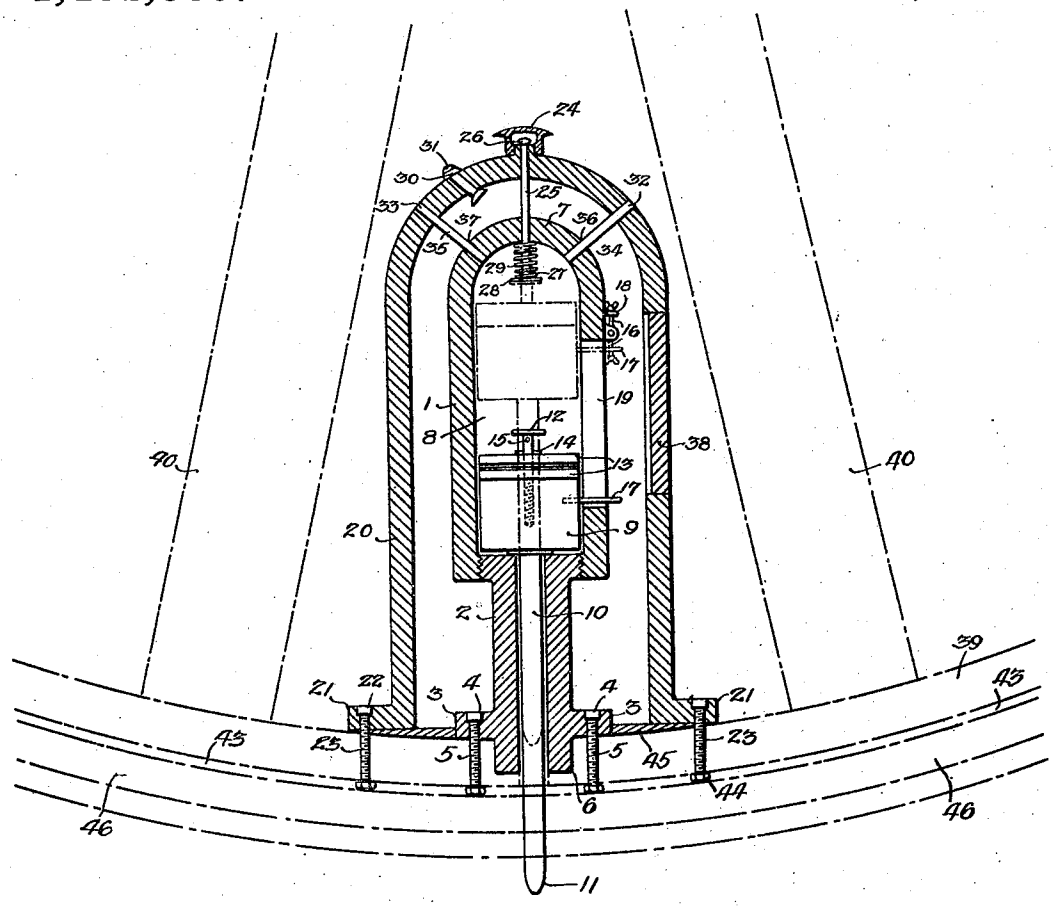
J. A. WARD.

AUTOMOBILE THEFT PROTECTION DEVICE.

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1,401,839. Patented Dec. 27, 1921.



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Inventor:
John A. Ward.
by his Attorneys.
Lowson & Lowson

UNITED STATES PATENT OFFICE.

JOHN A. WARD, OF WILKES-BARRE, PENNSYLVANIA.

AUTOMOBILE-THEFT-PROTECTION DEVICE.

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To all whom it may concern:

Be it known that I, JOHN A. WARD, a citizen of the United States, residing in Wilkes-Barre, Pennsylvania, have invented Automobile-Theft-Protection Devices, of which the following is a specification.

My invention relates to automobile theft-protection devices, and the object of my invention is to provide a protective device that will furnish complete protection while in no way interfering with the propelling and guiding elements of the vehicle. A further object is to provide a protective device comprising audible warning signals together with means for temporarily disabling an automobile, said signals and disabling means depending for operation upon a movement of the vehicle to which said device is attached.

The figure in the accompanying drawing is a view in vertical section of my device, illustrating among other things the manner in which it is attached to the wheel of an automobile, a portion of said wheel being indicated by broken lines.

With reference to the drawing, my device comprises an inner casing, 1, from the base of which extends downwardly a hollow shank, 2. Near the outer extremity of the shank, 2, is a laterally extending flange, 3, having holes, 4, formed therein for the reception of bolts, 5, or the like. The shank, 2, has an extension, 6, below the flange, 3. The casing, 1, in the present instance, is cylindrical in form and has a dome shaped head, 7, although this head may be flat or of any shape desired. Within the cylindrical chamber, 8, inclosed by the casing, 1, is a loosely fitting piston, 9, attached to which and extending downwardly through the hollow shank, 2, is a plunger, 10, having its extremity, 11, tapered to a blunt point. Held in the upper end of the piston, 9, is a threaded bolt, 12, which may be removed to permit the addition or removal of weights, 13, to or from the piston, said weights being held tightly to the piston by means of a removable pin, 14, passing through the threaded bolt, 12, holes, 15, for the reception of said pin being formed at intervals in said bolt. The arrangement here is such that the length of the portion of the bolt, 12, extending above the upper surface of the piston is constant, regardless of the number of weights attached. The piston, 9, is free to move within the casing, 1, and may assume a position at the top of the chamber, 8, as indicated by the broken lines in the drawing, it being retained, if desired, in this position by means of a bolt and wing nut, 16, pivotally mounted upon the casing, 1, said bolt and nut functioning in conjunction with an extending hasp member, 17, upon the piston, 9, and being adapted to be turned up against the casing when not in use, and retained there by a clasp, 18. As indicated at 19, a portion of the side wall of the casing, 1, is removed, thereby giving access to the interior of the chamber, 8, and allowing for the passage of said hasp, 17.

Surrounding the inner casing, 1, and the shank, 2, is an outer casing, 20, said outer casing being generally of the same form as the casing, 1, but larger, whereby an air space is left between the two casings. The casing, 20, has a laterally extending flange, 21, at the base thereof, said flange having holes, 22, formed therein for the reception of bolts, 23, or the like. Attached in permanent manner to the top of the casing, 20, is a gong, 24, and a rod, 25, extending through the outer casing, 20, and inner casing, 1, has its upper hammer-shaped head, 26, located in the interior of the gong, 24, while the lower end, 27, extends into the upper part of the chamber 8. A sleeve, 28, is attached to the end, 27, of the rod, 25, and a spring, 29, is interposed between the sleeve, 28, and the inner surface of the dome, 7, said spring tending to hold the rod, 25, in such position that the hammer, 26, does not normally contact with the gong.

The outer casing, 20, is further apertured at 30, for the reception of a whistle, 31, of any suitable form, and at 32 and 33, for the reception of lubricating tubes, 34 and 35, respectively, said tubes passing through apertures 36 and 37 in the inner casing, 1, and providing means for lubricating the inner surface of the casing, 1, from the exterior of the device. Located in the side of the outer casing, 20, opposite the opening, 19, in the inner casing, 1, is a door, 38, having suitable locking means, said door when opened giving free access to the interior of the inner casing and to the piston, 9.

The device is attached to the inner side of the rim, 39, and between the spokes, 40, of any wheel carrying a pneumatic tire, said tire consisting usually of an outer casing or shoe, 41, within which is an air tight inner tube, 42. As indicated, the extension, 6, of

the hollow shank, 2, extends into the material of the rim, 39, the flange, 3, resting upon the inner surface thereof. The bolts, 5, extending through the flange, 3, through the rim, 39, and through the metal rim, 43, which passes around said rim, 39, are fastened by nuts, 44, or the ends of the bolts may be riveted over if desired, and in this manner the inner casing, 1, and shank, 2, are firmly attached to the wheel. In like manner, the outer casing, 20, is attached, by means of bolts, 23, a washer, 45, providing a flat supporting surface for the flange, 21. The rims, 39 and 43, and the demountable rim, 46, are all apertured to permit free passage therethrough of the plunger, 10.

The operation of the device is as follows:

When the vehicle to which the device is attached is in actual use, the piston, 9, and the plunger, 10, are retained in elevated and inoperable position by the bolt and nut, 16, as indicated in the drawing by the broken lines, in which inoperable position the tapered end, 11, of the plunger, 10, does not extend beyond the outer end of the hollow shank, 2. When the car is left standing alone, however, the driver releases the bolt, 16, at the same time turning it up out of the way, and lowers the piston until the tapered end of the plunger, 10, passing through the apertures in the various rims and between the adjacent edges of the casing, 41, rests upon the inner inflated tube, 42, access to the piston for lowering the same being had through the door, 38, and opening, 9, in the inner casing. The tapered end of the plunger, 10, is not so sharp, nor the weight of the piston, 9, and the plunger, 10, so great as to cause penetration of the inner tube so long as the vehicle is stationary and while the plunger rests idly upon the tube. Should, however, the vehicle be moved while the piston and plunger are in this position it will be apparent that at each revolution of the wheel the piston and plunger will reciprocate within the casing, and the end of the plunger will impart a sharp blow to the inner tube. By regulating the weight upon the plunger and the sharpness of the end of the plunger, 10, the approximate number of blows required for the penetration of the inner tube may be varied as desired, and in this manner the puncture may be made to occur either at the first blow or at some subsequent blow. Should then the vehicle be stolen, the revolution of the wheel sets up a reciprocation of the plunger, 10, and the piston to which it is attached. As the piston reaches the top of the chamber, 8, the head of the threaded bolt, 12, inpinges upon the lower end of the rod, 25, driving it upward and causing its hammer end, 26, to strike and sound the gong, 24. Following the sounding of the gong at an interval depending upon thread adjustment of the weights upon the plunger, comes the puncturing of the tire, and the consequent sounding of the whistle by the exhaust air from the tire which passes up through the hollow shank, 2, and out into the space between the inner casing, 1, and the outer casing, 20.

A device of this character has many advantages. The outer casing, 20, may be painted a bright color to attract attention, and the device will then furnish a conspicuous mark of protection. Any tampering with the device will arouse suspicion, since the rightful owner should be in possession of a key, while should a vehicle equipped with this device be observed to have a flat tire or tires the immediate supposition would be that the car was stolen property. Further marks denoting the fact that a vehicle is equipped with this device may be attached to the radiator and to the rear of the vehicle in conspicuous places, and in this manner one approaching from either front or rear may identify the probable cause of the flat tire. Should, also, the vehicle be left in a garage, with the protective device or devices set, it may still be removed from the garage without difficulty if the necessity should arise, as for instance in case of fire, since the propelling and steering elements are not involved and are left free for use, while should the owner of the vehicle forget to reset the device to safety, the sounding of the gong may give warning of his failure before the tire is punctured.

It will be understood that I do not desire to confine myself to the specific construction herein disclosed, since the device is capable of many modifications without departure from the essential features of the invention.

I claim:

1. The combination with a pneumatic tired wheel, of a theft protection device comprising a support structure attached to said wheel, and a member adapted to reciprocate in said support as the wheel revolves and to deliver a blow to the inner tube of said tire at each reciprocation.

2. The combination with a pneumatic-tired wheel, of a theft protection device comprising a support structure attached to said wheel, and a reciprocatory gravity-actuated member mounted in said support and adapted to impart a blow to said tire at each reciprocation of said wheel.

3. In combination with a pneumatic-tired wheel, a theft-protection device comprising a casing mounted on said wheel, a plunger mounted in said casing and adapted to reciprocate therein as the wheel rotates, said plunger imparting a blow to said tire at each reciprocation, and means for preventing said reciprocating motion of the plunger.

4. In combination with a pneumatic-

tired wheel, a theft-protection device comprising a casing mounted on said wheel, a plunger adapted to reciprocate in said casing with the rotation of the wheel and to impart a blow to said tire at each reciprocation, means for regulating the weight of said plunger, and means for retaining said plunger immovable within the casing.

5. The combination with a pneumatic-tired wheel, of a theft protection device comprising a support structure attached to said wheel, a gong, and a member adapted to reciprocate in said support as the wheel revolves and to deliver a blow both to said tire and to the gong at each reciprocation.

6. In combination with a pneumatic-tired wheel, a theft protection device comprising a gong mounted upon said wheel, and a reciprocatory member carried by said wheel intermediate the said tire and the gong and adapted to reciprocate as the wheel revolves and to deliver alternate blows to said tire and gong at each complete reciprocation.

7. In combination with a pneumatic-tired wheel, a theft protection device comprising a casing, a whistle mounted on said casing, a plunger adapted to reciprocate within said casing and adapted to strike the tire at each reciprocation whereby said tire is punctured, and means whereby the exhaust air from said punctured tire is directed into the casing for operating said whistle.

8. In combination with a pneumatic-tired wheel, a theft-protection device comprising a gong, a whistle, means actuated by the rotation of said wheel for sounding said gong and for puncturing said tire, and means for utilizing the exhaust air from said punctured tire in sounding said whistle.

9. In combination with a pneumatic tired wheel, a theft protection device comprising a casing mounted on said wheel, a plunger adapted to reciprocate in said casing with the rotation of the wheel and to impart a blow to said tire at each reciprocation, means for regulating the force of said blow, and means for retaining the plunger immovable within the casing.

JOHN A. WARD.