May 6, 1924.

1,492,616

H. L. WHITE

AIR CLEANING DEVICE

Original Filed Feb. 4, 1922

Fig. 1.

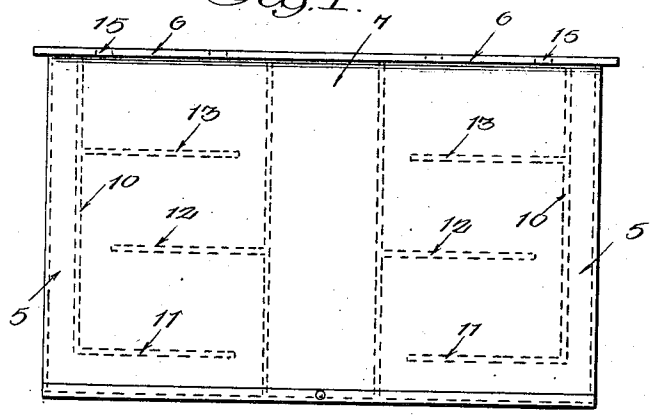
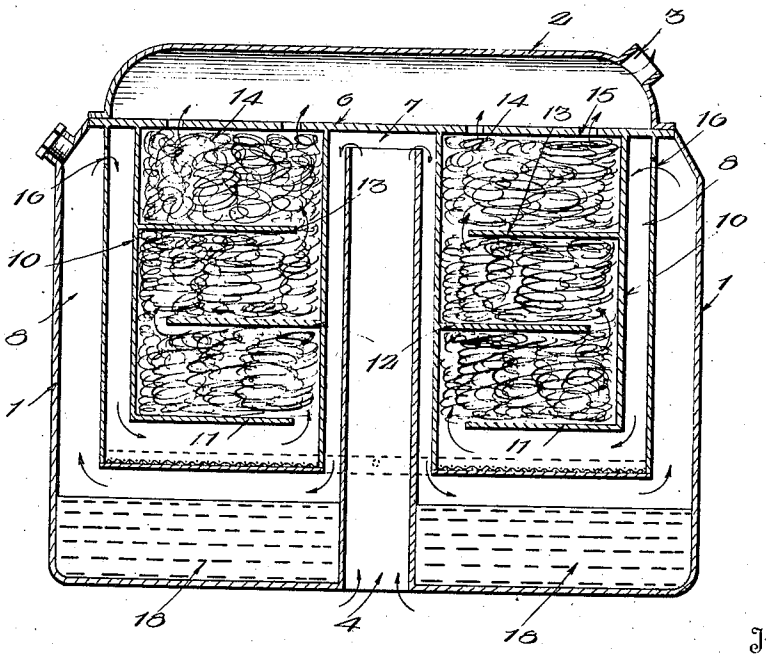


Fig. 2.



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UNITED STATES PATENT OFFICE.

HAROLD LEW WHITE, OF DINUBA, CALIFORNIA.

AIR-CLEANING DEVICE.

Application filed February 4, 1922, Serial No. 534,261. Renewed February 20, 1924.

To all whom it may concern:

Be it known that I, HAROLD L. WHITE, a citizen of the United States, residing at Dinuba, in the county of Tulare, and State of California, have invented certain new and useful Improvements in an Air-Cleaning Device, of which the following is a specification.

The present invention relates to an air cleaning device used in connection with internal combustion engines and especially those used on the Fordson tractor and has for its principal object to provide simple and efficient means for cleansing the air from all particles of dirt and dust which are usually contained in the air about tractors working in agricultural fields.

Another important object of the invention is to provide a device of this nature which is capable of being manufactured at comparatively low cost, which is capable of being used in conjunction with a portion of the cleaning device such as is now used on Fordson tractors and which will be extremely reliable in operation.

In the drawings:—

Figure 1 is a side elevation of the device, and

Figure 2 is a vertical section taken therethrough showing the same attached to the casing of the air cleaner now used upon Fordson tractors.

Referring to the drawing in detail it will be seen that 1 designates the conventional casing which is provided with the cover compartment 2 at its upper open end which is provided with an outlet 3. This casing has a centrally located flue 4 which terminates at its upper end a relatively short distance from the upper end of the casing 1. My attachment consists of a casing 5 having a top plate 6 formed integral or attached thereto in any desired manner. The casing is provided with a pocket 7 for receiving the flue 4 as is shown in Figure 2 and the two spaced filtering compartments 8 which are adapted to be situated on either side of the flue 4 and depend into the casing 1 so as to terminate a distance from its bottom. These filtering compartments 8 are constructed with a depending wall 10 which is spaced from the end wall of the casing 5 and terminate a distance from the bottom of the compartment and are there provided with a baffled plate 11 which terminates a distance from the inner wall of the compartment 8. Another baffle plate 12 extends from the inner wall of the compartment 8 above the baffle plate 10 and a third baffle plate 12 extends from the depending wall 10 above the above baffle plate 12. A mass of oil soaked porous material such as moss 14 is situated between the baffle plates 11, 12 and 13 and between the plate 6. This plate 6 is provided with a plurality of apertures 15 in registry with the compartment 8 disposed between the inner wall and the depending wall 10 so as to allow the air to escape into the cover compartment 2 and out through the outlet 3. The outer wall of the compartment is provided with an aperture 16 at its upper end so that the air may pass into the compartment 8.

As is disclosed by the arrows in Figure 2 the path of the air is as follows. The air enters into the bottom end of the flue 4 into the pocket 7 then passes downwardly between the inner walls of the compartment 8 and the flue 4 into the lower portions of the casing which contain oil as is disclosed at 18. This oil collects the heavier particles of dust and dirt from the air and the air then passes upwardly in the casing and through the apertures 16 into the compartments 8 passing downwardly under the baffle plate 11 through the oil soaked porous material 18 and about the baffle plates 12 and 13, then through the apertures 15 into the cover compartment 2 and finally through the outlet 3.

Having thus described my invention what I claim as new is:—

A device of the class described including a top plate, a pair of spaced compartments depending from the top plate so as to form a pocket therebetween, a depending wall extending from the top plate in each compartment so as to be spaced from its walls and a plurality of baffle plates situated between one wall of the compartment and the depending wall, and a mass of oil soaked porous material supported on said baffle plates.

In testimony whereof I affix my signature in presence of two witnesses.

HAROLD LEW WHITE.

Witnesses:
C. J. BARNWELL,
D. C. BURNHAM.