Feb. 9, 1932. W. B. BRONANDER 1,844,056

FIRE EXTINGUISHER

Filed March 17, 1930

Fig. 1.

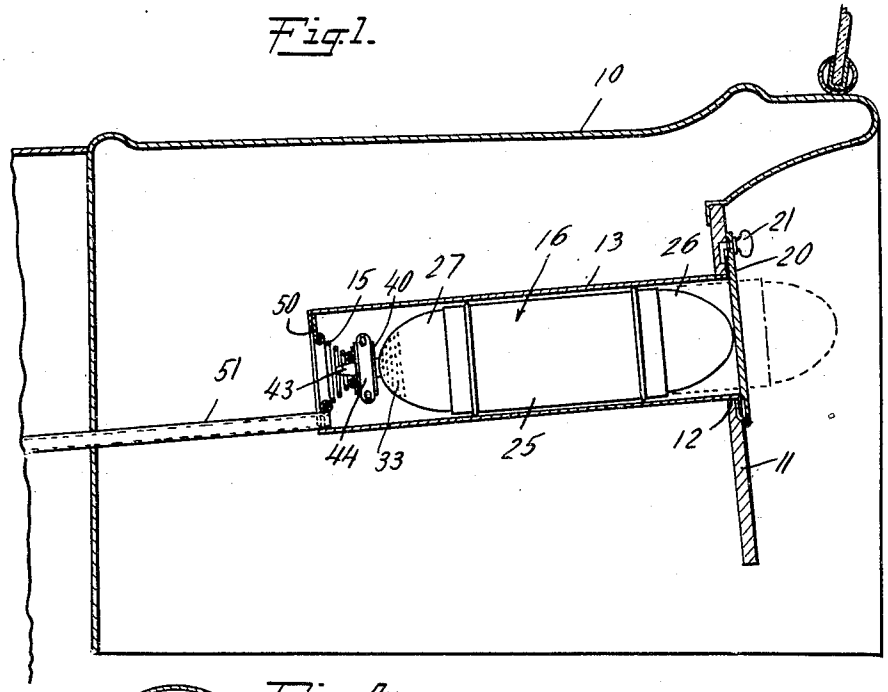


Fig. 4.

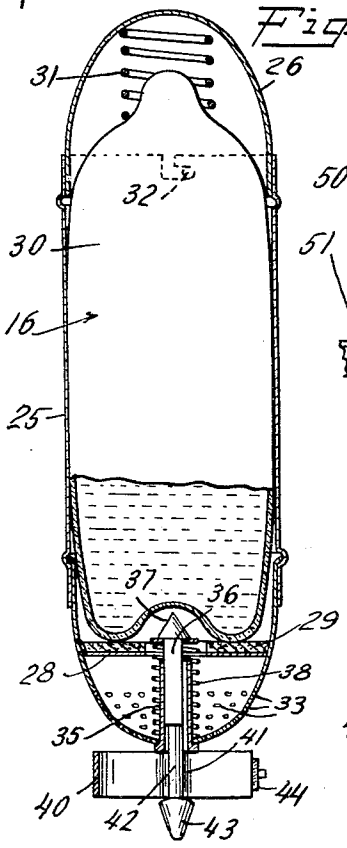


Fig. 2.

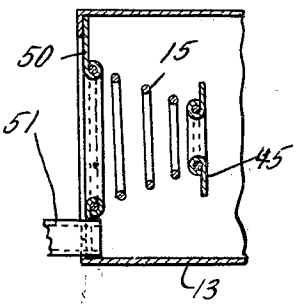


Fig. 5.

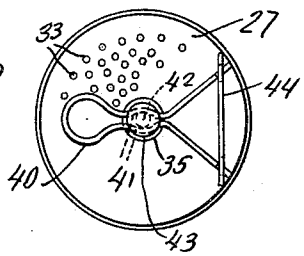
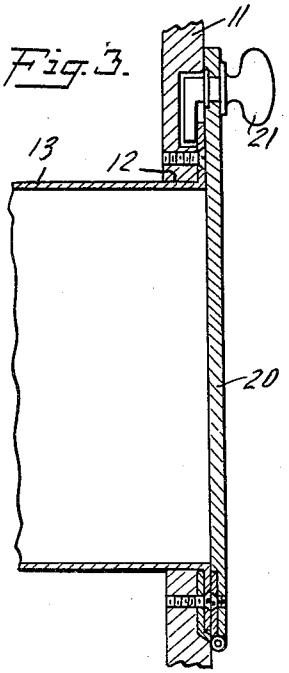


Fig. 3.



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UNITED STATES PATENT OFFICE

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FIRE EXTINGUISHER

Application filed March 17, 1930. Serial No. 436,280.

This invention relates to fire extinguishers and particularly to supports or mountings therefor.

The invention pertains more specifically to a fire extinguisher support or mounting adapted for use in motor vehicles and has for its salient object to provide a mounting so arranged that the extinguisher will normally be concealed from sight but will be readily and quickly accessible when needed.

Another object of the invention is to provide means for so housing or supporting a fire extinguisher device in a motor vehicle that the device will be automatically ejected into position to be grasped when the closure for the housing has been opened.

Another object of the invention is to provide a support for a fire extinguisher device, so constructed and arranged that the extinguisher will operate automatically in case of fire.

Further objects of the invention will appear from the following specification taken in connection with the drawings, which form a part of this application, and in which

Fig. 1 is a sectional elevation taken through the instrument board and cowl of a motor vehicle, showing a pocket or housing carried by the instrument board and adapted to house a fire extinguisher device;

Fig. 2 is an enlarged sectional elevation showing the rear end of the pocket or housing;

Fig. 3 is an enlarged sectional elevation showing the front end of the pocket and a closure therefor;

Fig. 4 is a sectional elevation showing the extinguisher; and

Fig. 5 is an end elevation of the extinguisher shown in Fig. 4.

The invention briefly described consists of the combination of a supporting panel, such as an instrument board, having an opening therein, a pocket or casing carried by the panel and extending away from the opening, and a closure for the opening or open end of the casing. An extinguisher is slidably mounted in the pocket or casing and is engaged at its inner end by a spring which is adapted to be compressed when the extinguisher is pressed into the pocket and the closure is closed. When the closure is opened, the spring automatically ejects the extinguisher into a position to be engaged by an occupant of the vehicle. The extinguisher is so constructed and arranged that in case of fire the fire extinguishing fluid will be automatically discharged therefrom and a conduit is connected to the inner end of the casing or pocket for conducting the fluid forwardly and discharging it over the engine.

Further details of the invention will appear from the following description.

In the form of the invention illustrated, there is shown a portion of the cowl 10 of a motor vehicle and an instrument board or panel 11 extending downwardly in the front of the vehicle. The instrument board has an opening 12 and a pocket or casing 13 is mounted on the instrument board and extends forwardly beneath the cowl 10. A compression spring 15 is secured to the front end of the pocket or casing 13 and is adapted to engage the front end of the container or fire extinguisher 16. A door or closure 20 is hinged to the instrument board and is adapted to close the open end of the casing or pocket and is provided with a latch 21 for holding the door or closure in closed position.

Any suitable form of fire extinguisher may be housed in the pocket or casing 13 and in the form of the invention shown there is illustrated an extinguisher device consisting of a casing comprising a central portion 25 and end portions 26 and 27. A disk 28 is secured at the end portion 27 and a washer 29, preferably of felt or like material, seats against the disk 28. A container 30 of frangible material is mounted in the casing of the extinguisher and is held against endwise movement by a spring 31. The end portion 26 of the casing is preferably detachable or removable to permit the extinguisher casing to be refilled. Any suitable form of connection, such as the bayonet joint 32 may be provided between the portion 26 and the portion 25 of the casing of the extinguisher.

The end portion 27 of the extinguisher has openings or perforations 33 formed therein

and a bushing 35 is connected to the portion 27 and slidably supports a plunger 36 having a spike or barb 37 at its inner end. A spring 38 tends to press the plunger 36 inwardly and the plunger is held in retracted or outer position by means of a spring clip 40 having a reduced portion 41 which embraces the shank 42 of the plunger 36. A head or button 43 is formed on the outer end of the shank and seats against the portion 41 of the spring 40. The legs of the spring 40 normally tend to spread but are held against operation by means of a fusible link 44 secured to the free ends of the spring clip 40.

In order to properly position the extinguisher in the housing, the spring 15 has a washer or flange 45 secured to the end thereof. The button or head 43 is adapted to seat in the washer, as shown in Fig. 1, and the flange of the washer rests against the outer edge of the spring clip 40.

It will be noted particularly from the showings in Figs. 1 and 2, that the inner end of the pocket 13 is formed by a disk 50 having a central opening 51. The disk is rolled around the outer convolution of the spring 15.

In order to conduct the fire extinguishing fluid or liquid to a position over the engine or over the carbureter, if desired, a pipe or conduit 51 is secured to the front end of the pocket or casing 13. It will be noted from the showing in Fig. 1 that the pocket inclines downwardly and, therefore, if the extinguisher is not removed from the pocket in case of fire and used manually, the fusible link 44 will release the plunger 36, whereupon the frangible container 30 will be broken and the fire extinguishing liquid will be released into the casing 13 and will be conducted from the casing 13 through the pipe and to a position above the engine. A suitable nozzle or distributing device may be connected to the discharge end of the conduit 51, if desired.

On the other hand, if an occupant of the car realizes that the vehicle is on fire, the door or closure 20 can be opened, whereupon the extinguisher device will be automatically ejected into a position to be grasped and manually operated.

From the foregoing description it will be evident that a simple and practical housing for a fire extinguisher has been designed. The provision of automatic ejecting means in the housing insures the projection of the extinguisher into a position to be grasped as soon as the door of the pocket is opened, thus cutting down to a minimum the time required for the manual operation of the device. Furthermore, it will be evident that by means of the construction described, the fire extinguishing liquid will be automatically ejected and distributed in case of fire.

Although one specific embodiment of the invention has been particularly shown and described, it will be understood that the invention is capable of modification and that changes in the construction and in the arrangement of the various cooperating parts may be made without departing from the spirit or scope of the invention, as expressed in the following claims.

What I claim is:

1. In combination, a motor vehicle instrument board having an opening therein, a pocket carried by the instrument board and registering with said opening, said pocket being adapted to hold an extinguisher, a spring in the end of the pocket adapted to engage the extinguisher and push the extinguisher out of the pocket, and a closure for the pocket engageable by said extinguisher for holding the extinguisher against movement by said spring.

2. In combination, a supporting member having an opening therein, an elongated pocket extending laterally from and carried by said member and registering with said opening, an elongated extinguisher slidably mounted in said pocket, a spring in said pocket adapted to engage said extinguisher and to be compressed thereby when the extinguisher is in the pocket, and a closure for the open end of the pocket adapted to engage and hold the extinguisher against ejection by the spring.

3. In combination, an elongated casing having an open end and a closed end, a spring at the closed end of the casing, an extinguisher slidable in the casing and adapted to engage and compress the spring when the extinguisher is disposed in the casing, means carried by the spring and extinguisher for centering the extinguisher in the casing and a closure for the open end of the casing adapted to engage and hold the extinguisher in a position to compress the spring.

4. In combination, a supporting member having an opening therein, a closure for the opening, a housing communicating with said opening and adapted to house a fire extinguisher, a discharge pipe communicating with the lower part of said housing, a fire extinguisher unit in said housing comprising a casing, a frangible container therein, and heat controlled means for breaking said container and releasing the contents thereof, said casing having openings therein to permit the passage therethrough of the fire extinguishing liquid.

5. In combination, a motor vehicle instrument board having an opening therein and a housing or pocket connected to said board and communicating with said opening, a discharge conduit connected to said housing, a fire extinguisher in said housing having a fire extinguishing fluid therein, and heat controlled means for releasing said fluid.

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