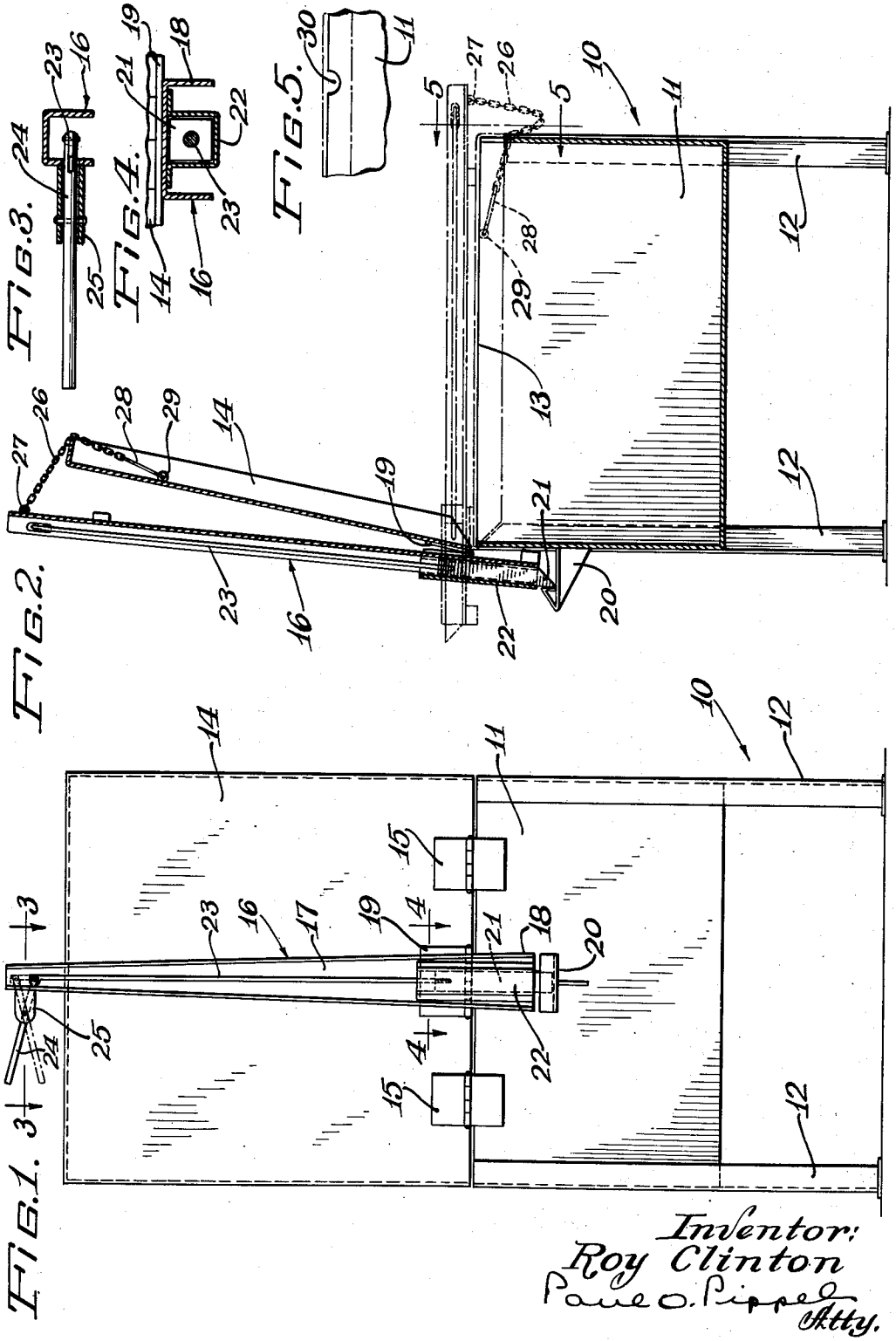
June 1, 1954 R. CLINTON 2,679,949

INFLAMMABLE MATERIAL CONTAINER

Filed Aug. 31, 1951



Patented June 1, 1954

2,679,949

UNITED STATES PATENT OFFICE

2,679,949

INFLAMMABLE MATERIAL CONTAINER

Roy Clinton, Indianapolis, Ind.

Application August 31, 1951, Serial No. 244,554

1 Claim. (Cl. 220—89)

1

This invention relates to tanks or receptacles. More specifically, the invention relates to receptacles of a type which are used to contain volatile liquids and which are provided with thermo-responsive means whereby the tank may be closed automatically during a rise in the temperature within the tank.

The type of tank to which the present invention relates is usually used for storing inflammable liquids which are utilized in the operations of material treating. Certain inflammable liquids may be maintained in the tank and during the normal working hours the tank cover is held in an open position so that ready access may be had to the tank. The cover of the tank is usually held in an upright open position by means of a flexible element which is connected to the cover and to an upright support. The flexible element usually contains a fusible link and if for any reason, the liquid in the tank is set on fire, the fusible link is responsive to the heat whereby the link melts and the cover is released from the support, the cover falling over the opening for closing the tank and thereby localizing the fire and for smothering the same.

In the interests of safety in most factories, it is a requirement that the tank cover on a tank containing volatile liquids be closed after working hours. In order to close the cover of the conventional type tank, it is necessary to disconnect the flexible element or the fusible link either from the cover or the support so that the cover may be swung to the closed position during the non-use condition of the tank. This attaching and detaching of the link or flexible element is inconvenient, takes considerable time and in many instances, the operator will fail to close the cover and take the trouble to disconnect the same.

It is a prime object of this invention therefore, to provide an improved inflammable material container in which it is unnecessary to disconnect or handle the fusible link mechanism which normally holds the cover in open position.

Still another object is to provide a container for containing volatile liquids, the container including a cover which may be connected in an open position to a support by means of a fusible link, the support including provisions whereby the cover may be moved to a closed position without disconnecting the fusible link from the support.

A still further object is to provide a support for holding the cover of a volatile liquid container in an open position, the support being connected to the cover by means of a fusible link, the same support also including hinge means whereby the

2

cover and the support may be moved to a position wherein the tank is closed without the need of disconnecting the fusible link from the cover.

These and further objects will become more readily apparent from a reading of the specification when taken in connection with the accompanying drawing.

In the drawings:

Figure 1 is a rear view in elevation of an inflammable liquid container, the container including a hinged support for maintaining a cover in an open position.

Figure 2 is a side elevational view of the container shown in Figure 1.

Figure 3 is a cross sectional view of a lever mechanism, the view being taken substantially along the line 3—3 of Figure 2.

Figure 4 is a cross sectional view of a latch mechanism taken substantially along the line 4—4 of Figure 1.

Figure 5 is a fragmentary view of a portion of a container taken along the line 5—5 of Figure 2.

A container unit for inflammable liquids is generally designated by the reference character 10. The container unit 10 comprises a tank 11 supported on legs 12. The tank 11 is open at its top as indicated at 13. A cover 14 is hingedly connected to the tank by means of hinge brackets 15 whereby the cover may be moved from a closed position as shown in Figure 2 to an open position.

The cover 14 is supported in its open or substantially upright position by means of a support 16, said support being of channel-shaped construction. The support 16 includes an upper section 17 and a lower section 18. A hinge bracket 19 is connected to the support 16 between the upper section 17 and the lower section 18, the hinge bracket 19 being connected to the tank 11 whereby the support 16 may be moved from a substantially upright position to a horizontal position over the opening 13 as indicated in Figure 2.

The support 16 is held in the position shown in Figure 1 by means of a hook latch 20 which is rigidly secured to the rear portion of the tank 11. The hook latch 20 is engaged by a sliding latch member 21. The sliding latch member 21 is movable in a channel-shaped guide member 22 connected to the lower section 18 of the support 16 as best shown in Figure 4. The sliding latch member 21 is actuated by means of a rod 23 which extends upwardly in the channel-shaped support 16 and is connected to a lever 24. The lever 24 is pivotally mounted on a bracket 25 connected to the upper section 17 of the support 16.

A chain or flexible element 26 is connected to

the upper section 17, of the support 16, by means of a hook 27. The chain 26 is in turn connected to a fusible link 28 which is connected to an inside portion of the cover 14 by means of a hook 29.

The tank 11 may contain a volatile liquid in which articles are to be dipped for treatment. During the normal working hours, the cover is held in an upright or open position by means of the fusible link 28 and chain 26 which connects the cover to the support 16. In the event of fire within the tank, the fusible link 28 will quickly melt and the connection between the cover and the support will be broken so that the cover will gravitate or swing over the opening 13 for closing the tank 11. The support 16 is held in the substantially upright position by means of the latch member 21 which engages the hook 20. When it is desired to close the tank after periods of use, it is a simple matter for the operator to pull downwardly on the lever 24 whereupon the rod 23 moves the latch member 21 upwardly effecting disengagement of the latch member 21 from the hook 20 whereupon the support 16 may gravitate or move with the cover 14 over the opening as indicated in the broken line portion shown in Figure 2. Thus, it can be seen that it is entirely unnecessary to disengage any portion of the fusible link 28 or the chain 26 in order to effectuate closing of the tank. The chain 26, during closing of the cover 14, lies within an aperture 30 which is shown in Figure 5. This aperture 30 is provided in the tank 11 adjacent an upper portion thereof and the cover 14 thus may be closed without interference from the fusible link or the chain.

It can now be seen that it is a simple matter for the operator to close the cover when it is so desired since the support itself which normally holds the cover in open position can be pivoted with the cover over the opening of the container. In order to open the cover, it is a simple matter to take hold of the support, move the same to upright position whereupon it is immediately latched into place and the cover 14 is also held in the open position.

It can now be seen that the objects of the invention have been fully achieved and that an improved container and a supporting structure for maintaining a cover in an open position have been provided.

It must be understood that changes and modifications may be made without departing from the spirit of the invention as disclosed or from the scope thereof as defined in the appended claim.

What is claimed is:

A containing unit for inflammable materials comprising a tank having an opening, a cover, means hingedly connecting said cover to said tank whereby the cover may be moved to open and closed positions with respect to said opening, a support positioned adjacent said opening, hinge means connected to said support intermediate its ends, said hinge means being connected to said tank whereby the support may be hingedly swung from an upright position to a substantially horizontal position over said opening and cover, a flexible element connected to the support adjacent one end thereof, means connecting said flexible element to the cover for maintaining the cover in the open position during the upright position of said support, said means including a fusible link, a latch hook on the rear of the container adjacent the last mentioned hinge means, a retractable latch element on a second end of said support, said latch element engaging said latch hook for maintaining the support and the cover in a substantially upright position, and means for disengaging said latch element from said latch hook whereby the cover and the support move over the opening for closing the same.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,262,487	Birr	Nov. 11, 1941
2,440,619	Laurence	Apr. 27, 1948

FOREIGN PATENTS

Number	Country	Date
125,421	Switzerland	Apr. 19, 1927