

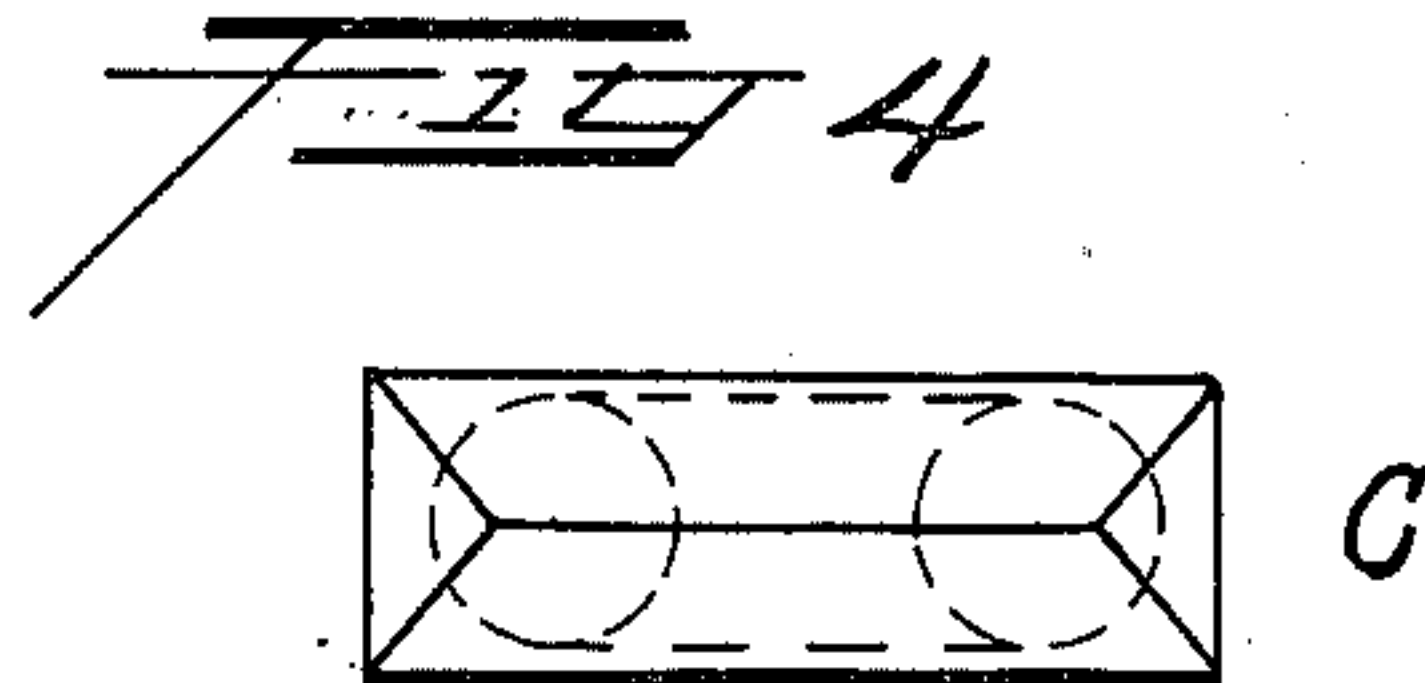
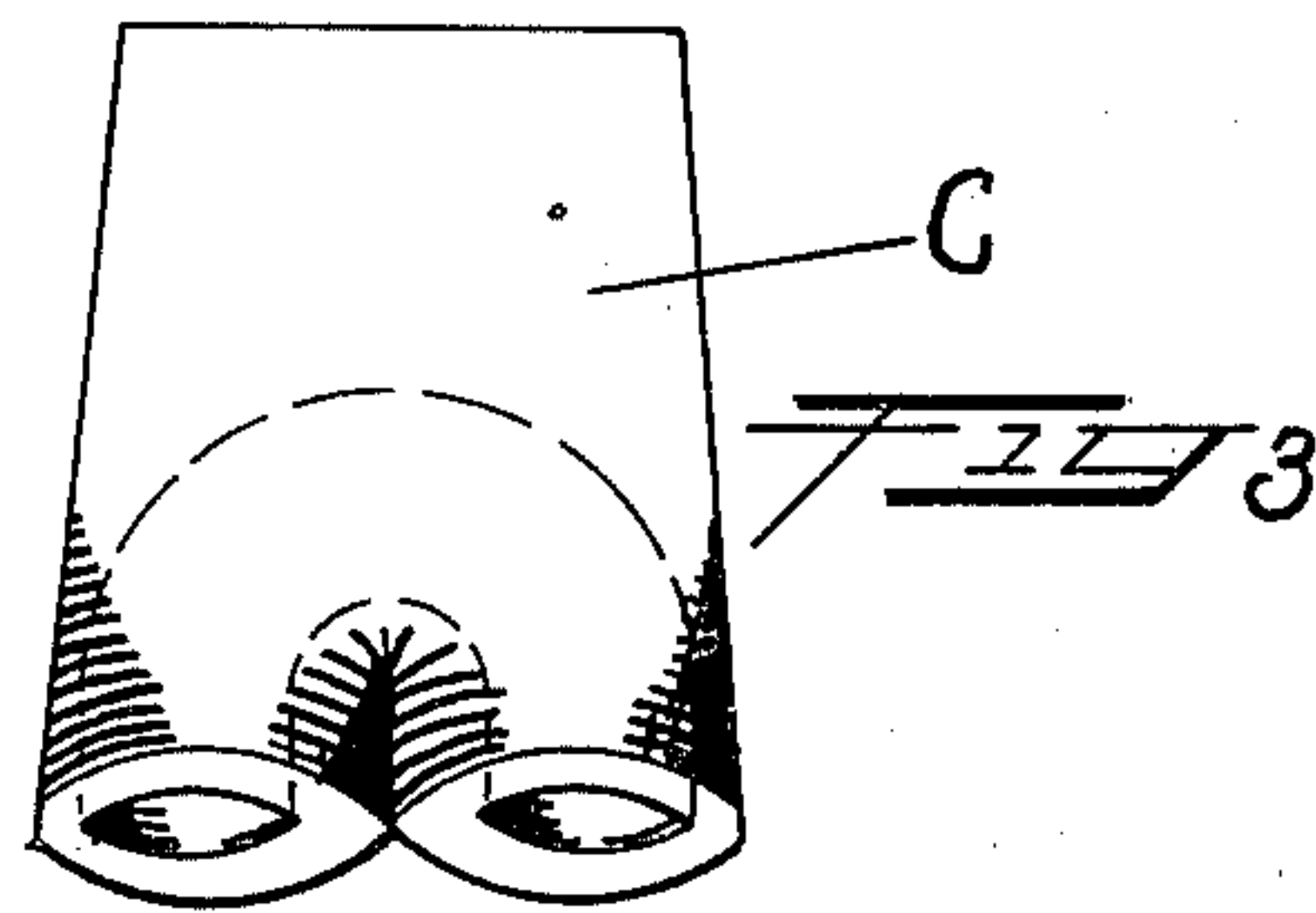
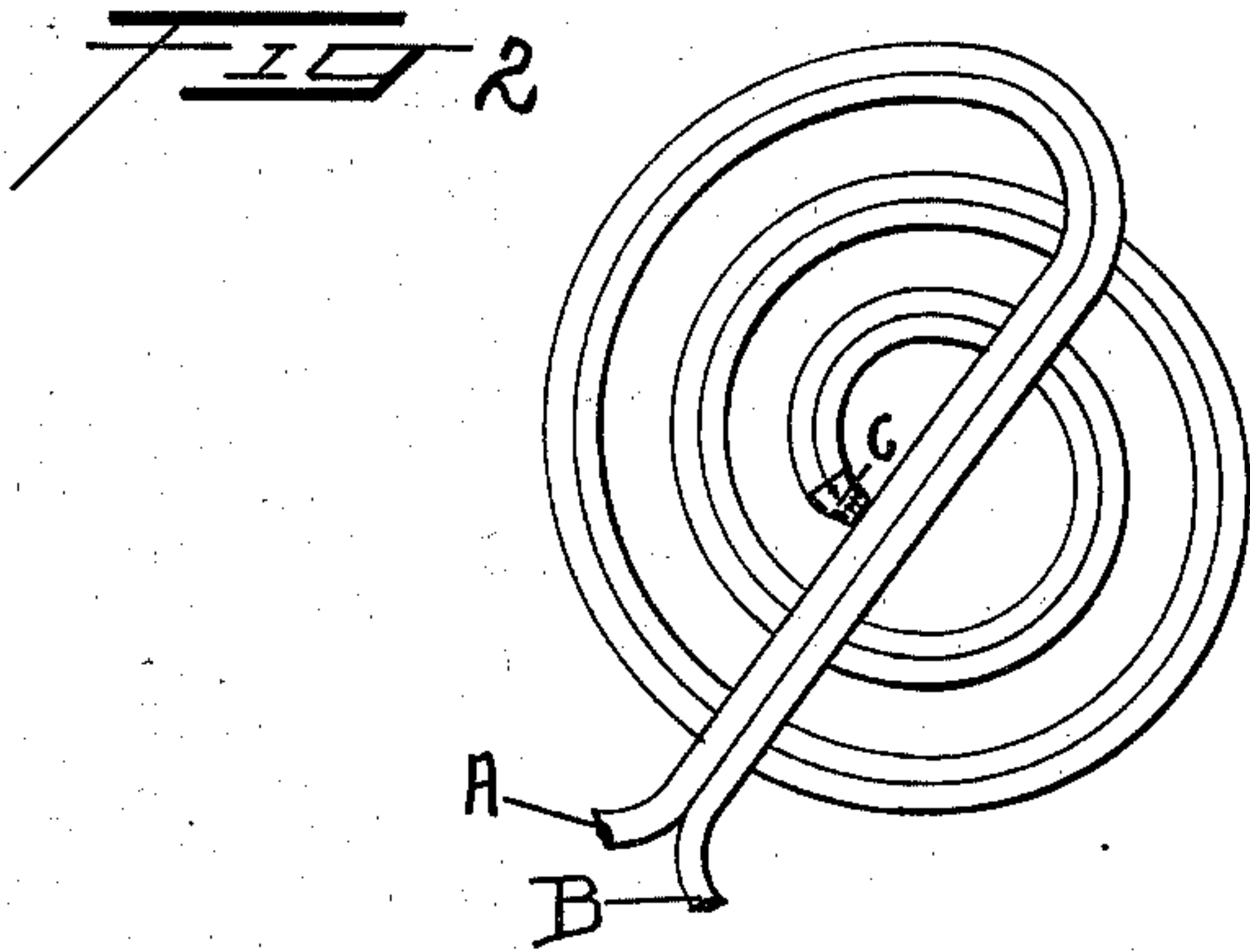
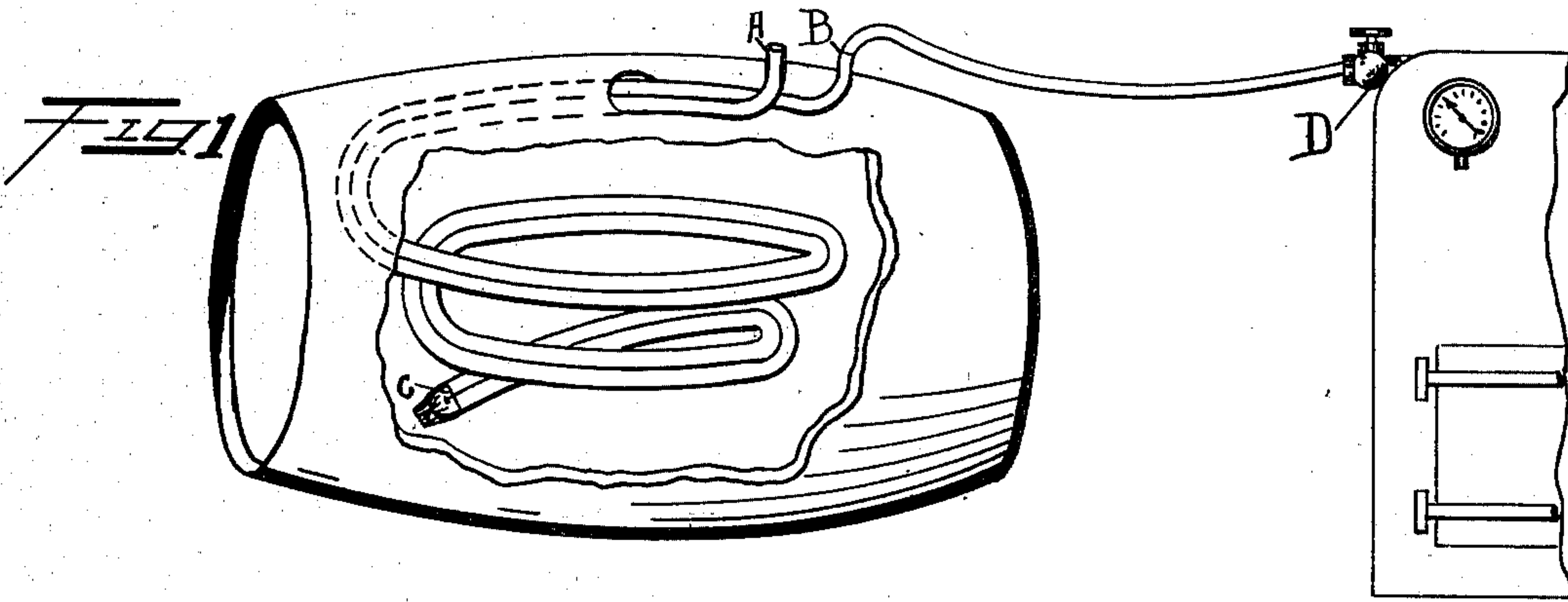
No. 731,580.

PATENTED JUNE 23, 1903.

A. & H. LEIBOLD.
HEATING DEVICE.

APPLICATION FILED AUG. 15, 1902.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ADAM LEIBOLD AND HENRY LEIBOLD, OF NEW YORK, N. Y.

HEATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 731,580, dated June 23, 1903.

Application filed August 15, 1902. Serial No. 119,715. (No model.)

To all whom it may concern:

Be it known that we, ADAM LEIBOLD and HENRY LEIBOLD, citizens of the United States, and residents of New York, in the county and State of New York, have invented certain new and useful Improvements in Heating Devices, of which the following is a specification.

This invention relates to devices for heating congealed substances in vessels for the purpose of liquefying them. It has for its object to provide a suitable mechanism whereby congealed liquids may be liquefied in the vessel which may contain them without the necessity of heating the vessel, removing the substance therefrom, or the use of hot rooms. The last-named method is the most popular in use with dealers in liquids that are apt to solidify through subjection to cold, such as glucose, molasses, oils, tallow, and greases of all descriptions. Among the users of these things perhaps the most popular method of extracting congealed or partially-congealed liquids from their vessels is to open the vessel and take out what appears to be enough for their immediate use. Then place it on a stove or apply heat to it in any other suitable manner. In machine-shops this practice is common, especially in cold weather, when congelation is an every-night occurrence; but the disadvantages of this practice and even the dangers of it will soon be apparent. Suppose we were to remove the head of a barrel of congealed cylinder-oil for the purpose of extracting a quantity to use in the cylinder of an engine. Perhaps in one case out of a hundred the head of a barrel is removed without permitting some dirt or grit to fall into the substance contained therein, and when this foreign matter has entered it involves extra time and labor on the part of a mechanic to strain it or clean it in some other suitable manner, thus becoming expensive because of the time and oil wasted. The act of heating this material in a receptacle placed upon a stove, which, in fact, is the only quick way, is not tolerated by some of the best insurance companies, as the danger of fire is greatly increased by such practices. Still another popular method—one that is quite as dangerous as the last mentioned—is to subject the vessels containing the matter to be liquefied to

an external heat, such as placing them near a fierce fire. The danger of this method is that of explosions, the only advantage being that it offers no chance for the admission of dirt. All of these methods are expensive, slow, and by no means unique, so our object has been to provide a device for accomplishing the objective ends of these methods in a cheaper, quicker, and safer manner.

We request attention to the drawings, in which—

Figure 1 represents our invention placed into a barrel containing congealed matter and showing connections to a boiler or other suitable means for introducing heat thereto. Fig. 2 sets forth a top view of our invention, partly in section, illustrating the construction of the device. Figs. 3 and 4 illustrate a feature of our invention in that they show the construction of the entering portion, which, it will be observed, is of a pointed structure, so that an entrance into matter in an advanced state of congelation will be more readily effected.

Now a brief inspection of the drawings will show that our invention consists of a couple of tubes placed side by side, coiled in a suitable manner, and provided with a U-coupling at their entering ends, so that a clear passage is made by entering one of the mouths A or B and passing around the coils through the U-coupling C, and back through the other pipe. In the preferred form of construction we have chosen to coil our pipe spirally.

The manner in which we employ our invention is as follows: Assuming that we have a barrel containing any of the previously-named substances, which we desire to draw off. We first remove the bung of the barrel, and inserting the pointed end of the device proceed to screw said device into the congealed matter. This done, we couple one of the mouths A or B to a pipe leading from a boiler or other suitable arrangement. When this coupling has been effected, a valve D is opened, and steam is permitted to course through the coils of the pipe, around the U-coupling, back through the opposite pipe, and off through the mouth thereof to a convenient outlet. This is the entire operation, with, of course, the exception of removing the heater from the barrel again.

Practice shows us that inside of three minutes a barrel of thoroughly-congealed matter can be brought to a desired liquid state, provided enough heat is supplied, and it is evident that this method is practical, thorough, and cheap, without embodying any of the dangerous elements described in the foregoing.

We do not desire to be understood as limiting ourselves to the precise form of construction and arrangement described and shown, but reserve the right to alter the same in adapting our improvement, to the varying conditions of practice without departing from the spirit of the invention or the scope of the following claim.

Having thus described our invention, we

claim and desire to secure by Letters Patent in a device of the nature described—

In heating devices, the combination with a number of pipes coiled spirally, of a member having a sharp outer edge, secured to the point of said spirally-coiled pipes to provide a means for more readily entering congealed material, as herein shown and described.

In testimony whereof we have signed our names in the presence of the subscribing witnesses.

ADAM LEIBOLD.
HENRY LEIBOLD.

Witnesses:

EDW. L. WATERBURY,
FRANCIS H. SCANTLEBURY.