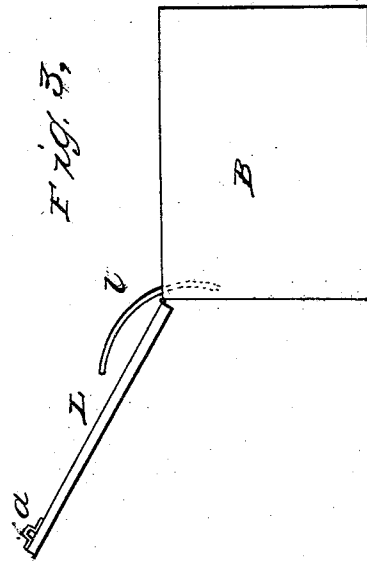
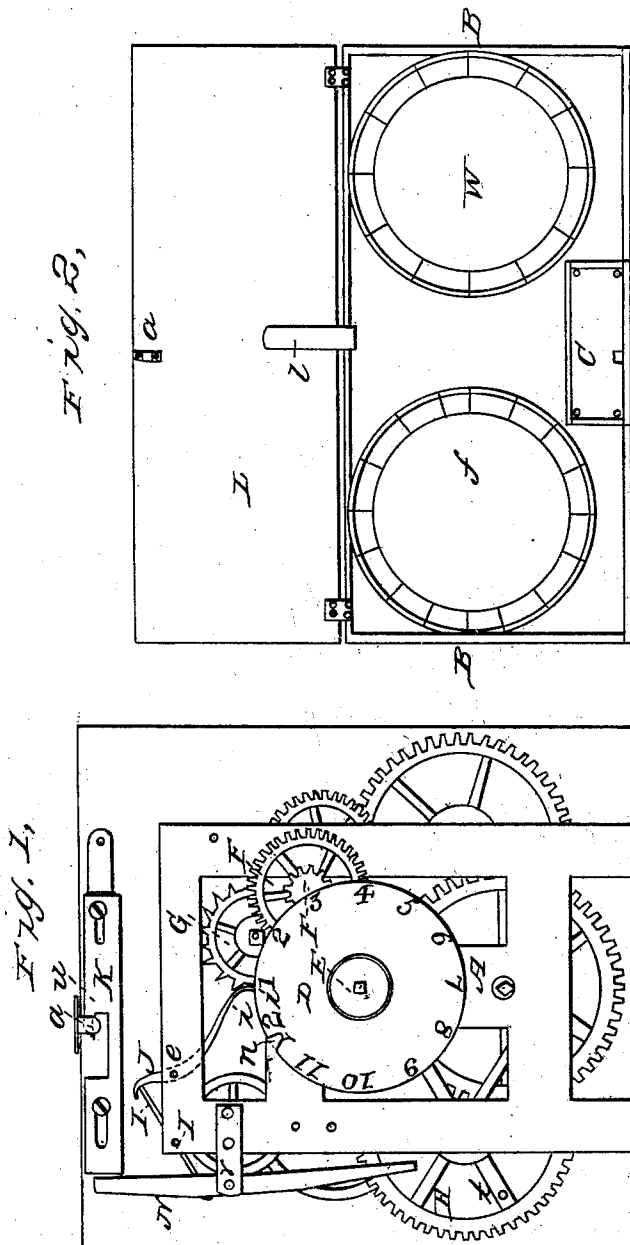


Automatic Feed Box.

No. 22,076.

Patented Nov. 16, 1858.



UNITED STATES PATENT OFFICE.

ALBERT GOODYEAR, 2D, OF HAMDEN, CONNECTICUT.

AUTOMATIC FEED-BOX FOR ANIMALS.

Specification of Letters Patent No. 22,076, dated November 16, 1858.

To all whom it may concern:

Be it known that I, ALBERT GOODYEAR, 2d, of Hamden, in the county of New Haven and State of Connecticut, have invented a new and useful Device for Feeding Horses and other Animals; and I hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a front view of the clock movement. Fig. 2 is a vertical view of the open box extended in form, or one of the forms intended to be employed. Fig. 3 is an end view of the open box, showing the lid-spring and staple.

The nature of this invention consists in attaching to or combining with a feeding trough or box (for horses or other animals) such an arrangement of mechanical devices as will automatically open the said box by raising the lid thereof at such an hour or point of time as may be previously arranged or required.

A box B B, of any required size or form (but ordinarily about two feet in length, ten inches in width and eight inches deep) has a lid L connected by hinges and furnished with a staple or catch *a*, near the front edge thereof. The box may be made of wood and covered with tin or iron plates. In the front part of the box is an apartment *c* containing an arrangement of clock mechanism for the purpose of opening the box, as hereinafter explained. To the back of the box is attached a lid-spring *l*, the upper end of which presses upon the lid when closed, tending to open or lift it up. In front of the clock apartment is a hinged door, with a lock or other fastening. The box may be made water tight with two apartments or may contain two tubs for holding feed and water, as represented (*f w*, Fig. 2) in the drawing.

In Fig. 1 is represented a portion of the mechanism of C. Kirk's improved clock (patented in 1847) as employed with modifications in the accompanying drawing, in which drawing A is the square or key-arbor; D is an hour dial mounted upon the hollow arbor to which the hour hand of a clock is ordinarily attached; E is a milled button attached to the center arbor which usually carries the minute hand. This button is used for the purpose of adjusting the hour dial D, or by turning the button to the right

or left the dial is revolved with a moderate motion by means of its connection by the hand-wheels F. G is the escapement wheel, and H the pin wheel, from the front of which projects the tripping pin *t*. I is the fly, and J is a detaining lever hung upon a pivot at *e*. The upper end of this lever, being bent, takes to the fly I and detains it, while the lower end or point (*i*) rests upon the periphery of the dial D.

At the top of the apartment is a sliding bolt or plate K, in the upper part of which is a projecting branch or hook *u*, which being forced to the left by a spring *s* enters the staple *a*, of the lid and holds it fast.

To the left of the sliding plate K is a plate lever N, mounted upon a pivot *r*, and the lower end thereof is contiguous to the pin-wheel H, and is occasionally lifted or moved by the pin *t*.

The hour dial D is graduated and marked with numerical figures 1 to 12, according to the hours of its revolution, and at 12 is a deep notch (*n*) in its rim.

The clock movement being wound up by a key and the lid of the box being closed, and consequently fastened, the button E is turned to the right till the figure which designates the number of hours which are required to elapse prior to the opening of the box is brought up to the point *i* of the lever J. Then by the progress of the movement the notch *n* is brought up till the point of the detaining lever drops into the said notch, whereby the fly I is liberated, and with it the pin-wheel H is put in motion, whereby the pin *t* immediately impinges upon the plate lever N so as to force back the sliding plate K to the right, thereby liberating the lid, which by the force of the spring *l*, is thrown open. Other kinds of clock movements, either with springs or weights, pendulums or balance wheels may be employed for this purpose provided they are so modified as to liberate the box lid at the time required.

New inventions being required to be useful in order to be patentable, it may be expedient for me to illustrate the utility of this by presenting the supposition that a proper quantity of feed and water be placed in this box on an evening, and being adjusted to open at four in the following morning, the box is placed before a horse in either a public or private stable. The traveler or owner of the horse, having the

key of the clock door in his pocket, will have
no cause of doubt or misgiving about the
prompt feeding of his horse at the proper
time, nor apprehensions of the horse be-
5 ing robbed of his feed or neglected by the
hostler.

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

The arrangement of the box B, lid L,

spring I, and catch a, with sliding plate K, 10
dial D, notch n, and button E united to-
gether substantially in the manner and for
the purpose herein set forth.

ALBERT GOODYEAR, 2d.

Witnesses:

ALFRED GOODYEAR,

LEVERETT HITCHCOCK.