J. KRAUER.

APPARATUS FOR THE TREATMENT OF RHEUMATISM, GOUT, SCIATICA, NEURALGIA, AND SIMILAR AILMENTS.

APPLICATION FILED APR. 2, 1920.

1,375,050. Patented Apr. 19, 1921.

Fig. 1.

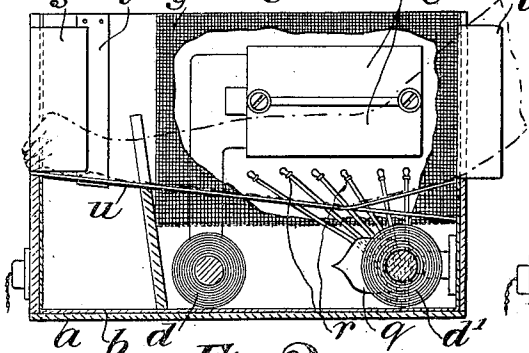


Fig. 3.

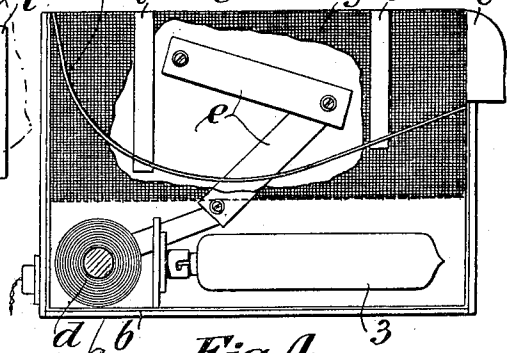


Fig. 2.

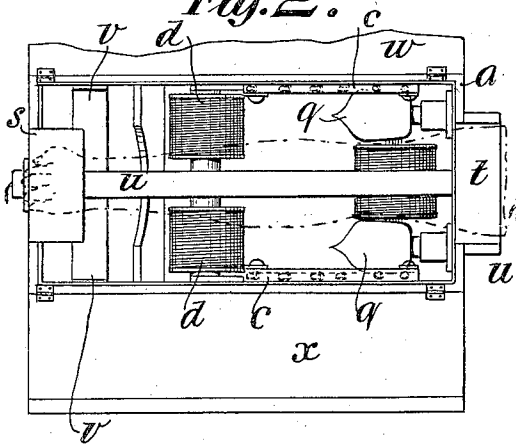


Fig. 4.

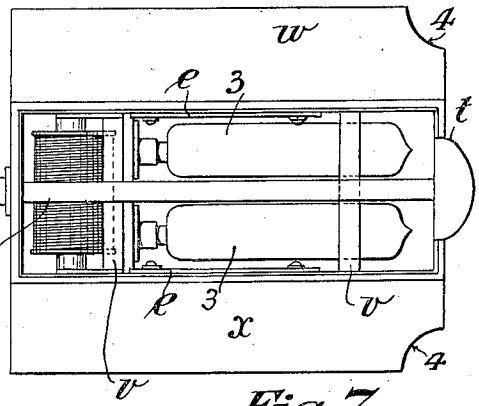


Fig. 7.

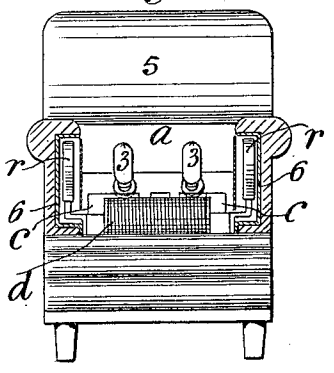


Fig. 6.

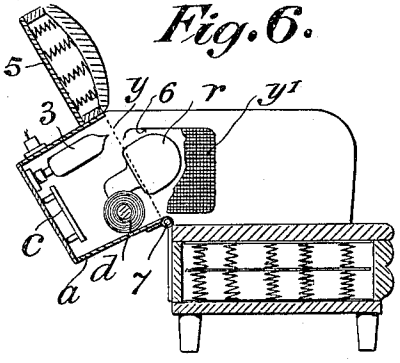
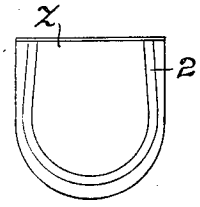


Fig. 5.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR THE TREATMENT OF RHEUMATISM, GOUT, SCIATICA, NEURALGIA, AND SIMILAR AILMENTS.

1,375,050. Specification of Letters Patent. Patented Apr. 19, 1921.

Original application filed May 1, 1916, Serial No. 91,886. Divided and this application filed April 2, 1920. Serial No. 370,863.

To all whom it may concern:

Be it known that I, JOSEPH KRAUER, a Swiss citizen, residing at Heaton Chapel, in the county of Lancaster, England, have invented a certain new and useful Improvement in Apparatus for the Treatment of Rheumatism, Gout, Sciatica, Neuralgia, and Similar Ailments, of which the following is a specification.

This invention relates to improvements in apparatus for the treatment of rheumatism, gout, sciatica, neuralgia and similar ailments and this application is a division of the application which eventuated in my Patent No. 1343512, issued June 15th, 1920; the object of this invention is to render such apparatus more efficient than hitherto.

I attain this object by the mechanism illustrated in the accompanying sheet of drawings, in which—

Figures 1, 3 and 6 are sectional side views, Figs. 2 and 4 are plan views of Figs. 1 and 3 respectively, Fig. 5 is a front view of a detail and Fig. 7 is a front view of Fig. 6.

Like characters of reference refer to similar parts in the various figures.

Referring to Figs. 1 and 2 which illustrate an example of the said invention as applied to a knee, leg, elbow or hand treating apparatus, a box *a* is lined with asbestos, mica or the like *b*, and has heaters *c* which also form the poles of the coöperating electro-magnet *d*. The box *a* also contains two incandescent electric lamps *q* and a further electro-magnet *d'* the poles *r* of which consist of a number of wires or strips distributed to inclose the lower part of the area in which the affected part is placed. Holes having flaps *s* and *t* are provided at the ends of the box *a*, so that the limb may extend through the box and strips *u* and *v* of webbing are secured to the box *a* to hold the affected part in the correct position. The box *a* is closed at the top by two hinged lids *w* and *x*, and a lining *y* of perforated metal, asbestos or gauze covers the working parts and prevents contact of the limb with the same. For the sake of clearness, a portion of the lining *y* is shown removed in Fig. 1 and the whole of the lining *y* is shown removed in Fig. 2. When the apparatus is used for the hand, which requires only one opening, the other opening is closed by a cover *z*, Fig. 5, which has a strip 2, of rubber or the like to fit inside the opening. The heaters, lamps and electro-magnets may be connected up in parallel or in series.

Referring to Figs. 3 and 4, which illustrate an example of the invention as applied to a foot treating apparatus, a box *a* having at one end an opening provided with a leather flap *t*, contains an electro-magnet *d* and electric radiators 3. The poles *r* of the electro-magnet may be formed as heaters *e*. The strips *u*, *v*, *v* of webbing hold the foot in its correct position, and the lining *y* of perforated metal, asbestos, or gauze covers the working parts and prevents contact with the same. The corners 4 of the hinged lids *w* and *x* are cut out and provided with flaps to accommodate the limb while the foot is under treatment. For clearness a part of the lining *y* is broken away in Fig. 3 and the lining *y* removed in Fig. 4. The radiators and electro-magnets may be connected in series or in parallel.

Referring to Figs. 6 and 7 which illustrate an example of the invention as applied to a back and hip treating apparatus, *a* is an asbestos, mica or the like lined box secured to the back of an easy chair, the lower portion of the chair back 5 being cut away to expose the open side of the box *a*. Boxes 6 and 6 are also formed in the arms of the chair and accommodate the pole pieces *r* and *r* of the electro-magnet *d*. The electro-magnet *d* and a number of heaters *c* and radiators 3 are arranged in the box *a*, and the chair back 5, together with the box *a* are hinged at 7, so that they can be dropped and the patient's back can be exposed. The pole pieces *r* and *r* move with the box *a* when the chair back 5 is lowered or raised. The heaters, lamps and electro-magnets may be connected in series or in parallel. The open side of the box *a* is covered by a piece of perforated metal, asbestos or gauze *y* and the boxes 6 are similarly protected by perforated metal, asbestos or gauze covers *y'*.

As will be readily understood, a thermometer may be provided in all the above examples and the combination of electro-magnets, pole pieces, heaters and radiators may be varied and some of such parts may be dispensed with, or galvanic, static or electro-

thermal or radio-active elements may be added if desired. A fuse box may also be provided inside or outside the apparatus if desired. The circuits may also be so arranged that the heaters can be switched off without deënergizing the electro-magnets or vice-versa. When radiators are used, the heaters may be dispensed with, being, in cases where they are used as pole pieces also, replaced by plain pole pieces. Beneficial results have been observed in the use of the above described apparatus for the treatment of diseases of the hereinbefore named kinds.

I claim:—

1. An apparatus for the treatment of diseases, comprising in combination, a receptacle, to surround the part to be treated, heat producing means within the receptacle and electro-magnetic means within the receptacle.

2. An apparatus for the treatment of diseases comprising in combination, a receptacle to surround the part to be treated, electric heat producers within the receptacle, and electric means adapted to produce a magnetic field within the receptacle substantially at right angles to the lines of heat radiation.

3. An apparatus for the treatment of diseases comprising in combination, a receptacle lined with heat insulating material, an electro-magnetic coil within said receptacle, a soft iron core within said coil pole pieces on said core electric heaters within the receptacle and a guard within connected to said receptacle adapted to prevent contact of the heaters, and electro-magnetic members with the part under treatment.

4. An apparatus for the treatment of diseases comprising in combination, a receptacle, a chair on which said receptacle is provided, electric heaters within said receptacle, and means in said receptacle for producing electro-magnetism.

5. An apparatus for the treatment of diseases comprising in combination, a receptacle, heaters within the receptacle, means in said receptacle for producing electro-magnetism, and means in said receptacle for producing light.

Signed at Manchester, in the county of Lancaster, England, this 16th day of March 1920.

JOSEPH KRAUER.

Witnesses:

MARY I. BOSSHARDT,

ALFRED BOSSHARDT.