July 19, 1927. 1,636,419

E. HOLLANDER

FLUOROSCOPIC PROTECTOR.

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Fig. 2

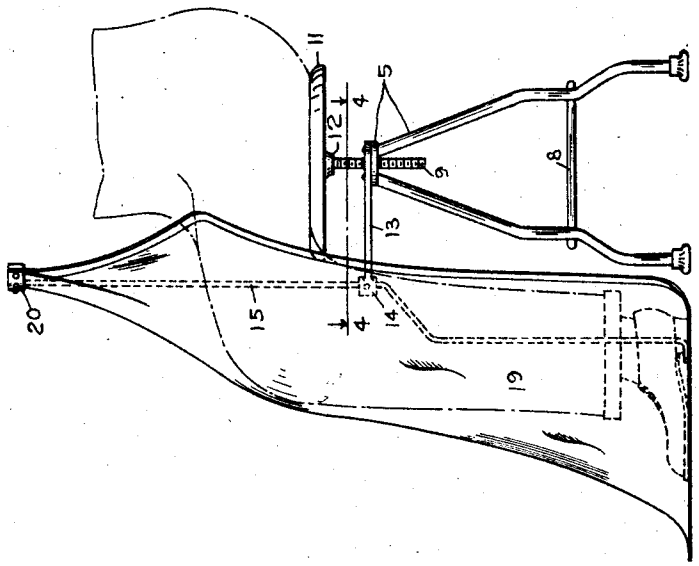
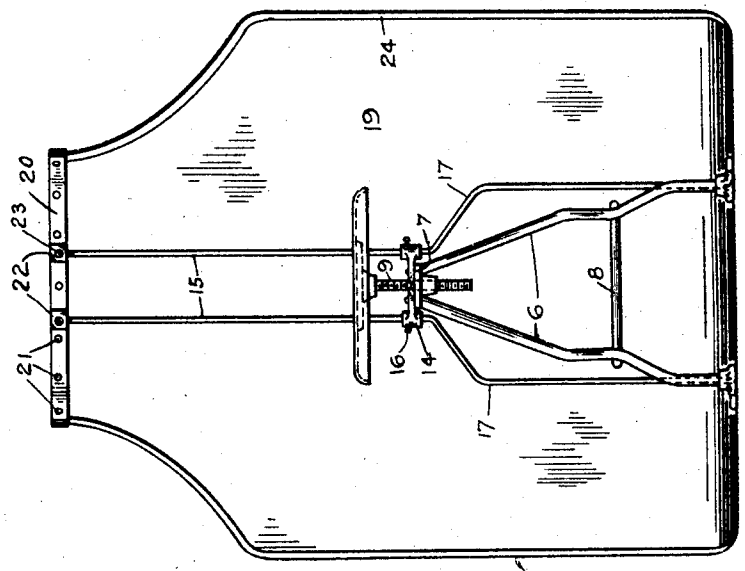


Fig. 1



Edward Hollander Inventor

By his Attorney
Clarence R. Campbell.

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Fig. 4

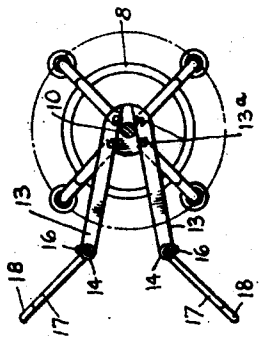
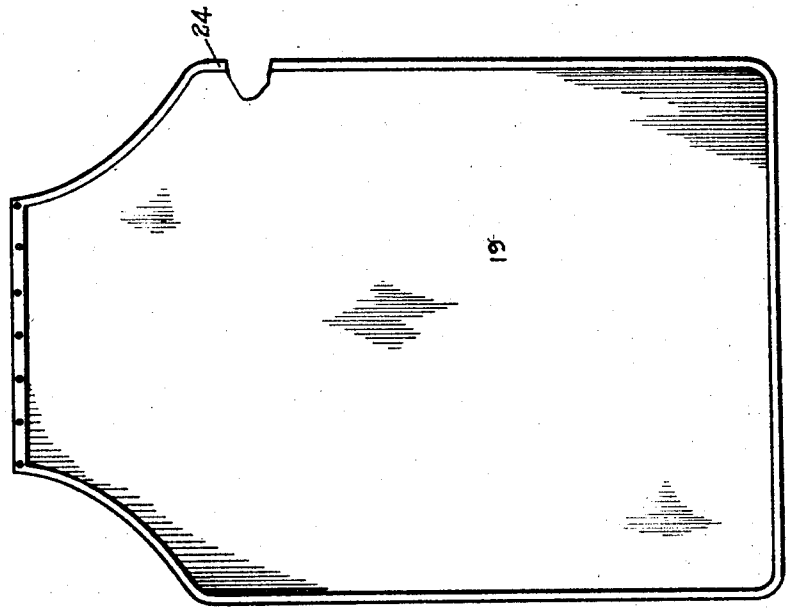


Fig. 3



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Patented July 19, 1927. 1,636,419

UNITED STATES PATENT OFFICE.

EDWARD HOLLANDER, OF NEW YORK, N. Y., ASSIGNOR TO THE KNY-SCHEERER CORPORATION OF AMERICA, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FLUOROSCOPIC PROTECTOR.

Application filed March 16, 1926. Serial No. 95,022.

My invention relates to an improvement in a fluoroscopic protector and the novelty consists in the adaptation and arrangement of parts as hereinafter set forth.

In making fluoroscopic examinations doctors who specialize in this field often make ten or fifteen such examinations every day and they have found by actual experience that such frequent exposure of their bodies to the X rays coming through the patient cause severe intestinal disturbances and also tend to sterilize the organs of reproduction.

The possibility of these serious results to the fluoroscopic specialist have been eliminated by my device which makes it impossible for the X rays to reach or effect the doctor using a fluoroscope.

Referring to the drawings Figure 1 is a rear elevation of my device. Figure 2 is a side view showing parts in dotted outline and the lower portion of an operator in position. Figure 3 is a front elevation of the apron member and Figure 4 is a top plan view of the device without the apron member on the line 4—4 of Figure 2.

In the drawings 5 is a chair member having legs 6 which at their upper ends are joined in a circular plate 7 and at their middle portions are joined by cross bars 8. A threaded post 9 is adapted to engage a threaded hole 10 in the circular plate 7 and said post 9 carries a circular seat 11 which is rigidly secured to said post at its upper end at 12. A pair of brackets 13 are rigidly secured to said circular plate 7 at 13ª. In the outer ends of said brackets 13 are head portions 14 through which are movably mounted a pair of rods 15 by means of set screws 16. The rods 15 have outturned portions 17 just below the head portions 14 and terminate at their lower ends in horizontal foot members 18. An apron 19 of a material impenetrable to the X rays, which I prefer to make of heavy rubber which is thoroughly loaded with lead, is fixedly secured to an arced member 20 at 21 and said arced member 20 has support members 22 rigidly secured thereto and which are adapted to fit over the upper ends of said rods 15 and be held therein by set screws 23. A binding 24 is stitched in the usual manner around the edge of apron 19 to protect the same.

As the operator sits on the chair member 5 facing the patient and with the X rays coming through the patient from the further side of the patient and having adjusted the seat 11 to the required height and placed his feet inside of the foot portions 18 the apron 19 will fold around but not contacting with the legs of said operator but is kept from falling in too far on the sides being supported by the outturned portions 17 of rods 15 which are so constructed for that purpose and thus prevent the possibility of the operator becoming thereby exposed to the X rays. This is important as the apron 19 must be thoroughly flexible and therefore tends to wrap about the legs of the operator otherwise.

I do not confine myself to the exact construction shown as many variations may be made without departing from the spirit and intent of my invention.

I claim:

1. In a fluoroscopic protector the combination of supporting means for the operator to sit on and means supported by said supporting means for preventing the X rays from reaching the lower half of the body of said operator.

2. In a fluoroscopic protector the combination of a chair member having a seat, means for varying the height of said seat, supporting means attached to said chair and an apron carried by said supporting means impenetrable to X rays.

3. In a fluoroscopic protector the combination of supporting means for the operator adjustable as to height and flexible means carried by said supporting means for shielding the operator from X rays.

4. In a fluoroscopic protector the combination of a chair member having an adjustable seat, supporting means attached to said chair comprising brackets rigidly attached thereto in the outer ends of which are removably mounted vertical supporting rods and an apron impenetrable to X rays mounted on said supporting rods.

5. In a fluoroscopic protector the combination of a chair member having an adjustable seat, supporting means attached to said chair comprising brackets rigidly attached thereto, vertical supporting rods mounted in the outer ends of said brackets, an apron impenetrable to X rays removably mounted on said supporting rods and outturned members in said supporting rods to hold the apron from falling in at the sides.

6. In a fluoroscopic protector the combination of supporting means for the operator to sit on and means supported by said supporting means for preventing the X rays from reaching the lower half of the body of said operator and means for holding said X ray preventing means from contacting with the operator.

7. In a fluoroscopic protector the combination of a chair member having a seat, means for varying the height of said seat, supporting means attached to said chair, an apron carried by said supporting means impenetrable to X rays and means for preventing said apron from falling in at the sides.

8. In a fluoroscopic protector the combination of a chair member having a seat, means for varying the height of said seat, supporting means attached to said chair and a heavy rubber apron saturated with lead carried by said supporting means.

In testimony whereof I affix my signature.

EDWARD HOLLANDER.