H. G. BALTHASAR.

VALVE.

APPLICATION FILED FEB. 4, 1918.

1,302,891. Patented May 6, 1919.

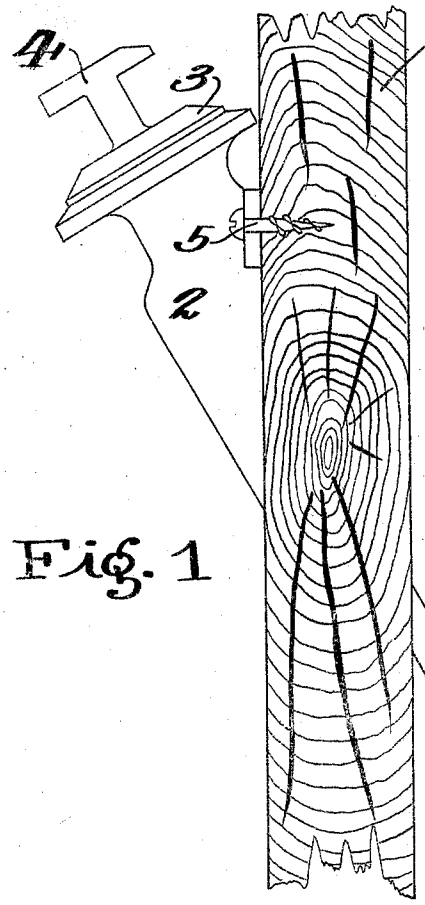

Fig. 1

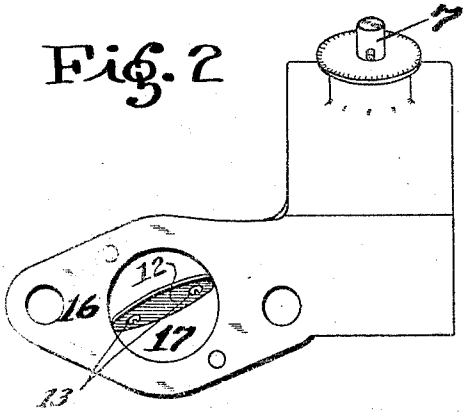

Fig. 2

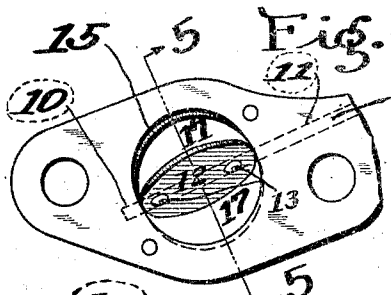

Fig. 3

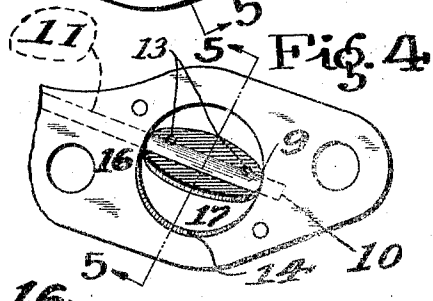

Fig. 4

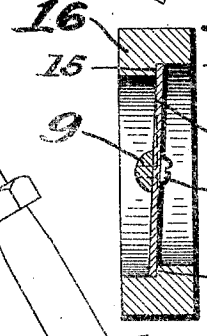

Fig. 5

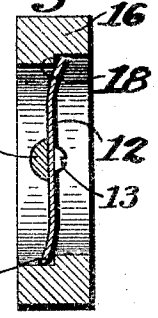

Fig. 6

Inventor:
Harry G. Balthasar,
By Hugh L. Wagner,
Atty.

UNITED STATES PATENT OFFICE.

HARRY G. BALTHASAR, OF ST. LOUIS, MISSOURI, ASSIGNOR TO COMBINATION AUTO-LOCK COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

VALVE.

1,302,891. Specification of Letters Patent. Patented May 6, 1919.

Application filed February 4, 1918. Serial No. 215,259.

To all whom it may concern:

Be it known that I, HARRY G. BALTHASAR, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Valves, of which the following is a specification.

This invention consists of a valve boring or aperture and a valve therefor, preferably to be operated by a combination lock on a motor vehicle.

The object of the invention is to make a tight fit or non-leaking opening when the valve is closed.

The valve is preferably located in a plate or similar member located between the carbureter and the intake manifold of an internal combustion engine.

In the accompanying drawings forming part of this specification, in which like numbers of reference denote like parts wherever they occur,

Figure 1 is a side elevation showing assembled the parts in conjunction with which this valve is preferably used;

Fig. 2 is a view at a right angle to the lower part of Fig. 1 and showing the valve opening;

Fig. 3 is a fragmental elevational view on a slightly enlarged scale as compared to Fig. 2 and showing the opposite side of the plate containing the said valve and its seat;

Fig. 4 is a similar view looking at the parts from the rear of Fig. 3;

Fig. 5 is a sectional view on lines 5—5 in Figs. 3 and 4; and

Fig. 6 is a view like Fig. 5, but showing a slight modification of the valve.

To the instrument board 1 is attached the support 2 for the combination dial 3, adapted to be operated by a knob 4, the said support being attached by screw 5.

Knob 4 actuates a flexible shaft (not shown) contained in a tubular casing 6, which is suitably connected with shaft 7 which enables the working of the combination (not shown) contained in casing 8.

The combination rotates and controls the rotation of pintle 9, which at one end is socketed in a bore 10 and passes through another bore 11.

The valve 12 is fastened to pintle 9 by screws 13 or other suitable means.

The seats 14 and 15 for the valve are so arranged that the valve when closed seats on one of the same with its front face and on the other with its back face, as best seen in Fig. 5 of the drawings. The said valve-seats 14 and 15 are like ledges cut in the metal of plate or similar member 16, which construction makes a particularly tight valve seat well adapted to preevnt the passage of gas.

The borings 10 and 11 are in the center of a true circle, registering with the inner edges of the said ledges or valve seat 14 and 15. To rest on the said valve seats the valve 12 is necessarily somewhat oval in form.

When closed as shown in Fig. 5 no gas can pass from the carbureter into the intake manifold. To open the valve 12 from the position shown in Fig. 5, it is necessary by means of knob 4 to work the combination contained in casing 8. When that has been properly worked and valve 12 opened, gas can pass from the carbureter through passage 17 into the intake manifold.

A slightly modified form of valve 12 is shown in Fig. 6 where it has the bent parts 18 adapted to impinge upon the side wall under spring pressure, the valve-seats 14 and 15 serving as stops.

While reference has been made to valve seats 14 and 15, yet in reality there is but one continuous valve seat, but as it faces in two directions, within passage 17, and the back of valve 12 seats on one part of it and the front of valve 12 upon the other part of it, it is more convenient to describe the same as two valve seats.

Having thus described this invention, I hereby reserve the benefit of all changes in form, arrangement, order, or use of parts, as it is evident that many minor changes may be made therein without departing from the spirit of this invention or the scope of the following claims.

I claim:

1. A valve plate adapted to be located between the carbureter and the intake manifold of an internal combustion engine, the said plate having a continuous valve seat located within an opening therethrough, said valve seat having certain portions thereof facing in two directions, a valve located within said opening, the edge portions of the valve opposite said seat being bent outwardly therefrom and adapted to impinge against said seat with a spring pressure, substantially as described.

2. In combination, a member having a substantially continuous valve seat located within an opening therethrough, said valve seat having certain portions thereof facing in opposite directions, and a valve located within said opening, the edge portions of which opposite said seat being bent outwardly from the latter and adapted to impinge against said seats with a spring-like pressure, substantially as and for the purpose set forth.

In testimony whereof I hereunto affix my signature.

HARRY G. BALTHASAR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."