(No Model.)

G. W. MORGAN & S. P. HERR.

FEED TROUGH.

No. 369,022. Patented Aug. 30, 1887.

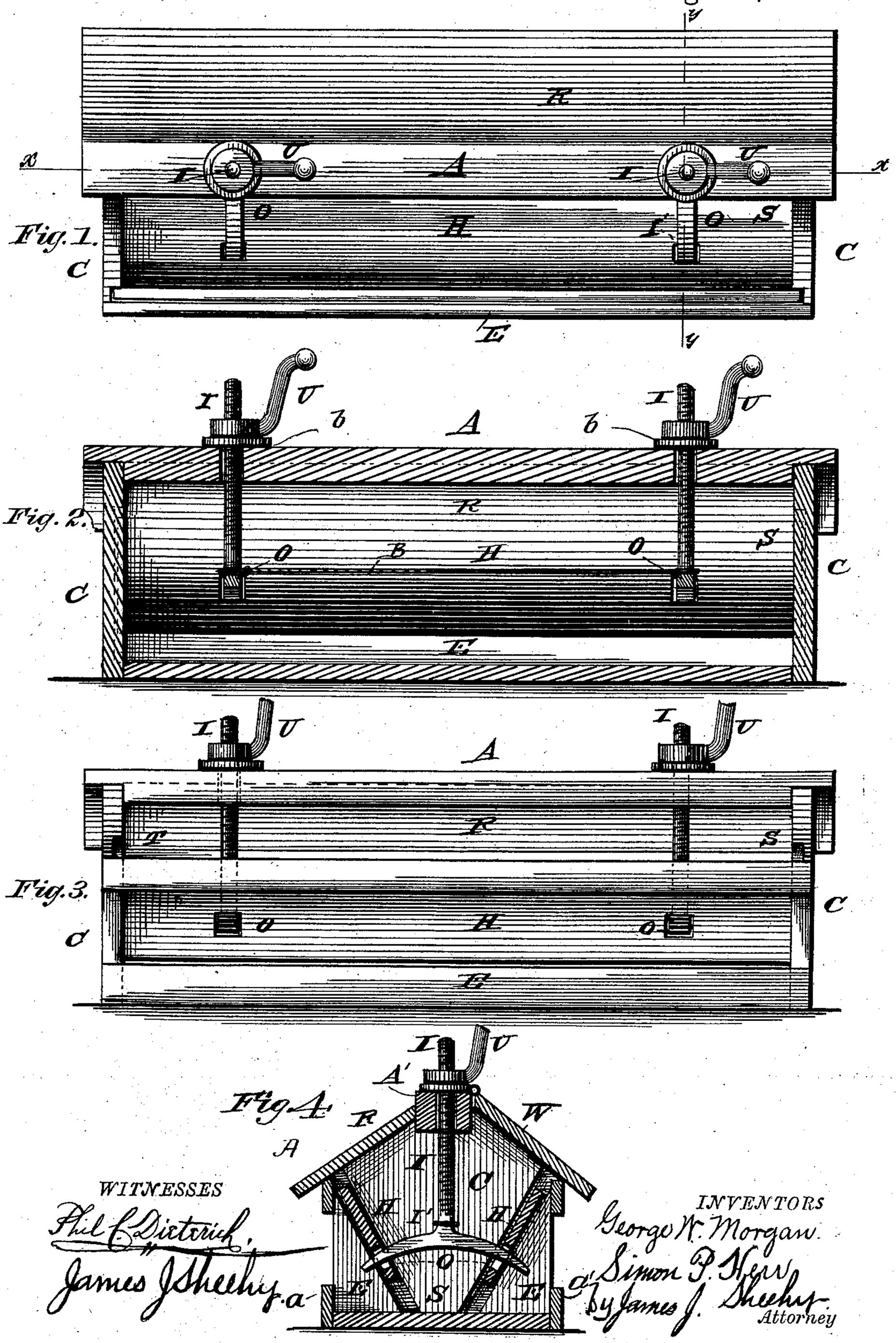

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

WITNESSES

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FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 369,022, dated August 30, 1887.

Application filed April 9, 1887. Serial No. 234,249. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. MORGAN and SIMON P. HERR, citizens of the United States, residing at Creswell, in the county of Keokuk, State of Iowa, have invented certain new and useful Improvements in Feed-Troughs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to feed-troughs, and is especially adapted for feeding hogs. The improvements will be more fully understood from the following description and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a plan view of a feed-trough with a part of the roof removed, showing our improvements. Fig. 2 is a longitudinal sectional view taken on the plane indicated by line *x x*, Fig. 1. Fig. 3 is a side elevation with a portion of the roof removed; and Fig. 4 is a cross-sectional view taken in the plane indicated by line *y y*, Fig. 1.

Referring by letter to the said drawings, A indicates the main frame of the structure, which is of a contour resembling the hog-troughs at present in use. This frame is composed of a suitable horizontal base, to the longitudinal edges of which are secured ledges or vertical strips *a*, forming the outer wall of the troughs E E. This base may be of any desired length, and has secured to its opposite ends by close joints vertical end walls, C, and these end walls, which are shown as beveled from a central point on their upper edges, are firmly connected at their highest points by a stout central longitudinal beam, A′. These end walls are obliquely grooved inwardly from their upper outer corners to form ways for gates or valves H, as will be presently explained. The roof we have shown as made in two sections, R W, the section W of which we have hinged to the longitudinal beam A′ to form a door by which the food may be placed in the receptacle. These roof-sections R and W are projected beyond the sides of the frame, as shown, so as to form a shelter for the trough.

The longitudinal beam A′ is provided with a suitable number of vertical apertures, *b*, for the passage of adjusting-screws I. These screws I have formed on their lower ends curved cross-heads J, the arms of which extend in opposite directions laterally, and are designed to pass through apertures O in the gates or valves. The curved arms are plain, and the vertical screw L passes through the apertures in the beam A.

U indicates lever-nuts on the adjusting-screws I, which are designed to raise and lower the said screws and consequently the valves or gates which are engaged by the arms of the cross-heads. The gates or valves H have their ends in the oblique grooves of the end walls, so as to assume a converging position within the frame, and with the end walls, C, form the hopper S. These valves are provided with the transverse apertures O, to receive the arms of the cross-heads.

B indicates a clearing device, which we have shown as a strand of wire. This wire is secured at opposite ends to the vertical screws I above the cross-heads, and extends longitudinally within the hopper, so that when the levers U have been turned upon the said screws to open or close the valves or gates this wire will also be moved, cutting its way through the feed in the hopper, thereby easing the discharge to the trough.

It will be seen from the foregoing description that the food placed in the main receptacle will be fed automatically into the troughs as it is consumed by the hogs, and the gates or valves may be regulated to feed fast or slow, as desired.

It will be seen that by having the arms of the screws curved, as shown, there will be no obstruction to the movements of the gates, and that they may be raised from the bottom to the top of the frame. It will also be seen that by moving the lever-nuts the gates at both sides are operated simultaneously.

Having described this invention, what we claim is—

1. The feed-trough described, consisting of the main frame having the inward obliquely-grooved end walls, and the longitudinal edge strips on the base, the longitudinal top beam having vertical apertures, the inclined valves having transverse apertures, the adjusting-screws having their lower ends terminating in cross-heads having their curved arms in said

apertures, and lever-nuts for moving the said screws, substantially as specified.

2. In a feed-trough, the combination, with the ends having oblique grooves, of the inclined valves or gates movable in said grooves, and a vertically-moving screw having its lower end terminating in curved arms to engage and move the said valves, substantially as specified.

In testimony that we do claim the foregoing as our own we hereby affix our signatures in presence of two witnesses.

GEORGE W. MORGAN.
SIMON P. HERR.

Witnesses:
WM. A. BELL,
J. J. POLLARD.