

No. 738,126.

PATENTED SEPT. 1, 1903.

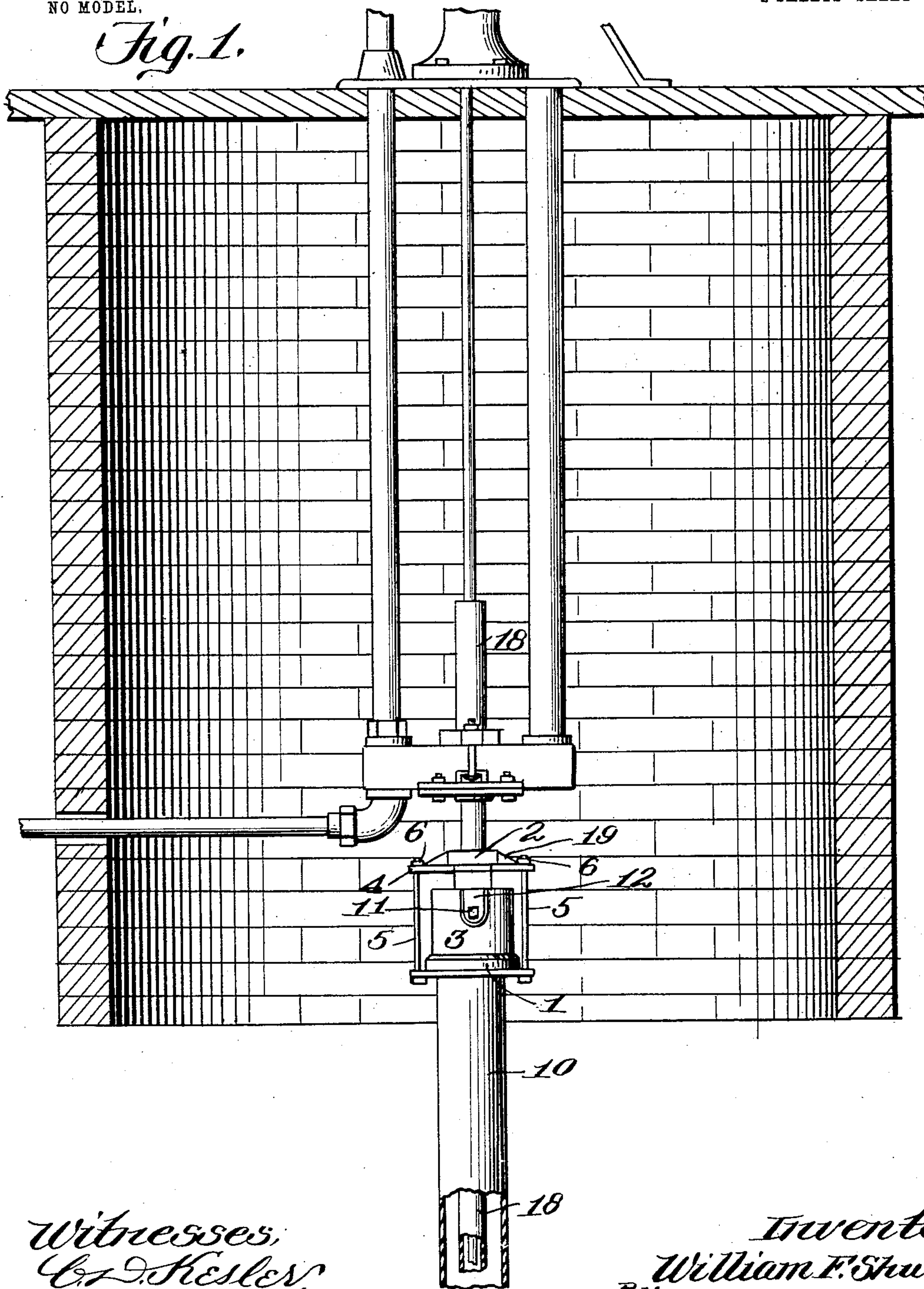
W. F. SHUTT.
WELL CAP.

APPLICATION FILED JUNE 24, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

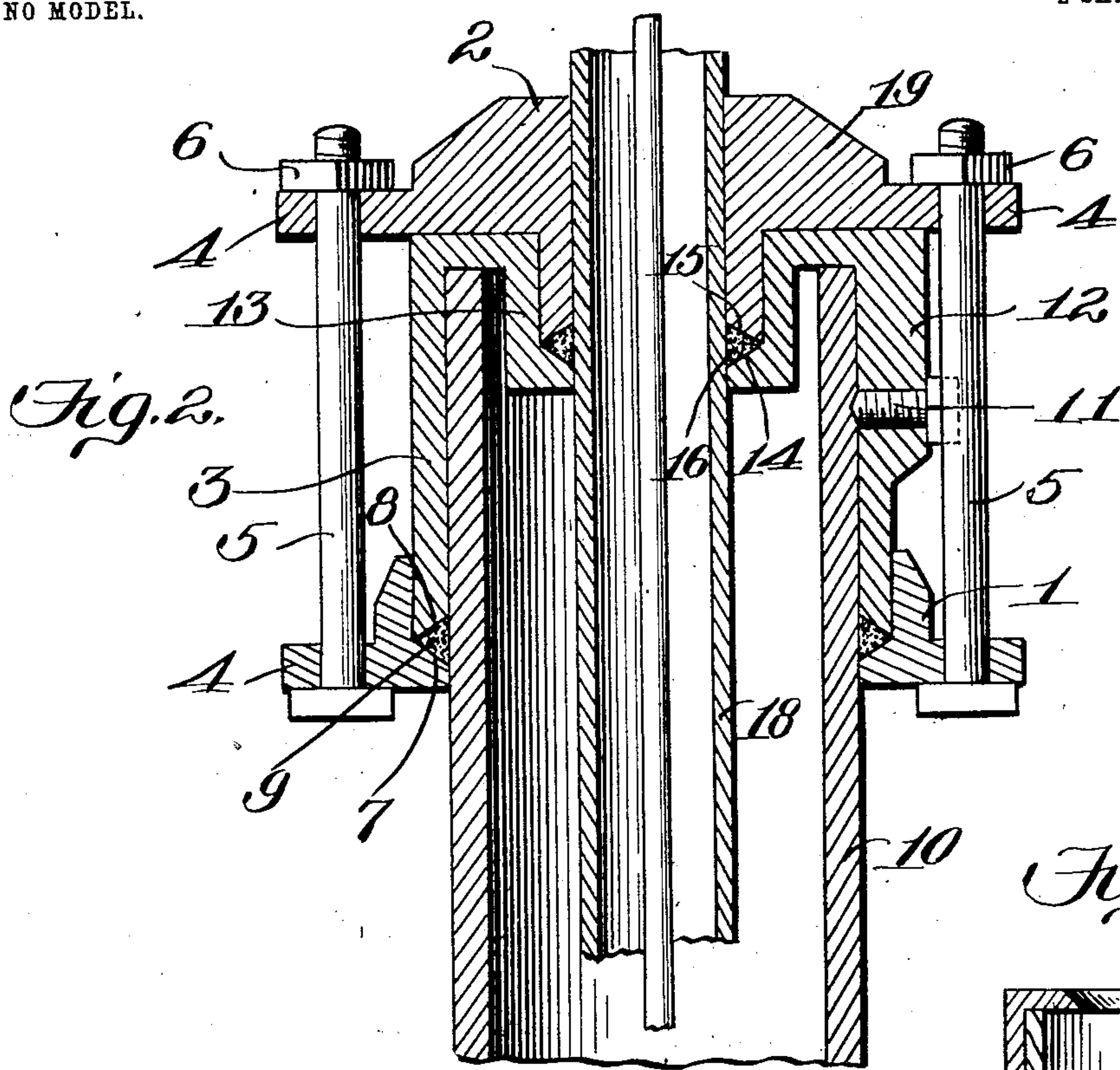
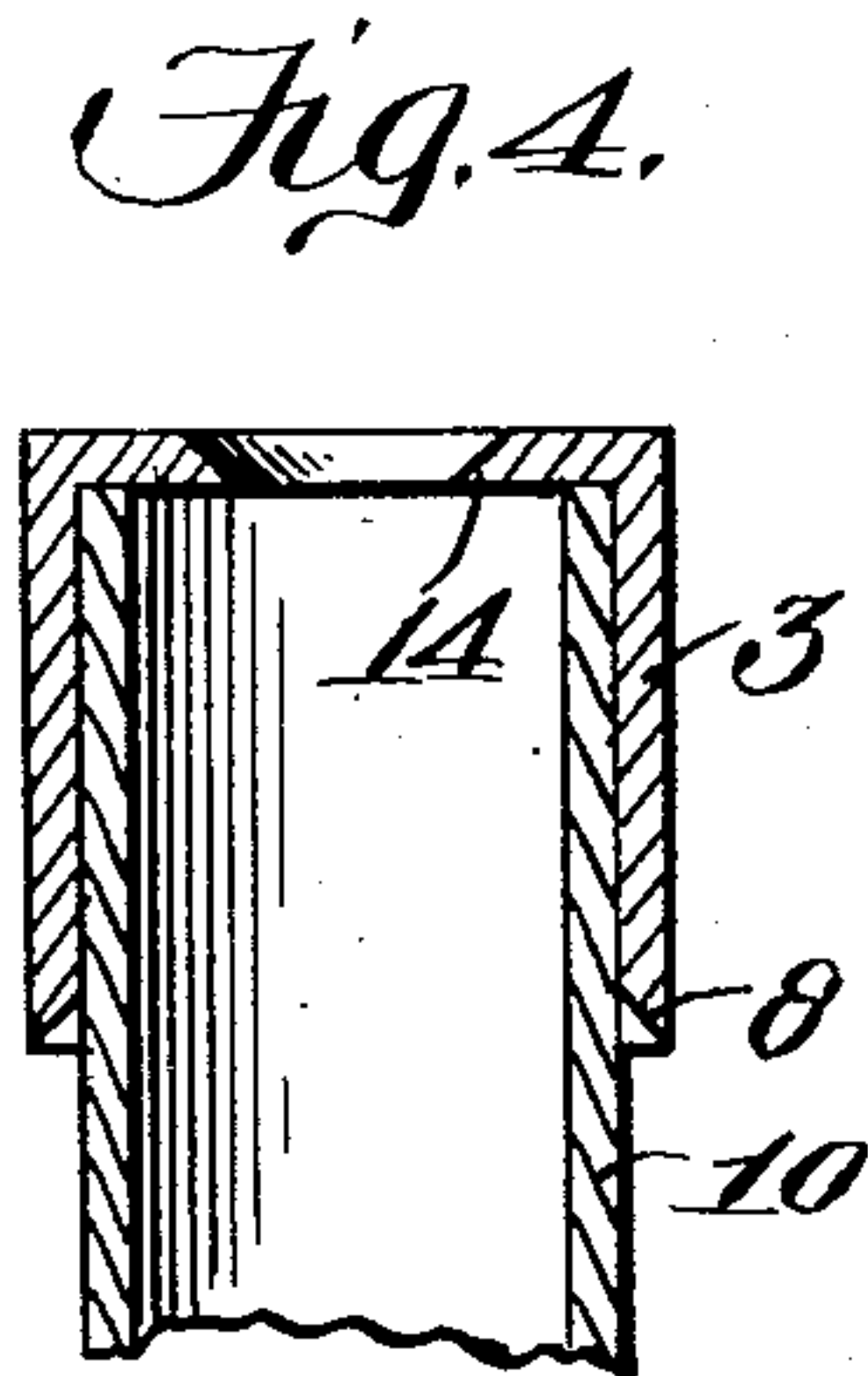
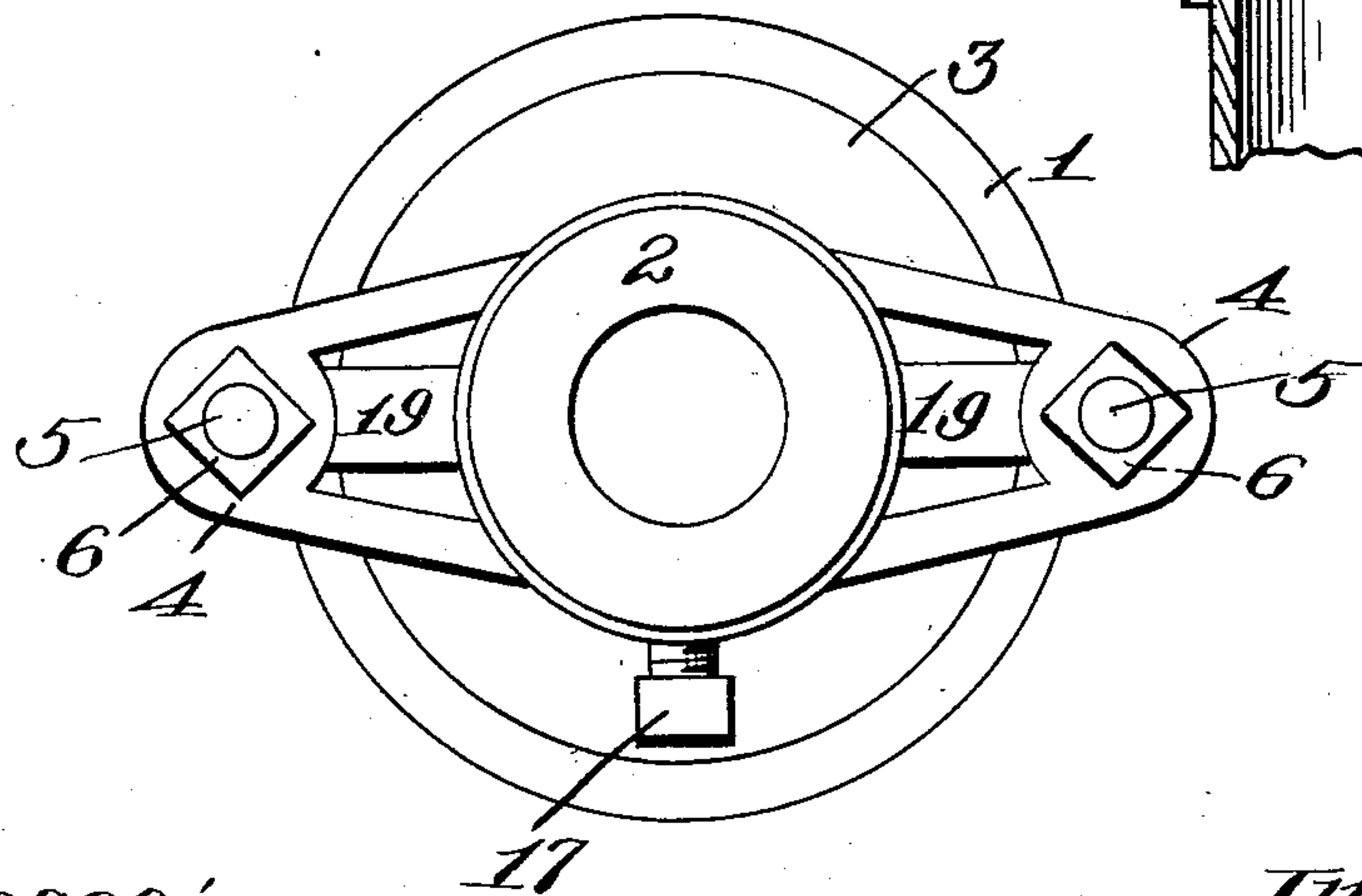


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM F. SHUTT, OF ONWARD, INDIANA, ASSIGNOR OF ONE-HALF TO
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WELL-CAP.

SPECIFICATION forming part of Letters Patent No. 738,126, dated September 1, 1903.

Application filed June 24, 1903. Serial No. 162,938. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. SHUTT, a citizen of the United States, residing at Onward, in the county of Cass and State of Indiana, have invented new and useful Improvements in Well-Caps, of which the following is a specification.

This invention relates to well-caps.

The objects of the invention are in a ready, simple, and thoroughly-feasible manner to dispense with threaded unions in assembling the casing-pipe and pump-pipe of a well, to preclude entrance of surface-water to the well, as also animals—such as frogs, toads, and the like—thus to keep a well in thoroughly clean and sanitary condition, and, finally, generally to improve and simplify the construction of devices of this character.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a well-cap, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, there is illustrated one form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof.

In the drawings, Figure 1 is a view in side elevation, exhibiting the attachment in position. Fig. 2 is a vertical longitudinal section through the assembled device. Fig. 3 is a view in top plan. Fig. 4 is a sectional view of a slightly-modified form of bonnet.

The well-cap of this invention embodies three elements—a base-ring 1, a gland 2, and a bonnet 3. The base-ring and the gland are each provided with perforated ears 4, in this instance two in number, through which pass the assembling-bolts 5, nuts 6, carried by the bolts, serving to clamp the parts of the cap together, and thus present at once a rigid and a water-tight union and one that will successfully withstand the jars and vibrations imparted to it incident to the operation of the

pump. It may be remarked at this point that the well-cap of this invention is adaptable for use in connection with any closed or drilled well having an independent pump-pipe. The inner wall of the pipe-opening of the base-ring is provided with a beveled seat 7, between which and the lower oppositely-beveled end 8 of the bonnet is disposed a packing 9, of any suitable material, said packing operating in a well-known manner to preclude the entrance of foreign matter to the interior of the casing-pipe 10. This pipe is held within the bonnet by a jam-bolt 11, which is threaded into a boss 12 on one side of the bonnet and, as shown in Fig. 2, impinging the casing-pipe in such manner as to hold it in its adjusted position. While but one jam-bolt is herein shown, it will be obvious that two or more may be employed without changing the spirit of the invention, and, as this will be readily understood, detailed description thereof is deemed unnecessary. The top of the bonnet is provided with a depending tubular teat 13, constituting a bushing or packing-holder, the lower end of which is provided with a downwardly-beveled flange 14, constituting a seat, and between this flange and the oppositely-beveled lower end 15 of the gland is arranged a packing 16, which when the parts of the device are properly assembled will positively preclude entrance of any foreign matter to the well or casing-pipe. The gland is provided at right angles to the ears 4 with a jam-bolt 17, which is adapted to be turned into engagement with the pump-pipe 18, thus to hold it rigidly clamped in position. To strengthen the gland, the same is provided on its upper face with reinforcing-ribs 19, cast integral with the structure, in the usual or any preferred manner.

In connecting the pump-pipe and casing-pipe with this device the base-ring and bonnet are first positioned upon the casing-pipe, and the jam-bolt 11 is tightened to clamp the bonnet to the casing-pipe. The pump-pipe being properly positioned and having the gland 2 thereon, the latter is forced down into the teat of the bonnet, and the jam-bolt 17 is then tightened, thus to clamp the gland to the pump-pipe. The bolts 5 are then

passed through the ears of the base-ring, and the gland and the nuts 6 thereon are seated, thereby forcing the bonnet and the gland against the packings 9 and 16, respectively, which have previously been placed in proper position. When the parts are thus assembled, an air and water tight joint will be effected between the pump-pipe and the casing-pipe, which will operate positively to preclude the entrance of foreign substances to the well.

By the provision of the smooth interiorly-bored bonnet and smooth interiorly-bored gland, in conjunction with the jam-bolts 11 and 17 and bolts and nuts 5 and 6, respectively, the necessity for employing threaded connections is entirely obviated, and a union between the parts of the device and the different pipes will be as rigid and lasting in character as will be secured by the employment of threaded unions. Moreover, by the elimination of threads separation of the parts may be readily effected, as there will be no rust-bound joints to be forced apart with attendant danger of breakage.

It will be obvious that in carrying the invention into practical operation various changes in the proportion and construction of the parts may be resorted to and still be within the scope of the invention. For instance, as shown in Fig. 4, the bonnet may be constructed without the tubular teat 13, thus to adapt it for use in connection with different-sized pipes. Where this form of bonnet is used, the pipe will rest against the under side of the bonnet and will be held in position by a jam-bolt in the same manner as that shown in Fig. 2.

Having thus described the invention, what is claimed is—

1. A device of the class described embody-

ing a bonnet-carrying clamping means, a base-ring, a gland embodying clamping means, and means for adjustably connecting the base-ring and the gland.

2. A device of the class described, embodying a bonnet having its upper portion provided with a bushing-holder, and with clamping means, a base-ring, a gland adapted to engage the bushing-holder and provided with clamping means, and means for adjustably connecting the base-ring and the gland.

3. A device of the class described, embodying a bonnet having its upper portion provided with a hollow depending teat provided with an inclined flange, a base-ring engaging the lower portion of the bonnet, a gland engaging the teat, and clamping means carried by the gland and by the bonnet.

4. A device of the class described, embodying a base-ring provided with perforated ears and having an internal beveled flange, a bonnet adapted to fit within the ring and having its lower end oppositely beveled to that of the base-ring and its upper portion provided with a hollow depending teat provided with a beveled flange, clamping means carried by the bonnet, a gland adapted to fit within the teat and having its lower end oppositely beveled to that of the teat-flange, and its upper portion provided with perforated ears, clamping means carried by the gland, and adjusting-bolts engaging the ears of the base-ring and of the gland.

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

WILLIAM F. SHUTT.

Witnesses:

ALONZO D. SNYDER,
A. N. DONALDSON.