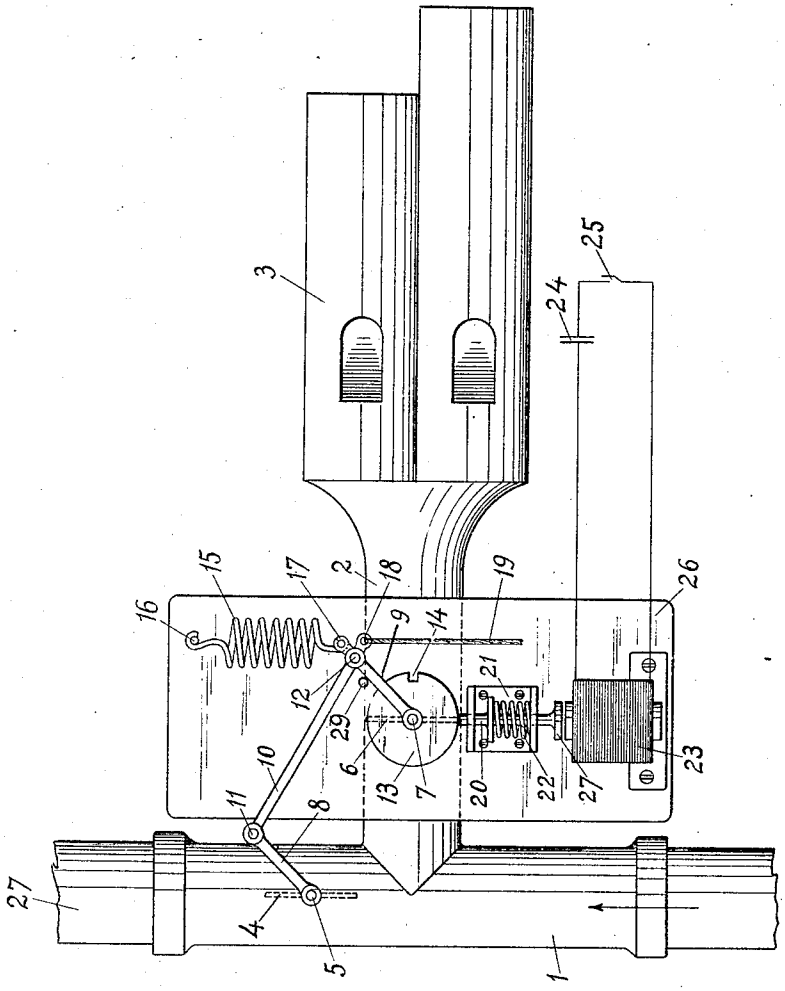
April 21, 1925.

1,534,955

H. HORAK ET AL

ALARM DEVICE FOR AUTOMOBILES

Filed Dec. 5, 1921



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Patented Apr. 21, 1925. 1,534,955

UNITED STATES PATENT OFFICE.

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ALARM DEVICE FOR AUTOMOBILES.

Application filed December 5, 1921. Serial No. 519,956.

To all whom it may concern:

Be it known that we, HENRY HORAK and KAREL HOLOUBEK, citizens of Republic of Czechoslovakia, and residents of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Alarm Devices for Automobiles, of which the following is a specification.

This invention relates to automobile alarms; and the primary object of the same is to provide a simple and effective device of this class which working in conjunction with the exhaust gases of an automobile will sound an alarm when the engine is started without the knowledge of the owner of the automobile. The purpose being to eliminate theft and unauthorized tampering of the automobile, or vehicle, from which exhaust gases emit when the engine is running.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawing, the figure is a plan view of my device as applied to the exhaust pipe of an automobile.

The numeral 1 designates the exhaust pipe of an automobile, the exhaust gases emitting from the engine in the direction of the arrow, 2 is a pipe joined at right angles to exhaust pipe 1 and having a siren 3 connected to its end, 4 is a circular disc placed in the exhaust pipe 1 and pivoted at 5. Inside of pipe 2 a circular disc 6 is placed and is pivoted about 7. The pin 5 extends through the exhaust pipe 1 and has secured to it a rocker arm 8. The pin 7 extends through the pipe 2 and has a rocker arm 9 attached to it. Connecting the rocker arms 8 and 9 is a lever 10 pivoted at 11 and 12. Secured to pin 7 and under rocker arm 9 is a circular disc 13 having a slot 14 cut in it. A spring 15 normally holds the discs 4 and 6 in the position shown in the figure, and is secured at one end to the fixed pin 16 and at the other to the extended end 17 of the rocker arm 9. Fastened to the extended end 18 of the lever 10 is a wire 19 leading to the driver's seat and within convenient reach of the driver. 20 is a plunger held to the bearing 21 against the disc 13 by means of the spring 22. An electro-magnet 23 is placed in circuit with a battery 24 and a switch 25. The several parts are mounted on the housing board 26. As indicated in the figure, when the alarm is not in action and the engine running, the exhaust gases in the pipe 1 pass by the disc 4 and out at the end 27 to the atmosphere. Any tendency of the exhaust gases to pass into pipe 2 and sound the siren 3 is prevented by the disc 6 which is normal to and has a good fit in the pipe 2. When it is desired to prepare the alarm for action the wire 19 is pulled until the slot 14 is engaged by the plunger 20 under the action of the spring 22. When this is done the discs 4 and 6, being linked by the rocker arms 8 and 9, and the lever 10, are turned through 90 degrees from their position shown in the figure against the action of spring 15. The exhaust gases from the engine in the pipe 1 will be encountered by the disc 4 while the pipe 2 offers a free passage for the gases to the siren since the disc 6 is now parallel to the axis of the pipe 2. The exhaust gases will sound the siren and serve as alarm to the owner of the car.

When it becomes necessary to make the device inoperative the switch 25 is closed, which can be also effected from the driver's seat. This being done, the circuit is completed and the core of the electro-magnet 23 magnetized, attracting the extended portion 27 of the plunger 20, against the action of the spring 22, and releasing the disc 13. The discs 4 and 6 are thus turned back to their positions as shown in the figure by means of the spring 15 and the siren made inoperative.

Stop 29 on the housing board may serve to limit the movement of rocker arm 9 and thereby secure disc 4 in the proper position.

The plunger 20 may also be released from the slot 14 of the disc 13 by hand, from a concealed position. Instead of the switch 25, a key switch, or combination lock may be employed for the circuit in order to foil the stealing of the automobile.

The invention is not limited in its use to automobiles and can be applied to motor-boats, motor-cycles and other machines having an exhaust from an engine.

The materials used in the manufacture of the improved device will be of the nature best adapted for the purpose, and instead of wires, cords may be used for actuating the rocker arms, and furthermore, such other changes will be made in the general

construction of the device as may be found necessary and fully within the scope of the invention.

Having thus fully described the invention, what we claim as new is:

In a device of the class described, the combination with a gas exhaust pipe having a disk-shaped gate pivoted therein and a branch from said pipe having a similar gate pivoted therein, of a rocker arm connected with each gate for opening and closing the same, a lever operatively connected to each of said rocker arms, a spiral spring adapted to normally maintain the gate in the exhaust pipe in open position and the gate in the branch pipe in closed position, a disc secured to the shaft mounting the gate in the branch pipe, said disc formed with a notch therein, said disc and said gate in the branch pipe being disposed at right angles to each other, a plunger adapted to normally press against the periphery of said disc, flexible means for rocking said rocker arms against the action of said spiral spring to open the gate in said branch pipe and close the gate in said exhaust pipe, and simultaneously bring the notch in said disc into engagement with said plunger whereby said gates are held in adjusted position and electro-magnetic means for disengaging said plunger from the notch in said disc.

Signed at New York in the county of New York and State of New York this 28th day of November A. D. 1921.

HENRY HORAK.
KAREL HOLOUBEK.