G. W. JARVIS.

AUTOMOBILE SIGNAL.

APPLICATION FILED MAY 3, 1921.

1,397,424.

Patented Nov. 15, 1921.

Fig. 1.

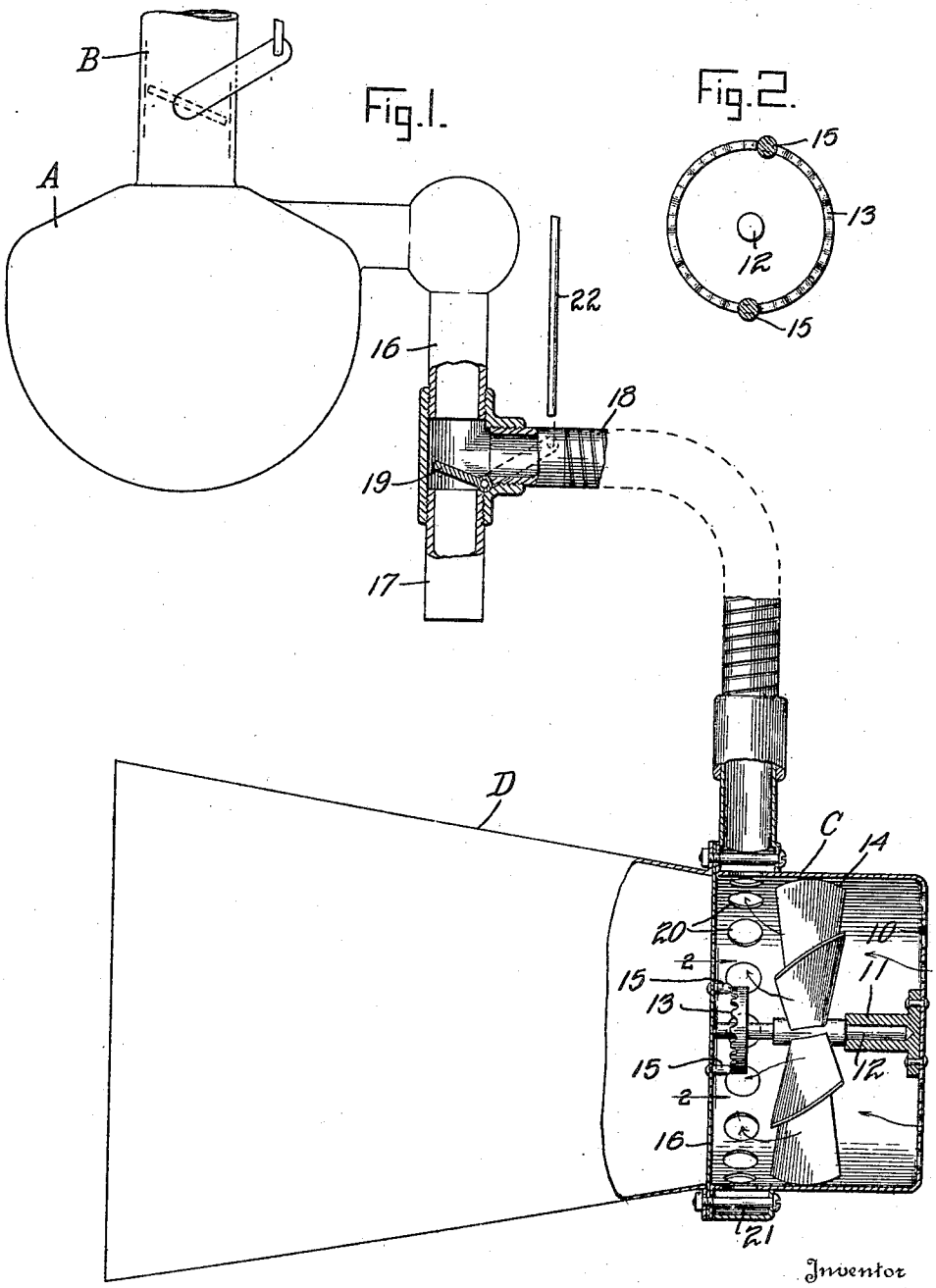


Fig. 2.

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AUTOMOBILE-SIGNAL.

1,397,424. Specification of Letters Patent. Patented Nov. 15, 1921.

Application filed May 3, 1921. Serial No. 466,411.

To all whom it may concern:

Be it known that I, GRAHAM WYLIE JARVIS, a citizen of the United States, residing at Charlottesville, in the county of Albemarle and State of Virginia, have invented certain new and useful Improvements in Automobile-Signals, of which the following is a specification.

My said invention consists in certain improvements in automobile signals designed to be operated by the suction created through the intake pipe of the manifold during the operation of the internal combustion engine.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 shows a general view, partly in elevation and partly in section, illustrating the construction and arrangement of my said signal, and

Fig. 2 is a detail view as seen when looking in the direction of the arrows from the dotted line 2—2 in Fig. 1.

In said drawings, the portions marked A represent a carbureter, B the pipe leading from the carbureter to the intake manifold of the engine, C the casing inclosing the signal apparatus, and D the horn connected therewith, all of which parts are or may be of a substantially common or appropriate construction.

The casing C has a perforated outer end 10 on which is mounted a bearing block 11 in which is mounted a shaft 12. The shaft 12 has at its end a cam 13 with axial extensions and at an intermediate portion carries a rotor 14 with radially extending blades for rotating the shaft and the cam. The cam bears against two pins 15 on a diaphragm 16 the pins being spaced so that one rests in a depression of the cam when the other is on an elevated portion, the whole being intended to give an audible signal in a well known manner.

The carbureter has a pipe 16 connected thereto on which is mounted a T-joint having at one end a pipe 17 communicating with the atmosphere and connected at the center to a pipe 18 extending down to the casing C and opening into an annular chamber 21 about the same. A valve 19 is adapted to close either of the openings in the pipes 17 and 18 or to assume an intermediate position, being controlled in any convenient manner by the operator through a connection 22.

In operation the valve 19 ordinarily is positioned to close the pipe 18, air being taken into the carbureter through the pipe 17. If the operator desires to sound the horn, he will open the valve 19 to a greater or less extent according to the volume and pitch of sound desired, the valve closing the opening in pipe 17 to a corresponding degree. Air is drawn through the perforations 10 and passing through the casing, enters openings 20 formed circumferentially of the casing and opening into the annular chamber 21 communicating with the pipe 18. In its passage through the chamber, the air causes the rotor 14 to revolve and the cam 13 actuates the pins 15 in rapid succession, thus vibrating the diaphragm and sounding the horn.

Having thus fully described my said invention, what I claim as new and desire to secure by Letters Patent is:

An automobile signal comprising a horn, a diaphragm, a casing attached to the rear of the horn having a perforated rear wall, a bearing secured to said wall, a shaft mounted to rotate in said bearing, a cam on the shaft for engagement with the diaphragm, a rotor mounted on the shaft, an annular chamber surrounding the casing at one end, a plurality of communications between the interior of the casing and the annular chamber, and means attached to the annular chamber for causing a current of air to pass through the perforations in the rear wall into the casing to cause rotation of the rotor and shaft, substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at Washington, District of Columbia, this 3d day of May, A. D. nineteen hundred and twenty-one.

GRAHAM WYLIE JARVIS. [L. S.]

Witnesses:

E. K. REICHENBACH,

C. M. KEYS.