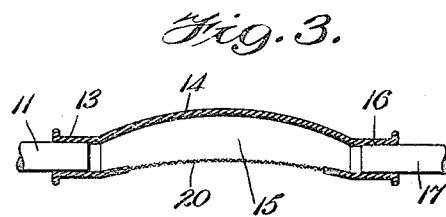
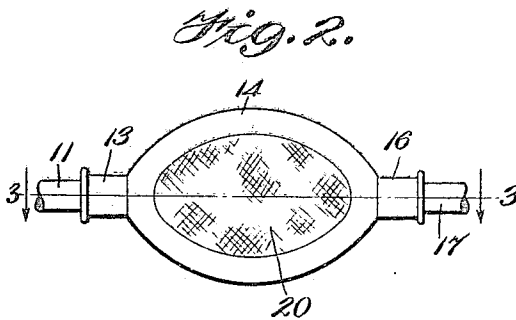
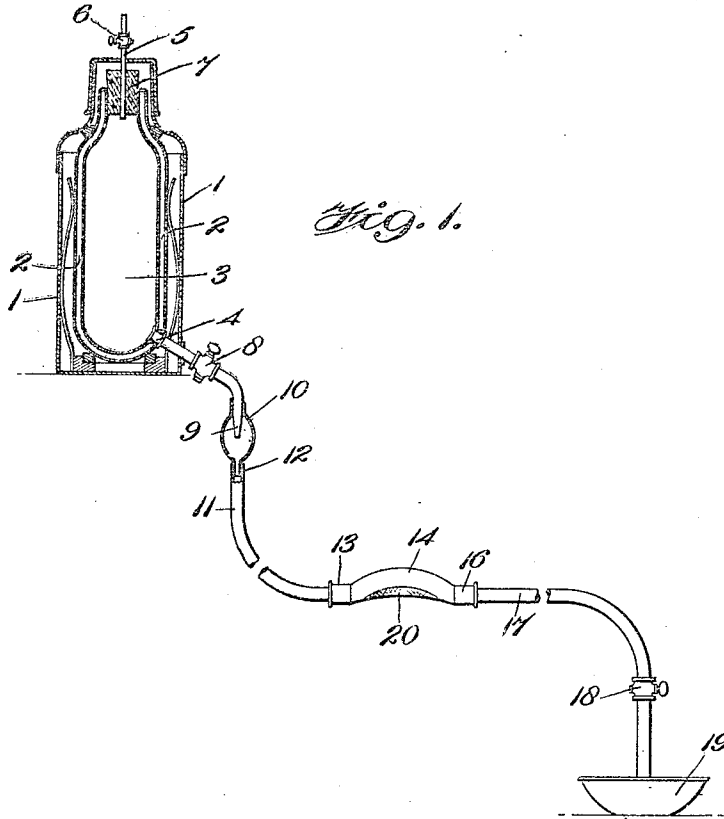


N. MININBERG.
SURGICAL APPLIANCE.
APPLICATION FILED AUG. 4, 1917.

1,276,943.

Patented Aug. 27, 1918.



Inventor
Nathan Mininberg, by
T. G. Witherspoon
Attorney

UNITED STATES PATENT OFFICE.

NATHAN MININBERG, OF DICKINSON, NORTH DAKOTA.

SURGICAL APPLIANCE.

1,276,943.

Specification of Letters Patent. Patented Aug. 27, 1918.

Application filed August 4, 1917. Serial No. 184,417.

To all whom it may concern:

Be it known that I, NATHAN MININBERG, a citizen of the United States, residing at Dickinson, in the county of Stark and State of North Dakota, have invented certain new and useful Improvements in Surgical Appliances; 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 an apparatus for applying hot or cold surfaces to the eye or other portions of the anatomy and has for its objects to improve and to render more efficient the devices of this nature that have been heretofore proposed.

With these and other objects in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:—

Figure 1 is a diagrammatic view partly in section of an apparatus made in accordance with this invention;

Fig. 2 is an enlarged plan view of the hot or cold surface portion of the apparatus; and

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

1 indicates any suitable container for the hot or cold fluid, but preferably of the nature of the well known thermos bottle, having a high vacuum chamber 2, an inner liquid holding chamber 3, an outlet 4, an inlet 5, controlled by the cock 6, and any suitable closure 7 through which the inlet 5 passes. The outlet 4 is preferably provided with a cock 8, and with a tip or nozzle 9 over which may slip the glass, rubber, or other bulb 10 joined to one end of the hose or tube 11 as at 12, the other end of which is joined as at 13 to the applicator or member 14 preferably made of rubber or other flexible material which is impervious to fluids and adapted to retain heat in the chamber or passage 15. Said member 14 is hollow as shown to provide the passage 15 for the fluid and its end 16 is joined to the tube or hose 17 provided with the cock 18 and adapted to empty into the basin or vessel 19 as shown.

One side of the member 14 consists of or is covered with a porous but liquid tight mate-

rial 20 which may be made of silk, cotton, wool or other fabric and which is adapted to retain the moisture or liquid that may be caught in its pores.

The operation of the apparatus will be readily understood from the foregoing but may be briefly summarized as follows:—

Liquid or fluid either hot or cold is introduced into the chamber 3, whereupon the cocks 6, 8 and 18 are so adjusted as to permit the said liquid to flow at the desired rate through the passage 15, and to empty into the basin or other receptacle 19. In the meantime the said fabric 20 may be moistened if it constitutes a cover on the outside of the member 14, or it will be moistened by the fluid or liquid as it passes the chamber 15 and thus the said fabric may be applied to an eye or other injured part of the anatomy which it is desired to treat, with the assurance that the temperature of the hot or cold surface of the fabric 20 will remain substantially constant over a long period of time. That is to say, owing to the fact that the thermos bottle 1 will maintain the temperature of the chamber 3 substantially constant over a long period of time the liquid which flows from said chamber through the passage 15 will likewise maintain an even and constant temperature over a long period of time, and therefore, the patient will get the benefit of a relatively long and efficient application of the hot or cold surface or even of the liquid itself which may seep through the pores of the fabric 20.

In the case of the treatment of an eye for example should the liquid consist of a slightly astringent solution, the injured eye would receive an application of this said solution through the pores of the fabric 20 so long as the liquid is permitted to pass the passage 15, and therefore, the patient is assured of a more thorough treatment than would otherwise be the case. Of course, by suitably regulating the cock 18 the liquid may be permitted to discharge into the receptacle 19 at any desired rate, and therefore, the quantity of the liquid held in the chamber 3 may be made to last longer or shorter periods according to the desire of the patient being treated.

The snap connection between the nozzle 9 and the bulb 10 enables the operator to readily disassemble the parts for cleansing and for other purposes. The same remarks apply to the joints 11, 13, and 16, 17.

It is of especial importance in an apparatus of this kind that the thermos bottle be employed as a source of the hot or cold fluid and because it will maintain said fluid
 5 at a constant temperature over a very long period of time and as it is easily carried about and supported on any convenient stand near the patient, it enables the operator to obtain a constant temperature of the
 10 applied fluid over relatively long periods of time without being encumbered by larger, more complicated and more costly apparatus which it would be necessary to provide should a thermos bottle not be employed.
 15 This invention is especially adapted for the treatment of wounds, bruises, cuts and injured parts in general.

It is obvious that those skilled in the art may vary the details of the construction as well as the arrangement of parts without departing from the spirit of the invention and therefore, I do not wish to be limited to the above disclosure except as may be required by the claims.

25 What I claim is:—

1. In an apparatus of the class described the combination of a thermos bottle having
 30 an interior chamber, a vacuum chamber surrounding said interior chamber, and an outer casing surrounding said vacuum chamber; a valved inlet communicating with said interior chamber; a valved outlet extending from said interior chamber through said vacuum chamber and said outer casing; a
 35 bulb connection adapted to snap off and on said outlet and provided with a flexible

pipe; an applicator member provided with a passage through which liquid may freely flow joined at one end to said flexible pipe and provided with a porous but liquid tight
 40 wall adapted to be applied to the injured part; and a valved drain pipe connected to the other end of said applicator, substantially as described.

2. In an apparatus of the class described 45 the combination of a thermos bottle having an interior chamber, a vacuum chamber surrounding said interior chamber, and an outer casing surrounding said vacuum chamber; a valved inlet communicating with said 50 interior chamber; a valved outlet provided with a tapered end extending from said interior chamber through said vacuum chamber and said outer casing; a rubber bulb connection adapted to snap off and on said 55 tapered end of said outlet and provided with a flexible pipe; an applicator member provided with a closed passage through which liquid may freely flow detachably 60 joined at one end to said flexible pipe and provided with a curved impervious heat retaining top and a porous but liquid tight under wall adapted to be applied to the injured part; and a valved drain pipe detachably connected to the other end of said applicator, substantially as described. 65

In testimony whereof I affix my signature, in presence of two witnesses.

NATHAN MININBERG.

Witnesses:

LILY SHEROWITZ,
 ERNEST L. PETERSON.