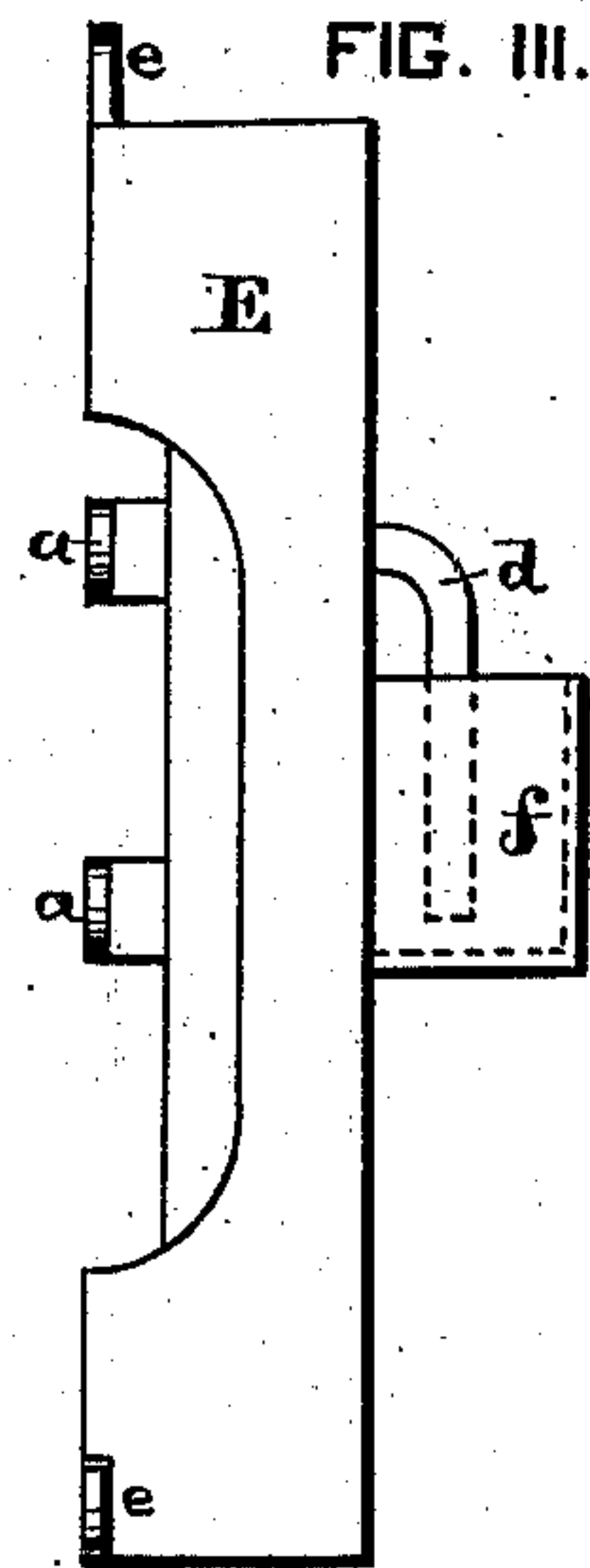
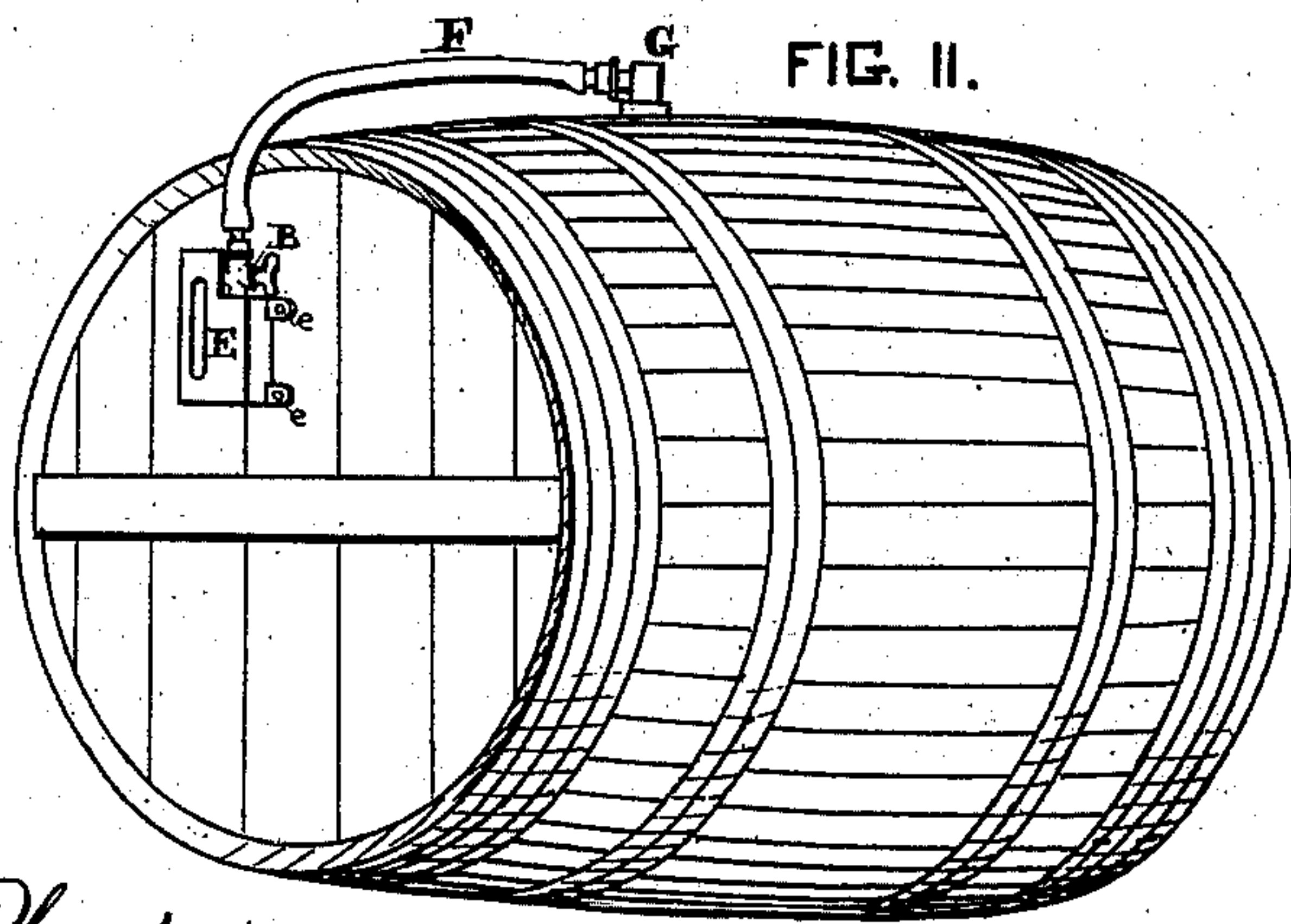
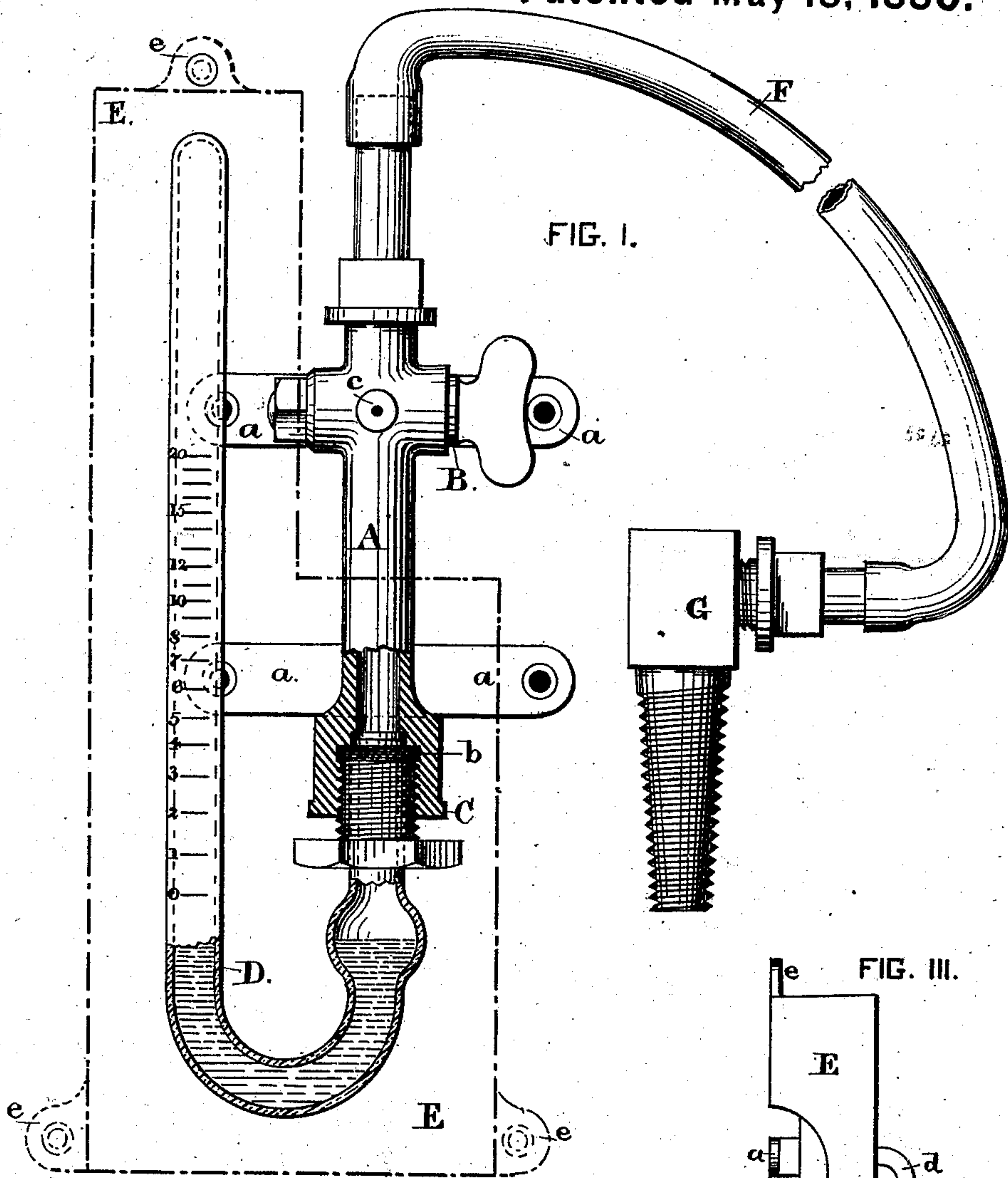


(No Model.)

F. W. WIESEBROCK.  
Gas-Pressure Regulator and Indicator.

**No. 227,867.**

**Patented May 18, 1880.**



WITNESSES:

Jos. J. K. Plant.  
 James S. Smith.

INVENTOR

Frederick W. Wiesbrock



# UNITED STATES PATENT OFFICE.

FREDERICK W. WIESEBROCK, OF NEW YORK, N. Y.

## GAS-PRESSURE REGULATOR AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 227,867, dated May 18, 1880.

Application filed April 12, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK W. WIESEBROCK, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Gas-Pressure Regulators and Indicators; 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 the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to gas-pressure regulators and indicators, and is more especially adapted to regulate and indicate the amount of carbonic-acid gas generated in beer or other malt liquors while in the process of fermentation; and it consists in the construction and arrangement of parts, as will be more fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of my apparatus, partly in section. Fig. 2 is a view of a cask with my apparatus attached. Fig. 3 is a detail view of the same.

In the drawings, A represents the main body of my apparatus, provided with a three-way cock, B, and is secured to the head of the cask by lugs *a a*. At the lower end of the body A is a stuffing-box, C, in which one end of a glass tube, D, containing mercury, is firmly held. A rubber washer, *b*, securely packs the tube D in place. This tube has the proper graduations upon it to indicate the different pressures. Over the center of the three-way cock is arranged a vent, *c*, and to this a small bent tube, *d*, may be connected, the end of which is immersed in water in a small receptacle, *f*, secured to cover E, as shown in Fig. 3. The cover is secured to the cask by lugs *e*, and is shown in dotted lines in Fig. 1, and has an opening in one of its sides, through which the light is reflected when it is desired to examine the mercury-gage. At the upper end of the body A is attached a pipe, F, which is provided with a spigot, G, which is screwed into the upper side of the cask and connects with the gas-space.

The pipe F may, however, be carried into the inside of the cask and extend through the beer, and connects with the gas-space, if desirable, instead of the outside.

The operation is as follows: The body A being secured to the head of the cask, and the tube F connected with the gas-space in the cask, and the cover, which forms a guard, secured over the apparatus, it is ready for use. After the beer is bunged up in the cask, for the purpose of refining and generating carbonic-acid gas, the pressure of the gas will be indicated on the mercury column.

As it is necessary to always rack the beer at a uniform pressure of carbonic-acid gas, the indicator will show the operator when the beer is ready for the market.

If at any time the temperature of the cellars should rise, and thereby liberate an extra amount of carbonic-acid gas from the beer, this gas would create a greater pressure, and would have to be let off through the vent, and this gas, in passing through the water-receptacle, can be regulated at the will of the operator, and prevent the too rapid discharge of the same, which would cause a too forcible rising of the gas-bubbles through the body of the beer, and thereby carry with it yeast particles precipitated, which would make the beer turbid.

The advantages of my apparatus are that the cask remains hermetically sealed when the apparatus is attached, the process of fining the beer being thereby greatly facilitated; the operator can at all times ascertain the exact condition of his beer; it is very simple in construction, and not liable to get out of repair.

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

1. The gas-pressure regulator and indicator herein described, attached to the head of the cask, and connected by a pipe with the gas-space, when constructed substantially as shown, and for the purpose specified.

2. A gas-pressure regulator and indicator consisting of the body A, provided with a three-way cock, B, and vent, and a mercury-gage, constructed and arranged substantially as shown and specified.

3. A gas-pressure regulator and indicator consisting of the body A, having three-way cock B, vent *c*, and mercury-gage D, in combination with the pipe F, arranged substantially as shown, and for the purpose specified. 5
4. In a gas-pressure regulator and indicator, the body A and mercury-gage D, in combination with the cover F, vent *c*, bent tube *d*, and water-receptacle *f*, constructed and arranged substantially as specified. 10

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK W. WIESEBROCK.

Witnesses:

JOS. T. K. PLANT,

JAMES S. SMITH.