(No Model.)

G. A. LOWRY.

AUTOMATIC FEEDER FOR TWINE MACHINES.

No. 491,947. Patented Feb. 14, 1893.

Fig. 1.

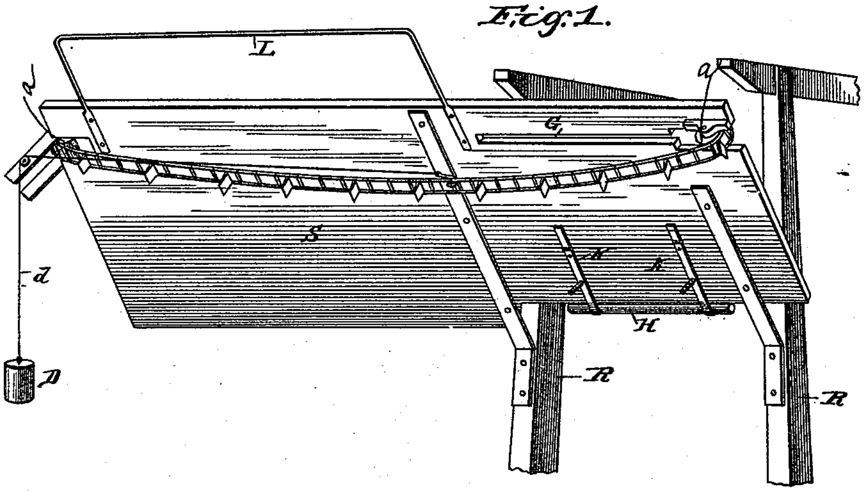


Fig. 2.

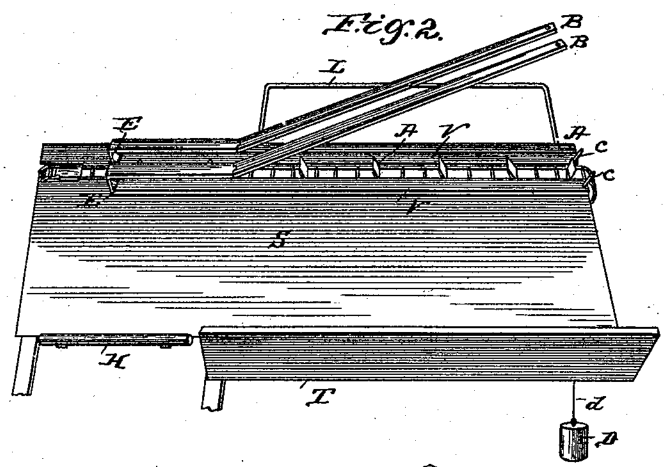
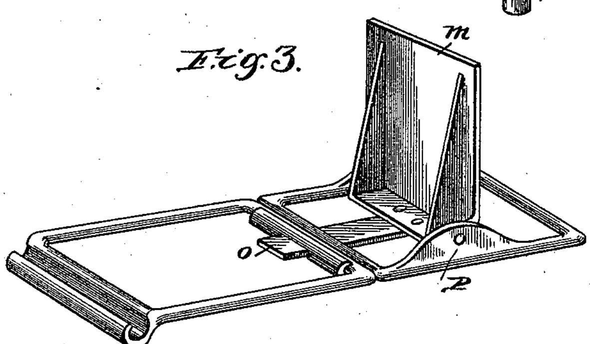


Fig. 3.



Witnesses.

Wm. M. Rheem.

John L. Hannow

Inventor.

George A. Lowry

By Butterworth Hall & Bowen

Atty's

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE A. LOWRY, OF DES MOINES, IOWA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE WARDER BUSHNELL & GLESSNER COMPANY, OF SPRINGFIELD, OHIO, AND THE WALTER A. WOOD MOWING AND REAPING MACHINE COMPANY, OF HOOSICK FALLS, NEW YORK.

AUTOMATIC FEEDER FOR TWINE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 491,947, dated February 14, 1893.

Application filed December 22, 1890. Serial No. 375,524. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. LOWRY, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Improvement in Automatic Feeders for Twine-Machines, of which the following is a specification.

This invention relates to an improvement in the automatic feeders for twine machines of the general class of which Patent No. 451,497, granted to me May 5, 1891, is an instance, and it consists in the construction substantially as hereinafter described and set forth in the claims.

Like letters of reference are used to designate similar parts in the several figures of the drawings, in which,

Figure 1, is a rear elevation of my improved feeder; Fig. 2, is a perspective view of the feeder; and, Fig. 3 is a view in detail of a couple of the links of the chain.

R, R, designate upright posts, forming parts of the frame of the twine machine, and, also, supports for the platform of my improved feeder.

S, designates a platform of considerable size which I preferably mount in an inclined position upon the posts R; and this platform supports the working parts of the feeder. At the bottom of the platform, I find it convenient to secure a footboard, T, against which the butts of the grass may rest; and at the upper end of said platform I may attach a bent bar, L, for supporting the heads of said grass. Attached to said platform by hinged straps, K, K, the lower sides of which bear on springs encircling headed bolts, is a short rod H, which is normally forced upward and holds the grass against the nippers, but yields to them as they pass.

G, represents a slot cut through the platform near its end, which has a purpose hereinafter to be set forth.

Arranged upon the face of the platform are two guide bars, V, V, which constitute a way for an endless chain. One end of these guide bars may be turned up and projected backward, as is shown, and to the projecting backward portion I prefer to hinge corresponding bars, B, B, as is clearly shown in Fig. 2. The bars B, B, serve to hold the material down and keep it from buckling up while it is being fed by the chain against the turned up portion of the guide bars V, V, which latter turned up portions are designated by the letters E, E, and serve as stops or abutments. The endless chain is formed of links in the well known manner, and at suitable intervals is provided with paddles, *m*, *m*, which are pivoted in the links P, P, of the chain and have projecting horizontal portions, O, which normally ride upon the top surface of the table and thus hold the paddles in a vertical position. When however the horizontal portions O, reach the slot G, in the platform, they will be forced by the pressure of the burden which the paddles are carrying to pass through the slots, and thus fold the paddles and release the hold of the latter upon the grass. The chain may be caused to move in any well known manner, but I prefer to employ a weight, D, connected to said chain by means of a cord, *d*, and hook, as is shown in Fig. 1. The platform may have suitable friction rollers *a*, *a* at its end around which the chain may pass freely. The hinge bars, B, B, may be fastened to the bars, V, V, at the free ends of the former; but I have found it convenient to use the pins, *c*, *c*, which pass through apertures in the ends of the bars B, B, and may have cross pins to lock them in position.

The wide platform which I employ is capable of holding a large armful of grass, and a chain with paddles such as is shown will carry the grass forward until it is pressed against the upright portion of the guide bars, where it will be compactly held while the nippers of the general class shown and described in my Patent No. 451,497, dated May 5, 1891, will enter the mass of grass thus held, and draw out a few blades. The platform holds enough to run the machine for one hour, as I construct it, and thus will enable one man to attend to a large number of machines.

It is obvious that many variations will

readily suggest themselves to a skilled mechanic, and I wish it to be understood that I do not limit myself to the exact construction shown and described.

What I claim, and desire to secure by Letters Patent, is:

1. The combination with a twine or twisting machine of an automatic feeder comprising a support for the material, an endless conveyer provided with paddles for feeding such material, and a stop arranged in the path of the material and adjacent to the twine machine proper; whereby piles of material are formed in a position to be acted upon by the mechanism on the twine machine; substantially as shown and described.

2. In an automatic feeder for a twine machine the combination of a platform provided with guide bars formed at one end into stops or abutments, confining bars hinged to such guide bars, an endless chain provided with paddles traveling between the guide bars and under the hinged confining bars; substantially as and for the purpose set forth.

3. In an automatic feeder for a twine machine the combination of a platform with a slot therethrough, and an abutment or stop thereon, of an endless conveyer provided with paddles having horizontal extensions which normally ride upon the platform and hold the paddles in position but pass through the slots at the end of the platform and allow the paddles to fall, substantially as and for the purpose set forth.

4. In an automatic feeder for a twine machine the combination of a platform an endless conveyer traversing the same, stops or abutments in the path of travel of the conveyer, and a weight connected to the latter so as to serve as a motor to move the same; substantially as and for the purpose set forth.

5. In an automatic feeder, a platform of considerable size, an endless conveyer provided with paddles, guide bars for the conveyer, vertical abutments or stops at one end, and confining bars hinged thereto, substantially as and for the purpose set forth.

6. In an automatic feeder, the combination of a platform provided with slots therethrough, guiding bars arranged thereon having abutments at one end, confining bars hinged thereto, and suitable means for securing the same at their free ends, a chain having pivoted paddles provided with horizontal projections, which normally ride upon the platform which latter holds the paddles in a perpendicular position, and devices for driving the chain, substantially as and for the purpose set forth.

7. In an automatic feeder for a twine machine the combination of a platform with guide bars having stops or abutments and a spring actuated clamping bar arranged at the lower side of such platform with an endless conveyer coacting with such parts; substantially as and for the purpose set forth.

In testimony whereof I affix my signature, this 2d day of September, in the presence of two witnesses.

GEORGE A. LOWRY.

Witnesses:
H. T. TEAL,
JAS. A. MERRITT.