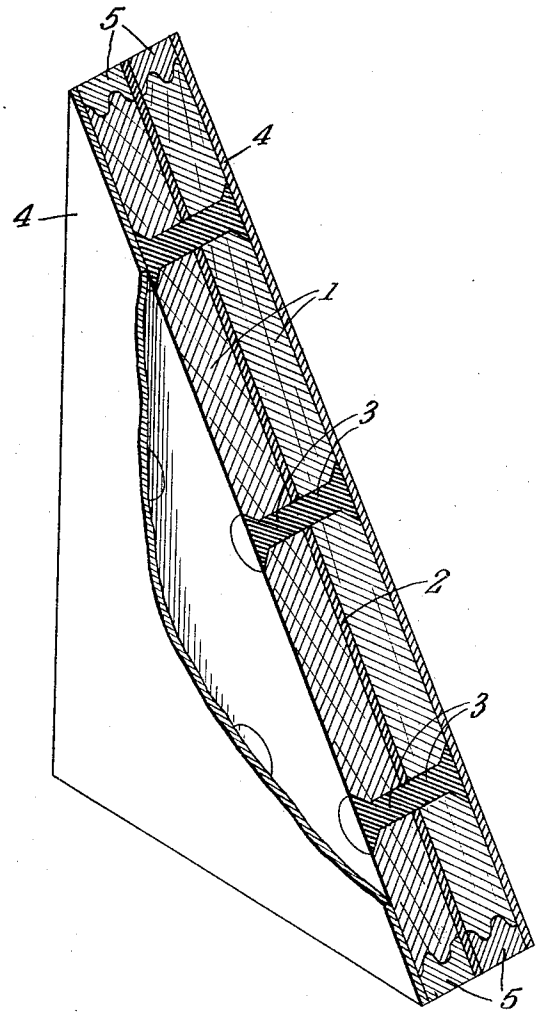
April 19, 1932. S. LAPOF 1,854,942

X-RAY SHIELDING DEVICE

Filed March 11, 1931



INVENTOR
Samuel Lapof
BY Emil B. Minders
ATTORNEY

Patented Apr. 19, 1932 1,854,942

UNITED STATES PATENT OFFICE

SAMUEL LAPOF, OF NEW YORK, N. Y., ASSIGNOR TO BAR-RAY PRODUCTS, INC., OF NEW YORK, N. Y., A CORPORATION

X-RAY SHIELDING DEVICE

Application filed March 11, 1931. Serial No. 521,747.

This invention relates to X-ray shielding devices, and more particularly to means for preventing the passage of X-rays through doors, partitions, panels, etc., made of wood, and other materials.

It is well known that lead is impervious to X-rays, and heretofore, it has been the practice to shield doors, panels, and the like, by covering such articles with sheets of lead. However, such a method of shielding has been objectionable in that the lead sheet is secured to the wood or other material by means of common wire nails or screws, which are made from metals which are not impervious to the X-rays, with the result that there are numerous apertures in the lead sheet through which the X-rays may freely pass.

It is, therefore, an object of this invention to provide a door, panel or the like, made from wood or other materials, which is provided with means to render it absolutely impervious to X-rays.

A further object is the provision of a method of attaching a lead sheet to a panel of fibrous material or the like or other material so that there will be no areas through which X-rays may pass.

These and other objects are attained by the novel construction and combination of parts hereinafter described and illustrated in the accompanying drawing, forming an essential part of this disclosure, and in which the figure is a perspective view in section of a corner of a device embodying the invention.

Referring to the drawing, the figure shows a corner of a device which is made from several layers of material such as wood or other suitable materials. As shown, the structure comprises two boards or panels 1, of wood or other suitable material, separated by a sheet 2, of lead. Holes are bored through the boards and lead sheet and countersunk, after which the holes are filled with lead plugs 3.

As will be clearly seen, the flanges at the ends of the plugs, due to the countersunk portions of the holes, presents a complete lead shield, even though there may be minute spaces at the juncture of the plugs and the lead sheet. At the same time the flange heads on the plugs have a riveting action to firmly bind the boards 1 and the lead sheet 2 together.

The outer surfaces of the boards or panels 1 and the plugs 3 may be then concealed by a veneer 4, and the edges of the panels finished by strips 5 of wood or other suitable material.

From the above description it will be seen that there has been provided a simple and effective device for preventing the passage of X-rays. The structure described may be used for doors, panels, etc., and in any situation where it is necessary to prevent the passage of X-rays through articles made of wood, or other materials.

While boards or panels, 1, have been described as being made of wood or similar materials, it is understood that such boards or panels may be made of various metals such as steel, copper, etc.; or the boards or panels may be made of any suitable material, without departing from the spirit of the invention.

The foregoing disclosure is to be regarded as descriptive and illustrative only, and not as restrictive or limitative of the invention, of which embodiments may be constructed including modifications without departing from the general scope herein indicated and denoted in the appended claims.

Having thus described the invention, what is claimed as new and desired to protect by Letters Patent, is:

1. A device for preventing the passage of X-rays, comprising two boards of fibrous material, a sheet of lead positioned between the boards, said boards and sheet having holes bored through them, the ends of the holes being countersunk, and integral lead plugs completely filling the holes.

2. A device for preventing the passage of X-rays, comprising two panels, a sheet of lead positioned between the panels, said panels and sheet having communicating holes, and integral lead plugs completely filling the holes, the plugs having enlarged heads of greater diameter than the holes.

3. A device for preventing the passage of X-rays, comprising a panel, a sheet of ma-

terial impervious to X-rays mounted on the panel, said panel and sheet having communicating holes, and integral plugs of material impervious to X-rays filling the holes, said plugs having enlarged heads of greater diameter than the holes.

Signed at New York city, in the county of New York and State of New York, this 26th day of February, A. D. 1930.

SAMUEL LAPOF.