

July 17, 1934.

M. UITTO

1,966,774

CIGARETTE EXTINGUISHER

Filed Aug. 8, 1933

3 Sheets-Sheet 1

Fig. 1.

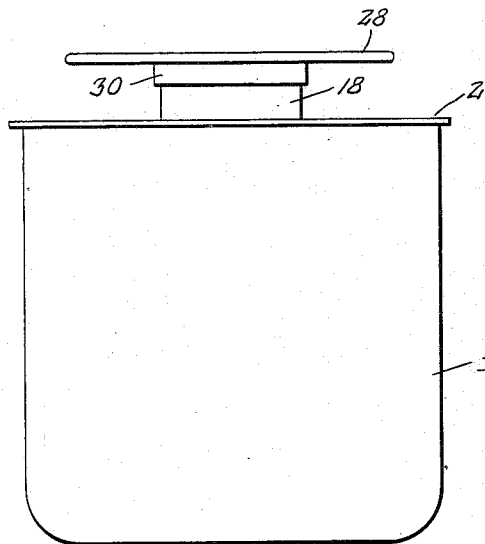


Fig. 5.

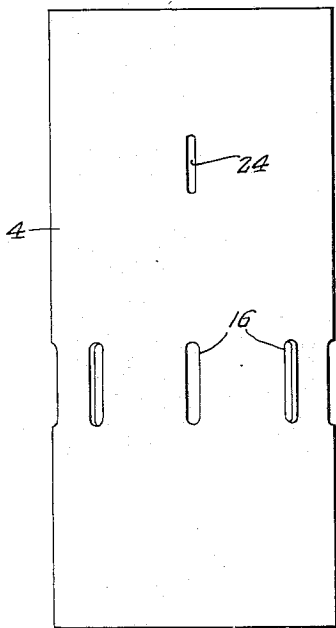
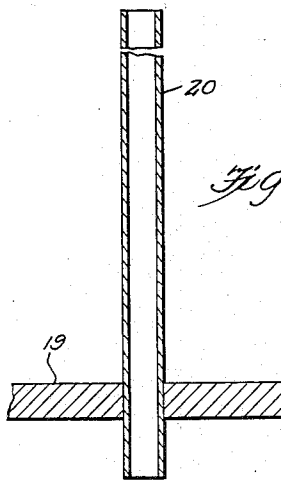


Fig. 7.



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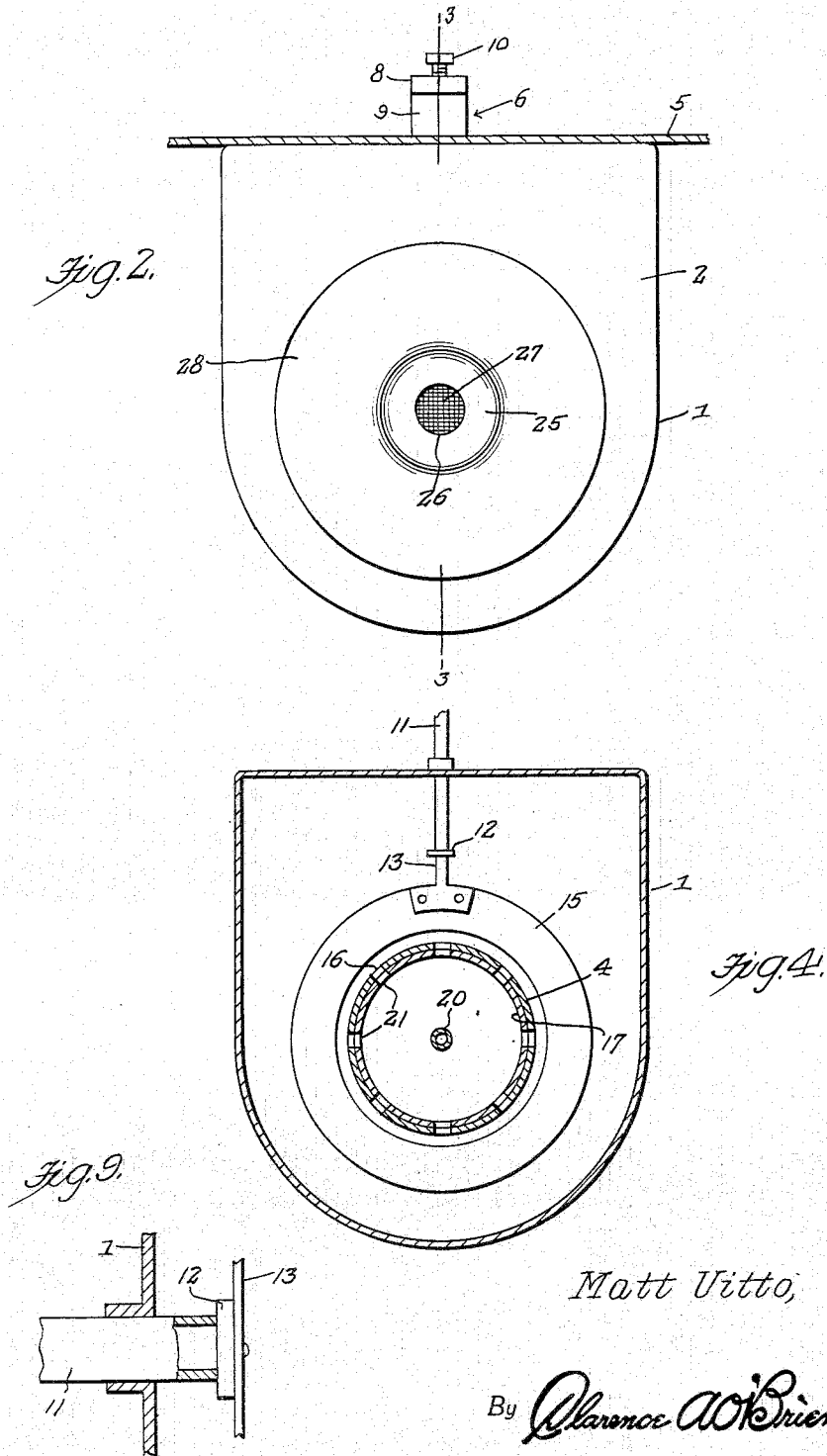
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3 Sheets-Sheet 2



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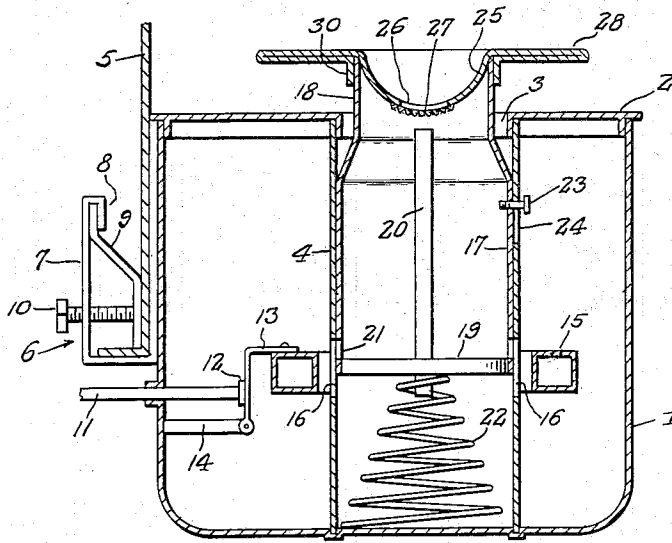


Fig. 3.

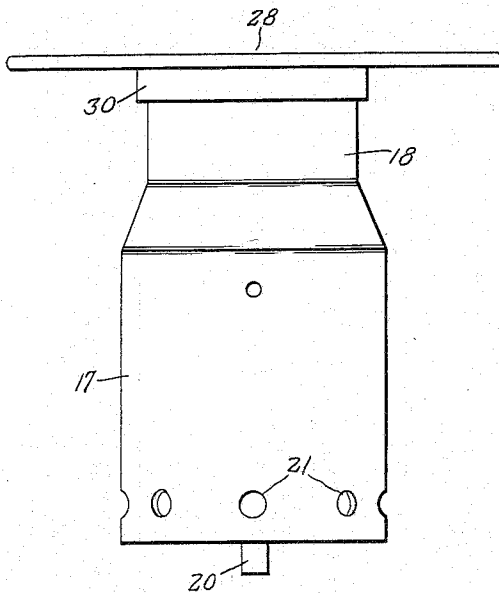


Fig. 6.

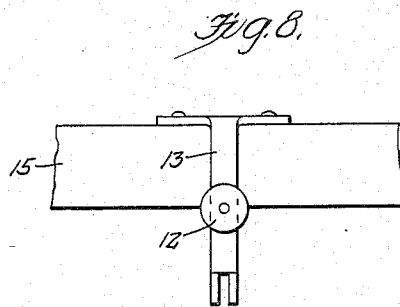


Fig. 8.

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UNITED STATES PATENT OFFICE

1,966,774

CIGARETTE EXTINGUISHER

Matt Uitto, Winlock, Wash., assignor of one-half
to Jacob Erving, Winlock, Wash.

Application August 8, 1933, Serial No. 684,279

2 Claims. (Cl. 131—51)

The present invention relates to new and useful improvements in cigarette extinguishers particularly for use in automobiles and has for one of its important objects to provide, in a manner as hereinafter set forth, a device of this character embodying a novel construction, combination and arrangement of parts through the medium of which a jet or stream of water may be conveniently played on the lighted end of a cigarette in a manner to effectively and expeditiously extinguish the fire.

Other objects of the invention are to provide a cigarette extinguisher of the aforementioned character which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, light in weight, compact, attractive in appearance and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a view in front elevation of a cigarette extinguisher constructed in accordance with the present invention.

Figure 2 is a view in top plan thereof.

Figure 3 is a view in vertical longitudinal section, taken substantially on the line 3—3 of Figure 2.

Figure 4 is a view in horizontal section through the cigarette extinguisher.

Figure 5 is a detail view in side elevation of the cylinder.

Figure 6 is a detail view in side elevation of the plunger which is operable in the cylinder.

Figure 7 is a detail view in vertical section through the water elevating tube of the plunger.

Figure 8 is a detail view in elevation of the water control valve.

Figure 9 is a view in side elevation of the water control valve, showing the same engaged with the outlet end of the supply conduit, the latter being broken away in section.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a container 1 for the reception of water, said container including a top 2 having a circular opening 3 therein from which a cylinder 4 depends. The cylinder 4 extends vertically in the container 1 from the bottom of said container to the top 2 thereof.

The container 1 is secured to the instrument board 5 of an automobile through the medium of a clamp which is designated generally by the reference numeral 6. The clamp 6 includes a substantially U-shaped member 7 one leg of which is fixed to the container 1. The free end of the other leg of the member 7 terminates in a hook 8 in which one end portion of an angular plate 9 is engaged. The other end portion of the angular plate 9 is clamped against the instrument board 5 through the medium of a set screw 10. The construction of the clamp 6 is, it will be noted, such as to facilitate attachment to metallic instrument boards of the construction in widespread use at present.

The reference numeral 11 designates a supply conduit from the engine cooling system which extends into the container 1 at an intermediate point. The supply of water to the container 1 is controlled by a valve 12 which seats on the inner end of the conduit 11. The valve 12 is mounted on an angular arm 13 which, in turn, is pivotally connected, at one end, to a bracket 14 which is provided therefor in the container 1. Fixed on the free end of the angular arm 13 is an annular float 15. It will thus be seen that when the water in the container 1 reaches a predetermined level, the valve 12 is seated by the float 15 thereby closing the conduit 11. At an intermediate point, the cylinder 4 has formed therein a plurality of circumferentially spaced, vertical water inlet and outlet slots 16.

Mounted for reciprocation in the cylinder 4 is a plunger 17 which includes a reduced upper end portion 18 which extends through the opening 3 in the top 2. The bottom of the plunger 17 is closed by a disk 19 in which a vertical water elevating tube 20 is fixed. Immediately above the bottom 19, the plunger 17 has formed therein a plurality of water outlet openings 21 which register with the slots 16 in the cylinder 4. The plunger 17 is yieldingly supported on a coil spring 22 in the lower portion of the cylinder 4, said spring normally maintaining the plunger in its raised position, as will be apparent. Vertical movement of the plunger 17 is limited by a stop screw 23 which projects laterally from said plunger and which is operable in a vertical slot 24 in the cylinder 4. The slot 24 is arranged to arrest upward movement of the plunger 17 under impulsion by the spring 22 when the bottom of said plunger is at an intermediate point relative to the slots 16, as illustrated to advantage in Figure 3 of the drawings. When in this position, it will be noted that the openings 21 are in com-

munication with the slots 16. It will also be noted that the annular float 15 encircles the cylinder 4.

Mounted in the upper end of the plunger 17 is a bowl 25 having a central opening 26 therein beneath which a screen 27 is provided. The bowl 25 has formed integrally therewith a marginal flange 28 which is folded under, as at 29, and terminates in a depending neck 30 which encircles the reduced upper end portion 18 of the plunger 17.

In use, water from the cooling system of the automobile engine enters the container 1 through the conduit 11 and flows through the slots 16 thereby filling the lower portion of the cylinder 4 to a level adjacent the bottom 19 of the plunger 17 which, as previously stated, is normally in its raised position. When the water reaches this level in the container 1, the float 15 seats the valve 12 for closing the conduit 11. To extinguish a cigarette, the lighted end of said cigarette is engaged on the screen 27 through the opening 26 in the bowl 25 and downward pressure is then exerted on the flange 28 for depressing the plunger 17 against the tension of the spring 22. When the lower end of the plunger passes the lower ends of the slots 16 the water in the lower portion of the cylinder 4 is trapped and can only escape through the tube 20. It will thus be seen that the water is forced upwardly through the tube 20 in a manner to be discharged on the lighted end of the cigarette through the screen 27. When downward pressure is removed from the plunger, said plunger is returned to its raised position by the spring 22 and the water which has been discharged through the tube 20 returns by gravity to the container 1 through said plunger 17, the openings 21 and the slots 16.

It is believed that the many advantages of a cigarette extinguisher constructed in accordance with the present invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:—

1. A cigarette extinguishing device comprising a water container, a cylinder vertically arranged in the container and having an opening intermediate the ends thereof for permitting water from the container to enter the cylinder, a hollow plunger slidably arranged in the cylinder and

having its upper end projecting from the cylinder with its lower end closed, and said lower end having an opening in a side part thereof for registering with the opening in the cylinder, a spring in the bottom of the cylinder for engaging the bottom of the plunger for pressing the plunger upwardly, stop means for normally holding the plunger, under the action of the spring, in a position with its opening in register with a part of the opening in the cylinder and with its bottom above the lower portion of said opening in the cylinder, whereby the lower part of the cylinder and the chamber formed by the hollow construction of the plunger, are in communication with the water container through said opening in the cylinder, a bowl for the reception of the lighted end portion of a cigarette mounted on the upper end of the plunger and having a screen-covered opening therein, and a tube passing through the bottom of the plunger and extending to a point adjacent said opening.

2. A cigarette extinguishing device comprising a water container, a cylinder vertically arranged in the container and having an opening intermediate the ends thereof for permitting water from the container to enter the cylinder, a hollow plunger slidably arranged in the cylinder and having its upper end projecting from the cylinder with its lower end closed, and said lower end having an opening in a side part thereof for registering with the opening in the cylinder, a spring in the bottom of the cylinder for engaging the bottom of the plunger for pressing the plunger upwardly, stop means for normally holding the plunger, under the action of the spring, in a position with its opening in register with a part of the opening in the cylinder and with its bottom above the lower portion of said opening in the cylinder, whereby the lower part of the cylinder and the chamber formed by the hollow construction of the plunger, are in communication with the water container through said opening in the cylinder, a bowl for the reception of the lighted end portion of a cigarette mounted on the upper end of the plunger and having a screen-covered opening therein, a tube passing through the bottom of the plunger and extending to a point adjacent said opening, and means for automatically maintaining the water level in the container at a point where the water can enter the lower part of the cylinder and any water in the plunger can drain therefrom.

MATT UITTO.