(No Model.)

G. LLOYD.

AUTOMATIC STOCK FEEDER.

No. 458,588. Patented Sept. 1, 1891.

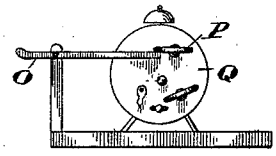


Fig. 2

Fig. 1

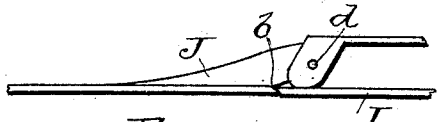


Fig. 3.

Witnesses

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

UNITED STATES PATENT OFFICE.

GEORGE LLOYD, OF KING, CANADA.

AUTOMATIC STOCK-FEEDER.

SPECIFICATION forming part of Letters Patent No. 458,588, dated September 1, 1891.

Application filed September 6, 1890. Serial No. 364,111. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LLOYD, farmer, of the township of King, in the county of York, in the Province of Ontario, Canada, have invented a certain new and Improved Automatic Stock-Feeder, of which the following is a specification.

The object of the invention is to provide an attachment to a feed box or trough by which a proper supply of feed will be automatically deposited in the box or trough at any given time it may be proper for the stock to be fed; and it consists in the peculiar construction, arrangement, and combinations of parts, hereinafter more particularly described, and then definitely claimed.

Figure 1 is a perspective view showing the application of my appliance to a feed-trough. Fig. 2 is a detail showing the connection between the alarm-clock and system of levers. Fig. 3 is a side elevation of the lever J and its connections detached.

In Fig. 1 a portion of the boarding behind the trough is removed for the purpose of exposing the trough and bins.

A represents the trough or feed-box, and B a bin or bins placed above the same.

C is a door, which I make behind each bin B, through which the feed is conveyed into the said bin.

D is a shaft properly journaled and extending through the bins B. Each bin is provided with a hinged trap-door E, connected by a rope F to a pulley G, fixed to the shaft D, as indicated.

H is a lever fixed to the shaft D and extending over the plate I, which is hinged at *a*, and is supported at its other end by fitting into a notch *b*, made in the lever J, which is pivoted at one end at *d* and connected at its other end by a link *e* to the lever K. A weight L is suspended from the link E, designed to hold the levers in the normal position indicated in Fig. 1 when not acted upon by the weight M, which is connected to the lever K by the cord N. The weight M is suspended from the pivoted lever O, the other end of which rests against the bottom of the key P, which winds the alarm of the clock Q.

In setting my apparatus I first revolve the shaft D, so as to close the trap-door E. The clock Q is set so that the alarm will go off at the hour it is decided that the stock should be fed. The lever O is placed below the key P of the alarm and the weight M hung upon the said lever O, the other levers being in the position indicated in Fig. 1. The proper quantity of feed is then placed in the bin B. When the alarm goes off, the key P will revolve, immediately releasing the lever O, from which the weight M drops and draws down the end of the lever K, which, being connected to the lever J, tips it up, so as to carry the notch *b* clear of the plate I, which will immediately drop and release the lever H, when the weight of the feed in the bin B forces open the trap-door E, the shaft D revolving so as to loosen the rope F and permit the said trap-door to open. From this description it will be seen that my device can be arranged the night before at what hour the stock should be fed and the said feeding take place without any further bother to the attendant.

What I claim as my invention is—

1. A clock, a series of bins, each having a trap-door, a shaft D between said bins, an arm H on said shaft, pulleys on said shaft corresponding to the number of bins, each having a cord connecting it with its corresponding trap-door, and the lever I, arranged to keep said doors closed, in combination with mechanism, substantially as described, between said lever I and the clock to release said lever, as and for the purpose specified.

2. A bin B, provided with a trap-door E and connected to a revoluble shaft D by a rope F, a lever H, fixed to the shaft D and supported by the hinged plate I, resting in the notch *b*, made in the pivoted lever J, in combination with the link *e*, pivoted lever K, weight L, cord N, weight M, cord O, and alarm-clock Q, substantially as and for the purpose specified.

Dated at the town of Aurora this 18th day of August, A. D. 1890.

GEORGE LLOYD.

In presence of—
J. E. MCNALLY,
C. A. WILLIS.