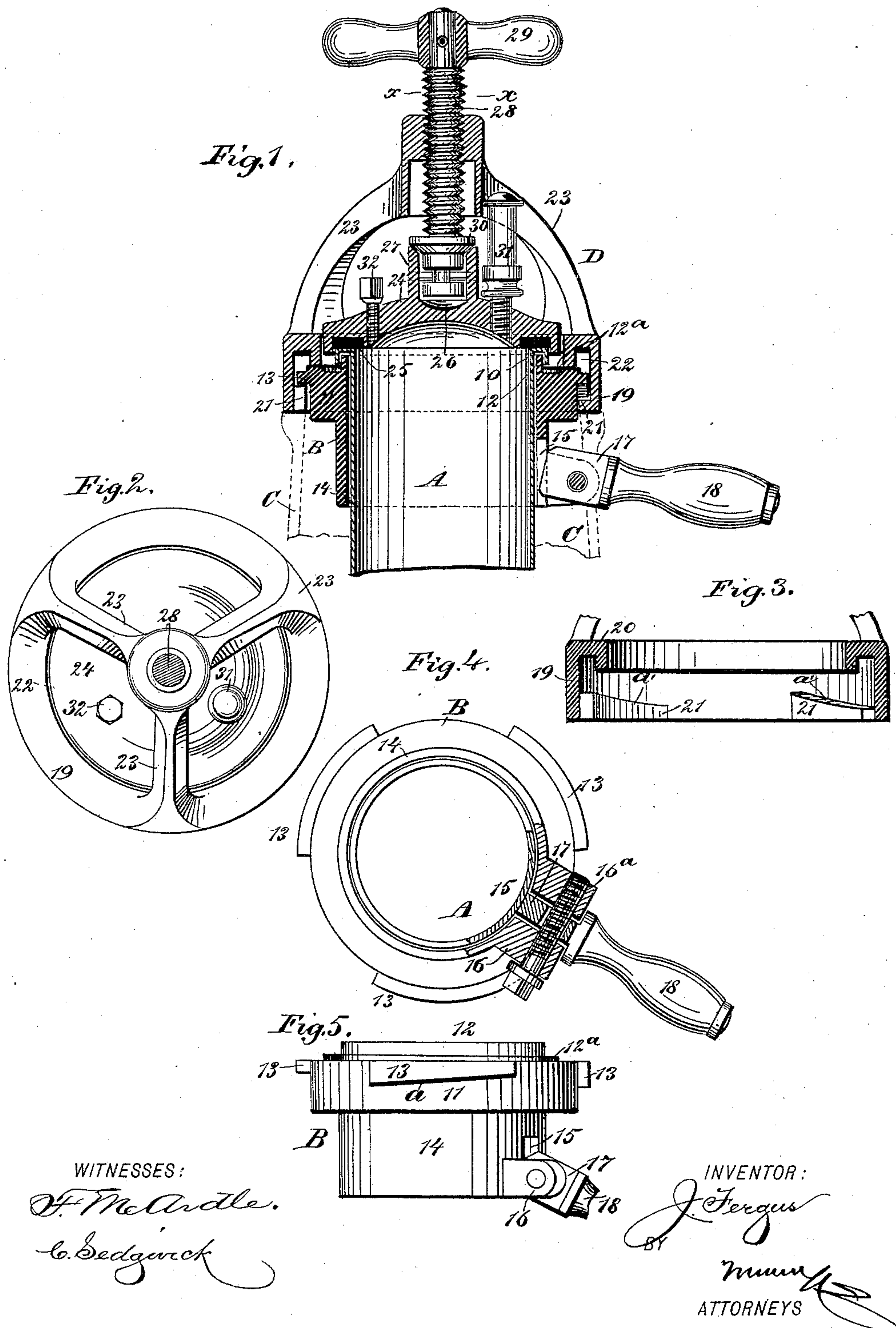


(No Model.)

J. FERGUS.  
VULCANIZER.

No. 462,120.

Patented Oct. 27, 1891.





# UNITED STATES PATENT OFFICE.

JAMES FERGUS, OF PHILADELPHIA, PENNSYLVANIA.

## VULCANIZER.

SPECIFICATION forming part of Letters Patent No. 462,120, dated October 27, 1891.

Application filed April 28, 1891. Serial No. 390,826. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES FERGUS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Vulcanizers, of which the following is a full, clear, and exact description.

My invention relates to an improvement in vulcanizers, and has for its object to improve upon the construction of the vulcanizer described in the patent granted to myself March 31, 1891, No. 449,470, the principal improvement consisting in providing a means for manipulating the cover and raising it any desired distance from the upper surface of the bowl.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical section through a portion of the bowl, the support therefor, and the cover. Fig. 2 is a section taken upon the line  $x x$  of Fig. 1, looking downward. Fig. 3 is a vertical section through the ring member or section of the cover. Fig. 4 is a bottom plan view of the bowl and the support therefor, the bowl and the support being partly in section; and Fig. 5 is a side elevation of the bowl-support.

The bowl A is provided at its upper end with a flange 10, extending horizontally outward and vertically downward, forming an undercut recess. The support B for the bowl consists of a ring 11, provided upon its upper face at its inner edge with an annular rib 12, and an annular rib 12<sup>a</sup> is also formed on the outer edge of the ring. Upon the outer face of the ring a series of circumferential blocks or lugs 13 is produced, the under faces of which lugs are beveled in the same direction, forming inclined planes  $a$ , as is best shown in Fig. 5. The ring has formed integral with its under face a downwardly-extending collar 14, and the collar has produced therein a vertical slot 15, while ears 16 are formed upon the collar, one at each side of the open-

ing. A set-screw 16<sup>a</sup> is made to pass through the ears, which acts to draw the latter together and thereby clamp the collar to the bowl. Space, however, is left between the ears for a handle 18, the reduced portion 17 of which is loosely mounted upon the set-screw. The handle 18 serves as a means for carrying the bowl and support or for lifting them or for moving the support around the bowl when occasion may demand. The undercut recess in the bowl is adapted to receive the rib 12 of the support B, as the flange 10 extends over said rib.

A yoke D is employed in connection with the bowl and support, and consists of a ring 19, the upper end whereof is provided with an inwardly and downwardly extending rib 20. Upon the inner face of the ring, at the lower edge thereof, a series of blocks or lugs 21 is secured to or made integral with the ring; the upper surfaces whereof are beveled, forming inclined planes  $a'$ . The annular rib 20 is adapted to extend downward within the ring 19 and terminate some distance above the lugs or blocks 21. The yoke is preferably made of the tripod pattern. Therefore three arms 23 are curved upward over the ring 19 and meet over the center thereof, and at the meeting of the arms of the yoke a threaded aperture is produced. The yoke is adapted for the reception of a cover 24, and the cover fits loosely within the ring of the yoke, being provided in its under face near its periphery with a channel, in which a gasket 25 or its equivalent is inserted, the said gasket being adapted to engage with the flange of the bowl when the cover 24 is employed to close the top of the bowl. In the upper central surface of the cover 24 a cavity 26 is preferably produced, and the cavity is surrounded by a sleeve 27, the upper end whereof is beveled inward. A screw 28 is located in the threaded aperture of the tripod yoke, being provided with a handle 29 at its upper end, and near its lower end the screw has secured thereon a disk 30, having a beveled surface adapted to engage with the beveled surface of the sleeve 27. The lower end of the screw 28 is swiveled, preferably, by grooving the screw and passing a pin through the side of the sleeve 27 and the groove, as shown in Fig. 1. A case ther-



mometer 31 is introduced into a suitable opening in the cover, and a vent-aperture is also provided in the cover, normally closed by a vent-plug 32. The support B for the bowl is in its turn supported by a casing C, (shown in dotted lines in Fig. 1,) legs, or the equivalent of either.

When the bowl has been placed in its support in the manner heretofore described and the article to be vulcanized has been placed in the bowl, the yoke is placed thereon and locked in position by causing the lugs 21 of the yoke to pass downward between the lugs 13 of the bowl-support B, whereupon the yoke is turned, causing the inclined planes of the lugs 13 and 21 to engage. This brings the annular rib 12<sup>a</sup> of the bowl-support and the annular rib 20 of the yoke together. When this is accomplished, the cover 24, through the medium of the screw 28, is forced downward until its gasket engages so tightly with the upper edge of the bowl as to provide an air and steam tight connection.

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

1. In a vulcanizer, the combination, with a bowl provided with an undercut recess in its upper edge, of a support for the bowl, consisting of a ring provided at its top with an inner annular rib adapted to enter the undercut recess of the bowl and also with an annular rib upon its outer face, a sleeve projected downward from the ring and provided with a slot, ears at the sides of the slot, a set-screw passed through the ears and by which the said ears are brought together and the collar tightened around the bowl, and a handle loosely mounted upon the set-screw, as and for the purpose specified.

2. In a vulcanizer, the combination, with a bowl-support provided with a series of external circumferential lugs, the under surfaces of which are formed as inclined planes, of a yoke provided with interior circumferential lugs, the upper faces of which are formed as inclined planes, the lugs of the yoke and the lugs of the support being adapted for engagement at their inclined faces, whereby the bowl-support and yoke are locked together, as and for the purpose specified.

3. In a vulcanizer, the combination, with a bowl-support provided with a series of exterior circumferential lugs having their under surfaces formed as inclined planes, of a yoke comprising a ring-section having lugs formed upon its inner face, the upper surfaces of which are inclined, the said ring being also provided with an annular downwardly-extending rib in the top thereof, and a cover contained within the ring-section and capable of vertical adjustment, as and for the purpose specified.

4. In a vulcanizer, the combination, with a bowl-support provided with exterior circumferential ribs having their upper surfaces beveled, of a yoke comprising a ring-section provided with interior lugs, the upper faces of which are beveled, a rib projected downward within the ring above the lugs, a tripod secured to the upper surface of the ring-section, a cover-section loosely fitted within the ring-section, and an adjusting-screw held to turn in the yoke and having a swivel connection with the body-section of the cover, as and for the purpose specified.

JAMES FERGUS.

Witnesses:

WILLIAM TAIT,  
JOS. PARKES.