L. SUES.

THEATERS AND METHODS OF PROTECTING THE SAME FROM FIRE.

No. 188,315. Patented March 13, 1877.

Fig. 1

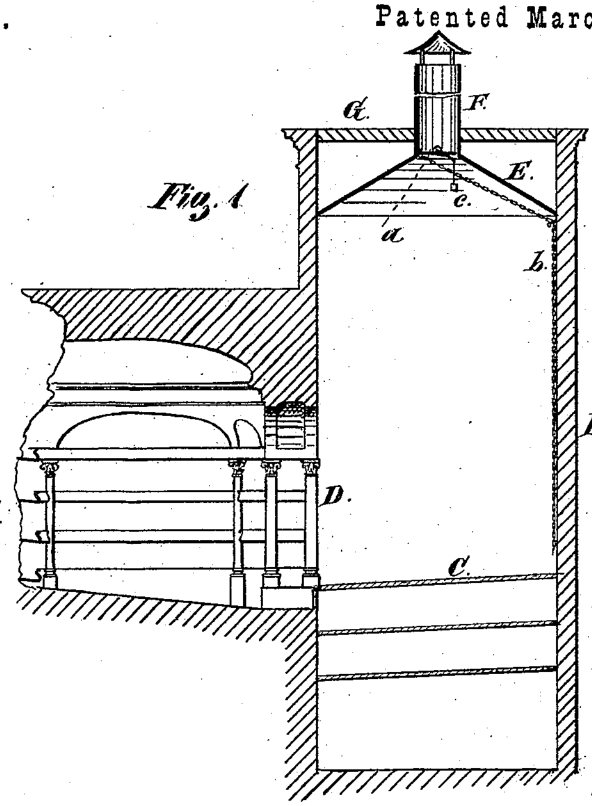
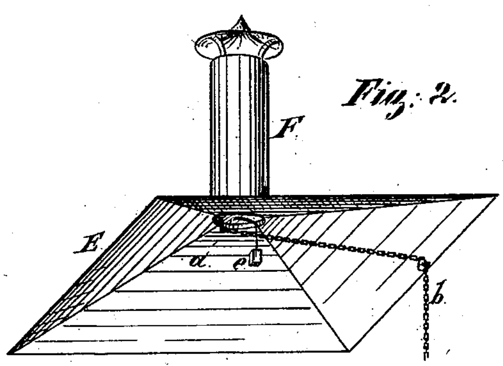


Fig: 2.



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LOUIS SUES, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN THEATERS AND METHODS OF PROTECTING THE SAME FROM FIRES.

Specification forming part of Letters Patent No. **188,315**, dated March 13, 1877; application filed January 24, 1877.

To all whom it may concern:

Be it known that I, LOUIS SUES, of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Theaters, and a Method of Protecting the Same against Fire, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section. Fig. 2 is a detail in perspective.

Theaters frequently take fire, and in almost all cases the fire originates in that portion of the building devoted to the stage and scenery. There is usually a draft from the stage to the auditorium, especially when the doors are opened, and the flames and smoke pass rapidly from the stage to the audience-room.

The object of my invention is to construct theaters so that this difficulty will be obviated to a great extent; and it consists in a large outlet in the roof over the stage for the passage of smoke in case of fire, so that a current of air will be induced from the auditorium to the stage, instead of from the stage to the auditorium, and in combining with such outlet a ceiling over the stage portion of the building, which will, for a considerable time, resist the action of fire, thus giving the audience time to escape.

In the drawings, A indicates the auditorium; B, that portion of the building devoted to the stage; C, the stage; D, opening between the stage and auditorium. E is the ceiling over the stage. This ceiling I make practically fire-proof, either by making it wholly of metal, or by the use of metal joists with wire or wire-cloth for lathing, and usual plastering, or in other suitable manner. F is a large passage, to be made of fire-proof material. It passes through the roof G; its lower end is properly secured in the ceiling, and is open, except when closed by the valve *a*. *b* is a chain, by means of which the valve *a* can be opened. *c* is a weight, which holds the valve in position when closed.

The operation is as follows: If a fire breaks out upon the stage, the valve *a* is to be immediately opened. The ascending heat and smoke will rise to the ceiling and escape through F, thereby producing a current from the auditorium to the stage, instead of the reverse, thus keeping the smoke and flames from the audience-room while the audience is escaping. In cases where a fire-proof drop-curtain is used, suitable openings may be somewhere provided to admit air to the stage.

In theaters of the usual size, the passage F should be about six feet in diameter. It may be carried some distance above the roof, which will increase the draft. Two or more of these passages F may be used. The opening at the top of the passage F may be protected from storms by a cap.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a theater or other similar building, the passage F, provided with a valve, *a*, in combination with a fire-proof ceiling, E, both located in that part of the building devoted to the stage, substantially as and for the purposes set forth.

2. The method herein described of protecting audiences in theaters and similar buildings from the effects of smoke and fire in case the building takes fire about the stage, by providing over the stage an outlet for smoke and flame, thus inducing a current of air from the auditorium to the stage, substantially as set forth.

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