Dec. 29, 1936. C. O. JESSEN 2,065,923

MAGAZINE FLOOR COVER FOR BIRD CAGES

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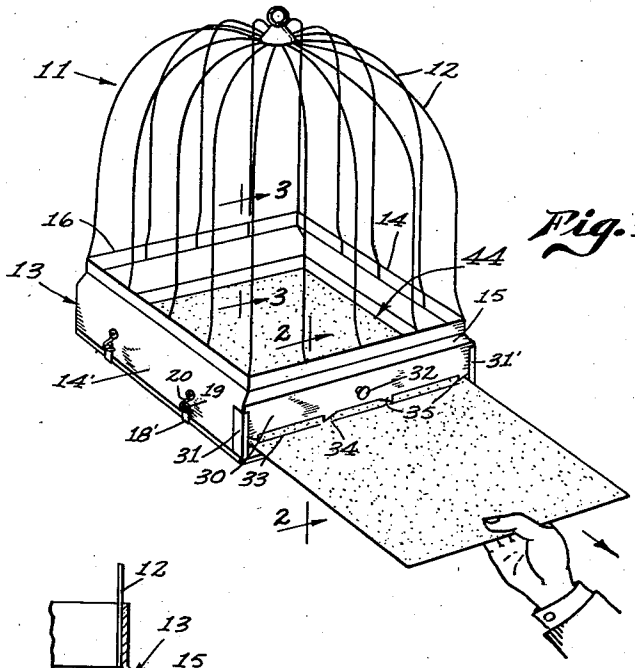


Fig. 1.

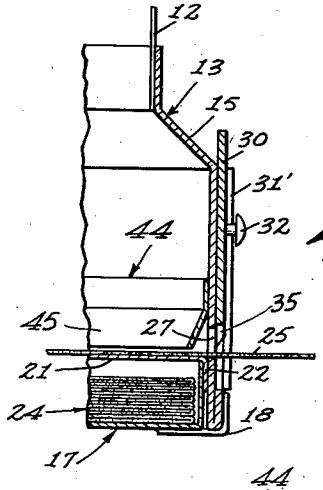


Fig. 2.

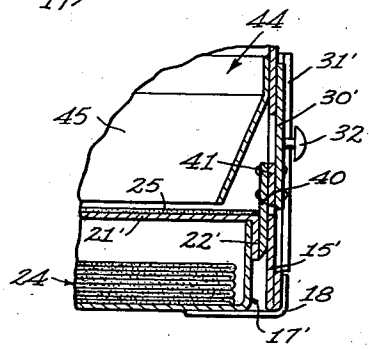


Fig. 4.

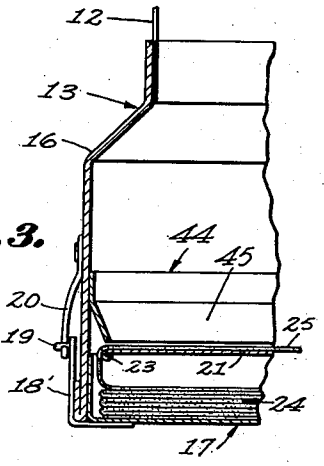


Fig. 3.

Inventor

Conrad O. Jessen

By Russell Cushman

Attorney

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MAGAZINE FLOOR COVER FOR BIRD CAGES

Conrad O. Jessen, Los Angeles, Calif.

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4 Claims. (Cl. 119—17)

This invention relates to bird cages and has as its primary object the provision of means to facilitate the cleaning of such cages. The invention is more particularly concerned with means for removing the paper covering from the bottom or floor of the bird cage and automatically re-covering the floor with clean paper.

As is well known, the bottom or floor of a bird cage is provided with a paper covering to receive the droppings and the seed spilled in the cage, and it is the usual practice to change this paper from day to day. In some types of construction this is effected by completely removing the bottom or floor portion of the bird cage and replacing the paper with a new sheet. In other types of construction the bottom of the cage is provided with a tray which is slidable outwardly through a slot which is provided with a door. Due to the various shapes in which these cages are manufactured, it is necessary that the paper be cut specially to fit into the particular cage which in itself is a time consuming operation, and in the event the cage is provided with a slidable tray there is always a tendency for the paper to curl or jam as it is being slid into or out of the cage. This frequently results in spilling the material on the paper when it is being withdrawn and the inserted paper, due to this curling or jamming action, may be torn or wrinkled so that it cannot be used and must be replaced.

It therefore becomes a primary object of this invention to provide a bird cage with a magazine or other suitable source of supply in which an elongated sheet of paper is associated with the bottom of the bird cage and arranged so that as the used sheet of paper is withdrawn a fresh sheet is drawn into place. The sheet of paper may be provided with transverse perforations spaced apart longitudinally along the sheet at a distance corresponding substantially to the length of the bird cage, which facilitates tearing or removing the used section or sheet from the main strip after it has been withdrawn.

To facilitate the withdrawal of the used sheet of paper, I provide a bottom frame portion of the cage with a slot or opening situated in a plane on substantially the same level as the floor which carries the paper, and in a preferred form of my invention this slot or opening is associated with a door or closure, such door being provided with means to cut or shear the used section of the paper from that remaining in the cage.

To make for a compact construction I prefer to employ a box or magazine which fits into the bottom frame section of the bird cage, such magazine having a cover plate which forms the bottom for the cage. The paper is placed in this box or magazine in folds, the length of the fold being substantially the same as the length of the bird cage. The rear portion of the cover plate is spaced away from the back side of the magazine or box and is provided with a rolled lip over which each successive fold of the paper may be drawn to form a cover for the bottom of the cage. As each crease of the paper comes into engagement with the rolled edge, it offers a slight resistance to the pulling movement so that the operator knows that the paper has been drawn to the proper position. The creases may, as was pointed out above, be provided with perforations to facilitate the removal of a withdrawn sheet or fold in the paper.

The details in the construction of a preferred form of my invention, together with other objects attending its production, will be best understood from the following description of the accompanying drawing, which is chosen for illustrative purposes only, and in which:

Fig. 1 is a perspective view illustrating the construction and operation of a preferred form of my invention;

Fig. 2 is an enlarged sectional elevation in a plane corresponding to the line 2—2 of Fig. 1;

Fig. 3 is an enlarged sectional elevation taken in a plane corresponding to the line 3—3 of Fig. 1; and

Fig. 4 is an enlarged sectional elevation similar to Fig. 2 and showing a modified form of door construction.

More particularly describing the invention as herein illustrated, reference numeral 11 indicates a bird cage formed of wires 12 which are secured at their lower ends in what I may term a bottom frame 13. The bottom frame 13 is formed of side rails 14 and 14', a front rail 15 and a rear rail 16.

The frame 13 has an open bottom into which a box or magazine, generally indicated by reference numeral 17, is adapted to fit. This box or magazine may be held in place in the frame 13 in any suitable manner. In the form shown, the box is provided with a plurality of outwardly extending angles 18 which are adapted to fit over the various rails of the frame. The angles 18', which fit over the sides of the frame, are provided with pins 19 which are engaged by hooks 20 mounted on the side rails of the frame and designed to secure the bottom box or magazine in place.

The magazine or box 17 is provided with a

cover plate 21 which constitutes a bottom for the bird cage when the magazine is secured in place. This cover plate has at its forward edge a downwardly projecting flange 22 which fits over the forward edge of the box or magazine, and the rear edge of the cover plate is provided with a rolled lip 23 and, as is clearly shown in Fig. 3, is spaced away from the rear portion of the box or magazine a slight distance.

Reference numeral 24 indicates an elongated sheet of paper which has a width corresponding substantially to the width of the bird cage and is folded in lengths which correspond substantially to the length of the bird cage, so that one fold or sheet of the paper, indicated at 25, may be drawn over the rolled lip 23 and across the cover plate or the bottom of the bird cage to provide a cover therefor.

The front rail 15 of the frame 13, which is located opposite the rolled lip 23, over which the paper is drawn, is provided with a slot or opening 27. This opening is located in a plane at substantially the same level as the cover plate 21 which forms the floor of the bird cage, so that when it is desired to change the paper it is merely necessary to grasp the edge of the paper through the slot 27 and pull the same forward until that portion of the paper which has been on the bottom of the cage has been completely withdrawn. This operation automatically brings a clean sheet of paper from a magazine into the bottom of the bird cage.

The withdrawn sheet can be torn off or cut away in any suitable manner but, to facilitate the changing operation, I propose to incorporate means for cutting the paper in a door 30 which is provided for the purpose of closing the slot or opening after the paper has been changed. The door 30 is shown as being slidably mounted in guide members 31 and 31' mounted on the ends of the front rail 15, and it is provided with a knob or handle 32 by means of which it can be worked up and down.

If desired, the paper can be provided with the conventional type of perforations and the bottom edge of the door can be made straight so that the paper can be pulled or torn in the usual manner across the edge of the door. The perforations merely facilitate the tearing of the paper and can if desired be omitted. However, in order to avoid a waving motion in the paper, which ordinarily accompanies the tearing action, I consider it preferable to form the same so that it is positively cut when the door is closed. This prevents spilling the material on the paper as would be occasioned by a so-called waving motion.

This object is accomplished in one form of my invention by providing the paper with elongated perforations 33 formed with relatively short spaces 34 therebetween. The perforated areas are spaced apart longitudinally along the sheet and are preferably positioned in the creases of the paper so that, when one fold occupies the rear edge of the cover plate 21 and is engaged by the rolled lip 23, the forward perforation is situated beneath the lower edge of the door 30. In this type of construction, as is clearly illustrated in Fig. 1, the door 30 is provided with a plurality of downwardly projecting teeth or blades 35 which are positioned so as to lie directly above the unperforated areas 34 in the paper. As the door is pushed downwardly, these teeth or projections cut the unperforated areas of the paper and free the withdrawn section from the remainder of the elongated sheet.

In the modified form of the paper cutting mechanism shown in Fig. 4, I provide the door 30' with a paper cutting blade 40 which is secured to the interior of the door in any suitable manner and is spaced away therefrom by means of a spacing plate 41 at a distance corresponding to the thickness of the front rail 15'. In this construction the blade 40 is adapted to slide downwardly against the inner face of the rail 15' and the magazine 17' is made of a length such that the outer face of the flange 22' on the cover plate 21' is spaced away from the inner face of the rail 15' a distance corresponding substantially to the thickness of the blade 41. In this construction, when the door is closed the blade travels downwardly in the slot or opening between the members 22' and 15', thereby shearing the paper and freeing the withdrawn portion from the fresh portion on the cover plate or floor of the cage.

In order to improve the appearance of the cage floor and prevent seed falling into the magazine, and also to provide a guide for the paper which will prevent its curling, etc., I provide the interior of the bottom frame 13 with a molding, generally indicated by reference numeral 44. This molding 44 is preferably in the nature of metal strips secured to the inner faces of the rails forming the frame 13 in any suitable manner and having inwardly projecting lips 45 which extend over the edges of the paper.

It will be apparent, from the foregoing description, that my invention lends itself readily to bird cages of various sizes and shapes. In the event of a circular, oval or polygonal bird cage, the folds of the paper can be die cut to the shape desired and can be easily rolled from the magazine over a suitable lip or edge and across the floor of the cage to provide a cover therefor.

It is to be understood that, while I have herein described and illustrated certain preferred forms of my invention, the invention is not limited to the precise construction described above but includes within its scope whatever changes fairly come within the spirit of the appended claims.

I claim as my invention:

1. In a bird cage having an open bottom frame with a slot in one end thereof: a paper holding magazine releasably mounted in the open portion of said bottom frame forming a closure for said frame; a cover plate on said magazine adapted to form a bottom for said cage; an elongated sheet of paper folded in lengths corresponding to the length of said magazine and contained therein, the edge of said cover plate at the end of the cage opposite said slot being spaced away from the end of said magazine whereby said paper can be drawn over said cover plate and through said slot; and means for cutting said paper.

2. In a bird cage having an open bottom frame with a slot in one end thereof: a paper holding magazine releasably mounted in the open portion of said bottom frame forming a closure for said frame; a cover plate on said magazine adapted to form a bottom for said cage; an elongated sheet of paper folded in lengths corresponding to the length of said magazine and contained therein, the edge of said cover plate at the end of the cage opposite said slot being

spaced away from the end of said magazine whereby said paper can be drawn over said cover plate and through said slot, and a door mounted on said frame adjacent said slot for closing said slot, said door being provided with paper cutting means.

3. In a bird cage having a bottom frame with a slot in one end thereof: a box mounted in said bottom frame; a cover plate on said box adapted to form a bottom for said cage; an elongated sheet of paper folded in lengths corresponding to the length of said box and contained therein, the edge of said cover plate opposite said slot being spaced away from the end of said box whereby said paper can be drawn over said cover plate and through said slot, and a door mounted on said frame adjacent said slot, said paper being provided with groups of transverse spaced perforations at longitudinally spaced intervals therealong; and means on said door for cutting the paper between each of the perforations in each group.

4. In a bird cage having a bottom frame with a slot in one end thereof: a paper holding magazine releasably mounted in said bottom frame; a cover plate on said magazine adapted to form a bottom for said cage; an elongated sheet of paper folded in lengths corresponding to the length of said magazine and contained therein, the edge of said cover plate at the end of the cage opposite said slot being spaced away from the end of said magazine whereby said paper can be drawn over said cover plate and through said slot; a door mounted on said frame adjacent said slot; and a paper cutting blade mounted on said door.

CONRAD O. JESSEN.