No. 773,138. PATENTED OCT. 25, 1904.

I. H. FINCHUM.

HEATING OR COOLING DEVICE FOR BEDS.

APPLICATION FILED MAR. 2. 1904.

NO MODEL.

Fig. 1.

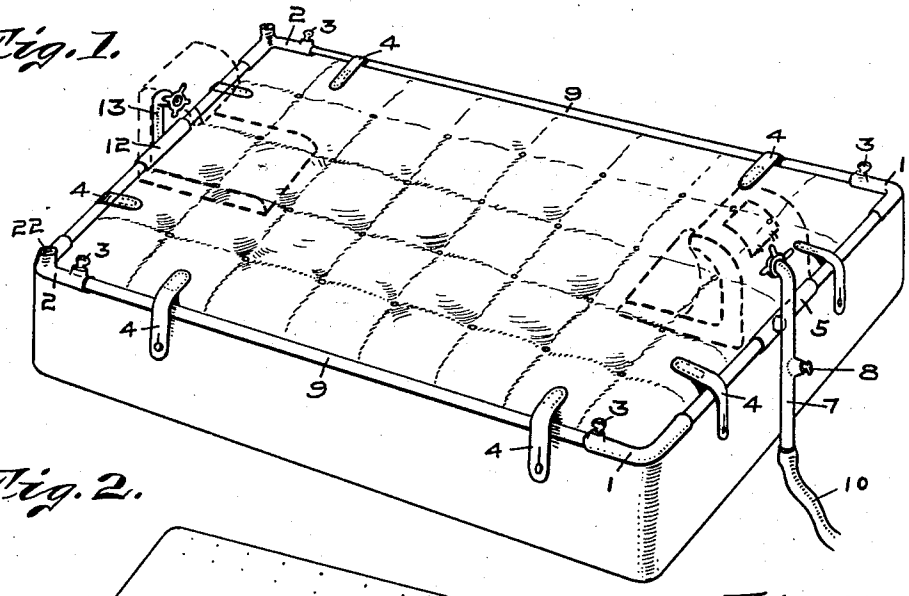


Fig. 2.

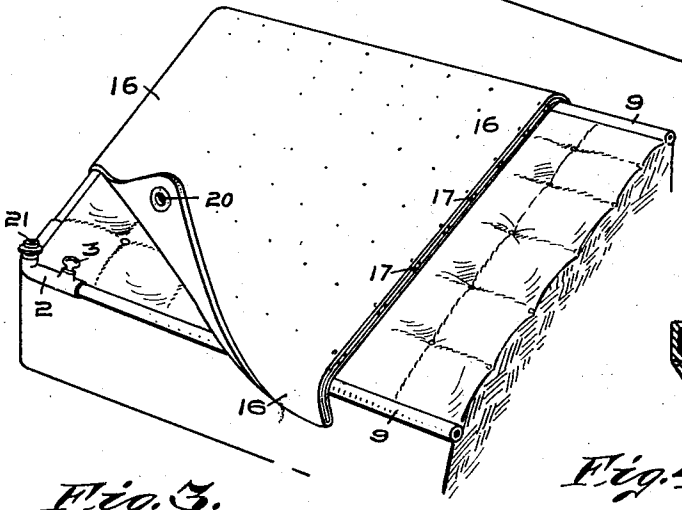


Fig. 5.

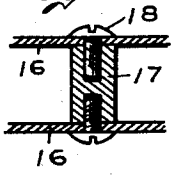


Fig. 3.

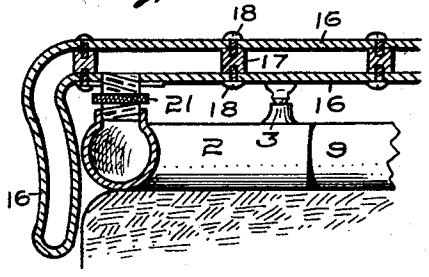
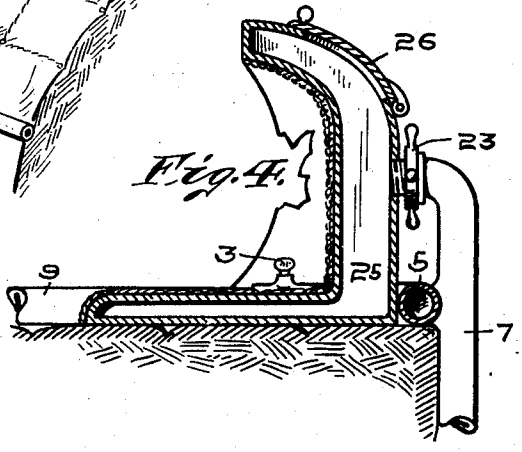


Fig. 4.



Witnesses:

W. W. Defrees.

L. B. Woerner.

Inventor.

Isaiah H. Finchum,

by Frank H. Woerner,

ATTORNEY.

No. 773,138. Patented October 25, 1904

UNITED STATES PATENT OFFICE.

ISAIAH H. FINCHUM, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF FORTY-EIGHT ONE-HUNDREDTHS TO CHARLES L. FLYNN, OF INDIANAPOLIS, INDIANA.

HEATING OR COOLING DEVICE FOR BEDS.

SPECIFICATION forming part of Letters Patent No. 773,138, dated October 25, 1904.

Application filed March 2, 1904. Serial No. 196,217. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH H. FINCHUM, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Heating or Cooling Devices for Beds, of which the following is a specification.

This invention relates to beds, and has for its object a means whereby beds may be artificially heated or cooled, and is particularly adapted for hospital purposes, where it often becomes necessary to subject patients to excessive hot and cold baths.

The invention consists of certain construction and arrangement of parts of such a device whereby the advantages sought are attained, and a device embodying my said invention will first be fully described and the novel features then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar numerals of reference indicate similar parts, Figure 1 is a perspective view of my heating and cooling device in operating position. Fig. 2 is a fragmentary detail perspective view of my device and shows the construction of the heating and cooling cover. Fig. 3 is a fragmentary detail sectional view, on an enlarged scale, of the cover and shows the means for attaching it to the frame and also shows the manner in which the two walls are kept separated. Fig. 4 is a vertical sectional view of one of the hoods adapted to receive either the head or feet of the patient. Fig. 5 is a fragmentary detail view, on an enlarged scale, showing the means for separating the two walls that form the cover.

In the drawings, 1 and 2 constitute the corner members of a rectangular frame constituting my heating and cooling device and are provided with the valves 3. The frame is most particularly adapted to be placed on mattresses of beds and is held in position by means of the straps 4. The tubes 9, forming the sides of the frame between the corner members 1 and 2, may be composed of firm or flexible material, the latter being preferable when the device is used in connection with folding beds. The head and cross-rail of the frame is formed by the tube 5, having an inlet-pipe 7 connected thereto, whereby the heating and cooling mediums are conducted to the rectangular frame. The inlet-pipe 7 is provided with a valve 8, whereby the heating or cooling mediums may be cut off. A tube 10 connects with the lower end of the pipe 7 and leads to any suitable heating or cooling apparatus. The foot-rail of the rectangular frame is formed of a pipe 12 and is provided with an inlet-pipe 13, which is similar to the pipe 7, to which a pipe leading from a heating or cooling apparatus may be connected. This gives me a double feed for my device, which is particularly desirable when it is necessary to feed one end of the frame with the heating medium and the other end with the cooling medium. When it is necessary to excessively heat the patient's feet, the feed-pipe delivering the heating medium is connected with the pipe 13, which connects with the hood, while the pipe delivering the cooling medium is attached to the inlet-pipe 7, which connects with the hood for receiving the patient's head. In the above instance the valves 3 in the tubes are closed to prevent mixing of the mediums.

The device is also arranged to heat or cool the body from the top by means of a cover 16, which is composed of two-ply material, between which the mediums circulate. The walls forming the cover 16 are kept separated by means of the pins 17, which are held in position by the screws 18. The cover 16 is provided with the inlet-apertures 20, that engage with a threaded sleeve 21. The sleeve 21 is provided with right and left hand threads and engages at one end with the apertures 22 in the corner members 2 of the rectangular frame and the other with the apertures 20 in the cover 16. A few turns of the sleeve 21 readily connects the cover 16 with the frame. By means of the cover 16 a patient may be subjected to an excessive high or low temperature.

The device is also provided with the hoods

25, adapted to receive the head and feet of the patient, so that the heating or cooling medium may be brought more closely to these important members of the body. The hoods 25, as shown in Fig. 4, are hollow receptacles and are connected by means of the unions 23 to the inlet-pipes 7 and 13. If it is desired to keep the patient's head cold, the pipe 7 may be disconnected from the hood and the latter may be filled with ice. Access to the interior of the hood may be had by means of the door 26. The hoods 25 are covered with a suitable soft material on the sides that come into contact with the body, so that their presence is not disagreeable to the patient.

Having thus fully described my said invention, what I desire to secure by Letters Patent is—

1. In a heating and cooling device for beds comprising a plurality of hollow tubes for receiving the heating and cooling mediums, valves in the tubes for dividing them into separate chambers, inlet and outlet means connecting with the tubes for conducting the heating and cooling mediums to the latter, and valves in the inlet and outlet means to prevent the inflow and outflow of the heating and cooling mediums.

2. In a heating and cooling device for beds comprising a plurality of connected tubes, inlet and outlet means connecting with the tubes, and a cover adapted to connect with the tubes.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 25th day of February, A. D. 1904.

ISAIAH H. FINCHUM. [L. S.]

Witnesses:
RICHARD H. NEFF,
F. W. WOERNER.