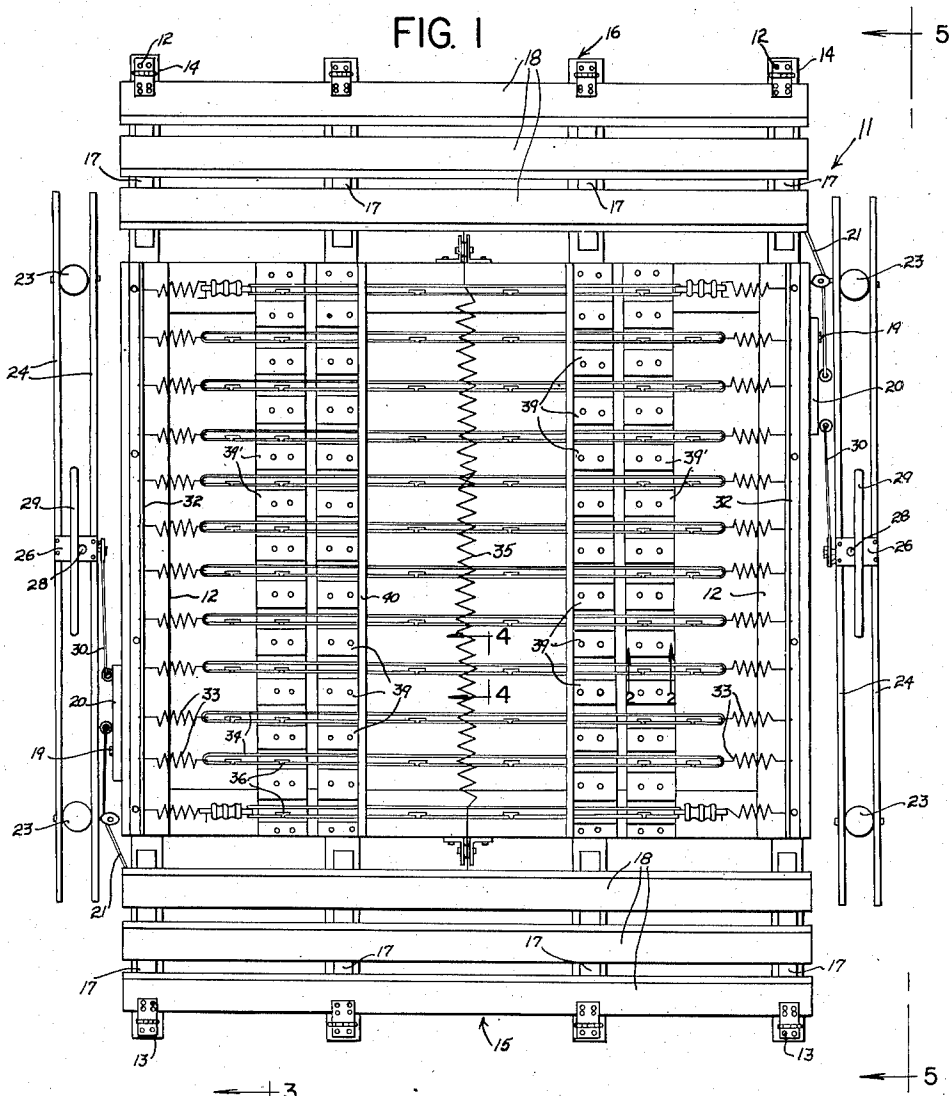
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CATTLE GUARD

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FIG. 1



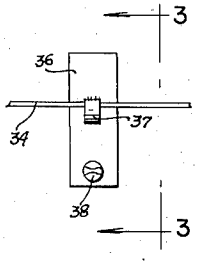




FIG. 2

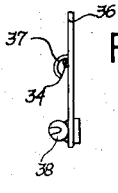



FIG. 3

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FIG. 5

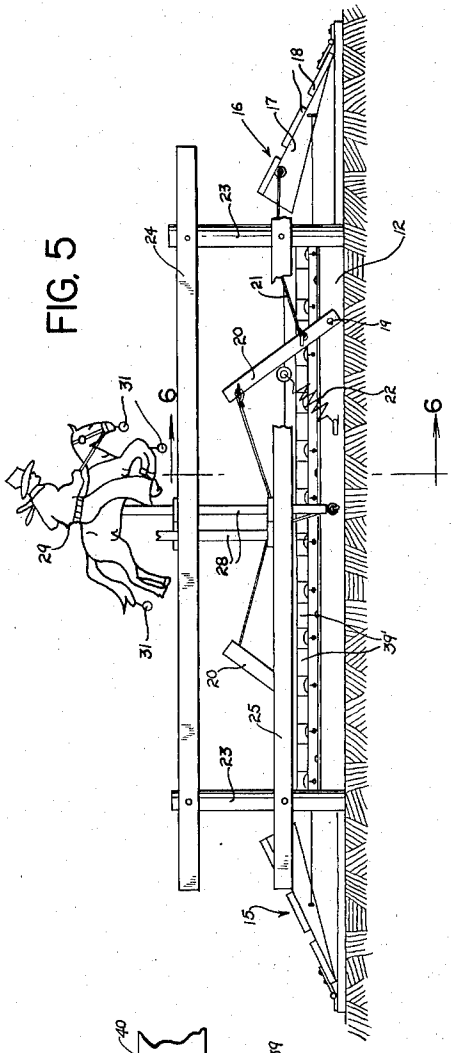


FIG. 6

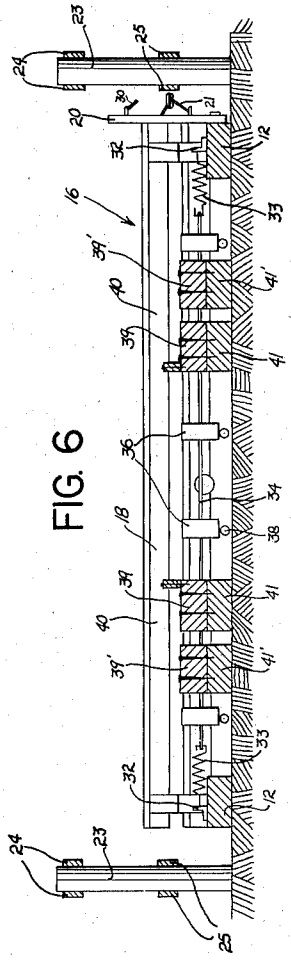
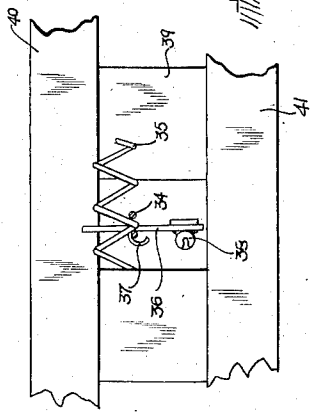


FIG. 4



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Patented Nov. 27, 1951

2,576,188

# UNITED STATES PATENT OFFICE

2,576,188

## CATTLE GUARD

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Application December 30, 1949, Serial No. 136,121

4 Claims. (Cl. 256—14)

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This invention relates to cattle guard devices, and more particularly to a cattle guard of the tread-operated type adapted for use in roadways adjacent railway tracks, at road crossings and at other similar locations which are to be guarded against the passage of cattle.

The main object of the invention is to provide a novel and improved cattle guard device which provides both a visual and audible disturbance to cattle entering thereon, whereby the cattle will be frightened away from the guard device, the device being very simple in construction, easy to install, and easy to maintain in operation.

A further object of the invention is to provide an improved cattle guard device of the type employing a movable figure and sounding means both operated in response to the entry of cattle onto the device, said device being inexpensive to manufacture, being durable in construction, and involving only a few parts.

Other objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a top plan view of an improved cattle guard device constructed in accordance with the present invention;

Figure 2 is an enlarged elevational detail view taken on line 2—2 of Figure 1;

Figure 3 is a cross-sectional, detail view taken on line 3—3 of Figure 2;

Figure 4 is an enlarged, fragmentary, detail, sectional view taken on line 4—4 of Figure 1;

Figure 5 is a side elevational view of the device taken on line 5—5 of Figure 1;

Figure 6 is a cross-sectional view taken on line 6—6 of Figure 5.

Referring to the drawings, the cattle guard device is designated generally at 11. The guard device comprises a pair of longitudinal side rails 12, 12. Hinged transversely at 13, 13 and 14, 14 to the end portions of the side rails 12, 12 are the respective inwardly and upwardly directed treadle units 15 and 16, each treadle unit comprising a plurality of triangular support members 17 to the top edges of which are secured the transverse boards 18. Pivoted at 19 to the side rails 12 are respective upwardly extending arms 20 connected by respective cables 21 to the upper end portions of the outer support bars 17 associated with the respective treadle units 15 and 16. Each arm 20 is biased inwardly by a spring 22 connecting the upper portion of the arm to an inner portion of its associated side rail 12, as shown in Figure 5. Springs 22 therefore bias treadle units 15 and 16 to elevated positions.

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Embedded in the ground outwardly adjacent each rail member 12 are a pair of vertical posts 23, 23 connected by upper longitudinal rails 24, 24 and by lower longitudinal rails 25, 25. Secured to the top edges of the rails 24, 24 at their intermediate portions is an apertured plate 26, and secured to the top edges of rails 25, 25 beneath plate 26 is an apertured plate 27. Extending slidably through the apertured plates 26 and 27 is a vertical rod 28, to the top end of which is secured a mounted figure 29. The bottom ends of the rods 28 are connected by cables 30, 30 to the upper ends of the associated arms 20, whereby the mounted figures 29 will be raised responsive to outward rotation of the arms 20. Thus, when treadle unit 16 is depressed, the mounted figure 29 in Figure 5 will be raised. When treadle unit 15 is depressed, the other mounted figure will be raised. Release of the treadle units causes the mounted figures to descend by gravity to their normal positions. Secured to each mounted figure 29 are a plurality of bells 31 which vibrate when the mounted figures are moved.

Secured to the intermediate portions of the respective side rails 12, 12 are longitudinal angle bars 32, and secured between said angle bars by end springs 33, 33 are a plurality of spaced, transverse, elongated wire loops 34. Connected between the intermediate portions of the upper treadle boards 18 of the treadle units 15 and 16 is a longitudinally extending coiled spring 35 which overlies and transversely engages the spaced wire loops 34 in the manner shown in Figure 4, whereby movement of either treadle unit causes the coils of spring 35 to rub against the wire loops 34 and to vibrate said loops, producing a loud twanging sound. Suspended from each wire loop 34 are a plurality of bar members 36, each bar member being provided with a supporting hook 37 engaged over one side of the loop with the bar member positioned within the loop. Each bar member 36 carries a bell 38 which vibrates when the wire loop is agitated, adding to the noise produced by the vibration of the wire loops.

Designated at 39, 39' are respective longitudinally arranged rows of blocks disposed between adjacent wire loops 34 and rising above the plane of said loops. Each inner row of blocks 39 is connected by a longitudinal bar 40 located at the inner margins of the blocks. The blocks 39 and 39' are spaced so as to allow free vibration of the wire loops 34, but define supporting treadways for the wheels of a vehicle passing over the guard device.

In operation, when cattle attempt to cross the

guard device, the cattle depress one or the other of the treadle units 15 or 16, causing one of the mounted figures 29 to rise and producing a loud noise caused by the vibration of the bells 31 and 38 and the twanging of the wire loops 34. The freely suspended bars 36 also oscillate, adding to the startling visual effect produced by the depression of the treadle unit. The combination of moving objects and loud noises frighten the cattle away from the guard device and prevent the cattle from crossing thereover.

A vehicle may readily traverse the guard device over the tread blocks 39 and 39'. Said blocks are mounted on longitudinal beam members 41, 41'.

While a specific embodiment of an improved cattle guard device has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A cattle guard for vehicles comprising a support, a pair of horizontally disposed treadways arranged in spaced parallel relation with respect to each other and secured to said support, a treadle arranged at an angle with respect to said treadways contiguous to each end thereof and connected to said support for movement from the angular position to a horizontal position in alignment with said treadways, a plurality of sounding elements traversing said treadways and connected to said support, and a resilient element normally engaging all of said sounding members and operatively connected to said treadles for actuating said sounding members in response to the movement of said treadles from said angular position to said horizontal position.

2. A cattle guard for vehicles comprising a support, a pair of horizontally disposed treadways arranged in spaced parallel relation with respect to each other and secured to said support, a treadle arranged at an angle with respect to said treadways contiguous to each end thereof and connected to said support for movement from the angular position to a horizontal position in alignment with said treadways, a plurality of sounding elements traversing said treadways and connected to said support, a resilient element normally engaging all of said sounding members and operatively connected to said treadles for actuating said sounding members in response to the movement of said treadles from said angular position to said horizontal position, and resilient means operatively connected to said



treadles for normally biasing same to said angular position.

3. A cattle guard for vehicles comprising a support, a pair of horizontally disposed treadways arranged in spaced parallel relation with respect to each other and secured to said support, a treadle arranged at an angle with respect to said treadways contiguous to each end thereof and connected to said support for movement from the angular position to a horizontal position in alignment with said treadways, a plurality of sounding elements traversing said treadways and connected to said support, a resilient element normally engaging all of said sounding members and operatively connected to said treadles for actuating said sounding members in response to the movement of said treadles from said angular position to said horizontal position, resilient means operatively connected to said treadles for normally biasing the same to said angular position, reciprocating visual means movably mounted on said support, and means connecting said visual means to said treadles for reciprocation in response to the movement of said treadles from said angular position to said horizontal position.

4. A cattle guard for vehicles comprising a support, a pair of horizontally disposed treadways arranged in spaced parallel relation with respect to each other and secured to said support, a treadle arranged at an angle with respect to said treadways contiguous to each end thereof and connected to said support for movement from the angular position to a horizontal position in alignment with said treadways, a plurality of sounding elements traversing said treadways and connected to said support, and a resilient element normally engaging all of said sounding members and operatively connected to said treadles for actuating said sounding members in response to the movement of said treadles from said angular position to said horizontal position, each of said sounding elements comprising an elongated closed loop of wire loosely extending through said treadways and resiliently connected to said support for vibratory movement.

EDWARD S. McPHERSON.


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