(No Model.) 2 Sheets—Sheet 1.

# P. J. DAVIS.

## VULCANIZING APPARATUS.

No. 568,129. Patented Sept. 22, 1896.

*Fig. 1.*

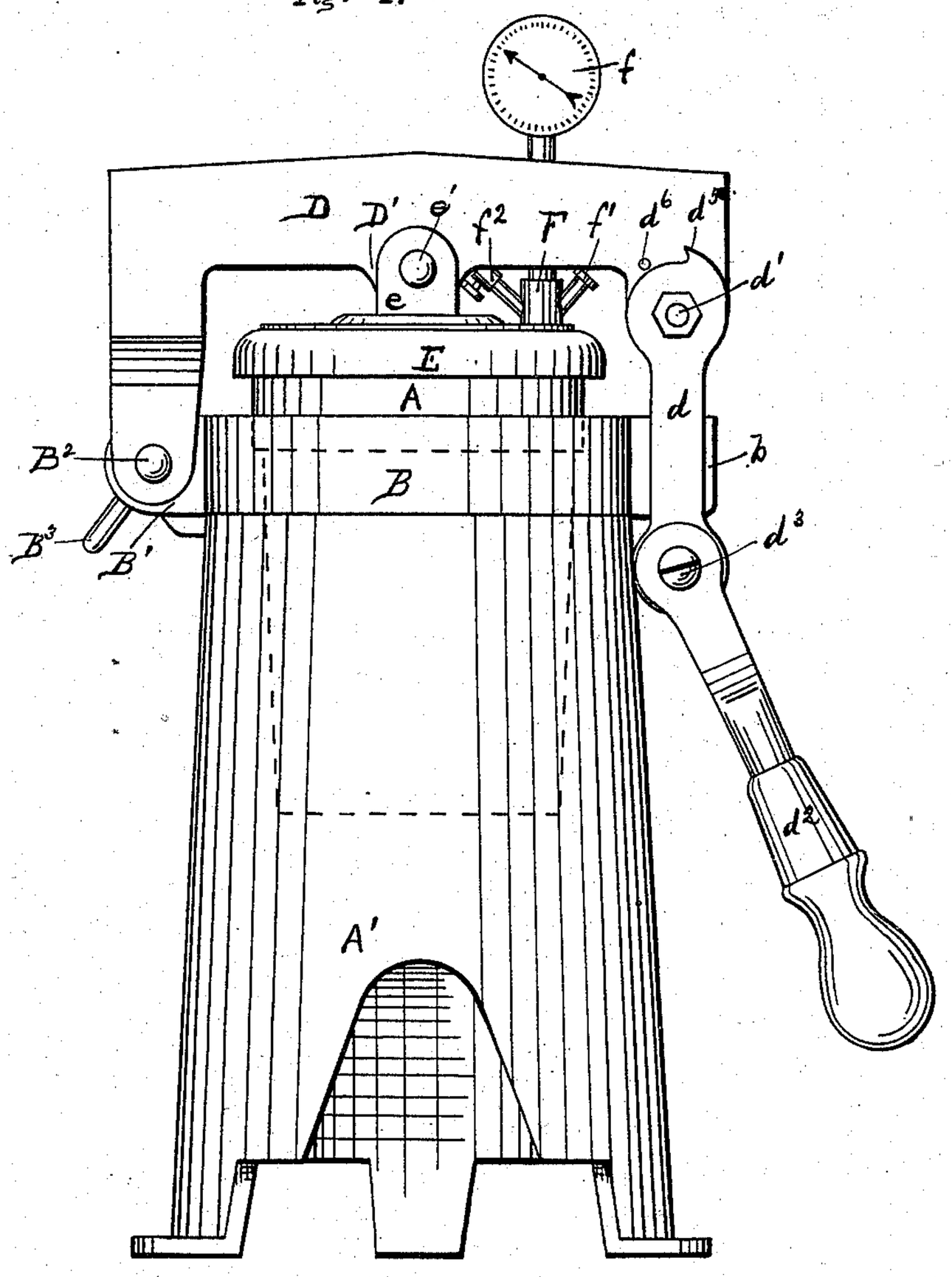
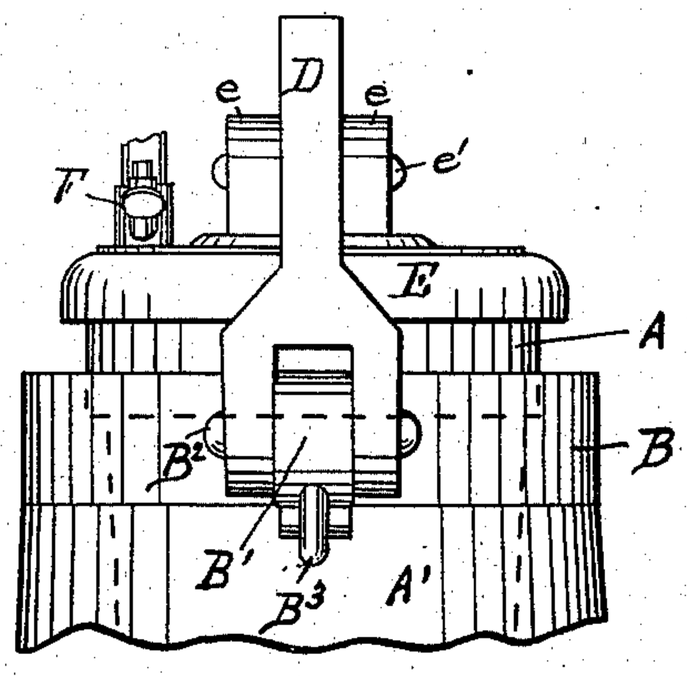



*Fig. 2.*




Witnesses:

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(No Model.) 2 Sheets—Sheet 2.

# P. J. DAVIS.

## VULCANIZING APPARATUS.

No. 568,129. Patented Sept. 22, 1896.

*Fig. 3.*

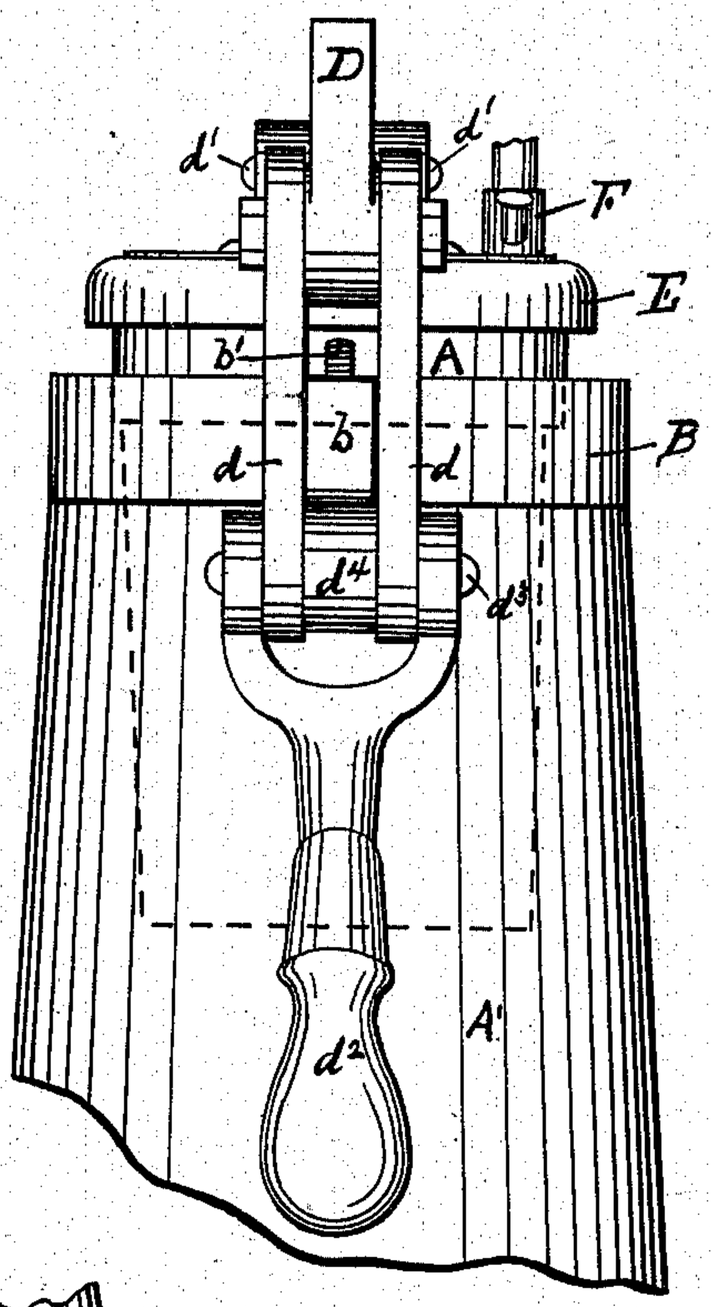
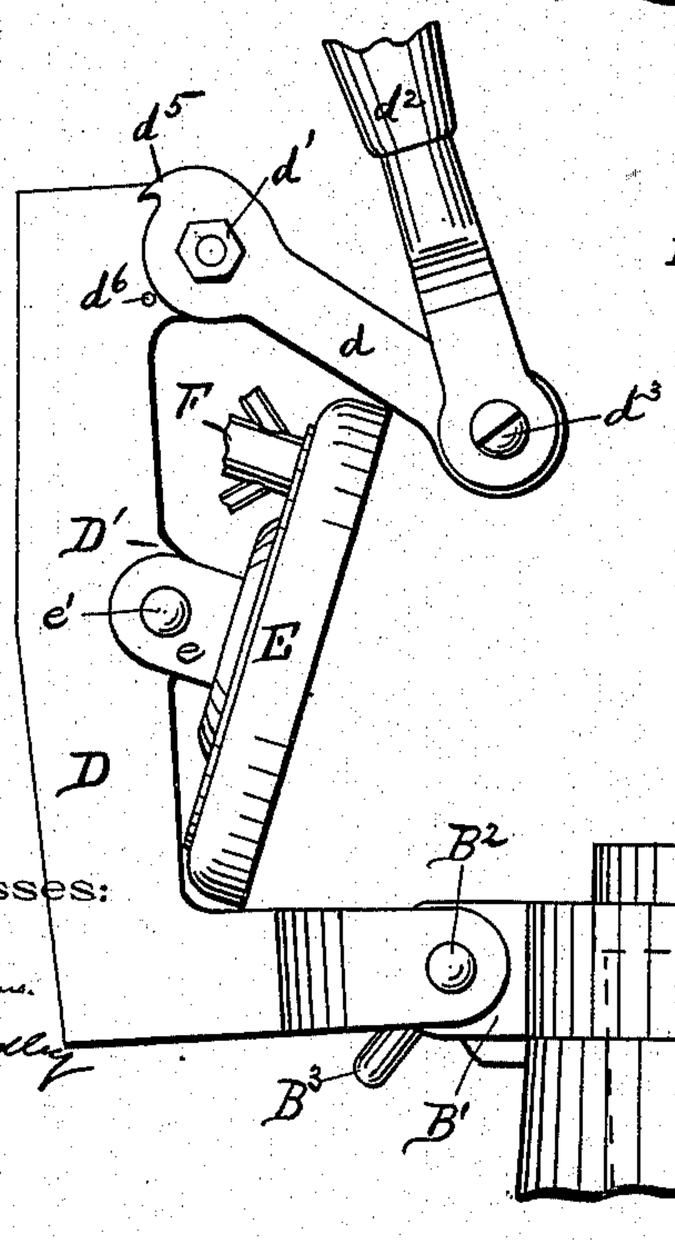



*Fig. 4.*

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# UNITED STATES PATENT OFFICE.

PHILANDER J. DAVIS, OF ROCHESTER, NEW YORK.

## VULCANIZING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 568,129, dated September 22, 1896.

Application filed January 2, 1896. Serial No. 574,175. (No model.)

*To all whom it may concern:*

Be it known that I, PHILANDER J. DAVIS, a citizen of the United States, and a resident of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Vulcanizing Apparatus, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of my device. Fig. 2 is an end elevation seen from the left-hand side of Fig. 1. Fig. 3 is an end elevation seen from the right-hand side of Fig. 1, and Fig. 4 is a front elevation of my device with the cover removed.

The object of my invention is to produce a vulcanizing apparatus in which the fastening devices for the cover of the retort are easily managed, easily adjustable to provide for compression of the packing and to take up wear, and are all fastened together so that there are no parts to mislay or lose. I accomplish these objects by the devices hereinafter described and claimed.

In the drawings, A is the retort, whose edge only is directly visible, but which is shown mainly in dotted lines in the respective views.

A′ is the support for the retort and the cover-operating devices, within which is placed the source of heat for producing the vulcanization within the retort. Upon the support A′ rests a ring B, provided on opposite sides with the lugs B′ and *b*. To the lug B′ is pivoted, at $B^2$, the clamping-lever D. Into the lug B′ is screwed or driven a pin $B^3$, against which the lever D rests when the cover is fully removed from the retort, as shown in Fig. 4. The clamping-lever D extends upward from the lug B′, thence over the retort A to a point over the lug *b*. At about the middle of the lever D and at a point immediately over the middle of the cover E there is a depending lug D′. The cover E is perforated for a stem F, to which is fastened a steam-gage *f*, a safety-valve *f*′, and a blow-off cock $f^2$. (Shown in Fig. 1, but omitted in the other drawings.) From the cover also extend lugs *e*, by which the cover is pivoted at *e*′ to the lug D′ of the lever D. To the free end of the lever D are pivoted, at $d^2$, a pair of links *d*, to the lower ends of which is pivoted a handle $d^2$ by means of the bolt $d^3$. Between the links *d* is the cam or eccentric $d^4$, which is fastened firmly on the pivot $d^3$ and which is operated by means of the handle $d^2$, also fastened by means of a yoke end to the pivot $d^3$ outside of the links *d*. (See Fig. 3.) The links are set so far apart that the lug *b* may pass between them, and the cam is so adjusted on the ends of the links that when the handle is depressed, as shown in Figs. 1 and 3, the lever D will be drawn tightly down, and the cover E will be pressed tightly upon the retort A.

Any suitable packing may be used to make the vulcanizer tight. If the packing becomes compressed in use or the cam becomes worn, it is necessary to provide means for adjusting the degree to which the cover may be pulled down upon the retort. Into the under side of the lug *b* (see Fig. 4) is screwed a plug *b*′. The screw passes entirely through the lug and above the upper side thereof and is there provided with a slot for a screw-driver or other means of turning it. On turning the screw the enlarged lower end of the plug *b*′ may be moved upward or downward, and as the cam $d^4$, when brought into the proper position, always presses against the lower end of the plug *b*′ the degree of movement or pressure of the lever D, and hence of the cover E, upon the retort A is easily and properly adjusted.

On the upper ends of the links *d* are a pair of projections $d^5$, (see Figs. 1 and 4,) and in the end of the lever D are a pair of pins $d^6$, against which the projections $d^5$ may rest. If the parts are in the position shown in Fig. 1, on raising the handle $d^2$ the cam is turned, and thereby the links *d* are released from the lug *b*. Still lifting the handle, the links are pulled around the pivotal point *d*′, so that the projections $d^5$ strike against the pins $d^6$, and on further raising the handle the cover E is lifted from the retort A, and the whole device may be swung about the pivot $B^2$ until the pin $B^3$ checks the movement of the lever D, and all the parts may rest in the position shown in Fig. 4 with the retort wide open. It will be seen that one hand only is required for opening the retort and that there are no nuts, bolts, or other parts to

unfasten and lay aside; nor does the cover require separate handling from the devices for fastening it upon the retort.

What I claim is—

1. The combination of a retort, a frame around the same having a pair of lugs on opposite sides thereof, a cover, a clamping-lever pivoted to one of said lugs and extending over said cover and having said cover pivoted thereto, a cam or eccentric adapted to engage the under side of the other lug and provided with an operating-handle, and a swinging connection permanently attached to said cam and to the free end of said clamping-lever, whereby the cover is locked and unlocked and is lifted and replaced by operating the handle only.

2. In a vulcanizing apparatus, a retort A, a cover E, a support for the retort provided with a ring B on which the retort rests having lugs as B′ and *b* on opposite sides thereof, a clamping-lever D pivoted to the lug B′ and pivoted at or near its middle to the cover E, a cam $d^4$ attached by the links *d* to the free end of the lever D and arranged to engage the lower side of the lug *b*, an adjustable plug *b′* extending through said lug *b* and whereon the cam $d^4$ presses, and a handle $d^2$ for operating said cam, whereby the cover is locked and unlocked and is lifted and replaced by operating the handle only.

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Witnesses:

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