

1,372,533.

S. MOORE.
HEN MARKER.
APPLICATION FILED AUG. 25, 1919.

Patented Mar. 22, 1921.
2 SHEETS—SHEET 1.

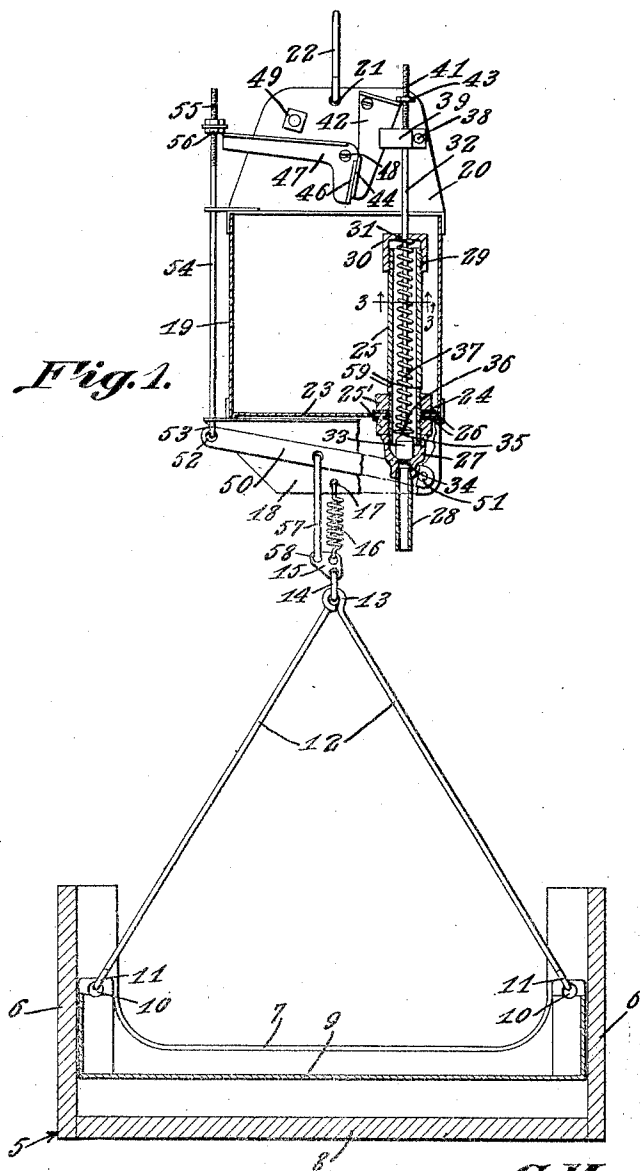


Fig. 1.

S. Moore, Inventor

Witness

[Signature]

By *Ca Snow & Co.*
Attorneys

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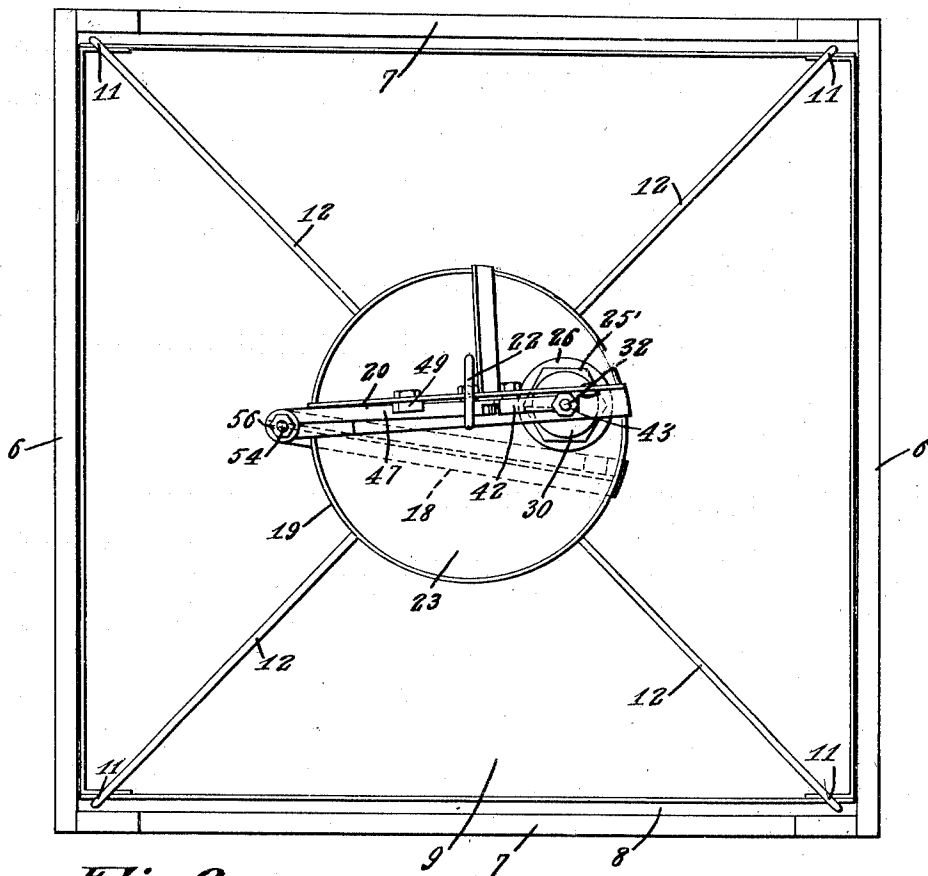
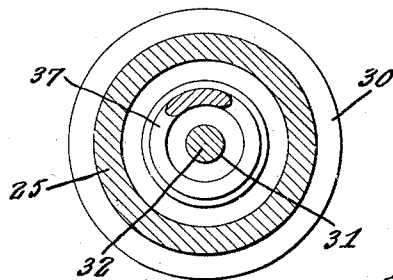


Fig. 2.

Fig. 3.



S. Moore, Inventor

Witness

R. J. Allen

By *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

SILAS MOORE, OF PALO ALTO, CALIFORNIA.

HEN-MARKER.

1,372,533.

Specification of Letters Patent.

Patented Mar. 22, 1921.

Application filed August 25, 1919. Serial No. 319,544.

To all whom it may concern:

Be it known that I, SILAS MOORE, a citizen of the United States, residing at Palo Alto, in the county of Santa Clara and State of California, have invented a new and useful Hen-Marker, of which the following is a specification.

This invention relates to a device used in combination with hens' nests, and more particularly to devices for marking a hen at the time of laying, to indicate the laying hens of a flock.

The primary object of the invention is to provide a device of this character which will be purely automatic in its operation, and one which will mark by dropping a predetermined quantity of colored fluid onto the back of a fowl, to enable an attendant to segregate the laying hens from the non-laying fowls.

A further object of this invention is to provide a marker of this character which will operate by the weight of the fowl entering the nest.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made without departing from the spirit of the invention.

Referring to the drawings:—

Figure 1 is a side elevational view partly in section, of a device constructed in accordance with my invention.

Fig. 2 is a top plan view of the same.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Referring to the drawings in detail, reference character 5 indicates a nest casing having the end walls 6, side walls 7, and the bottom wall 8.

Supported within the casing is an auxiliary nest tray 9 which is of a size equal to the interior area of the casing 5, the end walls of said auxiliary tray being apertured as at 10 to receive the hooked portions 11 of the supporting rods 12, the upper ends of said supporting rods being provided with hooked members 13, which are embraced by the ring 14, which extends through the eccentric link 15 for connecting the rods 12 to the supporting spring 16, which as shown

has its upper end extending through the aperture 17 provided in the depending flange 18 forming a part of the tank casing, to be hereinafter more fully described.

As shown by Fig. 1 of the drawings, the rods 12 support the auxiliary tray 9 in spaced relation with the bottom 8 of the nest proper, so that the tray 9 may move vertically within nest 5, a predetermined distance, thereby permitting of the operation of the liquid dispensing mechanism, to be hereinafter more fully described.

A fluid tank 19 is suitably supported above the nest, and is provided with an upwardly extending flange 20, which is provided with an opening 21 to receive the hook member 22 for securing the tank 19 to its support.

As shown, the tank 19 is preferably circular in formation, and is provided with a bottom wall 23 which is apertured as at 24 to receive one end of the tube 25, the lower end of which extends through the aperture 24 being threaded to receive the gaskets 26, which are held into close engagement with the bottom 23 of the tank by means of the lock nuts 25', the lower end of said tube 25 extending below the lower lock nut to receive the threaded connection 27, which supports the discharge tube 28 in operative relation with the tube 25.

The upper end of the tube 25 is threaded as at 29 to receive the threaded portion of the cap 30, which is apertured as at 31 to allow the operating rod 32 to pass there-through. This operating rod, has one of its ends positioned within the tube 25, said end provided with the valve member 33, secured thereon by means of the nut 34, and prevented against longitudinal movement on said rod 32, by means of the nut 35.

A washer 36 engages the nut 35 and acts as an abutment for the lower end of the coil spring 37, which is of a length substantially equal to the length of the tube 25 and its cap 30, the upper end of said coil spring 37 engaging the inner surface of the cap 30, for normally holding the valve 33 to its seat within the connection 27.

Supported on the flange 20 by means of the rivet 38, is a cleat 39, which is provided with an opening 40 forming a guide way for the upper end of the rod 32, which as shown is threaded throughout the portion of its length, as at 41, to receive the adjusting nut 43.

Supported adjacent the rod 32, and eccentrically pivoted to the flange 20, is the lever 42, which has one of its edges engaging the adjusting nut 43, the opposite end thereof having a flattened surface 44 which coöperates with the flattened surface on the end 46 of the right angled lever 47, which is also eccentrically pivoted to the flange 20, as at 48, so that movement of the arm 47 will produce a relative movement of the lever 42, the stop 49 secured to the flange 20 being for the purpose of restricting movement of the arm 47.

The lever 50 has one of its ends pivotally connected to the depending flange as at 51, the opposite end extending laterally and terminating at a point beyond the vertical plane of the side wall 19, and is provided with an eye 52, which accommodates the hooked end 53 of the rod 54, which has its upper end threaded as at 55 to receive the adjusting nut 56, which in turn engages the free end of the arm 47 for transmitting movement thereto.

The lever 50 has connection with the eccentric link 15, through the rod 57, which has one of its ends extending through an opening in the lever 50, the opposite end extending through the opening 58 of the eccentric link 15.

It will therefore be seen that movement of the rods 12, caused by weight in the auxiliary tray, causes the arm 50 to move downwardly, thereby transmitting movement to the various levers and rods of the invention.

Adjacent the bottom of the tube 25, are the openings 59, which provide communication between the interior of the tube 25 and the tank 19, whereby fluid is supplied to the tube 25.

The operation of my device is as follows: The device, is normally held in the position as indicated by Fig. 1 of the drawings, but when a fowl enters a nest, the nest moves downwardly under the weight thereof, with the result that the rod 54 is moved downwardly, carrying with it the arm 47, which in turn moves the end 46 so that the flattened portion 46² and the flattened portion 44 of the lever 42 engage, moving the rod 32 vertically, which has connection with the lever 42 through the adjustable nut 43, with the result that a predetermined quantity of fluid, which is preferably colored a bright color so that the same will be visible on the back of a fowl, is dropped onto the fowl which is on the nest.

In the operation of the device, the tray 9

moves downwardly under the weight of a bird entering the nest, with the result that the arm 50 is moved downwardly, carrying the rod 54 downwardly, the nut 56 moving one end of the arm 47 to a position adjacent the upper wall of the tank 19 or to a position where the nut 56 disengages the arm 47.

When the arm 47 is moving downwardly, it is of course obvious that the lever 42, and more particularly the edge thereof which engages the nut 43, is moved upwardly, moving the rod 32 in a relative position to cause fluid to be dispensed through the tube 28, the coiled spring 37 acting to reseal the valve member 33 when the nut 56 and arm 47 have become disengaged.

When the bird leaves the tray 9, the coiled springs 16 come into play to move the nut 56 to a position above the arm 47 where the same is in a position to again move the arm 47 downwardly, to cause the dispensing of liquid through the discharge tube 28 when weight is directed to the tray 9.

It is of course obvious that by adjusting the nuts 43 and 56, longitudinally of the rods on which the same are supported, the quantity of fluid discharged from the tube 25, may be regulated to suit the will of the attendant.

Having thus described my invention, what I claim is:—

In a marking device, a liquid dispensing apparatus, including a supply tank, a tube disposed within the tank and having lateral openings providing communication between the tube and tank, a rod operating in the tube and carrying a valve member on one end thereof for normally closing the lower end of the tube, a lever pivotally connected to the tank, a rod having connection with the lever, said rod having a threaded upper end, an adjusting nut on the threaded end, an arm pivotally connected to the tank and having one end contacting with the adjusting nut but releasable therefrom after a limited movement of the rod and arm, a lever contacting with the arm, and adjustable means on one end of the first mentioned rod and contacting with the lever, whereby movement of the arm and lever operates the valve member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SILAS MOORE.

Witnesses:

LORA FOUBURG.
VERONA PRICE.