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J. H. SPANGLER.

NON-EXPLOSIVE OIL CAN.

(Application filed Apr. 12, 1899.)

(No Model.)

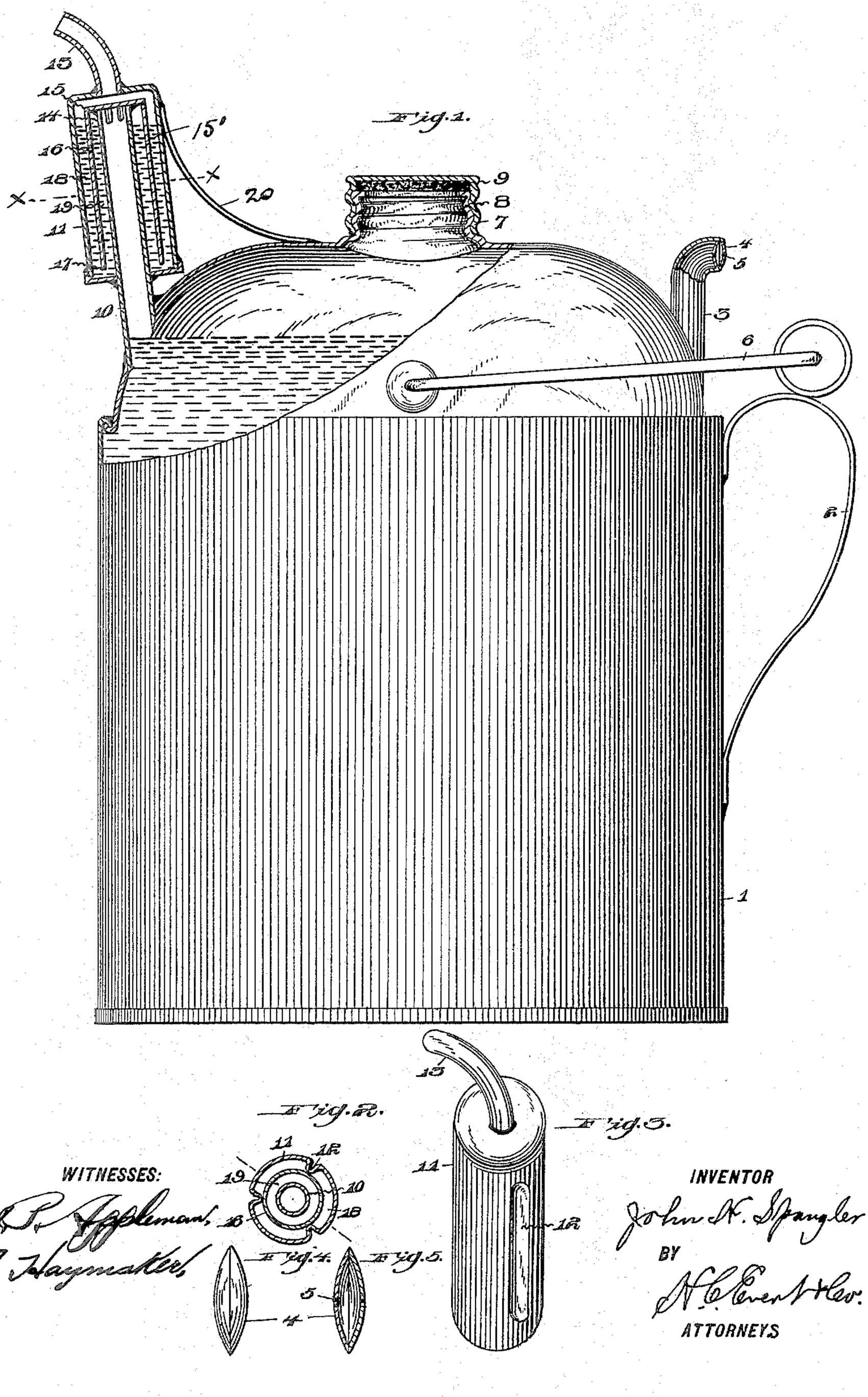

Fig. 1.

Fig. 3.

Fig. 2.

Fig. 4.

Fig. 5.

WITNESSES:

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JOHN H. SPANGLER, OF PITTSBURG, PENNSYLVANIA.

NON-EXPLOSIVE OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 640,495, dated January 2, 1900.

Application filed April 12, 1899. Serial No. 712,798. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. SPANGLER, a citizen of the United States of America, residing at Pittsburg, 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.

This invention relates to certain new and useful improvements in non-explosive oil-cans and has for its object to provide novel means whereby an oil-can may be used with perfect safety without the least danger of an explosion taking place.

The invention has for its further object to provide a double trap for the spout that will prevent the flame from coming in contact with or igniting the contents of the can.

A still further object of the invention is to construct a can of the above-described character that will be extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture; furthermore, one that will be highly efficient in its operation.

A still further object of the invention is to so construct the spout or outlet of the oil-can that it will allow the contents thereof to be readily discharged.

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

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

Figure 1 is a side elevation of an oil-can, partly broken away and in vertical section, with my improvement attached thereto. Fig. 2 is a longitudinal sectional view taken on the line *x x* of Fig. 1, more clearly illustrating the novel construction of the spout. Fig. 3 is a perspective view of the spout. Fig. 4 is an enlarged detail view, in side elevation, of the air-vent. Fig. 5 is a vertical sectional view of the same.

Referring to the drawings by reference-numerals, 1 indicates the body of an oil-can, carrying the usual handle 2 secured thereto.

The reference-numeral 3 indicates a vent-pipe which is arranged near the top of the rearward portion of the can and is provided at its opening with an elliptically-shaped end 4, the latter being provided centrally with small apertures 5 5.

The reference-numeral 6 indicates the usual bail which is commonly employed in connection with this class of cans.

The reference-numeral 7 indicates an ordinary screw-threaded cap fitting upon a screw-threaded opening 8, a cork disk 9 being arranged upon the inner face of the said cap.

The reference-numeral 10 indicates a discharge-spout, upon which is secured a double trap and consisting of an outer casing 11, which is preferably cylindrical, provided with a series of inwardly-extending V-shaped ribs 12 and carrying on its upper face a discharge-spout 13. A series of openings 14 are provided at the upper end of the spout 10, the upper end of said spout 10 being closed by a cap 15, which is rigidly secured thereto and is cylindrical in form and of greater diameter than the spout 10. The cap 15 is provided with the downwardly-extending annular flange 15′, which forms chambers 16 between the outer casing 11 and the discharge-spout 10, extending downwardly and terminating near the bottom of the casing 11 and forming a passage 17 between the chamber 18, formed between the outer wall of the cap 16 and the inner wall of the casing, and the chamber 19, formed between the inner wall of the cap 16 and the outer wall of the discharge-spout 10.

The reference-numeral 20 represents a brace which is attached to the casing 11 and the top of the can 1.

The V-shaped ribs of the outer casing 11 are adapted to abut against the outer walls of the cap 16 for the purpose of retaining the walls of the outer casing and the cap 16 an equidistance from each other.

The operation of my improved oil-can is as follows: Presuming the can is partly filled and tilted in the usual manner, the oil will flow through the discharge-spout 10 to the end of the same and thence through the open-

ings 14 14 into the chamber 19, through the passage 17, into the chamber 18, and thence to the discharge-spout 13.

It will be readily understood that the flame from the discharge-spout 13 cannot reach the interior of the can and ignite with the gases formed therein.

When the can is not in use, the chambers 18 and 19 retain the oil to the level of the openings 14, as shown in Fig. 1 of the drawings.

Particular attention is directed to the novel construction of the end 4 of the vent, the opening 5 therein being very small and will admit only a certain volume of air, which will be equal to the amount required to insure the free discharge through the spout 13. Particular attention is also directed to the fact that my improvement may be easily attached to any standard oil-can now in use and that the same may be constructed of any suitable material.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an oil-can, the combination of a spout having openings at the upper end thereof, a cap arranged over said openings, a casing carrying inwardly-extending V-shaped ribs adapted to engage the sides of said cap, and an opening arranged on the upper face of said casing, substantially as set forth.

2. In an oil-can, a spout having openings arranged in the upper end thereof, a cap arranged over the said openings forming a chamber between the outer walls of said spout and inner walls of said cap, a casing surrounding said cap forming a chamber between the outer walls of said cap and inner walls of said casing, a passage between the inner and outer chambers, a discharge-spout arranged in the upper end of said casing, and a vent-spout having an elliptical-shaped end, all parts being arranged and operating as herein shown and described.

3. In an oil-can, the combination of a spout having openings arranged in the upper end thereof, a cap arranged over said openings forming a chamber between the outer walls of said spout and inner walls of said cap, a casing surrounding said cap forming a chamber between the outer walls of said cap and inner walls of said casing, a brace connecting said casing and the can proper, a passage between the inner and outer chambers, a discharge-spout arranged on the upper end of said casing, all parts being arranged and operating substantially as herein shown and described, and for the purpose set forth.

4. In an oil-can, the combination of a spout 10, provided with a series of openings at the upper end thereof, a cap secured to the upper end of the said spout and of greater diameter, a downwardly-extending flange formed integral with the said cap, a casing surrounding the said cap and flange suitably secured to the said spout and provided with ribs adapted to engage the said flange, and a discharge-spout suitably connected to the said casing, substantially as set forth.

5. In an oil-can, a spout 10 provided with suitable discharge-openings, a cap of greater diameter secured thereto, a downwardly-extending annular flange formed integral therewith, a casing suitably surrounding the cap and flange, and a discharge-spout 13 connected to the said casing, substantially as set forth.

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

JOHN H. SPANGLER.

Witnesses:

JOHN NOLAND,

H. H. PATTERSON.