V. R. HEFTLER.

AIR INLET CONTROL DEVICE FOR CARBURETORS.

APPLICATION FILED JULY 15, 1920.

1,418,259. Patented May 30, 1922.

Fig. 1.

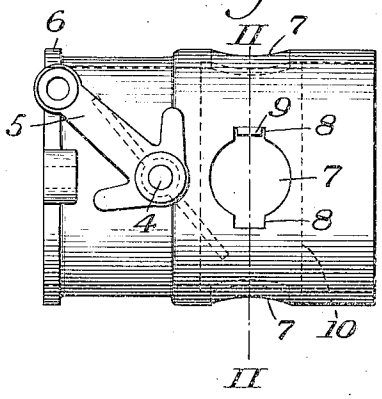


Fig. 2.

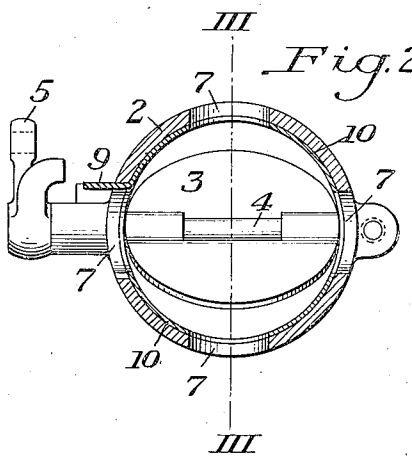


Fig. 3.

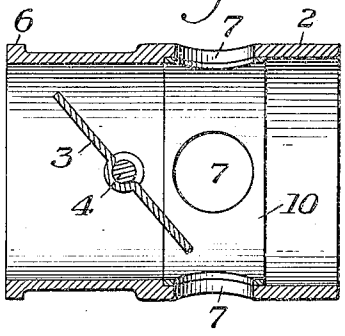


Fig. 4.

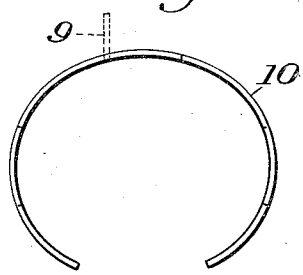
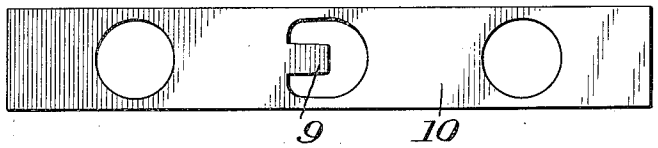


Fig. 5.



Inventor

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his attys

UNITED STATES PATENT OFFICE.

VICTOR R. HEFTLER, OF DETROIT, MICHIGAN, ASSIGNOR TO THE ZENITH CARBURETOR COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

AIR-INLET-CONTROL DEVICE FOR CARBURETORS.

1,418,259. Specification of Letters Patent. Patented May 30, 1922.

Application filed July 15, 1920. Serial No. 396,583.

To all whom it may concern:

Be it known that I, VICTOR R. HEFTLER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Air-Inlet-Control Devices for Carburetors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved air sleeve.

Figure 2 is a cross section on the line II—II of Figure 1.

Figure 3 is a longitudinal section on the line III—III of Figure 2.

Figure 4 is a plan view of the expanding control band, and

Figure 5 is a view of the cut blank forming the control band.

My invention relates to controlling the air inlet to carburetors and is designed to afford an inexpensive, simple and effective device by which the amount of entering air may be adjusted. Heretofore at the air inlet to a carburetor it has been common to use an air casing provided with a strangle valve, adjustable from the dash, by which the entering air may be largely or wholly cut off to give a rich mixture at starting. This casing is commonly connected to a hot air supply and has inlet holes to control the amount of cold air passing in. The control sleeve for the air holes has heretofore been external, usually in the form of a band with its ends clamped together with an adjusting screw.

I have found an inexpensive, simple and effective way of providing an internal control shutter or band which is cheaper, neater in appearance and effective for the purpose.

In the drawings, 2 represents a casing forming the air inlet to a carburetor, and having a butterfly strangle valve 3 mounted on a shaft 4 and actuated by an external lever 5 in any desirable way. The casing is preferably provided at one end with a flange 6 for attachment to the carburetor intake and on the other side of the throttle is provided with four holes 7. One of these holes is preferably provided with side slots 8, as shown in Figure 1, to receive a bent nib or projection 9 on an internal expanding spring band 10. This band is preferably made of elastic metal and fits against an angular recess on the inside of the casing 2. It is of such a length that the ends are spaced apart at one of the holes while the three holes in the band register with the remaining three holes in the casing. The nib is bent out through one of the holes shown in Figure 1. When in the position shown, the nib fits the recessed side portion of this hole so that a full throw may be given to the band by pressing on the projecting nib. Cold air may thus be shut off or regulated in any desired manner. The band is held in place by expanding against the inner wall of the casing, the friction being sufficient to keep it in place.

The advantages of my invention will be apparent to those skilled in the art since an inexpensive, simple and effective shutter control is afforded.

The hot air connection to one end of the casing may be of any desired form; and changes may be made in the form and arrangement of the casing, strangle valves, etc., without departing from my invention.

I claim:

1. In an air inlet control device for carburetors, a casing having an air inlet, and a rotatable internal expanding band arranged to control the air inlet; substantially as described.

2. In an air inlet control device for carburetors, a casing having side holes and an internal elastic band having registering holes and means projecting through one of said first mentioned holes for turning the band, substantially as described.

3. In an air inlet control device for carburetors, a casing having a hole, an internal expanding band held by friction and having a projection extending through the casing to turn the band, substantially as described.

4. In an air inlet control device for carburetors, a casing having side holes and an internal expanding band having holes registering with the casing holes and provided with a projection extending through the casing for turning the band, substantially as described.

5. In an air inlet control device for carburetors, a casing having portions of different diameters forming an internal shoulder, said casing having side holes, one of said holes being recessed laterally, and an internal expanding band in a portion of said casing of larger diameter, said band having

holes registering with said first mentioned holes and being provided with a projection arranged to enter the said recessed portion, substantially as described.

6. In an air inlet control device for carburetors, a casing having side holes, an internal elastic band having a plurality of openings for registering with said holes, one of said holes having a slot forming an offset, and means projecting through said hole and cooperating with said slot for turning said band, substantially as described.

7. In an air inlet control for carburetors, a casing having a shoulder intermediate the ends thereof and provided with a plurality of holes extending entirely through the casing on one side of said shoulder, a split band having a plurality of openings for cooperating with certain of said holes, the ends of said split band being adapted in one position to lie on opposite sides of one of said holes, and means for moving said band to cover or uncover all of said holes, substantially as described.

8. In an air inlet control for carburetors, a casing having a shoulder intermediate the ends thereof and provided with a plurality of holes extending entirely through the casing on one side of said shoulder, a split band having a plurality of openings for cooperating with certain of said holes, the ends of said split band being adapted in one position to lie on opposite sides of one of said holes, means for moving said band to cover or uncover all of said holes, and means projecting from said band and extending through one of said holes for rotating the band to vary the effective area of said holes by moving the openings in the band into and out of registration therewith, subsantially as described.

9. In an air inlet control device for carburetors, a casing having a control means for regulating the flow therethrough, said casing having side holes and an internal expanding band of a sufficient diameter to receive said means and having holes registering with the casing holes and provided with a projection extending through the casing for turning the band, said holes and said band controlling the admission of air to the casing and said first mentioned means thereafter controlling the flow of such air through the casing, substantially as described.

In testimony whereof, I have hereunto set my hand.

VICTOR R. HEFTLER.