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E. & G. BARBAROUX.

MEANS FOR SIGNALING ON AUTOMOBILES OR THE LIKE VEHICLES.

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Fig. 1

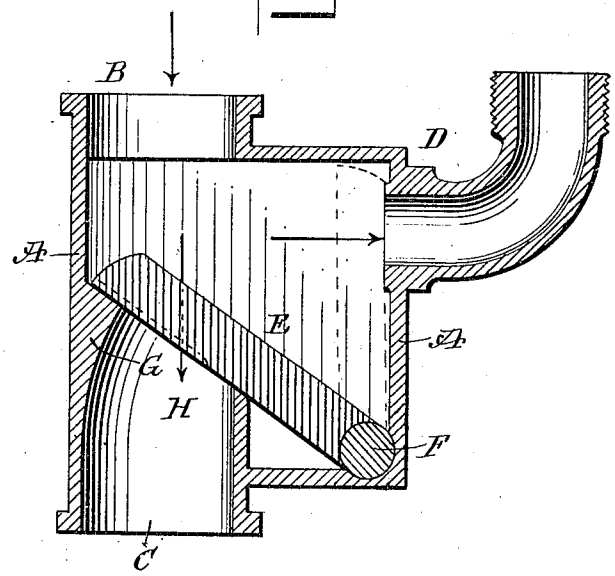
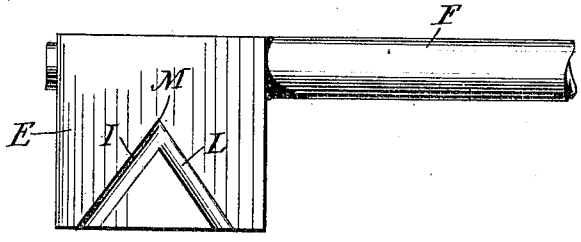


Fig. 2



WITNESSES

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MEANS FOR SIGNALING ON AUTOMOBILES OR THE LIKE VEHICLES.

No. 825,694. Specification of Letters Patent. Patented July 10, 1906.

Application filed March 29, 1905. Serial No. 252,786.

To all whom it may concern:

Be it known that we, EMILIO BARBAROUX and GIACOMO BARBAROUX, of Via Ospedale 1, Turin, in the Kingdom of Italy, have invented Improved Means for Signaling on Automobiles or the Like Vehicles; and we do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement.

This invention relates to improved means for giving signals on automobiles or the like vehicles more readily and effectively than hitherto, and has for its principal object the employment of the exhaust-gases from the motor for operating any convenient or known signaling device, such as a whistle or a siren or the like.

The invention is carried into practice by inserting in the exhaust-pipe of the motor or in a casing leading from the exhaust-pipe a valve that can be worked by the driver so as to direct the gases to the signaling device when a signal or alarm is required or to direct the said gases to the atmosphere when the signal or alarm is not required. The said valve must not be placed beyond the part of the automobile which in Italian is called "marmitta." The marmitta is a casing inserted in the exhaust-pipe between the motor and the atmosphere with the object of rendering silent as much as possible the discharge of the gases into the atmosphere, which would otherwise produce a loud noise; but it should be placed immediately adjacent to the motor.

The preferred form of apparatus is illustrated in the drawings, wherein—

Figure 1 is a section of the whole apparatus, and Fig. 2 shows in front view a detail of the same; but the invention is not limited to the precise details shown.

A is a casing having three openings B, C, and D, of which B is inserted in the exhaust-pipe leading from the motor, C leads from the casing toward the marmitta or the atmosphere, and on D is attached a device for signaling actuated by fluids, such as a whistle, or siren, or similar apparatus. The openings B C face each other, and between them is a valve-seat G H inclined at an angle of, say, about forty-five degrees to the axis common to both openings. On this seat can rest a spindle-valve E, pivoted in the casing by means of a spindle F, capable of being operated through convenient links or the like by the driver of the automobile. When the said valve E rests on the seat G H, the communication between C and the inside of the casing, and consequently between B and C, is interrupted; but when it is turned into the position shown by dotted lines it closes the mouth D of the passage from the inside of the casing to the signaling device aforesaid. The valve E is provided with channels, two, I L, being shown in the drawings, which start from the outside edge of the valve and converging to a point M, which channels are excavated in that face of the valve coming in contact with the seat G H, so as to form air-holes between the valve and its seat.

During the ordinary running of the automobile the valve is maintained in the dotted position against the opening D, so that the exhaust-gases coming from the motor to B go freely through the casing and come out by C, passing therefrom to the marmitta or direct to the atmosphere. When the driver wants to give signals or warnings, he turns the valve onto the seat G H, closing the outlet at C. The gases coming from B pass over the rear face of the valve E and are directed so as to pass through the opening D to the signaling apparatus, comprising a whistle, or siren, or similar device, causing it to work. The portion of gas which is unnecessary for the working of the signaling device, but would have to pass with considerable difficulty through the same, finds a passage through the channels I L, going through them directly to the marmitta or atmosphere, so that by suitably proportioning the section of the channels or air-holes with the force of the motor the remarkable result is obtained of never having in the casing A a rise of pressure so high as to affect in the form of a dangerous counter-pressure the working of the motors, especially when running at a high speed.

Important features of the apparatus are consequently the inclination given to seat G H and the disposition of channels or air-holes in the valve, as aforesaid, preventing dangerous counter-pressure during the operation of the signaling apparatus.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

1. A device of the character herein described, comprising a casing with three open-

ings therein, having communication with the exhaust-pipe of a motor, and a valve for normally closing one of the openings adapted to be swung to close another of the openings, and to open the one first closed thereby, said valve having one or more channels on the face thereof farthest from the said one of the openings first closed thereby.

2. A device of the character described, comprising a casing with three openings therein, having communication with the exhaust-pipe of a motor, and provided at one of said openings with an inclined valve-seat, and a valve for normally closing another of said openings, adapted to be swung on said valve-seat, and provided on its face adjacent to the seat, with intersecting convergent channels leading from an edge thereof.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

EMILIO BARBAROUX.
GIACOMO BARBAROUX.

Witnesses:
GOTTARDO C. PIRONI,
MARIO CAPUCINIA.