F. A. FULLER.

DIP TANK WITH AUTOMATIC COVER.

APPLICATION FILED MAR. 6, 1919.

1,388,942. Patented Aug. 30, 1921.

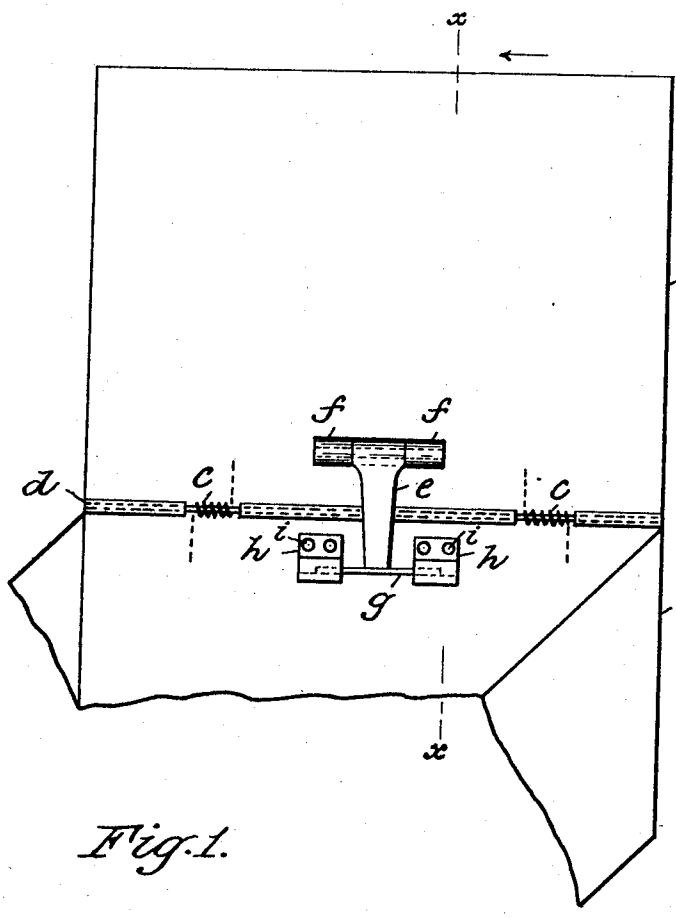


Fig. 1.

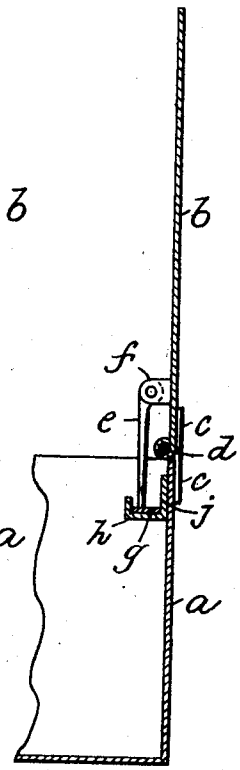


Fig. 2.

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UNITED STATES PATENT OFFICE.

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DIP-TANK WITH AUTOMATIC COVER.

1,388,942. Specification of Letters Patent. Patented Aug. 30, 1921.

Application filed March 6, 1919. Serial No. 280,981.

To all whom it may concern:

Be it known that I, FRANZ A. FULLER, of the city of Newark, county of Essex, and State of New Jersey, have invented a certain new and useful Improvement in Dip-Tanks with Automatic Covers, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it pertains to make and construct the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, forming a part of this specification.

The present invention relates to an improved dip tank with an automatic cover, by which fires in, or which threaten the said dip tank so extensively employed in factories, may be prevented from spreading, or completely extinguished, thereby saving the contents of the tank and preventing dangerous explosions.

The object of this invention is to provide the tank containing the gasolene or other explosives, with a spring actuated cover, either in open or locked position, by a catch which is pivotally secured to the inner side of the cover in any well known manner. The free end of the catch is designed to engage with a fusible link which is supported in any desired or convenient manner, preferably by means of a pair of ordinary brackets which are conveniently secured to the rear wall of the dip tank. The fusible link being of such a nature which when the temperature of the room is abnormally increased, melts thereby permitting the pivoted catch, which holds the cover in open or locked position to operate and release said cover, thereby closing the tank and preventing the access of air or fire thereto.

The preferred construction of a dip tank with automatic cover embodying my invention is shown in the accompanying drawings, in which—

Figure 1 represents a fragmentary perspective view of a dip tank embodying my invention, and

Fig. 2 represents a fragmentary, transverse section taken on line *x*—*x* of Fig. 1 and looking in the direction indicated by the arrow.

Similar letters of reference refer to like parts throughout the specification and drawings.

The tank *a*, shown in the drawings, is of the ordinary type, commonly used in factories and known as a dip tank, preferably made from sheet metal. The cover *b* is of ordinary construction, also preferably made from sheet metal hinged at *d*, so as to cover the entire top of the tank *a* when closed.

The automatic closing of the cover is effected by any suitable means, such as spiral springs *c*—*c*, tending constantly to close the cover. The springs *c*—*c* being secured to the cover *b*, one leg engages with the outside of the cover, and the other leg with the outside of the tank *a*.

The cover *b* is held open against this tendency of the springs by the catch *e*, pivotally supported in suitable bearings *f*—*f* attached to the inner side of the cover *b*, in any suitable and well known manner. The free end of said catch is designed to engage with a fusible link *g*, supported preferably on a pair of ordinary brackets *h*—*h*, which are conveniently secured to the rear wall of the dip tank in any desired or convenient manner, as for instance, by bolts or rivets *i*. The brackets *h*—*h* are preferably made from angle iron, bent into the shape as clearly illustrated, the rear upstanding portion *j* thereof, being secured to the rear wall of the dip tank, as previously described, and the front upstanding portion which together with the upstanding rear portion *j*, form suitable channels to receive the fusible link *g*, to prevent its accidental separation from the brackets. The fusible link may be of any commercial form, and while sufficiently strong at ordinary temperatures, to perform its functions, will, when the temperature is abnormally increased as in the case of fire, melt, thereby causing the pivoted catch *e*, which holds the cover in open or locked position, to operate and release said cover, thereby entirely closing the tank and preventing access of air or fire thereto.

Experience has demonstrated that the organization above described is a highly efficient one, and while I have shown the preferred embodiment of my present invention, I do not wish to be limited to the exact details of construction shown and described,

as obvious modifications thereof, not involving the exercise of invention, may be made by any skilled mechanic, and such departures from what is herein set forth, I consider within the scope and terms of my claim.

I claim:

A device of the class described, comprising a tank, a spring actuated cover secured to said tank, a pivoted holding catch located on the inside of the cover, supporting means located on the inner rear wall of the tank, and a fusible member loosely supported on said means and in engagement with the free end of said holding catch, said fusible member rendered inoperative by heat to release the catch and close the tank.

This specification signed and witnessed this 4th day of March, 1919.

FRANZ A. FULLER.

Witnesses:

FRED'K C. FISCHER,

W. H. CONKLIN.