

No. 815,209.

PATENTED MAR. 13, 1906.

J. M. PADGETT.
VULCANIZER.

APPLICATION FILED APR. 27, 1905.

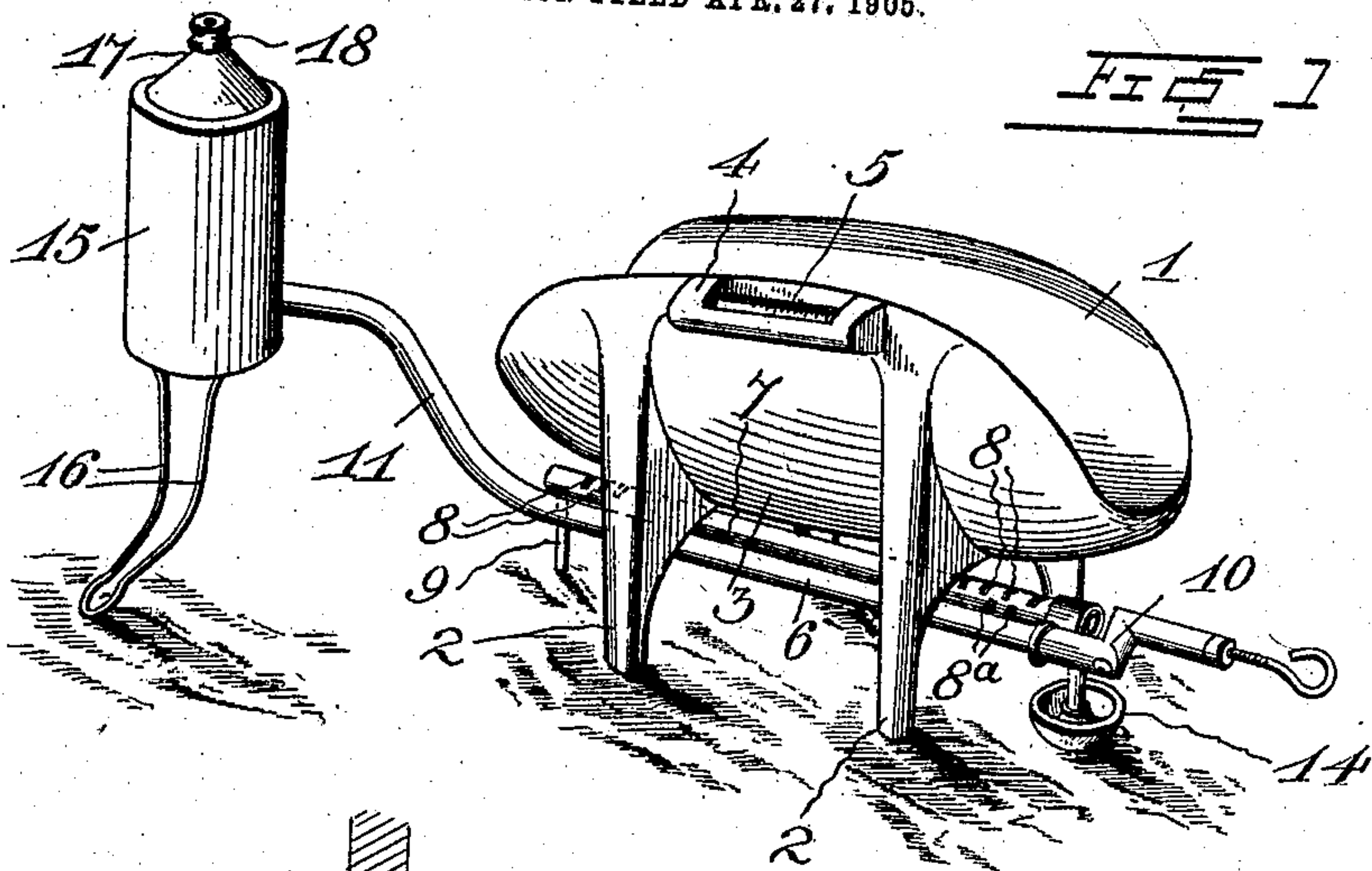


FIG. 2.

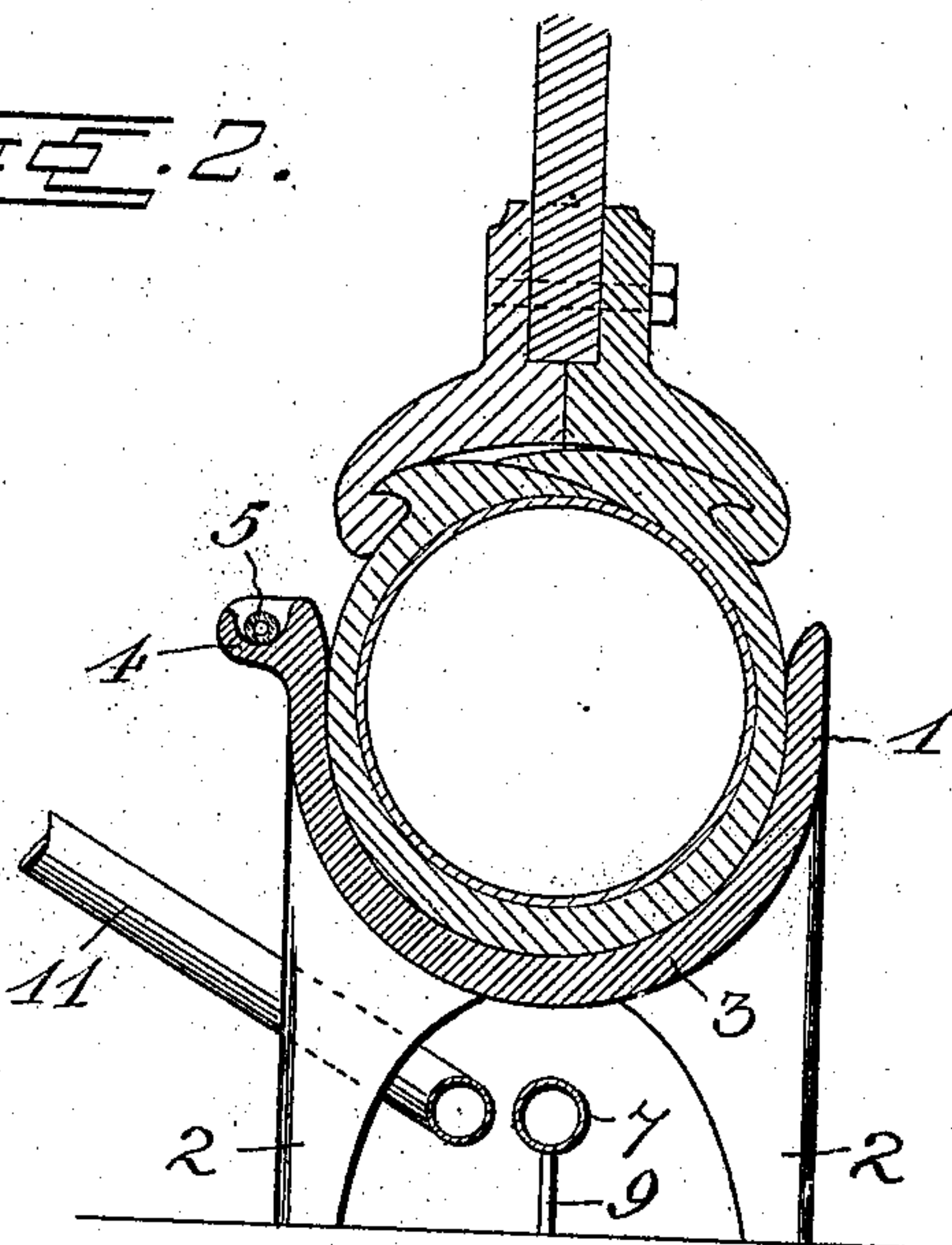


FIG. 4.

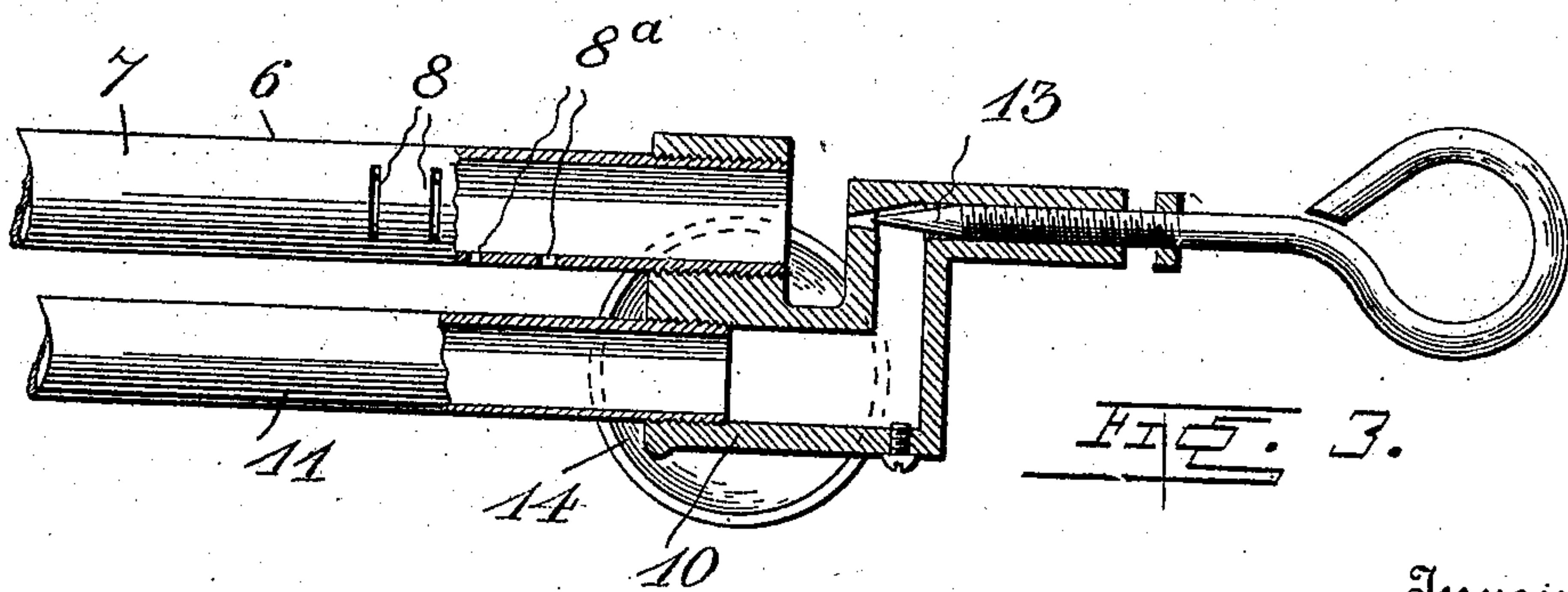
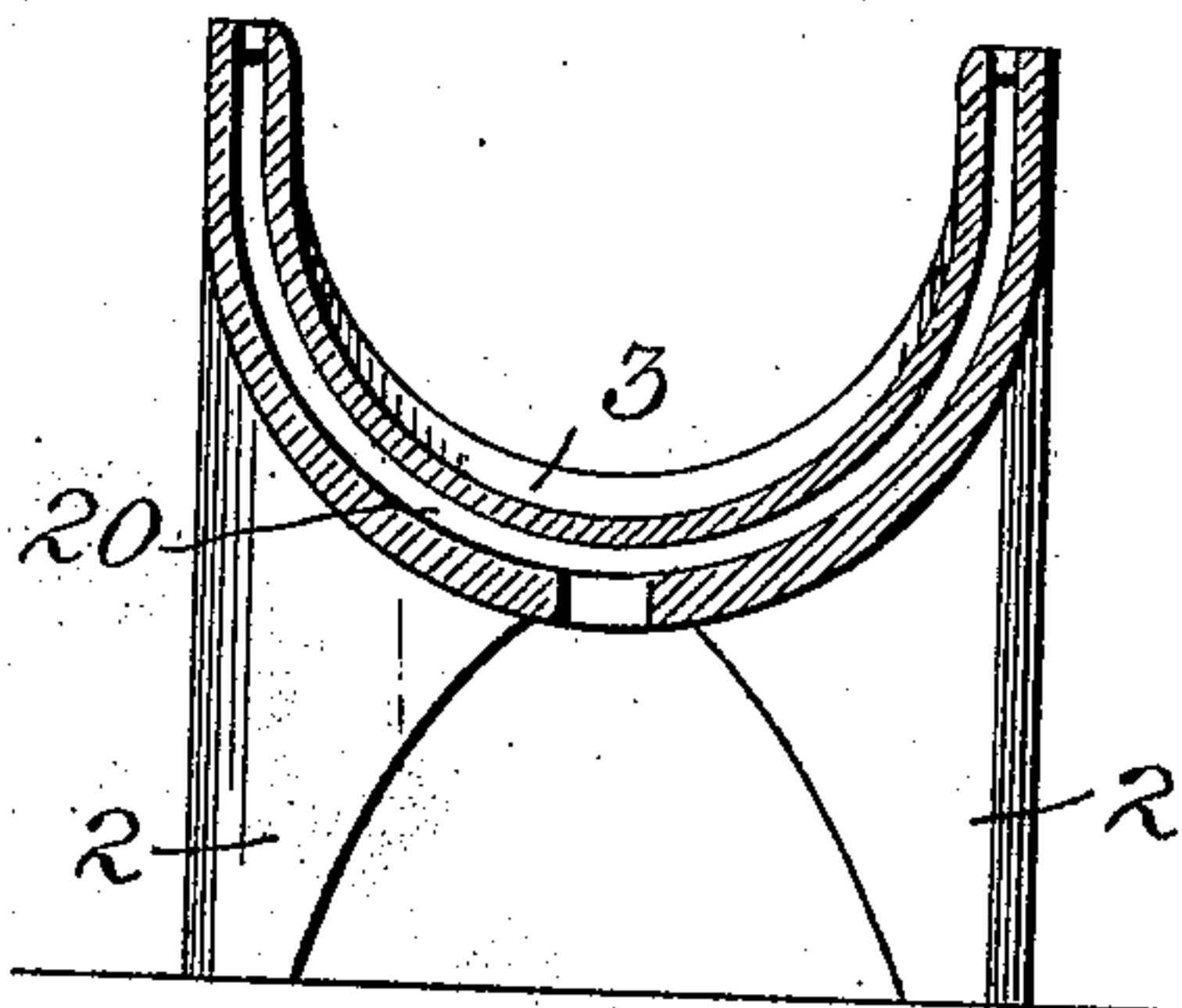


FIG. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES MILLARD PADGETT, OF TOPEKA, KANSAS.

VULCANIZER.

No. 815,209.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed April 27, 1905; Serial No. 257,635.

To all whom it may concern:

Be it known that I, JAMES MILLARD PADGETT, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Vulcanizers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in vulcanizers designed particularly for use in repairing the tires of automobiles and the like while they are on the rims of the wheels and without removing the wheels from their axles.

One object of the invention is to provide a simple, durable, and efficient device of this character which may be used upon either disk or spoke wheels and without clamping devices for securing it to the tire.

Another object of the invention is to improve and simplify the construction and operation of devices of this character, and thereby render the same more efficient in use and less expensive to manufacture.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved vulcanizer set up for operation. Fig. 2 is a vertical longitudinal sectional view through the same, showing a tire in position upon the device. Fig. 3 is a detail horizontal sectional view through the burner, and Fig. 4 is a vertical transverse sectional view through a slightly-modified form of the tire-engaging shoe.

Referring to the drawings by numeral, 1 denotes a tire-engaging shoe which is adapted to be supported upon the ground or other suitable support by four legs 2, as shown. The shoe in form somewhat resembles a pig, and its body portion 3 is curved longitudinally and transversely to conform to the shape of the tire which it is adapted to receive, as seen in Fig. 2 of the drawings. The shoe is preferably cast of aluminium or other suitable metal and has upon the outer face of one of its sides a recessed projection 4, in which a thermometer 5 is mounted.

The legs 2 support the body of the shoe a sufficient distance from the ground to permit a heating device 6 to be disposed beneath the

body and longitudinally between the said legs. This heating device is preferably in the form of a gasolene-burner and, as shown, comprises a mixer and burner-tube 7, which is formed with outlet-openings 8, arranged at its ends to direct the flames upwardly between the pairs of legs 2. This tube 7 has one of its ends supported by a leg 9 and its other end supported by a depending portion upon a connection or coupling 10, which unites said end of the tube to one end of an oil-supply pipe 11. The oil-supply pipe 11 extends parallel with the tube 7 and is adapted to have its end adjacent to said connection 10 heated by flames which are projected against it from outlet-openings 8^a, formed in the adjacent side of the tube 7, as clearly shown in Fig. 3 of the drawings. The gas thus generated from the oil in the pipe 11 passes into the connection 10 and is discharged therefrom into the open end of the tube 7 through a needle-valve 13, which is provided in said connection.

In order to generate gas when the burner is started, the depending portion of the connection 10 is provided with an oil-cup 14. When a little oil is burned in this starting-cup, it will quickly heat the outer end of the pipe 11 and the connection 10 and generate sufficient gas to start the burner. The outer end of the oil-supply pipe 11 is bent upwardly and at right angles to its body portion and is secured to the lower end of a gasolene-supply can or receptacle 15, which is supported upon a leg 16, provided upon its bottom. This can 15 has a screw-threaded neck 17, which is closed by a screw-cap 18.

In using the vulcanizer the tire is prepared for vulcanization in the usual manner and is placed upon the shoe so that the portion to be mended is within the latter, the weight of the machine being sufficient to hold the tire firmly upon the shoe. The heating device is then placed beneath the shoe, so that the flames from its burner will strike the bottom of the shoe between its supporting-legs, and the burner is then started. By operating the needle-valve of the burner the size of the flame, and hence the amount of heat, may be readily controlled. It will be seen that the device is adapted for use upon either disk or spoke wheels and that it is particularly well adapted for the former, since no clamping devices are employed for holding the tire upon the shoe, the weight of the vehicle being sufficient.

In Fig. 4 of the drawings I have shown a slightly-modified form of the tire-engaging shoe. In this form it will be noticed that the body 3 of the shoe is made hollow to form a
5 heat chamber or space 20. Heat from the burner is admitted into this space through a longitudinally-disposed opening formed in the center of the bottom of the shoe and after
10 pressing upwardly through the chamber or space 20 escapes through outlet-openings formed in the top of the sides of said shoe, as shown. The construction and operation of
15 this form of the invention are in other respects similar to the construction and operation of the form of the invention first described.

While I have shown and described the preferred embodiments of my invention, it will be understood that I do not wish to be limited
20 to the precise construction herein set forth, since various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. The combination of a tire-engaging shoe

formed hollow to provide a heat-chamber 30 having an inlet at the center of its bottom and outlets at the top of its sides, legs for supporting said shoe, and a heater disposed beneath said shoe and adapted to discharge heat into the inlet of said heat-chamber, substantially as described. 35

2. In a device of the character described designed for the purpose of repairing tires without removing them from their wheels, comprising a tire-engaging shoe of semicircular cross-section and supported upon short legs, an aperture at one side of said shoe, a thermometer in said aperture, an oil-supply pipe passing under the shoe, a connection 10 secured to said supply-pipe and provided 45 with a needle-valve, a combined mixer and burner secured to said connection in line with the needle-valve and provided with openings at the side and top for the purpose described, and an oil-cup under said connection, substantially as described. 50

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES MILLARD PADGETT.

Witnesses:

MARTIN WALTER.

V. JONES.