Sept. 5, 1933. P. M. SIMON 1,925,971

FUEL SAVER AND DECARBONIZER

Original Filed Feb. 11, 1929

Fig. 1.

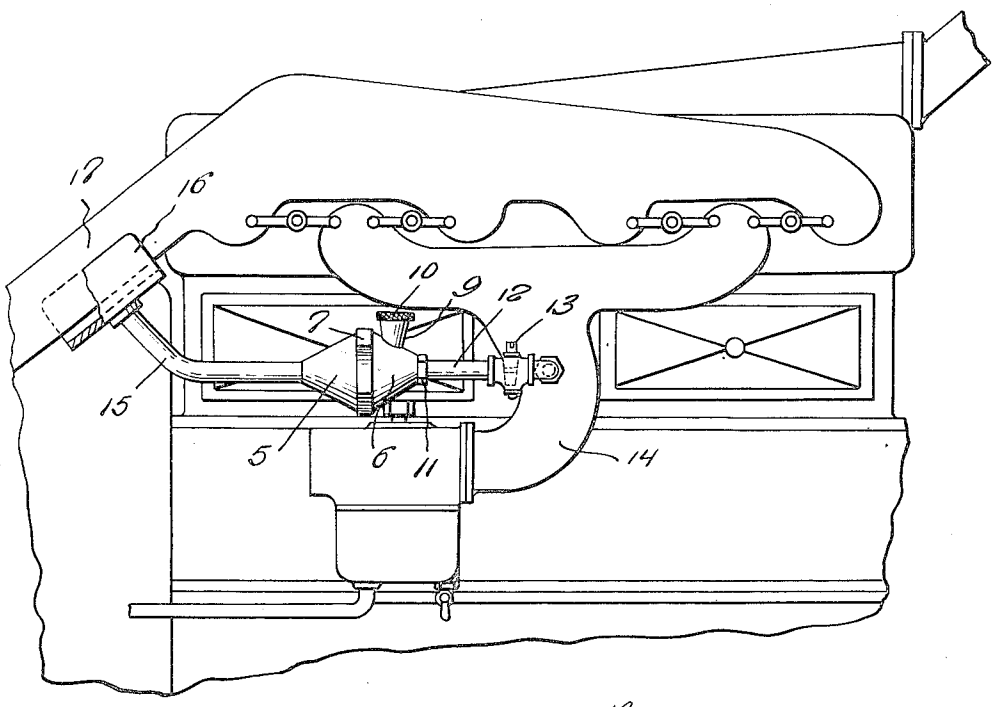
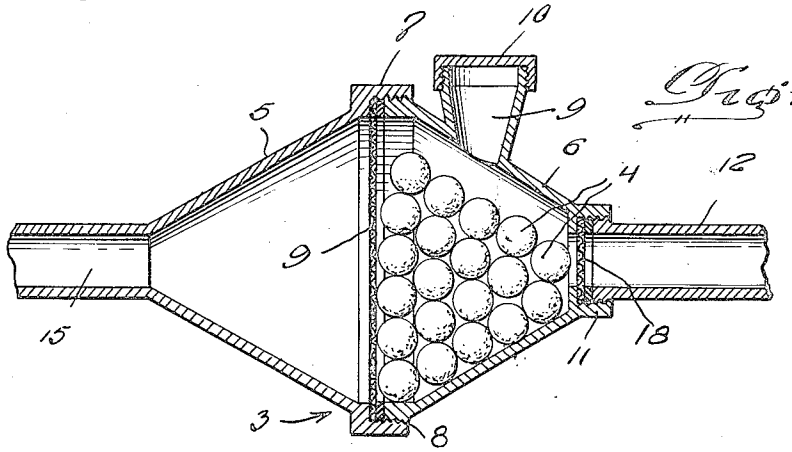


Fig. 2.



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FUEL SAVER AND DECARBONIZER

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Continuation of application Serial No. 339,152, February 11, 1929. This application December 27, 1932. Serial No. 649,091

1 Claim. (Cl. 123—193)

This invention relates to an improved automotive appliance constructed for disposition between an intake manifold and exhaust manifold, and made to reduce fuel consumption, and to minimize carbon deposit, a structure which may be conveniently entitled a fuel saver and decarbonizer. The present application is a continuation of my prior application for U. S. Letters Patent Ser. No. 339,152, filed February 11, 1929.

In carrying out the invention I provide an unusually simplified arrangement of parts so associated and designed as to conduct heated air from the vicinity of an exhaust manifold into the intake manifold, after passing said air through an especially designed casing and container for chemicals.

My principal aim is to generally improve upon inventions of this class by providing a practical modernized, simplified structure composed of separable inexpensive parts co-related and cooperating in a manner to better fulfill the requirements of an invention of this particular classification.

Other features and advantages will become more readily apparent from the following description and drawing.

In the drawing:

Figure 1 is a side elevational view of a motor equipped with a device constructed in accordance with the present invention.

Figure 2 is an enlarged fragmentary sectional view through the central portion of the device.

In Figure 2 the reference character 3 designates a casing or container for the chemical, such as camphorated balls 4. This is composed of complemental frusto-conical sections 5 and 6 respectively. The section 5 is equipped with a rim 7 whose external surface is flat-faced to provide a wrench grip and whose internal surface is screw-threaded to receive an externally screw-threaded rim portion 8 of the section 6. Interposed between these parts 7 and 8 is a strainer or screen 9 and an appropriate packing ring. The chemicals 4 are preferably in the form of balls. The section 6 is equipped with a filler neck 9 and a closing cap 10. It is further provided with an attaching neck 11 with which a short length of pipe 12 is connected. The pipe 12 is in turn connected with a regulating valve 13 of appropriate construction and the valve is connected through the medium of suitable piping with the intake manifold 14 at a point above the carburetor. The section 5 carries an appropriate heated air conducting tube 15 terminating in a shield 16 of appropriate design which embraces the exhaust manifold 17 in spaced relation.

It follows that under the suction produced in the intake manifold, the heated air within the vicinity of the exhaust manifold is accumulated in the shield 16 and is drawn through the pipe 15 and into the casing 3. Here it passes through the straining screen and is acted upon by the chemical elements 4. It also passes through a small screen 18 arranged in the attaching neck or outlet 11, through the pipe 12 and valve 13 and into the intake manifold. This heated chemically treated air comingles with the carbureted mixture, enhances the explosive properties of said mixture and minimizes carbon deposit in the cylinder.

A careful consideration of the description in conjunction with the drawing will enable the reader to obtain a clear understanding of the construction, operation and advantages of the invention. Therefore, a more lengthy description is regarded unnecessary.

Minor changes in shape, size and rearrangement of details coming within the field of invention claimed may be resorted to in actual practice if desired.

What I claim as new is:

In a decarbonizer, a casing comprising frusto-conical sections detachably connected together to form a container for decarbonizing elements, a screen removably clamped between said sections, a filler neck carried by one section and provided with a removable closing cap, valved pipes connected with said one section and adapted for connection with an intake manifold, and an additional pipe connected with the remaining section and provided with a shield adapted to embrace an exhaust manifold in spaced relation to introduce heated air into the casing.

PETER M. SIMON.