July 9, 1929. M. E. FENNER 1,719,974

CARRIER AND DROPPING BOARD FOR POULTRY

Filed Feb. 10, 1928

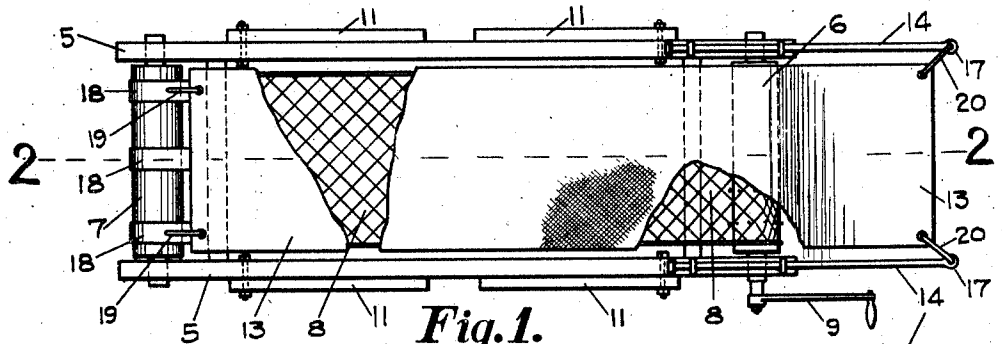


Fig. 1.

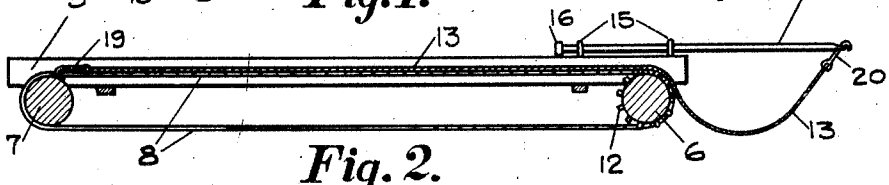


Fig. 2.

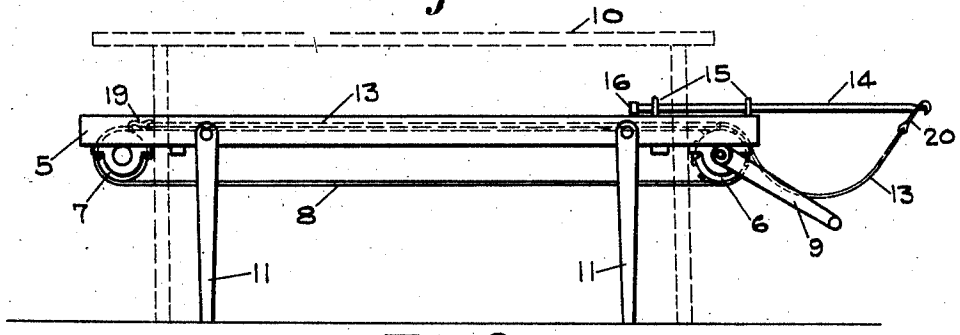


Fig. 3.

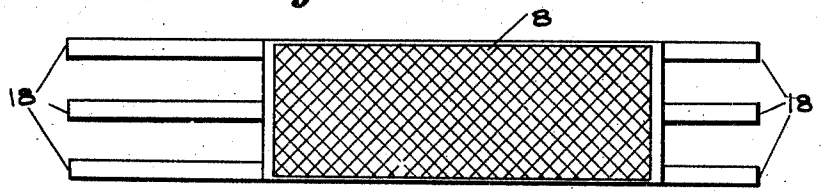


Fig. 5.

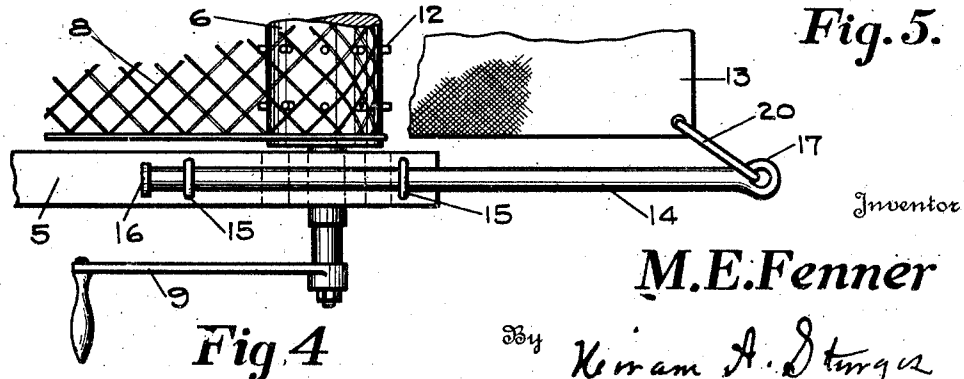


Fig. 4

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UNITED STATES PATENT OFFICE.

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CARRIER AND DROPPING BOARD FOR POULTRY.

Application filed February 10, 1928. Serial No. 253,385.

This invention relates to a conveyor and dropping-board for poultry roosts, and has for its object, broadly, to provide a device which may be used in poultry houses generally, and may be placed beneath the roosts for collecting and removing trash, excrement or vermin therefrom.

One of the specific objects of the invention is to provide a device for the above purposes which may be kept in a sanitary condition.

Another object is to provide a device for these purposes which will consist of separable parts which may be conveniently assembled and will be convenient in operation.

Still another object is to provide a flexible conveyor including a fabric protecting-sheet, which collects all droppings or excrement, and which may be subjected to any suitable cleaning process, such as scrubbing, scouring washing, boiling and cleaning, so that vermin may be destroyed and parts maintained in a sanitary condition.

With the foregoing objects in view and others to be mentioned hereinafter the invention presents a new and useful construction, combination and arrangement of parts as described herein and claimed, and as illustrated in the accompanying drawing, it being understood that changes may be made in size, form, proportion of parts and minor details, said changes being within the scope of the invention as claimed.

In the drawing Fig. 1 is a plan view of the invention, parts being broken away, the legs for the frame being shown in folded position. Fig. 2 is a view in longitudinal section of the device on line 2—2 of Fig. 1. Fig. 3 is a side view of the device. Fig. 4 is an enlarged detail showing one of the arms and an arrangement for one of the fastening devices for removably securing the cover to the flexible web. Fig. 5 is a plan view of the flexible web.

In order that the objects first mentioned may be attained I provide a frame including a pair of side-strips 5, said frame preferably being of rectangular form. Numerals 6 and 7 indicate rollers disposed transversely of the frame with its ends preferably journalled in the side-strips 5.

Numeral 8 indicates a flexible web preferably constructed of wire netting and operating as a conveyor or carrier. It is mounted on the rollers 6 and 7, and by means of a crank 9 the roller 6 may be rotated for moving the flexible web, the roller 7 operating as an idler to facilitate the movement of the web.

While I have shown wire netting used for the web 8, any other material may be used.

A roost for the fowls is shown by broken lines in Fig. 3 of the drawings and indicated at 10, and, in the use of the device it is placed below the roost, the frame being provided with legs 11 which may rest upon the ground or other support.

As thus described the web, by use of the crank, may be moved longitudinally between and parallel with the side-strips 5 either forwardly or rearwardly, the roller 6 having a rugose surface so that it may be effectively engaged by said roller to cause its longitudinal movement, and if desired the roller may be provided with projections, pegs or pins 12 so that the flexible web will have a positive movement by the rotatable movement of said roller.

Numeral 13 indicates a flexible cover which is disposed upon the flexible web. It may consist of canvas, heavy muslin or other flexible material. It has a width and length corresponding approximately to the frame, and any suitable arrangement may be made for securing it to the flexible web in such a manner that it may be conveniently attached at one of its ends thereto and that it may be conveniently detached therefrom, the preferred arrangement to be presently described.

The function discharged by the flexible web 8 is to support the cover, and to be movable for moving the cover forwardly to permit removal so that it may be cleaned, and to be moved rearwardly after a clean cover has been attached thereto.

Numerals 14 indicate a pair of arms disposed on the side-strips 5 at the front end thereof and adapted to have sliding movements thereon to project forwardly. These arms may have any suitable mounting on the strips 5 to permit sliding movements, the means provided herein being a pair of staples 15 which are secured to the strips 5. Each arm is provided with a terminal lug 16 operating as a stop-member for limiting its outward sliding movement, and the outer end of each arm is provided with an eye or loop 17, and as described, these arms may be moved manually, their outward sliding movements being somewhat outwardly of the end of the frame.

The flexible web 8 may, of course, consist wholly of wire netting, but as a matter of convenience I have used flexible straps 18 for parts of this carrier, said straps extend-

ing from the ends of the wire netting or screen as best shown in Fig. 5 of the drawing and suitably secured thereto, and the straps at the respective ends of the screen or netting being suitably connected to provide an endless carrier for the mounting on the rollers as mentioned.

One of the ends of the flexible cover is provided with hooks 19 adapted to be removably secured to the flexible web or carrier 8, the opposite end of the cover being provided with hooks 20 adapted to be removably attached to the eyes or loops 17 of the arms 14.

In the use of the device two covers 13 should be used so that a clean cover may be substituted for a cover which has been soiled.

In operation, the hooks 19 are used for securing the one end of the cover to the carrier or flexible web, the hooks being caught therein. By use of the crank, the roller 6 is rotated in one direction for moving the carrier and cover longitudinally of the frame so that the cover will be superposed above the frame.

When the cover thus disposed has become befouled by deposits or droppings of excrement and in order that the poultry house may be rendered sanitary, the cover is removed, and for this purpose the arms 14 are manually moved outwardly from the end of the frame and the hooks 20 are connected with the eyes or loops 17 of the arms. The roller 6 is then rotated in such a direction that the carrier together with the cover will be moved toward the arms 14, the cover being deposited in a plane between the outer ends of the arms 14 and the adjacent end of the frame.

The use of the arms in the operation last described is an important feature for the reason that the dry and loose excrement on the cover 13 will be held thereby. In the last described operation the arms 14 will support one end of the cover and the remaining part of the cover together with the excrement thereon will be conveyed toward said arms. Since the cover is flexible it will become partly folded and will assume a form substantially of U-shape while moving downwardly, and, as mentioned, the loose excrement will be retained in the U-shaped cover, one end of the cover being supported by the arms and its opposite end being supported by the carrier.

The cover, after the hooks have been detached from the carrier and from the arms, may be removed and then be cleaned by any suitable means.

The object in view in providing the foldable feature for the legs is to facilitate shipments. The invention presents a device which is complete. When packing the device for shipment they may lie one upon the other to occupy a limited space, the legs being moved to a folded position.

For use the legs may be extended and said device may be placed in a horizontal position beneath the roost for maintaining a poultry house in a sanitary condition.

I claim as my invention,—

1. In a dropping-board for poultry roosts, a frame, means for supporting said frame, rollers supported by the frame at each end thereof, a flexible web carried by said rollers, a flexible cover having one end detachably carried by said web and its other end detachably carried by said frame, and means for operating said rollers.

2. In a dropping board for poultry roosts, a frame, means for supporting said frame, spaced rollers mounted in the frame, a flexible web carried by said rollers and adapted to move therewith, arms attached to and sliding on one end of the frame and on each side thereof and adapted to extend beyond the end of said frame, a flexible cover having its ends detachably secured to said web and said arms respectively, and means for moving said rollers and the flexible cover to fold up said cover.

3. In a dropping board for poultry roosts, a frame, a flexible strip detachably connected at one end to one end of the frame and adapted to be stretched toward the other end of the frame, spaced rollers in the frame, a web mounted on the rollers for engagement beneath the strip to support the same in flat position, the other end of said strip adapted for detachable connection to the web, and means for operating the rollers for moving the web in one direction to stretch the strip over the web and for moving the web in an opposite direction to loop the strip downwardly from said first end of the frame.

In testimony whereof, I have affixed my signature.

MINER E. FENNER.