

(No Model.)

2 Sheets—Sheet 2.

E. G. MORGAN & F. H. ROSE.
DEVICE FOR FEEDING GRAIN TO HORSES.

No. 600,980.

Patented Mar. 22, 1898.

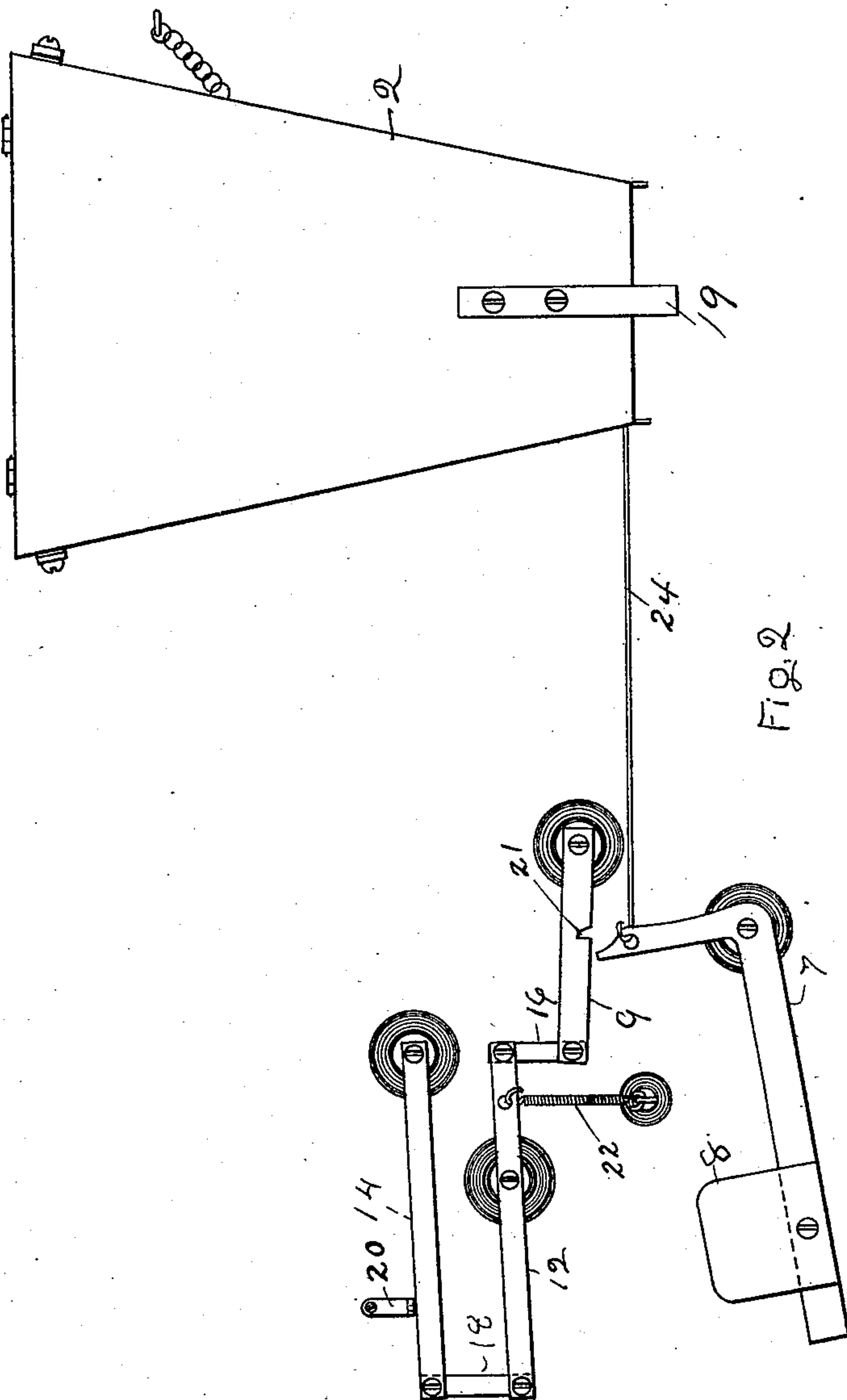


Fig. 2

WITNESSES—
M. M. Tuttle.
A. M. Tuttle

INVENTORS—
Edwin G. Morgan
Frank H. Rose
By E. B. Tuttle
A 22-y

UNITED STATES PATENT OFFICE.

EDWIN G. MORGAN AND FRANK H. ROSE, OF WINTHROP, MASSACHUSETTS.

DEVICE FOR FEEDING GRAIN TO HORSES.

SPECIFICATION forming part of Letters Patent No. 600,980, dated March 22, 1898.

Application filed August 13, 1897. Serial No. 648,173. (No model.)

To all whom it may concern:

Be it known that we, EDWIN G. MORGAN and FRANK H. ROSE, of Winthrop, county of Middlesex, and Commonwealth of Massachusetts, have invented a certain Improved Device for Feeding Grain to Horses and the Like, of which the following, read in connection with the accompanying drawings, is a specification.

In the accompanying drawings, Figure 1 is an elevation showing the mechanism embodying our invention. Fig. 2 is a similar view of the mechanism in different operative position, the clock mechanism being removed.

This invention comprises a grain-holding receptacle composed of the body part 2 and the movable part 3. Said movable part, as shown, has its top end in hinged connection with the top end of the part 2, its bottom end being thereby adapted to swing outwardly from the bottom end of part 2, and altogether it forms a part or section of the vertical retaining-wall of the receptacle. In the part 2 is an inclined bottom 4, whereby the contents of the receptacle are directed against the part 3, which part in moving outwardly from part 2 operates to open the receptacle for the contents thereof to discharge downwardly. On the part 2 is a latch 5, as shown in Fig. 1, having a notch to engage a pin 19 on the part 3 for holding said part in the closed position. Connected with the latch 5 is a connection 24, of wire or other suitable medium, which is also connected with a bell-crank lever 7, to be pulled by the turning action of said lever and thereby to move the latch 5 out of engagement with the pin 19 on the receptacle part 3. The lever 7 carries on one arm the weight 8, and has its other arm adapted to enter a notch 21 in the retaining member 9, whereby the lever 7 is held in position to be actuated by the weight 8, when permitted, for moving the latch 5 to release part 3 of the grain-holding receptacle. The retaining member 9 is shown as a lever pivoted at one end, having connection by its other end with a power-transmitting mechanism composed of levers 12 14 and links 16 18, held by spring 22 in position to be actuated downwardly by the crank-arm 20 of an ordinary clock mechanism 23, whereby movement is

made to take place for releasing the weighted member at a predetermined time.

In operation the grain-holding receptacle is placed at the feeding-point with the body part 2 supported in an inclined position, so that the part 3 when released from the latch 5 shall by force of gravity swing downwardly and outwardly from part 2 for opening the receptacle to discharge the contents thereof. The clock-actuated mechanism is located at any convenient place more or less remote from the receptacle. The part 3 being engaged in the closed position with latch 5, the receptacle is ready for the grain, which, being placed in the receptacle, will remain there until released by the operation of the clock mechanism and intermediate connections, acting as before described. Obviously the alarm member of the clock may be set to operate at the predetermined time for feeding the horse or other animal, as described.

We claim—

1. A device for feeding grain and the like comprising a receptacle having a movable cover, a detent for holding said cover in closing position, a lever, connections between said lever and the detent, a lever 9 above the first-mentioned lever, said lever 9 having provision for engaging the first-mentioned lever and holding it in position to permit the detent to hold the cover of the receptacle in closed position, means for causing the first-mentioned lever to move upon being released from the lever 9 and thus withdraw the detent, a lever 12 of the first order above the lever 9, a link 16 between the lever 12 and the lever 9, a spring secured to said lever 12 to act in opposition to the movement of said lever whereby the lever 9 is raised to release the first-mentioned lever, a clock mechanism or the like, and a falling member in said clock mechanism, said falling member being located above the lever 12 and adapted to operate on the arm of the lever opposite the link, whereby in the falling action the lever 9 is raised and the first-mentioned lever released; substantially as described.

2. A device for feeding grain and the like comprising a receptacle having a movable cover, a detent for holding said cover in closing position, a bell-crank lever 7 having its

lower weighted arm extending away from the
receptacle, a connection between the other
arm of said lever and the detent, a lever 9
pivoted above said lever 7 and having pro-
5 vision for holding the lever 7 in such position
that the cover of the receptacle is by the de-
tent held in closing position, a lever 12 of the
first order pivoted in a plane above the lever
9 and to the side of the pivot of the lever 9
10 away from the receptacle, a link 16 between
the ends of the levers 12 and 9 which lie to-
ward each other, a spring secured at one end
to a relatively-fixed member below the lever
12 and at its other end to the lever 12 be-
15 tween its fulcrum and the link 16, a lever 14
pivoted above the lever 12, a link 18 between

the lever 14 and the lever 12 on the arm of
the latter opposite the arm carrying the link
16, a clock mechanism or the like, and a fall-
ing member connected with said clock mech- 20
anism and lying above the lever 14 whereby
when said falling member falls upon the le-
ver 14 it is depressed and through the links
and lever 12 raises the lever 9 to release the
bell-crank lever 7; substantially as described. 25

Signed at Lynn this 23d day of July, A. D.
1897.

EDWIN G. MORGAN.
FRANK H. ROSE.

Witnesses:

A. M. TUTTLE,
C. B. TUTTLE.