

No. 795,338.

PATENTED JULY 25, 1905.

E. BUTTS.  
PUMP.

APPLICATION FILED AUG. 29, 1904.

FIG. 1.

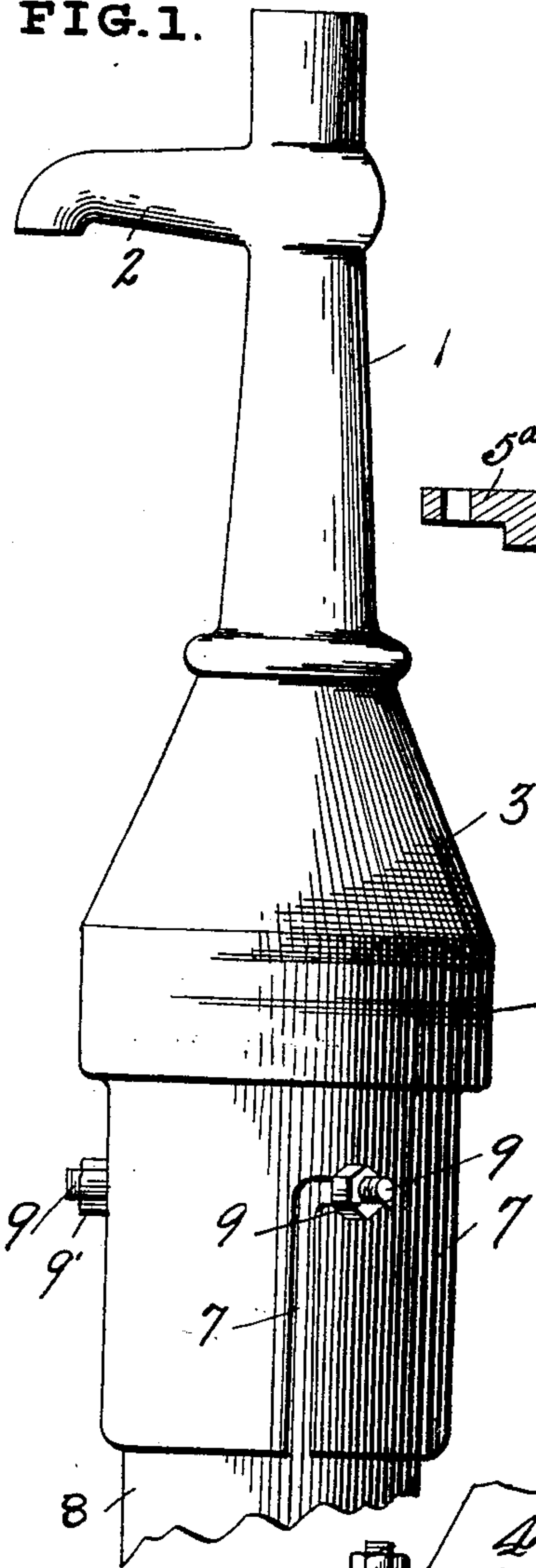


FIG. 2.

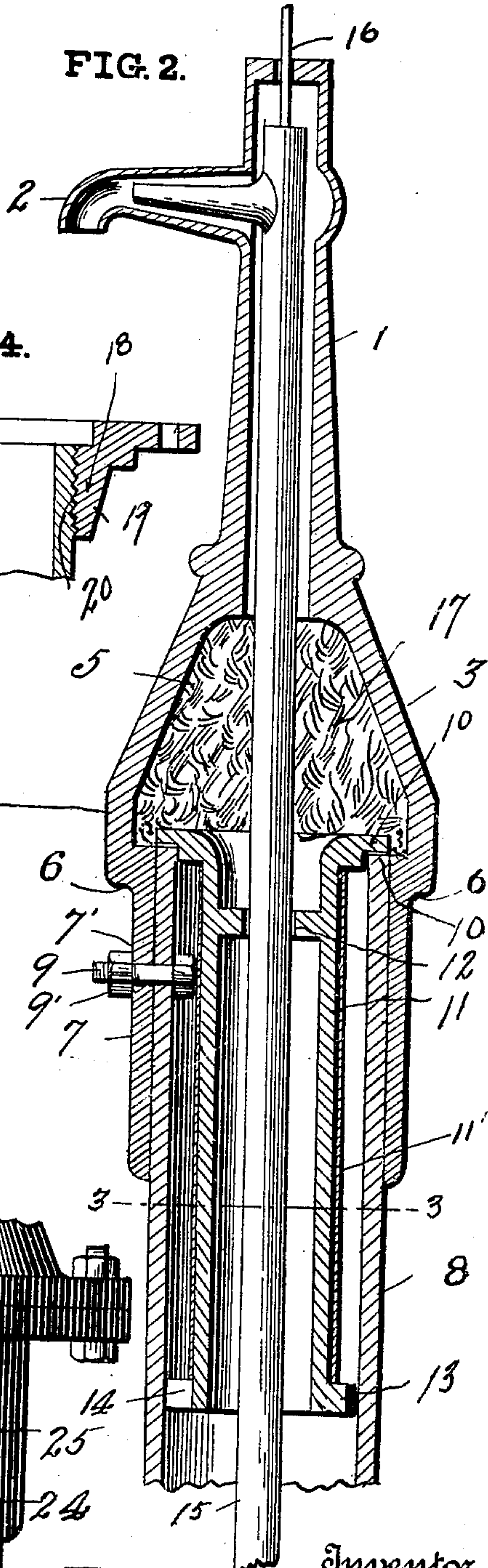


FIG. 4.

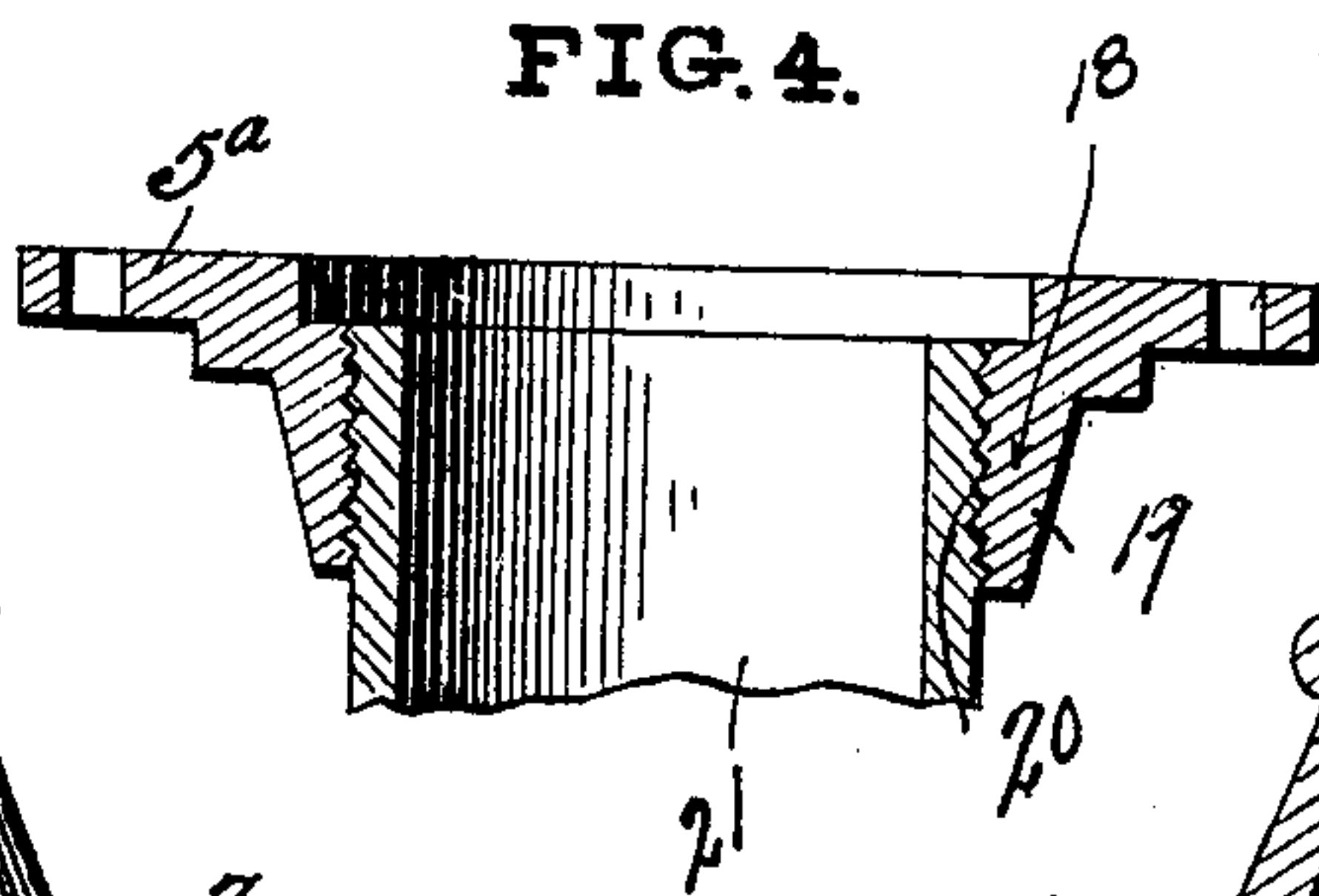


FIG. 5.

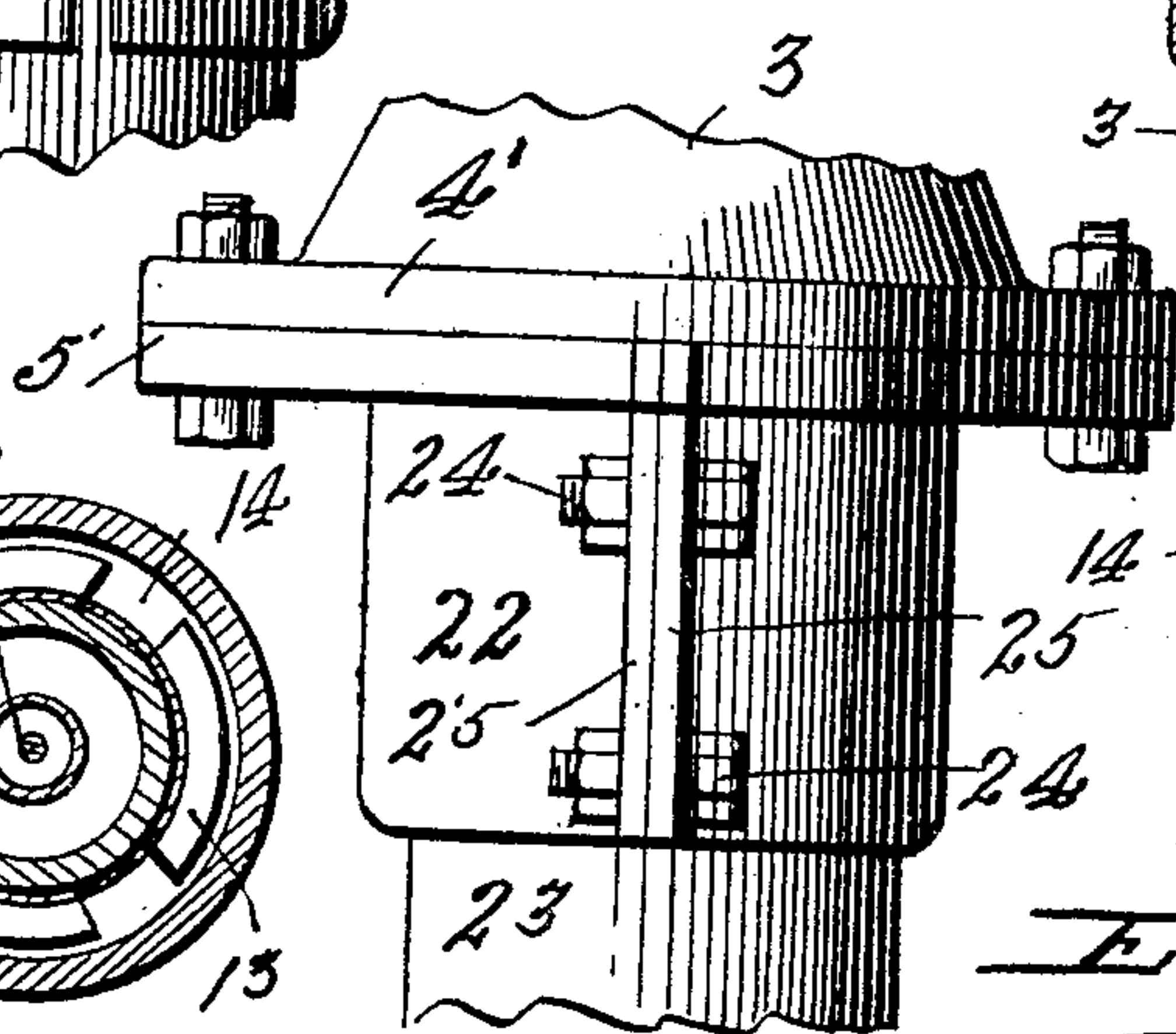
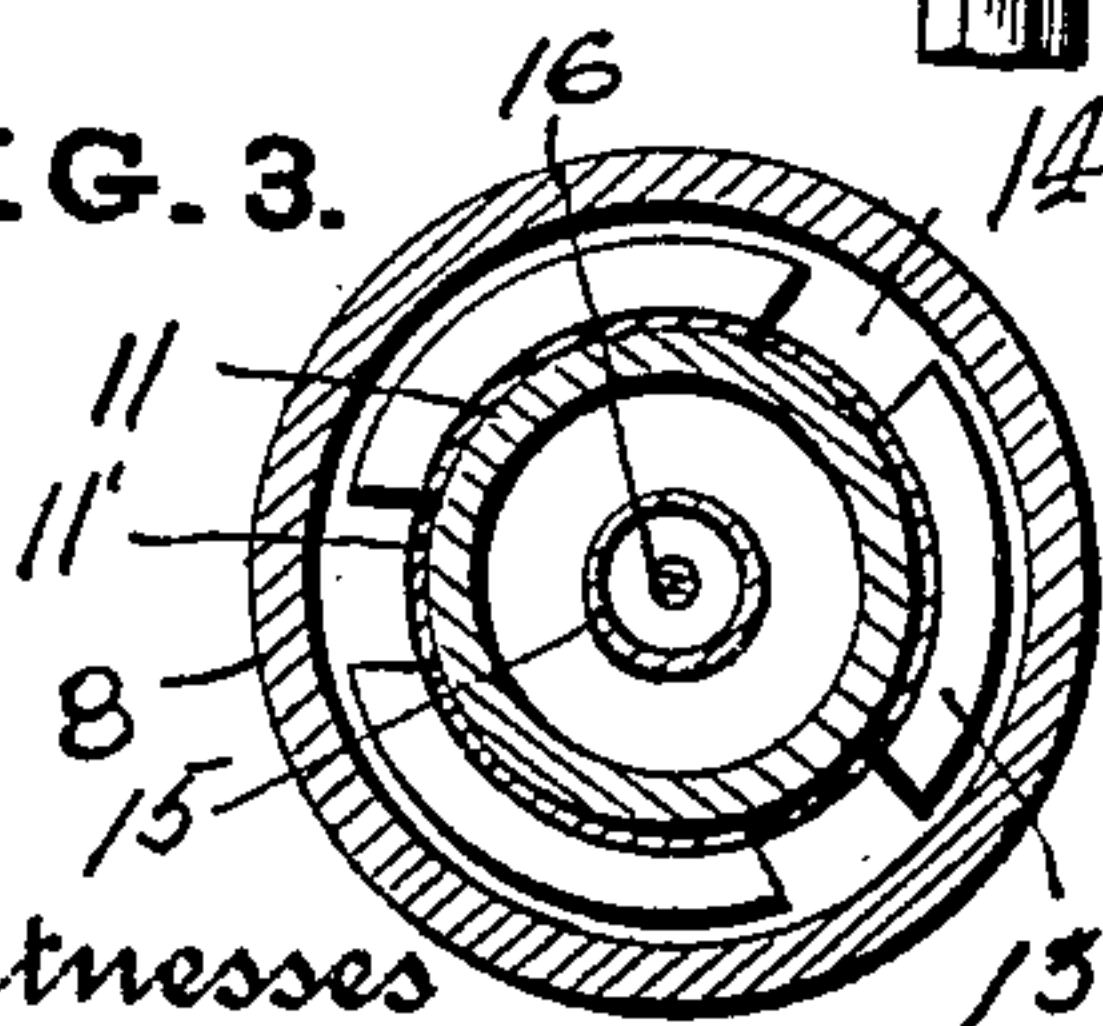


FIG. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

EUGENE BUTTS, OF EVANSVILLE, WISCONSIN.

## PUMP.

No. 795,338.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed August 29, 1904. Serial No. 222,629.

*To all whom it may concern:*

Be it known that I, EUGENE BUTTS, a citizen of the United States, residing at Evansville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Pumps, of which the following is a specification.

My invention relates to improvements in pumps; and one of the objects of my invention is the provision of means for connecting the pump or pump-casing with the barrel or tube section which enters the well in such manner as to avoid any danger of the parts becoming loosened, by providing a rigid connection between the members, so that, in working, the pump by its vibrations will not affect the connection.

Another object of my invention is the provision of means for connecting the pump with the well-tube which will hold the pump steady under the constant action and wear or strain of a windmill when employed therewith, the connection obviating the necessity for use of a platform on the surface of the ground for steadying the pump in its working.

A further object of the invention is the provision of means for a novel detachable connection between the pump-casing and the well-tube and also means for preventing the freezing of the water in the well-tube near the surface of the ground. The device is inexpensive, strong, durable, and easy of application.

With these objects in view my invention consists of a pump embodying novel features of construction and combinations and arrangements of parts, as disclosed herein.

This later invention embodies some improvements on the construction shown in my application for patent, Serial No. 197,137, filed March 8, 1904, for pumps.

Figure 1 represents a side elevation of a pump, showing so much thereof as is necessary to illustrate my invention. Fig. 2 is a vertical central section of Fig. 1. Fig. 3 is a transverse section on line 3 3, Fig. 2. Fig. 4 is a sectional view of a modified form of connection between the well-tube and the means for connecting said tube to the pump-base, and Fig. 5 is a further modification of said connection.

Referring to the drawings, the numeral 1 designates the pump or pump-casing proper, formed in one piece or casting, provided with the discharge-spout 2 and the flaring walls 3, said flaring walls being continued and merging

into the cylindrical walls 4, and these walls form the chamber or basin 5. The walls 4 are contracted at 6 and, continuing, are formed into the cylindrical sleeve 7. The sleeve 7 surrounds the well-tube or pump-barrel 8 and is provided with slots 7', formed as bayonet-locks, through which slots are passed the bolts 9, entered through a hole in the tube 8. The tube 8 and sleeve 7 are held rigidly together by bolts 9 and nuts 9', said nuts being screwed up against the outside of the sleeve, thus providing a detachable connection between the sleeve and tube; but when locked together the elements are rigidly secured together. On the head or end 10 of the tube 8 rests the annular rim or flange 10' of the antifreezing thimble or shell 11. The shell 11 is formed with guide-opening 12 near its upper end and with the disk 13 at its lower end. A packing of felt paper, as 11', may be wrapped around the thimble 11 to aid in keeping out the frost from the interior of said thimble. The disk 13 is cut away at 14 to allow for the passage of the thimble or shell 11 down into position in the well-tube 8, the openings or cut-away portions 14 passing over the heads of bolts 9.

It will be observed that after the sleeve 7 has been attached to the tubing 8 the thimble or shell 11 may be lowered into position in the tubing and is supported from its flange 10', resting on the head 10 of the tube 8. An air-space is provided between the sleeve or shell 11 and tube 8, and another space is formed around the water-tube 15, and these air-spaces communicate with the lower interior portion of the well, one being open thereto and the other space communicating with the lower portion of the well through the cut-away portions of the disk 13, thus permitting the comparatively warm air from the lower part of the well to have access to said air-spaces and rise thereto, thus aiding to prevent freezing of the water near the surface of the ground, which is naturally the coldest part of the well during winter or the portion having the greatest exposure to the weather. The water-tube 15, through which passes and reciprocates the pump-rod 16, is connected to the mechanism of the wind-wheel for the purpose of pumping the water from the well to and through the discharge-spout 2.

In the chamber or basin 5, formed in the base of the pump, I place a suitable packing—say of cotton—as 17, the purpose of



which is to form a packing or blanket above the air-spaces in well-tube to prevent the entrance of cold air thereto from above.

In Fig. 4 I show a connecting-sleeve to be bolted to the base-flange 4' by flange or collar 5<sup>a</sup>, and is screwed to the top of the pump-barrel. The annular collar 18 is formed with the depending screw-threaded sleeve 19, which engages the upper threaded end 20 of the well-tubing 21. This form of connection is employed when applying my device to pumps already in position for use.

In the modification shown in Fig. 5 the sectional sleeve 22 is provided with flange 5' to be bolted to flange 4' and is fastened to the well-tube 23 by bolts and nuts 24, said bolts being passed through flanges 25, formed in duplicate on each section of the sleeve.

From the foregoing description, taken in connection with the drawings, the operation and utility of my invention will be readily understood. The operation of the wind-wheel reciprocates the pump-rod to draw the water to and through the discharge-spout 2 of the

pump, as is usual, and by means of my connection between the pump and well-tube a steady and firm support for the pump is insured, and I dispense with the necessity for use of a platform or other support for the pump.

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

In a pump, the combination with a well-tube of a sleeve connected thereto by bayonet-locks, a recess in said sleeve, a shell having a flange adapted to rest in said recess and located in the well-tube forming air-spaces therein, a flange closing the air-space between said shell and tube, and openings in said flange providing communication between said closed air-space and the lower portion of the well.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE BUTTS.

Witnesses:

M. J. FISHER,  
C. A. LIBBY.