L. KESSLER.

OIL CAN.

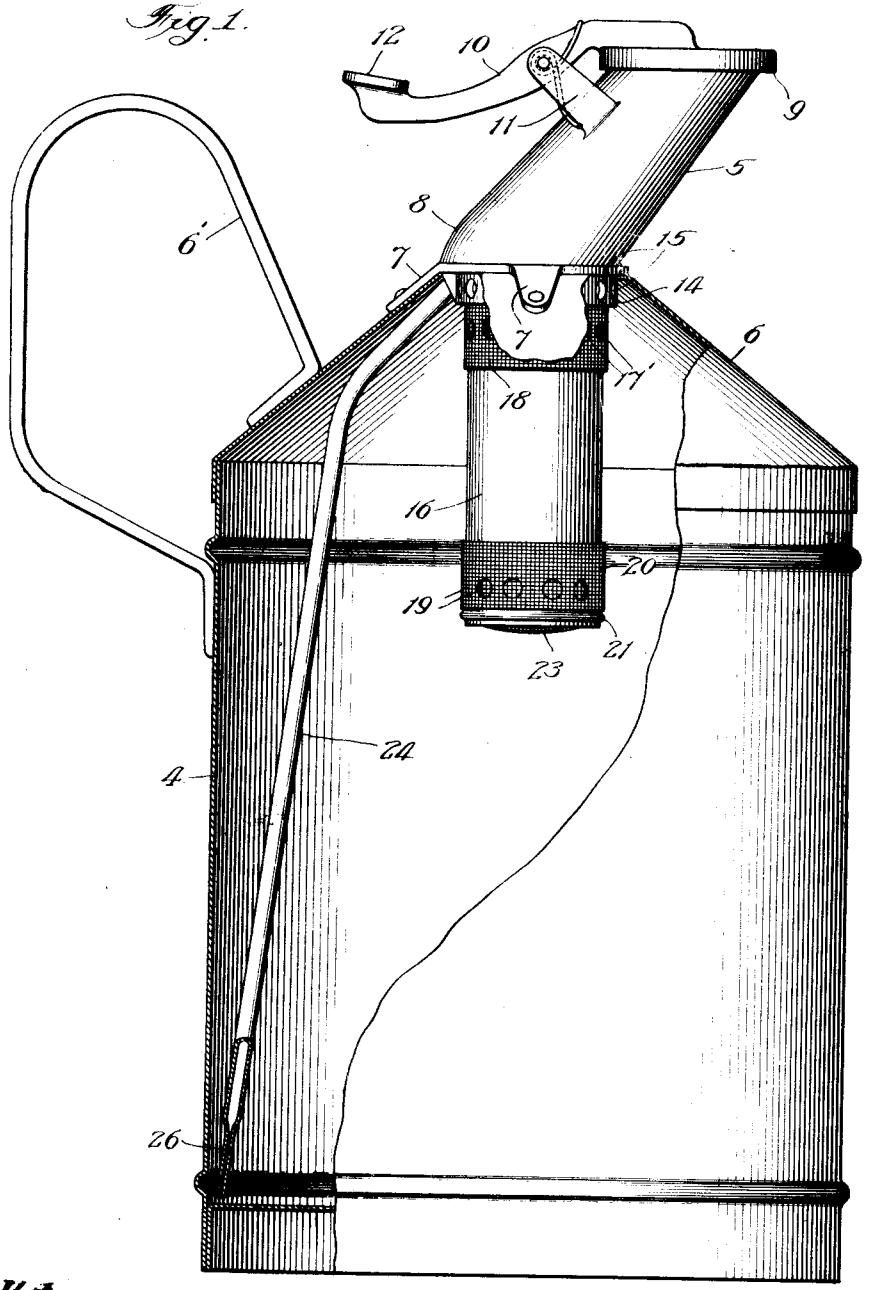
APPLICATION FILED JUNE 9, 1913.

1,120,313.

Patented Dec. 8, 1914.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

Inventor:

Louis Kessler,

By Dyrenforth, Lee, Chritton & Wiles

Attys.

L. KESSLER.

OIL CAN.

APPLICATION FILED JUNE 9, 1913.

1,120,313.

Patented Dec. 8, 1914.

2 SHEETS—SHEET 2.

Fig. 2.

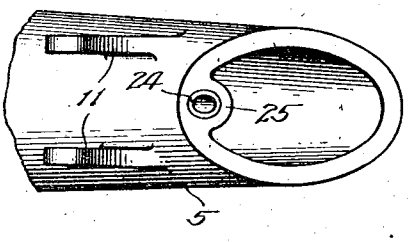


Fig. 3.

Witnesses:

Inventor:

Louis Kessler,

By Dyer, Tholl, Lee, Christy & Wiles,

Attys.

UNITED STATES PATENT OFFICE.

LOUIS KESSLER, OF CHICAGO, ILLINOIS.

OIL-CAN.

1,120,313. Specification of Letters Patent. Patented Dec. 8, 1914.

Application filed June 9, 1913. Serial No. 772,618.

To all whom it may concern:

Be it known that I, LOUIS KESSLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Oil-Cans, of which the following is a specification.

My invention relates to an improvement in oil-cans for containing highly explosive and volatile oil, such as kerosene, gasolene, benzin and the like; and the primary objects of my improvements are to provide a construction of can, in the class referred to, which shall cause the air to discharge freely from it in filling, thus expediting the filling operation, and which shall thoroughly prevent explosion, in pouring from the can, by back-flash into it of flame.

In the accompanying drawings, Figure 1 is a broken view in sectional elevation of an oil-can embodying my improvements; Fig. 2 is an enlarged broken plan view of the nozzle showing the preferred oval form thereof in cross-section, and Fig. 3 is an enlarged broken view in vertical section through the nozzle and upper part of the can showing, by full lines, the valve in its nozzle-closing position and by dotted lines in its open position, with a funnel, also shown by dotted representation, inserted into the nozzle for filling the can.

The can 4 has a pouring-nozzle 5, which is also designed for filling, extending obliquely from the center of its conical top 6, which is provided with a handle 6′ and on which the nozzle is securely fastened by riveting through fingers 7 extending from its base. The nozzle is of oval shape in cross-section to facilitate pouring from and filling through it, and is formed in its back near the base, with an outwardly-bulging enlargement 8. The mouth of the nozzle is closed by a valve 9 provided with packing on its seating face and loosely pivoted to a spring-pressed lever 10, fulcrumed between ears 11 on the back of the nozzle and provided with a thumb-piece, or button 12 on its rear end adjacent to the handle. For filling the can, upon manipulating the lever to raise the valve to the illustrated dotted position, a funnel, indicated at 13, may be inserted (Fig. 3); and oil poured into the funnel rapidly fills the can, being unobstructed by the air therein, in replacing it, since the enlargement 8 permits a free outflow of the air along the funnel-stem through the nozzle, which is not materially obstructed by the stem. In a comparative test in filling a can provided with my improved nozzle having the enlargement 8 and one of the same size having a similar nozzle, but unprovided with such enlargement, the time consumed in filling the former was only 18 seconds as against several minutes in filling the latter. The nozzle is formed at its inner end with a collar 14, which enters the can to a considerable depth through its conical top and is provided with a circumferential series of apertures 15. A tube 16 fits at its outer end within and is riveted and soldered to the collar, and it contains near that end a circumferential series of apertures 17 surrounded and covered by wire gauze 18, which is extended into the collar there to cover the apertures therein and a second set of apertures formed in the tube at 17′, and is securely fastened in place, preferably by riveting and soldering. Another circumferential series of apertures 19 is provided in the tube near its inner end, and these apertures are likewise surrounded and covered by wire gauze 20 similarly fastened in place. A bead 21 is formed about the tube close to its inner end to receive and retain a diaphragm 22 of comparatively heavy woven wire of somewhat coarse mesh, the diaphragm forming a backing for a wire-screen disk 23 covering that end of the tube and confined about its edge in the bead against the inner face of the backing.

A vent-tube 24 is secured at its outer end in an apertured boss 25 formed on the back of the discharged-end of the nozzle, and it extends along said back and through an opening in the collar 14 and into the can nearly to its bottom; and a section of the tube is flattened at 26 there to reduce the size of the bore to dimensions sufficiently narrow to prevent the back-flashing of flame into the can through the vent-tube, but large enough for the venting-function of the tube in pouring from the can.

In pouring from the can, with the valve 9 opened for the purpose, and the can properly tilted, the oil flows freely through the gauze-covered bottom and side-perforations in the tube and out through the spout, the can being adequately vented through the tube 24. The apertures in the collar 14 extend close to the inlet-end of the nozzle, so that the can may be completely emptied

of is contents, since the collar otherwise presents area therein obstructing complete evacuation. Should the oil or vapors therefrom become accidentally ignited in flowing from the nozzle, the flame will be prevented from entering the can by way of the vent-tube, or by way of the tube 16, because of the gauze-sections therein; so that the can is rendered thoroughly proof against explosion from that cause. The valve 9, moreover, adds another element of safety in the event of the can becoming unduly heated, as in the case of fire, and generating vapor therein, since before the pressure of the generated vapors can become sufficiently great to explode the can it will open the valve.

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

1. A can of the character described, having a filling nozzle of such irregular form in cross-section relative to the conical form of a funnel as to leave a space between the wall of such filling nozzle and such funnel when the latter is inserted therein, the said nozzle being provided adjacent the base of its rear wall with an outwardly-bulging enlargement, whereby an air escape passage is provided extending from the interior of the can body to the top of the filling nozzle, for the purpose set forth.

2. A can of the character described, having a filling nozzle of irregular form in cross-section adapted to receive a funnel, and provided adjacent the base of its rear wall with an outwardly-bulging enlargement and at the top of said wall with an inwardly-extending abutment adapted to form a stop for the funnel, said abutment being of such shape as to provide an air passage between it and the wall of the funnel, whereby an air escape passage is provided extending from the interior of the can body to the top of the filling nozzle, for the purpose set forth.

3. A can of the character described, having a pouring-nozzle extending from its top, a collar about the nozzle-base projecting into the can and provided with a circumferential series of apertures extending to the under surface of said top, a tube fastened at its outer end in the collar and provided with a circumferential series of apertures registering with those in the collar, a similar series of apertures near its inner end and an intermediate similar series of apertures, wire gauze fastened about the tube to cover the intermediate apertures and extended into the collar to cover the apertures therein and those adjacent thereto in the tube, wire gauze surrounding the tube and covering the apertures near its inner end, and a wire-gauze disk covering the open inner end of the tube.

LOUIS KESSLER.

In presence of—
NELLIE B. DEARBORN,
D. C. THORSEN.