

S. D. PALMER.
Dental-Flask for Rubber.

No. 159,442.

Patented Feb. 2, 1875.

Fig. 1.

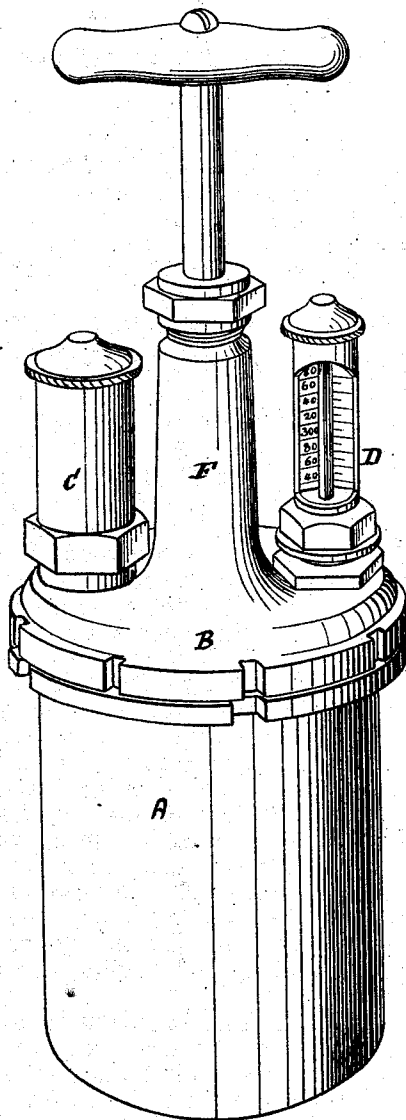
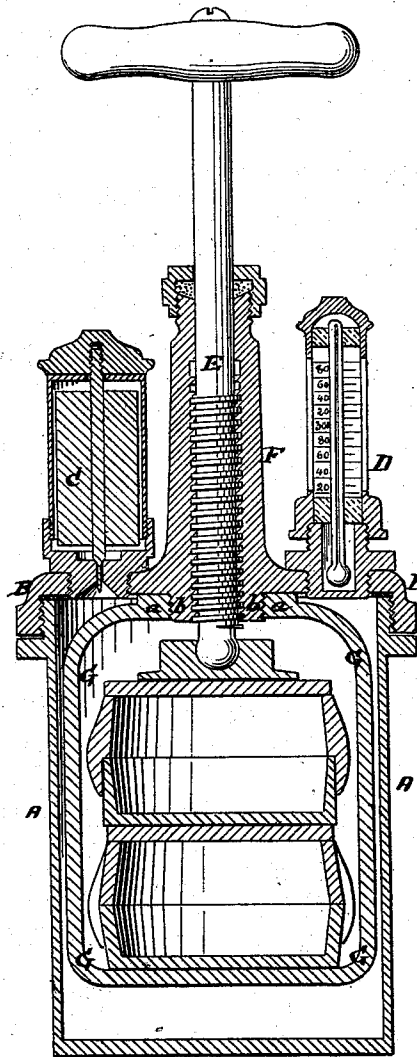


Fig. 2.



Witnesses.

Everett Sack
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Inventor.

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by attys
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UNITED STATES PATENT OFFICE.

SILAS D. PALMER, OF TOLEDO, OHIO, ASSIGNOR TO JOHN R. B. RANSOM,
OF SAME PLACE.

IMPROVEMENT IN DENTAL FLASKS FOR RUBBER.

Specification forming part of Letters Patent No. 159,442, dated February 2, 1875; application filed
January 12, 1875.

To all whom it may concern:

Be it known that I, SILAS D. PALMER, of Toledo, Ohio, have invented certain new and useful Improvements in Flasks for Vulcanizing Rubber, and for analogous purposes, of which the following is a specification:

My invention relates to what are known as dental vulcanizing-flasks for molding rubber or celluloid plates. It relates particularly to that style of flasks or boilers of which the flask shown and claimed in reissued Letters Patent No. 5,979, dated July 21, 1874, is the type.

In that patent the molds rest on the bottom of the boiler, and are closed by downward pressure of a screw-clamp. It has also been essayed to close the molds by setting them in a vertically-movable frame, by which the molds would be raised and pressed against the under face of the boiler-head.

Both of these methods are open to objections which it is my object to avoid.

The arrangement first specified is very simple, and is effective so far as closing the molds is concerned; but the lifting action of the screw on the boiler-head is liable to start the head and to injure the apparatus. To remove this liability the second arrangement above noted was devised, and the arrangement is undoubtedly effective for the purpose; but it is, at the same time, objectionable because of its expense and needless complexity. It necessitates the employment of suspension-rods and two or more stuffing-boxes in the head, according to the number of rods used. It necessitates a cross-beam above the boiler-head, connecting the suspension-rods. The frame is liable to sag or get out of adjustment, in which case the molds fail to take an even bearing against the boiler-head.

Under my invention I am enabled to secure all the advantages which belong to the two methods without their disadvantages. To this end I combine, with a mold-clamp operated from the exterior of the boiler to exert a downward pressure on the molds within the boiler, a stirrup or main supporting-frame,

which is raised above and out of contact with the bottom of the boiler, is fixed to and carried by the boiler-head at or near the point where the mold-clamp takes its bearing in the same, and serves to uphold the molds against the pressure of the clamp.

In the accompanying drawing, Figure 1 is a perspective view, and Fig. 2 is a vertical central section, of a vulcanizing boiler or flask embodying my invention.

The shell of the boiler is marked A. The boiler-head is marked B. The latter carries the usual safety-valve C and thermometer D. These parts are of ordinary or suitable construction. The mold-closing clamp, in this instance, consists of a screw-rod, E, which passes down through a central bearing and stuffing-box, F, on the boiler-head. The end of the rod within the boiler carries the usual clamping-disk or washer, which is united with the end of the rod by a ball-and-socket or equivalent joint, that will allow the disk to adjust itself to the mold, and to remain at rest when the rod is rotated. Fixed to and suspended from the under side of the boiler-head is the stirrup or mold-carrying frame G. I attach it by connecting its upright arms to a central nut, *a*, with which the arms may be formed in one piece. This nut screws onto a central screw-threaded boss, *b*, on the under side of the head, and formed by the lower end of the bearing and stuffing box of the screw-rod.

It will be seen that I thus equalize pressure on the boiler-head; the molds can be removed with the boiler-head; multiplicity of parts is avoided; the top of the boiler-head is as free and unincumbered as in the original Edson vulcanizer hereinbefore referred to; and the mold-supporting stirrup or frame has a fixed and permanent position.

I would state, in conclusion, that I do not claim, broadly, a stirrup carried by and removable with the boiler-head; but,

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

In a flask or boiler for making dental plates, the combination, with the boiler-head and mold-closing clamp working through the same, of a mold-carrying stirrup or frame, fixed to the under side of said boiler-head at or near the point where the mold-closing clamp takes its bearing in the same, and raised above and out of contact with the bottom of the boiler,

substantially as and for the purposes shown and set forth.

In testimony whereof I have hereunto signed my name this 9th day of January, A. D. 1875.

SILAS D. PALMER.

Witnesses:

WAGER SWAYNE,

EDWARD H. SMITH.