

April 11, 1967

R. E. BOLZ

3,313,038

PELT DRYING FRAME

Filed Jan. 9, 1964

2 Sheets-Sheet 1

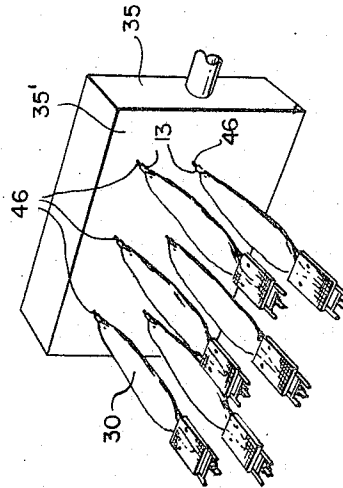
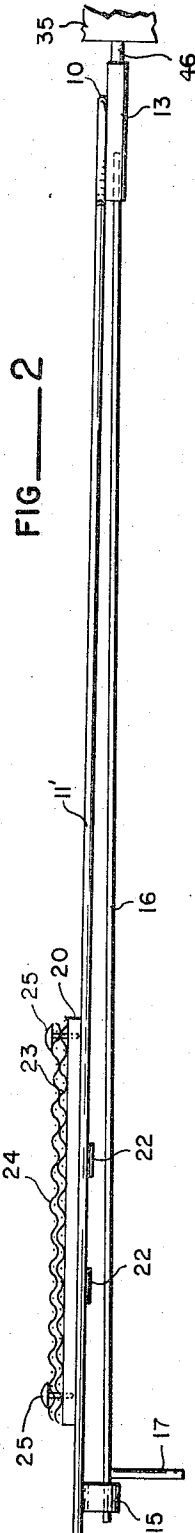
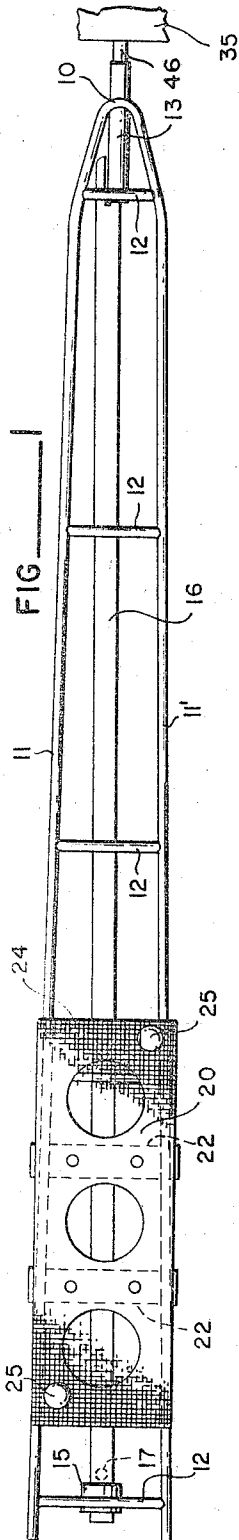


FIG 1

FIG 2

FIG 3

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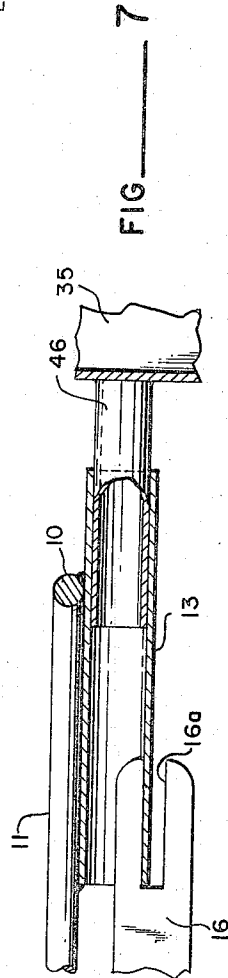
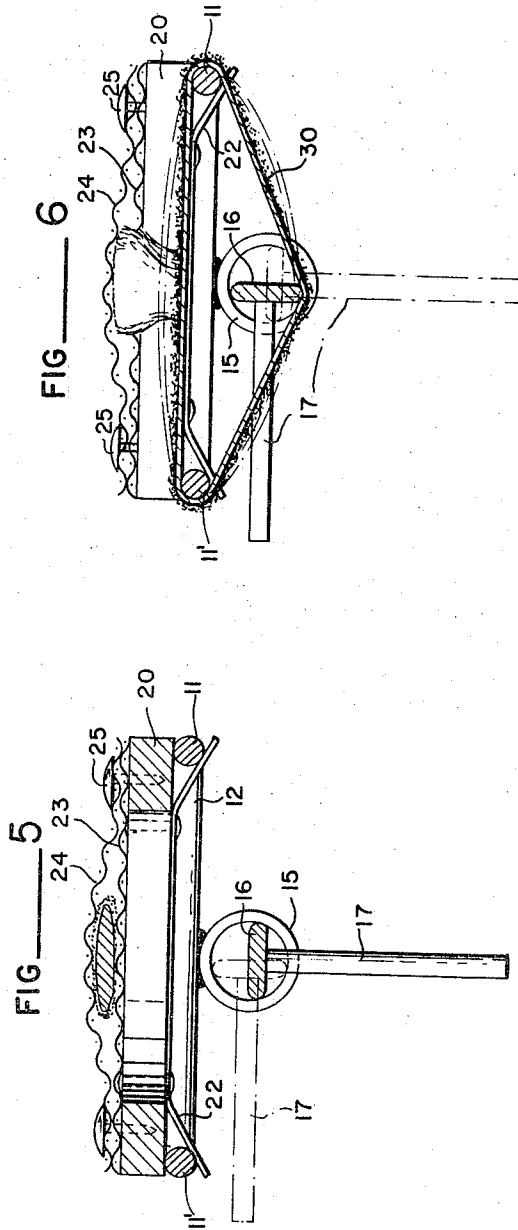
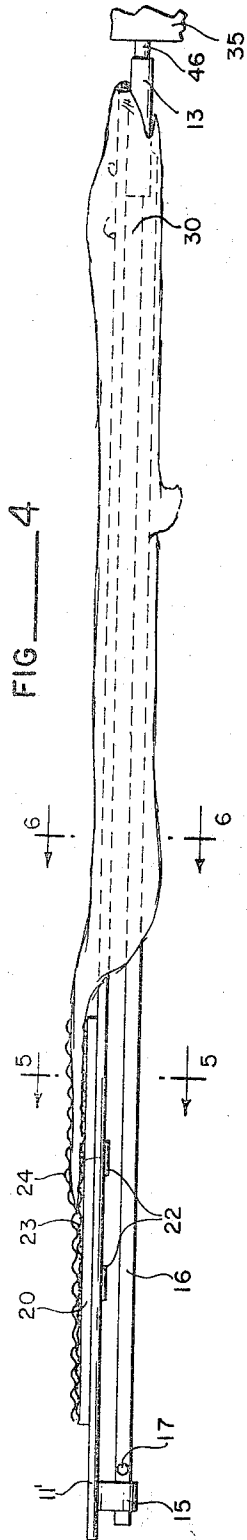
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2 Sheets-Sheet 2



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PELT DRYING FRAME

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Filed Jan. 9, 1964, Ser. No. 336,723

7 Claims. (Cl. 34-103)

This invention relates to an improved method and means of pelt drying and in a novel frame employed for use in the drying of pelts, particularly for the drying of the pelts of mink and similar fur bearing animals. More particularly, the invention resides in the manner of applying air to expedite the drying operation and in a novel form of frame over which a fresh pelt may be stretched for drying.

It is the principal object of this invention to provide an improved form of pelt holding frame designed for use in conjunction with a drying air supplying manifold; said rack embodying novel features of construction that effect the opening, holding and stretching of the pelt, as applied to the frame, for a ready flow of humidified drying air therethrough, and which provides for the ready loosening adjustment of parts of the frame for an easy removal therefrom after its drying has been accomplished.

A further object of this invention is to provide a drying air supplying manifold, equipped with a multiplicity of discharge nozzles to each of which a pelt mounting frame of this invention may be readily applied for the desired reception and application of drying air to a pelt that is applied to the frame.

Further objects and advantages of the invention reside in the construction of the present improved drying frame of metal or non-absorbent material and their combination and use with the present air supplying manifold for an expeditious and practical pelt drying operation.

In accomplishing the above mentioned objects, I have provided drying air supplying means, and a novel pelt stretching and holding frame embodying improved details of construction; the preferred forms of which are illustrated in the accompanying drawings, wherein:

FIG. 1 is a top view of the pelt drying frame of the present invention.

FIG. 2 is a side or edge view of the frame of FIG. 1.

FIG. 3 is a view showing the mounting of pelt drying frames on the air supplying manifold.

FIG. 4 is a side view of the frame with a pelt applied thereto for drying.

FIG. 5 is an enlarged, cross-section of the frame, taken on line 5-5 in FIG. 4.

FIG. 6 is an enlarged, cross-section of the frame taken on line 6-6 in FIG. 4, illustrating the action of the adjustable pelt tightening and stretching bar.

FIG. 7 is a sectional detail showing a portion of an air supplying manifold and the application of the tubular mounting stem of a pelt drying frame of this invention thereto.

Referring more in detail to the drawings:

First, as matter explanatory to the invention, it will here be mentioned that the removal of a pelt from an animal, such as a mink, is preceded by the cutting off of the front legs of the animal at the knee joints and the slitting of the hide directly across the rump between the hind legs. Then, by suitable means well known in the art, the animal's rear legs and tail are pulled free from the enclosing hide. It is then possible to peel the pelt off over the body and from its front legs, and head. The animal carcass is usually discarded for use as fertilizer. The fresh pelt is left in tubular form; the fat is removed therefrom and the pelt then turned to return the fur side outward, preparatory to the application of the pelt to the present drying frame.

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Heretofore, the process of a fur out pelting has consisted of pulling the fresh pelt over a flat, wooden slat of dimensions designed to draw it taut. Then the slat is applied at one end to an air delivery manifold. The disadvantage of using such wooden slats for holding the pelts in drying is due to the fact that the slats, being of absorptive wood, draw and absorb moisture from the pelt and becomes sour. This souring is detrimental both to the pelt and to the slat, requiring that the slat be replaced. The damage to the pelt is usually evidenced by the "slipping" or loss of hair therefrom.

The drying frame of this invention is best shown in FIGS. 1 and 2, wherein it is seen to be constructed mainly of non-absorbent or plastic parts. It comprises an elongated, relatively narrow, flat frame structure with an overall length of approximately 32 inches. This frame comprises a single length of wire that, medially of its ends, is bent back upon itself, in a rounded nose or end as shown at 10, thereby providing opposite side members 11-11' of the same length, these being rigidly joined by cross-rods 12 applied at spaced intervals therealong. This elongated frame, as seen in FIG. 1, has a short length of tubing 12 welded to the forward cross-rod 12 and to the arcuately rounded bend 10 of the rod, thus to fix the tubular member 13 rigidly in the medial longitudinal plane of the flat frame as defined by the side members 11-11'. At the opposite and slightly wider end of the frame, a short cylindrical or ring-like bearing 15 is welded to the cross-rod 12 medially of its ends and in the central, longitudinal plane of the frame. A flat metal pelt stretching bar 16 extends the full length of the wire frame. This bar has one end rotatably contained, as in FIGS. 2 and 4, in the cylindrical bearing 15, and at its opposite end, it is notched as at 16a in FIG. 7, to receive a peripheral portion of the tubular member 13, thus to give support to that end of the bar for its axial rotative adjustment.

Immediately adjacent the cylindrical bearing 15 a short rod 17 is applied through and secured in the bar 16 as a handle member for axially turning about its points of end support, thus to rotatively adjust it from a plane parallel to the plane of the elongated frame, as in FIG. 5, to an edgewise position, as shown in FIG. 6 for tightening a pelt as applied about the frame.

Supported by and adjustable along the drying frame at its wider end as shown in FIGS. 1 and 2, is a flat wooden plate 20 of about 8" in length and having a width corresponding to that end of the frame. This wooden plate 20 is held on and for limited longitudinal adjustment along the laterally spaced rods 11-11' by a pair of spring clips 22-22 fixed transversely to the underside of the plate with their opposite ends yieldingly bearing upwardly against the spaced wire rods 11-11' as in FIGS. 5 and 6. The wooden plate 20 is formed with a plurality of relatively large holes 22' therethrough to give it lightness and less absorptiveness.

Overlying the wooden plate, one upon the other, are two rectangular pieces of screen 23-24, one of which in use may be held in place on the wooden plate by staples or rivets, the other held by thumb tacks 25, as seen in FIG. 1.

With the pelt drying frame or rack so constructed, it is used as follows:

The animal pelt, in tubular form, as designated by numeral 30 in FIGS. 5 and 7, is drawn, with fur side turned out, open end first, over the nose or pointed end 10 of the frame and along to and over the wider end portion until the head end of the pelt engages and is drawn taut over the rounded nose end 10 of the frame as in FIG. 4. The tail and hind legs of the pelt are then drawn taut and placed between the two screens 23 and 24 on the wooden plate 20 which are then secured by application of staples or thumb tacks 25 therethrough and into the plate

20 as in FIG. 5. Adjustment of plate 20 along the rack may be readily made to adjust the tension of the pelt as it dries. In this application, of the pelt to the frame, it is drawn substantially taut, and over the bar 16 while the bar is in the flat position of FIG. 5, then the bar 16 is turned from its normal position of FIG. 5, to its edgewise position shown in FIG. 6, thus to spread and hold the top and bottom sides of the pelt apart for easy flow of drying air from end to end of the pelt as presently explained.

Drying air of suitable temperature and humidity, is supplied from a boxlike manifold 35 shown in FIG. 3, including a vertical front wall 35' in which a multiplicity of spaced air discharge nozzles 46 of tubular form are applied. The tubular nose pieces 13 of the drying frames are open from end to end and each, as in FIG. 7, when fitted at its outer end over one of the air nozzles 46 of the manifold, see FIG. 7, serve as a support for the frame as in FIG. 3 and also to discharge the humidified and properly conditioned drying air from the nozzle into the frame and through the pelt for aiding in the pelt drying operation. This drying air is usually discharged from the manifold under controlled pressure and at a temperature of about 55° F. and 45% humidity.

Due to the fact that the drying frames are constructed of non-absorbent materials, there will be no absorptiveness thereby to cause the previously mentioned souring and "slipping" or falling hair from the pelts.

When it is desired to remove a pelt from the drying frame, the bar 16 is first turned from its edgewise position of FIG. 6, to its normal position of FIG. 5, thus to loosen the pelt for easy removal from the rack.

Racks of this character may also be of plastic members with great success and in sizes to suit the pelts being dried.

What I claim as new is:

1. A pelt drying means of the character described comprising a flat, elongated, frame of relatively narrow width, defined by laterally spaced, longitudinally extending opposite nonabsorbent side rods that are joined in a rounded tapering nose at one end and in fixed spacing by cross-rods and over which frame an animal pelt may be drawn and held taut thereby and thereby providing a passage lengthwise of and within the pelt for flow of pelt drying air therethrough, and a flat pelt stretching bar that extends substantially to the full length of the rack and is pivotally mounted on the frame for turning on its pivot axis from a position lying parallel with the plane of the frame to an edgewise position relative thereto, thus to spread the opposite walls of the pelt apart as stretched over the frame and open the air passage therein to greater extent.

2. A pelt drying frame according to claim 1 wherein its longitudinal opposite side rods are formed from a single length of stiff wire that is bent medially of its ends to place its opposite end portions in a laterally spaced re-

lationship and to provide the coextensive opposite side rods and by the bending of the wire, providing the rack with its rounded nose that facilitates the drawing of a pelt thereover and onto the rack; said nose providing a holding stop for securing the head end of the pelt as applied to and stretched over the frame.

3. A pelt drying frame comprising a flat, elongated frame of relatively narrow width defined by laterally spaced, longitudinally extending nonabsorbent side rods that are joined in a rounded tapering nose at one end that facilitates the drawing of a pelt thereover, said nose providing a holding stop for securing the head end of the pelt as applied to and stretched over the frame; nonabsorbent cross rods between the frame side rods; and a flat plate placed across the spaced side bars at that end of the rack which is opposite the rounded nose, and spring members fixed to the plate to yieldingly engage the laterally spaced rods, and on which plate the tail end of the pelt may be secured during the pelt drying operation.

4. A pelt drying operation according to claim 3 wherein a pair of flat screens are mounted on said plate to hold the tail and rear end of the pelt between them during the drying operation, and means for releasably securing the said screens to the plate while holding the pelt between them.

5. A pelt drying frame according to claim 4 including a flat, pelt-stretching bar that extends substantially to the full length of the rack and which bar is pivotally mounted at its ends on the frame for turning on its pivot axis from a position lying parallel with the plane of the frame to an edgewise position relative thereto, thus to spread the opposite walls of the pelt apart as stretched over the frame and open the air passage therein to greater extent.

6. A pelt drying frame according to claim 5 wherein the flat bar has a handle member fixed therein at one end whereby it may be turned to and from the edgewise pelt stretching position.

7. A drying frame according to claim 5 provided at its nose end with a tubular bearing and at the opposite end with a cylindrical bearing aligned axially with the tubular bearing, said bearings containing the opposite ends of said longitudinal bar therein, and through which tubular bearing drying air may be forcibly delivered into a pelt as applied to the rack for drying.

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