

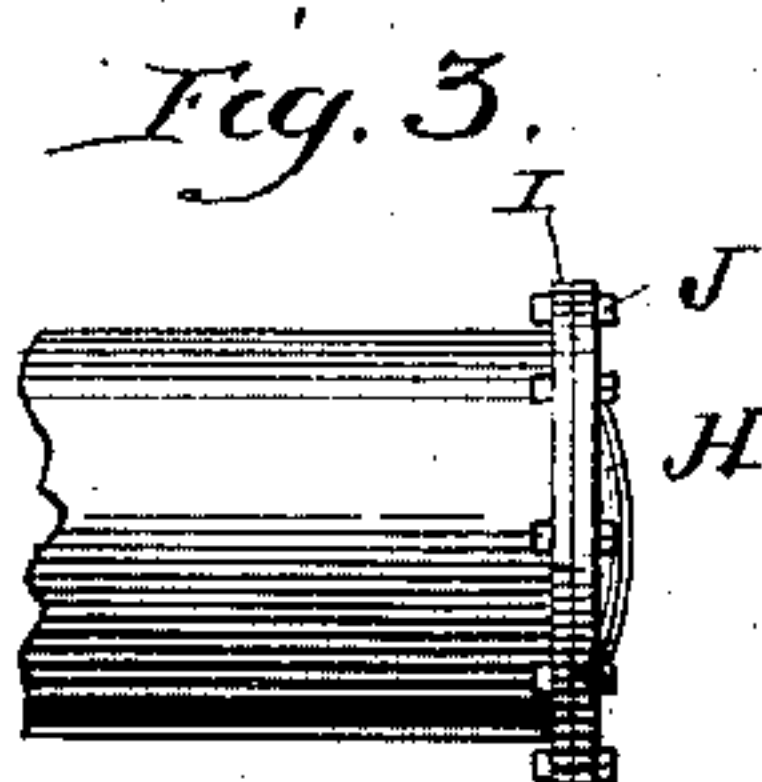
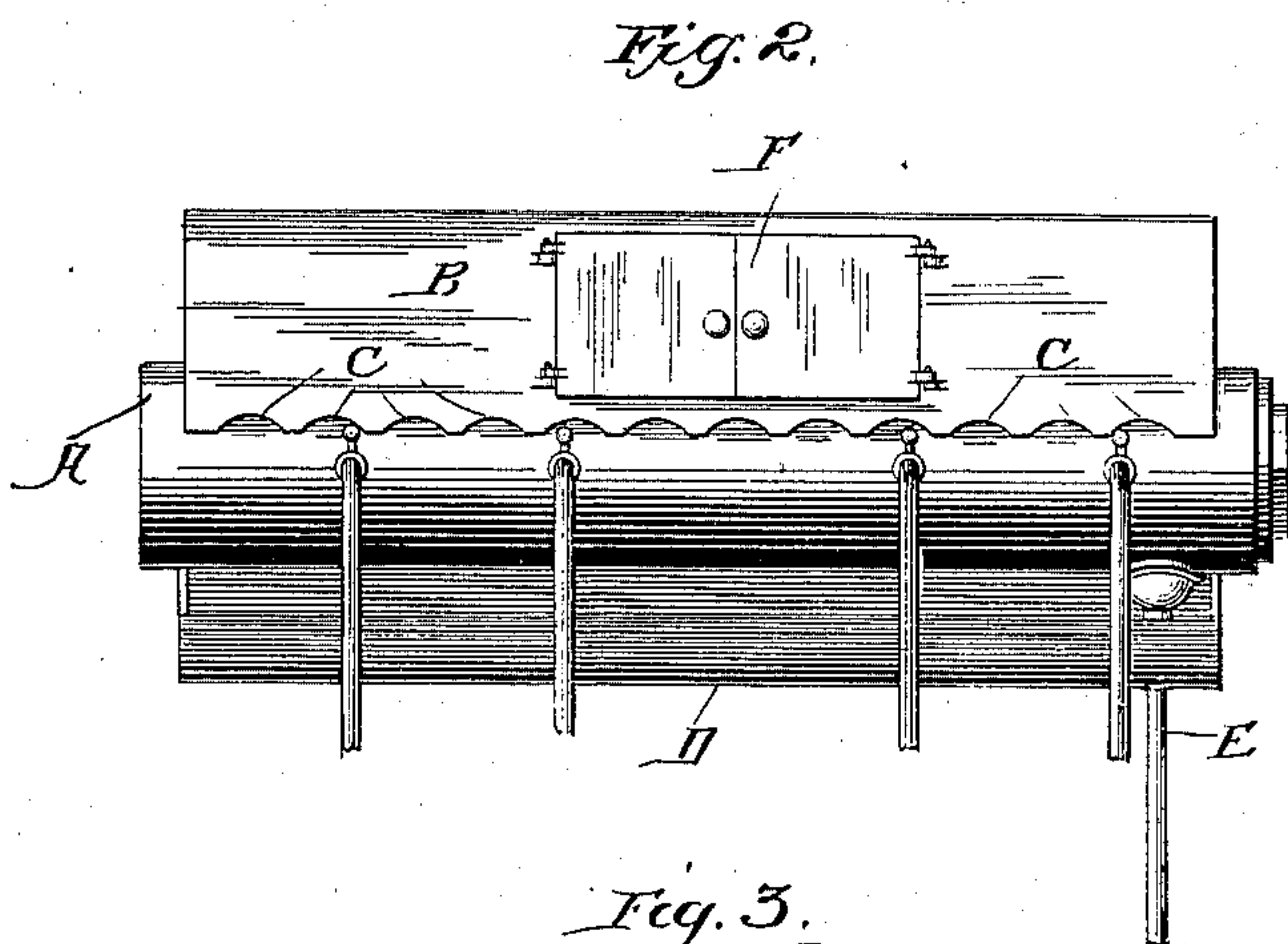
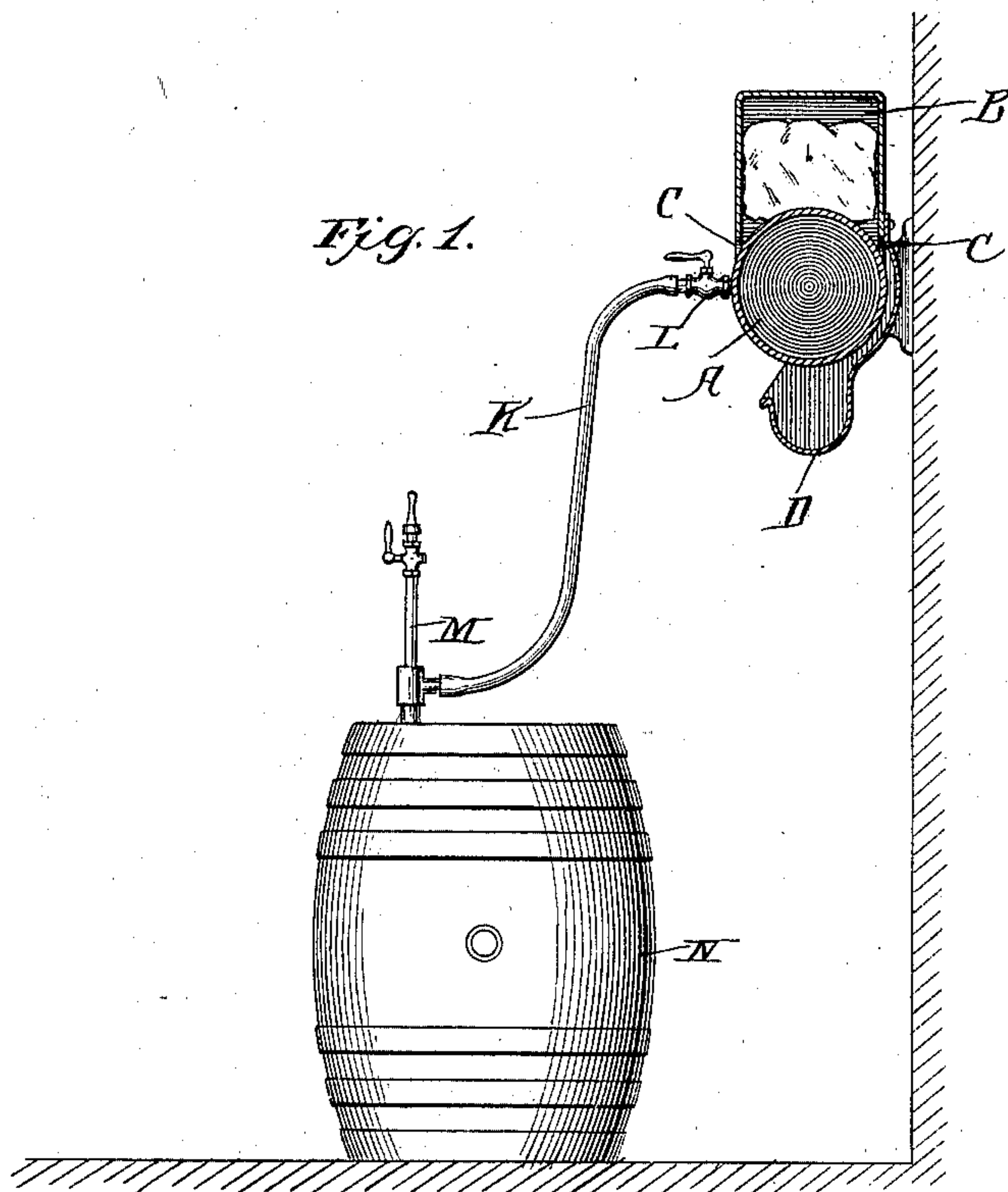
No. 609,053.

Patented Aug. 16, 1898.

E. SHERIDAN.
COOLING APPARATUS FOR AIR TANKS.

(Application filed Sept. 24, 1897.)

(No Model.)



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UNITED STATES PATENT OFFICE.

EDWARD SHERIDAN, OF PHILADELPHIA, PENNSYLVANIA.

COOLING APPARATUS FOR AIR-TANKS.

SPECIFICATION forming part of Letters Patent No. 609,053, dated August 16, 1898.

Application filed September 24, 1897. Serial No. 652,821. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SHERIDAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Cooling Apparatus for Air-Tanks, of which the following is a specification.

My present invention relates to a new and useful improvement in cooling apparatus for the air tanks or chambers of beer and similar elevating devices, and has for its object to provide an effective means for cooling the air after being compressed and prior to its entering the beer-kegs in order that the beer may not be deteriorated by the inflowing of air above the proper temperature.

A further object of my invention is to effect economy in the cooling of the beer.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a section of an apparatus made in accordance with my improvement, showing a beer-barrel connected with the air-tank; Fig. 2, a front elevation of the apparatus; and Fig. 3, a detail of the one end of the tank, showing a slightly-modified manner of securing the cap or head thereon.

In carrying out my invention as here embodied, A represents the tank or air-chamber, which may be of any convenient construction and design, but preferably that shown and described in my allowed application, Serial No. 597,800, filed July 1, 1896. A suitable flexible pipe K is attached to the spigot L of the tank at one end and to a drawing-faucet M at the other end, said faucet being fixed in the barrel N in any well-known manner. Upon the tank A is placed an ice-receptacle B, which may be made of any material—as, for instance, sheet metal—and this receptacle is of rectangular shape, having no bottom thereto and its lower edges scalloped, as in-

indicated at C, so that when resting upon the top of the air-tank the water which comes from the melting of the ice may freely flow therefrom and down the sides of the tank and finally drip into the trough D, which is arranged beneath the tank and is set upon such an incline as to cause the water caught thereby to be conveyed to the drain-pipe E and from thence to any suitable outlet.

The trough D is here shown as formed of sheet metal and secured to the ice-receptacle at the back thereof, extending around the air-tank, so as to prevent the escape of moisture from this side of the tank to the wall or surface against which the tank is secured, and in practice this is found of considerable importance, as there is a liability for small pieces of ice or other foreign substances to accumulate back of the tank, which would transfer the water flowing downward around the tank to the wall.

Suitable doors F are provided for gaining access to the receptacle, thereby permitting the ice to be readily placed therein or the apparatus thoroughly cleaned when occasion requires.

It is a well-known fact that cold water passing in thin sheets over an exposed surface will effectually reduce the temperature of the surface even to a greater extent than ice brought into direct contact therewith, and in my present improvement I utilize this principle to reduce the temperature of the tank and the air contained therein by not only putting the ice in direct contact with the air-tank, but in also permitting the water which is formed by the melting of said ice to constantly flow in thin sheets over the surfaces of the tank, and in practice it has been found that the temperature of the air passing through the tank A is greatly reduced, and this notwithstanding the fact that the compressing of the air tends to raise its temperature.

Another important feature of my invention is that the drippings from the ice after having performed the function of cooling the tank are caught in the trough and conveyed therefrom to a suitable drain-pipe, thus in no wise interfering with the surroundings of the apparatus, thereby permitting the placing of the apparatus in any desired locality.

In Fig. 3 I have shown the head or cap H arranged so as to be bolted to the flange I, formed upon the tank by means of a series of bolts J, and this arrangement gives better
5 access to the tank than when the cap is threaded thereon, as will be readily understood.

Of course I do not wish to be limited to the exact construction and arrangement here shown, since these may be varied within cer-
10 tain limits without departing from the spirit of my invention, which rests in the broad idea of combining an ice-receptacle with a pressure air-tank and utilizing the water formed by the melting of the ice for the cool-
15 ing of said tank.

Having thus fully described my invention, what I claim as new and useful is—

In combination with the cylindrical air-tank of the character described, an elongated

bottomless receptacle having the ends there- 20
of curved to conform to the contour of the air-tank, and the sides thereof scalloped along their edges, doors to the receptacle, a piece of sheet metal secured to one side of the re- 25
ceptacle, curved around the tank and deepened at the lowermost point thereof forming a trough, said trough being on an incline, and a drain-pipe leading from the lowest point of the trough, as and for the purpose de- 30
scribed.

In testimony whereof I have hereunto af-
fixed my signature in the presence of two sub-
scribing witnesses.

EDWARD SHERIDAN.

Witnesses:

S. S. WILLIAMSON,
SAMUEL L. TAYLOR.