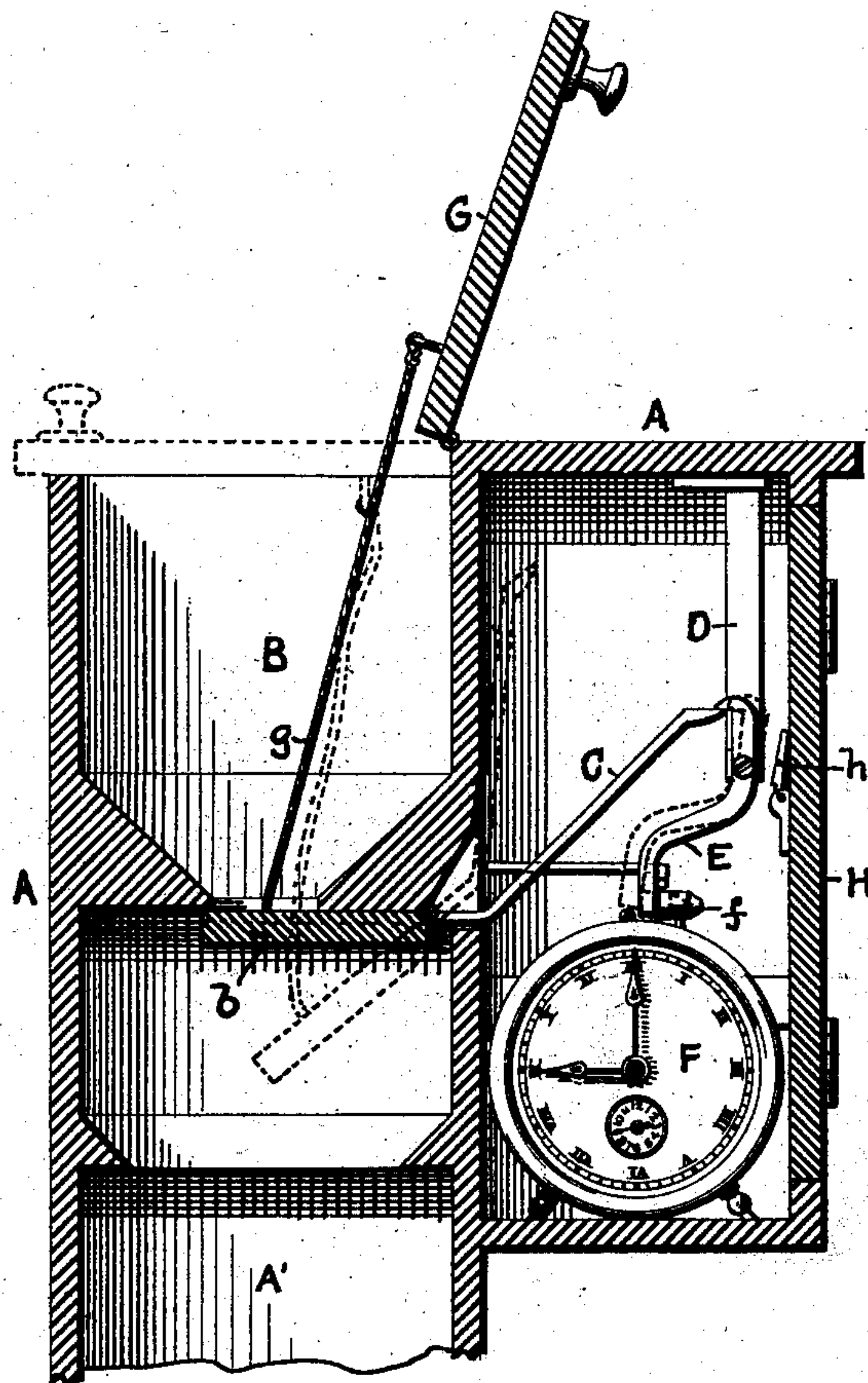


G. H. DANIELS.
Device for Automatically Feeding Live Stock.
No. 224,278. Patented Feb. 10, 1880.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE H. DANIELS, OF PROVIDENCE, RHODE ISLAND.

DEVICE FOR AUTOMATICALLY FEEDING LIVE STOCK.

SPECIFICATION forming part of Letters Patent No. 224,278, dated February 10, 1880.

Application filed November 4, 1879.

To all whom it may concern :

Be it known that I, GEORGE H. DANIELS, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Device for Automatically Feeding Live Stock; and I do hereby declare that the following specification, taken in connection with the accompanying drawing, forming a part of the same, is a full, clear, and exact description thereof.

The invention hereinafter described relates to the feeding of live stock; and it consists in an improved device for automatically delivering food to animals at any predetermined time without the necessity of personal attention at the time of feeding.

In the drawing I have illustrated, in central vertical section, a device embodying my invention.

This device consists of a case, A, which is extended downward, as at A', in the form of a chute leading to the feed-trough. One portion, B, of this case is arranged to receive the feed, and may be designated as a "hopper." This hopper is closed on the under side by a bottom or valve, *b*, which is hinged to the case A and provided with a rearward-projecting arm, C.

Secured to the case A is a stud, D, to which is pivoted a gravity-catch, E, the relative relation of the catch E and arm C being such that when the valve *b* is raised, and the outlet of the hopper thereby closed, the said arm will be engaged by the catch and the valve will be retained in its raised position until the latch is tripped.

The tripping of the latch and consequent falling of the valve *b* may be accomplished at any time by hand; but one object of the invention is to provide a device like or equivalent to that thus far described with mechanism which shall automatically perform the tripping operation at any desired time, that, as above stated, personal attention will not be required at the time of feeding. The mechanism here shown for the purpose consists of an alarm-clock, F, which is so arranged with reference to the tripping mechanism that the hammer *f* will operate, when allowed to do so, upon the catch E and release the valve *b*.

Another feature of the invention is the means

employed for raising the hopper-valve *b*, and thereby closing the outlet of the hopper. This consists in the employment of a cover, G, which is hinged to the case A, and is connected, by a cord or equivalent, *g*, to the valve *b*, so that by throwing back the cover the valve is raised and locked in position, and by closing the cover the cord is sufficiently slack to allow the valve to fall, and the feed is protected while in the hopper.

The operation of the device is substantially as follows: The hostler approaches the device, throws back the cover G, thereby raising the valve *b* into a position to be locked by the engagement of the catch E with the arm C, deposits the feed in the hopper B, and closes the cover. The alarm-clock F is then set to release the hammer *f* at the desired time, and the device is in readiness to perform its office automatically. When the time arrives for the animal to be fed the hammer *f* operates upon the catch E, disengaging it from the arm C, the valve *b* falls, and the feed is precipitated into the trough below.

If it is desired temporarily to dispense with the automatic feature of the device and feed direct, a hinged arm, *h*, secured to the door H of that portion of the case A which incloses the clock, may be turned down so as to move and hold the catch E out of position to engage the arm C. Under this arrangement feed deposited in the hopper will be immediately precipitated into the trough below when the cover G is closed.

The special advantages of my automatic device are sufficiently obvious to need no mention, it being evident that great convenience and saving of time will result from its use.

Although I have shown and described a definite construction and arrangement of the parts composing my device, yet I am aware that the same may be varied without departing from the spirit of my invention—as, for instance, the hopper-valve may be made to slide instead of to tilt, and be provided with a weight or spring to move it when a catch or equivalent is operated upon by clock mechanism, and said sliding valve should be so connected with the cover G by a cord or equivalent that when said cover is raised the valve will be closed thereby. Instead, also, of using a hopper with

a movable bottom or valve, a tilting hopper may be employed and be retained in position by a catch, to be operated upon as described. In the latter case the hopper, when it tilts, will
5 act as a discharge-valve, and should be connected to the cover G by a cord or equivalent, so that when said cover is raised the hopper will be moved into a position to be locked.

I am also aware that instead of the alarm-
10 clock shown a variety of clock mechanisms may be employed, some part of which may be made to directly engage some portion of the hopper-valve or an appendage thereto, and the desired result be accomplished. Such modifi-
15 cations, however, would be within my invention. Therefore,

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of a hopper capable of dis- 20 charging its contents as described, suitable tripping mechanism for locking the hopper-valve in a closed position and enabling the hopper to be discharged, a cover hinged to the hopper-case and connected with the hopper- 25 valve, as described, whereby the contents of the hopper are protected and a means is provided for moving the hopper-valve into a position to be locked by the tripping mechanism, and a clock-train for causing the hopper to 30 discharge at any predetermined period, substantially as and for the purposes set forth.

GEO. H. DANIELS.

Witnesses:

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