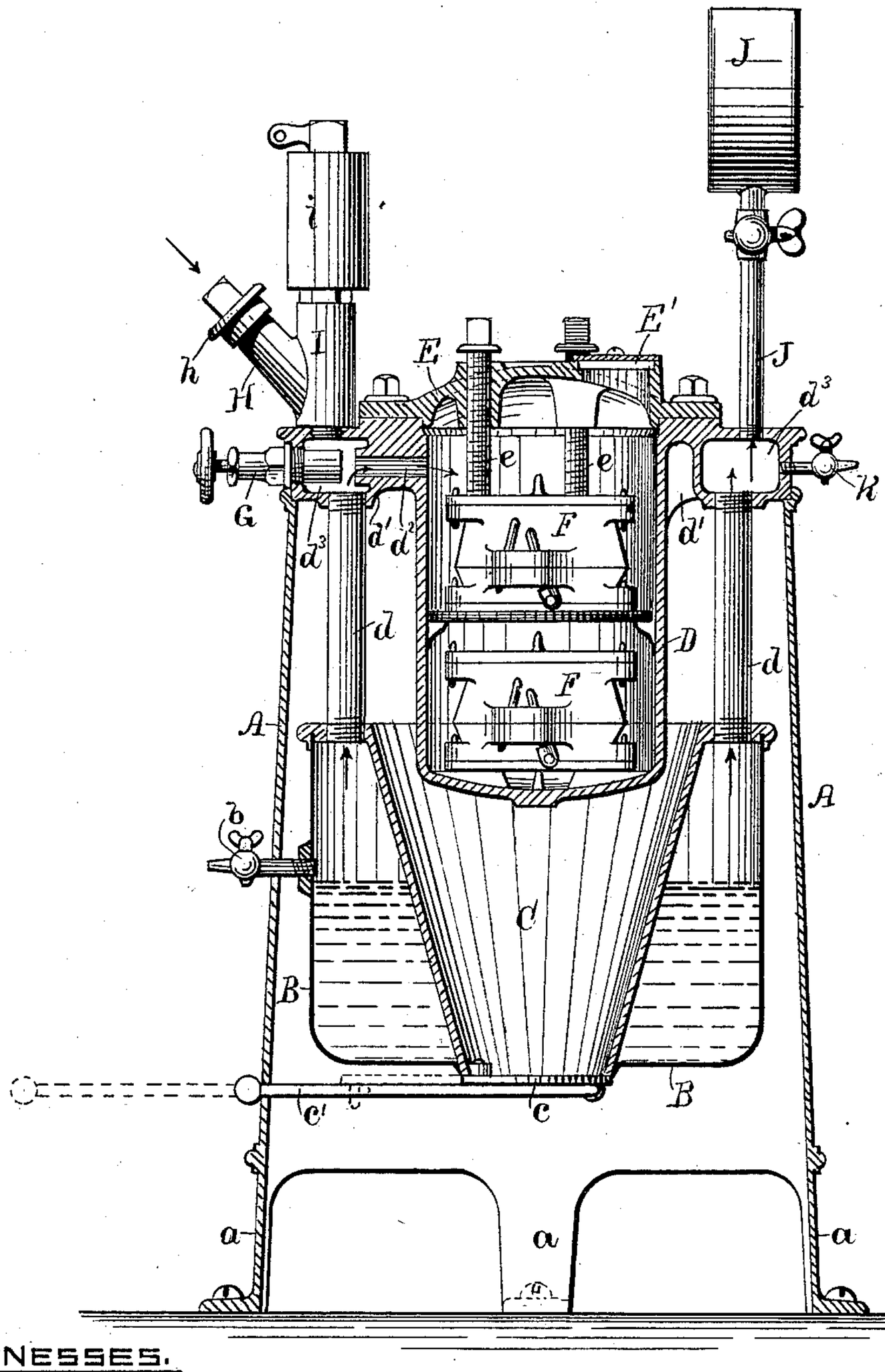
(No Model.)

F. W. SEABURY.

DENTAL VULCANIZER.

No. 299,861. Patented June 3, 1884.



WITNESSES.

C. H. Luther Jr

Jno. L. Cordon

INVENTOR.

Frederick W. Seabury

by Joseph A. Miller & Co

Attys

UNITED STATES PATENT OFFICE.

FREDERICK W. SEABURY, OF PROVIDENCE, RHODE ISLAND.

DENTAL VULCANIZER.

SPECIFICATION forming part of Letters Patent No. 299,861, dated June 3, 1884.

Application filed March 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. SEABURY, of the city and county of Providence, and State of Rhode Island, have invented certain new and useful Improvements in Dental Vulcanizers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to apparatus for baking the molds for artificial teeth and for vulcanizing the plates for such teeth; and the object of my invention is to increase the capacity for utilizing heat, and also to simplify the general construction of the same, whereby they are rendered more compact.

To the above ends my invention consists in the peculiar and novel construction and arrangement of the vulcanizer, as hereinafter described and claimed.

In the accompanying drawing the figure illustrates a transverse vertical section of my improved vulcanizer.

In the said drawing, A designates the hollow body of the vulcanizer, which is supported upon the legs *a*. Within this body is placed the boiler B, which is of substantially the shape shown, and which is formed with the central inverted truncated conical flue, C, the bottom of which is closed by a hinged damper-plate, *c*, the latter being turned upon its pivot by a hand-rod, *c'*, which is attached at one end to the damper and extends out through the case or body A. The boiler and flue are supported by the tubes *d*, which are connected at one end to the top of the boiler and at the other end to the top of the vulcanizer-case.

D designates the oven, which is of substantially the shape shown, and the lower end or base of which extends somewhat downward into the upper end of the flue C. The upper end of the oven is formed with lateral flanges *d'*, which rest upon the top of the case or body A, and thus support the oven in position, and also form the top of the vulcanizer.

E designates the cover of the oven, which is secured in position by bolts, as shown.

e e designate presser-screws, which work through threaded sockets in the cover and press upon the flasks F in the oven.

E' designates a lid, which is pivoted upon the cover in such manner as to be readily removed, and by uncovering an aperture in the cover permit visual access to the interior of the oven.

G designates a valve, which is seated in the flange *d'* of the oven, so as to close a channel, d^2, leading from the pipe *d* to the interior of the oven.

H designates a spout, the outer end of which is tightly closed by a cap, *h*, and which leads into a tube, I, entering the channel d^2 from above. The purpose of this spout is to convey water to the boiler B.

i designates a pop or safety valve, which is seated in the upper end of the tube I.

J designates a steam-gage, the tube *j* of which opens into a continuous chamber, d^3, formed in the flange *d'* of the oven, and into which chamber the tube *d* opens.

k designates a test-cock communicating with the chamber d^3, and *b* designates a similar cock communicating with the boiler B at or just above the mean water-level.

In using this apparatus a heater—such as a gas-burner, an oil-burner, or a similar device—is set beneath the boiler B and the valve G is closed. The heat from the burner will ascend through the flue C, and will act directly upon the bottom and sides of the oven, thus baking the molds, which have been previously placed in the oven, and also heating the water, which has been previously supplied to the boiler B through the feeder H. The damper *c* is opened more or less, according to the judgment of the operator. In due time the valve G is opened, and steam from the boiler B will pass through the pipes *d*, chamber d^3, and channel d^2 into the oven, for the purpose of vulcanizing the gums in the molds. The steam is superheated in the pipes *d* by the heat from the burner. The pop-valve *i* and cocks *k* and *b* and the gage J all serve their evident purposes.

The whole apparatus is simple and compact and thoroughly utilizes the heat from the burner. It is also safe and easily managed.

Having thus described my invention, I claim—

1. The combination of the boiler having the conical flue with the oven and the steam-pipes, all constructed and arranged substantially as set forth.

2. The boiler B, having the conical flue C, in combination with the oven D, having the

flange d' and the pipes d, substantially as described.

3. The combination, with the case or body A, of the oven D, having the flange d', provided with the channel d^2 and chamber d^3, the boiler B, having the conical flue C, and the tubes d, substantially as set forth.

4. The combination, with the boiler, the conical flue, the pipes d, and the oven provided with the channeled and chambered flange, of the feeder or spout H, substantially as described.

5. The combination, with the boiler and the conical flue, of the damper c, constructed and arranged substantially as described.

6. The combination of the case A, the oven D, having the chambered and channeled flange, the cover E, screws e, lid E', boiler B, conical flue C, damper c, pipes d, and the valve G, the pop-valve, gage, spout, and cocks b k, all arranged substantially as and for the purposes set forth.

FREDERICK W. SEABURY.

Witnesses:

M. F. BLIGH,

J. A. MILLER, Jr.