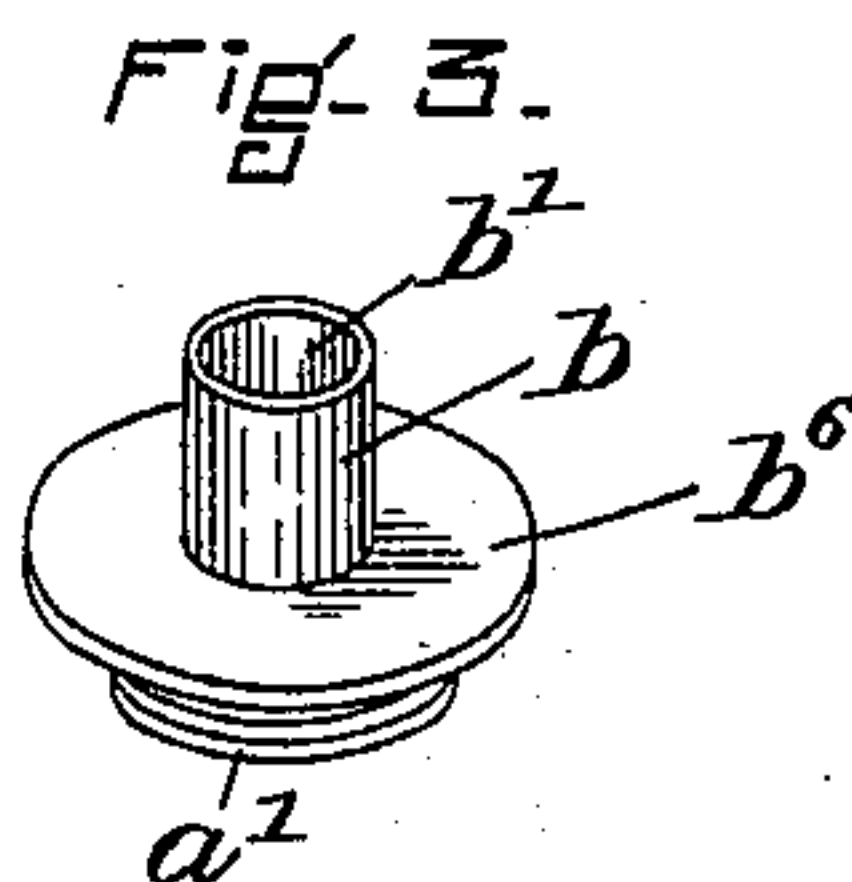
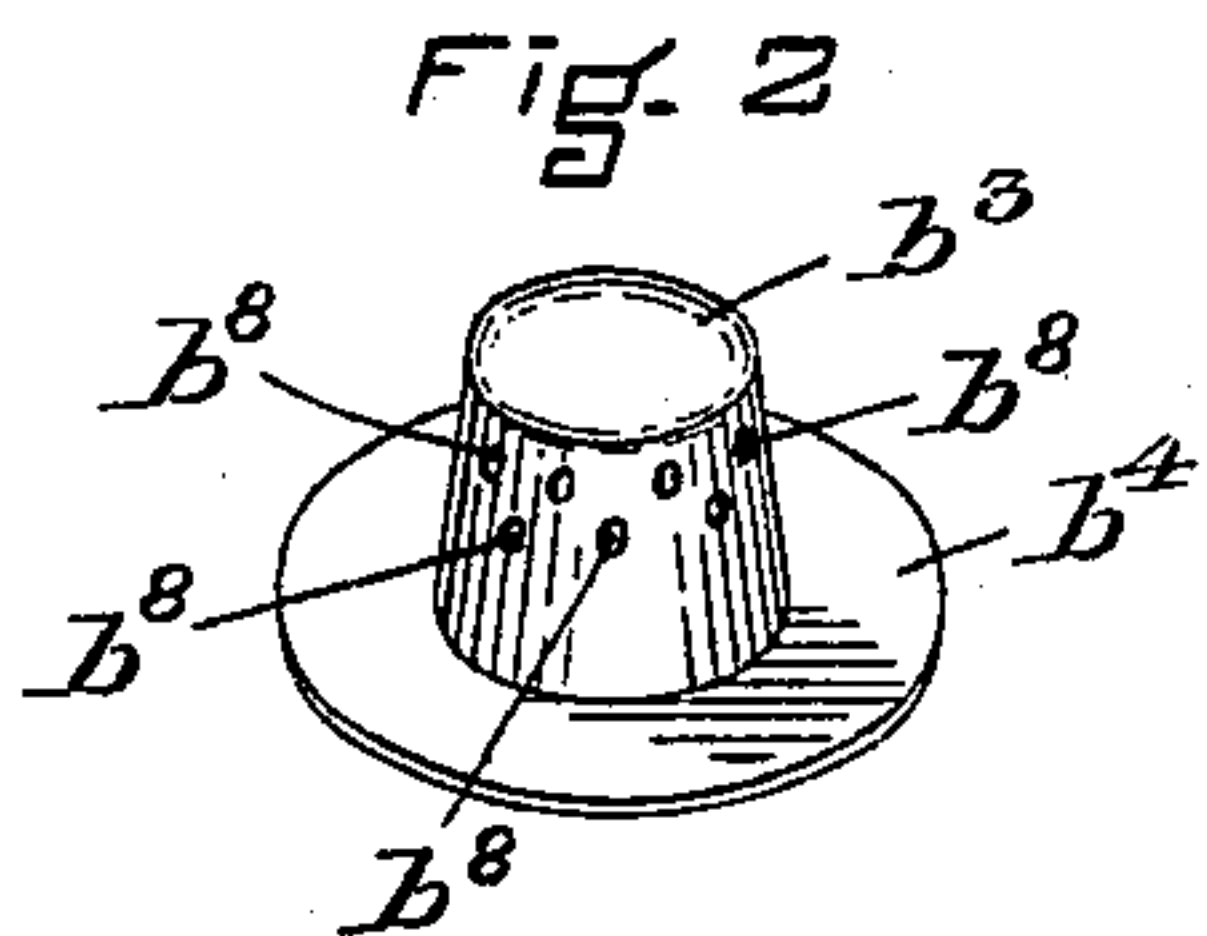
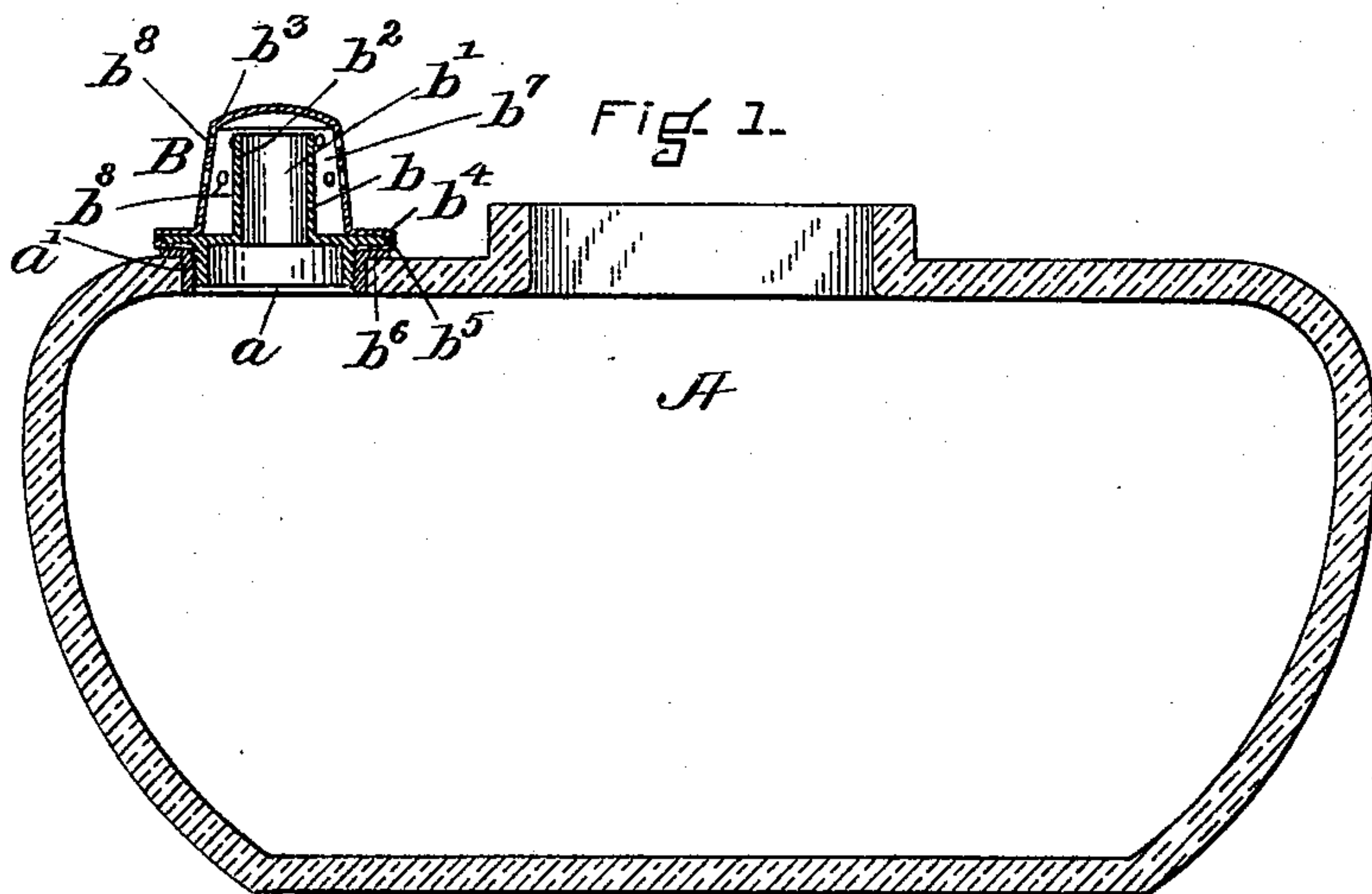


(No Model.)

W. H. ADAMS.  
SAFETY CAP FOR LAMPS.

No. 594,167.

Patented Nov. 23, 1897.



WITNESSES.

*A. D. Dorr.*  
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INVENTOR.

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*Edward S. Beach.*

# UNITED STATES PATENT OFFICE.

WILLIAM H. ADAMS, OF BOSTON, MASSACHUSETTS.

## SAFETY-CAP FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 594,167, dated November 23, 1897.

Application filed April 17, 1897. Serial No. 632,588. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. ADAMS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Safety-Cap for Lamps, Lanterns, and the Like, of which the following is a specification.

Referring to the accompanying drawings, Figure 1 is a vertical central section of a lamp provided with my new safety-cap. Fig. 2 is a perspective of the perforated hood which forms part of my new safety-cap. Fig. 3 is a perspective of the vented cover which is combined with the perforated hood to complete my new safety-cap.

The object of my invention is to produce a kerosene or like lamp, lantern, or the like which is not liable to explode.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, A represents the oil-reservoir of a lamp which is taken as a type of any device for giving light from inflammable oil in an igneous state, and *a* is the usual filling-hole.

B is the best form now known to me of my new safety-cap for filling-hole *a*. This safety-cap comprises a cover *b*, which is preferably provided with a screw-threaded shank, as heretofore, for securing it in the internally-threaded collar *a'* of filling-hole *a*; but it will be readily understood by all skilled in the art that other means of securing the safety-cap in place may be used, if desired. This cover is formed with a vent-hole *b'*, the vent-hole being preferably surrounded by a chambered projection or vent extension *b<sup>2</sup>*. The safety-cap also comprises a perforated hood *b<sup>3</sup>*, which is secured to the cover *b* in any suitable manner, preferably by turning the outer margin of its flange *b<sup>4</sup>* over the edge *b<sup>5</sup>* of the flange *b<sup>6</sup>* of the cover *b*. The chambered projection or extension of the vent-hole *b'* is highly desirable, but I do not wish to limit my invention most broadly stated to its use. However, in this preferred form of my new safety-cap

the interior diameter of hood *b<sup>3</sup>* is somewhat greater than the exterior diameter of the vent extension *b<sup>2</sup>*, so that there is a free space *b<sup>7</sup>* between the opposed walls of the preferably tubular vent extension *b<sup>2</sup>* and of the hood *b<sup>3</sup>*. The hood is suitably perforated at *b<sup>8</sup>*, preferably on its sides, as shown, about opposite the upper end of the vent extension *b<sup>2</sup>*, so as to permit the ready escape of gases generated in reservoir A and to hinder the slopping out of oil from the reservoir when the lamp or lantern is carried about.

My theory is that lamp explosions are generally caused by the expansive force of imprisoned gases generated in the oil-receptacle on top of the oil, and by my invention I provide for the ready escape of these gases in suchwise that in ordinary use there is practically no liability of the oil being slopped out of the vent-hole to defile the lamp or lantern *m*. The tubular extension *b<sup>2</sup>* of the vent-hole *b* forms a sort of slop-guard, and its open top or inner end should be carried pretty close to the under surface of the hood. This chambered vent extension is most readily formed of an open under tube, as shown.

In Fig. 4 I show a slight modification in which the chambered vent extension is omitted, the perforations in the hood being preferably near the upper end of the hood, as in the preferred form.

What I claim is—

As a new article of manufacture, the herein-described detachable safety-cap for lamps and the like, the same comprising a cover provided with a fastening-shank and a vent-hole; a vent extension around said vent-hole; and a perforated hood over said vent extension.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 8th day of April, A. D. 1897.

WILLIAM H. ADAMS.

Witnesses:

EDWARD S. BEACH,  
E. A. ALLEN.