No. 746,854. PATENTED DEC. 15, 1903.

G. LICHTENBERG.

SPOUT FOR VESSELS CONTAINING EXPLOSIVE LIQUIDS.

APPLICATION FILED JULY 28, 1902.

NO MODEL.

Fig. 3.

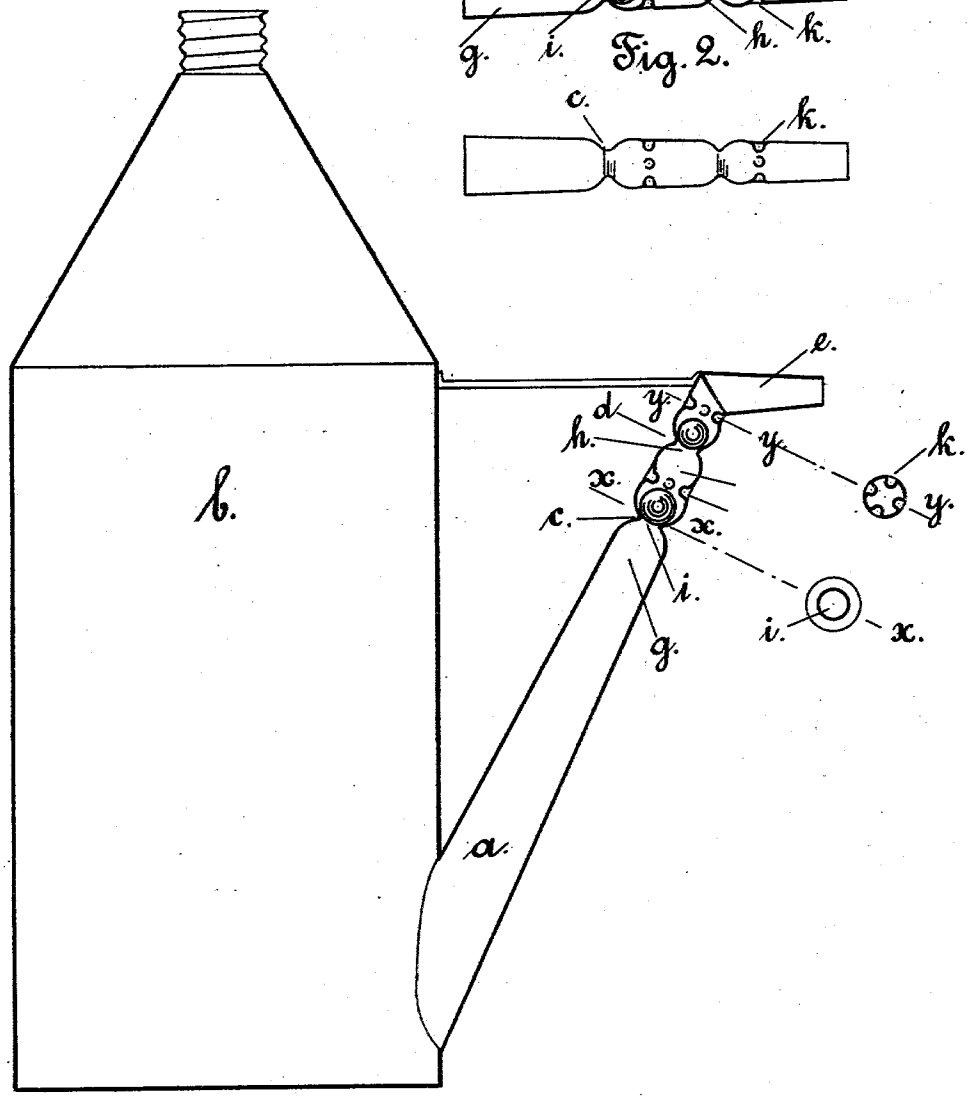


Fig. 1.

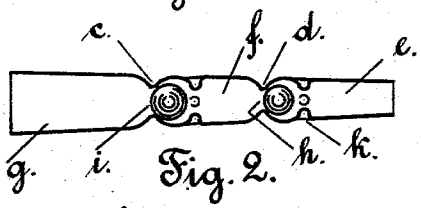


Fig. 2.

Witnesses:
Adolf Holländer.
Karl Schulz.

Inventor:
Gerhard Lichtenberg
by Edwin Peters.
his attorney.

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No. 746,854. Patented December 15, 1903.

UNITED STATES PATENT OFFICE.

GERHARD LICHTENBERG, OF WILHELMSHAVEN, GERMANY.

SPOUT FOR VESSELS CONTAINING EXPLOSIVE LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 746,854, dated December 15, 1903.

Application filed July 28, 1902. Serial No. 117,398. (No model.)

To all whom it may concern:

Be it known that I, GERHARD LICHTENBERG, butcher, a subject of the King of Prussia, German Emperor, residing at 26ª Marktstrasse, Wilhelmshaven, Germany, have invented a new and useful Spout for Vessels Containing Explosive Liquids, of which the following is a specification.

The invention in question is for the purpose of entirely preventing the danger of explosion with vessels containing explosive liquids.

Figure 1 shows the device in a longitudinal section. Fig. 2 is a side elevation of same. Fig. 3 shows the device adapted to a petroleum-can.

The contrivance consists of a spout *a*, which is made of thin plate and conically tapered and at certain distances contracted by two bendings *c* and *d*, so that the spout is divided in three clear distinguishable spaces *e f g*. The middle and the front space each contains a ball *i h*, which lies on the hole of the narrowed parts of the spout, and thus close it to the back. Before the balls there are little impressions or indents *k* provided in the mantle of the spout, which allow the balls to move but a little from the bendings toward the outlet. While the bendings *d*, in connection with the balls, prevent a flowing back of the liquid out of the space *e* to *f* and from the cage *f* to *g*, respectively, into the spout and the can or vessel, the indents keep the balls in such a manner that between these indents, the sides of the spout, and the balls a sufficient space remains to allow the liquid an unchecked flowing through—viz., the balls lie on said indents or impressions *k* when the spout will be inclined downward.

What I claim as my invention, and desire sire to secure by Letters Patent, is—

1. In combination with a vessel for explosive liquids a spout, two bendings contracting the mantle-sheet of the spout and forming a cage, balls lying on said contractions, impressions forming indents in the mantle-sheet before the balls one set of indents being made intermediate the two bendings and one between the outer bending and the mouth of the spout, all as and for the purpose set forth.

2. The combination, in a spout for vessels containing explosive liquids, of a bending contracting the mantle-sheet, a ball lying inside on this bending, impressions in the sheet forming indents before the ball intermediate the first and second bendings, a second bending in the mantle-sheet forming a cage with said first bending, a ball and indents between the second bending and the mouth of the spout to hold the ball, as and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

GERHARD LICHTENBERG.

Witnesses:
F. A. BRYCE,
G. HOYERMANN.