(No Model.)

M. M. MAINE.

PRESS FOR DENTAL FLASKS, &c.

No. 363,152. Patented May 17, 1887.

Fig. 1

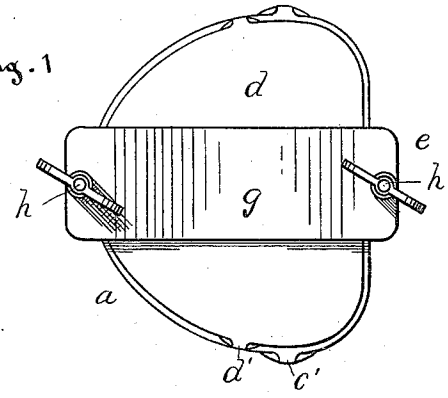


Fig. 2

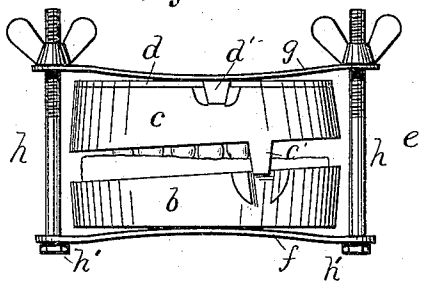
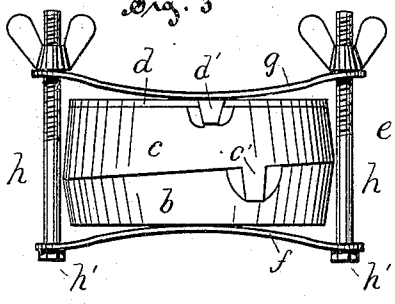


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

MYRON M. MAINE, OF SOUTH MANCHESTER, CONNECTICUT.

PRESS FOR DENTAL FLASKS, &c.

SPECIFICATION forming part of Letters Patent No. 363,152, dated May 17, 1887.

Application filed July 17, 1884. Serial No. 137,983. (No model.)

To all whom it may concern:

Be it known that I, MYRON M. MAINE, of South Manchester, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Presses for Dental Flasks and the Like; and I do hereby declare that the following is a full, clear, and exact description, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, wherein—

Figure 1 is a top view of a dental flask, shown as clamped in my improved press. Fig. 2 is a side view of same, showing the position of the parts of the press and of the flask when the latter contains the mold, teeth and the gum to be used in forming a tooth-plate. Fig. 3 is a side view of same, showing the parts of the press and the flask when the material forming the plate has been softened and spread and the flask closed.

The object of my improvement is to provide a collapsible press for holding a dental flask with a yielding pressure, and so constructed as to enable the operator to apply the pressure to any particular part and to any degree that may be desired, and while accomplishing these results it shall be a press that is cheaper in construction and more readily dismounted after use than prior devices of this class; and my improvement consists of a press in which the base and the platen are both made of thin spring metal, and are curved toward each other, so that a greater degree of adjustment is obtained than can be obtained by any prior device, the base and platen being connected to each other at each end by standards having one end threaded and bearing nuts fitting the threads, whereby the distance between the base and platen is determined, as more particularly hereinafter described, and pointed out in the claim.

In the accompanying drawings, the letter *a* denotes a dental flask of ordinary material and construction; *b*, the lower section; *c*, the ring-section, and *d* the cover, the sections and the cover being when put together held against lateral displacement by means of the projecting lugs *c' d'*, which fit into dovetailed sockets in the adjacent parts of the flask. *e* denotes my improved press as a whole, *f* the base, and *g* the platen, which are each formed of strips or plates of comparatively thin metal, preferably steel, curving toward each other in the center, and united at their outer ends by means of the screw-threaded standards *h*. Each of these standards has a broadened head, *h'*, or any similar means for preventing it from slipping through a hole in the base-plate *f*, and bears a threaded nut, preferably of the butterfly pattern, with wings that enable it to be readily turned on the threaded stem of the stand, so as to apply the pressure to the side of the platen *g* opposite to the base-plate. The platen and base-plate are preferably of the simple form, as above described; but, if it is desirable, they may be made each with a series of arms extending from a common center.

When the press is not in use, the nuts can be unscrewed from the standards and the platen and base removed, so as to be packed in a very small space, and this is accomplished without the aid of any tools.

In using my improved press the flask containing the roughly-formed tooth-plate is placed between the base-plate and platen and pressure applied until the base and platen are nearly flat, as illustrated in Fig. 2. If, on account of any peculiarity of the jaw to be fitted, owing to a particularly thin alveolar ridge or other weak point as one or more remaining and projecting teeth, it is desirable to apply the pressure upon the flask at one side of their center, the nut on one of the standards is run down to a lower point than on the other, as indicated by the dotted outline in Fig. 2, and the whole device is in condition to be placed in the vulcanizer in water, which is heated to the requisite degree to soften the gum, so that it yields to the pressure of the elastic platen and base and flows so as to thoroughly and exactly fill the spaces between the die and mold and form the tooth-plate. The vulcanizer is closed as soon as the flask is introduced, and this compression of the gum in forming the plate is automatically performed by the press, and the vulcanization of the plate then goes on in the usual manner.

The standards are so supported in the base-plate as to prevent their turning with the nuts when the latter are used to clamp the flask in

the press. This may be done by making the standards angular in section and making the opening in the base to fit that angular outline.

The main advantages of my improvement are the avoidance of the danger of breaking delicate portions of the cast, spreading or breaking the blocks of teeth, and breaking down the arch of the plate, which are common results in the use of devices prior to my invention.

I am aware that it is not new to provide a dental-flask press with screw-threaded standards, having nuts fitting such standards, whereby the parts are secured together, as such a device is shown in patent to J. D. Heiges, No. 170,731, of December 7, 1875; and I am also aware that it is not new to provide a dental flask with a press having a platen of spring metal, as such is shown in patent to C. Bailey, No. 137,589, of April 8, 1873, and these I do not broadly claim.

I claim as my invention—

In combination with a partible dental flask, a press consisting of a thin spring-metal base that curves upward, and is perforated at its ends to receive the standards, and a thin spring-metal platen curving toward the base, and also perforated at its ends, so as to slide upon the standards, the standards joining the platen and the base, and provided at one end with a broadened head and at the other with a thread, on which are fitted the adjusting-nuts, all substantially as described, and for the purpose set forth.

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Witnesses:

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