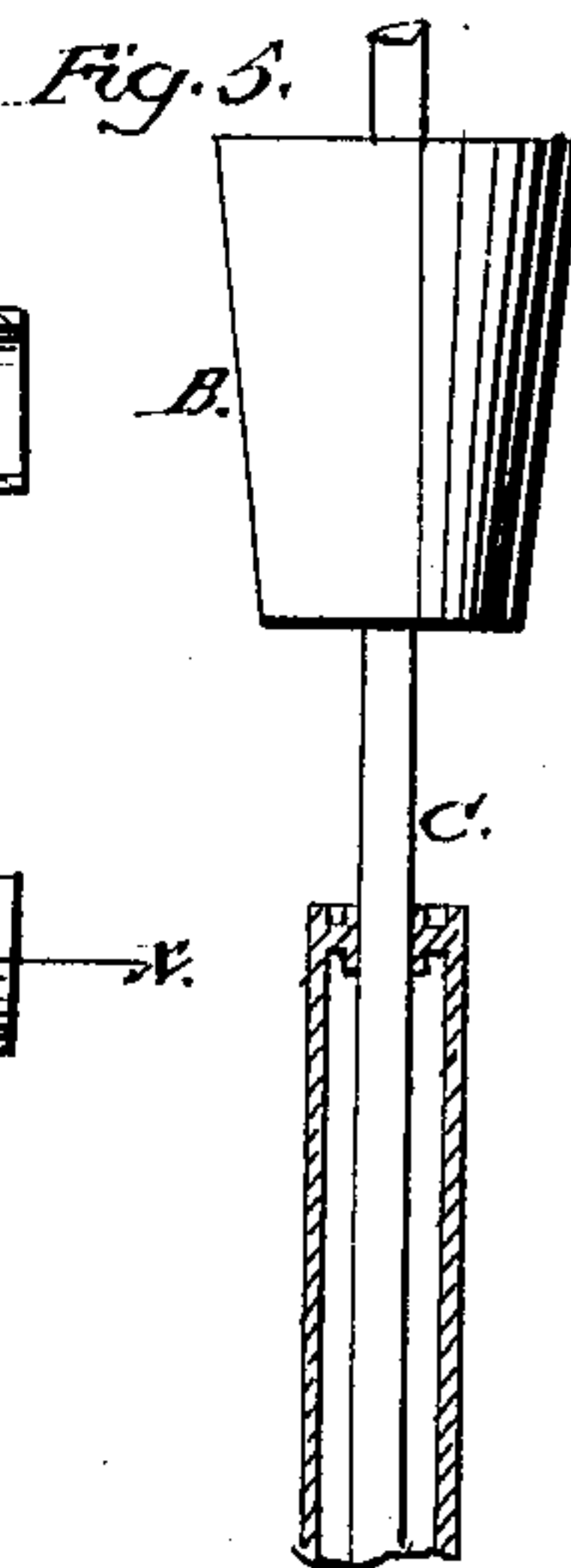
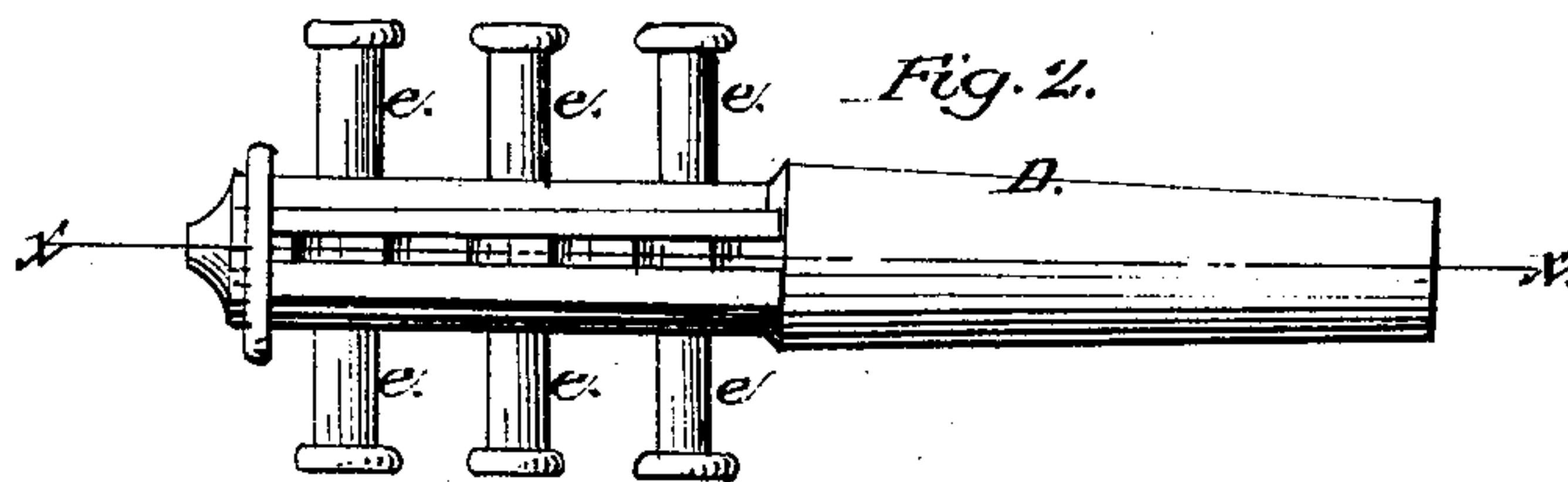
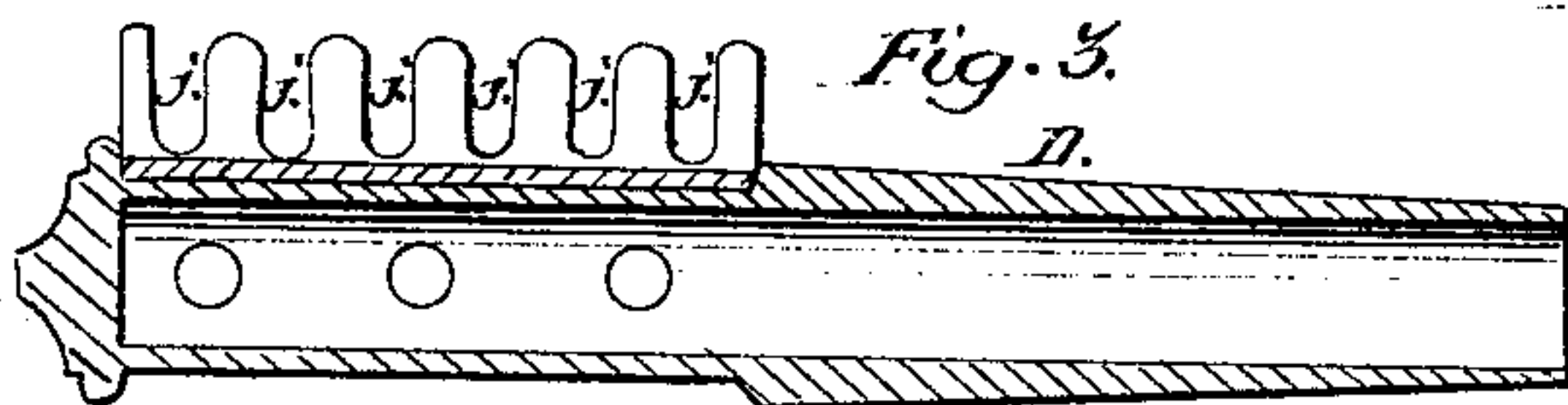
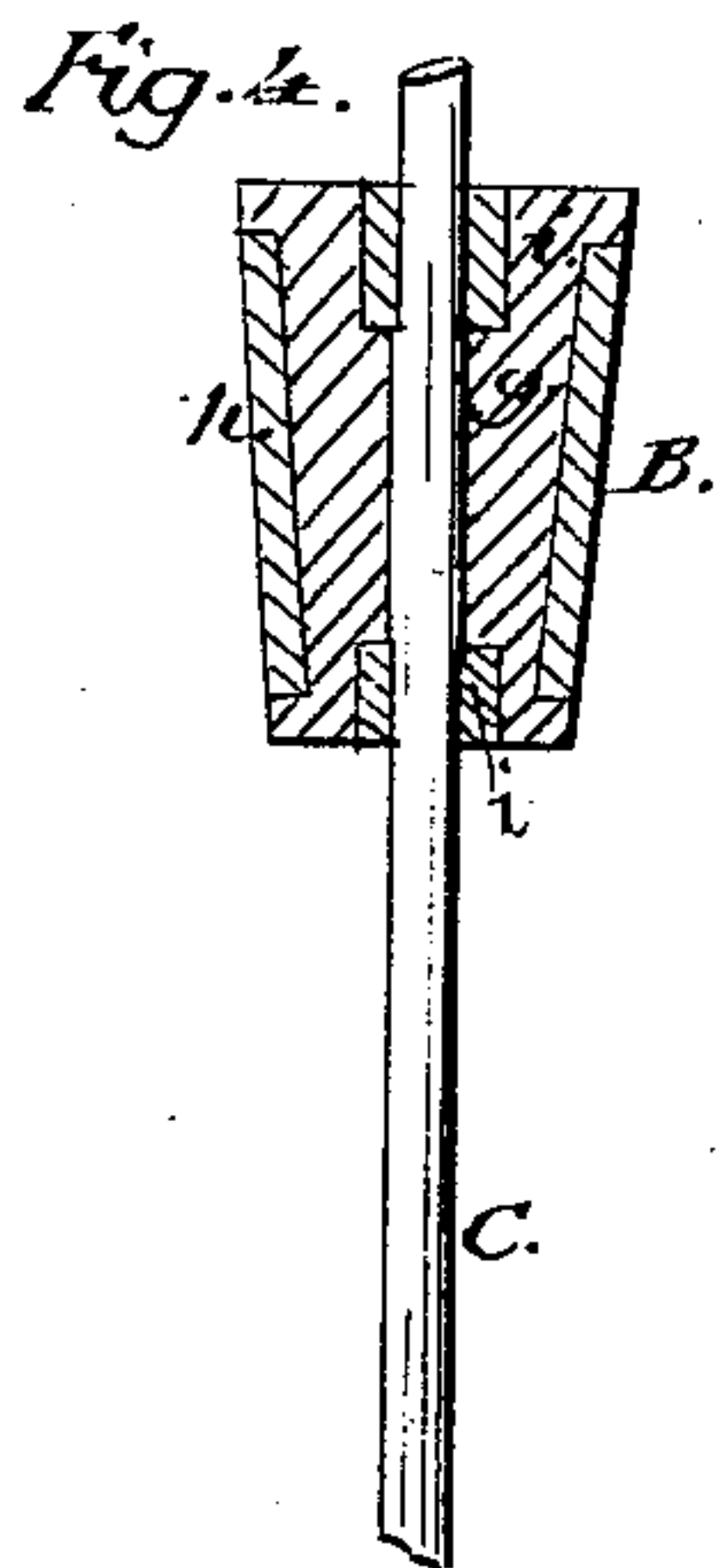
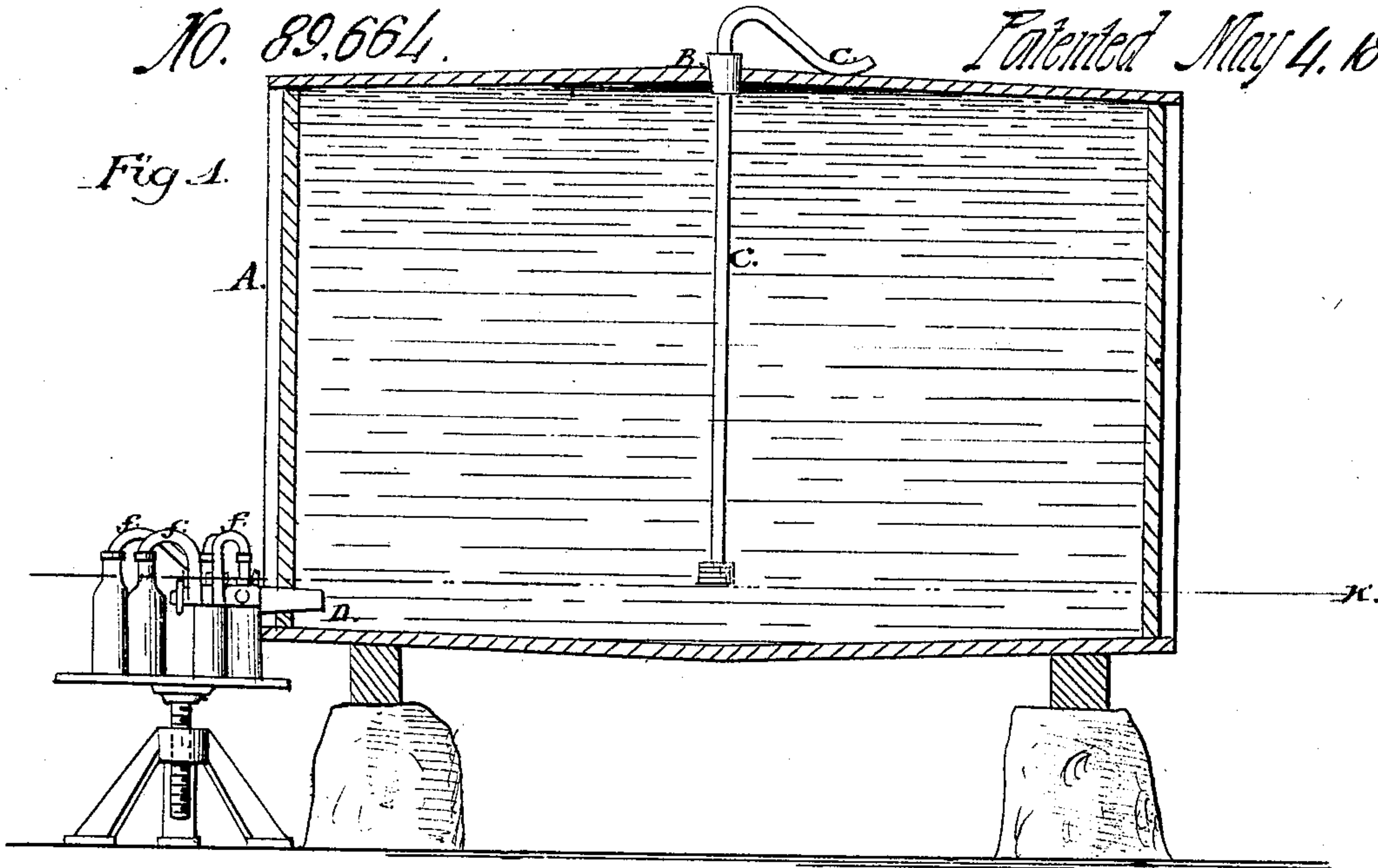


E. Jeanjaquet, Bottle Filler.

No. 89,664.

Patented May 4, 1889



A. Bennekerendorf & Witnesses:
Wm. A. Morgan

Inventor:
E. Jeanjaquet.

per M. M. & Co.
Attorneys

United States Patent Office.

E. JEANJAQUET, OF NEW YORK, N. Y.

Letters Patent No. 89,664, dated May 4, 1869.

IMPROVEMENT IN BOTTLE-FILLER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, E. JEANJAQUET, of the city, county, and State of New York, have invented a new and improved Automatic Cock for Filling Bottles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in the method of filling bottles or other vessels from barrels, pipes, hogsheads, or other closed vessels, whereby the operation of drawing off the liquid contents of such barrels or vessels into bottles or other vessels is greatly facilitated.

The invention consists in a cock constructed with one or more discharge-apertures, and with a slotted crest, in combination with an air-tube, arranged in the barrel or vessel, as will be hereinafter more fully described.

In the accompanying plate of drawings—

Figure 1 represents a vertical longitudinal section of a barrel filled with liquid of any kind, showing the cock and air-tube arranged for filling bottles.

Figure 2 is a top view of the cock detached.

Figure 3 is a longitudinal section of fig. 2, through the line *x x*.

Figure 4 is a detached view of the air-tube and bung or plug, the latter being shown in section.

Figure 5 is a view of the same with its interior portion enclosed in a larger tube, to be used, when necessary, for keeping the air-tube steady, the latter being shown in red color.

Similar letters of reference indicate corresponding parts.

A is the barrel.

B is the bung.

C is the air-tube which passes through the bung.

D is the cock.

This cock is simply a tube, which is fastened in the barrel in the ordinary manner.

It has (in this example of my invention) six discharge-tubes, attached on opposite sides, as seen in the drawing, marked *e*.

Elastic tubes *f* are attached to these discharge-tubes, through which the liquid passes into the bottles to be filled.

The number of the discharge-tubes should be in proportion to the size or calibre of the cock, or to correspond with the service to be performed. Simple orifices, one or more, without tube or tubes, may be made to answer the purpose in some cases.

The bottles to be filled are placed upon a table, the height of which is adjusted by a screw or other suitable mechanical device.

Both table and bottles are seen in the drawing in red color.

The manner in which the bung B is made is seen in fig. 4, the wooden portion, *g*, being surrounded by a rubber band, *h*, for insuring a tight joint with the barrel.

The tube passes through metallic rings *i i*, by which the tube is slightly compressed.

This arrangement is also for insuring an air-tight joint, and retaining the tube in place; but this may be accomplished by other means, or in any suitable manner.

The tube C extends down into the liquid to the line K, (or to any other desired line,) and on the end of the tube a metallic ring or weight may be placed, for keeping the tube C in a vertical position, as seen in the drawing.

The bottles are placed so that they will be filled by the liquid to the level of the line K, when the liquid will cease to flow.

It is well understood that a liquid flowing from one vessel to another, through one or more tubes, orifices, or siphons, will cease to flow when the same liquid-level is attained in the different vessels.

For the purpose of bottling liquids, this, of itself, would be a very imperfect and inconvenient arrangement, as there would be a constantly-varying level; but by the application of the principle illustrated by the "Flask of Mariotte," (*Flacon de Mariotte*.) a constant flow of the liquid is obtained.

To obtain this result, the cock must be introduced below the line K, (or end of the tube C.)

Air will enter the barrel through the tube, and bubble up and take the place of the liquid discharged, so that the pressure on the layer or strata of liquid, K, at the end of the air-tube, will be equal to that of the atmosphere, and the rapidity of the flow will be proportional with the square root of the height of the column between the line K and the cock.

The tubes *f* will drop loosely into the necks of the bottles, so that the air may readily escape therefrom.

As the liquid in the barrel will not rise above the line K by atmospheric pressure, it will be seen that each tube *f* must act as a siphon, and be started by depressing them below the line K, so that they may fill with liquid before their ends are introduced into the bottles.

When a bottle is removed (after filling) the liquid is retained in the tube by compression in one of the slots *j* in the crest of the cock.

This compression effectually closes the tube, so that the siphon readily operates when it is inserted into the next bottle.

By this method of filling bottles there can be no waste or uncertainty in regard to quantity, while the labor ordinarily expended in this operation is vastly lessened.

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

1. The cock D, or its equivalent, with one or more discharge-tubes or orifices, when the same is used in combination with the air-tube C, substantially as and for the purposes herein shown and described.

2. In combination with a cock, provided with one or more discharge-tubes or orifices, the slots *j*, substantially as and for the purposes specified.

E. JEANJAQUET,

Witnesses:

FRANK BLOCKLEY,
ALEX. F. ROBERTS.