

911,185.

D. TYRNAUER.
 DEVICE FOR TREATING THE HUMAN BODY WITH HEATED AIR.
 APPLICATION FILED OCT. 29, 1907.

Patented Feb. 2, 1909.
 2 SHEETS—SHEET 1.

FIG. 1.

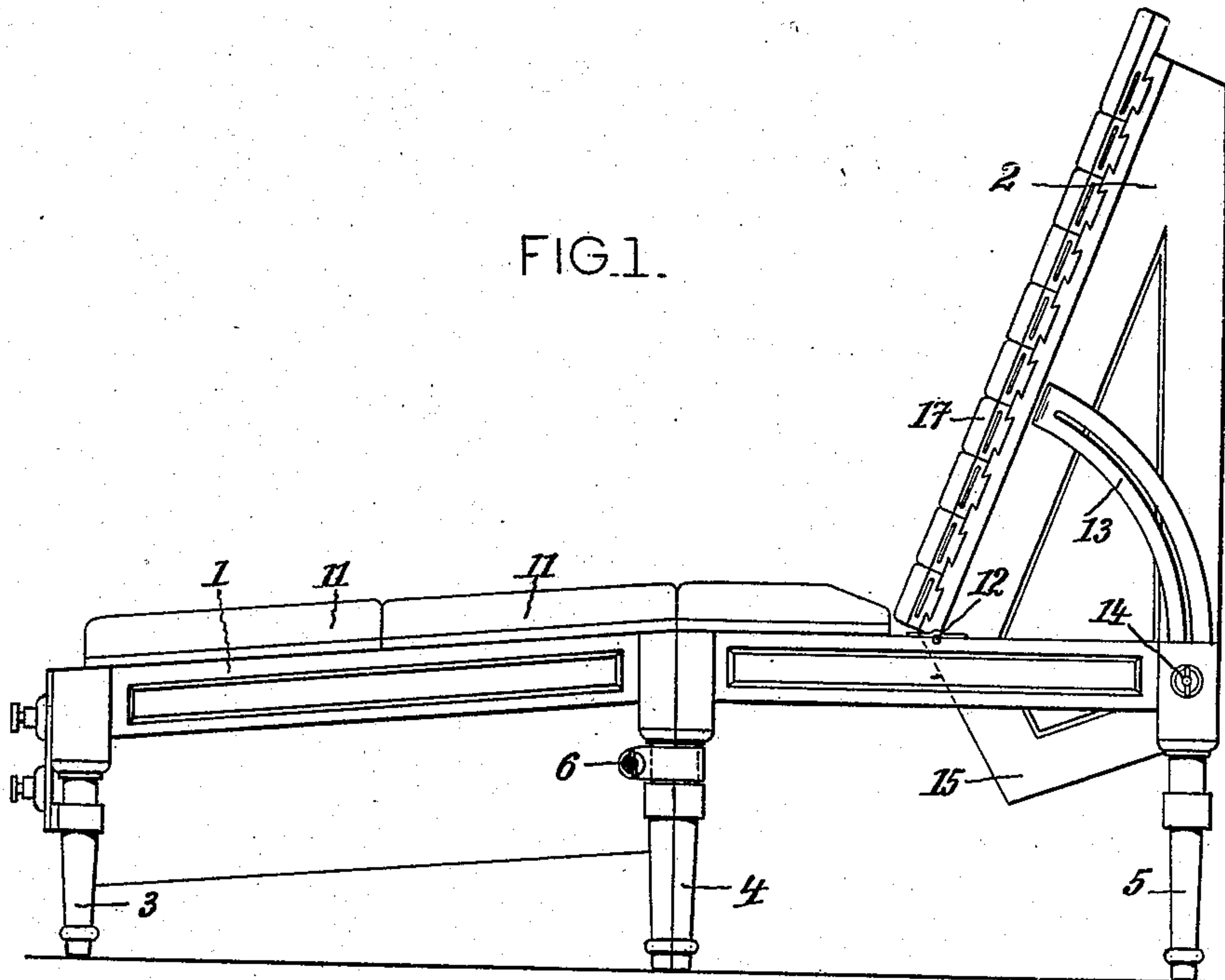
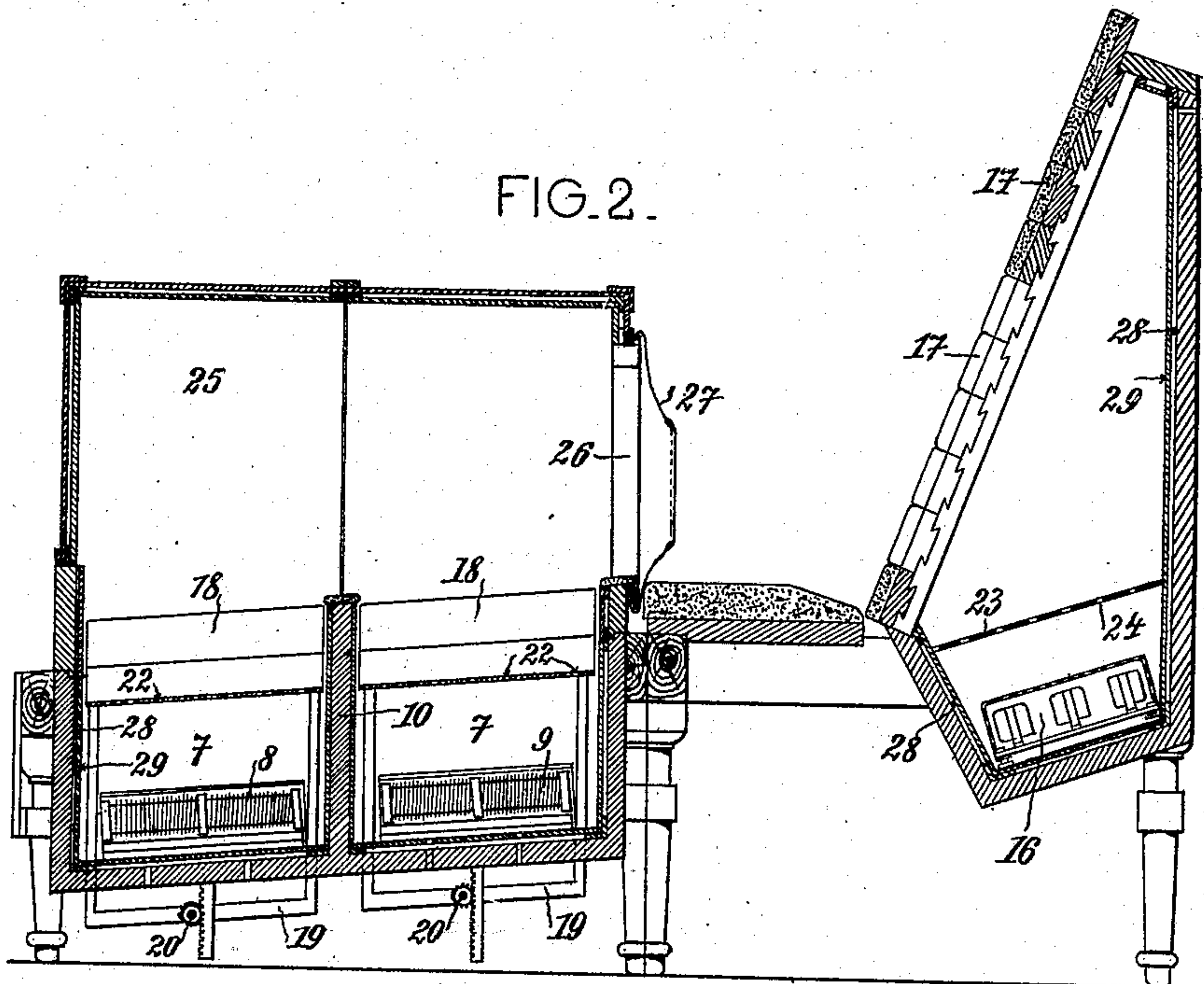


FIG. 2.



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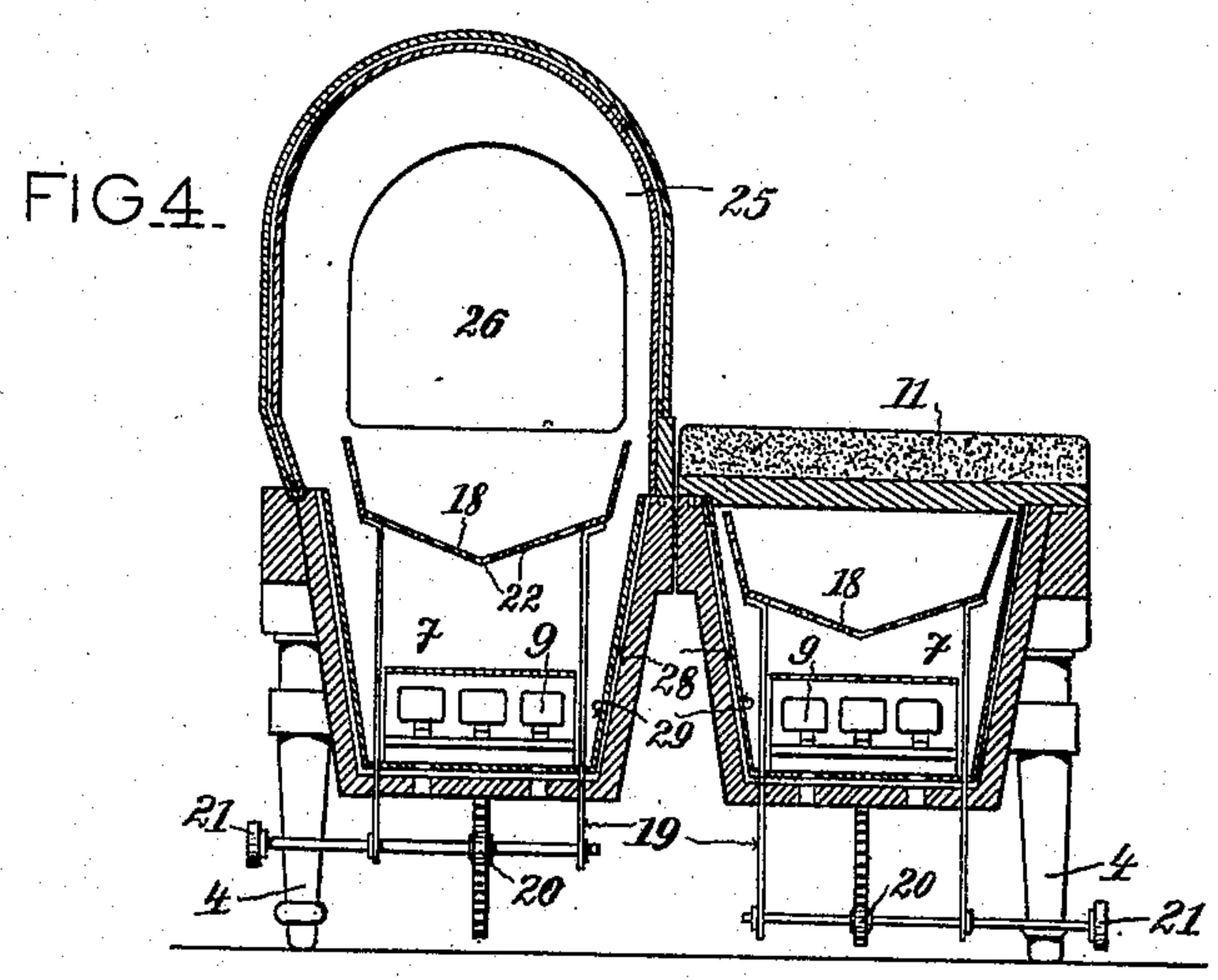
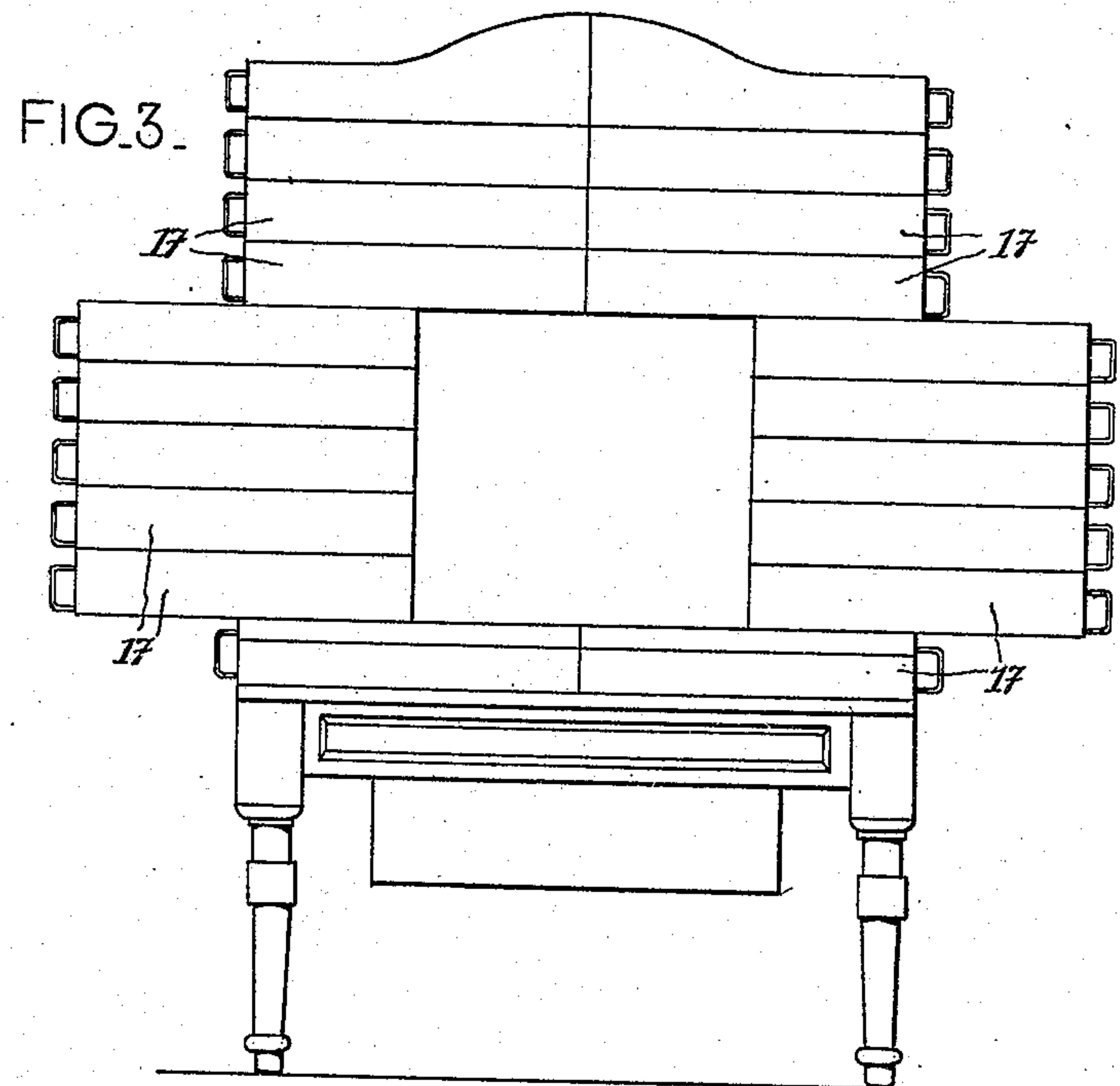
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UNITED STATES PATENT OFFICE.

DAVID TYRNAUER, OF VIENNA, AUSTRIA-HUNGARY.

DEVICE FOR TREATING THE HUMAN BODY WITH HEATED AIR.

No. 911,185.

Specification of Letters Patent.

Patented Feb. 2, 1909.

Application filed October 29, 1907. Serial No. 399,768.

To all whom it may concern:

Be it known that I, DAVID TYRNAUER, a subject of the Austrian Emperor, and residing at Wipfingerstrasse, 33, Vienna, Austria-Hungary, have invented certain new and useful Improvements in Devices for Treating the Human Body with Heated Air, of which the following is a specification.

The present invention relates to devices for treating the human body with heated air.

In hot-air apparatus for treating the human body which have been used hitherto, the hot air flows in at the one side of the apparatus at an enormously high temperature which not unfrequently causes burns. The temperatures are much lower on the side opposite the opening for the admission of air, and also in the parts below the opening for the admission of the air, and there are frequently differences of temperature amounting to 30° to 40° centigrade at different places within an apparatus.

Now an important object of the present invention is to provide apparatus for use in treating the human body or different parts of the body with uniformly heated air having an optionally high temperature, avoiding the above mentioned defects. In order to attain this end, in the present apparatus the heaters are arranged at the bottom of a trough-like chamber. Above the heaters there are vertically displaceable perforated shades of heat-insulating material, for example asbestos, which on the one hand protect the parts of the body which are to be treated from direct radiation of heat, and on the other hand uniformly distribute the air which is heated by the heaters.

Now in order to be able to simultaneously supply the uniformly distributed air which has been heated in the manner indicated to optional parts of the body, the couch above the shade is made of separate parts, by removing which the path for the hot air to the concerned parts of the body is left free.

In order that the invention may be clearly understood, reference is made to the accompanying drawing in which one embodiment is represented by way of example, and in which:

Figure 1 is a side elevation of the device, Fig. 2 a vertical longitudinal section through the same, Fig. 3 a front end elevation, and Fig. 4 a transverse section.

Similar reference numerals denote similar parts in all views.

The apparatus is thought of as made in the form of a couch 1 having an adjustable back 2 and resting on six feet 3, 4 and 5, of which the central ones 4 are divided and held together by a clamp 6, so that the apparatus can be changed by means of one single movement of the hand into two apparatus separated from one another and usable quite independently of each other. Below the part 1 there are arranged two oblong trough-like chambers 7 on the bottom of which there are two three-part heaters 8 and 9 which are separated from one another by a partition 10. The troughs are enlarged upwards and are covered by brick-shaped upholstered closures 11. It will be understood that these closures or cushions are separate, see Fig. 1, so that any one of the cushions may be removed without disturbing the others. The folding back 2 of the apparatus, which can be turned round a pivot 12 and held by means of a slotted segment 13 and a clamping screw 14, likewise has beneath it a trough-like chamber 15 which is provided with heaters 16 at the bottom. The reclining back is here likewise provided with separate upholstered parts 17 which can be pushed to one side, but which normally touch in the center. By drawing or sliding apart the separate stuffed parts 17, an opening for treating the back of a patient may be made, as is shown in Fig. 3.

The heaters may be heated electrically, but heaters which are fed with superheated steam may also be employed which likewise give off a fairly uniform heat. Above the heaters there are provided adjustable screens or shades 18 of asbestos or the like which can be made displaceable in height by means of frame 19, toothed gearing 20 and hand-wheels 21. The shades have perforations 22.

The shade 23 which likewise has perforations 24 can be arranged adjustable in height in a similar manner.

If the knees or feet of a patient are to be treated, round covers 25 are placed over the corresponding parts of the patient which are exposed by removing the cushions 11, which covers, as Fig. 2 shows, can be made in two parts in order to be put in place or removed according to requirements, according as in each case the knee or foot, the right or left leg, or both legs are to be treated.

In Fig. 4 only the one side is shown covered with a cover, whereas the other side is closed by cushions 11 in order to treat only

one leg of the patient, whereas the other leg lies stretched out on the couch. The one of the shades 18 is shown in a raised position and the other as lowered.

5 The opening 26 is closed in the direction of the patient with a sleeve or cuff 27 or the like made of firm material so that the heat is retained in the apparatus as much as possible. Also for the same purpose the apparatus
10 has a covering round it of asbestos sheets 29 with an insulating layer of air 28 between them.

With such an apparatus different parts of the body can be treated simultaneously, and
15 also after disconnecting the clasp 6, the one part can be used for treating a leg or foot of one patient and the other for treating another patient's back.

The parts covered with covers 25 can also
20 be used for treating the arms and hands, but special apparatus constructed according to the same principle can also be employed for this purpose which likewise have a shade of the present kind displaceable in height above
25 the heaters.

The purpose of moving the shade or screen upward or downward is to adjust its distance from the heater and thus regulate the heating effect by varying the manner in which
30 the hot air is distributed by the screen.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In apparatus for treating the human body with uniformly heated air, the combination of a frame, a trough-like casing
35 attached thereto, a plurality of heaters at the bottom of said casing, a heat-insulating cover having an opening adapted to fit said casing and form a chamber, and a perforated
40 screen adjustable vertically in said chamber above each of said heaters, as set forth.

2. In apparatus for treating the human body, the combination of a frame, a trough-like casing attached thereto, a heater at the
45 bottom of said casing, a cover having an opening adapted to fit said casing and form a chamber therewith, and a perforated screen of heat-insulating material in said chamber

above said heater said screen being adjustable vertically, as set forth. 50

3. In apparatus for treating the human body, the combination of a couch-frame having a plurality of removable cushions, a plurality of trough-like casings attached thereto, a plurality of heaters at the bottom
55 of each casing, a cover having an opening adapted to fit said casings and form a chamber therewith when said cushions are removed, and an adjustable perforated screen in each casing over said heaters, as set forth. 60

4. In apparatus for treating the human body, the combination of a couch-frame having an adjustable back, removable cushions thereon, a trough-like casing attached
65 under the seat-part of the frame and a trough-like casing attached under the back-part of the frame, a heater in each casing, a perforated screen in each casing above each heater, and a cover having an opening
70 adapted to fit said casings and form a chamber therewith when the cushions over said casing are removed, as set forth.

5. In apparatus for treating the human body, the combination of a couch-frame
75 comprising a seat-part and an adjustable back-part, removable cushions thereon, means detachably connecting said parts of the frame together, a trough-like casing attached under the seat-part of the frame and
80 a trough-like casing attached under the back-part of the frame, a heater in each casing, a perforated adjustable heat-insulating screen in each casing above each heater, and a heat-insulating cover having
85 an opening for a part of a human body and adapted to fit said casings and form a chamber therewith when the cushions over said casings have been removed, as set forth.

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

DAVID TYRNAUER.

Witnesses:

A. RAGG,
F. LALLI.