

D. FOX.
BOSH PLATE.

No. 558,903.

Patented Apr. 21, 1896.

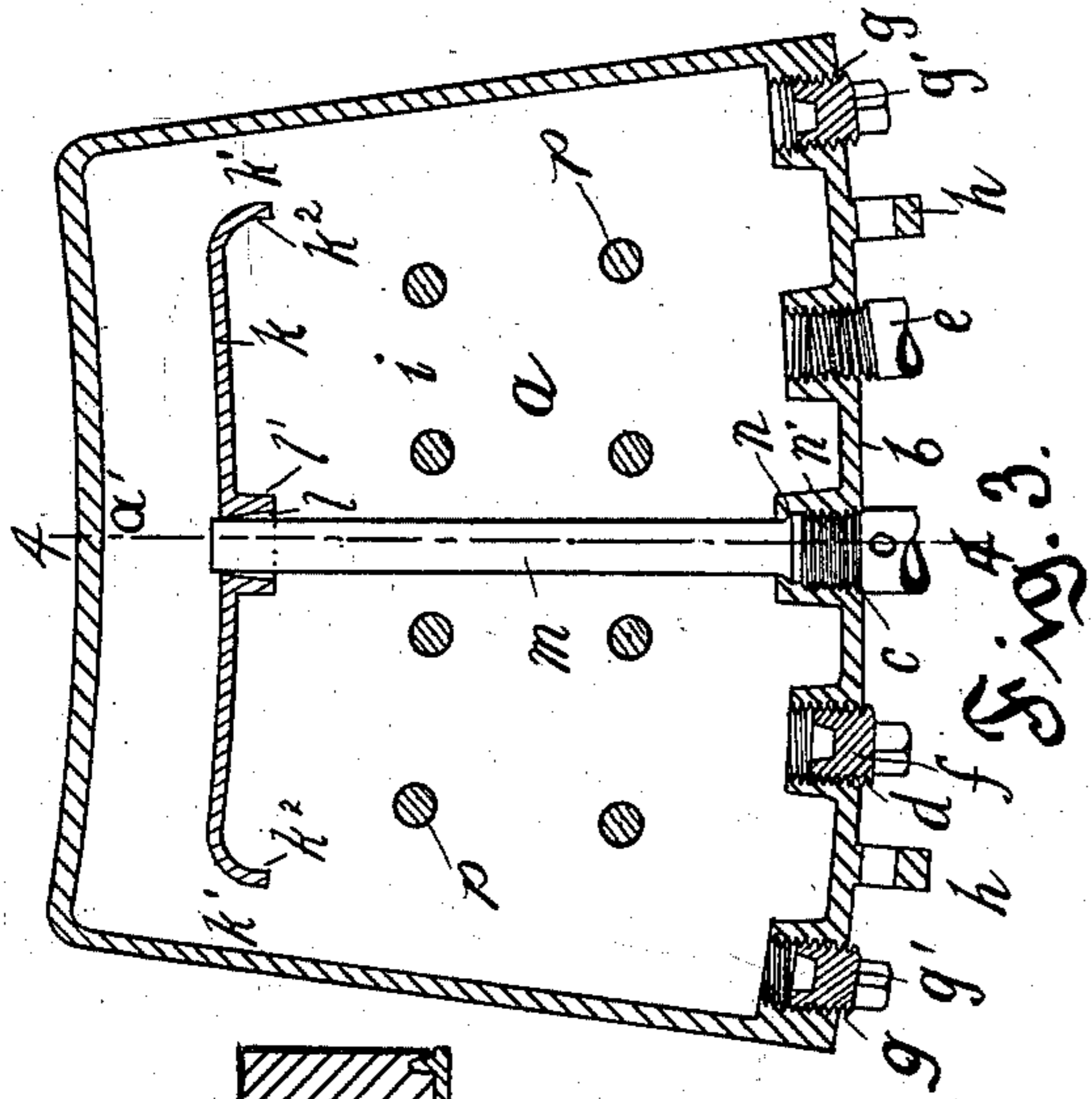


Fig. 3.

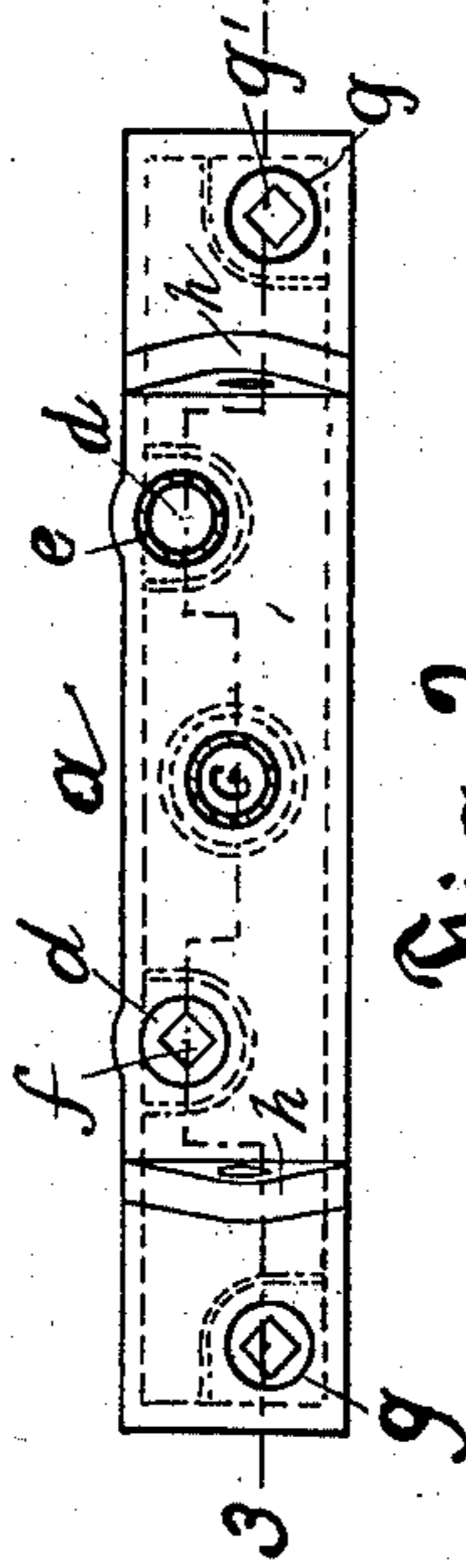


Fig. 2.

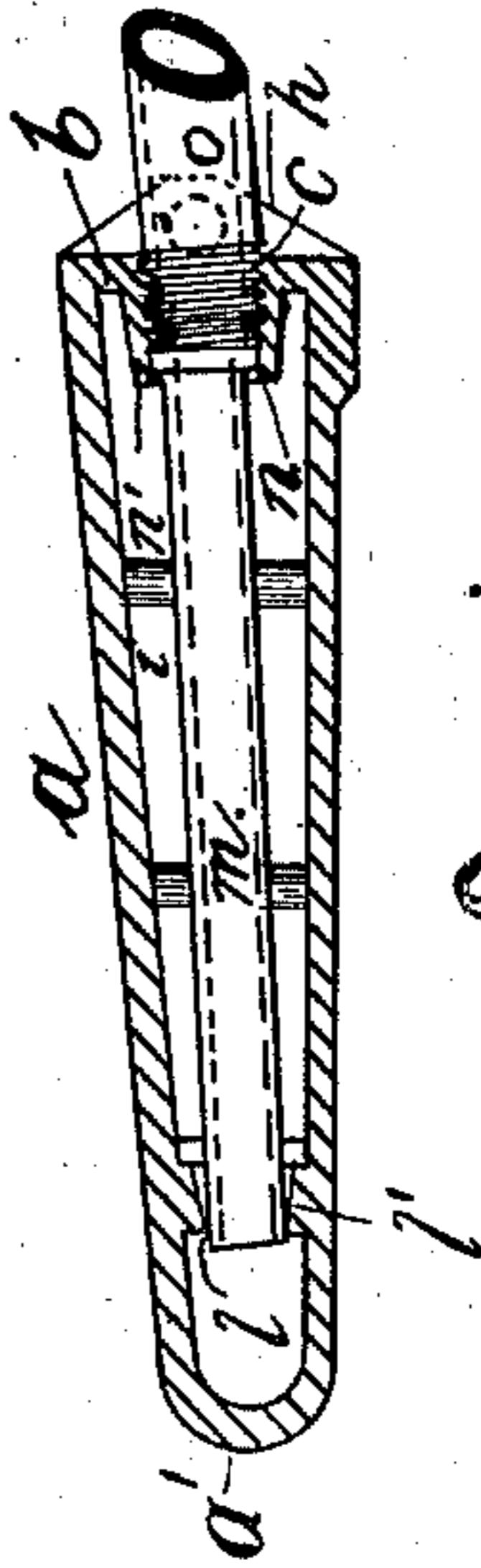


Fig. 4.

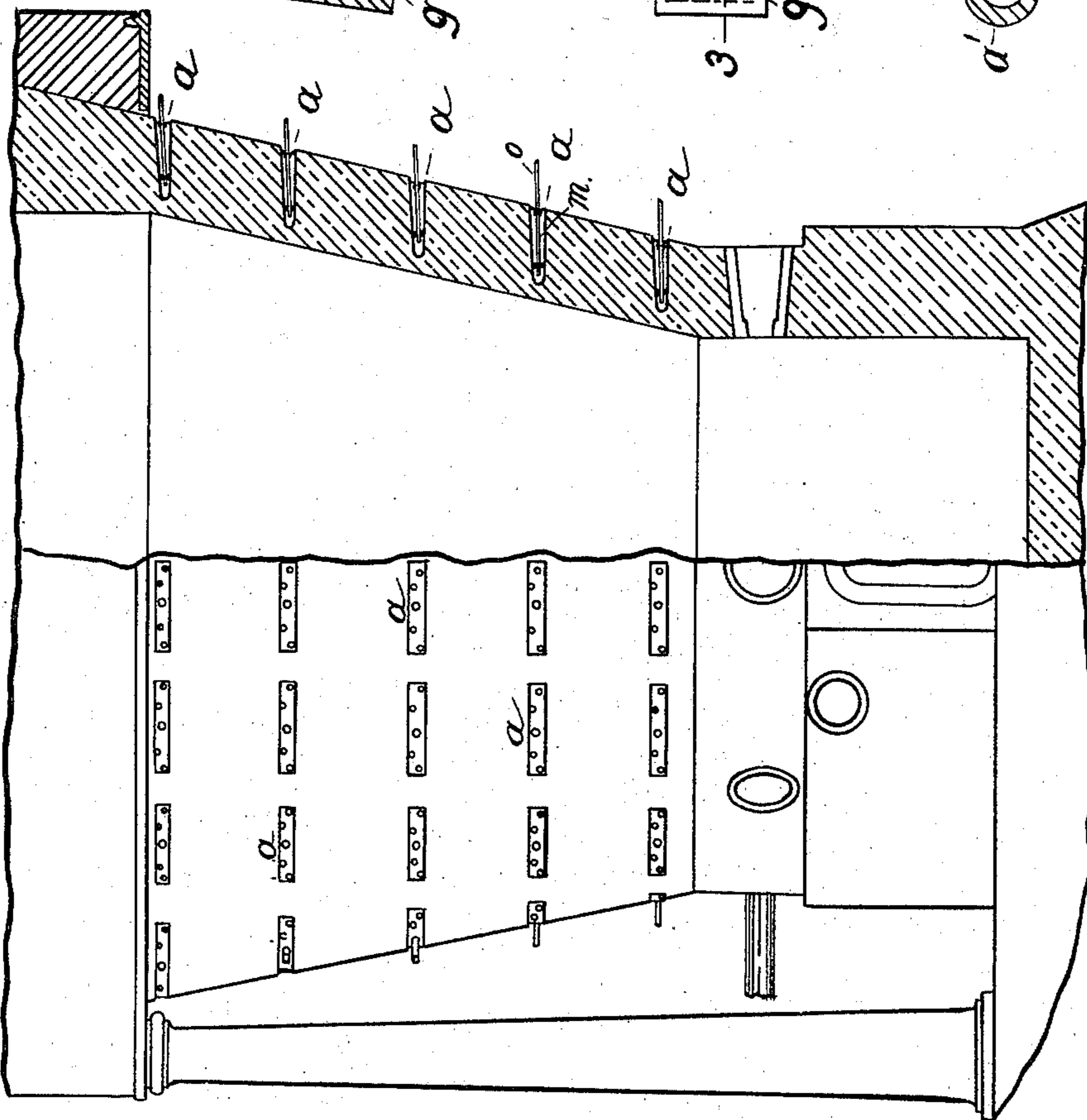


Fig. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL FOX, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
GEORGE BEST, OF SAME PLACE.

BOSH-PLATE.

SPECIFICATION forming part of Letters Patent No. 558,903, dated April 21, 1896.

Application filed July 1, 1895. Serial No. 554,676. (No model.)

To all whom it may concern:

Be it known that I, DANIEL FOX, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Bosh-Plates; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to bosh-plates for furnaces, its object being to provide a bosh-plate in which the water is thoroughly diffused without the employment of a number of baffles or partitions, upon which deposits are liable to collect.

My invention comprises, generally stated, a bosh-plate having a pipe projecting therein and a baffle or partition at the inner end of said pipe, said partition extending part way across said bosh-plate, whereby the water can escape at both ends of said baffle-plate.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of a blast-furnace with my improved bosh-plate. Fig. 2 is a rear view of my improved bosh-plate. Fig. 3 is a section on the line 3 3, Fig. 2; and Fig. 4 is a section on the line 4 4, Fig. 3.

Like letters indicate like parts in each of the figures of the drawings.

The bosh-plate *a* may be of any suitable shape, being preferably formed tapering in width, thus giving to said plate the form of a wedge. The inner wall *b* of said bosh *a* has the opening *c* at or about the mid-point thereof. The said inner wall *b* is further provided with the outlets *d*, preferably adjacent to the top of said bosh-plate, said outlets being provided with a pipe *e*, and where only one of said openings is in use the other may be closed by the plug *f*. The inner wall *b* is further provided with the openings *g*, which are plugged with the plugs *g'*, but which may be used for the injection of steam where it is desired to clean out the bosh-plate. The inner wall has also the lugs *h* formed thereon, which furnish means for handling the bosh-plate in setting it in position or withdrawing it.

In the water-chamber *i* of the bosh-plate, preferably adjacent to the front end or nose *a'* thereof, is the baffle or partition *k*, preferably formed integral with the bosh-plate. This baffle or partition *k* does not extend entirely across the water-chamber *i*, whereby the passages *k'* are left at the ends of said baffle to form communication between the space back of said baffle and the main part of the water-chamber *i*. The ends of said baffle are preferably curved outwardly, as at *k²*. The baffle *k* has the central aperture *l* and the collar *l'* surrounding same. A tube *m* passes from the seat *n* in the collar *n'* surrounding the opening *c*. This tube *m* may be cast integral with the bosh-plate if desired. A supply-pipe *o* enters the opening *c*, the threads of said supply-pipe engaging with the threaded seat within the said collar *n'*. The inner end of the tube *m* passes through the aperture *l* in the baffle *k*. The studs or pillars *p* are provided to support the top plate.

When my improved bosh-plate is in use, the water is forced under pressure from the supply-pipe *o* into the tube *m*. The water passing from said tube *m* strikes against the front wall of the bosh-plate and is deflected to the right and to the left, making its escape by means of the passages *k'* into the main portion of the water-chamber. In this manner a thorough diffusion of the water is obtained by the use of a single baffle-plate, while at the same time, owing to the agitation of the water, there is practically no opportunity for the collection of any deposit upon said baffle. The water upon circulating within the water-chamber passes out through the outlet *d*, or, if desired, the plug *f* may be removed and both outlets employed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A bosh-plate having a baffle extending part way across the same, and having passages at each end of said baffle, and a supply-pipe extending within said bosh-plate and entering an opening in said baffle, at, or about, the mid-point thereof substantially as set forth.

2. A bosh-plate having a baffle extending part way across the same, and having passages at each end thereof, said baffle having

its ends curved outwardly, and a supply-pipe extending within said bosh-plate and entering an opening in said baffle, substantially as set forth.

- 5 3. A bosh-plate having a baffle adjacent to the front wall thereof, said baffle extending part way across said bosh-plate, and having passages at each end thereof, and a supply-pipe passing through the rear face of said

bosh-plate at or about the mid-point thereof, 10 and through an opening in said baffle, substantially as and for the purposes set forth.

In testimony whereof I, the said DANIEL FOX, have hereunto set my hand.

DANIEL FOX.

Witnesses:

ROBERT C. TOTTEN,
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