J. BROUGHTON.

Oiler.

No. 52,959. Patented March 6, 1866.

Fig. 1.

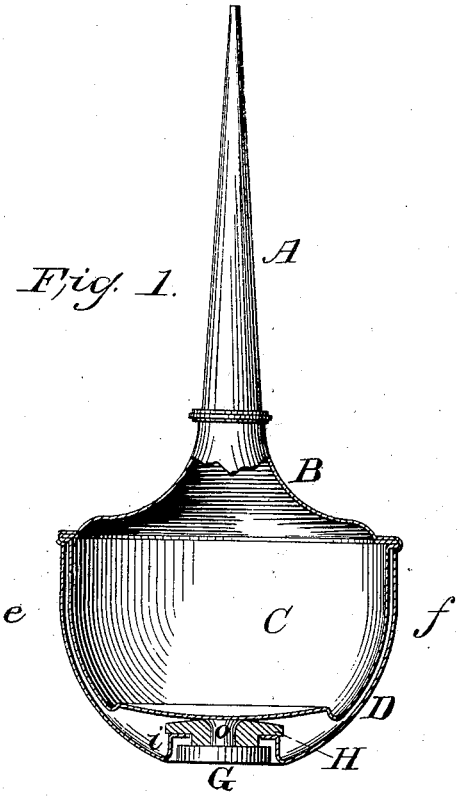


Fig. 2

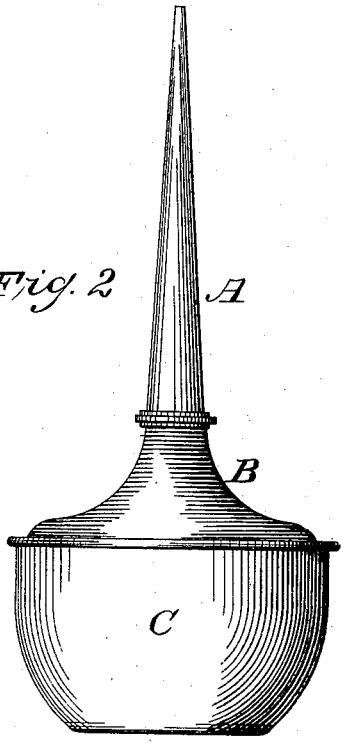
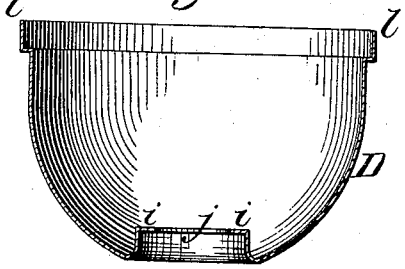


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN OILERS.

Specification forming part of Letters Patent No. **52,959**, dated March 6, 1866.

To all whom it may concern:

Be it known that I, JOHN BROUGHTON, of the city, county, and State of New York, have invented a new and useful Improvement in Oilers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation, partly in section, of an oiler made according to my invention. Fig. 2 is an elevation of the oiler removed from its shell or protecting-case; Fig. 3, a section of the protecting-case.

Similar letters of reference indicate corresponding parts.

The objects of this improvement are as follows:

First, to so construct a spring-bottom oiler that no soldered joint is required to connect such spring-bottom with the sides of the reservoir, thus rendering it less liable to become leaky by the action of the bottom or by being placed in a hot position, than spring-bottom oilers of the ordinary construction. This is accomplished by forming the spring-bottom and the sides of the reservoir of one piece and joining the same to a rigid cover, the joint thus being in an elevated position where it cannot be melted when the oiler is placed upon a hot stove.

Second, to form a rigid or inflexible external surface to the entire oiler, except at the point where the thumb is placed when operating it, so that the flexible bottom is protected from injury by bruising or from accidental punctures. This is accomplished by inclosing the reservoir below the cover-joint in a strong shell or casing (said shell conforming to the shape of the reservoir) and providing the shell with an opening in the bottom through which the spring-bottom may be reached and operated.

Third, to provide a method of operating the spring-bottom of an oiler so that it cannot be forced inward beyond the limit of its elasticity, thus insuring the retention of the spring or elasticity in the bottom as long as the oiler lasts. This is accomplished by forming an internal flange in the opening through the bottom of shell D, and providing an operating thumb-piece, G, with two heads, an internal and an external one, the two being connected by a center pin or rivet. The internal head rests upon the flange of the shell G, which prevents it from dropping out. The external head spans the flange on the shell in a similar manner, an annular space being between the two heads. This annular space corresponds in depth to the motion to be given to the spring-bottom, and when the thumb is pressed on the external head, G, the spring-bottom is compressed and moves inward until said head rests upon the flange of the shell, thus forming a stop within the limit of the elasticity of the bottom, and beyond which it cannot be forced.

Fourth, to arrange and construct a spring-bottom oiler in such manner that while the said bottom is compressed and operated by the thumb in the ordinary manner, its lower external portion shall form a rolling surface with the center of gravity near the bottom, so that it will not upset. This is accomplished by making the lower half of the reservoir in the form of a zone, the curve of the enveloping-shell conforming to it and the continuation of such shell downward, approximating in shape to a semi-sphere, leaving a recess or space between itself and the spring-bottom in which to place the operating thumb-piece, which, necessarily being of a diameter large enough to place the thumb upon, forms a counterpoise to the upper portion of the reservoir and the tube, without any special provision for that purpose.

The advantages of this arrangement and construction are, that the oiler will not leak, nor is it liable to become leaky by use. Its external surface when incased being rigid, it presents neither flexible top nor bottom to become injured from liability to being punctured or bruised. It will always stand in a vertical position, or, if upset, will right itself and return to such position. Its flexible bottom cannot be injured or strained by compression, consequently it always retains its spring and is always in condition to eject the oil. It is very durable, bruising or battering by dropping or rough usage not affecting its operation.

A designates the nozzle of the oiler. C is its body or reservoir, and B its cover or top. The

latter is rigid in this example, and is connected to the nozzle by a screw-joint. The parts A B C are seen together in Fig. 2, which represents an oiler complete and ready for use without the protection of the shell D. The bottom *k* of the reservoir, C, is elastic, so that when it is made to spring upward oil will be forced out through the end of nozzle A. The protecting-shell D is made to conform to the general outline of the reservoir C, along its sides, but its bottom is made as shown in Figs. 1 and 3, a circular cavity being formed on its outer face, at the top of which cavity is an opening, *j*, made centrally therein, and this opening is surrounded by a horizontal flange, *i*.

The internal head, H, of the button G H is placed within the protecting-shell D, so as to rest on and be sustained by the flange *i*, its center part, which is perforated, projecting down past the flange and fitting loosely within it. The thickness of the head H is such that it will be about equal to the distance between the flange *i* and the lowest part of the bottom K of the reservoir C when the said reservoir is placed within the shell D. The external head, G, has a pin, O, projecting centrally from its upper surface, and which is pushed up through the head H and riveted. The diameter of the head G is greater than that part of the head H which projects through the bottom of the shell, and its edge consequently extends beyond it in a line parallel with and below the flange *i*, the length of the center part or body of the head H, where it projects through the bottom of the shell, determining the distance between the head G and the under side of the flange. The head G is of such a thickness or length that when it is riveted to the head H and the oiler is placed in its shell, its under side will not reach to the bottom of the shell, since it is not intended that the head G shall touch the supporting-surface on which the apparatus stands.

The letter U designates the space left between the flange *i* and the upper face of the head G when the oiler is in a state of rest; and since the head G cannot pass the flange when the head is pushed upward, it follows that when the button, composed of the heads G H, is pushed upwards by the person using it, it can only move through the space or distance U, and therefore the bottom K of the oiler cannot be sprung or moved upward a greater distance.

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

1. In oilers provided with elastic or spring bottoms, forming the sides of the reservoir and said spring-bottom in one piece, substantially as set forth.

2. Combining with the tube and cover of an oiler a reservoir the sides and elastic or yielding bottom of which are formed of one piece without joint or seam, substantially as set forth.

3. Combining with the reservoir of an oiler having an elastic or yielding bottom an outside protecting shell or case provided with a suitable opening in the bottom through which the elastic or yielding bottom of the reservoir can be compressed or operated, substantially as set forth.

4. The combination of the reservoir provided with an elastic or yielding bottom, the outside protecting-shell and the centrally-compressing thumb-piece, substantially as set forth.

5. Combining with the elastic or yielding bottom of an oiler a stop applied in such manner that such bottom cannot be compressed or moved beyond the limit of its elasticity when said stop operates externally in relation to such bottom, substantially as set forth.

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Witnesses:

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