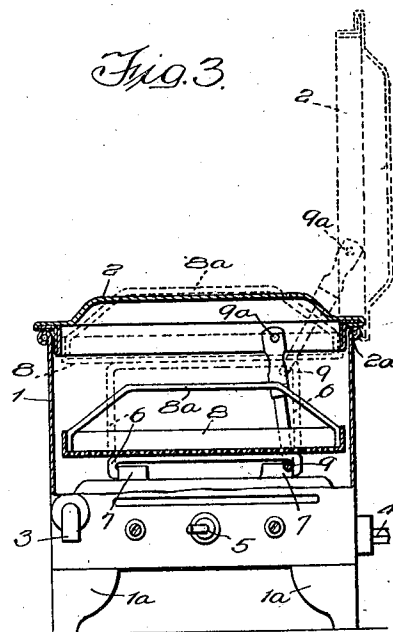
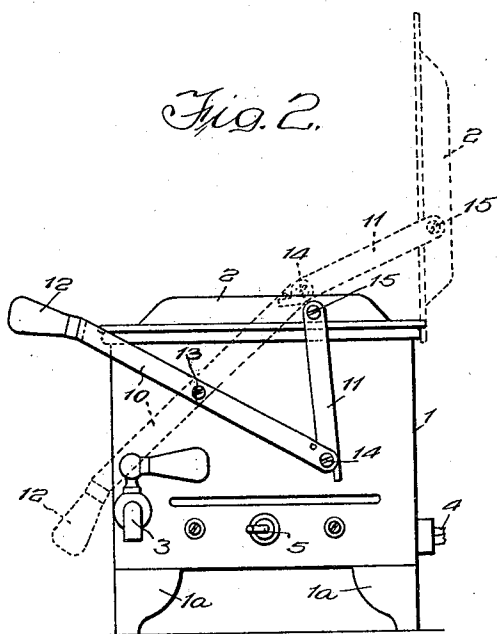
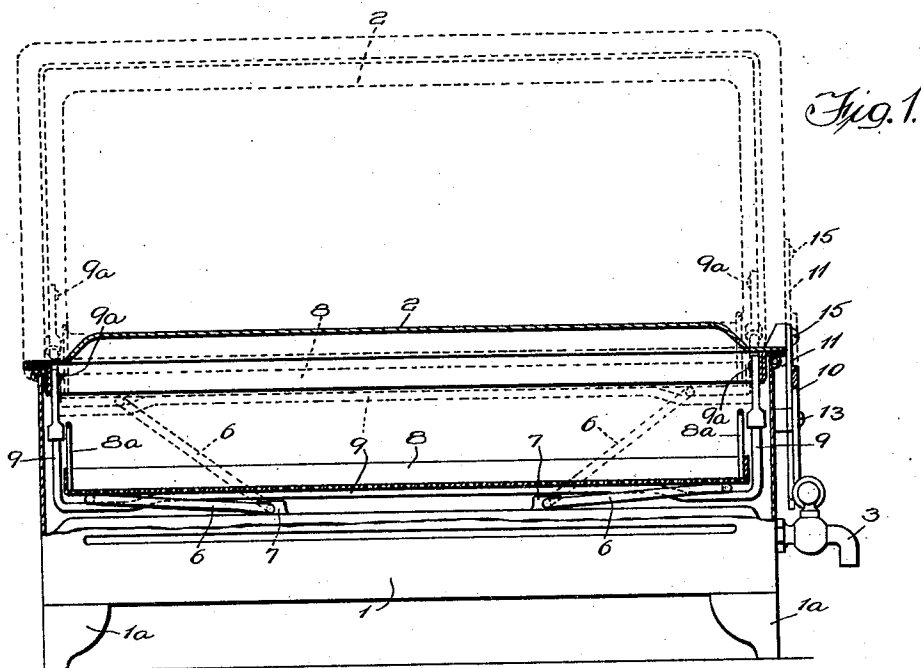


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F. S. WEBER
STERILIZER

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UNITED STATES PATENT OFFICE.

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STERILIZER.

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This invention relates to tray elevating mechanism for instrument sterilizing containers.

The main objects of this invention are to provide simple and effective means for elevating instrument trays within a sterilizing container; to provide such means whereby the tray may be readily removed from the container when desired; to provide tray supporting means operatively connected with the cover whereby the tray is immersed in the sterilizing medium when the cover is closed and elevated when the cover is opened; and, to provide means for supporting the tray in a substantially horizontal position at all times during its vertical movement within the container.

An illustrative embodiment of the invention is shown in the accompanying drawings, wherein:—

Fig. 1 is a front elevation of a sterilizing container partly in section showing the tray elevating mechanism in heavy lines in its immersed position and in dotted lines in its elevated position.

Fig. 2 is an end elevation showing the lever mechanism for lifting and lowering the hinged cover of the container, the cover in its lifted position and the lifting lever mechanism being shown in dotted lines.

Fig. 3 is an end elevation of the container, partly in section, showing the tray in heavy lines, in its immersed position, and showing the tray in dotted lines, in its elevated position.

The tray elevating mechanism comprises a pair of U-shaped tray supporting bails, whose ends are hinged on the floor of the container, and a lifting yoke pivotally depending from the hinged cover of the container, which passes through the tray supporting bails so as to lift them when the cover is raised. Means for lifting and lowering the cover comprise a manually operable lever pivotally connected, intermediate its ends, to the side of the container, which has a link connecting one end thereof to the cover. The tray is lifted or immersed during the lifting or lowering movement of the cover through the medium of the pivotally depending yoke which raises or lowers the tray supporting bails.

In the construction shown in the drawings a rectangular shaped container or tank 1

which serves as a receptacle for a sterilizing medium is supported at its four corners by legs 1^a. The top of the tank is provided with a cover 2 hinged at 2^a to the upper edge of one of the longer sides of the tank.

The cover 2 is raised and lowered by means of a manually operable lever 10 pivotally connected intermediate its ends to one end of the container at 13. One end of the lever 10 is provided with a handle 12 suitably secured thereto, and the other end of the lever is pivotally connected to one end of a link 11, the other end of which is pivotally connected to the hinged cover 2 at 15. Means are provided for draining the sterilizing medium out of the tank, and comprise a pet cock 3 mounted at one end of the tank adjacent the floor thereof.

An electric heating element (not shown) is located below the floor of the container for heating the sterilizing medium. Current is conducted to the heating element through the wires 4. A manually operable switch 5, located at one end of the tank, near the lower edge thereof, is provided for controlling the current to the heating element.

A rectangular shaped, perforated, shallow tray 8 of a size that will loosely fit within the side walls of the sterilizing tank 1 is provided for carrying surgical or dental instruments, or the like, which are to be sterilized. Handles 8^a are provided at each end of the tray for manually lifting the tray from the container when it is desired to clean out the tank, or for other similar purposes.

Automatic means are provided for elevating or lowering the tray, keeping it at all times in a horizontal plane when the hinged cover 2 is raised and lowered, and comprise a pair of U-shaped tray supporting bails 6 hinged on a fixed pivot at 7 to the floor of the container, one at each end thereof. The medial supporting portion of each bail is straight and horizontal, so as to keep the tray in a horizontal position at all times.

A lifting yoke 9 of elongated, U-shape is hinged at 9^a to the under side of the cover 2 at the opposite ends thereof, and passes through the loops of the bails 6 in such manner that when the cover 2 is closed on the tank, the bails 6 will rest substantially on the floor of the sterilizer.

When the cover 2 is raised, as shown in

dotted outline, the bails 6 will be raised sufficiently to lift the instrument tray out of the sterilizing medium. When the cover is again closed the instrument tray and bails 6 will return by gravity to the lowered, or immersed position. It will be observed that the instrument tray is not connected to the operating or elevating mechanism, and that it may be readily removed from the sterilizer by grasping the handles 8^a and lifting it out.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted, without departing from the spirit of this invention, as defined by the following claims.

I claim:

1. A device of the class described comprising a tank having a floor and side walls, a cover for said tank hinged to one of said side walls, a tray adapted to snugly fit within said side walls, a member at each end of said tank hinged adjacent the floor of said tank for supporting said tray in a horizontal position, said members being hinged on parallel axes transversely to the axis of said hinged cover, and means on said cover for

swinging said supporting means to elevate said tray vertically.

2. A device of the class described comprising a tank having a floor and side walls, a cover for said tank hinged to one of said side walls, a tray adapted to fit snugly within said side walls, a pair of U-shaped bails hinged at their ends adjacent the floor of said tank for supporting said tray on the medial portions thereof in a horizontal position, and a depending yoke pivoted on said cover and passing through said bails for swinging said bails upwardly when said cover is raised.

3. In a tray elevating mechanism for a tank having a hinged cover, a pair of U-shaped tray supporting members pivotally mounted on parallel axes transverse to the axis of said hinged cover, said supporting members being pivotally mounted within the tank on the floor thereof, and means pivotally depending from the cover operatively connected with the tray supporting members for elevating the tray vertically when the cover is lifted.

Signed at Chicago this tenth day of March, 1927.

FRANK S. WEBER.