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V. N. ANDERSON ET AL
BEHEADING DEVICE FOR POULTRY

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FIG. 1.

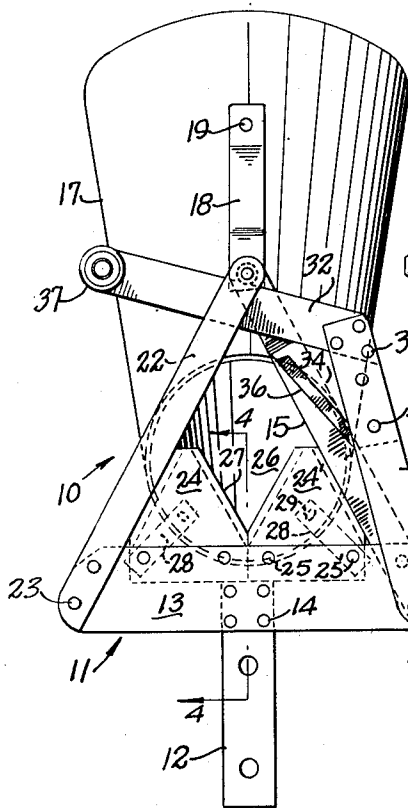


FIG. 2.

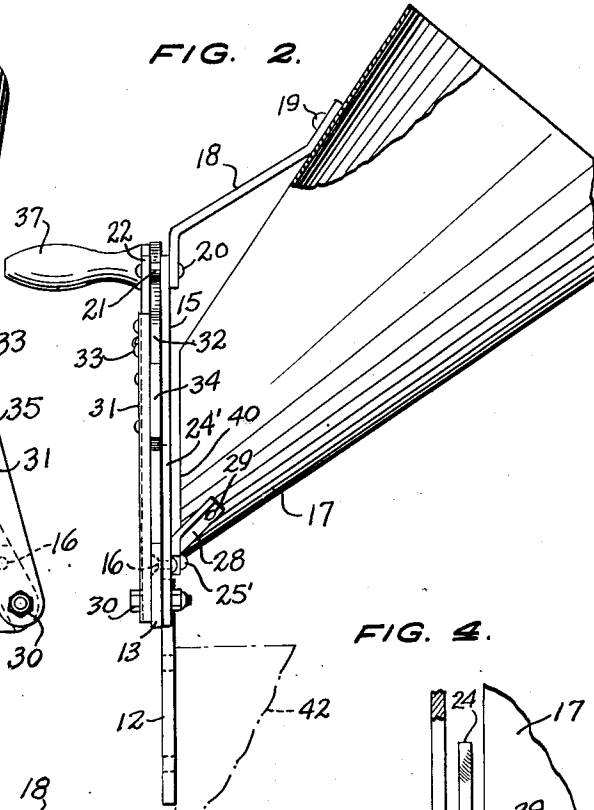


FIG. 4.

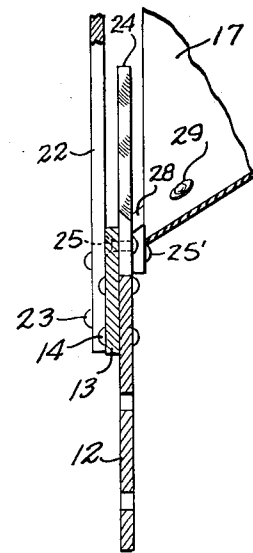
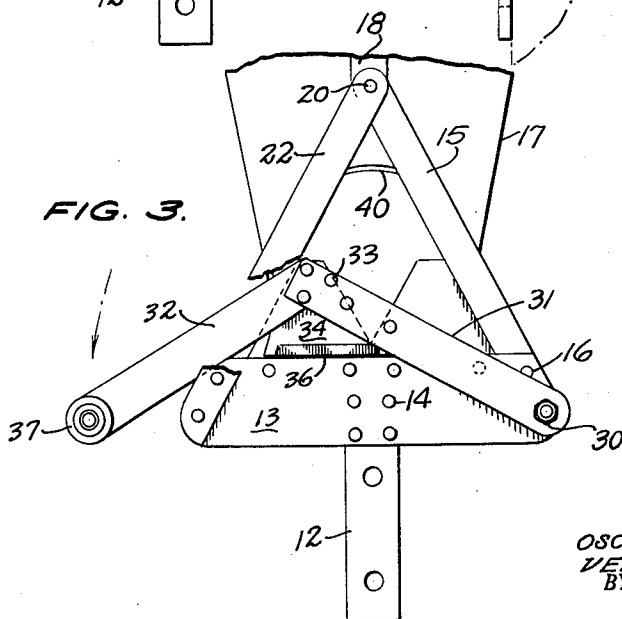


FIG. 3.



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1

2,787,807

BEHEADING DEVICE FOR POULTRY

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2 Claims. (Cl. 17—12)

This invention relates to a beheading device, as for poultry, or to accomplish any positive shearing action on an extremity while the body of the object acted upon is positioned within the object surrounding structure of the invention, as a funnel.

It is a primary object of this invention to provide such a beheading device constructed to be mounted for the greatest ease of operation which has been found to be in position with the axis of the funnel at a substantial angle to the horizontal and with the shearing means acting in substantially a vertical plane.

It is also an object of this invention to provide a beheading device of this class which is of sturdy construction, easily assembled and mounted, and easily and positively operated.

Other and further objects will be apparent when the hereinbelow description is considered in connection with the drawing, in which:

Figure 1 is a front elevation of a form of the invention;

Figure 2 is a side elevation of the form of invention shown in Figure 1 with parts thereof broken away;

Figure 3 is a fragmentary front elevation with portions thereof broken away and showing the beheading means in operation; and

Figure 4 is an enlarged sectional elevation taken along line 4—4 of Figure 1.

Referring to these drawings in detail, the device 10 has as support a frame or mounting structure 11 including as main elements a vertical strap or upright 12, a horizontal cross piece 13 to which the upright 12 may be connected, as by the rivets 14. An angularly upwardly extending strap 15 is connected at one end to the cross piece 13 adjacent one end thereof, as by the rivet 16. A funnel 17, in the shape of a modified frusto-cone, is connected to the frame 11 by means of a tie member 18 secured at one end at 19 to the funnel and connected at its other by means 20 to the frame so that the funnel extends angularly upwardly from the frame. Such connection may be a rivet extending through the tie member 18, the strap 15, a spacer 21, and another strap 22 which extends downwardly at an angle from such connection to the cross piece 13 to which it is connected by rivets 23 at the cross piece end opposite the end to which the strap 15 is connected. Thus the strap 22 completes a triangular strength structure as a frame element.

Knife blades 24, 24' of conventional saw tooth shape, are connected by rivets 25, 25' to the cross piece 13 in side by side abutment to leave a V-shaped opening 26 between the angularly extending knife edges 27, which are sharpened to keen edges, and such blades 24, 24' are preferably tempered. The rivets 25' also effect the connection of one end of lower tie members 28 to the frame 11, while the other end is connected at 29 to the funnel 17.

A bolt 30 pivotally connects a bar 31 to the strap 15 and cross piece 13. Knife and handle support bar 32 is connected by rivets 33 to the bar 31, and the upper edge of a shearing knife 34 abuts the bar 32 and is con-

2

nected to the bar 31 by rivets 35. This shearing knife 34 may preferably be tempered and has along its lower side a finely sharpened shearing or cutting edge 36. A handle 37 is provided on the bar 32, and when the handle is pulled downwardly the shearing edge 36 moves within easy cutting clearance of the knife edges 27. This effectiveness is observable by consideration of the assembly of the shearing knife 34 to the bar 31 and on the same side thereof as the cross piece 13 to which the bar 31 is pivotally connected, while the knife blades 24, 24' are connected to the cross piece 13 on the opposite side from the bar 31. In obtaining this effectiveness with such assembly, consideration also is given to the relative thickness of the cross piece 13 and shearing knife 34.

For best operation the strap or upright 12 is connected, by any conventional securing means, not shown, to a support 42, indicated in dotted lines in Figure 2. Such support can be any upright element, as a post, to which working access may be had. The object to be beheaded, as a fowl, is inserted head downward into the funnel which has been so mounted by means of the connections 18 and 28 that the decapitated face surface 40 of the funnel extends in a plane substantially parallel to the plane of operation of the shearing knife 34, which plane is preferably a vertical plane. The weight and force of the insertion of a fowl in a downward direction, and the size of the opening in the lower end of the funnel, should insure that the head and neck of the fowl should extend through the V-shaped opening between the knife blades 24, 24', and outwardly thereof. It is then only necessary to move the handle 37 downwardly, as it is retained in its plane of operation by the guide bar 22, and the shearing knife edge 36 is moved across the knife edges 27 to effect neat and sure beheading of the fowl.

The dimensions of the funnel may be such that the body of the fowl may not jump out during death reflexes and assurance against this may be had if the operator holds a cover over the upper end of the funnel 17. Optionally the operator may choose to rapidly discard beheaded fowl in succession, as when a number are to be beheaded, as in poultry houses, so that their dying reflexes may occur outside of the funnel.

The operation of this invention has been described with relation to the beheading of fowls, but it is obvious that such device has utility for other purposes as well, and claim is made to its application for the decapitation or severance of any terminal portion or extremity of any object of larger size than such extremity which may be inserted through the upper end of the funnel.

Although one construction of the invention has been shown in the drawings and described in detail and mode of operation, this invention is not limited to such construction, and includes other variations and modification as well which may come within the spirit of the invention and the merited broad interpretation asserted for the appended claims.

What is claimed is:

1. A beheading device comprising a support frame including a cross piece and straps carried by said cross piece adjacent each end of the cross piece and extending outwardly therefrom in convergent relation to define a triangular opening in said frame, a pair of fixed knife blades carried by said cross piece and having their knife edges disposed in divergent relation in said opening and receiving therebetween the object to be beheaded as they retreat from said cross piece, a truncated cone-shaped funnel carried by said frame and extending angularly outwardly therefrom to one side thereof with the smaller outlet end thereof spaced from the adjacent side of said frame and opening to said triangular opening, a knife bar mounted on said cross piece adjacent one end thereof for movement in an arcuate path across said opening

3

and said fixed blades, a shearing knife mounted on said bar upon movement therewith and extending across said fixed blades, and manually operated means operatively connected to said knife bar for moving it in its arcuate path and the shearing knife across said fixed blades to bridge the space therebetween and cooperate with the fixed blades to shear the head of a fowl placed in said funnel so that the head extends through the smaller end of the funnel and through the space between said divergent fixed knife blade edges, said straps being secured to said cross piece on opposite sides thereof to define a space therebetween, said knife bar movable in its arcuate path in the space between said straps with the straps defining guides for the knife bar as it moves in its arcuate path, and the convergent ends of said straps defining a stop to limit the movement of said knife bar in a direction away from said fixed knife blades.

2. A beheading device comprising a support frame including a cross piece and straps carried by said cross piece adjacent each end of the cross piece and extending outwardly therefrom in convergent relation to define a triangular opening in said frame, a pair of fixed knife blades carried by said cross piece and having their knife edges disposed in divergent relation in said opening and receiving therebetween the object to be beheaded as they retreat from said cross piece, a truncated cone-shaped funnel carried by said frame and extending angularly outwardly therefrom to one side thereof with the smaller outlet end thereof spaced from the adjacent side of said frame and opening to said triangular opening, a knife

4

bar mounted on said cross piece adjacent one end thereof for movement in an arcuate path across said opening and said fixed blades, a shearing knife mounted on said bar upon movement therewith and extending across said fixed blades, and manually operated means operatively connected to said knife bar for moving it in its arcuate path and the shearing knife across said fixed blades to bridge the space therebetween and cooperate with the fixed blades to shear the head of a fowl placed in said funnel so that the head extends through the smaller end of the funnel and through the space between said divergent fixed knife blade edges, said straps being fixedly secured to said cross piece on opposite sides thereof, said manually operable means including a handle support bar connected to said knife bar and disposed between said straps and extending thereacross with said straps defining guides for said support bar as the bar is moved so as to impart movement to said knife bar in its arcuate path.

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