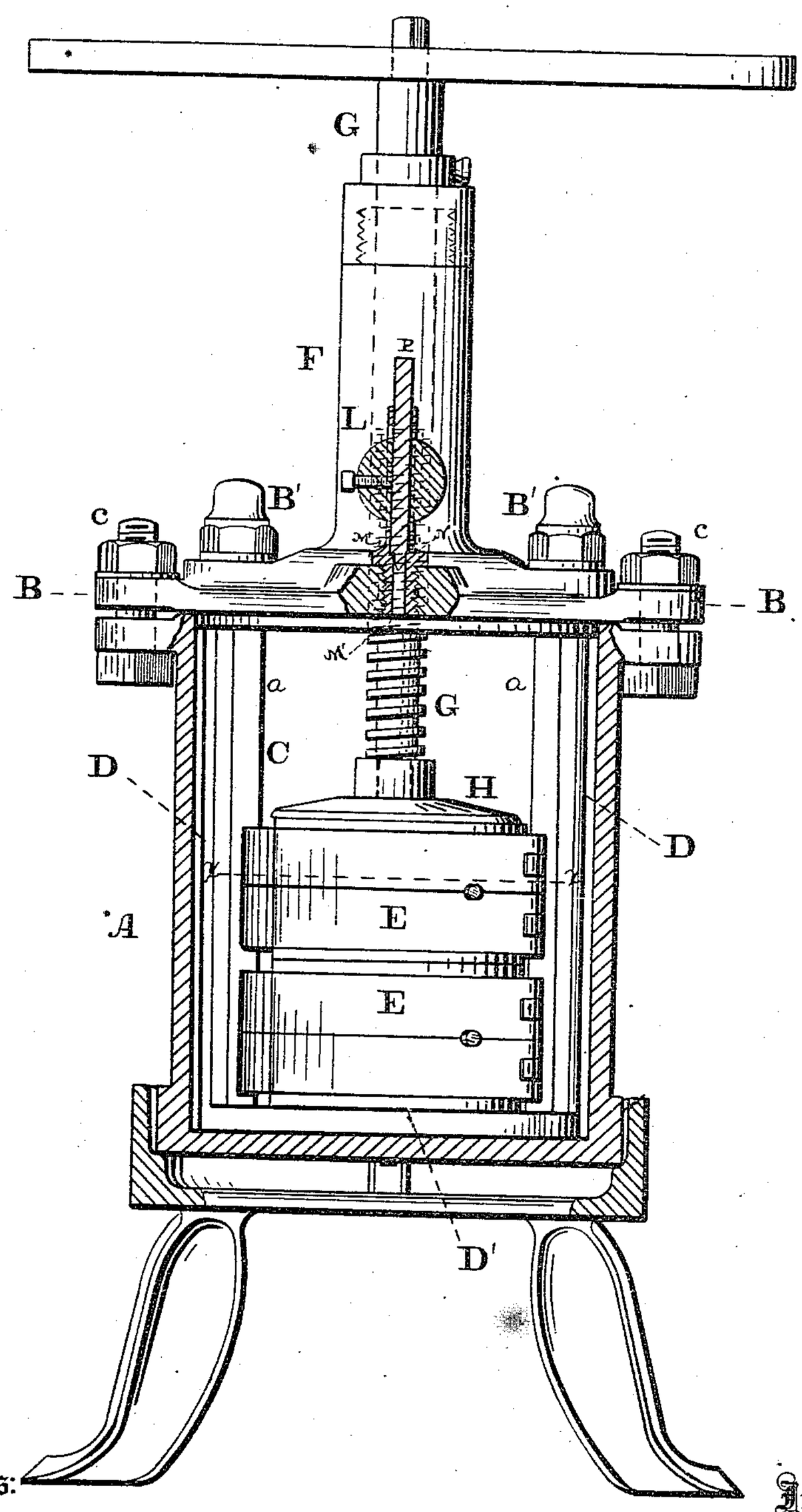
2 Sheets--Sheet 1.

C. A. WHITE.
Dental Pot.

No. 162,128. Patented April 13, 1875.

Fig. 1.



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2 Sheets--Sheet 2.

C. A. WHITE.
Dental Pot.

No. 162,128. Patented April 13, 1875.

Fig. 2.

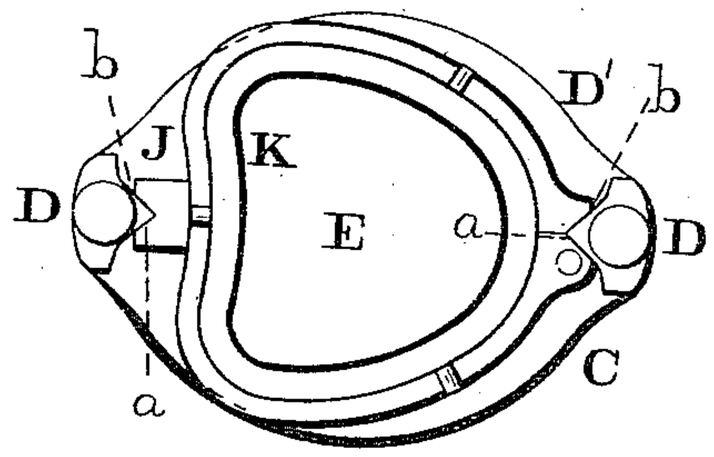
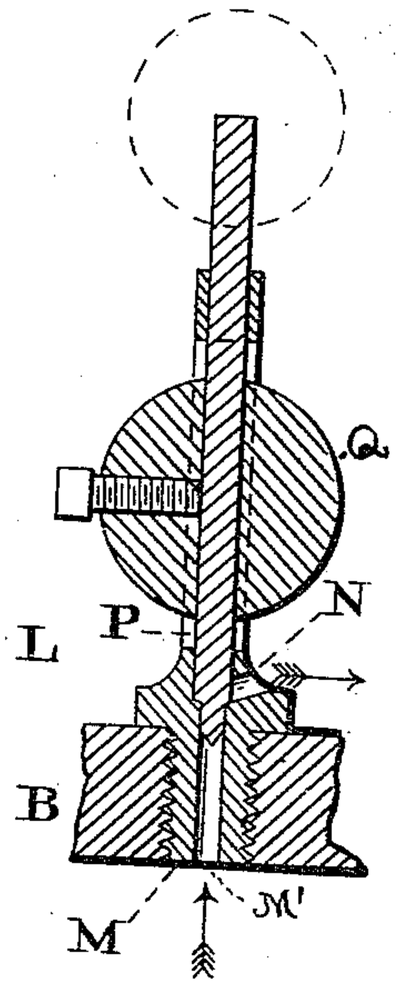


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES A. WHITE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DENTAL POTS.

Specification forming part of Letters Patent No. **162,128**, dated April 13, 1875; application filed December 21, 1874.

To all whom it may concern:

Be it known that I, CHARLES A. WHITE, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Dental Pots for Molding Celluloids and other purposes; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a side elevation, partly sectional, of the device embodying my invention. Fig. 2 is a horizontal section of a portion thereof, in line *x x*, Fig. 1. Fig. 3 is a vertical section of the safety-valve.

My invention consists in suspending the flasks within the pot or boiler, whereby they may be most readily removed therefrom, cooled, inspected, and carried without handling the same, and without liability of springing apart while hot. It also consists in means for guiding the flasks into position, and preventing turning and twisting thereof. It further consists in the construction of the safety-valve.

Referring to the drawings, A represents the pot or boiler, which may be mounted on a suitable stand or tripod, so that a lamp or other medium may be employed thereunder for heating the water contained in the pot. B represents the cap or top plate of the pot, and from its under side is suspended a frame, C, consisting of two side bars, D, and a bottom plate, D′, and adapted to support and carry the flask E, the bars being threaded and held to the cap or top plate by nuts B′. The inner faces of the bars D and outer faces of the flask E, at opposite points, are respectively tongued and grooved, as at *a b*, so that the flask may be fitted between the bars D, and guided thereon when applied to the frame C, so as to prevent subsequent turning and twisting of the flask. From the top plate B there rises a boss, F, which is hollow and internally threaded, and in the same is fitted a screw-rod, G, to whose lower end is swiveled a head, H, which, when in position, is interposed between the screw-rod and flask or flasks resting on the plate D′ of the frame C.

The operation is as follows: The flask, with celluloid plate and plaster casting, the process of which is too well known to be stated here, is fitted to the frame C, being guided thereon by the tongues and grooves *a b*. The screw-rod G is now operated to sufficiently hold the head H against the top plate of the flask, and the flask, carried by the frame and top plate, is then placed in the pot A, and submerged in water therein. The top plate is now connected to the pot by bolts and nuts *c*, or other devices, which are securely tightened in place. The lamp, gas-jet, or otherwise, being lighted, the water is boiled, and as the shaping of the celluloid plate is progressing, the screw-rod will be rotated, so as to bring the upper and lower plates of the flasks against the side plates thereof, they being at first somewhat separated, as is well known. The extent of descent of the screw-rod will be limited by a collar on its upper end, and when the top and bottom plates are fully closed against the side plates, the screw-rod being thus stopped in its descent, it is evidence that the work is finished. The nuts *e* are duly loosened, and, by means of a wrench or key, fitted on the top of the screw-rod; or, by grasping the boss or top plate, the flask may be lifted bodily from the pot, and without separation from the frame C, the screw-rod holding the flask thereon. The flask is then submerged in water, or held under running water, so as to be cooled, and thus cool the celluloid plate. When this is completed, the nuts B′ are loosened, so as to release the frame C; then the flask is removed, and the contents are soon accessible.

It will be seen that the flask is not liable to spring apart when removed from the pot, and during the cooling operation.

The invention will also be found serviceable wherein during the boiling process the flask may be readily removed to inspect the state of the work, if at any time necessary. By this invention, also, I can employ several flasks, and make upper and lower sets of teeth at the same time, and also repair vulcanite sets with celluloid.

In order to permit the escape of steam during the boiling process, a safety-valve, L, is employed. M represents a hollow stem, which

screws into the top plate B of the boiler, and communicates with the interior of the latter. At one side of the stem is an opening, N, and in the hollow M′ of the stem is fitted a rising-and-falling valve-rod, P, whose lower end covers and uncovers the opening N, which constitutes the seat of the valve.

It is evident that when the pressure of steam (which is raised during the boiling process) is in excess of the weight of the ball Q of the valve-rod, the latter is raised, and the steam escapes through the opening N, its line of direction being lateral, or such that it will not inconvenience or endanger the operator.

I do not claim, broadly, a frame carried by and removable from the boiler-head or top plate.

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

1. The flask-carrying frame C, suspended from the top plate of the dental pot by means of the nuts B′, substantially as and for the purpose set forth.

2. The combination, with a dental pot, of the flask-carrying frame C, having its side bars D formed with tongues or grooves *a*, for engagement with the flask, substantially in the manner and for the purpose set forth.

3. The combination, with a dental pot, of the safety-valve L, constructed of the stem M, formed with a vertical opening, M′, with lateral extension N, and automatically rising-and-falling rod-valve P, as set forth.

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Witnesses:
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