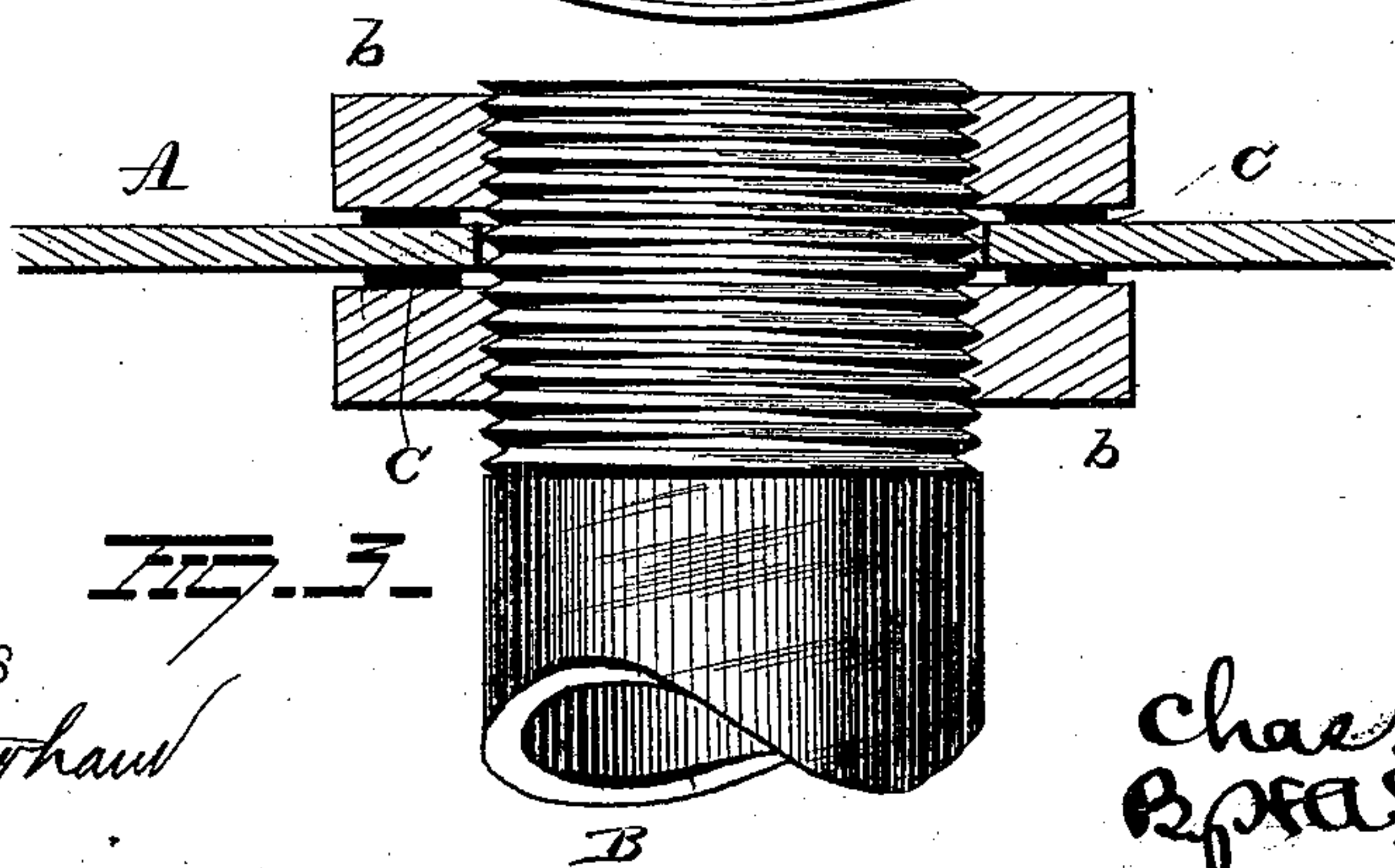
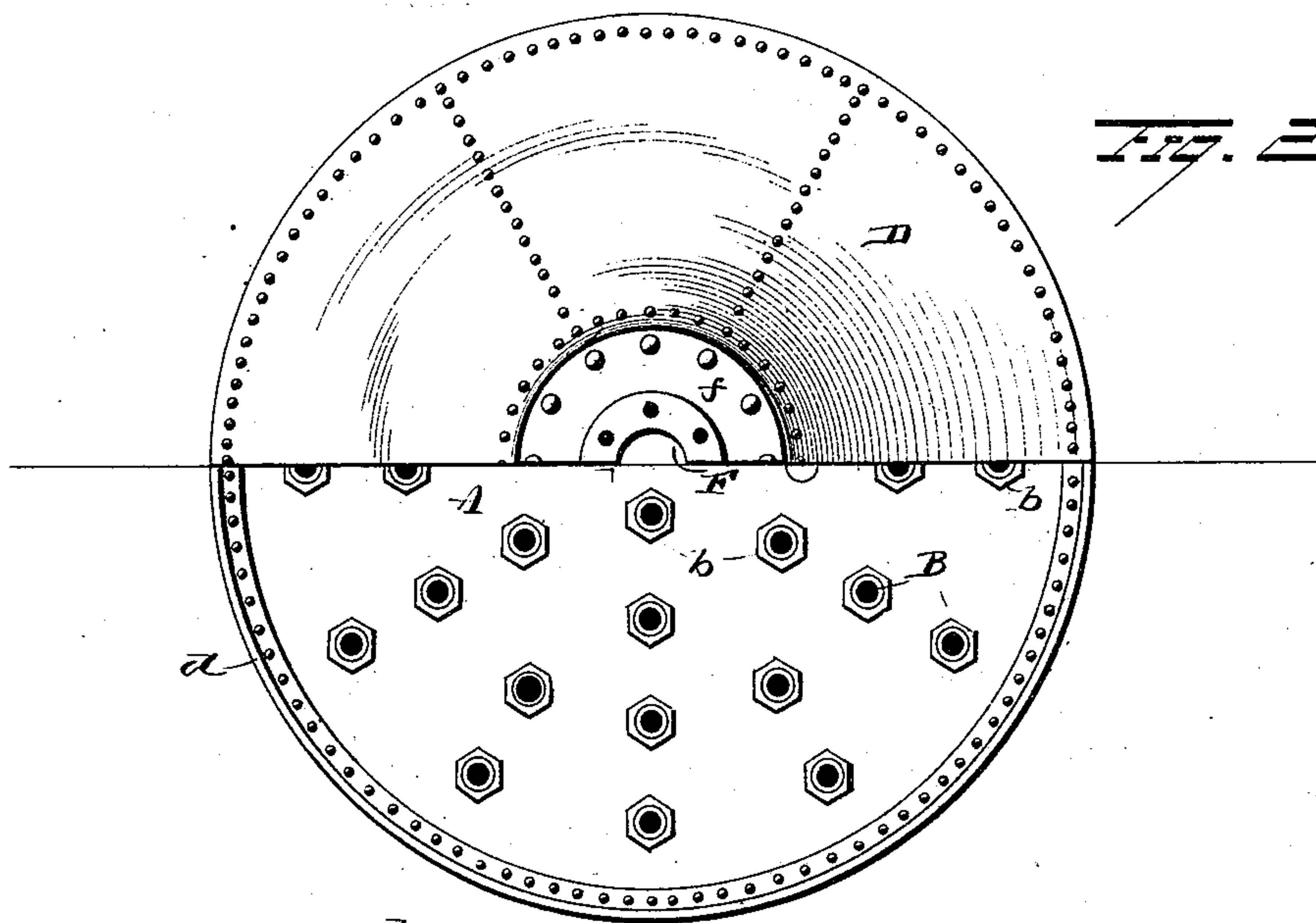
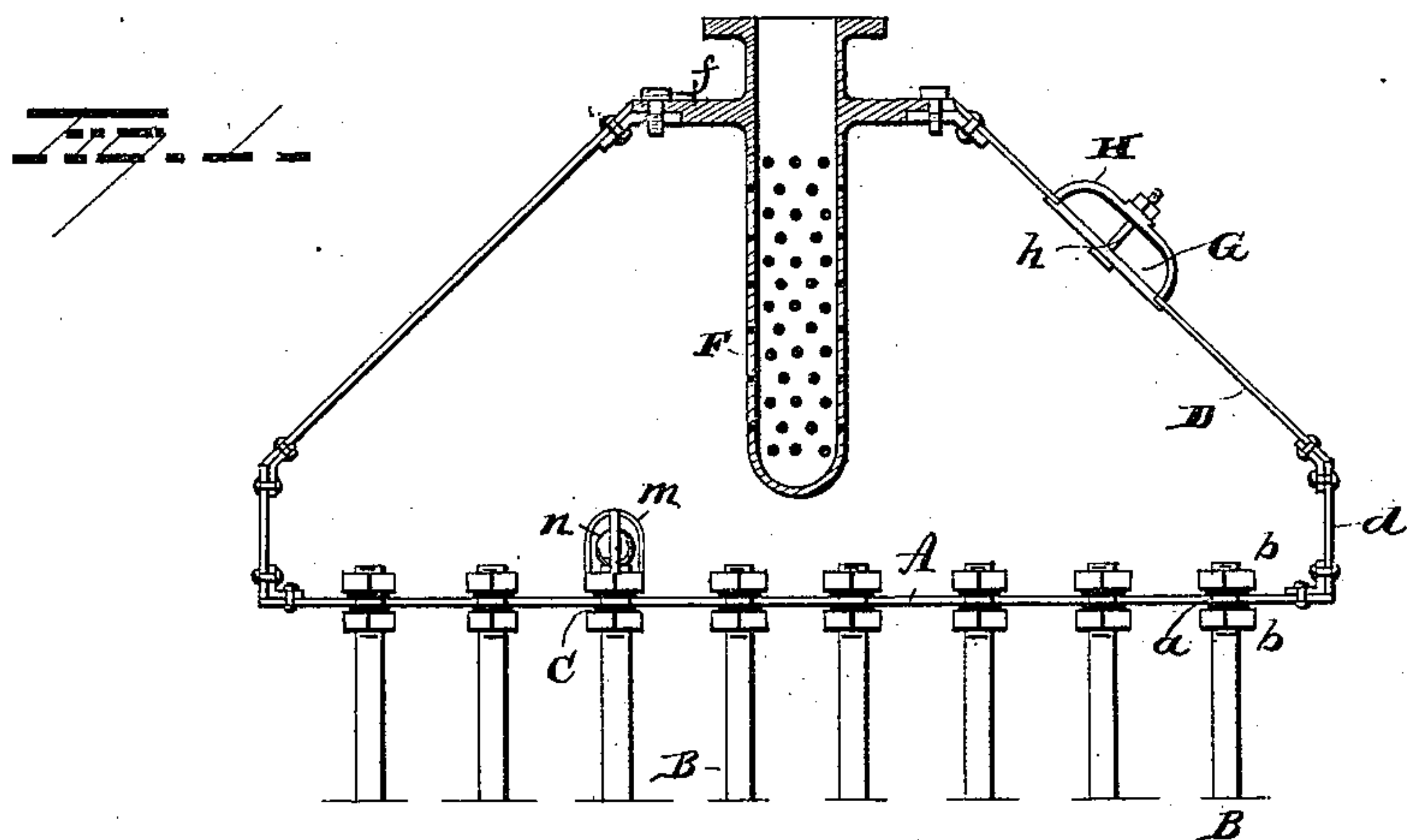


(No Model.)

C. H. GODFREY.
WATER SUPPLY SYSTEM.

No. 336,997.

Patented Mar. 2, 1886.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHARLES H. GODFREY, OF FREMONT, NEBRASKA.

WATER-SUPPLY SYSTEM.

SPECIFICATION forming part of Letters Patent No. 336,997, dated March 2, 1886.

Application filed November 12, 1885. Serial No. 182,579. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. GODFREY, of Fremont, in the county of Dodge and State of Nebraska, have invented certain new and
5 useful Improvements in Water-Supply Systems; and I do hereby 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
10 the same.

My invention relates to an improvement in water-supply systems.

The object is to combine several drive-wells in such a manner that the water from all may
15 be pumped from a common reservoir or chamber with which the several wells communicate.

A further object is to provide a convenient, simple, and economical construction of the air-chamber which forms the common reservoir.

20 With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is
25 a vertical sectional view of a portion of the system embodying my invention. Fig. 2 is a plan view with the casing of the air-chamber partially removed; and Fig. 3 is an enlarged view of the top of one of the well-tubes, showing the manner of attaching it to the plate.
30

A represents a flat plate, of metal or other suitable material, provided with manifold perforations *a*, adapted to receive the upper ends of drive-well tubes B. The tubes B are driven
35 with as much regularity as can be readily attained, and comprise a nest of tubes preferably located within a circular boundary, although the nest might have an oblong or other shape, if so desired. The number of tubes
40 comprised within a single nest may be two or more, according to the demands to be made upon them. The upper ends of the tubes B are conveniently threaded, and secured in an air-tight manner to the plate A by means of
45 a pair of lock-nuts, *b*, one located above and one below the plate B, and flexible packing C, located between the nuts and the plates. A conical-shaped casing, D, is secured at its base by an air-tight joint with the rim of the plate
50 A; or the plate A may be provided with an upwardly-extending flange, *d*, either formed integral therewith or secured tightly thereto,

and the conical-shaped casing D in this case would be secured to the upper edge of the rim or flange *d*.

I find it convenient to attach the casing D
55 to the rim *d*, or to the plate A, by means of an angle-strip, E, adapted to fit snugly in the angle or corner formed by the meeting of the casing and rim, and provided with a series of
60 bolt-holes in both its flanges, which register with bolt-holes in the casing and rim, through which it is bolted or riveted to the said casing and rim.

At the top of the casing D a tube or pipe
65 section, F, is secured. The tube F extends downwardly within the chamber formed by the casing D and plate A to a point at or near its bottom, and is provided with a strainer to prevent the ingress of foreign substances with
70 the water.

The tube F is adapted to be attached at its upper end to a pump, or pipe leading to a pump, and is conveniently provided with a laterally-extending flange, *f*, by means of
75 which it is secured tightly to the casing D, preferably in a manner similar to that hereinbefore described with reference to the joint between the casing and the rim of the plate A.

The side of the casing D is provided with a
80 man-hole, G, adapted to be covered by a cover, *g*, held in closed adjustment by a draw-bolt, *h*, extending through the cover and through an arched bar, H, with its ends resting on the casing at or near the margin of the hole, by
85 means of which draw-bolt the cover is drawn outwardly into snug contact with a marginal shoulder, I.

The chamber inclosed by the casing D and plate A is air-tight and in open communica-
90 tion with the several wells. When the air is exhausted from the chamber through the tube F by the pump, the water from the several wells flows into the common chamber, from which it is drawn through the tube F into the
95 pump-cylinder and discharged. Thus the advantages of a large amount of water to draw from, as in an open well, are attained, while the advantages of a tubular well are retained, the whole forming an efficient and economical
100 water-supply.

In cases where the pumping is not continuous, to prevent the water from falling back into the wells when the pumps stop, it is found

advantageous to supply the upper ends of the wells or tubes with cages *m*, within which balls *n*, of rubber or other suitable material, are adapted to play and form check-valves.

5 It is evident that the casing *D* may have numerous other shapes than that shown, and that many changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and
10 scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth.

I am aware that it is not new to connect a series of drive-well pipes with a fire-plug or
15 water-supply pipe, and hence I make no claim to such a construction.

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

20 1. The combination, with an air-chamber, of a series of drive-well tubes secured to the floor of the air-chamber, and means for exhausting air from the chamber, substantially as set forth.

25 2. The combination, with an air-chamber constructed substantially as described, of a series of drive-well tubes projecting through and secured to the floor of the air-chamber,

and a tube leading from an air-chamber and adapted to connect with a lift-pump, substantially as set forth. 30

3. The combination, with the air-chamber, of the drive-well tubes projecting through and secured to the floor of said chamber, and a strainer-tube adapted to connect the chamber
35 with a pump, substantially as set forth.

4. The combination, with an air-chamber composed of sections united by angle-strips, of a series of drive-well tubes passing through and secured to the floor of the air-chamber,
40 substantially as set forth.

5. The combination, with an air-chamber, a set of well-tubes passing through and secured to the floor of the air-chamber, and a pump adapted to exhaust the air from the chamber,
45 of check-valves located at the upper ends of the drive-well tubes, for the purpose substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing
50 witnesses.

CHAS. H. GODFREY.

Witnesses:

J. E. FRICK,
F. DOLEZAL.