L. W. WRIGHT.

FIRE SHIELDS FOR THEATERS, &c.

No. 187,340. Patented Feb. 13, 1877.

Fig. 3.

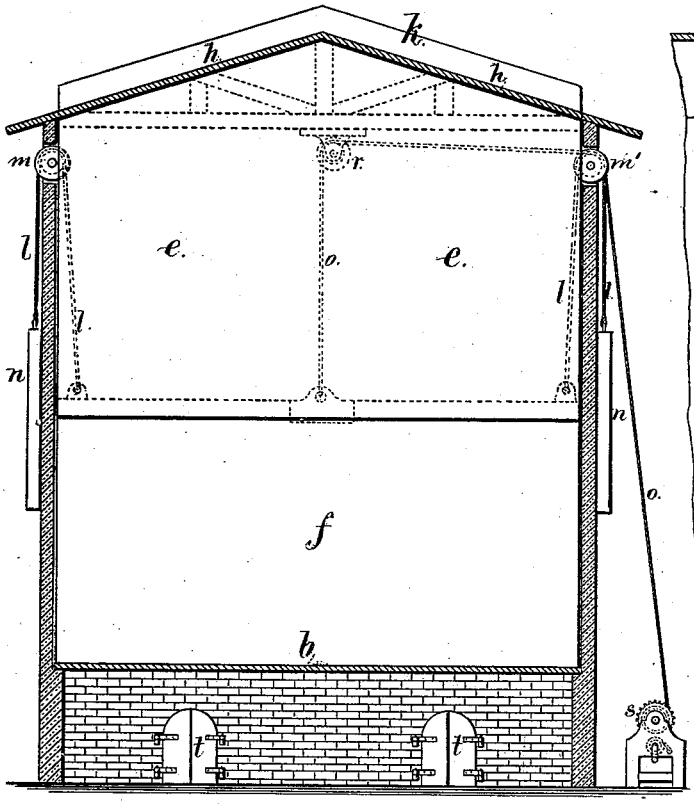
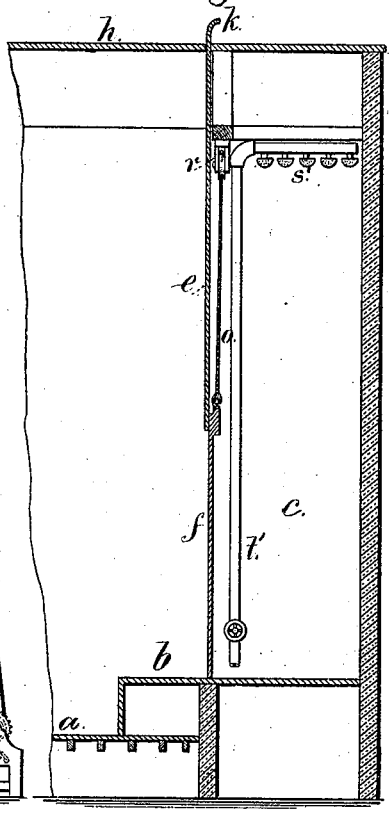


Fig. 2.



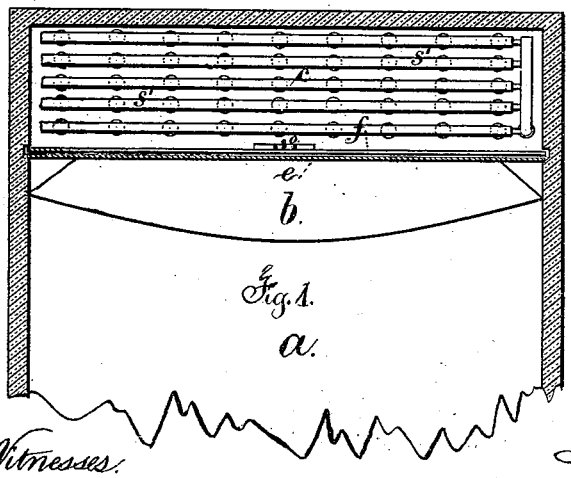


Fig. 1.

a.

Witnesses.

Chas. H. Smith

Geo. T. Pinckney

Inventor.

Lemuel W. Wright.

per Lemuel W. Serrell

Atty

UNITED STATES PATENT OFFICE

LEMUEL W. WRIGHT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FIRE-SHIELDS FOR THEATERS, &c.

Specification forming part of Letters Patent No. **187,340**, dated February 13, 1877; application filed January 15, 1877.

To all whom it may concern:

Be it known that I, LEMUEL W. WRIGHT, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Protecting Public Buildings in Case of Fire, of which the following is a specification:

In theaters and other public buildings containing a stage, the risk of fire exists principally in connection with the scenery upon the stage. There is but little risk of fire originating in the auditorium.

My invention is made with reference to separating the stage entirely from the auditorium, in order that fire commencing upon the former cannot communicate to the latter, and there will thus be opportunity for persons to pass out of the building.

My improvements can be applied to almost every theater or public building already constructed, as well as to new buildings.

I make use of a stationary sheet-iron septum between the scenery and curtain of the stage and the main portion of the building, such septum extending to the roof, and, by preference, above it, so as to separate the ceiling and roof of the auditorium from the portion of the building occupied by the stage, and in combination therewith a sliding shield is used that is counterpoised, and can be lowered or drawn down with ease, so as to entirely shut off the portion of the building where there is risk of fire from the portion occupied by the audience.

In the drawing, Figure 1 is a sectional plan of a building with my protection added thereto. Fig. 2 is a vertical section, and Fig. 3 is a cross-section, of the auditorium showing the shield.

It will be understood that the details of construction will vary according to the character of the building. I have shown the auditorium at *a*, and the front of the stage-platform at *b*, and *c* represents the portion of the building allotted to scenery and other matters connected with the stage. The septum *e* is made of plates of iron riveted together, and extending across the stage at the opening for the curtain, and the lower edge of this septum is as low down as consistent with the scenery, and it extends from one side wall to the other and up into the roof, and, by preference, it extends above the top of the roof *h*, as seen at *k*. In cases where the boxes at the sides of the stage are not separated from the scenery by brick walls, the iron septum should be extended down behind such box portions.

In all instances care is to be taken to prevent the sheet or plate iron from direct contact with the wood, so that such wood will not catch fire although the scenery may be in a blaze.

This septum may be of ordinary boiler-iron more or less corrugated, and stiffened by braces, so as to prevent buckling, and it is preferable to build this plate at its vertical edges into the brick walls, or permanently attach the same to the walls.

At the scenery side of the septum there is the sliding shield *f*, that is preferably guided at its edges in slide-ways, and it is suspended by a wire rope or ropes, *l*, over pulleys *m m'* connected with a counterpoise, *n*. In the normal position this shield will be drawn up behind the septum and held there, and it will generally be preferable to provide a wire rope, *o*, passing from the center of the septum over the pulleys *r m'* to the windlass-barrel *s* in some convenient place in the auditorium, or outside the building, so that the shield can be lowered. I prefer to have the shield heavier than the counterpoise, so that the shield can be closed rapidly.

For the escape of those behind the scenes there may be a spring door in the shield, preferably opening toward the auditorium, so as to yield when pressed from the same side of the shield.

By this construction the spread of fire will be checked, so that time will be allowed for the escape of the audience, and under almost all circumstances the auditorium can be saved.

Iron doors should be provided at the doorways *t* below the stage, and at all other places of communication between the stage and auditorium.

The pipes *s'* located in the upper portion of the building over the stage are provided with roses or sprinklers, and a stand-pipe and cock, *t'*, is provided, so that water can be admitted in a shower upon the stage-scenery to extinguish any fire.

I claim as my invention—

1. The stationary sheet-metal septum *e* in the upper part of the building, separating the ceiling and roof of the auditorium from the portion of the building occupied by the stage, in combination with the sliding sheet-metal shield *f* and counterpoise, substantially as set forth.

2. The arrangement herein specified of the sheet-metal septum *e* and shield *f* between the scenery and the auditorium, and the water-pipes and jet-nozzles above the scenery, for confining and extinguishing fire in places of amusement, substantially as set forth.

Signed by me this 2d day of January, 1877.

L. W. WRIGHT.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.