No. 727,058. PATENTED MAY 5, 1903.

W. I. BAKER.

TIME FEED BOX.

APPLICATION FILED JAN. 17, 1903.

NO MODEL.

Fig. 1.

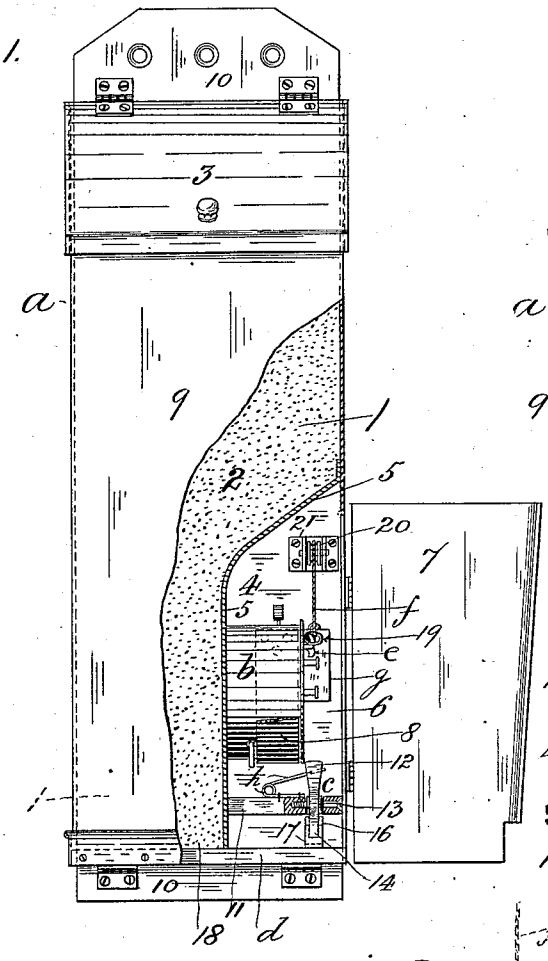


Fig. 2.

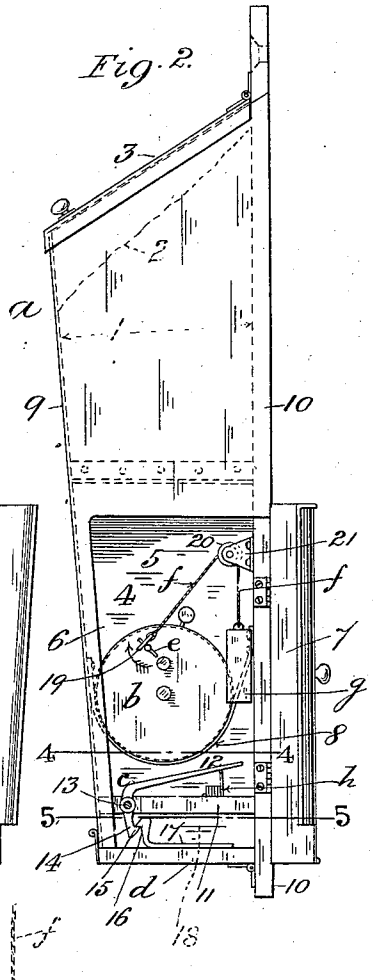


Fig. 5.

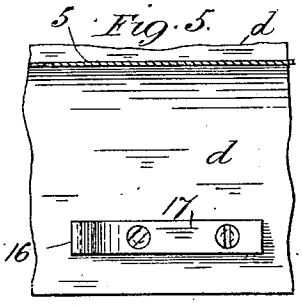


Fig. 3.

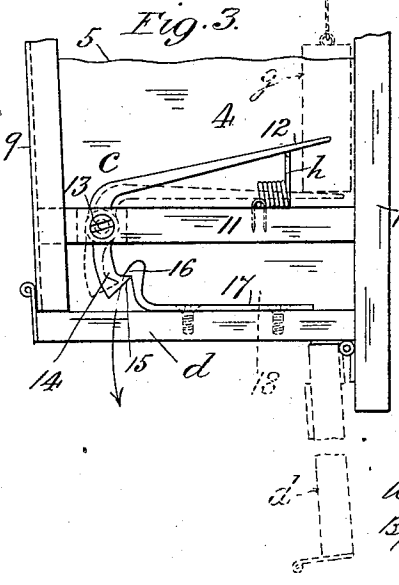
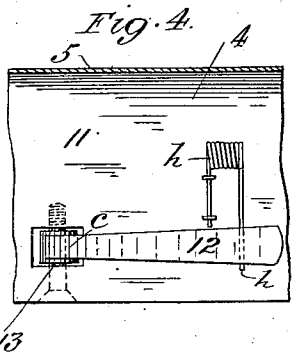


Fig. 4.



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No. 727,058. Patented May 5, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM I. BAKER, OF ST. LOUIS, MISSOURI.

TIME FEED-BOX.

SPECIFICATION forming part of Letters Patent No. 727,058, dated May 5, 1903.

Application filed January 17, 1903. Serial No. 139,411. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM I. BAKER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Feed-Boxes, of which the following is a specification.

My invention relates to that class of feed-box from which the feed for a horse or other animal is automatically discharged at a set time into an adjacent manger, and has for its object to provide a feed-box of simple and cheap construction and reliable in action.

The invention consists in features of novelty, as hereinafter described and claimed, reference being had to the accompanying drawings, forming part of this specification, whereon—

Figure 1 is a front elevation of my improved feed-box with its front wall broken away to show the interior; Fig. 2, a side view thereof; Fig. 3, a detached view, to enlarged scale, of the lower part of the box as seen in Fig. 2, omitting the clock mechanism and the combined weight forming part of my invention; and Figs. 4 and 5, horizontal sections thereof.

Like letters and numerals of reference denote like parts in all the figures.

a represents my improved feed-box, having the compartment or receptacle 1 for the feed 2 and provided with a hinged cover 3. At one side of the box *a* is a compartment 4, which is separated from the feed-compartment 1 by a transverse partition-wall 5 and is formed through one side opposite to the wall 5 and corresponding to that of the box *a* with an opening 6, which is normally closed by a door 7. Within the compartment 4 is placed suitable clock mechanism, preferably an ordinary alarm-clock *b*, which is supported with its face preferably against the wall 5 on a shelf or bracket 8, shaped conformably to the periphery of the clock *b* and fixed to the front and rear walls 9 and 10, respectively, of the box *a*. To the floor 11 of the compartment 4 is pivoted a lever *c* of the first order, having one arm 12 inclined upward and rearward from its fulcrum 13 above the floor 11 and across the compartment 4, the other arm 14 of the lever *c* depending freely through the floor 11 and formed at its free end with a rearwardly-projecting tooth or catch 15, which is adapted to engage a corresponding tooth 16, formed on or projecting from a bracket 17, fixed to a trap *d*, which is hinged at its rear edge to the rear wall 10 of the box *a* and adapted to close the outlet-opening 18, formed through the bottom of the feed-compartment 1 for the discharge of the feed therefrom.

To the key *e* for winding the alarm mechanism of the clock *b* is hitched, by a ring 19 or other device automatically detachable from the key *e*, as found most suitable, one end of a cord *f*, which passes, preferably, over a pulley 20, axially pivoted to a bracket 21, fixed to the rear wall 10 of the box *a*. To the other or dependent end of the cord *f* is attached a weight *g*, which hangs immediately over the free end portion of the arm 12 of the lever *c*, so that in falling, as hereinafter more particularly referred to, the weight *g* will strike and depress the arm 12.

To the floor 11 is fixed a spring *h*, which bears against the under side of the arm 12 of the lever *c* and normally throws the arm 12 upward and the arm 14 rearward about the fulcrum 13, or so that the tooth 15 of the arm 14 engages the tooth 16 of and thereby locks the trap *d* when in its closed position over the bottom opening 18 of the feed-compartment 1, as shown.

In operation, the bottom opening 18 being closed by the trap *d* and the feed 2 thereby held within the compartment 1, the alarm mechanism of the clock *b* is set to the time at which it is desired to discharge the feed 2 from the box *a*, the key *e* in winding being rotated, preferably, in the direction of the arrow seen in Fig. 2, and so adjusted that the cord *f* when hitched thereto is retained thereby in the elevated position of the weight *g* above and clear of the lever *c*. At the time set, and the consequent release of the alarm mechanism, the key *e* will rotate in the opposite direction, and in so doing the cord *f* detaches itself therefrom, and the weight *g*, falling upon the arm 12 of the lever *c*, will depress the arm 12 against the pressure of its spring *h* and force the tooth 15 of the arm 14 out of engagement with the tooth 16 of the trap *d*, which is thereby unlocked and swings outward upon its hinges in the direction indicated by the arrow and into the position shown by broken lines in Fig. 3, or so

as to open the outlet 18 and allow the discharge of the feed 2 therethrough from the compartment 1 into the manger.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a feed-box of the class described, the combination with the feed-receptacle having a bottom outlet, of a trap hinged to one side of the box and adapted to open and close the said outlet, a separate compartment, suitable clock mechanism within the compartment, a cord detachably connected to the said mechanism, a weight dependent from the cord, a lever pivoted to the floor of the compartment, one arm of the lever extending beneath the said weight, a spring between the floor and the said arm, a bracket fixed to the said trap, a tooth projecting from the bracket, and a tooth projecting from the other arm of the lever and adapted to engage the tooth of the said bracket, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM I. BAKER.

Witnesses:
G. L. BELFRY,
EDWARD W. FURRELL.