L. HOFFSTADT.

Vulcanizing Flask for Dentists.

No. 57,135. Patented Aug. 14, 1866.

Fig. 3

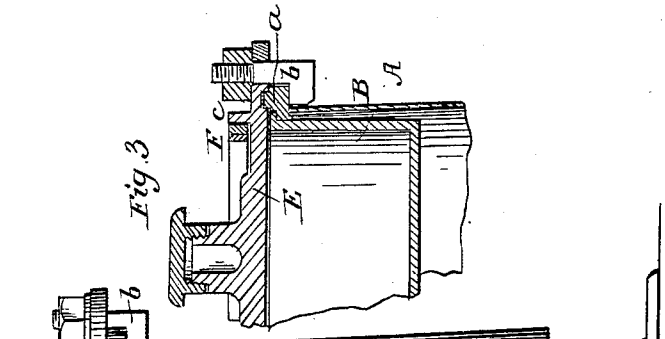


Fig. 1.

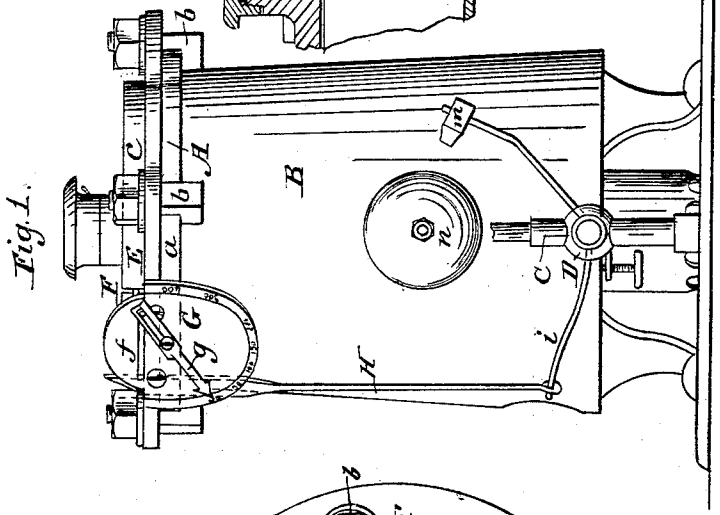
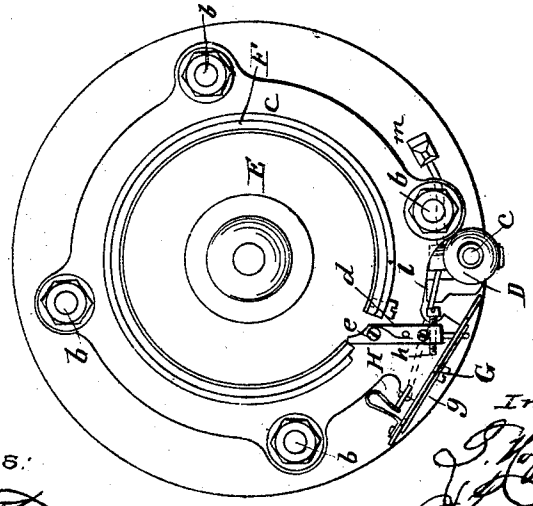


Fig. 2.



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UNITED STATES PATENT OFFICE.

L. HOFFSTADT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED VULCANIZING-FLASK FOR DENTISTS.

Specification forming part of Letters Patent No. **57,135**, dated August 14, 1866.

To all whom it may concern:

Be it known that I, L. HOFFSTADT, of No. 159 Brown street, in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and Improved Apparatus for Vulcanizing India-Rubber, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others 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 represents a front elevation of this invention. Fig. 2 is a plan or top view of the same. Fig. 3 is a vertical section of a portion of the same.

Similar letters of reference indicate like parts.

This invention consists in the arrangement of a self-acting regulator, in combination with a vulcanizing apparatus, in such a manner that by the action of said regulator the flame which heats the boiler of the vulcanizing apparatus is extinguished when the temperature rises beyond a certain degreee, or regulated according to the temperature in said boiler.

The regulator is placed in a circular recess in the top of the boiler, and it is composed of a segmental ring made of different metals, so that the same expands and contracts by the heat, and its loose end acts on a lever which carries an index, whereby the temperature existing in the boiler can be read off. Said lever is provided with an adjustable screw, the point of which strikes and disengages a lever-catch whenever the temperature in the boiler rises beyond a certain degree, and by said lever-catch the flame which heats the boiler is extinguished, or at least regulated, and all danger of an explosion is avoided.

The top edge of the boiler is strengthened by a flange or rim on which the cover rests, and said cover is fastened down by hook-shaped screws which catch under the flange or rim, and which can be readily attached or detached.

A represents a boiler of that class which are generally used by dentists in their vulcanizing operations. This boiler is placed into a jacket, B, of sheet metal or other suitable material, and it is heated by a gas-flame to which gas is admitted through the pipe C. A stop-cock, D, regulates the supply of the gas. If desired, however, a kerosene-lamp or any other flame may be used for the purpose of heating the boiler.

The top edge of the boiler is strengthened by a flange, *a*, which projects over the edge of the jacket, and which forms the support for the cover E. This cover is fastened down by hooked-shaped screws *b*, which catch under the flange *a*, and which are readily fastened and unfastened.

The cover E is provided with a circular recess, *c*, which is intended to receive the regulator F. This regulator is composed of a segmental ring made of two strips of different kinds of metal, which are put together in such a manner that the ring has a tendency to straighten out by the action of the heat. The ring is fastened down to the cover by one or more screws passing through one of its ends, and its loose end bears on the short arm of a spring-lever, *d*, which has its fulcrum on a screw, *e*, and the long arm of which extends through a slot, *f*, in the dial G and works in the slotted end of an index-hand, *g*. This index traverses over a scale which is marked to indicate the temperature existing in the boiler.

For the purpose of marking the scale an ordinary thermometer is introduced into a cavity made for that purpose in the cover E, which, when the scale is complete, can be covered up by a suitable cap.

Through the long arm of the spring-lever *d* passes a set-screw, *h*, which is so adjusted that its point releases the lever-catch H. This catch extends from an arm, *i*, projecting from the plug of the stop-cock D, and it can be made to catch over the edge of that part of the cover E which supports the spring-lever *d*. If the lever-catch is thus adjusted it retains the stop-cock in such a position that the gas has free access to the burner; but if the lever-catch is released it drops down by its own gravity and the stop-cock is closed.

In order to call the attention of the operator to the fact that the gas has been shut off a small hammer, *m*, is connected to the plug of the stop-cock, and said hammer is caused to strike a bell, *n*, whenever the lever-catch is released and caused to drop down.

If desired, the lever-catch may be made to act on the wick-tube of a lamp or on a suita-

ble regulating device, so that when a kerosene-lamp is used for the purpose of heating the boiler the supply of oil or the size of the flame is regulated automatically by the action of the regulator F.

By this arrangement an apparatus for vulcanizing articles of india-rubber or other vulcanizable gums is obtained which is cheap, easily operated, and free from all danger of explosion.

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

1. Providing the boiler A with a flange, *a*, in combination with the cover E and hook-shaped screws *b*, constructed and operated substantially as and for the purpose described.

2. The regulator F, in combination with the boiler A and dial G, constructed and operating substantially as and for the purpose set forth.

3. The lever-catch H and stop-cock D, in combination with the regulator F, adjustable screw *h*, and boiler A, constructed and operating substantially as and for the purpose described.

4. The regulator F, boiler A, lever-catch H, stop-cock D, hammer *m*, and bell *n*, all constructed and operating substantially as and for the purpose set forth.

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Witnesses:

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