Aug. 6, 1929. V. H. SCHNEIDER 1,723,813

AIR FILTER FOR COMBUSTION MOTORS

Filed Jan. 3, 1928

Fig. 1

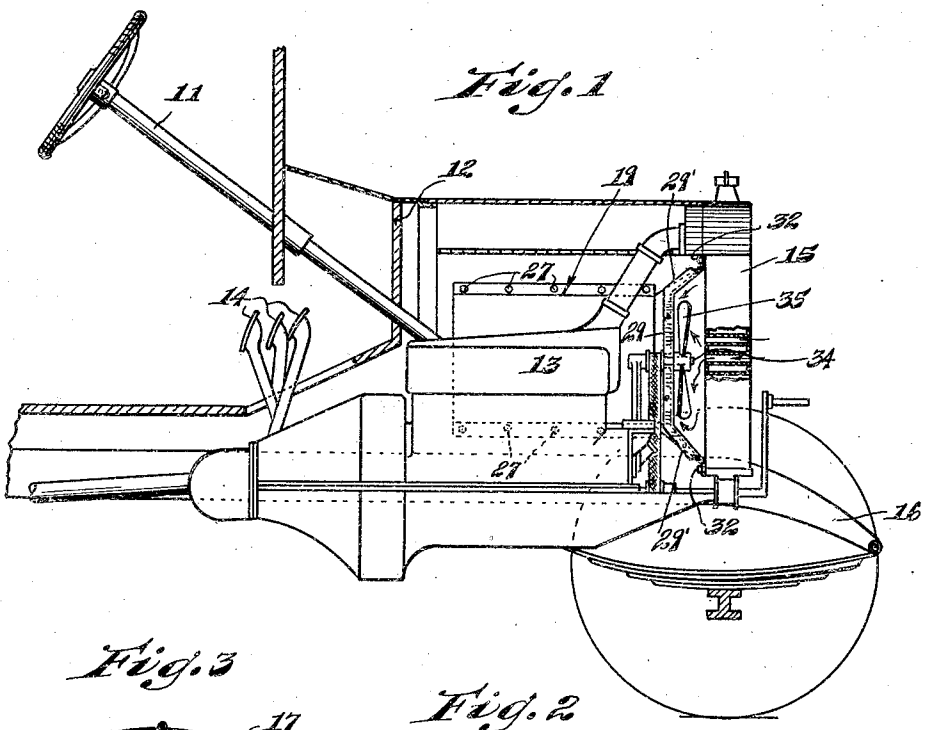


Fig. 3

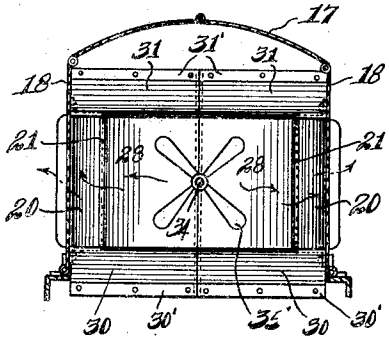


Fig. 2

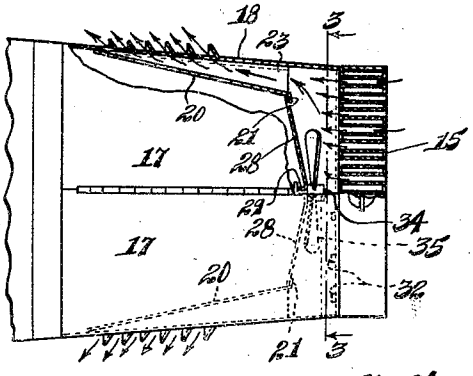


Fig. 5

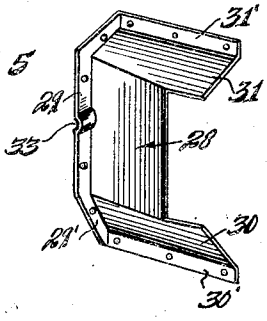
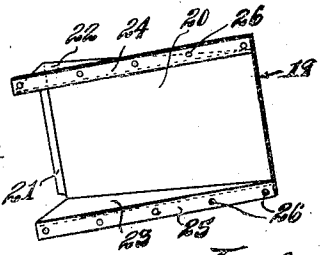


Fig 4



Witnesses:
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UNITED STATES PATENT OFFICE.

VICTOR H. SCHNEIDER, OF IRON MOUNTAIN, MICHIGAN.

AIR FILTER FOR COMBUSTION MOTORS.

Application filed January 3, 1928. Serial No. 244,153.

My invention relates to air filters and deflectors for combustion motors, and more particularly to air filters for all explosion motors of the type used in self-propelled vehicles.

The object of my invention is to provide a device of the kind described that will embody simplicity of design together with sureness of operation, and that will be comparatively of inexpensive construction.

Another object of my invention is provide for automobile engines an air filter that may be conveniently secured to and under the hood of an automobile.

Other objects and advantages of the construction herein employed will appear more fully in the hereinafter specification when taken in connection with the accompanying drawings in which

Figure 1 is an elevational view partly in section with parts broken away, showing my device as applied to the power plant of an automobile.

Figure 2 is a plan view, partly in section of an assembly shown in Figure 1.

Figure 3 is a cross section taken on line 3—3 of Figure 2.

Figure 4 is a detail view of one of the hood engaging elements of my device.

Figure 5 is a detail perspective view of one of the two front sections of my device.

With more particular reference to the drawings in which similar characters of reference indicate corresponding parts in the several views of the preferred form of my invention—11 designates the steering assembly, 12 the dash, 13 the engine assembly, 14 the control levers, 15 the radiator, and 16 a section of the chassis assembly of a conventional type of automobile, not forming a part of my invention.

17 is the hood, to the sides 18 of which I secure by riveting or welding the side baffle members 19 formed of pressed metal, which members comprise the wall 20, the angle projections 21, top and bottom plates 22, 23 having flanges 24, 25 respectively, with holes 26 to accommodate rivets 27.

The forward stamped metal baffle members 28 include the central web 29 having a flange 29′, and the diverging angle portions 30, 31 having flanges 30′, 31′ which latter are secured to the upper and lower parts of the radiator 15 within the hood, by means of bolts or rivets 32, as best shown in Figure 1. Formed integrally with the flange 29 is a recess 33 of the semicylindrical configuration adapted to register with a similar recess in a corresponding baffle member 28 whereby a socket is provided to accommodate the shaft 34 of the fan 35. By these means I am enabled to practically seal the motor 13 against the usual ingress of dust and such particles as accompany the rush of wind through the radiator. The air necessary for the actual operation of the motor is, of course, obtained through the numerous openings at the back of and underneath the motor.

My device offers many practical advantages, not only in the line of eliminating dust and other solid particles from being drawn directly into the carburetor of the motor, but also as a means during cold weather of retaining the motor in heated condition longer than otherwise would be the case, my device in this respect serving in a mode as a heat insulator.

The device herein described and illustrated may be applied to any conventional type of automobile, due allowance being made for the different sizes of the various models involved.

While I have herein described and illustrated with particularity a preferred form of my invention, it will be obvious to those skilled in the art to which this device appertains that variations and changes may be made therein without departing from the spirit or sacrificing any of the advantages of what is defined in the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. An air filter of the kind described comprising a pair of similar baffle plates having flanges joined together to provide a socket for the fan shaft of an automobile motor, said baffle plates constituting the front section of said air filter, a second pair of baffle plates having flanges provided with perforations registering with similar perforations in said first mentioned pair of baffle plates whereby bolts may be passed through said registering perforations for the purpose of securing the pairs of baffle plates together, said second pair of baffle plates constitut-

ing the rear section of the air filter, the said rear section being adjacent to the rear end of the hood of said automobile.

2. An air filter of the kind described comprising a pair of baffle plates jointed together in a manner to provide a socket for the fan shaft of an automobile motor, a second pair of baffle plates attached to the inner sides of the radiator hood of said automobile motor, said second pair of plates being secured to said first mentioned baffle plates whereby a complete deflector of air currents is provided in a manner to prevent the impinging of dust and particle laden air currents directly against the power plant of an automobile within the hood thereof.

3. An air filter of the kind described, comprising, in combination with the radiator and hood of an automobile, a pair of stamped metal baffle plates having apertured flanges to accommodate bolts, a second pair of apertured baffle plates having flanges, means whereby the flanges of each pair of baffle plates cooperate with said hood and radiator to provide a complete baffle to incoming currents of air, which are then directed through vents in the sides of said hood, the flanges of said first mentioned baffle plates providing, when joined together, a socket accommodating the fan shaft of said automobile.

4. An air filter of the kind described comprising, in combination with the radiator and hood of an automobile, a pair of baffle plates having flanges attached to said radiator, said flanges registering one with the other to provide a socket accommodating the fan shaft of an engine within said hood, a second pair of baffle plates having flanges fastened to the flanges of the said first mentioned pair of baffle plates and to said radiator, whereby a baffle system and deflector of air currents impinging against a power plant within said hood, is provided.

In testimony whereof I have signed my name to this specification.

VICTOR H. SCHNEIDER.