No. 841,962. PATENTED JAN. 22, 1907.

J. F. HARDY.

DENTAL FLASK PRESS.

APPLICATION FILED OCT. 28, 1905.

Fig. 2.

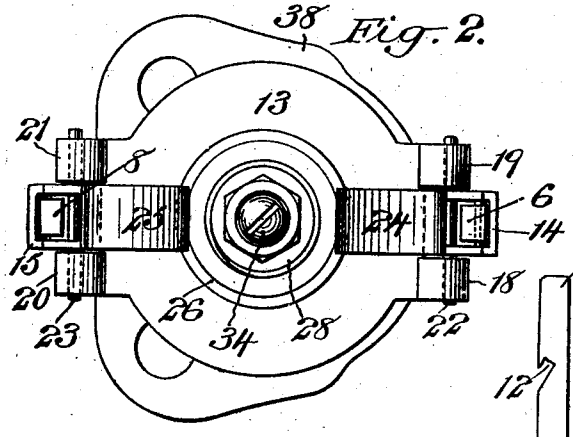


Fig. 1.

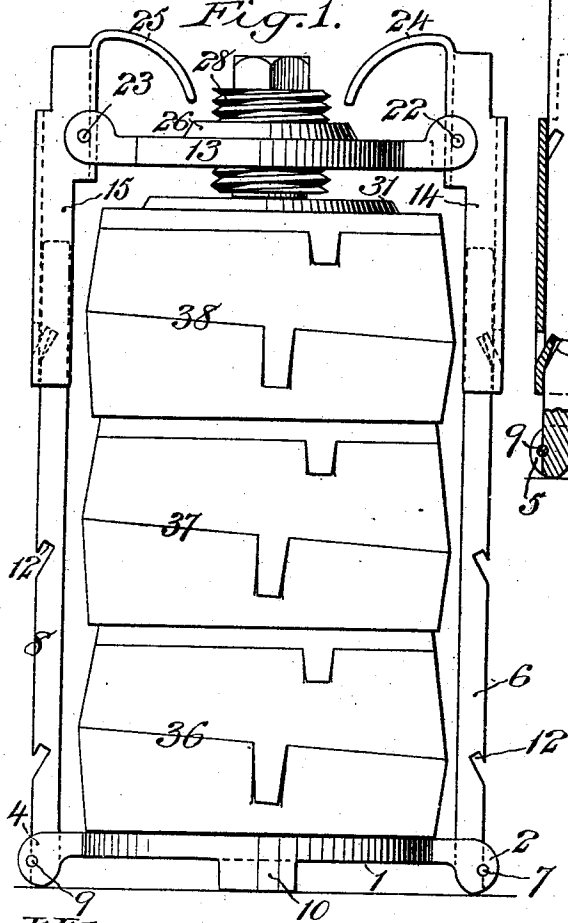


Fig. 3.

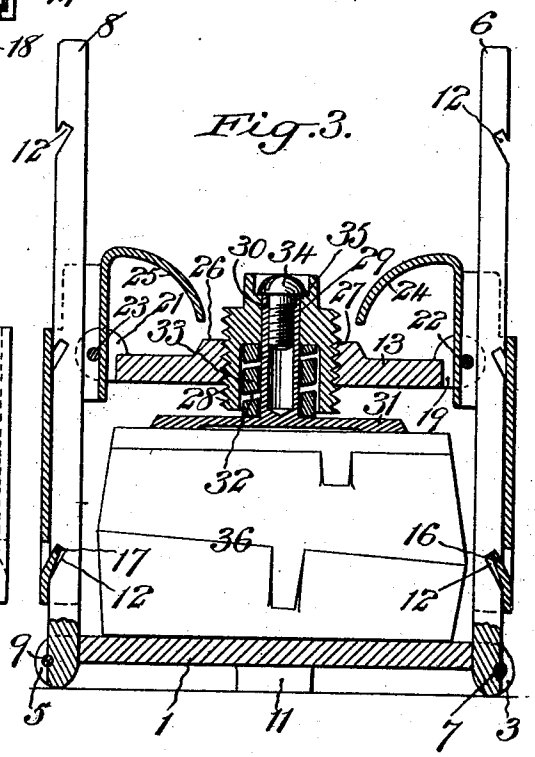
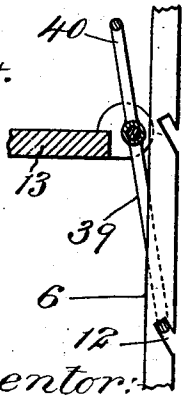


Fig. 4.



Witnesses:-

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UNITED STATES PATENT OFFICE.

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DENTAL FLASK-PRESS.

No. 841,962. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed October 28, 1905. Serial No. 284,799.

To all whom it may concern:

Be it known that I, JAMES F. HARDY, a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Dental Flask-Presses, of which the following is a specification.

My invention relates to dental flask-presses, with the object in view of providing an efficient press at moderate cost capable of adjustment to suit vulcanizers of different capacities.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of the press in side elevation, showing three flasks therein. Fig. 2 is a top plan view. Fig. 3 is a view in side elevation, partly in section, showing the adjustment of the parts when used with a single flask; and Fig. 4 is a sectional view in detail, showing a modified form of link.

The base of the press is denoted by 1. It is provided at diametrically opposite points with pairs of lugs, those at one side being denoted by 2 3 and those at the opposite side being denoted by 4 5. Between the lugs 2 and 3 the lower end of an upright 6 is secured by means of a pin or bolt 7, and between the lugs 4 and 5 an upright 8, corresponding to the upright 6, is secured by means of a pin or bolt 9. The lugs 2 3 and 4 5 may be extended downwardly to form feet for the support of the frame when standing in its upright position, and the base may be further steadied, by means of downwardly-projecting feet 10 11, at points diametrically opposite and intermediate of the lugs which support the uprights. Each of the uprights 6 and 8 is provided on its outer face with a series of notches 12, the said notches 12 extending in a slanting direction inwardly and upwardly from the outer face of the upright or standard. The number of notches 12 on each upright is a matter of choice. In the present instance I have shown one on each standard for each flask-space for which the press is intended; but it is obvious that these notches might be increased in number or located at different distances apart to suit flasks of different heights.

The standards 6 and 8 are made of sufficient height or length to be received in what is known in the art as a "two-flask" vulcanizer, and one of the important features of my present invention is a construction which will admit of using the press either in a two-flask vulcanizer, with two flasks held securely therein, or in a three-flask vulcanizer, with three flasks held securely therein. To this end I provide each of the standards with a link for locking the cross-head 13 of the press to the standards in position to hold one, two, or three flasks, as may be desired.

The links which secure the cross-head 13 to the standards are here shown as formed of pieces of channel-iron of such size as to fit over the outer, front, and back faces of the standards, leaving the inner face of the upright or standard exposed and the standard itself free to be inserted within the link. These links are denoted by 14 and 15. They are each provided with upwardly and inwardly projecting tongues 16 and 17, which tongues may be conveniently formed by partially severing them from the bottom or outer faces of the links and bending their free ends inwardly, as clearly shown. It is intended that the tongues 16 and 17 shall be received with a free sliding fit in the notches 12 in the uprights.

The cross-head 13 is provided at diametrically opposite points with pairs of lugs, one pair being denoted by 18 19 and the opposite pair by 20 21. Between the pair of lugs 18 19 the link 14 is hinged by means of a pintle 22, and between the lugs 20 21 the link 15 is hinged by means of a pintle 23. The tops of the links are provided with horns 24 25, which may be conveniently formed integral therewith, the said horns 24 25 being bent inwardly and downwardly to form hooks on the opposite sides of the press for conveniently withdrawing the press from the vulcanizer by means of a suitable tool. These horns 24 25 may also serve to rock the links out of and into engagement, if so desired.

The cross-head 13 is provided with a central boss 26, through which there is formed a large interiorly screw-threaded opening 27. In this opening 27 the press-actuating screw 28 is engaged, the said screw 28 being provided with a bore 29 for receiving the neck or stem 30 of the follower 31. The bore 29 has its lower portion enlarged, as at 32, for the purpose of inserting a heavy spring 33 be-

tween the follower and the base of the enlarged bore around the neck 30 of the follower. The neck 30 of the follower is made hollow and has an interior screw-thread for the reception of a retaining-screw 34, the head of which laps over a shoulder 35, formed near the top of the bore 29 by enlarging its upper end.

The several flasks are denoted by 36, 37, and 38.

The link 39 (represented in Fig. 4) is a skeleton link of loop form, one end of the loop being adapted to hook into a notch 12 and the opposite end extended, as shown at 40, for receiving the hook to withdraw the press from the vulcanizer. Intermediate of its ends the link is provided with a cross-bar for receiving the pintle which connects it with the cross-head.

In operation when the press is to be used with one flask the links are slid down into the position shown in Fig. 3, their tongues 16 and 17 interlocked with the lower notches 12, and pressure is then brought to bear on the top of the flask 36 by turning the screw 28. This pressure of the screw 28 will be transmitted, through the heavy spring 33, to the follower 31. When the press is to be used in connection with two flasks, the links 14 and 15 will be engaged with notches 12 still farther up the standards, and without increasing the height of the standards 3 flasks may be held in the press by extending the links 14 and 15 above the standards, as shown in Fig. 1. In this form the links themselves form, essentially, extensions of the standards, so that the capacity of the press is increased to a three-flask press, while at the same time its parts are capable of being adjusted so that it will occupy only the space of a two-flask press. The adjustment of the links is made by swinging their upper ends toward one another, thereby relieving the tongues 16 and 17 from their notches when the screw 28 has been loosened to permit the links to slightly drop.

It will be noted that the space between the uprights 6 and 8 is uninterrupted by any mechanism, thereby obviating any waste space between the uprights and the exterior of the flasks, and at the same time the interlocking of the links with the uprights is so arranged that there is only the thickness of the channel-iron added to the outer face of the upright. These matters are of importance in this art because of the limited capacity of the vulcanizing-press and the importance of utilizing the space in the vulcanizer to the greatest advantage.

What I claim is—

1. A dental flask-press comprising a base, uprights connected therewith, a cross-head carrying a screw and links adapted to form extensions of the uprights and serving to connect the cross-head with the uprights, the said uprights being provided with means for attaching the links thereto at different distances from the base.

2. A dental flask-press comprising a base for supporting a flask, or flasks, uprights connected with the opposite sides of the base and provided with retaining-notches on their outer faces, a cross-head carrying a screw and links constructed to embrace the uprights and serving to connect the cross-head with said notches on the uprights at different distances from the base.

3. A dental flask-press comprising a base, notched uprights connected therewith, a cross-head carrying a screw and vertically-sliding links hinged to the cross-head and adapted to embrace the uprights, the said links being provided with projections for engaging the notches in the uprights at different distances from the base.

4. A dental flask-press comprising a base, uprights connected therewith, a cross-head, a screw carried by the cross-head and upright-extending links connecting the cross-head with the upright, the said links being provided with horns for receiving a hook in handling the press.

5. A dental flask-press comprising a base, uprights connected therewith and provided with notches at intervals on their outer faces, a cross-head, a screw carried by the cross-head and links for connecting the cross-head with the uprights, the said links being constructed to embrace the uprights and provided with inwardly-turned tongues on their outer sides for engaging the notches on the outer faces of the uprights.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 12th day of September, 1905.

JAMES F. HARDY.

Witnesses:
H. D. BOLTMAN,
JAMES MURRAY.