Jan. 15, 1952 H. C. KRUEGER 2,582,339

ANIMAL RESTRAINING DEVICE

Filed Aug. 24, 1950

Fig. 1.

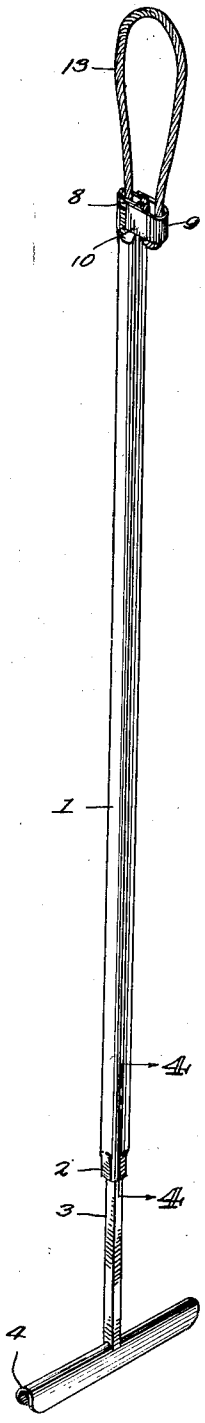


Fig. 2.

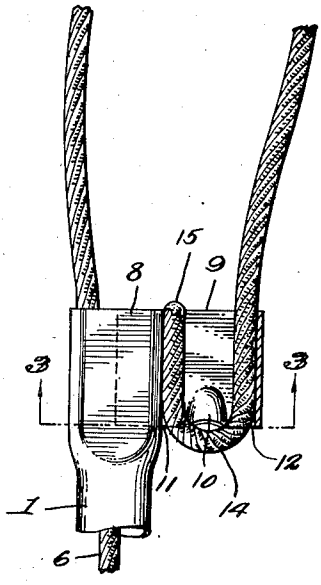


Fig. 3.

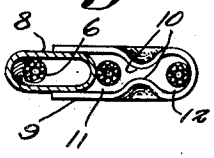
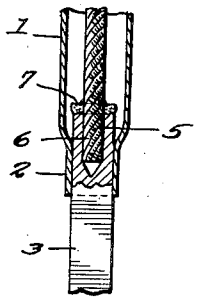


Fig. 4.



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ANIMAL RESTRAINING DEVICE

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2 Claims. (Cl. 119—153)

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This invention relates to an animal restraining device for holding hogs or the like.

In devices of this type as heretofore constructed, there has generally been present the difficulty that the loop or snare tends to twist, with the result, finally, of breaking or fraying said loop under the imposition of heavy strain thereon.

In some instances it has been proposed, heretofore, to reduce torsion or axial twisting of the cable from which the loop is formed by means to prevent rotation of at least one end of the cable. However, these devices have not entirely solved the problem, by reason of the fact that the other end of the cable is still only loosely held, and is often secured to the main body of the device by a loose knotted connection or the like, which connection over a period of time tends to fray, and which quite generally does not hold the cable fully against axial twisting at the point of connection.

In view of the difficulties which have heretofore existed, it is proposed by the present invention to provide an animal restraining device of the character described, wherein the loop or snare is secured at one end to the main body of the device by a rigid connection, even though said loop is fashioned from flexible cable material, so as to absolutely prevent movement of the cable relative to said body at said point of connection. It is further proposed, at the other end of the cable, to effect a similar rigid connection to a plunger member mounted movably relative to the body, so as to prevent here also any movement of the cable relative to said plunger member at the point of connection therebetween. It is further proposed to prevent rotation of the plunger member relative to the body, and thus, by combination of a plunger slidable but non-rotatable relative to a rigid body, a rigid connection between one end of the cable and the plunger, and a rigid connection between the other end of the cable and the body, to provide an animal restraining device wherein axial twisting of the cable or fraying of the end connections is completely eliminated.

It is a further important object to provide, in a device of the character stated, a construction at one end of the body from which the loop extends, wherein one end of said loop is permitted a limited amount of lateral movement to allow for pull exerted thereupon by a restrained animal, the other end of the loop being in the plane of said limited lateral movement and the loop in general, this construction being intended particularly to prevent ready and swift adjustment of the loop to any size, without rubbing of the loop on any portion of the body, and with the loop still being allowed limited play at both ends thereof under pull exerted thereupon by a restrained animal.

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With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings

Fig. 1 is a perspective view of an animal restraining device formed in accordance with the present invention.

Fig. 2 is an enlarged view of the upper end of said device, part being shown in section and portions being broken away.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary longitudinal sectional view taken substantially on the line 4—4 of Fig. 1, showing the connection between the plunger and the cable.

Referring to the drawings in detail, 1 is an elongated tubular member formed open at both ends, said member having at one end the non-circular end portion 2 which in the present instance is of square cross sectional configuration, and is readily formed by crimping one end of the tubular member 1 to the desired shape. However, it will be understood that it is mainly important that said end portion 2 be non-circular, and the particular cross sectional contour thereof can be varied as desired.

Sliding in said non-circular end portion of the tubular member 1 is the plunger 3 the cross sectional configuration of which corresponds to the non-circular end portion 2. In the present instance, accordingly, the plunger 3 is of square cross section.

The plunger projects into the tubular member 1 and is slidable longitudinally of the tube, but of course is non-rotatable relative thereto. One end of the plunger projects out of the tubular member 1 and is provided with the cross bar 4 which can be of channel construction or otherwise, this constituting a readily grasped handle whereby an operator can reciprocate the plunger within a tubular body 1 for the purpose of enlarging or constricting the restraining loop at the other end of said tubular member.

The inner end of the plunger 3 is formed with

an axial recess 5, and extending into said recess is one end of a cable 6, this cable being preferably a strong steel cable. The cable 6, as will be readily noted from Fig. 4, is welded in the recess 5 by means of a weld 7, and therefore the said end of the cable 6 has a rigid connection with the plunger 3 which eliminates completely the possibility of axial twisting of the end of the cable relative to the plunger to which it is connected.

The cable 6 extends fully through the tubular member 1 and projects from the other end of said tubular member. Said other end is particularly well illustrated in Figs. 2 and 3, and is flattened as at 8 so as to provide a transversely elongated space through which the cable projects. This is particularly illustrated in Fig. 3, and by reason of this construction a certain amount of lateral play is permitted the projecting end of the cable, so as to prevent fraying of the cable against the wall of the tubular member 1 where the cable projects out of said tubular member.

Rigidly secured to said flattened end 8 of the tubular member 1, and extending laterally therefrom, is a U-shaped keeper 9, welded or otherwise rigidly secured to the flattened end 8 of the tubular member, and constituting, with the tubular member, the body of the device.

The U-shaped keeper 9 is flattened and is extended laterally of the body in transverse alignment with the transversely elongated space defined by said flattened end 8.

Intermediate its ends, the U-shaped keeper 9 is pinched inwardly along its lower edge as at 10, and this divides the keeper into cable-receiving spaces 11 and 12 respectively communicating above the inwardly crimped lower edge 10 so as to provide a space aligned with the transversely elongated space of the tubular member, and permitting a certain amount of lateral play for the other end of the loop, said loop being designated 13.

The end of the cable received in the keeper 9 is secured in place by extending it downwardly through the space 12, and then looping it under the inwardly pinched portion 10, as shown at 14, the cable end being then extended upwardly through the space 11 and being secured to the keeper and tubular member by a weld 15. Again, it may be noted that like the other end of the cable, this end of the cable is also made fully rigid with the body of the device.

The illustrated construction has certain notable advantages. The body of the device is wholly rigid, and in one end of said body there is slidably mounted a plunger which is non-rotatable relative to the body. A steel cable is made rigid with the plunger, and therefore, said end of the cable that is connected to the plunger can not rotate relative to the body, because the plunger itself is not permitted such rotation. Then, the cable is extended out of the other end

of the body and then back toward the body and again made completely rigid with the body. Neither end of the cable, accordingly, is permitted any rotation or axial twisting movement relative to the body of he device.

Despite the fact that the ends of the cable are secured against twisting movement by rigid connections to the body or to the plunger, the loop itself has a certain amount of lateral play at both ends of the loop, this freedom of movement being restricted to movement in a particular plane, this being the natural plane of movement of the loop when it is applied to an animal to be restrained.

What is claimed is:

1. An animal restraining device including an elongated tubular member, one end portion of said tubular member being formed non-circularly, a plunger of non-circular cross section slidable in said end portion of the tubular member, the other end portion of the tubular member being transversely flattened to provide a transversely elongated space, an elongated steel cable secured at one end to said plunger, said cable projecting through the tubular member and projecting out of said space, said space permitting lateral movement of the projecting cable in a single plane only, the projecting portion of the cable being formed as a loop, a keeper rigidly secured to the tubular member externally thereof at the flattened end of the tubular member, said keeper being U-shaped and aligned transversely with said space to provide a second space for lateral movement of the cable in a single plane only, each of said spaces accommodating one end of said loop, and the other end of the cable being secured to said keeper.

2. An animal restraining device as in claim 1, and wherein said keeper is crimped inwardly along one edge to divide the keeper into a pair of cable-receiving spaces, the cable extending through one space and being looped around said inwardly crimped edge and being extended into the other space.

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