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K. F. O. HAACK
HUTCH FOR SMALL ANIMALS

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FIG 1

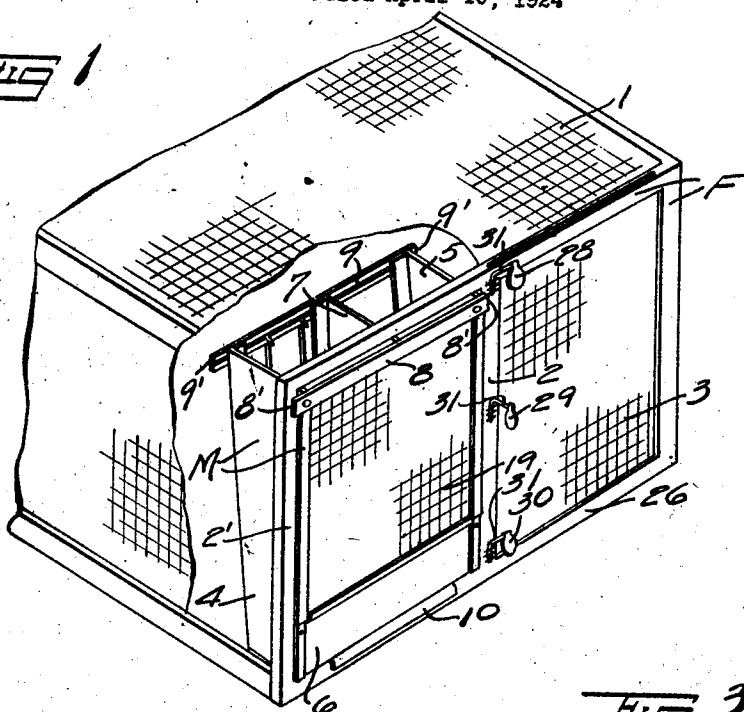


FIG 2

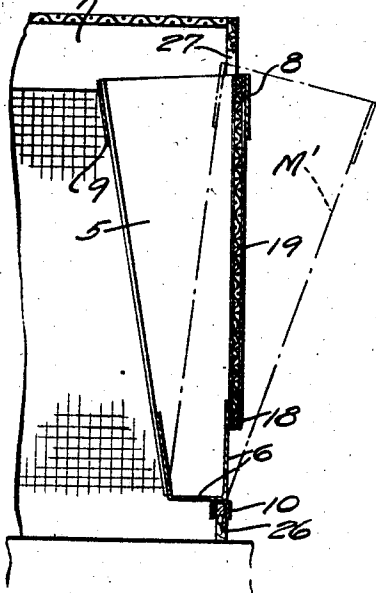
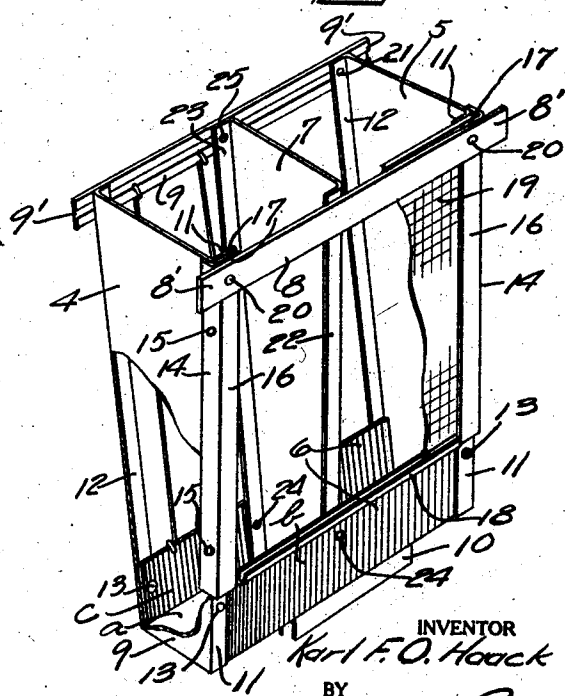


FIG 3



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HUTCH FOR SMALL ANIMALS.

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To all whom it may concern:

Be it known that I, KARL F. O. HAACK, a citizen of the United States, and a resident of Jersey City, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Hutches for Small Animals, of which the following is a specification.

My invention relates to hutches for small animals, and its main object is to provide a hutch having a new and improved construction of manger, the advantages of which will become apparent as the specification proceeds. Another object of my invention is to provide movable signals on a hutch for visually indicating, by merely swinging a signal forward, certain predetermined information concerning the animal in the hutch.

A preferred embodiment of my invention is illustrated in the accompanying drawings, in which

Fig. 1 is a perspective view of a hutch equipped with my invention;

Fig. 2 shows a vertical cross-section through the manger; and

Fig. 3, a detached perspective of the manger, certain parts being broken away for clearness.

The hutch consists of a box or coop 1 of suitable construction and size for keeping small animals, such as rabbits, and the like. These boxes or coops are usually so built that several may be placed on top of each other. The front of the box is closed by a frame F, which may be hinged at one side, if desired, for swinging as a whole into open and closed position. The frame F, which may conveniently be made of wood, is divided by a vertical strip 2. The opening at one side of this strip (the right side in Fig. 1) is covered by a wire screen 3, while the other opening is for the purpose of receiving an adjustable and removable manger indicated as a whole by M.

Manger M is preferably constructed of sheet metal, and comprises a pair of side pieces 4 and 5, a trough member 6, a partition 7, top strips 8 and 9, and a hinge piece 10 secured to the bottom of the trough. The sides 4 and 5 are provided with inwardly projecting flanges 11 and 12, at the front and rear respectively, arranged to engage the trough 6, to which they are soldered or fastened by rivets 13. The trough 6 is preferably shaped out of a single piece of sheet

metal to form the bottom *a*, the front *b* and rear wall *c*. The sides of the trough are formed by the side pieces 4 and 5 of the manger.

To the front edges of side pieces 4 and 5 are secured angle strips 14 by rivets 15 or otherwise. The front flanges 16 of strips 14 are spaced from the front flanges 11 of sides 4 and 5, as shown in Fig. 3, to form grooves or channels 17, for the purpose that will presently appear. At the top edge of the front wall *b* of trough 6 is a channelled ledge 18, which may conveniently be formed integral with wall *b* by bending the metal downwardly and then forwardly. Ledge 18 is in line with the grooves 17 formed by the spaced flanges 11 and 16. A screen-covered frame 19, preferably of sheet metal, fits into the side grooves 17 and channel 18, and is thus supported between the sides 4 and 5 to cover the front of the manger, the bottom of the frame resting in the channel of ledge 18. The screen 19 is easily slid into place, and may be instantly removed when desired.

The cross top strip 8 is secured to the flanges 16 of angle strips 14 by rivets 20, or otherwise, as by solder. For convenience of manufacture, the corner pieces 14 and cross strip 8 are fastened together before the corner pieces are secured to the sides 4 and 5. The rear top strip 9 is attached to the rear flanges 12 of the sides 4 and 5 by rivets 21, or other fastening means, such as solder. The partition 7 has flanges 22 and 23, which are secured to the trough 6 by solder or rivets 24. At its upper end, partition 7 is secured to strip 9 by a rivet 25. The front flange 22 of partition 7 is spaced from the front cross strip 8 to permit the insertion of the screen frame 19, as previously described.

The hinge piece 10, preferably in the form of a short channel bar shaped out of sheet metal, is adapted to rest on the bottom strip 26 of frame F and thereby form a hinge for the manger as a whole. Normally, the manger rests in the position shown in Fig. 1, and shown also in full lines in Fig. 2. This normally closed position of the manger is due to the fact that it is supported along the front edge at the bottom, so that the center of gravity of the manger is at a point back of the line of support. This is apparent from Fig. 2. In the normal position of the manger, the projecting ends 8' of cross strip 8 rest against the uprights 2 and 2' of frame F. When the manger is swung for-

wardly into open position, as indicated by dotted lines M' in Fig. 2, the projecting ends 9' of rear strip 9 strike the posts 2 and 2' and thus constitute a stop as well as a support for the manger in open position. It will be seen from this that it is a very simple matter to swing the manger out, as when it is necessary to fill it with feed for the animals, and then tip it back into closed position. There is sufficient loose play between the channel piece 10 and supporting strip 26 to permit easy swinging of the manger. To remove the manger as a whole from the frame F, it is only necessary to lift the manger from the support 26 and then tilt it at an angle until the projecting ends 8' and 9' can be withdrawn through the opening. It is just as easy to insert the manger within the frame F. The space 27 between the top of the manger and the top of frame F is sufficient to allow the manger to be lifted clear of the supporting piece 26.

It will thus be apparent that I have provided an exceedingly simple construction of manger, one that is easy to insert and remove without the use of tools, easy to swing into open and closed position, and one that requires no fastening devices (such as screws, bolts, etc.) to hold it on the frame of the hutch. In the broader aspect of my invention, the partition 7 is not necessary. I have shown it in the present illustration to divide the manger into two compartments to hold different kinds of feed.

In order to enable an attendant, in his inspection tour of the hutches, to indicate quickly the condition of the animal or animals in any particular hutch, I provide a number of movable signals on the front of the hutch. In Fig. 1, there are three signals 28, 29, 30, of different colors having different predetermined meanings. Signal 28 is red and may signify (let us say) that the rabbit in the hutch is sick; signal 29 is white and may mean that the rabbit has young ones; signal 30 is blue and may convey any other prearranged information. Each signal comprises a color disk hung from a bent wire 31, which is pivoted to the post 2 by staples or otherwise. Normally, the signals lie flat against the frame, like signals 28 and 30 in Fig. 1. To use a signal for carrying the intended information to the person in charge of the hutches, the attendant merely swings out the desired signal until it stands about at right angles to the frame, as shown by signal 29 in Fig. 1. In this way the condition of the hutch is easily and quickly communicated to the proper person for immediate attention. This is particularly desirable where many hutches have to be taken care of, as in

breeding rabbits and other small animals for fur purposes. In these cases, the healthy condition of the animals is of the utmost importance to enable the owner to conduct his business at a profit.

What I claim as my invention is:

1. In a hutch, a frame outlining a substantially rectangular opening, a manger pivoted on said frame within said opening, said manger being formed of sheet metal and comprising a U-shaped trough at the bottom, a downwardly extending channel piece secured to the bottom of said trough and arranged to straddle the bottom strip of said frame, whereby said channel piece forms a hinge for the manger, a pair of upright sides secured to said trough and forming the ends thereof, and a pair of cross strips connecting said sides at the top along the front and rear of the manger, said cross strips projecting beyond said sides to engage said frame and thereby form positive stops to hold the manger in closed and open positions.

2. In a hutch, a pivoted manger constructed of sheet metal and comprising a bottom trough having the front top edge bent forwardly to form a supporting ledge, a pair of sides secured to said trough and having inwardly extending flanges at the front edge, a pair of angle strips secured to said sides and having flanges spaced from said inwardly extending flanges on the sides, said pairs of spaced flanges forming guide channels in line with said supporting ledge, a frame removably supported in said channels and on said ledge, and stops on said manger to hold it in closed and open positions.

3. In a hutch, a pivoted manger constructed of sheet metal and comprising a bottom trough having the front top edge bent forwardly to form a supporting ledge, a downwardly extending channel piece secured to the bottom of said trough to form a hinge support for the manger, a pair of sides secured to said trough and having inwardly extending flanges at the front edge, a pair of angle strips secured to said sides and having flanges spaced from said inwardly extending flanges on the sides, said pairs of spaced flanges forming guide channels in line with said supporting ledge, a frame removably supported in said channels and on said ledge, a cross strip secured to said angle strips at the top, and a cross strip secured to said sides at the rear top edge, said cross strips projecting beyond said sides to form stops for holding the manger in closed and open positions.

KARL F. O. HAACK.