

1,387,731.

J. A. McVICKAR.
FILTER FOR CARBURETERS.
APPLICATION FILED MAY 8, 1920.

Patented Aug. 16, 1921.

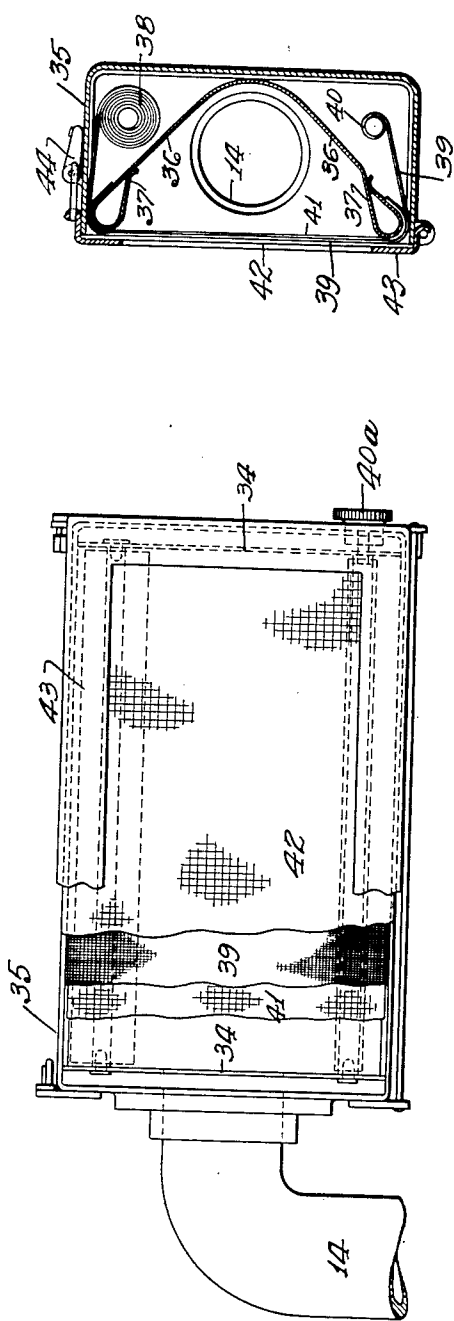


Fig. 2.

Fig. 1.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN A. McVICKAR, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Filters for Carbureters, of which the following is a specification.

This invention relates to carbureters and particularly to a system for filtering the air supply to carbureters as used on automobiles. The objects of the invention are to secure a clean supply of air to the carbureter and to prevent grit and other foreign matter from entering the cylinders of the engine through the carbureter. These objects are obtained by the construction shown in the accompanying drawings in which Figure 1 shows one form of this invention rectangular in shape and Fig. 2 is a cross-section of Fig. 1.

Under ordinary conditions the air supply for the carbureter of an automobile is taken behind the fan of the car where the air is charged with dust and grit from the road-bed and in consequence this dust is drawn through the carbureter into the cylinders causing carbonization. This invention provides a filter of considerable area for filtering the air supply to the carbureter and includes novel means for quickly removing or replacing the filter element as it becomes filled with particles of dust.

In the drawings 14 represents the intake pipe of a carbureter for internal combustion engines to which the filter is attached. This consists of a rectangular casing secured to elbow 14 and having a suitable hinged cover 43 secured at 44. An aperture in this cover is provided with a sheet of wire gauze 41 over which the filter cloth 39 is passed and on the outside another wire screen 42 is provided for mechanical protection. Pipe 14 leads into the case directly below the wire screen 41 and the air drawn into this pipe passes through the filter cloth 39.

The filter cloth 39 is arranged on a roll 38 and passes over the roller 40 which is turned by the knob 40* from the outside of the case. This rolls the filter cloth on roller 40 and brings a fresh surface between the screens 41 and 42 as may be desired without opening the case. When a roll of filter cloth has been used up it is replaced with a fresh roll which is taken up on roller 40 as described.

Pipe 14 leads into the space inclosed between spring 36 and the filter cloth. This spring, by the loops 37, holds the wire 41 and filter cloth 39 taut and guards against the possibility of leakage around the filter cloth.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of an intake pipe for carbureters, an air filter secured to said pipe consisting of a casing having an opening in front covered with wire gauze, a pair of rollers placed in the rear of said casing, a filter fabric passing between said rollers, an arch-shaped, flat spring, said spring secured in said casing in front of said rollers and having its ends arranged to engage and hold said fabric taut against said wire gauze.

2. In a device of the class described, the combination of an intake pipe, an air filter secured to said pipe consisting of a casing having an opening in front covered with wire gauze, a pair of rollers placed in the rear of said casing, a filter fabric passing between said rollers, an arch-shaped, flat spring secured in said casing, the ends of said spring formed in loops and extended to hold said filter fabric taut across said wire gauze.

Signed at New York in the county of New York and State of New York, this 4th day of May, A. D. 1920.

JOHN A. McVICKAR.