

A. WATERCK.  
STERILIZING APPARATUS.

(Application filed Aug. 2, 1901.)

(No Model.)

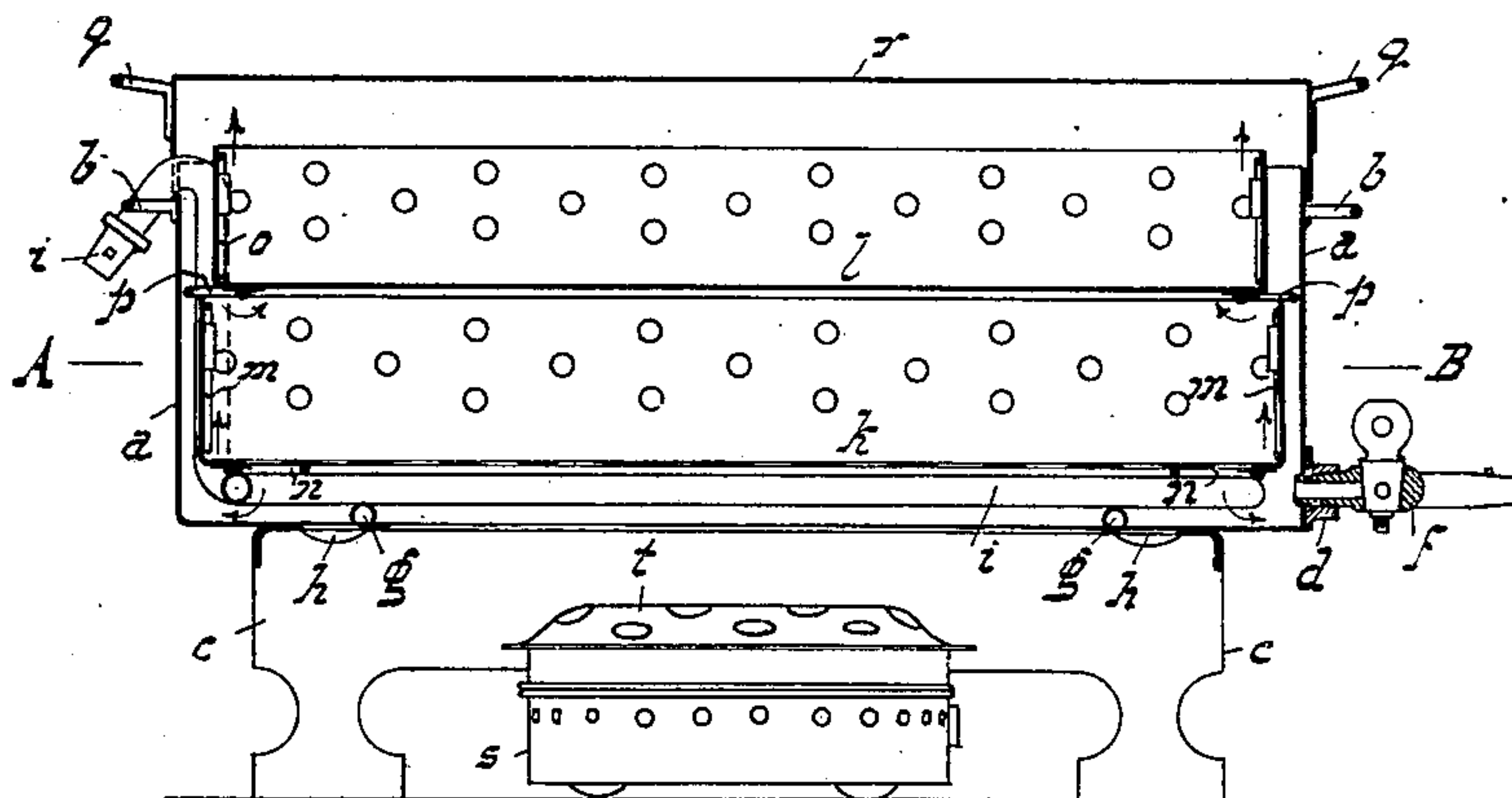


Fig. 1.

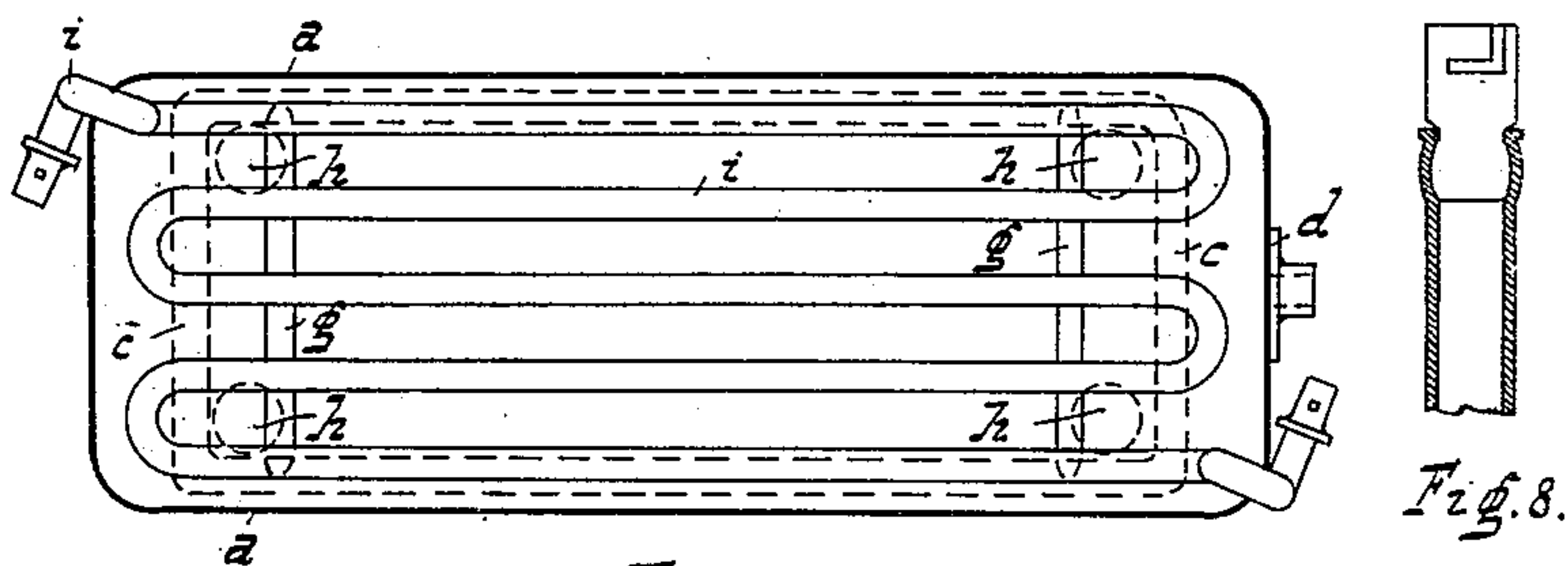


Fig. 2.

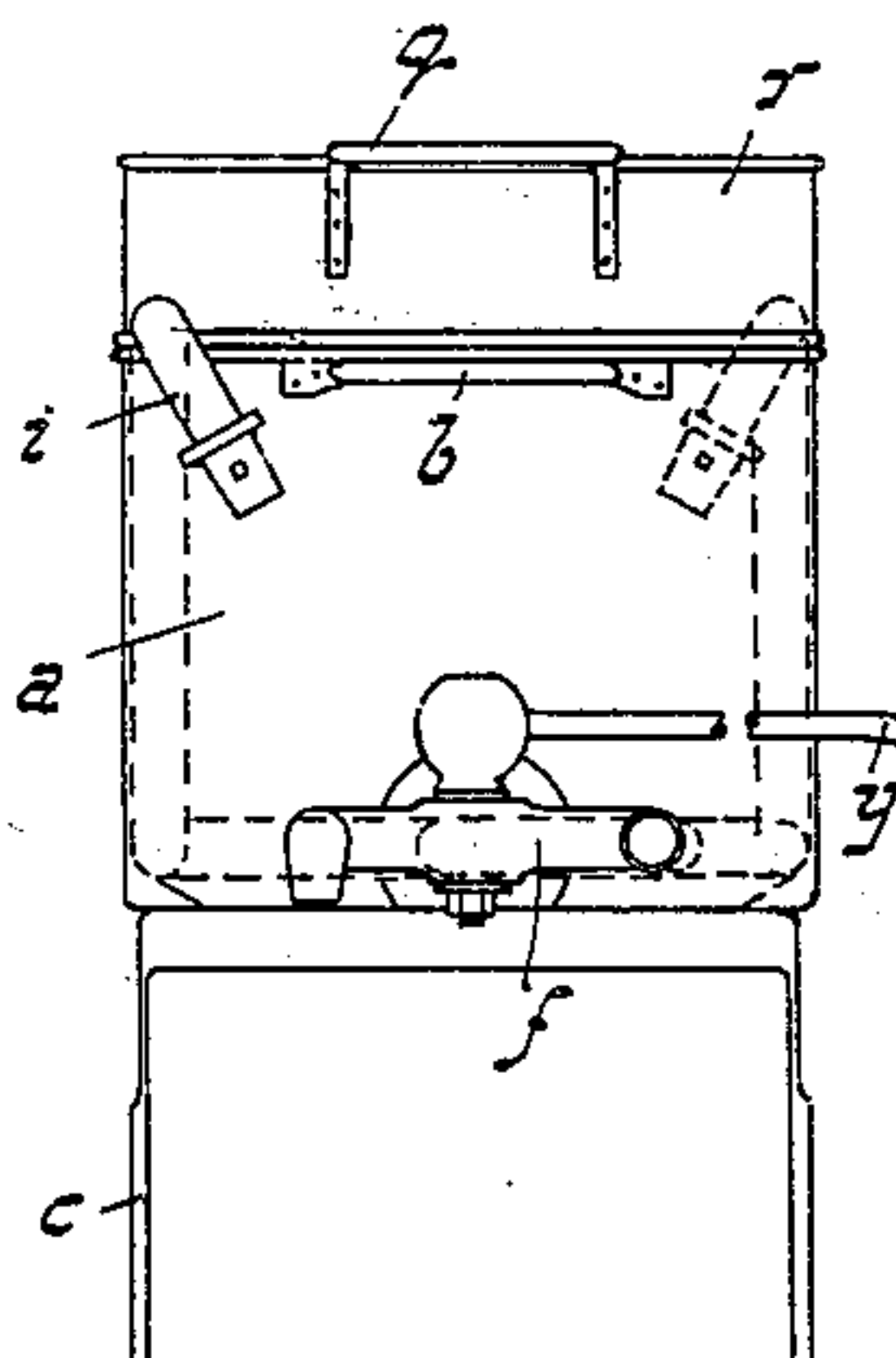


Fig. 3.

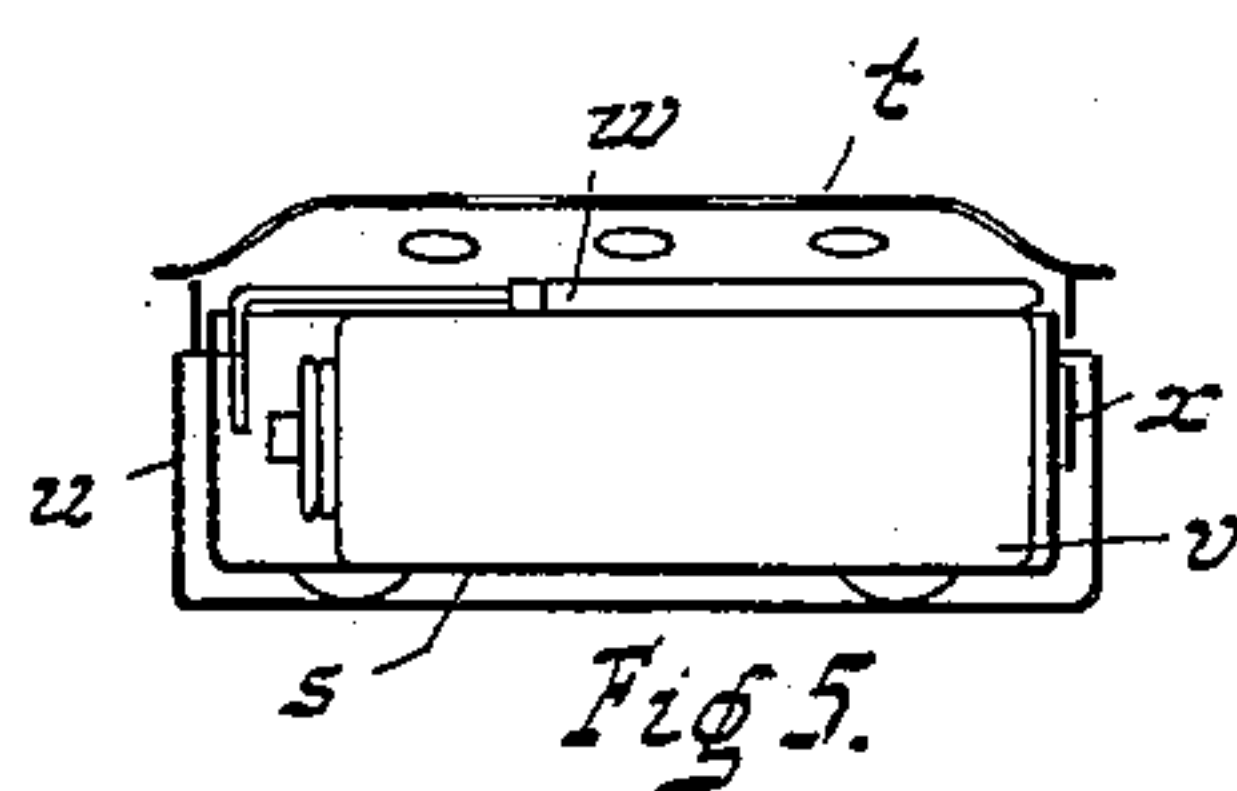


Fig. 5.

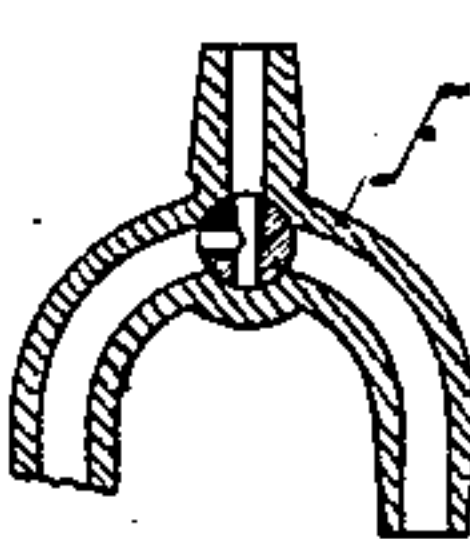


Fig. 7.

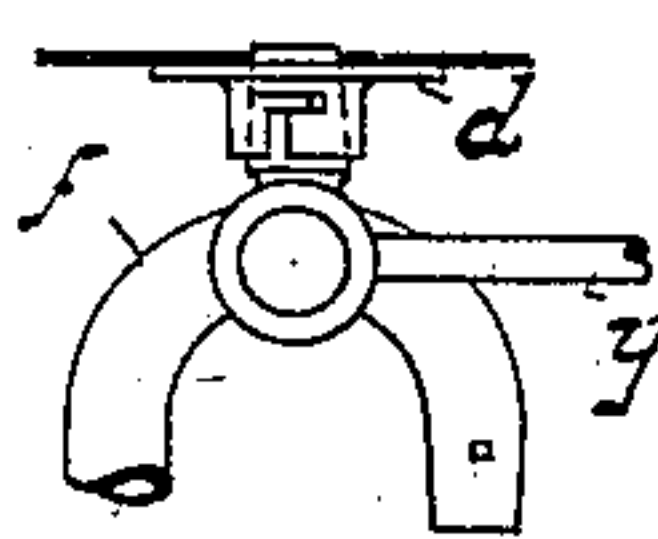


Fig. 6.

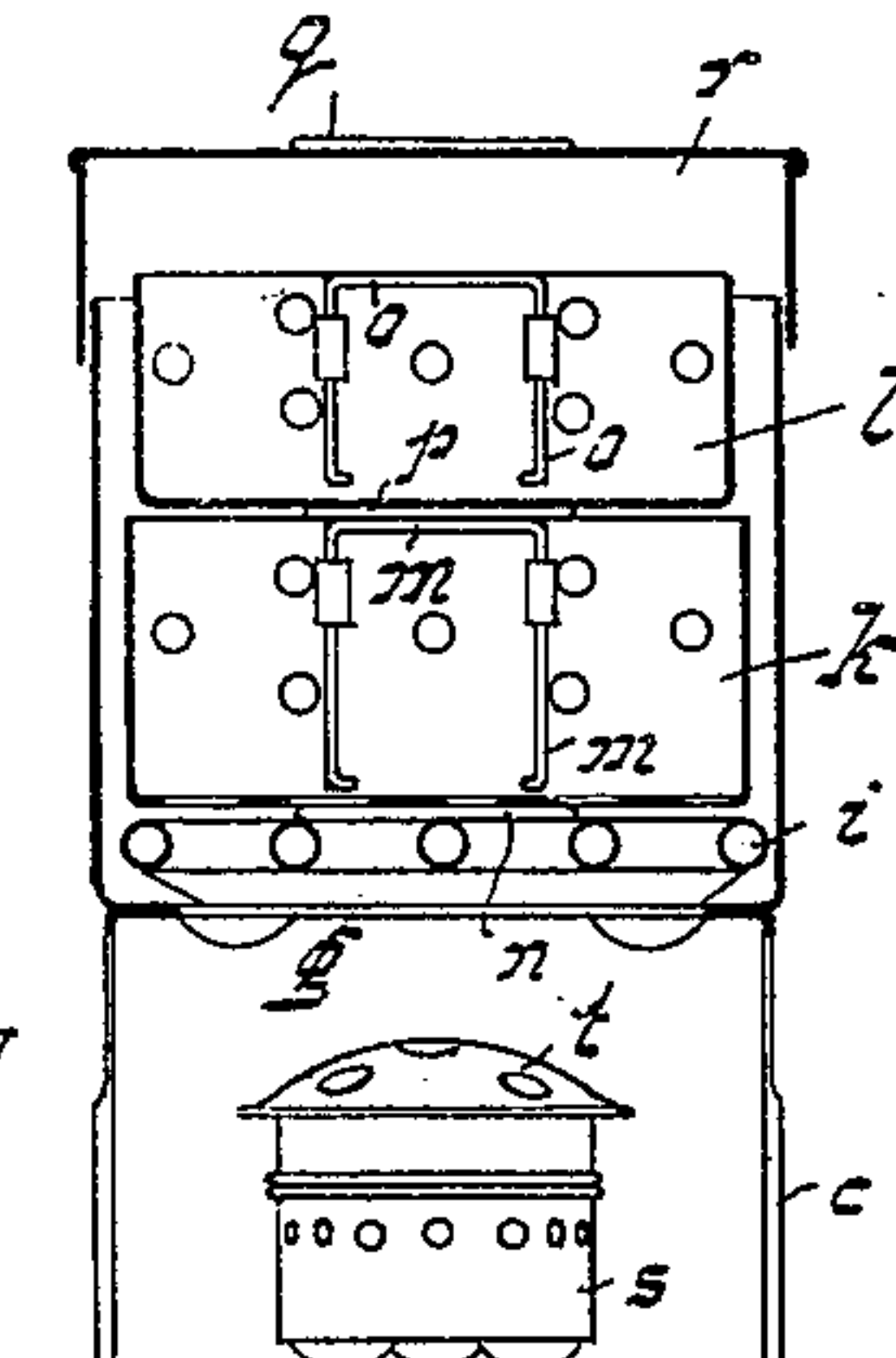


Fig. 4.

Inventor

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Witnesses

*C. B. Hunt*  
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# UNITED STATES PATENT OFFICE.

ADOLF WATORCK, OF LEMBERG, AUSTRIA-HUNGARY.

## STERILIZING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 712,746, dated November 4, 1902.

Application filed August 2, 1901. Serial No. 70,662. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLF WATORCK, a subject of the Emperor of Austria-Hungary, residing at Lemberg, Galicia, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Transportable Apparatus for Operative Asepsis, of which the following is a specification.

The object of the present invention is a sterilizing apparatus for surgical instruments and dressings which can be employed as an aseptic irrigator. When packed for transport, it contains all the necessary instruments and utensils for operating and sterilizing purposes, so that it entirely replaces an instrument-case, and, owing to its light construction, can also be carried about for small operations.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of apparatus embodying my invention, with the parts assembled for sterilizing operations to be begun. Fig. 2 is a plan view of the apparatus with the cover and basins removed. Fig. 3 is an end elevation of the apparatus, taken from the front. Fig. 4 is a transverse section of the apparatus. Fig. 5 is a longitudinal sectional view through the lamp ready packed for transportation. Fig. 6 is a plan view of the cock. Fig. 7 is a sectional detail view of the cock. Fig. 8 is a detail view showing means for affixing a rubber tube to the ends of the cooler.

The apparatus consists of a tin-plate vessel *a*, which is provided with handles *q* and is placed on a tin-plate stand *c*. Four knobs *h* on the bottom of the vessel serve to hold the apparatus in an immovable position on the stand. There is also on the tin vessel a projection *d*, into which is fixed a three-way cock *f*. The cock has a pin which engages in the rectangular slot of the said projection, and thereby secures the cock in its place.

A tubular refrigerator *i* passes into the tin vessel *a*, the coils of which are connected with each other crosswise and made rigid by means of two tubes *g*, whereby, moreover, a space is formed between the refrigerator-coil *i* and the bottom of the tin vessel. In order to pass cold water in or out, rubber tubes are placed in the same manner as on the cock on the two

outlets of the tubular refrigerator *i*, which tubes project at the upper corners of the apparatus.

In the apparatus are arranged one over the other two small basins *k* and *l*. These are placed on the tubular refrigerator, and the lower one, *k*, is provided on its sides and bottom with holes through which a sterilizing liquid can flow into the basin. Two movable handles *m* are soldered internally to the lower basin, and on the bottom are soldered two similar supports *n* to the handles, which can be folded flat against the bottom. The smaller basin *l* is similarly provided with handles *o* and supports *p*. This smaller basin has holes on its sides through which the sterilizing-steam can pass; but its bottom is not perforated in order to prevent the inflow of boiling water from the lower basin, so that the dressings are thus sterilized dry.

The whole apparatus is covered with an easily-fitting lid *r*, provided with a handle.

The spirit-lamp consists of a tin box *s*, provided with small side holes, a cover *t* with larger holes, and a lid *u* for extinguishing the flame. The number and size of the holes in the tin box *s* and the cover *t* are suitably chosen, so that sufficient air can enter, that no smoke is produced, and consequently an intense heat obtained. If the apparatus is to be transported, the spirit-container *v* and the support *w*, the bent end of which fits into a strip of tin *x*, soldered to the tin box, are placed in the spirit-lamp *s*.

The discharge-cock *f* is an ordinary three-way cock suitably modified, on which is placed a tolerably long handle *y* in order to be able to operate it easily.

If the apparatus is to be arranged for transport, the stand *c* is first placed in the tin vessel *a*, then the rubber tubes, the tubular refrigerator *i*, the lower basin *k*, the tap *f*, the surgical instruments, and, finally, on these latter the upper and smaller basin *l*, the dressings, and the spirit-lamp *s*, the whole being then covered with the lid *r*.

In case of an operation the apparatus is used as follows: When the apparatus has been put together but before the smaller basin *l* has been inserted, as much sterilizing liquid is poured in as will completely cover all the instruments in the basin *k*. In the



smaller basin *l*, on the other hand, are placed the dressings, and then the apparatus is covered with the lid *r*, the spirit-lamp placed under the center of the apparatus, and the spirit ignited. After about fifteen minutes have elapsed, during which the instruments have been sterilized in boiling liquid and the dressings in steam, the spirit-lamp is removed, the flame extinguished, and a rubber tube placed on each of the mouths of the tubular refrigerator *i*. An end of one of the rubber tubes is immersed in a vessel of cold water and is aspirated at the end of the other tube, and consequently cold water flows through the tubular refrigerator. After about five minutes have elapsed the necessary cooling of the liquid in the apparatus is completed. The apparatus is now placed on a table close to the place of operation and a rubber tube provided with a discharge-pipe is fixed on the tap *f*, the smaller basin *l* is taken out and placed near by, and either a wash hand-basin or the lid put under the tap *f*. If the tap is turned to the left, the sterilizing-liquid will flow out and the doctor can wash his hands. Afterward he turns the tap to the right with his elbow, so that the hand does not come in contact with any unsterilized part, and sprinkles the operating-table, after which the surgical operation is performed.

It will be obvious from the above description that the apparatus can serve as an aseptic wash hand-basin, aseptic irrigator and

sterilizing apparatus for instruments and dressings, besides replacing the instrument and dressing-case.

I claim—

1. A transportable apparatus for operative asepsis comprising essentially, a vessel, a removable refrigerator-coil within the same and arranged with its open ends projecting outside said vessel and adapted for the affixing of flexible tubes, two basins within the vessel on top of the refrigerator, the lower one of said basins having holes in its bottom and sides and adapted for the sterilization of instruments, while the upper basin is provided with holes in its sides and adapted for the sterilization of dressings, substantially as described.

2. A transportable sterilizing apparatus comprising essentially a vessel provided with a refrigerator-coil, a cock for withdrawing the liquid from the vessel, removably attached thereto, removable basins within the vessel, a lamp for heating the vessel, and a stand, all of which parts being of such size and shape that they may be placed within the vessel for transportation, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLF WATORCK.

Witnesses:

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ALVESTO S. HOGUE.