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X-RAY SHIELD

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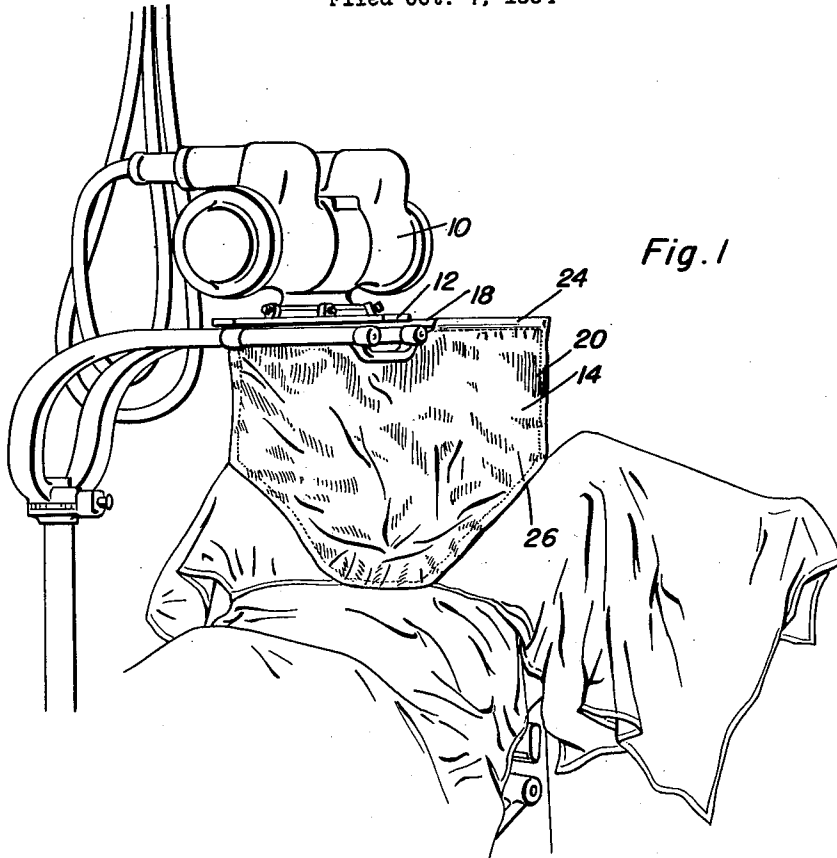


Fig. 1

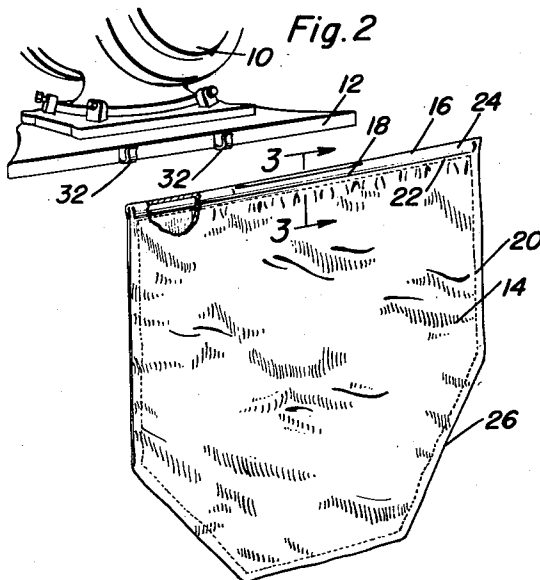
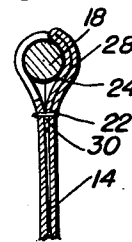


Fig. 2

Fig. 3



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X-RAY SHIELD

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2 Claims. (Cl. 250-108)

This invention relates to a shield for use in combination with X-ray machines and has for its primary object the provision of convenient means for preventing the rays from an X-ray machine from reaching the operator thereof.

Prolonged exposure to the various types of radiant energy reflected from and transmitted by X-ray apparatus is often injurious if not deadly to the technicians, doctors and attendants who utilize the X-ray machine. In order to minimize the amount of radiation to which these persons are subjected, various types of shielding garments have been utilized but it has been found that protective gloves hinder the operator's manipulation of instruments and an X-ray protective garment is so heavy as to render the operator uncomfortable and to prevent proper operation of the equipment.

Therefore, the primary object resides in the provision of a shield adapted to be easily installed on the X-ray machine and which is contoured to conform to various portions of a patient's body so that the operator standing therebehind may manipulate various instruments while being safeguarded from continuous exposure to the radiation.

Still further objects and features of this invention reside in the provision of a shield for use in combination with an X-ray machine that is strong and durable, simple in construction and manufacture, which may be formed in sets of various shapes and sizes to conform to contours of various parts of a patient's body, and which is inexpensive to produce, thereby permitting wide distribution and utilization.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this X-ray shield, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a perspective view illustrating the shield comprising the present invention as operatively installed on an X-ray machine;

Figure 2 is an exploded perspective view with parts of the shield being shown in section; and

Figure 3 is an enlarged vertical sectional detail view as taken along the plane of line 3-3 in Figure 2.

With continuing reference to the accompanying drawings, wherein like reference numerals designate similar parts throughout the various views, the reference numeral 10 generally designates a conventional X-ray machine having a mounting plate 12 on which the shield forming one of the elements of the present invention is adapted to be installed.

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The shield 14 is constructed from a radiant energy opaque fabric such as fiber glass containing a quantity of lead compounds or the like. The shield 14 is formed from a sheet of this fabric which is bent upon itself at the top edge 16 thereof so as to fold downwardly about a rod 18 received between the folds. A seam 20 extends about the periphery of the shield 14 to join the edges of the folded halves of the sheet and the seam has a portion 22 thereof extending across the shield 14 and spaced from the top edge 16 so as to form a loop, as at 24, for encasing the rod 18. The lower edges of the shield 14 are contoured as at 26 to conform to the contours of a patient's body at a particular part thereof, such as shown in Figure 1 as at the crotch of a patient. The shield 14 is, of course, flexible.

A flap 28 is cut in the loop 24 with the edge of the flap 30 being held in place by the stitching 22. This forms an opening so that substantially U-shaped clips 32 can be engaged under and hold the rod 18 so as to support the shield 14 on the mounting plate 12.

It is to be recognized that various shields 14 of different sizes and shapes can be readily attached and detached to the clips 32 by the clips 32 engaging through the openings formed by the flaps 28 so as to engage the rods 18.

From the foregoing, the construction and operation of the device will be readily understood, and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. For use in combination with an X-ray machine having a mounting plate with a plurality of clips attached thereto at one edge thereof, a shield of flexible opaque radiant energy fabric having a rod at the upper edge thereof, said rod being detachably engaged in said clips, said shield being formed of a sheet of fabric folded back upon itself at the upper end thereof, a seam adjacent the upper edge of said shield forming a rod receiving loop, a flap cut in said loop with said seam extending through said flap to permit access of said clips to said rod.

2. For use in combination with an X-ray machine having a mounting plate with a plurality of clips attached thereto at one edge thereof, a shield of flexible opaque radiant energy fabric having a rod at the upper edge thereof, said rod being detachably engaged in said clips, said shield being formed of a sheet of fabric folded back upon itself at the upper end thereof, a seam adjacent the upper edge of said shield forming a rod receiving loop, a flap cut in said loop with said seam extending through said flap to permit access of said clips to said rod, the lower edges of said shield being contoured to conform to the contours of a patient's body.

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