

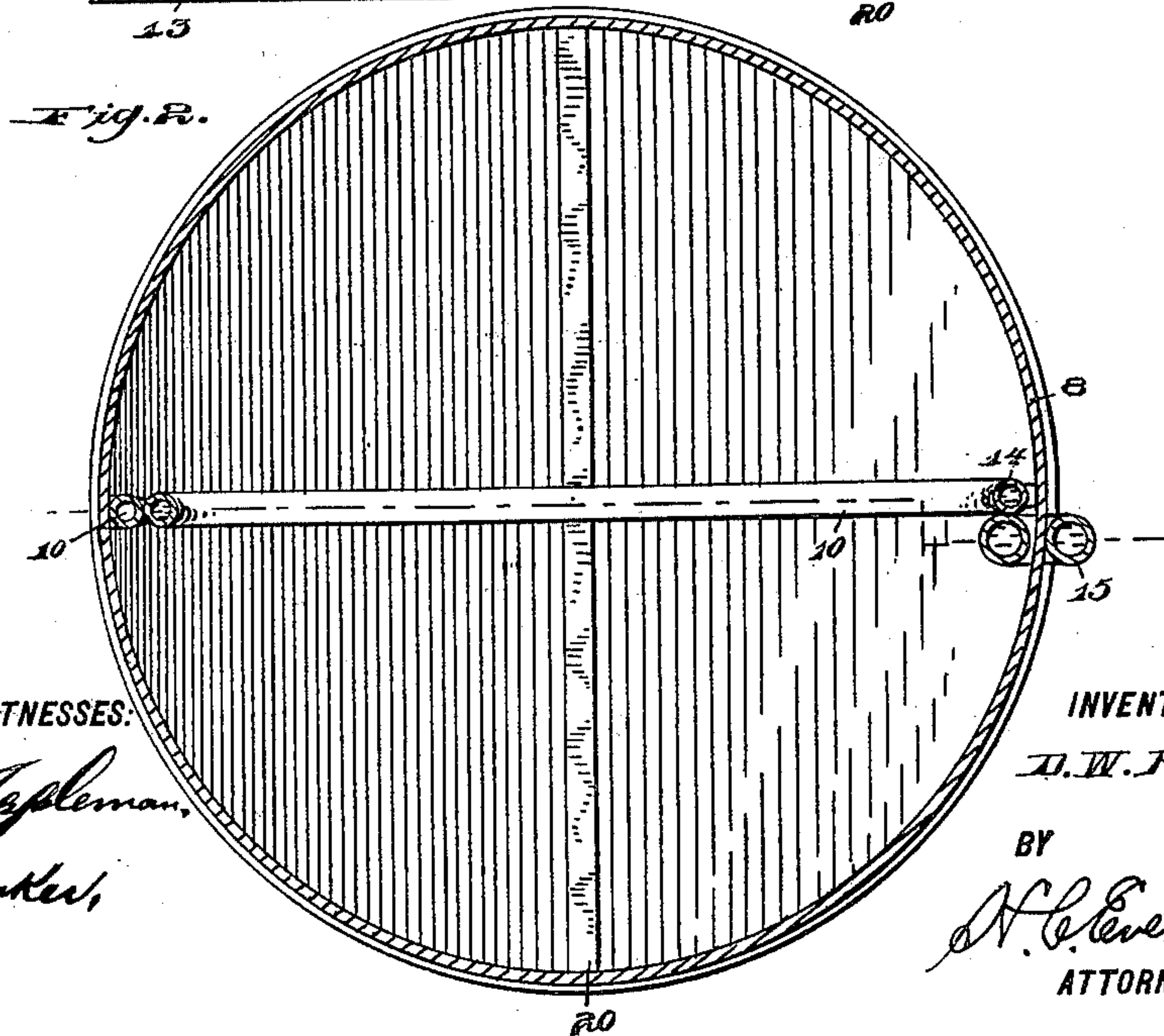
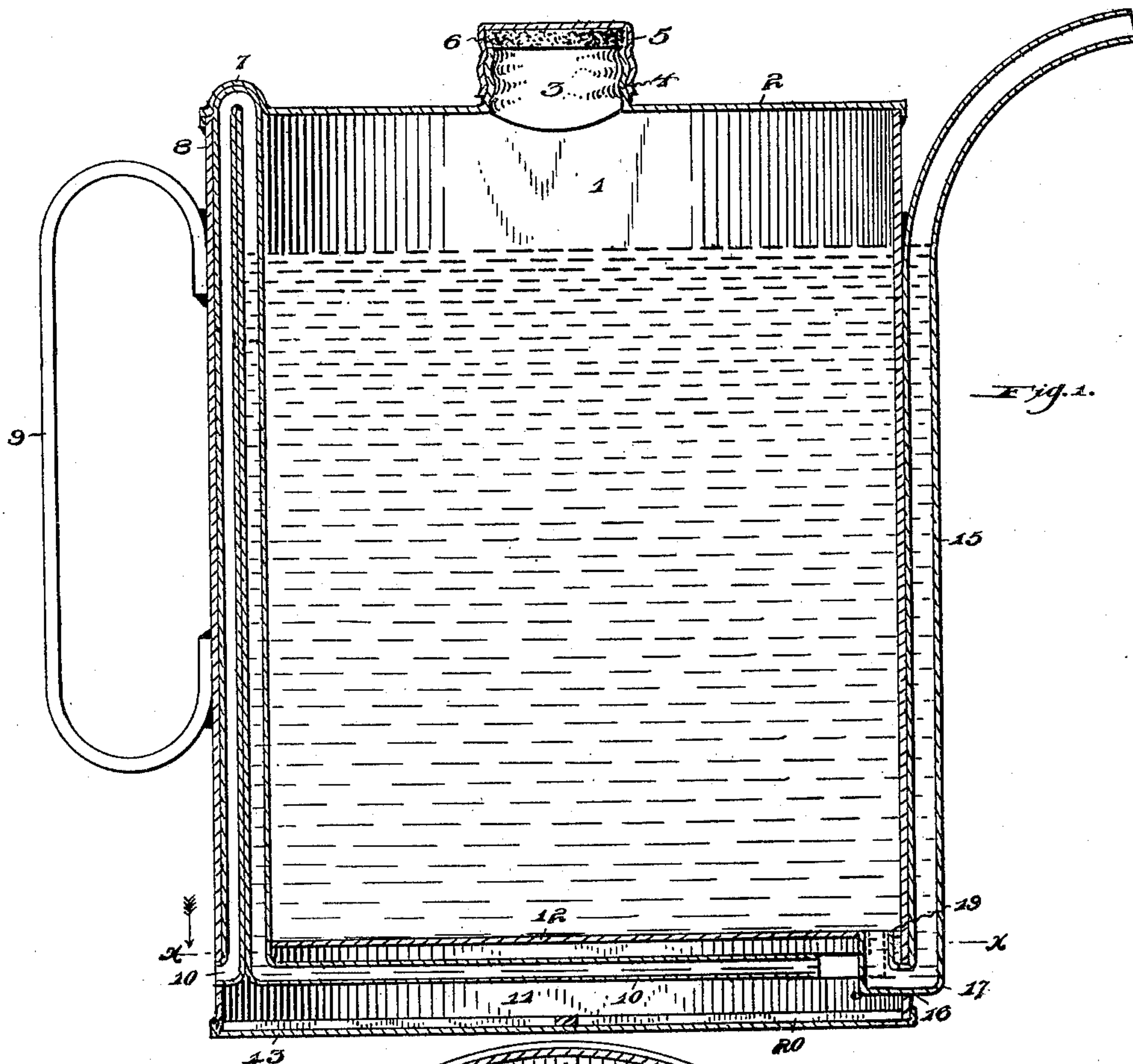
No. 679,144.

Patented July 23, 1901.

D. W. HARDESTY.  
NON-EXPLOSIVE OIL CAN.

(Application filed Apr. 25, 1899.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## NON-EXPLOSIVE OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 679,144, dated July 23, 1901.

Application filed April 25, 1899. Serial No. 714,442. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID W. HARDESTY, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Non-Explosive Oil-Cans, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in oil-cans, and more particularly to that class of inventions known as "non-explosive" oil-cans.

15 The invention has for its object the provision of novel means that will permit the handling of an oil-can with perfect safety and effectually prevent any explosion from taking place.

20 The invention herein described further aims to construct a can of the above-referred-to class that will be extremely simple in its construction, strong, durable, and highly efficient as a safeguard for the prevention of accidents that would otherwise take place; furthermore, to construct an oil-can that may be manufactured at a comparatively small cost and placed on the market at a trifling cost above the price of the ordinary oil-can, a still further object of my invention being to construct an oil-can of the above-referred-to class that will permit the oil to be freely discharged therefrom and entirely dispense with the use of valves, that have heretofore rendered inventions of this class unreliable. 35 It is a well-known fact that the explosion of cans of this class is caused by igniting the gases that are formed in the body portion of the can above the surface of the oil, and usually the flame will enter the vent-tube communicating with the gases formed in the upper portion of the can, or they will enter the discharge-spout, which when tilting the can to its normal position will draw the flame into the discharge-spout and ignite the gases 45 formed in the upper portion of the can.

50 It is the object of the present invention to effectually overcome these difficulties and to construct a can of the above-described class wherein both the discharge and vent tubes will be located in such a position and communicate with the body of the can at a certain point that will not allow the gases formed in the upper portion of the can to escape by way of either the discharge-spout or

vent-tube and to ignite and cause an explosion. 55

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims. 60

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein in like numerals of reference indicate corresponding parts throughout both views thereof, and in which— 65

Figure 1 is a vertical sectional view of my improved oil-can. Fig. 2 is a horizontal sectional view taken on the line  $x x$  of Fig. 1. 70

In the drawings the reference-numeral 1 indicates the body of the oil-can proper, having a top 2, which is preferably soldered thereto. This top 2 has centrally arranged therein an opening 3 and an upwardly-extending exteriorly-screw-threaded annular neck 4, which is adapted to receive the interiorly-screw-threaded cap 5, in which is secured a cork disk 6. The said top 2 carries upon its rearward side a shoulder 7, formed integral therewith. An outer casing 8 is secured thereto, the latter carrying an ordinary handle 9, which is rigidly fastened thereto. Near the bottom, in the rearward side of the can, is arranged a vent-tube 10, extending upwardly the entire length of the can proper to a point in alinement with the top 2. At this point the said vent-tube 10 is bent over upon itself and extends downwardly to a point in alinement with its mouth and into an air-chamber 11, formed between the false bottom 12 and the bottom 13 of the can. The said vent-tube at the point heretofore mentioned is bent at right angles to the downwardly-extending portion and extends to a point near the forward side of the can, where an opening 14 is formed in the false bottom. At this point the vent-tube is bent at right angles to the forward-extending portion, the end of said vent-tube being secured in the opening 14 in juxtaposition to the inlet of the discharge-spout 15, so that the air is discharged direct at the inlet of the discharge-spout to obtain a free flow of the oil. 100 105

To the outer forward portion of the oil-can is arranged a discharge-spout 15, which extends downwardly below the false bottom to



a point near the bottom 13, where said discharge-spout is bent at a right angle, extending through an aperture 16, formed in the forward side of the body portion between the  
 5 bottom 13 and the false bottom 12, said bent portion of the discharge-spout extending into the air-chamber 11 and forming an elbow 17, terminating in an opening 19, arranged through the false bottom 12, the said opening  
 10 19 being arranged in close proximity to the opening 14 in the false bottom 12 near the forward side of the can. Upon the inner face of the bottom 13 are secured strengthening-ribs 20, extending diagonally across the  
 15 said bottom, the ends of said ribs being attached to the inner sides of the can, said ribs being arranged at right angles to each other.

The operation of my improved oil-can is as follows: For the purpose of illustration it  
 20 will be presumed the can has been filled with oil through the opening 3 in the usual manner. The oil will be permitted to flow through the openings 14 and 19 into the vent-tube and discharge-spout, respectively. The oil will  
 25 rise in the vent-tube and discharge-spout to a point where the oil will find its own level—*i. e.*, the liquid-level in the interior of the can. When the can is brought to a tilted position, the contents will be readily discharged  
 30 through the spout, the vent-tube assuring a free discharge. In case a flame reaches the mouth of the spout it will only be permitted to travel a short distance into the curved portion of the spout and cannot be drawn into  
 35 the space formed between the oil and top of the can, in which space gases are formed, the igniting of which causes an explosion. The novel arrangement of the openings 14 and 19 will permit the entire contents of the can to  
 40 be discharged and allow both the vent-tube and discharge-spout to perform the proper functions until the last drop of oil is drained from the can.

The novel arrangement of the vent-tube  
 45 and discharge-spout and the relative position they assume toward each other should be observed. First, they are arranged to the exterior of the can diametrically opposite each other, giving a symmetrical appearance to  
 50 the exterior of the can and, furthermore, providing a direct air-vent and a direct discharge-spout; second, the vent-tube and discharge-spout terminate both in the false bottom of the can near the forward end of the same,  
 55 thereby assuring the function of the vent-tube and discharge-spout until the last particle of oil is drained from the can, and, third, the peculiar construction of the vent-tube will prevent a flame entering through this chan-  
 60 nel and igniting the gases formed above the air-chamber in the interior of the can above the level of the oil.

The bottom 13 serves to retain the can in a perfectly upright position and also prevents  
 65 the forward extension of the vent-tube and elbow of the discharge-spout from becoming

injured. The strengthening-ribs of the bottom retain the same in proper position and prevent a warping of the bottom.

From the foregoing description the numerous advantages obtained by the use of my improved oil-can will be readily apparent. 70

For the purpose of illustration I have shown my improvement applied to an oil-can which is cylindrical in form; but I do not wish to  
 75 limit myself to this particular design of a can, as my improvement may be easily attached to any form of can or vessel.

Particular attention is directed to the fact that various changes may be made in the details of construction of my improved oil-can without departing from the general spirit of my invention. 80

I am aware of the fact that heretofore and prior to my invention oil-cans have been constructed having a discharge-outlet arranged in the bottom of the can, and I do not claim this broadly as a new feature; but 85

What I do claim as new, and desire to secure by Letters Patent, is— 90

1. In an oil-can, a body, a top for the body having a shoulder 7, an outer casing 8, secured thereto; a vent-tube 10, extending up the entire length of the can to a point under the shoulder in alinement with the top; said  
 95 vent-tube being then doubled on itself and extended downward to a point in alinement with its mouth; said vent-tube being then bent at an angle and extending in a horizontal plane under a false bottom of the body and  
 100 having an upturned end extending through the false bottom and communicating with the receptacle near the wall opposite the vertical members of the vent-tube; a discharge-pipe secured to the outer wall of the can having  
 105 an elbow extending through the wall below the false bottom; said discharge-pipe being bent upward into an opening in the false bottom contiguous to the end of the vent-tube as  
 and for the purpose described. 110

2. In an oil-can, a body, an outer casing secured thereto, a vent-tube extending up the entire length of the can, said vent-tube being doubled on itself and extending downward terminating near the bottom of said  
 115 body, said vent-tube being bent at an angle and extending in a horizontal plane under the bottom of the body and having an upturned end extending through the bottom and communicating with the receptacle near  
 120 the wall opposite the vertical members of the vent-tube, a discharge-pipe secured to the outer wall of the can, an elbow extending through the wall below the bottom communicating therewith, substantially as described. 125

In testimony whereof I affix my signature in the presence of two witnesses.

DAVID W. HARDESTY.

Witnesses:

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 E. W. ARTHUR.