Nov. 6, 1951 F. E. FITZSIMONS 2,574,322

MOUSE TRAP

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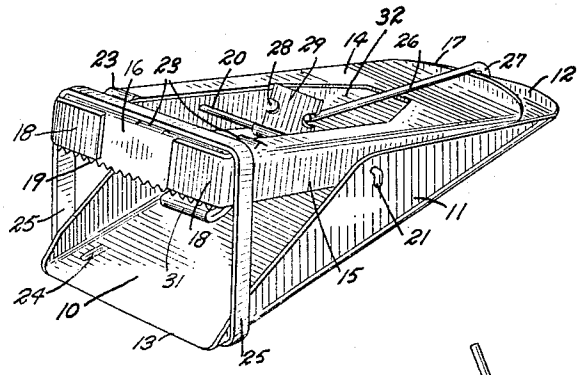


Fig. 1

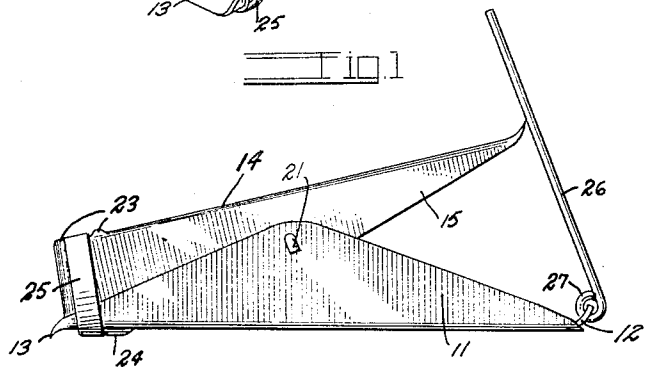


Fig. 2

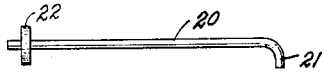


Fig. 4

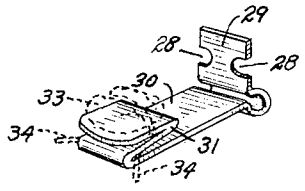


Fig. 3

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MOUSE TRAP

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4 Claims. (Cl. 43—81)

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This invention relates to a rodent trap and more particularly to a mouse trap, and has for its principal object the provision of a simple, highly efficient mouse trap which can be stamped from sheet material such as metal sheets, plastic sheets, cardboard sheets, and the like, and which will not employ any metallic springs of any kind, so that it can be manufactured with sufficient economy to allow it to be discarded after each use, if desired.

A further object is to provide a mouse trap which will employ a rubber band in place of the usual jaw spring, and rubber retaining devices in place of the rivets and screws of the usual trap.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention, reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a perspective view of the improved mouse trap in the "set" position;

Fig. 2 is a side view thereof in the released position;

Fig. 3 is a detail, perspective view, illustrating a bait holding and trigger element employed in the improved mouse trap; and

Fig. 4 illustrates a simple hinge pin by means of which all of the elements of the improved trap are secured together.

The trap consists of four simple elements: a base plate 10, a tilting jaw frame 14, a bait holder 31 and a trigger wire 26.

The base plate 10 may be formed of any suitable form-retaining sheet material which can be blanked and stamped into shape and is formed with two triangular, upturned sides 11, an upturned rear end flange 12, and a downturned front edge flange 13.

The jaw frame 14 is hingedly mounted between the sides 11 and also consists of a single blank of sheet material of a form-retaining type, such as sheet metal, cardboard, plastic, or the like. The frame 14 is stamped, formed or folded to provide two side flanges 15, a front end flange 16, an upturned rear edge 17 and a middle opening 32. The forward extremities of the side flanges 15 are turned inwardly against the end flange 16, as shown at 18, to form reinforcement

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for the end flange 16. The lower edge of the end flange 16 is preferably serrated, as shown at 19 to provide rodent engaging teeth.

The frame 14 is hingedly secured between the sides 11 upon a hinge pin 20 provided with a bent head 21 at one extremity. The other extremity of the pin is passed through a rubber disc washer 22 which retains itself in place on the pin 20 by contraction of the rubber. The pin 20 is positioned at approximately the middle of both the frame 14 and the base 10 so that the frame can freely tilt or "teeter-totter" over the base 10.

The material of the frame 14 is indented on its inner or underside to form protuberances 23 on its upper side. The base 10 is similarly indented on its inner or upper side to form protuberances 24 on its lower side. The protuberances 23 and 24 are for the purpose of holding a relatively strong, flexible, wide rubber band 25 in place on the jaws. The downwardly turned forward edge 13 also assists in holding the rubber band in place.

It can be seen that the tendency of the band 25 is to constantly pull the forward extremity of the frame 14 against the forward extremity of the base plate 10, as shown in Fig. 2. The pull of the band 25 is resisted when the trap is in the "set" position by means of the trigger wire 26, the lower extremity of which is looped, as shown at 27, through an opening in the rear end flange 12.

The forward extremity of the wire 26 is releasably held in either one of two notches 28 formed in a trigger tab 29. The trigger tab is formed integrally with a treadle arm 30, the forward extremity of which is bent in a zigzag Z contour to form a bait holder 31. The trigger tab, treadle arm, and bait holder are all formed from a single strap of bendable material, as shown in detail in Fig. 3.

To set the trap it is only necessary to squeeze the rear extremity of the frame 14 toward the rear extremity of the base plate 10, thence to pass the forward extremity of the trigger wire 26 into one of the notches 28. The trap will then be held in the position of Fig. 1. A rodent, in endeavoring to obtain the bait from the bait holder 31, would dislodge the trigger tab 29 from the forward extremity of the bait wire 26, allowing the rubber band 25 to contract so as to close the trap to the closed position of Fig. 2.

The zigzag or Z bend on the treadle arm 30 facilitates the attachment of various baits thereto. For instance, the bait, indicated in broken line

at 33, Fig. 3, may be tied in place by means of a string 34 and the extremities of the string may be wedged into the lower notch of the Z bend to eliminate tying.

While a specific form of the improvement has been described and illustrated herein, it is to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. A rodent trap comprising: a base plate; two upwardly turned sides on said base plate; a jaw frame; two downwardly turned side flanges on said jaw frame; a downwardly turned front flange on said jaw frame, said side flanges being positioned between the sides of said base plate; a hinge pin extending through said sides and flanges at a point substantially midway of the length of said base plate and jaw frame so that said frame will be tiltably mounted on said base plate, both said base plates and said jaw frame being elongated and flat and of substantially equal length so that they will lie spaced-apart and parallel to each other throughout their lengths at the middle of the arc of tilt of said jaw frame; a trigger member mounted on said hinge pin; a trigger wire hingedly mounted on the rear extremity of said base plate and adapted to extend forwardly over the rear extremity of said frame into engagement with said trigger member, there being an opening in said frame for the passage of said wire, and an endless contractable element surrounding the forward extremities of said frame and said base plate and acting to urge said forward extremities toward each other.

2. A rodent trap comprising: a base plate; two upwardly turned sides of said base plate; a jaw frame; two downwardly turned side flanges on said jaw frame; a downwardly turned front flange on said jaw frame, said side flanges being positioned between the sides of said base plate; a hinge pin extending through said sides and flanges at a point substantially midway of the length of said base plate and jaw frame so that said frame will be tiltably mounted on said base plate, both said base plates and said jaw frame being elongated and flat and of substantially equal length so that they will lie spaced-apart and parallel to each other throughout their lengths at the middle of the arc of tilt of said jaw frame; a trigger member mounted on said hinge pin; a trigger wire hingedly mounted on the rear extremity of said base plate and adapted to extend forwardly over the rear extremity of said frame into engagement with said trigger member, there being an opening in said frame for the passage of said wire; an endless contractable element surrounding the forward extremities of said frame and said base plate and acting to urge said forward extremities toward each other; and means on said frame and said base for retaining said contractable member in place adjacent and parallel to the downwardly turned front flange on said jaw frame.

3. A rodent trap comprising: a base plate; two upwardly turned sides on said base plate; a jaw frame; two downwardly turned side flanges on said jaw frame; a downwardly turned front flange on said jaw frame, said side flanges being positioned between the sides of said base plate; a hinge pin extending through said sides and flanges at a point substantially midway of the length of said base plate and jaw frame so that said frame will be tiltably mounted on said base plate, both said base plates and said jaw frame being elongated and flat and of substantially equal length so that they will lie spaced-apart and parallel to each other throughout their lengths at the middle of the arc of tilt of said jaw frame; a trigger member mounted on said hinge pin; a trigger wire hingedly mounted on the rear extremity of said base plate and adapted to extend forwardly over the rear extremity of said frame into engagement with said trigger member, there being an opening in said frame for the passage of said wire; and an endless rubber band surrounding the forward extremities of said treadle and said base member and acting to urge said latter extremities together.

4. A rodent trap comprising: a base plate; two upwardly turned sides on said base plate; a jaw frame; two downwardly turned side flanges on said jaw frame; a downwardly turned front flange on said jaw frame, said side flanges being positioned between the sides of said base plate; a hinge pin extending through said sides and flanges at a point substantially midway of the length of said base plate and jaw frame so that said frame will be tiltably mounted on said base plate, both said base plates and said jaw frame being elongated and flat and of substantially equal length so that they will lie spaced-apart and parallel to each other throughout their lengths at the middle of the arc of tilt of said jaw frame; a trigger member mounted on said hinge pin; a trigger wire hingedly mounted on the rear extremity of said base plate and adapted to extend forwardly over the rear extremity of said frame into engagement with said trigger member, there being an opening in said frame for the passage of said wire; an endless rubber band surrounding the forward extremities of said treadle and said base member and acting to urge said latter extremities together; and protuberances formed on said frame and said base member adjacent the front edges of both and engaging said band and holding the latter parallel to the front flange on said jaw frame.

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