(No Model.)

A. A. HAGEN.

PROTECTING SCREEN FOR AIR AND LIGHT SHAFTS.

No. 323,576. Patented Aug. 4, 1885.

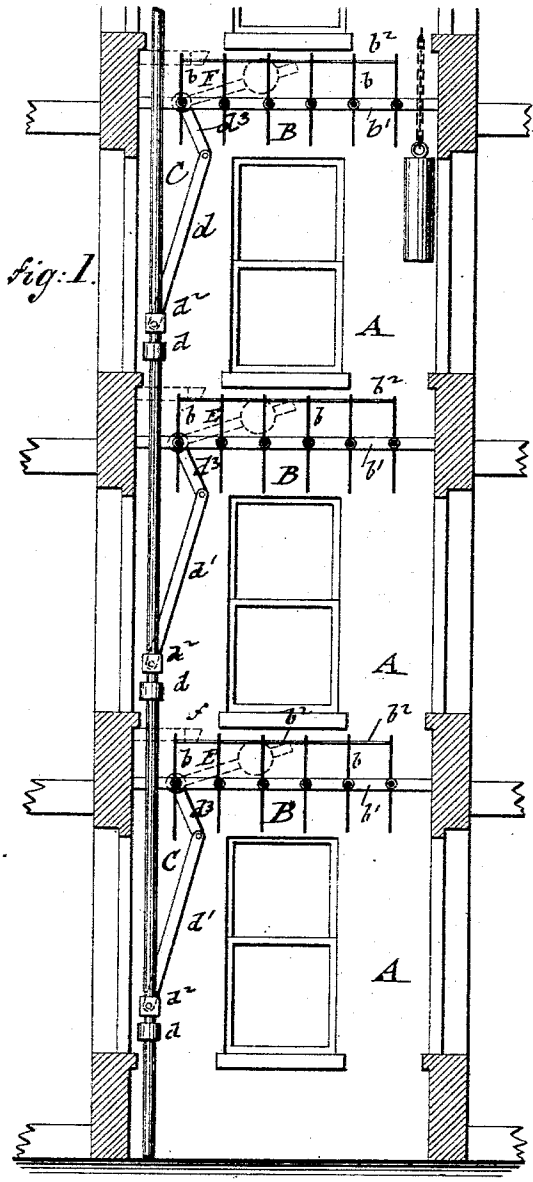


Fig. 1.

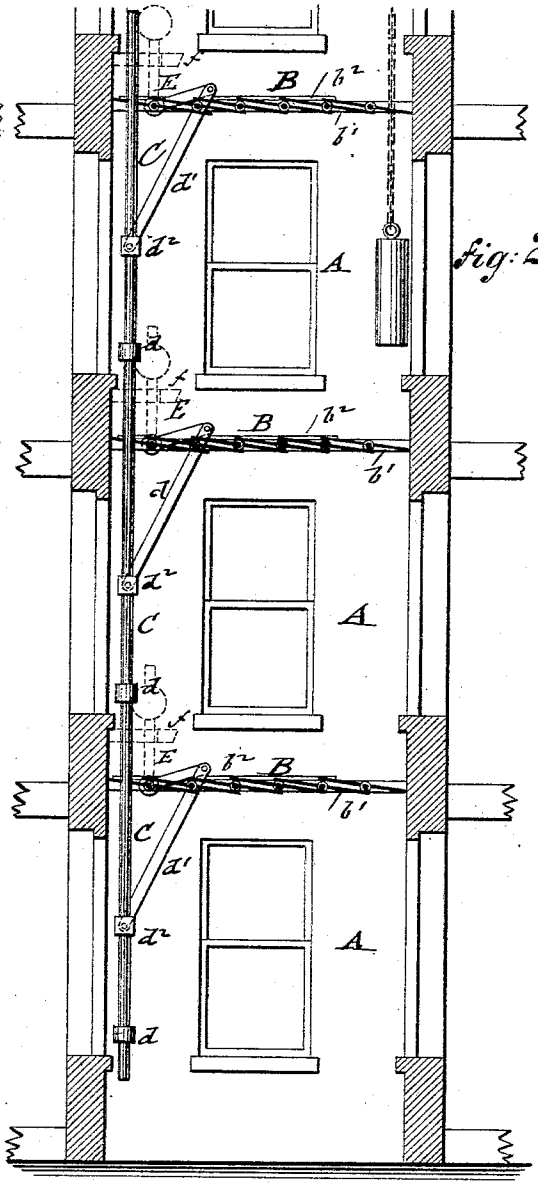


Fig. 2.

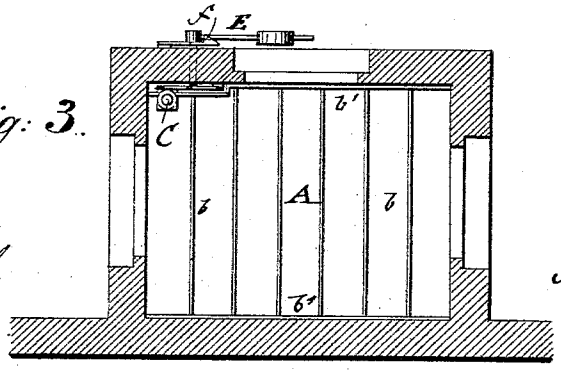


Fig. 3.

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UNITED STATES PATENT OFFICE.

AUGUSTUS A. HAGEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO MACARIUS HAGEN, OF SAME PLACE.

PROTECTING-SCREEN FOR AIR AND LIGHT SHAFTS.

SPECIFICATION forming part of Letters Patent No. 323,576, dated August 4, 1885.

Application filed June 19, 1885. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS A. HAGEN, of the city, county, and State of New York, have invented certain new and useful Improvements in Protecting-Screens for Air and Light Shafts, of which the following is a specification.

In the high dwellings recently erected a fire originating in one of the lower stories is rapidly conveyed to the upper stories in the air and light shafts, which act in the nature of chimneys, as there are no means to protect the upper floors against the sudden upward leaping of the flames in the air and light shafts.

The object of this invention is to furnish for the air and light shafts of dwellings protecting screens or partitions, by means of which said shafts may be closed in case of fire from any story, so as to prevent the spreading of the fire to the upper stories and localize it in the story where it originated.

The invention consists of protecting screens or partitions, which are arranged in the air-shaft on a level with the floor, said screens or partitions being formed of a number of pivoted plates that are connected by a pivot-rod and moved into open or closed position by a vertically-guided governing-rod, which rod is connected by intermediate mechanism to the different screens, and operated from the inside of the building by suitable levers and locking devices.

In the accompanying drawings, Figures 1 and 2 represent vertical sections of an air and light shaft of a dwelling, showing my improved protecting fire-screens respectively in open and closed positions; and Fig. 3 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents an air and light shaft of an apartment or tenement house, hotel, or other building. In the air and light shaft A are arranged, on a level with each floor, guard screens or partitions B, that are formed of a number of sheet-metal plates, *b*, that are pivoted to bearings of horizontal supporting-bars *b'*, attached to the walls of the light-shaft. When the screens are in their normal positions, the plates are in a vertical position parallel to the walls of the air-shaft, so that the air and light can pass between the plates without obstruction. The screen-plates *b* are connected by a pivot-rod, b^2, so that all the plates of the screen will turn when one of them is turned. A vertical governing-rod, C, is guided in fixed sleeves *d d*, attached to the wall and preferably balanced by a weighted chain passed over pulleys at the upper part of the shaft A. The governing-rod C is connected by rods *d'*, pivoted to adjustable collars d^2, to crank-arms d^3, that are keyed to the pivots of the end plates, *b*, of each screen or partition, so that when the governing-rod C is raised or lowered all the plates of the screens or partitions are thrown into closed or open position, as shown, respectively, in Figs. 2 and 1.

Any suitable means for raising the rod C and closing the guard screens or partitions B may be used, provided they are arranged for each story, so that the occupant of each floor can readily, in case of danger, operate the rod C so as to throw the guard screens or partitions into closed position. In the drawings, the pivot of one plate of each screen or partition is extended through the wall, and provided at the inside with a weighted lever, E, which lever is thrown into vertical position when it is desired to close the screens or partitions until the lever is locked by a spring-catch, *f*, as shown in Figs. 2 and 3.

When it is desired to open the screens or partitions, the lever E is released from the spring-catch *f*, when the weights of the levers will readily lower the governing-rod C, and return thereby the pivot-plates of the guard-screens into open position, as shown in Fig. 1.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with an air and light shaft, of a guard screen or partition arranged for each floor, said guard screens or partitions being composed of pivoted plates and pivot-rods connecting said plates, and a vertically-guided governing-rod, and intermediate mechanism whereby the plates of all the screens are

thrown into open or closed position, substantially as set forth.

2. The combination of an air and light shaft having horizontal supporting-bars, a guard screen or partition arranged for each floor, said guard screens or partitions being made of plates pivoted to said bars and connected by pivot-rods, vertically-guided governing-rod, and lever mechanism connecting said rod with the screens, substantially as set forth.

3. The combination of an air and light shaft having horizontal supporting-bars, a guard screen or partition arranged for each floor, the guard screens or partitions being made of plates pivoted to said bars and connected by pivot-rods, a vertically-guided governing-rod, intermediate mechanism connecting the rod with the screens, and weighted levers connected to the screens on each floor for setting the screens into open or closed position, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

AUGUSTUS A. HAGEN.

Witnesses:

PAUL GOEPEL,

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