J. E. DOBSON AND S. M. CROOKSHANK.

DEVICE FOR PACKING SILAGE.

APPLICATION FILED NOV. 20, 1918.

1,328,728.

Patented Jan. 20, 1920.

3 SHEETS—SHEET 1.

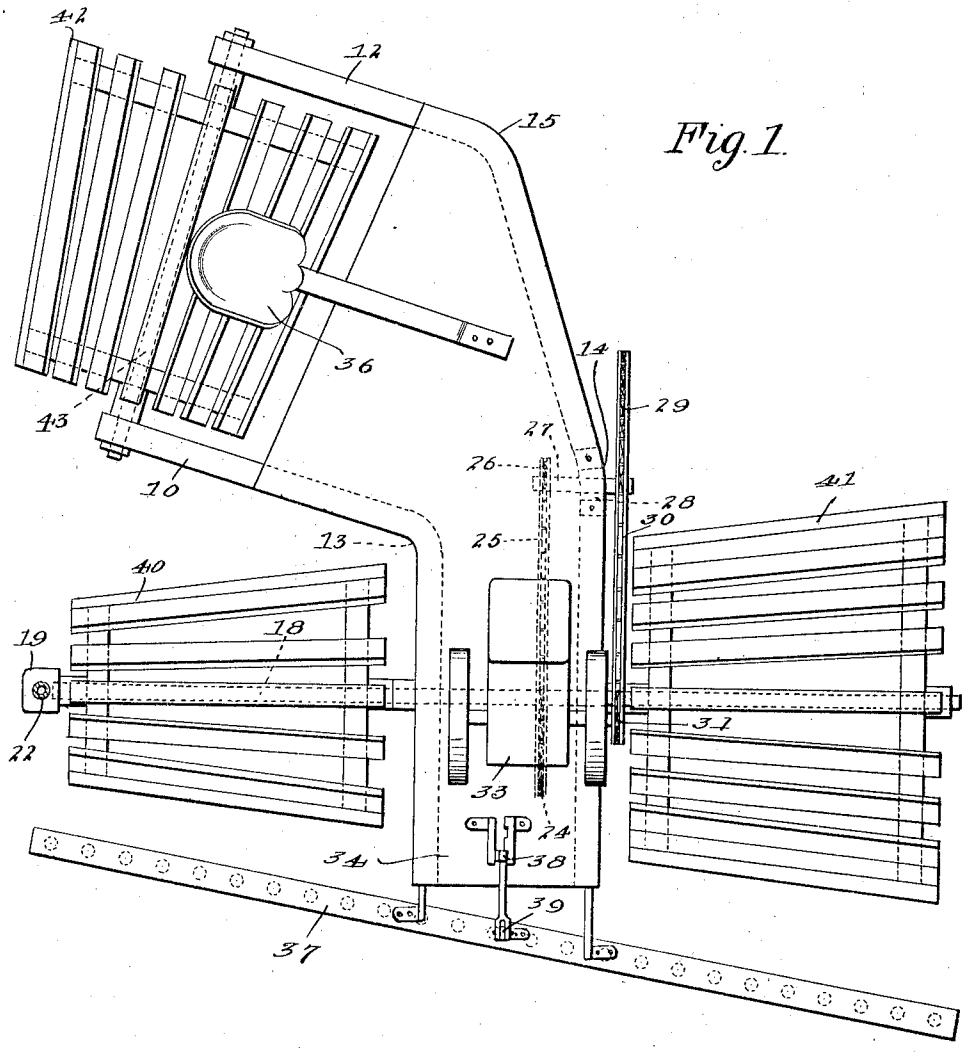


Fig. 1.

Witnesses
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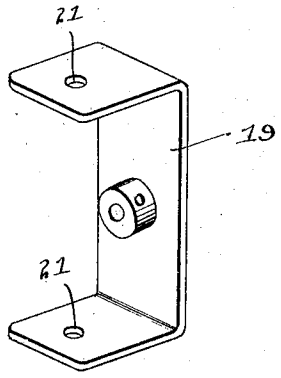
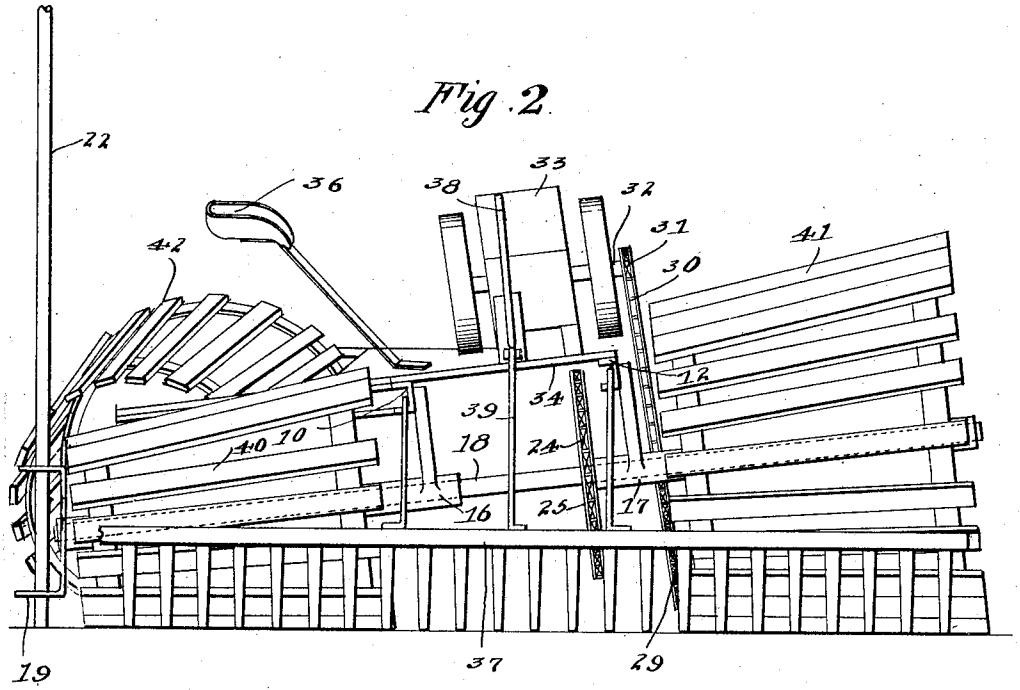


Fig. 5.

Fig. 2.



Witnesses

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3 SHEETS—SHEET 3.

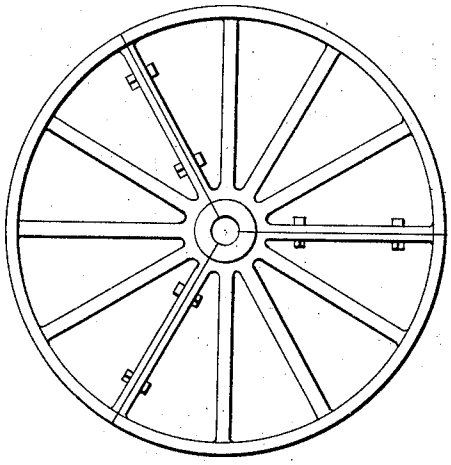
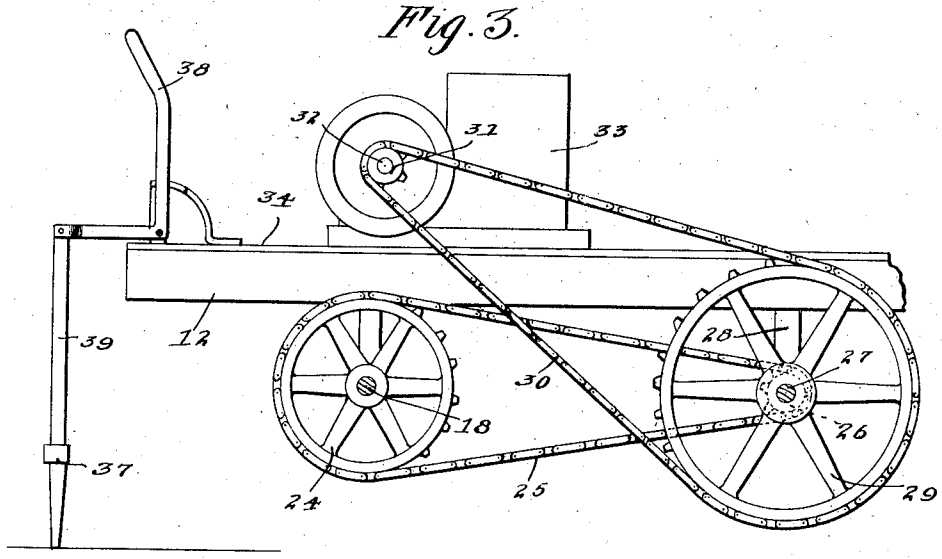


Fig. 4.

Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN E. DOBSON AND SAMUEL M. CROOKSHANK, OF KNOXVILLE, TENNESSEE.

DEVICE FOR PACKING SILAGE.

1,328,728. Specification of Letters Patent. **Patented Jan. 20, 1920.**

Application filed November 20, 1918. Serial No. 263,377.

To all whom it may concern:

Be it known that we, JOHN E. DOBSON and SAMUEL M. CROOKSHANK, citizens of the United States, residing at Knoxville, in the State of Tennessee, have invented new and useful Improvements in Devices for Packing Silage, of which the following is a specification.

This invention relates to a device for packing silage, and the object is to provide an apparatus of the type indicated comprising a main frame rotatable about a central vertical axis which may be coincident with the main axis of the silo, said frame serving to mount a plurality of rollers constituting packing elements and being driven by a suitable engine or motor.

A further object is to provide a device of the type indicated including a framework in which are mounted a plurality of rollers, two of these rollers being carried by given transverse shafts extending radially of the aforesaid axis of rotation, and another of said rollers being mounted on a shaft also extending radially with reference to the axis of rotation, the roller last named being spaced from the roller first named.

A still further object is to provide in a device of the character indicated a plurality of rollers the circumferential portion of which comprises a series of slats extending longitudinally and mounted on end members one of which is of less diameter than the other.

A still further object is to provide in a device of the type indicated, a plurality of rollers mounted as specified, and means including an engine carried by the frame for driving the rollers.

A still further object is to provide a frame mounting a series of rollers and also mounting suitable driving mechanism, and a rake extending transversely of the frame and carried in advance of the forward rollers.

With the foregoing and other objects in view, the invention consists in the novel construction, combination, and arrangement of elements hereinafter described and claimed.

In the drawings,

Figure 1 is a top plan view of the machine,

Fig. 2 is a front view thereof,

Fig. 3 is a detail of the driving gear,

Fig. 4 is a detail showing the segmental portions of one of the rollers,

Fig. 5 shows a bracket adapted to connect the front axle with the vertical element about which the machine travels in a circular path.

In carrying out our invention, we provide a framework comprising a plurality of bars of channel iron, designated 10 and 12, and one of these channel irons being deflected at 13, and the other being deflected at points designated 14 and 15.

Mounted transversely of the frame, and in suitable bearings 16 and 17, is a transverse shaft 18 carrying on one end thereof a member 19 which may have swivel connection with the end of the shaft 18. This member is provided with an aperture 21 through which passes the central vertical pole or shaft 22 mounted in the silo. This shaft 22 constitutes the axis about which the framework and the entire device rotates during the packing operation.

Shaft 18 carries a sprocket wheel 24 driven by chain 25 from small sprocket wheel 26 and short shaft 27 mounted at 28 in one of the frame members. Shaft 27 carries a large sprocket wheel 29 driven by a chain 30, which in turn is driven by a small sprocket wheel 31 on shaft 32 of the engine 33. The engine is mounted on a platform 34 carried by the frame work, this platform also serving to mount a seat 36 for the operator. Carried by the forward portion of the framework is a rake 37 controlled by a lever 38 through the medium of link or arm 39.

Transverse shaft 18 carries a plurality of rollers 40, 41, having a slatted exterior or circumferential portion, the inner end of each roller being of less diameter than the outer end thereof. These rollers, with roller 42 on shaft 43 at the rear portion of the framework, constitute the packing elements. They may be formed in segments, roller 41 comprising if desired three sections or segmental portions as indicated in Fig. 4. The other rollers may be formed of two sections, the object in each case being to permit of the withdrawal of the segments through the comparatively small doors of the silo.

The operation of the device is apparent, and it need only be added that it is movable vertically along the central vertical axis or shaft within the silo and adjusts itself to the required position as the silo is being filled and material accumulates therein.

What is claimed is:

1. In a device of the class described, a framework comprising a plurality of deflected elements, a shaft mounted trans-

versely thereof, a roller mounted between diverging portions of the framework, a second shaft mounted transversely of the main portion of the framework, rollers carried by the second shaft and beyond the sides of the framework, the several rollers traveling in concentric paths, and means for effecting rotatable connection with an axial member about which the device is adapted to travel.

2. In a device of the class described, a framework, a shaft mounted transversely thereof, a plurality of rollers mounted on the shaft at opposite sides of the framework, means for driving the shaft, one end of the shaft being adapted for connected with a vertical axial member about which the framework is rotatable and a third roller traveling in a path concentric with reference to the path of the other rollers.

3. In a device of the class described, a framework, a rake carried by the forward portion thereof, a transverse shaft mounted in the framework, means for rotating the shaft, means for effecting swivel connection between the shaft and a vertical axial member, and a roller mounted at the rear portion of the framework.

4. In a device of the class described, frame work including a platform, an engine mounted on said platform, a transverse shaft mounted in the frame work, slatted rollers mounted on said shaft, one end of each roller being of less diameter than the other end of said roller, means for effecting swivel connection between one end of the shaft and a vertical axial member about which the frame work is movable in a circular path, and means for driving the transverse shaft from the engine, carried on the platform.

5. In a device of the class described, a frame work comprising a plurality of elements extending parallel with reference to each other and then deflected to form a diverging portion of the frame work, a shaft mounted transversely of the divergent portions, a roller mounted on the shaft, said shaft extending radially with reference to a vertical axial member about which the frame work is movable in a circular path, a second shaft radiating from vertical axial member and mounted in the frame work, and a plurality of rollers carried by the second shaft, the roller first named traveling in a circular path between the paths of travel of the other rollers.

In testimony whereof we affix our signatures.

JOHN E. DOBSON.
SAMUEL M. CROOKSHANK.