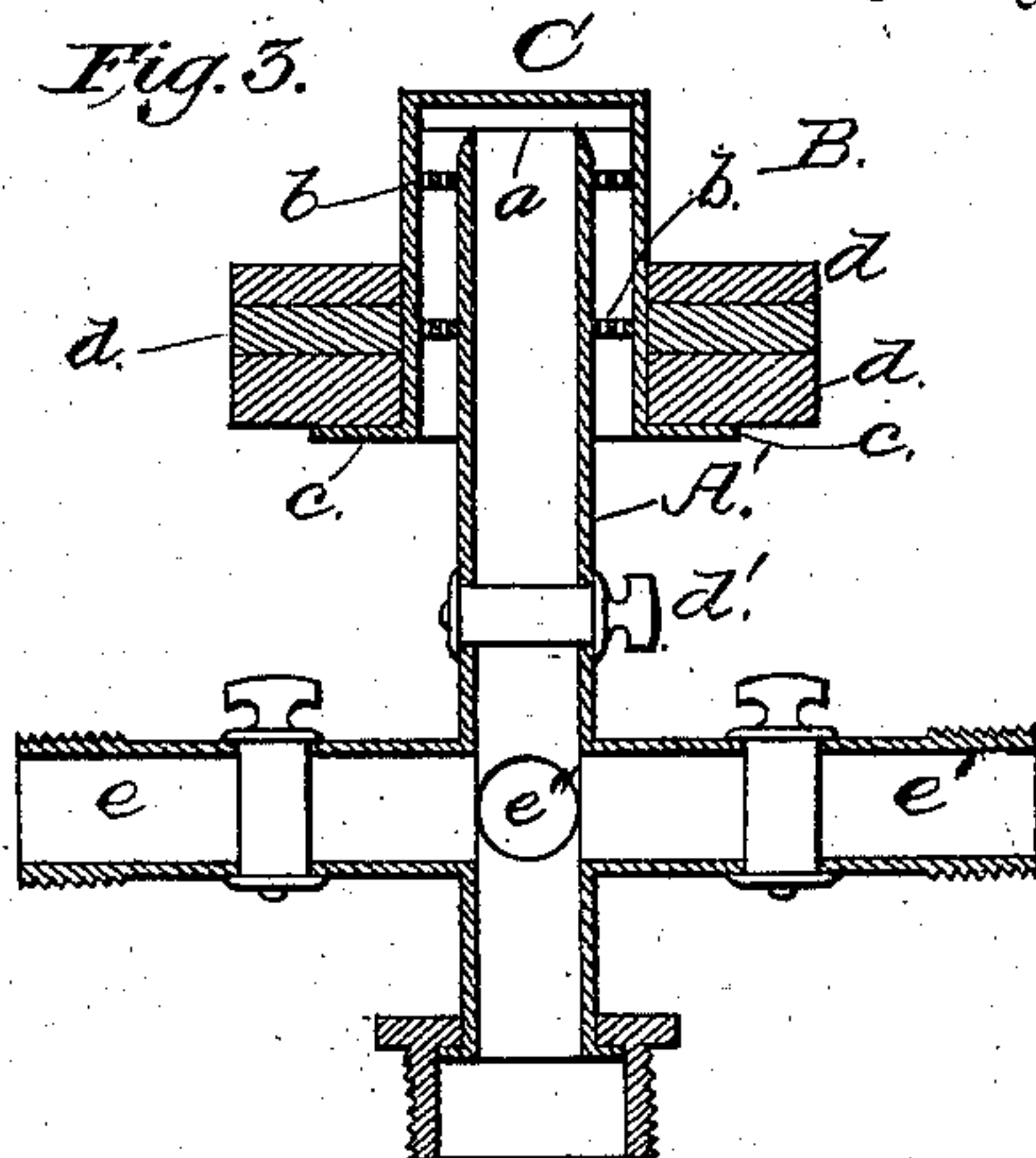
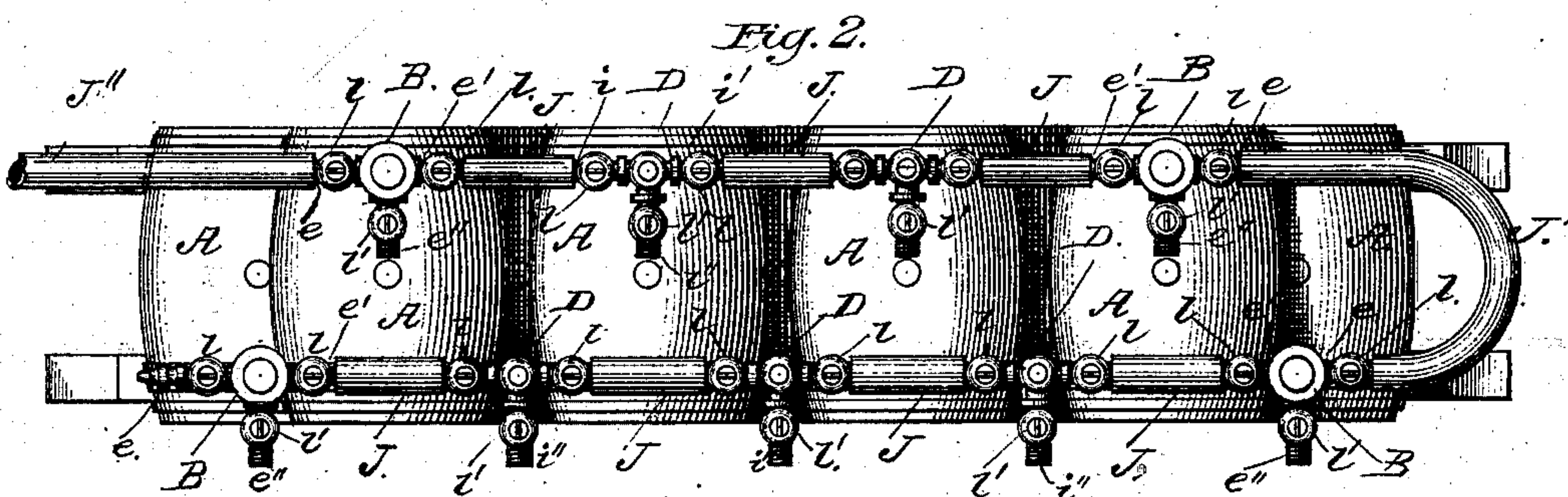
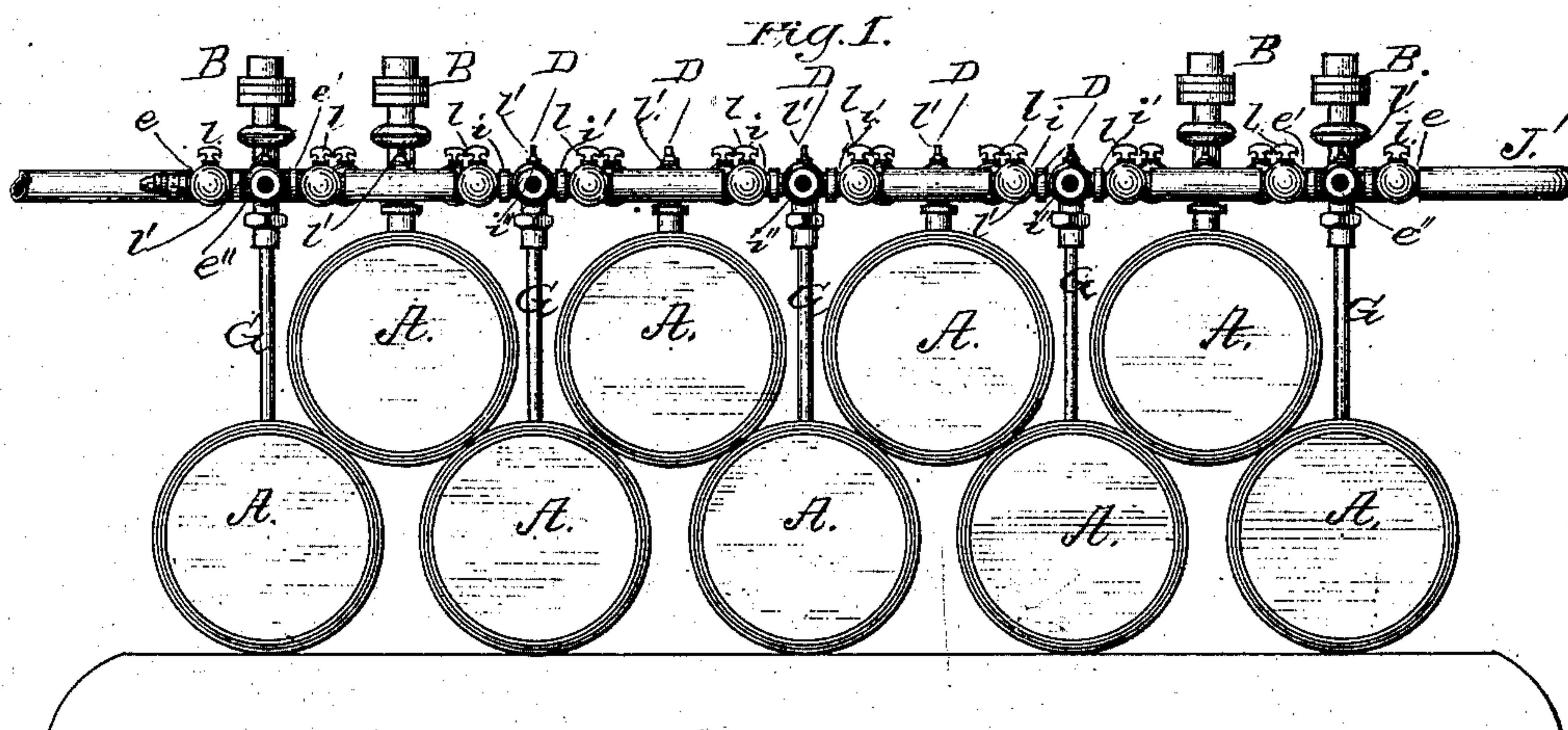


(No Model.)

H. GUTH.
Ventilating Apparatus for Beer.

No. 242,924.

Patented June 14, 1881.



WITNESSES

John A. Lewis.
Frank J. Elmer.

INVENTOR

Henry Guth,
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his ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY GUTH, OF NEW YORK, N. Y.

VENTILATING APPARATUS FOR BEER.

SPECIFICATION forming part of Letters Patent No. 242,924, dated June 14, 1881.

Application filed April 24, 1880. (No model.)

To all whom it may concern:

Be it known that I, HENRY GUTH, of New York, in the county of New York and State of New York, have invented a new and valuable Improvement in Ventilating Apparatus for Beer; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my improved ventilating apparatus for beer. Fig. 2 is a top view of the same. Fig. 3 is a detail section of the fermenting-bung.

This invention has relation to improvements in means for regulating the fermentation of beer in casks.

The object of the invention is mainly to produce uniform fermentation in a series of casks under pressure in an economical and convenient manner, and to disconnect any cask of the series from the remainder without disturbing them or changing the pressure therein.

The nature of the invention consists in certain novel combinations of parts, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates fermenting-casks arranged on a suitable cradle in two series, the one above the other.

The end casks of each series are provided with fermenting-bungs B, consisting, essentially, of the tube A', having a screw-thread at its lower end, a cap, C, passed over the open upper end of said tube and provided with a rubber bearing, a, for the end of the said tube, inside perforated guide-flanges, b, and flange or shoulder c, to support the annular weights d, that are passed over the said cap. The pressure in the casks raises the cap when it is sufficient to overcome the weights, and the excess having passed out through the perforations of the flanges, the cap again falls and closes the bung automatically. This pressure is cut off from the cap by a cock, d', in tube A', when necessary.

The tube A' is provided upon opposite sides,

below the cock d', with nozzles e e', the two former being in line with each other, and the latter at right angles thereto, all the nozzles being preferably in the same horizontal plane.

The casks in each row between the end ones are provided with screw-plugs D, having nozzles i i', in all respects similar in construction and relative position to those of the fermenting-bungs. These nozzles are each provided with cut-off cocks l of suitable form. The bungs and screw-plugs of the lower row of casks are brought to a level with those of the upper row thereof by means of the pipes G.

J indicates tubes of metal, or, if desired, of any flexible material, connecting the nozzles i i' and e e' of the plugs and bungs, and coupled thereto in any suitable manner, the rear pair of bungs being connected by a pipe, J'.

The cocks d' l being first opened, that one at the end of the series of pipes farthest from the air-induct pipe J'' excepted, air is forced through said pipe J'' into the bungs, plugs, and pipes J, and passes into the casks of both series in an equal degree, and the pressure increases until it becomes sufficient to raise the caps C, weighted to resist a certain determined pressure, when the excess passes off and the caps fall. This will occur as often as the predetermined pressure is exceeded automatically.

The nozzles e' i' of the bungs and plugs are also provided with cocks l', the object of which will be hereinafter explained.

It will be observed that with a comparatively small number of bungs pressure may be applied to a number of casks far exceeding that of the bungs in an equal degree, the pressure being automatically regulated in each cask.

To draw off the contents of any cask the cock d' of tube A' and those of the nozzles i i', either of the plugs or fermenting-bungs, as the case may be, pertaining to said cask are cut off, and a pipe of an air-pump coupled to nozzle e' or i'. Its cock is then opened and pressure applied by the pump until the cask is emptied by displacement.

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

The combination, with fermenting-casks A, 100

arranged in rows, and automatic fermenting-bungs B, in the end casks of the row, and provided with the nozzles *e e' e''*, having cut-off cocks *l*, of the plugs D, having nozzles *i i' i''*,
5 with cut-off cocks *l*, and the pipes J, connecting the nozzles *i i'* of the bungs and those *e e'* of the plugs, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY GUTH.

Witnesses:

AUGUST GERHAGER,
LOUIS GEMEINER.