

United States Patent

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[50] Field of Search..... 55/274,
498, 521; 210/87, 90

[56] **References Cited**
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[54] **CARBURETOR AIR INTAKE FILTERS**
1 Claim, 3 Drawing Figs.

[52] U.S. Cl..... 55/274,
55/521
[51] Int. Cl..... B01d 35/14

ABSTRACT: An annular pleated filter with a vibrating-reed warning device clamping ends of the filter paper and being bonded to end gaskets.

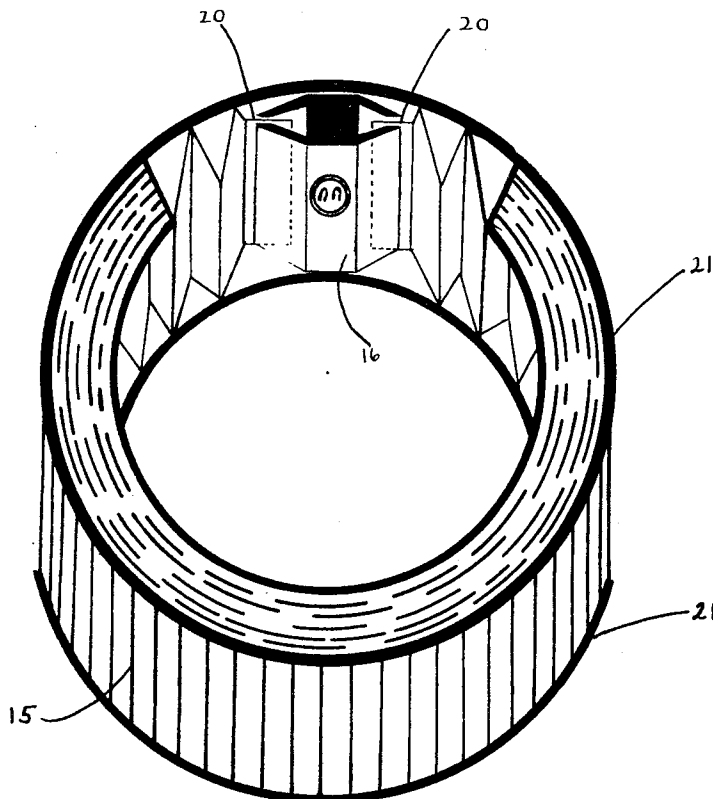


FIG. 1

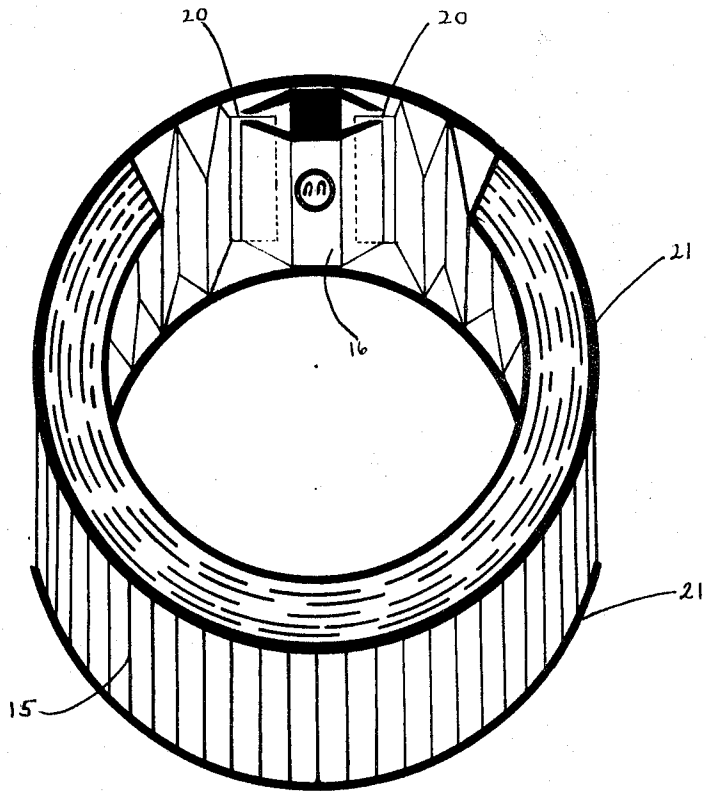


FIG. 2

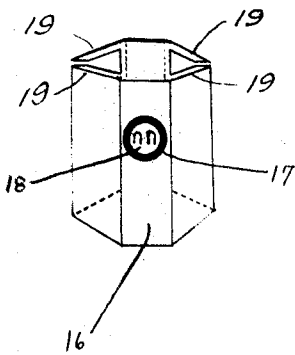


FIG. 3



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CARBURETOR AIR INTAKE FILTERS

This invention relates to air filters. An annular pleated filter with a auto-pollution warning device in combination with a filter paper coupler coupling the lose ends of the pleated filter paper completing a circle which is bonded to the top and bottom gaskets.

Our major problem all over the country today is auto air pollution and what is being done about reducing it. Automobile owners, gas stations and auto repair shops do not have a way to determine the condition of auto carburetor air intake filters, a major cause of auto air pollution. The only means they have to determine the condition of auto air intake filters is compressed air hose and a drop light. But this is not the way to determine the condition of a carburetor air intake filter if it is up to manufacturers specification or if it is in need of replacement. In the meantime automobiles are burning excessive gas, excessive oil, loss of power, car engine stalling which causes many accidents on the road. Unnecessary wear on the engine, improper mixture of air and fuel are a major causes of carburetor fires, and excessive smoke from the exhaust system. All put together we have auto air pollution.

It is therefore an object of this invention to improve carburetor air intake filters with a combination vacuum-sensing sound-producing warning reed coupler which is in combination with a filter paper coupler, coupling the lose ends of the pleated filter paper. The device is to warn the operator of a motor vehicle which is being operated that it is polluting the air due to a faulty carburetor air filter which needs immediate replacing. The warning sound from the combination vacuum-sensing sound-producing warning reed coupler will only sound when the carburetor air intake drops below auto manufacturers specifications. With the running of the engine the warning sound will indicate the carburetor air intake air filter is faulty. The warning device will continue to sound until the carburetor air intake filter is replaced with a new one to help reduce auto air pollution.

These prominent objects are accomplished by the novel construction and arrangement of parts hereinafter described and shown in the accompanying drawing, constituting an essential component of this disclosure, and in which:

FIG. 1 illustrates my new invention an improved carburetor air filter in combination with an antipollution warning device which is a combination warning post and filter paper lose end coupler. In the warning post coupler there is a aperture supported within the aperture there is a calibrated vacuum-sensing sound-producing button warning reed and dust cover which are pressed into the aperture. When the air filter becomes clogged it will then suck air through the aperture in the device causing the calibrated sensing reed to vibrate producing a warning sound to indicate a clogged air filter. On each side of the combination warning post filter paper coupler

there are flexible self-clamping jaws. The lose ends of the filter paper are inserted into the jaws completing a circle which is then bonded to the top and bottom end gaskets,

FIG. 2 shows the combination warning post and filter paper coupler with warning reed pressed into the aperture,

FIG. 3 shows the auto pollution warning reed a combination vacuum-sensing sound-producing button reed.

Referring in greater detail to the drawings the new invention will be seen to consist of a carburetor air intake filter 15, with a auto air pollution warning device 16 which is a combination warning post and filtering paper 20 lose end coupler 16. In the warning coupler 16 there is a aperture 17 therethrough supported within the aperture 17 there is a calibrated vacuum-sensing sound-producing button warning reed 18 which is pressed into the aperture 17. When the air filter 15 FIG. 1 becomes clogged it will then suck air through the aperture 17 in the device 16 causing the calibrated button reed 18 to vibrate producing a warning sound to indicate a clogged air filter 15 FIG. 1. On each of the combination warning post coupler 16 there are flexible self-clamping jaws 19 into the jaws 19 the lose ends of the pleated filtering paper 20 are inserted into the jaws 19 clamping the lose ends of the pleated filtering paper 20 to each side of the device 16 completing a filter 15 circle which is then bonded to the top and bottom end gaskets 21 as shown in FIG. 1 cutaway view.

It is to be understood that the device and warning reed will vary in size and design to accommodate due to different sizes and designs of air filters.

With the invention installed and in operation in its factory specified carburetor base and housing it will maintain carburetor air intake to manufacturers specifications and will help reduce auto air pollution.

From the foregoing it will be seen that a novel unusually practical device for the purpose has been shown and described in its best known embodiments; therefore that is claimed as new and sought to secure by Letters Patent, is:

I claim:

1. An air intake annular pleated filter in combination with an antipollution-warning device comprising a warning post coupler having an aperture therethrough, a calibrated vibrating sensing reed and dust cover supported within the aperture whereby the suction of air through the aperture vibrates the calibrated sensing reed producing a warning sound to indicate a clogged air filter, each side of the warning post coupler having a pair of flexible self-clamping jaws, the lose ends of the pleated filtering paper being positioned between the flexible jaws, whereby the lose ends of the filter paper are clamped and secured in position a dusttight coupling, the completed filtering paper circle with the device being bonded to the top and bottom end gaskets of filter.

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