

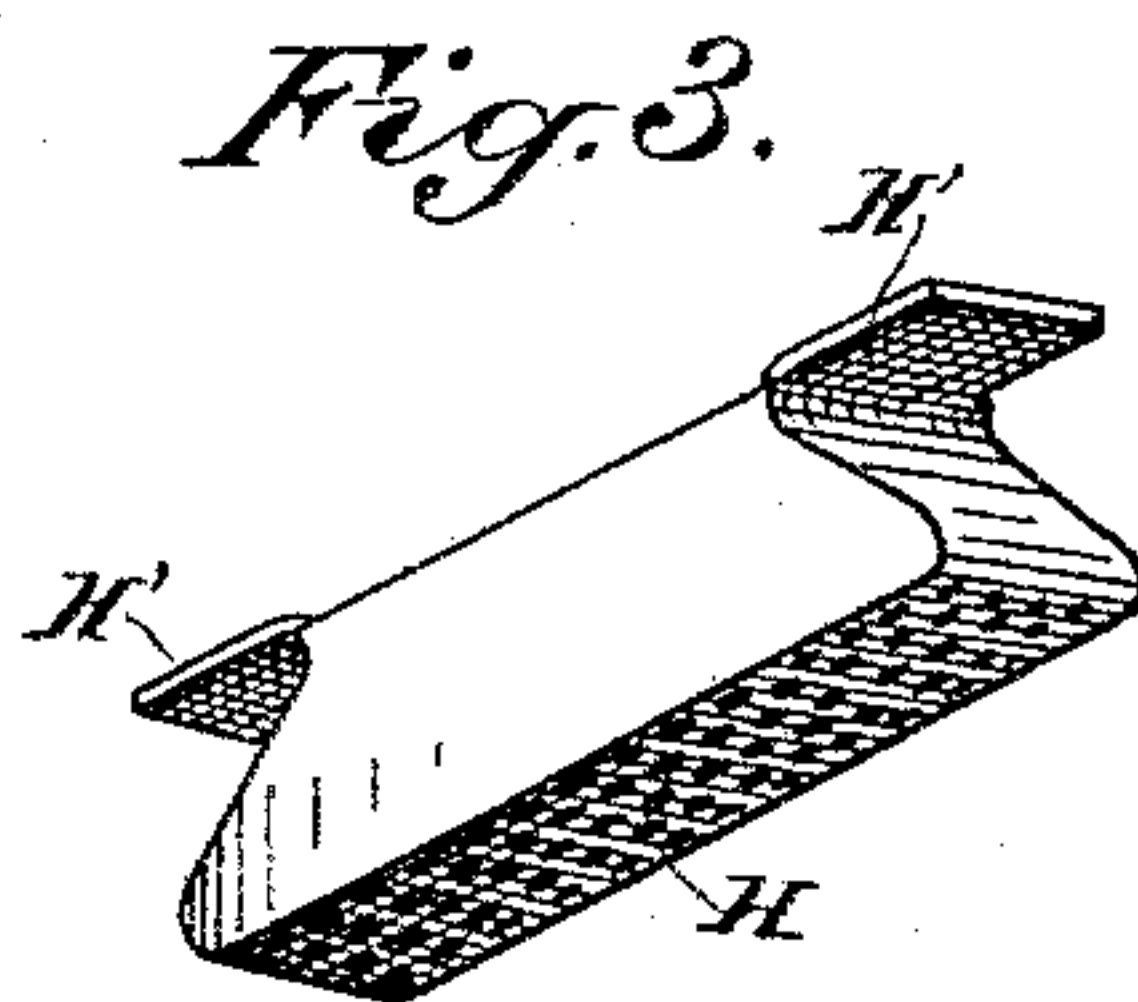
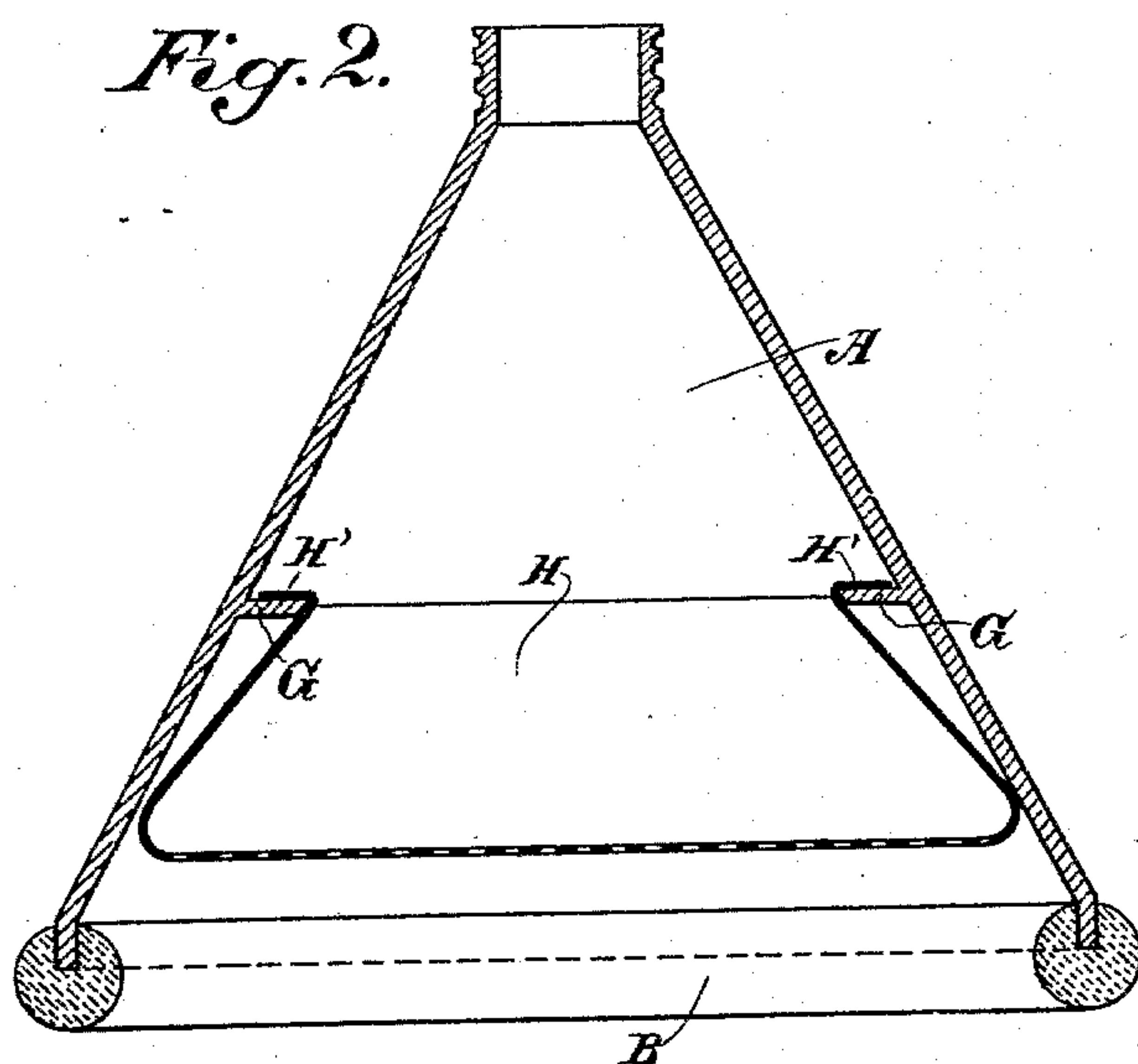
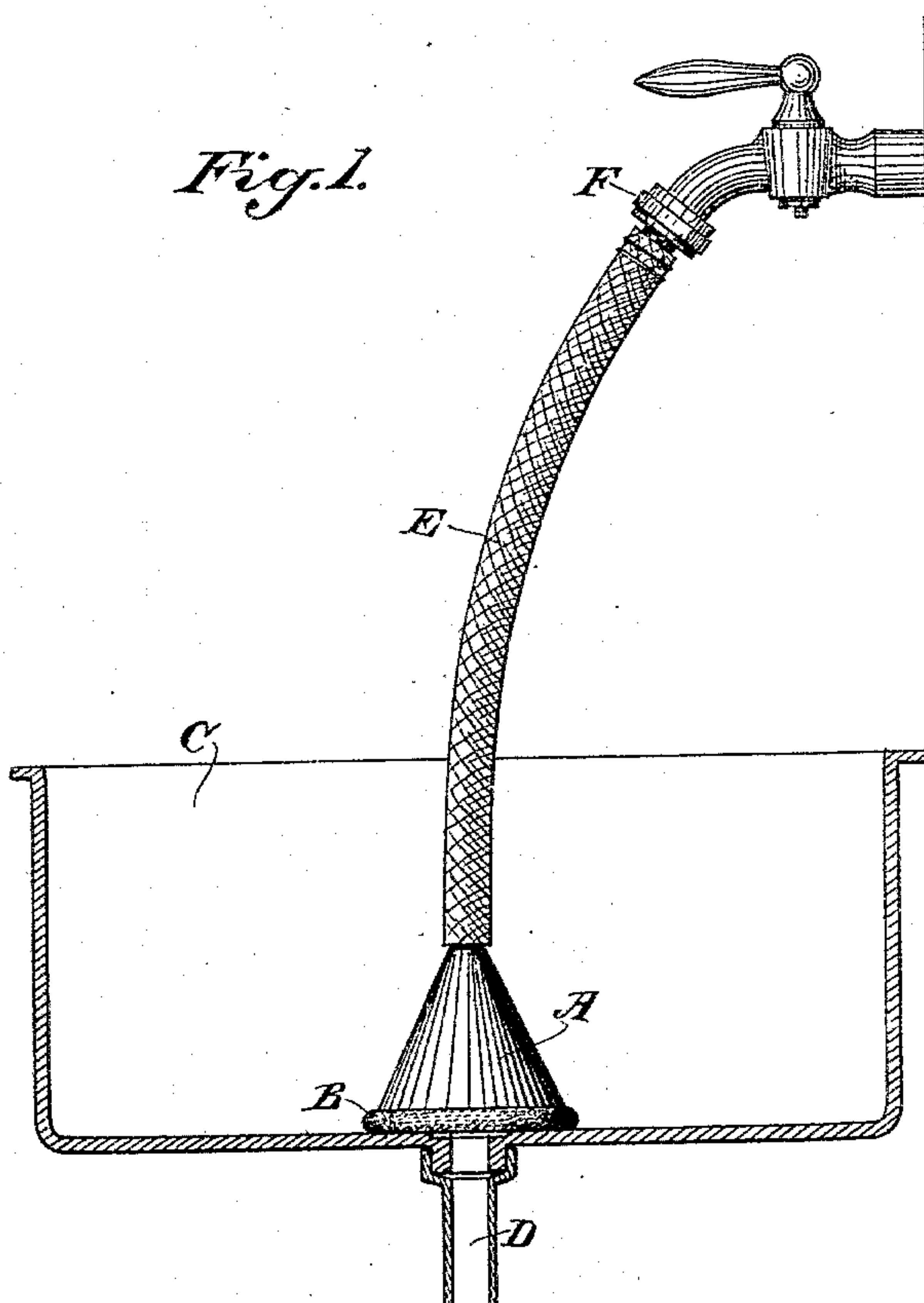
(No Model.)

F. CAVALLARO & J. N. STURM.

CLEANSING SINK OR DRAIN PIPES.

No. 546,445.

Patented Sept. 17, 1895.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

FRANCESCO CAVALLARO AND JOSEPH N. STURM, OF SAN JOSÉ, CALIFORNIA.

## CLEANSING SINK OR DRAIN PIPES.

SPECIFICATION forming part of Letters Patent No. 546,445, dated September 17, 1895.

Application filed March 6, 1895. Serial No. 540,735. (No model.)

*To all whom it may concern:*

Be it known that we, FRANCESCO CAVALLARO and JOSEPH N. STURM, citizens of the United States, residing at San José, in the county of Santa Clara, State of California, have invented an Improvement in the Cleansing of Sinks or Drain-Pipes; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to a device for flushing and cleansing waste-pipes of all descriptions.

It consists of a device by which water under pressure may be applied to the waste-pipe, and in conjunction therewith of a removable holder adapted to contain potash or other cleansing compound, which is dissolved and introduced into the pipe by the flow of the water through the apparatus.

Referring to the accompanying drawings for a more complete explanation of our invention, Figure 1 is a general view of our device. Fig. 2 is a vertical section through the cone. Fig. 3 is a view of the receptacle containing the detergent material.

A is a conical or other suitably-shaped chamber, having the lower end provided with a flexible yielding edge or rim B. If preferred, the whole of the chamber may be made of flexible material, or it may be made of metal and have the flexible rim removably-attached thereto, so that it can be replaced and renewed at any time. This rim is adapted to fit upon the bottom of a sink or other receptacle C, from which the drain-pipe D leads.

The upper end of the cone is open and has attached to it a flexible tube E. This tube is provided with a coupling F at the opposite end, so that it can be connected with either the hot or cold water faucet above the sink, the pipe being of sufficient length for that purpose, when the device is to be used about a sink.

When used in connection with other discharge or drain pipes, the length of the pipe and the construction of the device may be modified to suit the place where it is to be used.

Within the chamber A, I have shown lugs G fixed upon opposite sides about midway between the top and bottom.

H is a receptacle having inclined sides cor-

responding in shape with the incline of the sides of the chamber A, and having the top and bottom of such length as to extend across the inner diameter of the chamber at the respective points opposite the top and bottom.

From the top lugs H' project outwardly, and these lugs are adapted to engage the lugs G on the inside of the chamber A.

The device may be introduced by inserting it so that it extends across the interior of the chamber between the fixed lugs G. It may be then turned until the lugs H engage the lugs G, when it will be locked in place.

The bottom of this device is perforated with holes or otherwise made foraminous, and the top may be left open.

This device is intended to receive any detergent—such as potash, soda, or other similar material—which may be introduced into it in solid form, and the device then fixed within the chamber A, as previously described.

When the apparatus is to be used, it is set with the flexible or elastic edge upon the bottom of the sink or other receptacle, from which the drain-pipe extends downwardly and surrounding the drain-pipe. The opposite end of the connecting tube or pipe is then attached to either the hot or cold water faucet, as may be desired.

The conical shape of the device enables the operator to conveniently grasp it with the hand and by a slight pressure to hold it down, so as to make a close joint with the sink-bottom and prevent the escape of water around the edges when water-pressure is applied.

When the pipe is badly clogged with grease or other similar substance, it is preferable to make connection with the hot-water pipe. The hot water is then turned on, lightly at first, and as the receptacle containing the potash or other substance is directly in line beneath the apex of the cone the water will be discharged in and upon the contents, dissolving and washing it out through the perforations, whence it passes into the drain-pipe, so as to act thoroughly upon any grease or accumulations which may be contained therein. As soon as this has been in operation for a time the water can be turned on with as much force or strength as desired, and pressure is brought upon the cone by the hand of the operator, the shape of the cone making



it easy to hold it down, so as to make a tight joint around its lower periphery. The water and alkali will then be forced through the drain-pipe with any desired degree of pressure and will cleanse it entirely, forcing out all the contents of the pipe and leaving it clean.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

10 1. A flushing apparatus, consisting of a conical chamber having a flexible rim fixed to the periphery of the larger open end, a pipe connecting the smaller open end of the cone with the water faucet, whereby water under  
15 pressure may be delivered into the cone, and a supplemental chamber or receiver within the cone adapted to contain a detergent substance within the line of flow of the water, said receiver having lugs adapted to engage  
20 with the interior of the cone whereby it is removably secured in position.

2. A flushing apparatus for drain pipes,

consisting of a hollow cone, open at both ends, a tube secured to the open apex of the cone having a coupling by which it may be connected with a water faucet, a flexible elastic rim removably fixed to the open base of the cone, adapted to fit the surface around the mouth of the drain pipe, lugs fixed within the cone, an open-topped receiver having a perforated or foraminous bottom and adapted to contain a detergent substance, lugs projecting from said receiver so as to engage the fixed lugs within the cone whereby the receiver and its contents are fixed in the line of discharge from the upper end of the cone.

In witness whereof we have hereunto set our hands.

FRANCESCO CAVALLARO.  
JOSEPH N. STURM.

Witnesses:

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E. R. SMITH.