No. 786,437. PATENTED APR. 4, 1905.

C. L. & H. P. HANSON.

STOCK FEEDING DEVICE.

APPLICATION FILED MAY 14, 1904.

Fig. 1.

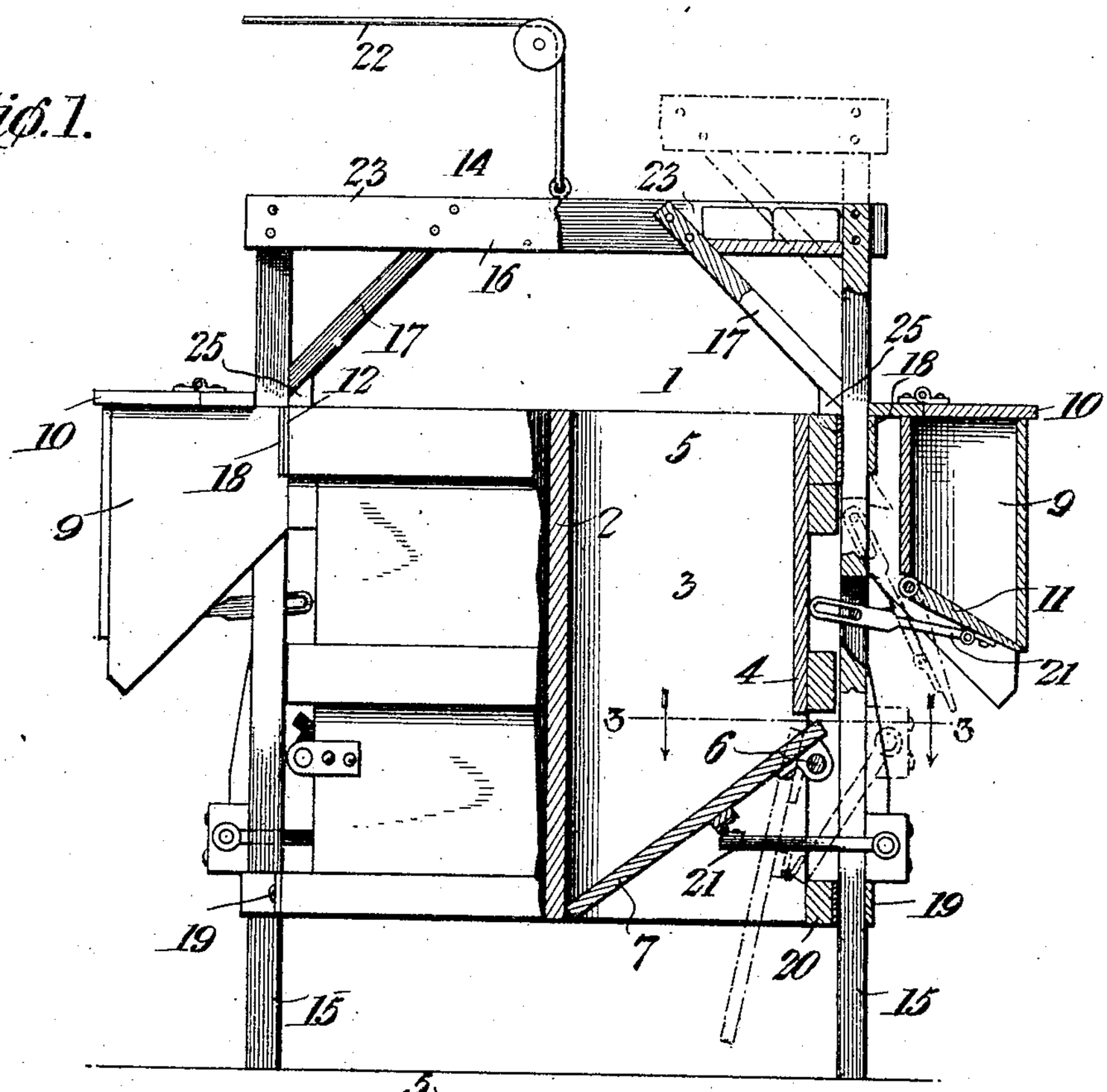


Fig. 2.

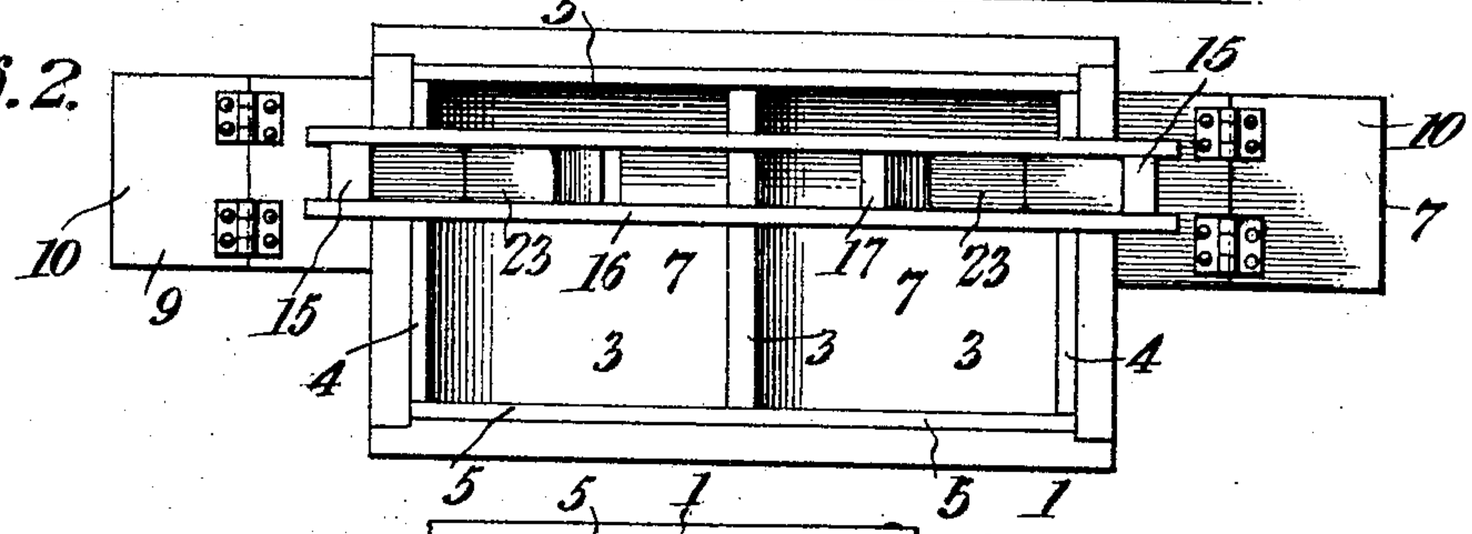
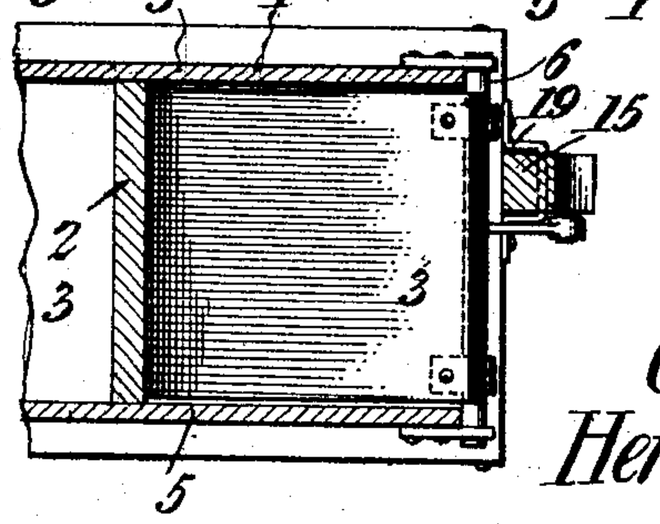


Fig. 3.



Witnesses

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No. 786,437. Patented April 4, 1905.

UNITED STATES PATENT OFFICE.

CARL L. HANSON AND HERMAN P. HANSON, OF ANDERSON, IDAHO.

STOCK-FEEDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 786,437, dated April 4, 1905.

Application filed May 14, 1904. Serial No. 207,978.

To all whom it may concern:

Be it known that we, CARL L. HANSON and HERMAN P. HANSON, citizens of the United States, residing at Anderson, in the county of Latah and State of Idaho, have invented a new and useful Stock-Feeding Device, of which the following is a specification.

This invention relates to stock-feeding devices; and it has particular reference to that class of stock-feeding devices in which the material which is to be fed, such as hay and grain, is deposited at some previous time to be released from a distant point, if desired, at the proper time for feeding.

The invention consists in the novel and improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional view illustrating a stock-feeding device constructed in accordance with the principles of the invention. Fig. 2 is a top plan view. Fig. 3 is a horizontal sectional view taken on the line 3 3 in Fig. 1.

Corresponding parts in the several figures are indicated by similar numerals of reference.

In the accompanying drawings the invention has been shown as applied to two stalls; but it is obvious that it may be so constructed as to be operated in connection with a single stall or with any desired number of stalls.

The device comprises a box or casing 1, which under the construction illustrated in the drawings is subdivided by a vertical partition 2 into two compartments 3 3, which constitute the hay or feeder receptacles. The lower edges of the ends 4 4 of the casing 1 terminate above the lower edges of the front and rear sides 5 5 of said casing, and near the lower edges of said end pieces 4 4 are supported rock-shafts 6 6, carrying valves or doors 7 7, serving to close the lower ends of the compartments 3 3 and swinging outwardly from the central partition, as will be readily understood. Suitably supported upon the end pieces 4 4, near the upper edges of the latter, are the grain-receptacles 9 9, having lids 10 10 and provided at their lower ends with doors or valves 11, which are hingedly connected with the inner sides of said grain-receptacles and close against the outer sides of the latter.

The grain-receptacles 10 are supported at a distance from the end pieces 4 of the main casing by means of brackets 12, which may be in the nature of extensions of the side pieces of said grain-receptacles.

14 designates a vertically-movable frame comprising legs or side members 15 and top pieces or cross-braces 16, which are connected with the legs or side members by inclined braces 17. The legs or side members 15 are guided between the brackets 12 of the grain-receptacles in keepers 18, which are secured to the ends of the main casing between said brackets. Additional keepers 19 serve to guide the lower ends of the legs or side members 15, said keepers 19 being attached to cross bars or braces 20 at the lower part of the main casing. The latter is to be durably constructed and may be braced and reinforced by any suitable means. It will also be understood that brackets or supporting means may be provided to serve as bearings for the rock-shafts 6, supporting the doors 7 at the lower ends of the compartments of the casing.

The legs or side members 15 of the vertical frame 14 are connected with the doors 7 of the compartments 3 and with the doors 11 of the frame-compartments 9 by means of links 21, which when the frame 14 is moved in an upward direction will serve to open the said doors, thereby releasing the contents of the several compartments, which will escape by gravity and become accessible to the animals confined in the stalls in connection with which the improved feeding devices are used. Reversely, when the frame 14 is lowered the several doors will be simultaneously and automatically closed. The latter operation will be performed automatically, the frame 14 being restored by gravity to a lowered position when the contents of the compartments of the casing has been consumed and does not obstruct the closure of the doors. The raising of the frame may be effected by means of a suitably-connected flexible connection, such as a wire or cable 22, which may be guided from the barn or building where the device is lo-

cated to any suitable point from which it may be conveniently operated.

The upper part of the frame 14 is provided with weight-boxes 23, constructed between the cross-bars 16, in which weights may be placed for the purpose of facilitating the closure of the doors of the device.

The operation and advantages of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. By the use of this device horses, cattle, and other animals may be fed in the morning as early as may be desired without necessity of going from the house to the barn for the purpose of feeding. The operating-rope may even be guided from the device to the bedside of the operator, thus enabling the cattle to be fed conveniently and as early as may be desired. Likewise at the noon hour, when it is not desirable to feed the horses while still hot after the morning's work, the feed may be placed in the device and the operator may adjourn to dinner and by simply pulling the rope may feed the animals when sufficient time has elapsed to enable them to cool somewhat.

The device, as will be seen, is simple in construction and inexpensive. It is convenient, easily operated, and the use thereof will save much trouble and annoyance and by enabling horses and cattle to be fed from a distance and at exactly the proper times will contribute to keep them in better health and condition.

We prefer to provide the vertically-movable frame with suitably-disposed buffers, (shown in the drawings at 25,) which by engaging the upper edges of the casing when the vertically-movable frame descends by gravity will prevent the parts from being seriously shaken or otherwise injured.

In cases where the barn in which the improved feeding device is used is provided with a low roof the device may be very easily modified to provide for such a contingency by simply removing the upper part of the frame, including the braces 17, and causing the top piece 16 when lowered to rest upon the upper edge of the feeder-casing. When this construction is carried into effect, it may be found desirable to weight the frame through the medium of levers attached pivotally to the feeder-casing, connected loosely with the frame, and provided with weights which shall be exercised to assist the frame in descending by gravity to close the doors of the feed-compartments automatically.

Having thus described our invention, we claim—

1. A casing having compartments, doors mounted hingedly at the lower edges of said compartments, a vertically-movable frame, and links connecting said frame with the doors.

2. A box or feed-compartment, a door hingedly connected with the lower edge of said compartment, a vertically-movable gravity operating device, and link connections between said device and the door, whereby the hoisting of the gravity operating device will throw the door open.

3. A casing or feed-compartment, grain-receptacles mounted upon and spaced from the ends of the same, doors hingedly connected with the lower ends of the feed and grain compartments, keepers upon the ends of the casing, a vertically-movable weighted frame mounted to slide in said keepers, links connecting said frame with the doors of the feed and grain compartments to close said doors when the frame descends by gravity, and suitably-guided means for hoisting said frame to open the doors.

4. A casing constituting a feed-compartment and having a partition, doors mounted hingedly at the lower edges of the ends of the casing, grain-compartments supported upon and spaced from the ends of the casing, doors mounted hingedly at the lower ends of said grain-compartments, a vertically-movable operating-frame, and links connecting the side members of said frame with the several doors of the feed and grain compartments to close said doors when the frame descends by gravity.

5. A casing constituting a feed-box having compartments for fodder and grain, doors at the lower ends of said compartments, and a vertically-movable frame guided upon the ends of the casing, said frame including side members, top members, and braces connecting the top members with the side members, links connecting the side members of said frames with the doors of the several compartments to close said doors when the frame descends by gravity, and buffers upon the inclined braces connecting the side members with the top members of the vertically-movable frame, said buffers engaging the upper edge of the casing when the frame descends.

6. A casing constituting a feed-box having compartments with doors at their lower ends, a vertically-movable frame guided upon said casing, connecting means between said frame and the doors, whereby the latter are controlled by the movement of the frame, and means for hoisting the frame to effect the opening of the doors.

7. A casing having compartments, doors mounted hingedly at the lower edges of said compartments, a vertically-movable weight-operated frame, and links connecting said frame with the doors.

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

CARL L. HANSON.
HERMAN P. HANSON.

Witnesses:
DAVID E. SPENCER,
ELZA E. COOPER.