

C. FERRARI & C. GALLO.
 MEDICAL RADIATOR FOR USE IN BEDS.
 APPLICATION FILED MAR. 12, 1910.

981,628.

Patented Jan. 17, 1911.

2 SHEETS—SHEET 1.

Fig. 1

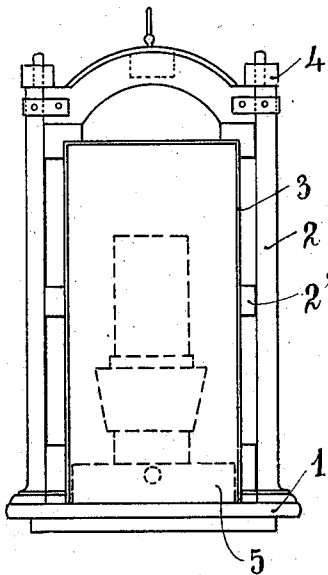


Fig. 2

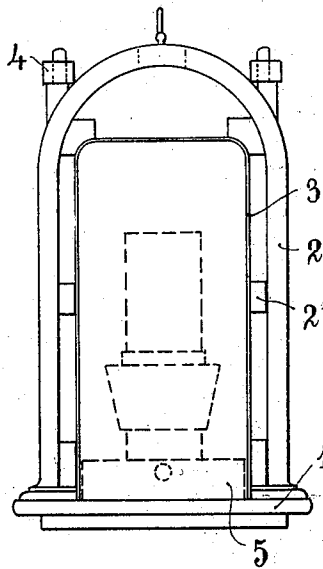
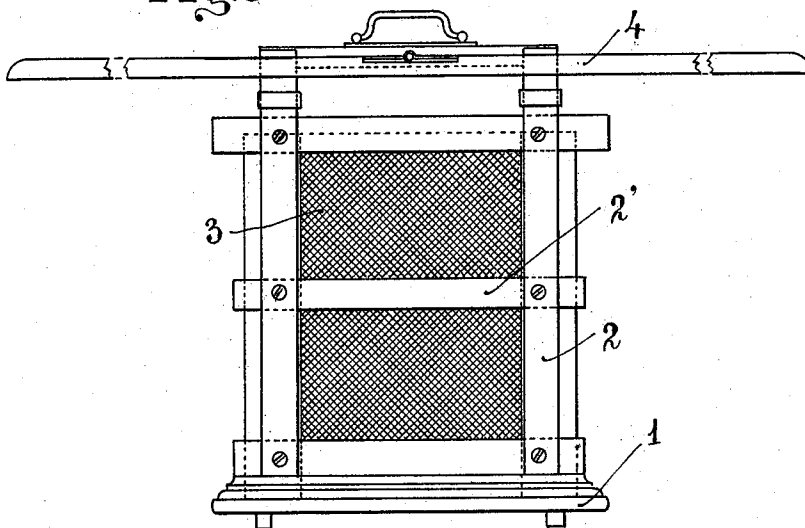


Fig. 3



Witnesses
 W. H. Darg.
 L. A. Price.

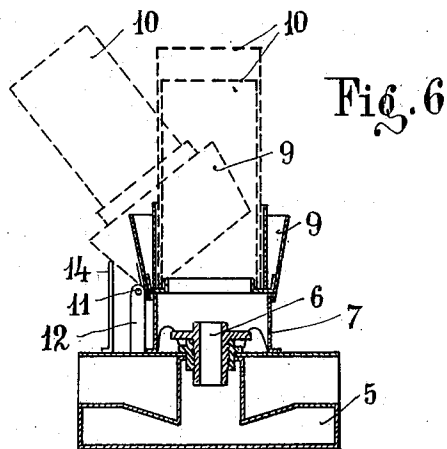
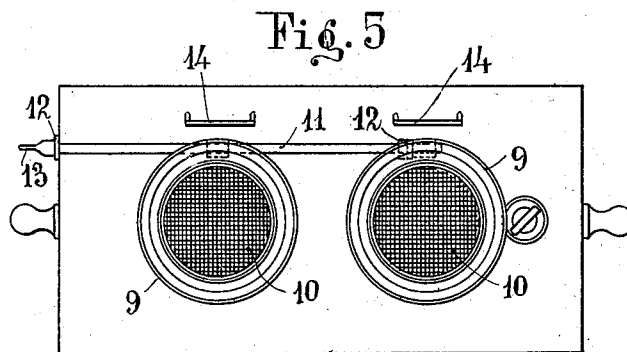
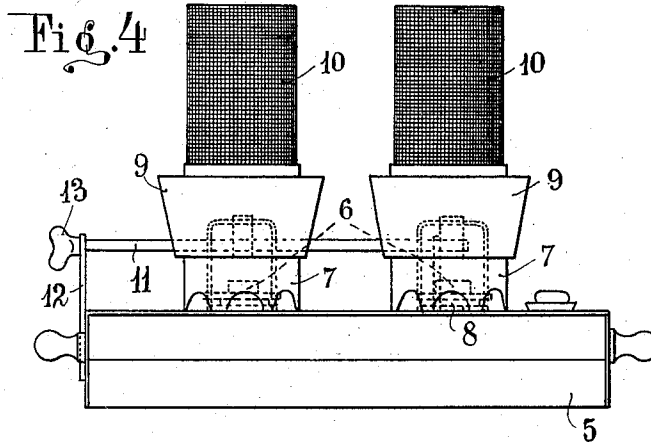
Inventors
 Carlo Ferrari,
 Claudio Gallo,
 By *Wm. E. Boulter* attorney

C. FERRARI & C. GALLO.
 MEDICAL RADIATOR FOR USE IN BEDS.
 APPLICATION FILED MAR. 12, 1910.

981,628.

Patented Jan. 17, 1911.

2 SHEETS—SHEET 2.



Witnesses
 M. H. Darg.
 L. A. Prite.

Inventors
 Carlo Ferrari,
 Claudio Gallo,
 By M. E. Boulter, attorney.

UNITED STATES PATENT OFFICE.

CARLO FERRARI AND CLAUDIO GALLO, OF TURIN, ITALY.

MEDICAL RADIATOR FOR USE IN BEDS.

981,628.

Specification of Letters Patent.

Patented Jan. 17, 1911.

Application filed March 12, 1910. Serial No. 549,012.

To all whom it may concern:

Be it known that we, CARLO FERRARI and CLAUDIO GALLO, subjects of the King of Italy, both residing at Turin, in Italy, have invented certain new and useful Improvements in Medical Radiators for Use in Beds, of which the following is a specification.

This invention relates to a radiator intended to be introduced into the bed in order to bring about a strong perspiration of the patient, and to generate, by means of a suitably selected mixture, medicinal vapors suitable to the illness or disease to be treated. A construction of the said radiator is illustrated by way of example in the accompanying drawing, in which—

Figures 1 and 2 show in front elevation two slightly different constructions. Fig. 3 is a side elevation, and Figs. 4-6 show on an enlarged scale respectively side elevation, plan and cross-section of the tank for the fuel, provided with the burners.

As will be seen in Figs. 1-3, the body of the radiator is constituted by a plate 1 on which is mounted a cage constituted by wooden uprights 2 and by cross-bars 2' and provided in the interior with a perforated metal sheet 3, lining the lateral walls and the ceiling of the cage. The uprights 2 can be of bent wood as shown in Fig. 2, and in any case the cage is provided at the top with two detachable rods 4, the object of which is to support the bed sheets in order that the heat generated by the radiator can diffuse in the whole bed.

The tank for the liquid fuel provided with the burners is placed on the bottom 1 of the apparatus and is constituted by a tank 5 (Fig. 4) the upper partition of which is depressed in the center for the purpose of preventing the liquid even when the tank is greatly inclined, from escaping through the wick holders. In the longitudinal axis of the said tank are arranged two burners 6 adapted to receive a wick dipping into the tank 5.

Each of the burners is surrounded by an annular part 7 mounted on the tank and provided at the base with holes 8 for the passage of air. This part 7 constitutes support for the annular tank 9 containing the mixture intended to generate medicinal vapors when submitted to the action of heat. The tank 9 is on the level of the hottest portion of the flame. As, on the other hand, it is necessary to avoid in the most reliable

manner, any danger of the flame lighting the vapors generated by the mixture contained in the tank 9, which are generally inflammable, or setting on fire the bed-sheets, two caps 10 of metal netting are mounted on the tank 9, one inside the other, so that the flame of the burner is completely isolated and the vapors in question cannot possibly get lighted or explode.

The arrangement of metal nettings 10 covering the flame not only has the advantage of being absolutely safe, but also of providing a greater surface for the radiation of heat, as the nettings in question become heated by the flame and transmit the heat to the surrounding medium. In that way a very special radiator is obtained, intended to be introduced into the bed for a medical purpose and having the characteristic feature that the source of heat is completely isolated while the transmission of heat takes place by means of radiating bodies which at the same time serve to insulate the flame for the purpose of avoiding any possibility of fire or explosion.

In order to enable the wicks to be lighted, the parts constituted by the annular tank 9 and the metal netting caps 10, are secured to a rod 11 pivoted to the supports or brackets 12 and may be operated by means of a button or knob 13.

The movement of the parts in question is limited by stops 14, so that they can be tilted to the desired extent for enabling the wick to be lighted without their center of gravity passing to the other side of the axis of rotation. In that way, the parts in question, constituted by the tanks 9, and the metal netting caps 10, automatically fall back on the bottom rings 7 as soon as the button 13 is released. This arrangement prevents the tanks from being introduced by mistake into the cage, with exposed flames, and thus increases the safety of the apparatus.

What we claim as our invention and desire to secure by Letters Patent is:—

1. A radiator for use in beds, comprising a wooden cage formed of uprights and crossbars, a metal lining for said cage, a fuel tank carried by said cage, burners for said tank and two metal netting caps surrounding the flame.

2. A radiator for use in beds, comprising a wooden cage, formed of uprights and crossbars, a metal lining for said cage, a fuel tank carried by said cage, burn-

ers for said tank, two metal netting caps surrounding the flame and means for tilting said caps.

3. A radiator for use in beds, comprising
5 a wooden cage formed of uprights and cross-
bars, a metal lining for said cage, a fuel
tank carried by said cage, burners for said
tank, an annular tank surrounding each
burner at the hottest part of the flame, for
10 receiving a medical vapor-generating sub-
stance, two metal netting caps surrounding
the flame and carried by each medical vapor-
generating tank, and means for tilting said
caps.

15 4. In a radiator for use in beds, compris-
ing a cage formed of uprights and cross-
bars, a fuel tank carried by said cage, burn-
ers for said tank, two metal netting caps
surrounding the flame and means for tilting
20 said caps.

5. In a radiator for use in beds, compris-
ing a cage formed of uprights and crossbars,
a fuel tank carried by said cage, burners for
said tank, an annular tank surrounding each
25 burner at the hottest part of the flame, for
receiving a medical vapor-generating sub-
stance, two metal netting caps surrounding
the flame and carried by each medical vapor-
generating tank, and means for tilting said
30 caps.

6. In a radiator for use in beds, compris-
ing a cage formed of uprights and crossbars,
a fuel tank carried by said cage, burners for
said tank, an annular tank surrounding each
35 burner at the hottest part of the flame for re-
ceiving a medical vapor-generating sub-

stance, two metal netting caps surrounding
the flame and carried by each medical vapor-
generating tank, a button for tilting said
caps and medical vapor-generating tanks, 40
and stops for limiting the movement of such
caps and tanks.

7. In a radiator for use in beds, compris-
ing a cage formed of uprights and crossbars,
a fuel tank carried by said cage, burners for
said tank, two metal netting caps surround- 45
ing the flame, a button for tilting said caps
and means whereby said tilted caps will re-
turn automatically to their normal position
as soon as the button is released. 50

8. In a radiator for use in beds, compris-
ing a cage formed of uprights and crossbars,
a fuel tank carried by said cage, burners for
said tank, an annular tank surrounding each
burner at the hottest part of the flame for 55
receiving the medical vapor-generating
tank, two metal netting caps surrounding
the flame and carried by each medical vapor-
generating tank, a button for tilting said
caps and medical vapor-generating tanks, 60
and means whereby said tilted parts will re-
turn automatically to their normal position
as soon as the button is released.

In testimony whereof we have signed our
names to this specification in the presence of 65
two subscribing witnesses.

CARLO FERRARI.
CLAUDIO GALLO

Witnesses:

CARLO TORTA,
G. TANOLIO.