Jan. 25, 1966 W. A. NICKLESS 3,230,567

TRASH AND LITTER EVACUATING DEVICE FOR AUTOMOBILES

Filed Sept. 13, 1963

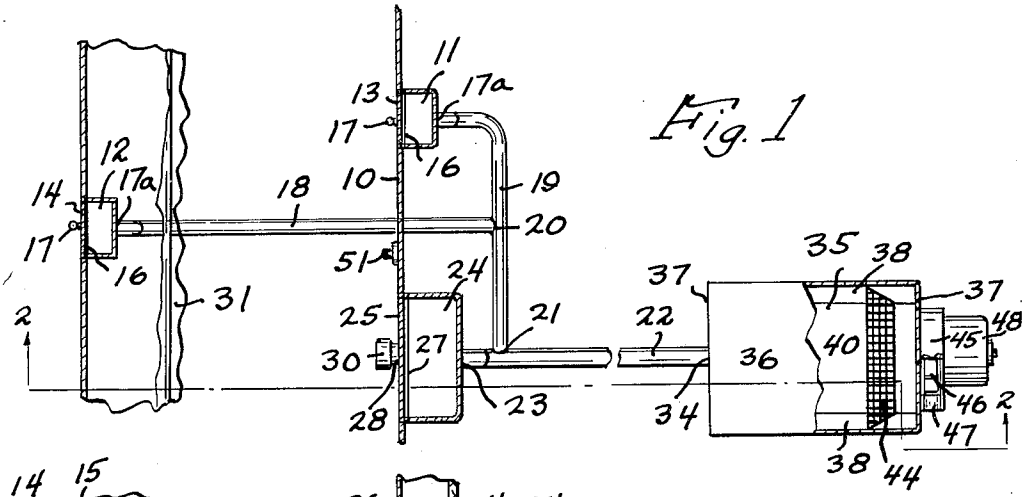


Fig. 1

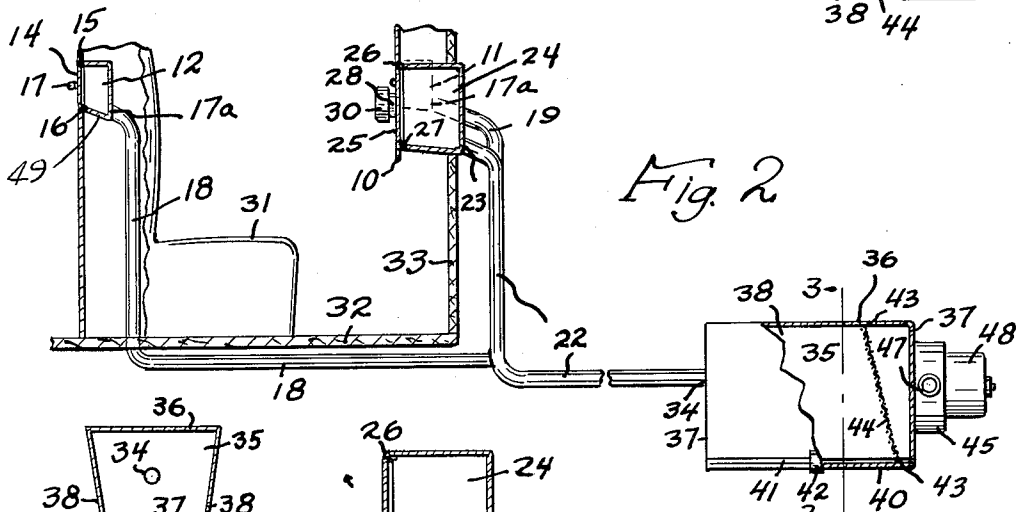


Fig. 2

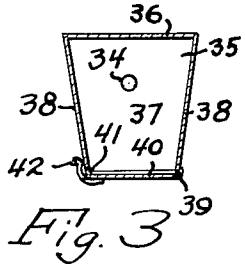


Fig. 3

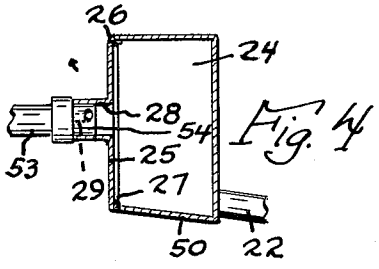


Fig. 4

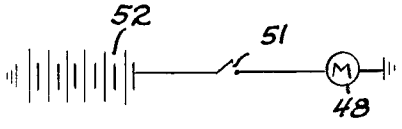


Fig. 5

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TRASH AND LITTER EVACUATING DEVICE FOR AUTOMOBILES

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1 Claim. (Cl. 15—313)

My invention relates to an evacuating device for automobiles and which will include a receptacle for litter and trash.

A further object of my invention is to provide a device which will draw or suck litter of various types, and cigarette and ashes, etc., into a common receptacle which can be emptied when desired.

A further object of my invention is to provide an arrangement whereby the suction applied by the device can be attached to a standard vacuum cleaner type of hose so that the upholstery, etc., in the automobile can be cleaned when desired.

With these and other objects in view, my invention consists in the construction, arrangement, and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

FIGURE 1 is a generally plan view of my device with fragmentary sections,

FIGURE 2 is a sectional view of FIGURE 1 taken generally along the lines 2—2 of FIGURE 1,

FIGURE 3 is a sectional view taken along the lines 3—3 of FIGURE 2,

FIGURE 4 is an enlarged detail of the litter carrying compartment, and

FIGURE 5 is a schematic view of the electrical circuit.

My invention contemplates the provision of a substantially centrally arranged chamber to which is secured an electrically driven suction fan, to thereby draw the contents of a litter receptacle and ash trays to the same.

In describing my invention, I have used the character **10** to designate the front dashboard of an automobile, the characters **11** and **12** indicating the forward and rear ash trays, which ash trays have the covers **13** and **14** pivoted as at **15**, and adapted to bear against the gaskets **16**, the covers having the handles **17** attached thereto to open the same.

Communicating with the ash receptacles **11** and **12** at **17***a* are the hollow tubes **18** and **19** which join at **20**, the tube **19** being joined at **21** to a further tube **22**, the tube **22** communicating at **23** with a larger receptacle **24** having a door **25** and being pivoted at **26**, the door **25** bearing against a sealing gasket **27**.

The lid **25** includes a hollow neck **28** having a bayonet slot **29** therein, and the neck **28** is normally covered by means of a sealing cap **30**, which cap **30** can contain an opening to provide means for the suction pressure to be obtained.

The character **31** indicates the rear seat of the automobile, the character **32** indicates the floorboard, and the character **33** indicates a forward wall.

The tube **22** communicates at **34** with a hollow receptacle indicated generally by the character **35** and having the top wall **36**, end walls **37** and downwardly converging side walls **38**. Pivoted at **39** is a lower wall **40** which is securely held against a gasket **41** by means of a snap device **42**. Attached at **43** within the member **35** is a sloping screen **44**, and attached to an end wall **37** is a fan casing **45** having the fan **46** therein, a cylindrical tube **47** communicating with the casing **45**, and driving the fan or impeller **46** is an electric motor **48**.

The receptacles **11** and **12** can include sloping walls **49** and the receptacle **24** will include a sloping wall **50**,

this arrangement providing means whereby the material will more readily pass into the various pipes. The character **51** indicates an electric toggle switch.

The doors **13**, **14** and **25** are preferably spring-urged by means of suitable torsion springs, as is the wall **40** to provide firm seating against the various gaskets.

In FIGURE 5 the character **52** designates the battery of the automobile which is connected to the circuit as shown.

The device operates in the following manner. The receptacle **24** is adapted to receive litter and trash placed therein by the occupants of the automobile, this device being especially useable to eliminate the throwing of the litter or trash on to the highway. The door **25** is opened by merely clasping the cap **30** and the litter is thrown into the receptacle **24**, and the switch **51** is operated for a short time which therefore starts the motor **48** and the fan **46** whereupon the cover **25** being closed, the considerable suction applied will draw the trash or litter through the tube **22** into the receptacle **35**, the screen **44** preventing entrance of the litter into the fan and the like.

It will also be noted that the tubes **18** and **19** function in the same manner to suck the contents from the receptacles **11** and **12** into the container **35**, the members **11** and **12** containing the usual cigarette butts, ashes and the like, and it will thus be observed that when the switch **51** is operated, the entire system consisting of the litter compartment and the ash trays will be thoroughly cleaned and evacuated. The receptacle **35** can be emptied when desired by merely swinging the door **40** downwardly, the arrangement then being reclosed again.

The various doors **13**, **14** and **25** can include any type of openings desired to insure the proper suction effect. In case it is desired to clean the upholstery in the automobile, a standard vacuum cleaner attachment **53** having the engaging portion **54** can be engaged with the bayonet slot **29**, and the switch **51** is then operated for this purpose.

It will be especially understood that minor variations could be made in the hose connections and other parts without departing from the essential spirit of the invention.

It will now be noted that I have provided the advantages mentioned in the objects of my invention with further advantages being apparent.

Some changes may be made in the construction and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claim any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

A trash and litter evacuating device for automobiles comprising means providing a chamber for the retention of litter, means for providing suction through said chamber, a litter receptacle mounted within said automobile, a hollow tube connected between said litter receptacle and said chamber for evacuating material from said litter receptacle, said litter receptacle having a pivoted closure, said pivoted closure having conduit means thereon communicating with the interior of the receptacle and adapted selectively to receive a suction cleaner attachment or a closure cap, further tubes communicating with said chamber, said further tubes communicating with ash trays of said automobile, said suction means including an electric motor, a fan driven by said electric motor, said fan being positioned adjacently to said chamber, and communicating therewith, said chamber including a lower discharge wall pivoted to said chamber, and a screen for preventing movement of litter through said chamber, said screen

being angularly inclined and being positioned adjacently to said fan.

References Cited by the Examiner

UNITED STATES PATENTS

918,896	4/1909	Noe.	
1,005,005	10/1911	Dillon	15—314
1,810,607	6/1931	Irons	15—313
2,656,039	10/1953	Leland	206—19.5
2,680,569	6/1954	Shearer	15—314 X
2,815,156	9/1958	Thompson	206—19.5
3,011,627	12/1961	Frost	206—19.5
3,062,363	11/1962	Elswood	206—19.5

FOREIGN PATENTS

370,087	1/1907	France.

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