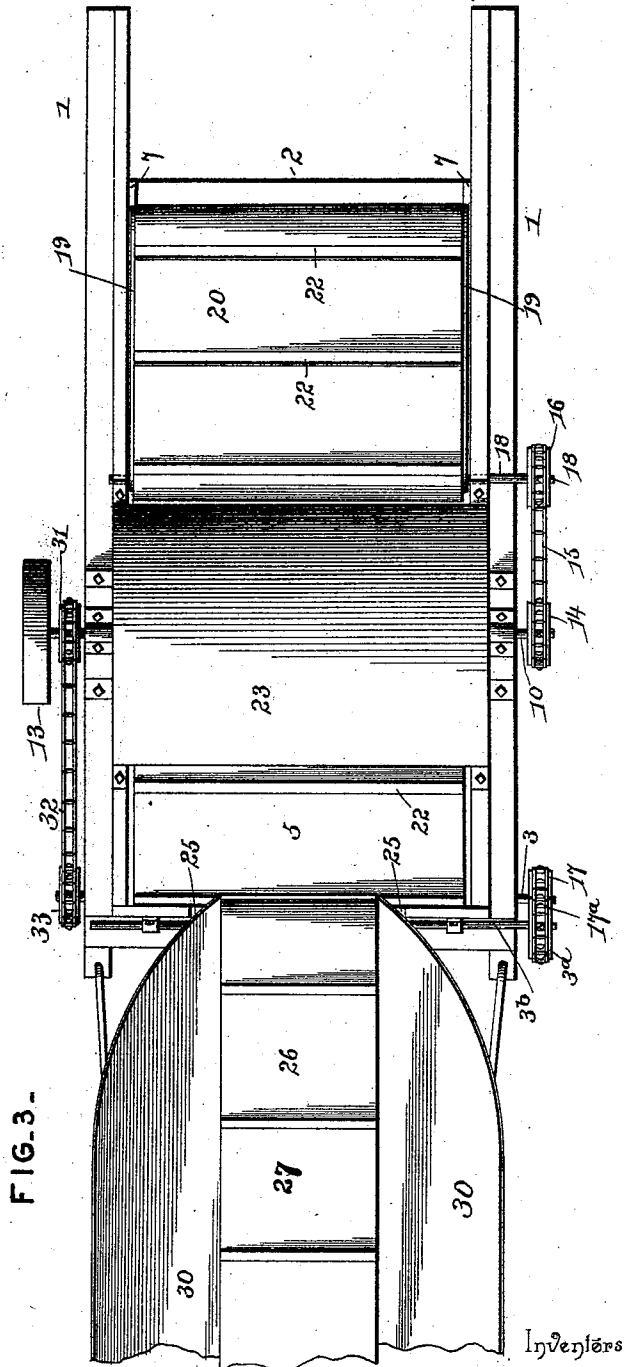
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UNITED STATES PATENT OFFICE.

ISAAC A. CRISP AND JAMES A. STEVENSON, OF HALSEY, OREGON.

BAND-CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 528,861, dated November 6, 1894.

Application filed July 14, 1893. Serial No. 480,520. (No model.)

To all whom it may concern:

Be it known that we, ISAAC A. CRISP and JAMES A. STEVENSON, citizens of the United States, residing at Halsey, in the county of Linn and State of Oregon, have invented a new and useful Band-Cutter and Feeder, of which the following is a specification.

Our invention relates to an improved band-cutter and feeder, and it has for its object to provide means for simultaneously cutting the band and spreading the grain over the feeding apron; and furthermore, to provide a simple and compact arrangement of parts whereby a pressure feed may be attained.

Further objects and advantages of our invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a side view of a mechanism embodying our invention, the elevator being attached. Fig. 2 is a longitudinal section of the same. Fig. 3 is a plan view. Fig. 4 is a detail view of the cutting and spreading roll. Fig. 5 is a horizontal section on the line 5—5 of Fig. 2. Fig. 6 is a transverse section on the line 6—6 of Fig. 2.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the framework, to which is pivotally connected an apron-carrier 2, mounted at one end upon the transverse shaft 3, and provided at the opposite end with a roller 4. The endless apron 5 travels over said roller 4 and shaft 3, and traverses a horizontal plate 6, which is slidably fitted between the side-pieces 7 of the apron carrier and is secured in place by means of transverse bolts 8. The bolts 8 and the roller 4 are fitted in longitudinally-elongated apertures 9 in the side-pieces 7, whereby the tension of the feed-apron may be adjusted.

10 represents a transversely-disposed shaft, which is provided at its center with a cutter 11, which is arranged perpendicular to the axis of the shaft. Upon opposite sides of this cutter, and encircling the shaft, are arranged the spiral spreaders 12, secured at their inner ends to opposite sides of the cutter and extending respectively to within short distances

of the terminals of the shaft. This main shaft 10 is provided at one end with a belt-pulley 13, adapted to be connected to the cylinder shaft of the thrasher, and at the opposite end with a pulley 14, which is adapted to be connected by a belt or chain 15 to a pulley 16, carried by the shaft 18, and a pulley 17, which is carried by a shaft 3, is connected by a chain 17^a to a pulley 3^a on a shaft 3^b of the elevator. Upon this shaft 18 is fulcrumed the frame 19 of a pressure apron 20, said frame being provided at its free end with a roll 21, around which said apron passes. The pressure apron 20 and the feed apron 5 are provided with transversely-disposed spaced slats 22.

23 represents a hood, which is arranged to cover the main shaft with its cutter and spreaders to prevent the scattering of the grain, said hood being supported at its ends upon the side-pieces 24 of the main framework.

One end of the main framework is provided with an inlet opening 25, into which fits the upper end of elevator 26, provided with a belt 27, which is connected to a sprocket 28, upon the shaft 3^b. The sides of the elevator casing are flared, as shown at 30, to facilitate the placing of the bundles therein. It will be understood that the width of the elevator is just sufficient to receive a single bundle, whereby the latter is fed longitudinally into the frame of the cutter and feeder.

A sprocket 31 on the shaft 10 is connected by a chain 32 to a sprocket 33 on the shaft 3, whereby the elevator derives motion from the main shaft 10.

From the above description it will be understood that we have provided a combined cutting and spreading device consisting of a single shaft provided at its center with a cutter, and upon opposite sides thereof and secured thereto with spirally-disposed spreading blades. The advantage of this construction lies in its simplicity and in the fact that the spreading is accomplished simultaneously with the cutting of the band, whereby all liability of the bundle becoming disarranged is avoided. Furthermore, it will be understood that the pressure apron is capable of being elevated at its free end to give access to the feed apron and to the cutting and spreading

devices. Also, the feed apron is carried by a pivoted frame, whereby the main framework may be elevated or said feed-apron frame may be depressed to expose the feed apron for the purpose of cleaning, repairing, &c.

A pulley 31 is fixed to the main shaft 10, adjacent to the main pulley 13, and is connected by means of a belt 32 to a pulley 33 upon the shaft 3, and hence it will be understood that the motion of the main shaft, which is derived from the cylinder shaft of the thrasher is communicated through the pulleys 31 and 33, and the belt 32, to the shaft 3, through the pulleys 14 and 16 and the belt 15 to the shaft 18, and through the pulleys 17 and 3^a and the belt 17^a to the shaft 3^b of the elevator.

It is to be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described our invention, what we claim is—

1. In a device of the class described, the combination with a supporting framework, and a horizontal shaft 3 arranged transversely therein, of an apron carried at one end by said shaft, a horizontal plate 6 arranged between the upper and lower sides of the apron and parallel with and contiguous to the plane of the upper side of the apron to support the

latter intermediate of its ends, a roll mounted upon said plate and supporting the other end of the apron, and means for adjusting said plate and the roll carried thereby in a horizontal plane, said means consisting of bolts engaging slotted depending flanges of the horizontal plate substantially as specified.

2. The combination with a supporting framework having side plates provided with horizontal slots 9, of a shaft 3, means to operate said shaft, a horizontal plate 6 provided with depending side-flanges, bolts extending horizontally and transversely through said flanges and engaging the said slots in the side plates, a roller 4 carried by said plate 6 at the opposite end from the shaft 3, an apron traveling upon the shaft 3 and roll 4, band-cutting mechanism arranged above said apron, and means for locking said bolts at the desired adjustment, the horizontal plate being arranged parallel with and adjacent to the upper or operating side of the apron to prevent deflection thereof substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ISAAC A. CRISP.

JAMES A. STEVENSON.

Witnesses:

WM. J. STEWART,

D. L. STEWART.