

No. 791,490.

PATENTED JUNE 6, 1905.

J. PARMENTIER.
STERILIZER FOR SURGICAL INSTRUMENTS.

APPLICATION FILED NOV. 28, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

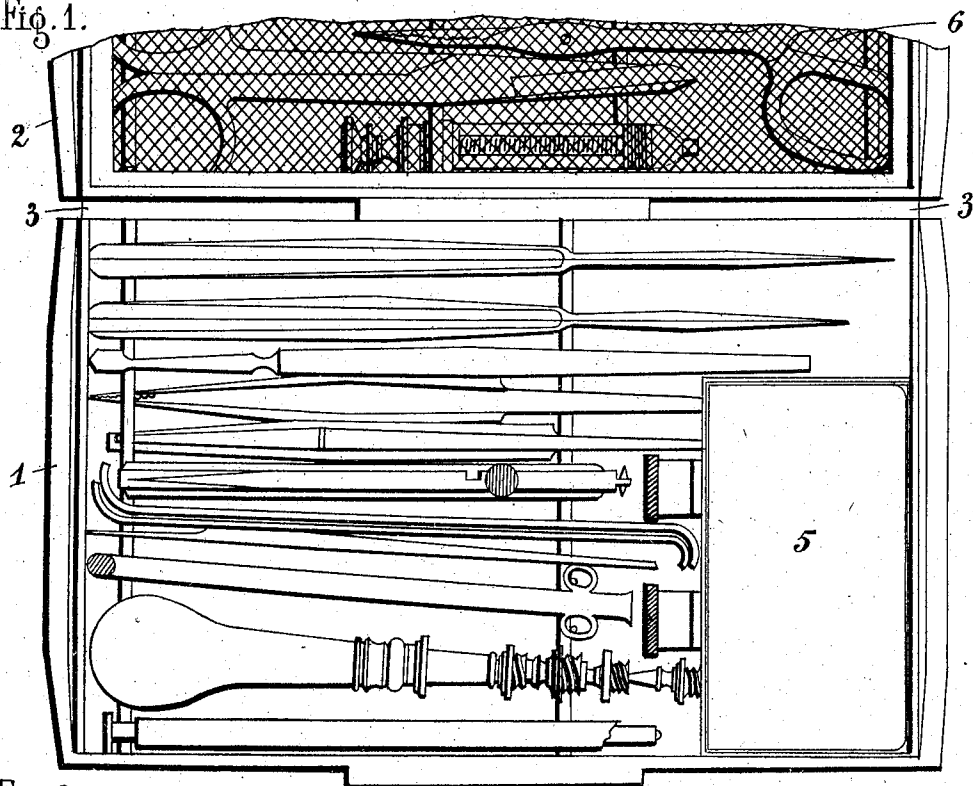
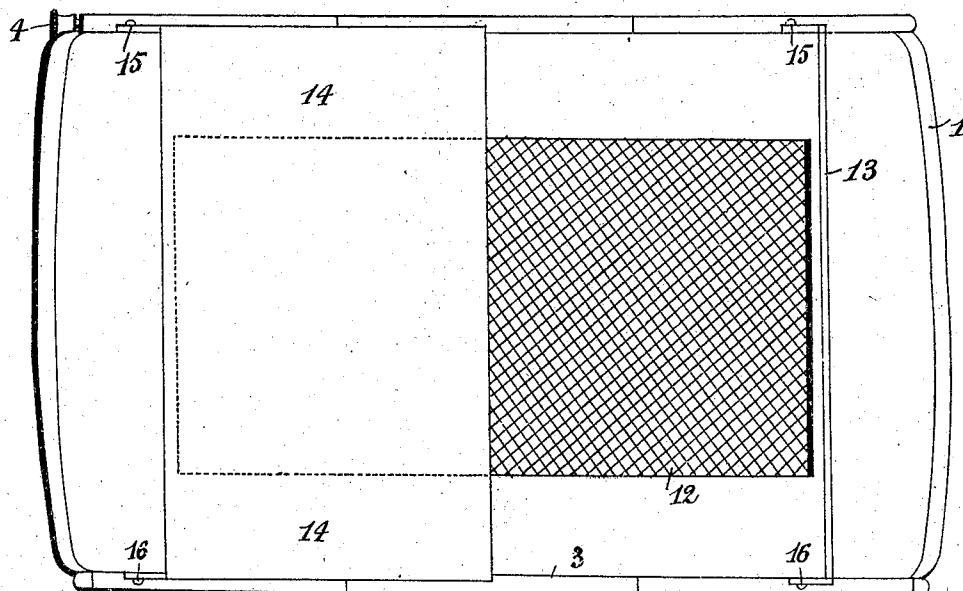


Fig. 2.



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2 SHEETS—SHEET 2.

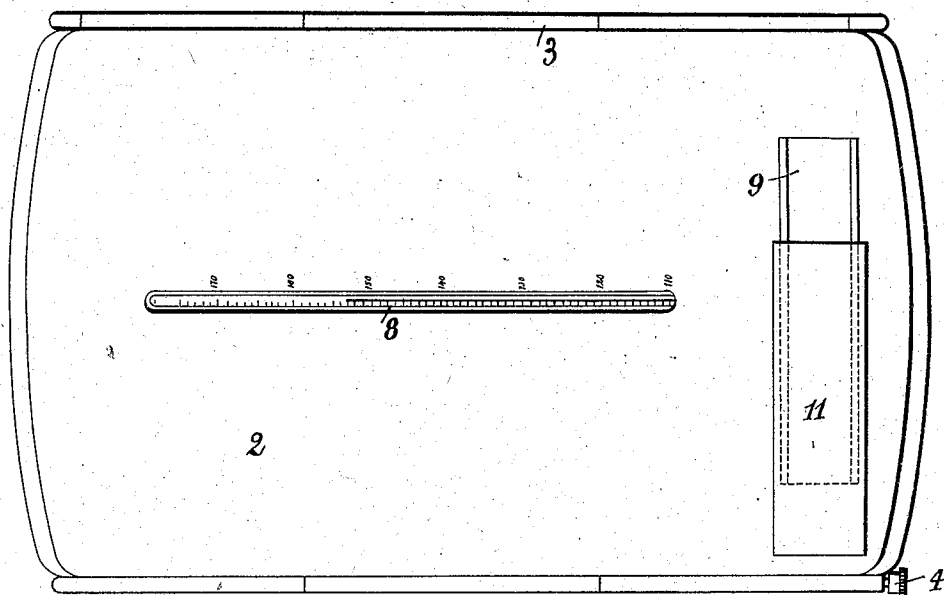


Fig. 3.

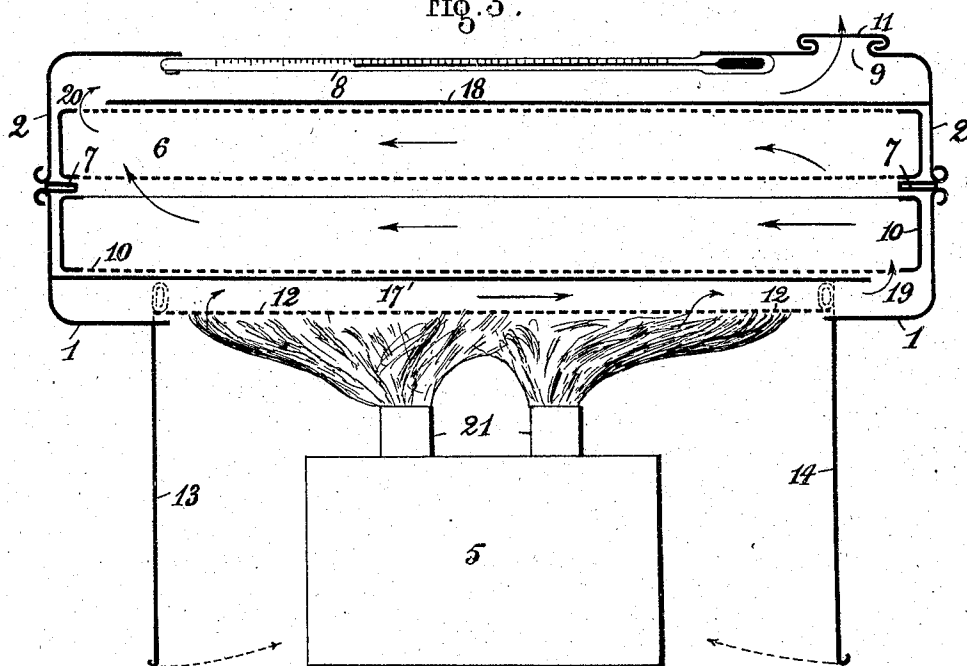


Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

JEAN PARMENTIER, OF PARIS, FRANCE.

STERILIZER FOR SURGICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 791,490, dated June 6, 1905.

Application filed November 28, 1904. Serial No. 234,669.

To all whom it may concern:

Be it known that I, JEAN PARMENTIER, a citizen of the French Republic, residing at 9 Rue Sainte-Beuve, Paris, France, have invented certain new and useful Improvements in Cases for Holding and Sterilizing Surgical Instruments; 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.

This invention relates to a case provided with a heating device which is intended to serve as a receptacle for keeping and sterilizing surgical instruments and with which the sterilizing can be effected by means of a current of dry hot air even during the surgical operation.

In the accompanying drawings, Figure 1 is a plan of the open case with the instruments placed therein. Fig. 2 is a plan of the bottom of the case as shut; Fig. 3, a plan of the top of a case; Fig. 4, a section through the case during the sterilizing operation.

This case is made of metal, preferably aluminium, and consists substantially of two parts—a bottom 1 and a top 2, which serves as a cover. These two parts are joined together on one side by a hinge 3 and on the other by a bolt-locking device 4. The part 1 is formed so as to receive a wire-gauze receptacle 10, containing a certain number of surgical instruments and a small spirit-lamp 5. In the part 2 is a wire-gauze receptacle 6, containing other instruments. The case thus contains all the instruments necessary for a surgical operation. The receptacle 6 is kept in place by the small movable pins 7. The cover 2 is provided with a thermometer 8, graduated from 110° to 180° centigrade and visible from the outside when the case is shut. This cover is, moreover, formed with an opening 9 for the outlet of the hot air and can be regulated by means of the slide 11, Figs. 3 and 4.

In the bottom 1 is a large opening covered on the inside by wire-gauze 12 and on the outside by movable plates 13 and 14. These plates, which are hinged to the side of the case at 15 and 16, Fig. 2, can be varied so as to take the position indicated in Fig. 4 and to serve as a

support for the case. In Fig. 2 the plate 13 is supposed to be raised, while the plate 14 is turned down on the case. In the part 1 is a metal partition 17, Fig. 4, on which the receptacle 10 rests, and in the part 2 is a partition 18, on which the receptacle 6 rests when the case is opened. These two partitions do not extend over the whole length of the case, but leave two air-passages 19 and 20 at opposite ends.

The employment of the case is easily understood. After the spirit-lamp has been removed therefrom the case is shut by means of the bolt 4. The plates 13 and 14 are then raised, and thus serve to support the case, Fig. 4. The opening 11 is then adjusted by means of the register 11 and the lamp lighted, the burners of this lamp being likewise regulated by any known device. By observing the thermometer 8 and adjusting the register 11 and the burners 21 a temperature of 150° to 170° can be easily maintained in the interior of the case during the whole of the time required for sterilizing the instruments. This sterilizing operation is effected by the current of dry hot air which passes through the case in the direction of the arrows in Fig. 4. Above the metal part 12, which arrests the flame of the spirit-lamp 5, the hot air meets the partition 17, passes through the opening 19, flows entirely through the receptacles 10 and 6, and finally passes out through the adjustable opening 9. This current of air thus passes through the whole length of the case and so as to reach all parts thereof, which are thus frequently sterilized. When the receptacles 6 and 10 with the instruments contained therein are withdrawn, a heated space is left, which may be employed for sterilizing other instruments, dressings, &c.

It is obvious that the composition of the instruments belonging to the case may vary.

What I claim, and desire to secure by Letters Patent, is—

1. A case for holding and sterilizing surgical instruments, comprising a lower main part provided in the bottom with a gauze-covered opening arranged to admit heat to the case, an upper part provided with an adjustable outlet, hinged plates arranged to cover

the opening in the bottom of the case but capable of being turned down to expose said opening and to act as supports for the case, a spirit-lamp adapted to be placed under the
5 said gauze-covered opening in the bottom of the case, removable wire-gauze receptacles supported in the case and adapted to hold the instruments, and partitions adapted to conduct the air heated by the lamp through the
10 case and the said wire-gauze receptacles supported therein.

2. In a case for holding and sterilizing surgical instruments, the combination with a lower main part provided in the bottom with
15 a gauze-covered opening arranged to admit heat to the case and an upper part provided with an adjustable outlet and connected to said lower part by a hinge, of a thermometer inserted in the said upper part, hinged plates

arranged to cover the opening in the bottom 20 of the case but capable of being turned down to expose said opening and to act as supports for the case, a spirit-lamp adapted to be placed under the said gauze-covered opening in the bottom of the case, but contained in the case 25 when not in use, removable wire-gauze receptacles supported in the case and adapted to hold the instruments, and partitions in the case adapted to conduct the air heated by the lamp through the case and the said wire-gauze 30 receptacles supported therein, till it passes out at the adjustable outlet in the upper part.

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

JEAN PARMENTIER.

Witnesses:

CHARLES FABER,

HENRI GUBY.