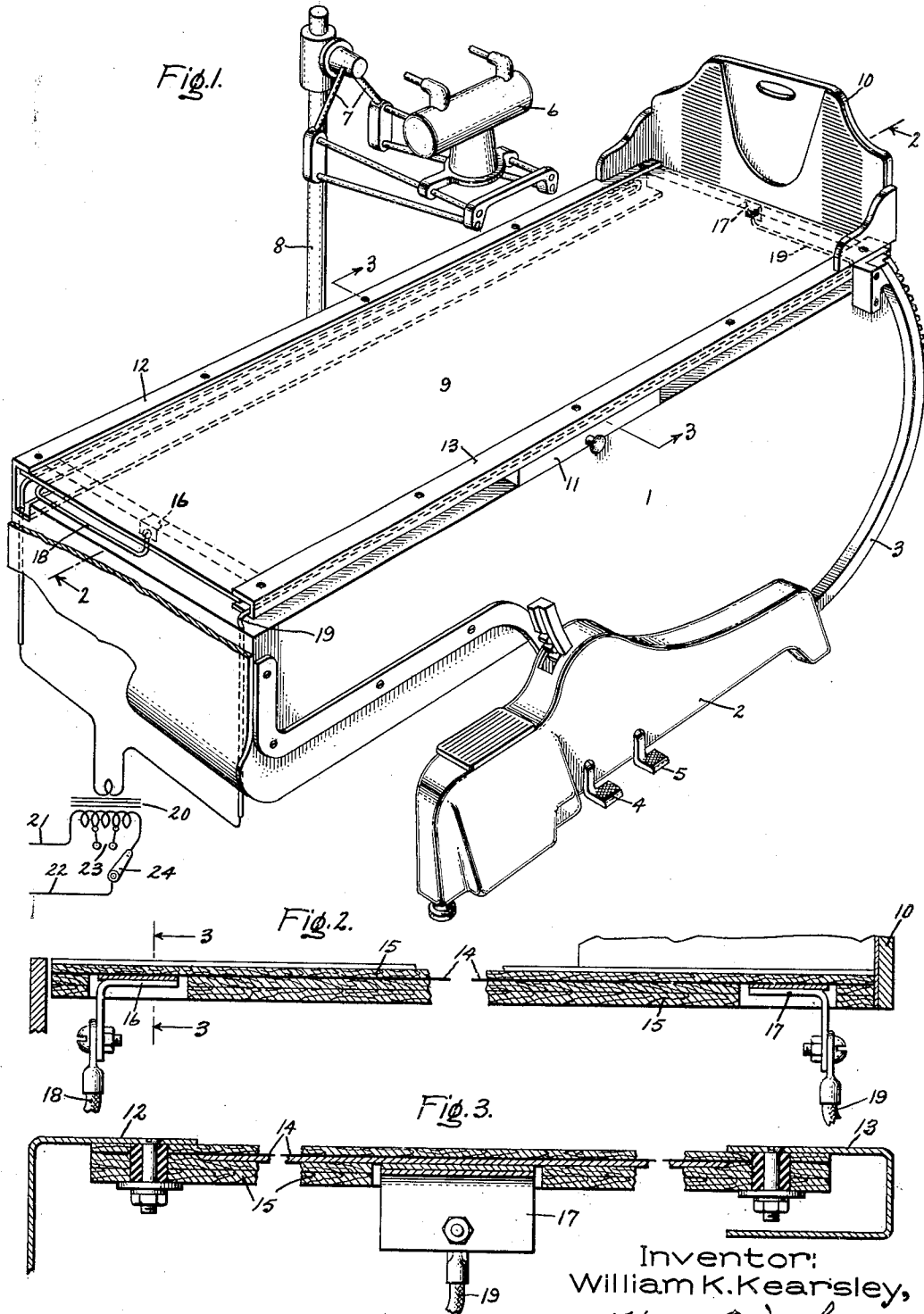


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W. K. KEARSLEY
X-RAY TABLE FOR PATIENTS
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Inventor:
William K. Kearsley,
by *Harry E. Durbans*
His Attorney.

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X-RAY TABLE FOR PATIENTS

William K. Kearsley, Schenectady, N. Y., assignor
to General Electric Company, a corporation of
New York

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3 Claims. (Cl. 219—19)

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The present invention comprises an improved radiographic planar support or table for patients during radiographic examination or therapeutic treatment.

Heretofore, the tops of such tables which commonly come into direct contact with a patient's body have been found by the patient to be uncomfortably cold, particularly in winter. As the attention of the X-ray technician who is taking pictures or giving treatment is apt to be preoccupied with a variety of details, the result is that the patient, who may be in poor physical condition, is given an undesirable chill sensation when first coming in direct contact with the supporting surface of the table.

Ordinary electric heating means such as used, for example, in electric blankets are not suitable for warming the cold surfaces as the shadows of heater elements can not be tolerated in radiographs. Radiant heaters are unduly complicated and expensive and their operation would be unduly distracting for the operator.

In accordance with one feature of my invention the patient-supporting surfaces of radiographic devices is provided with an electric heater element constituted of thin metal foil, preferably a light metal, such as aluminum which will not cast a radiographic shadow and hence will not spoil the desired radiographs. In accordance with another feature of my invention metal parts, such as metal reinforcements of the table top material are traversed and heated by conductors carrying the heating current for the main foil heater.

In the accompanying drawing Fig. 1 is a perspective view of an X-ray table embodying my invention and Figs. 2 and 3 are sectional views taken as indicated in Fig. 1 by the corresponding lines 2—2 and 3—3.

The patient-supporting table shown in Fig. 1 is of the type commonly used in hospitals. It comprises a metal framework 1 which is supported on a base 2 by a curved rail 3. Appropriate apparatus (not concerned with the present invention) which is operated by the foot pedals 4, 5 permits the table to be adjusted in various planes. X-ray apparatus 6 is adjustably supported by a bracket 7 on a vertical standard 8.

Ordinarily the patient who is to be radiographed lies in a prone position on the radiographic table. The table may be adjusted to assume a vertical or some intermediate position by adjusting the supporting mechanism a foot-board 10 being provided as an end support to keep the patient in desired position. Radio-

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graphs are taken on X-ray sensitive films or plates supported by the plateholder 11.

The table top 9 may consist of any suitable supporting material. Conveniently it may consist of fibrous composition sheets, such as plywood, or plastic-bonded cardboard, the edges of which are reenforced by metal channels 12, 13. Even though the table top and the channels 12, 13 assume room temperature in a hospital or physician's office, they are below what may be called comfort temperature which is about 92° F. that is approximating skin temperature which will not be sensible as hot or cold.

In accordance with my invention, the multiple table top includes a thin sheet 14 of metal, such as 0.0003" aluminum foil which as shown in Figs. 2 and 3 is interleaved with the plywood, or other composite sheet material 15 constituting the supporting surface. As indicated in the drawing the metal 14 which constitutes an electric heater is located closely adjacent the top surface of the surface with which the patient comes into contact. Electric terminals 16 and 17 are provided at opposite ends of the heater. Electric conductors 18 and 19 which respectively are connected to the terminals 16, 17 serve to warm the channels 12 and 13, their resistance R being so chosen with respect to the current carried by these conductors the edge reenforcements 12 and 13 are warmed to a comfort temperature. As shown in the drawing the conductor 18 is led from the depending plate of the terminal 16 through the channel 12 to the right-hand or foot-end of the table and back. The conductor 19 is led from the terminal 17 through the channel 13 to the left-hand or head-end of the table. The conductors 18, 19 are connected to the low voltage secondary winding of a transformer 20. The primary winding of the transformer is connected by the conductors 21, 22 to a conventional supply source (not shown) as for example: service lines carrying 110 volt alternating current. A number of taps 23 and a switch 24 are provided to so regulate the primary excitation that a current of about 100 amperes at a potential of about two volts will be provided for warming the conductors 18 and 19 and the sheet-form heater 14 to the temperature required for the comfort of the patient. In any event, the secondary voltage should be so low that no danger of electric shock to the patient exists if the terminals of the heater or the channel conductors should become grounded or short-circuited. Even if a wet skin surface should come into con-

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tact with a conductor charged to two volts no electric shock would be felt.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A radiographic table comprising the combination of a planar table top of laminated non-metallic material, a thin metal foil substantially co-extensive with said support and being interposed between laminations of said table top and terminal means for conducting through said foil an electric current of sufficiently high amperage to warm said table top to substantially skin temperature.

2. An apparatus for the examination of patients by means of X rays comprising a radiator of said X rays, a radiographic table, and a radiographic detector of said radiations, said radiographic table comprising the combination of a planar table top of laminated nonmetallic material, a thin metal foil substantially coextensive with said support and being interposed between laminations of said table top and terminal means for conducting through said foil an electric current of sufficiently high amperage to warm said table top to substantially skin temperature.

3. In an apparatus for the radiographic examination of patients comprising a radiator of

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X rays, a support on which the patients are located and which is adapted to receive and transmit said X rays, and a radiographic detector, the improvement which comprises a thin continuous metal foil coextensive with said support and in heat conductive relation with said support, said foil being heated by the passage of an electric current through said foil, said foil being of uniform thickness to uniformly pass said X rays.

WILLIAM K. KEARSLEY.

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