

(No Model.)

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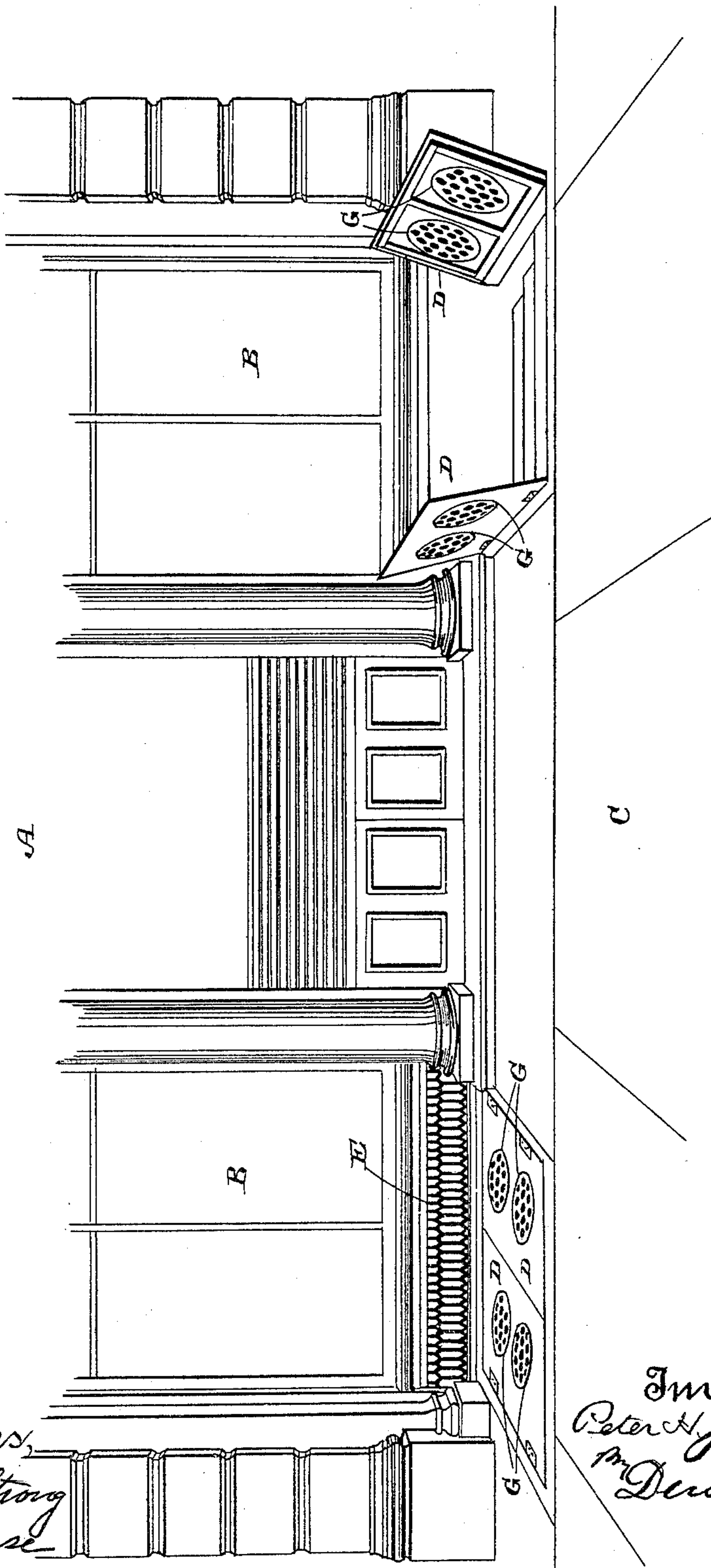
P. H. JACKSON.

BASEMENT AND SIDEWALK CONSTRUCTION.

No. 437,895.

Patented Oct. 7, 1890.

FIG. 1--



Witnesses,  
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(No Model.)

3 Sheets—Sheet 2.

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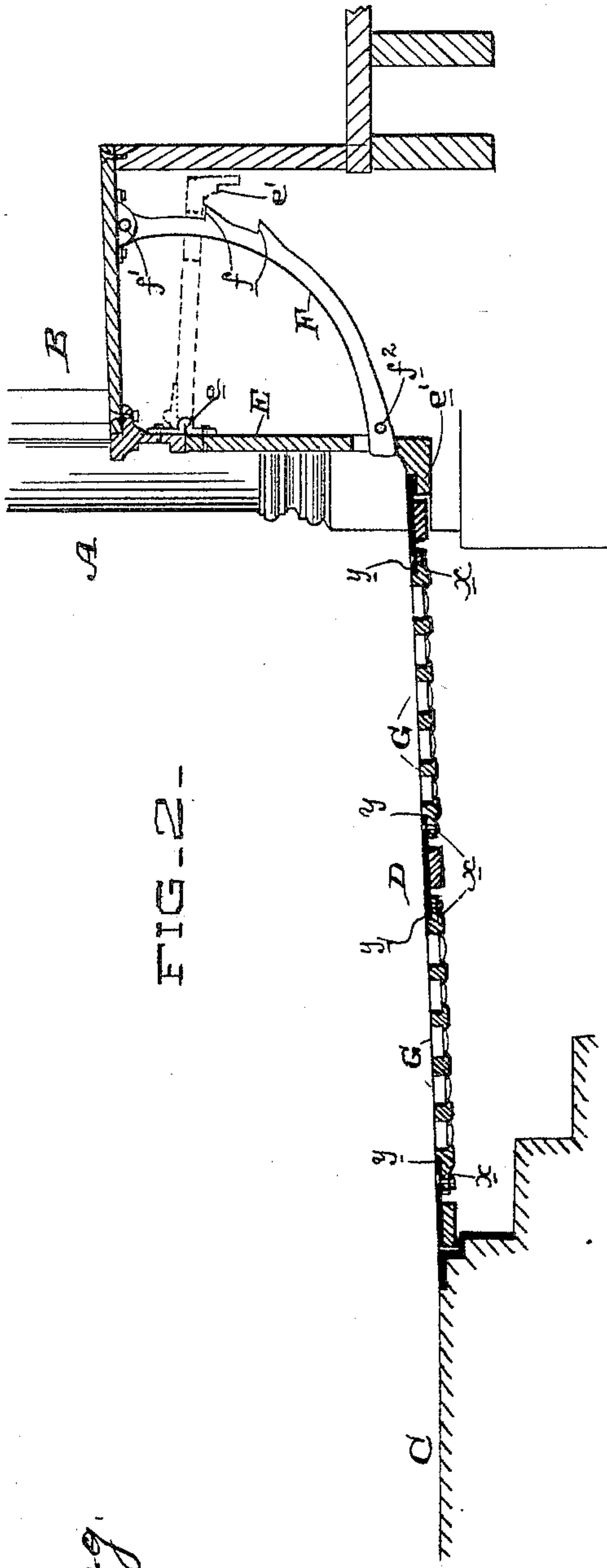


FIG-2-

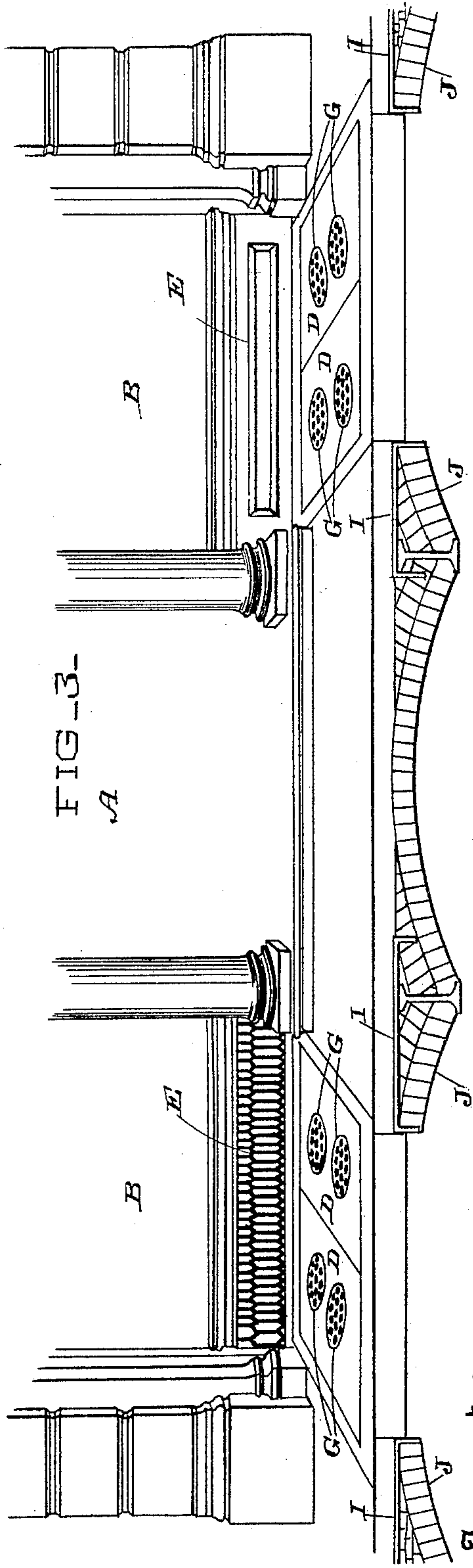


FIG-3-

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(No Model.)

3 Sheets—Sheet 3.

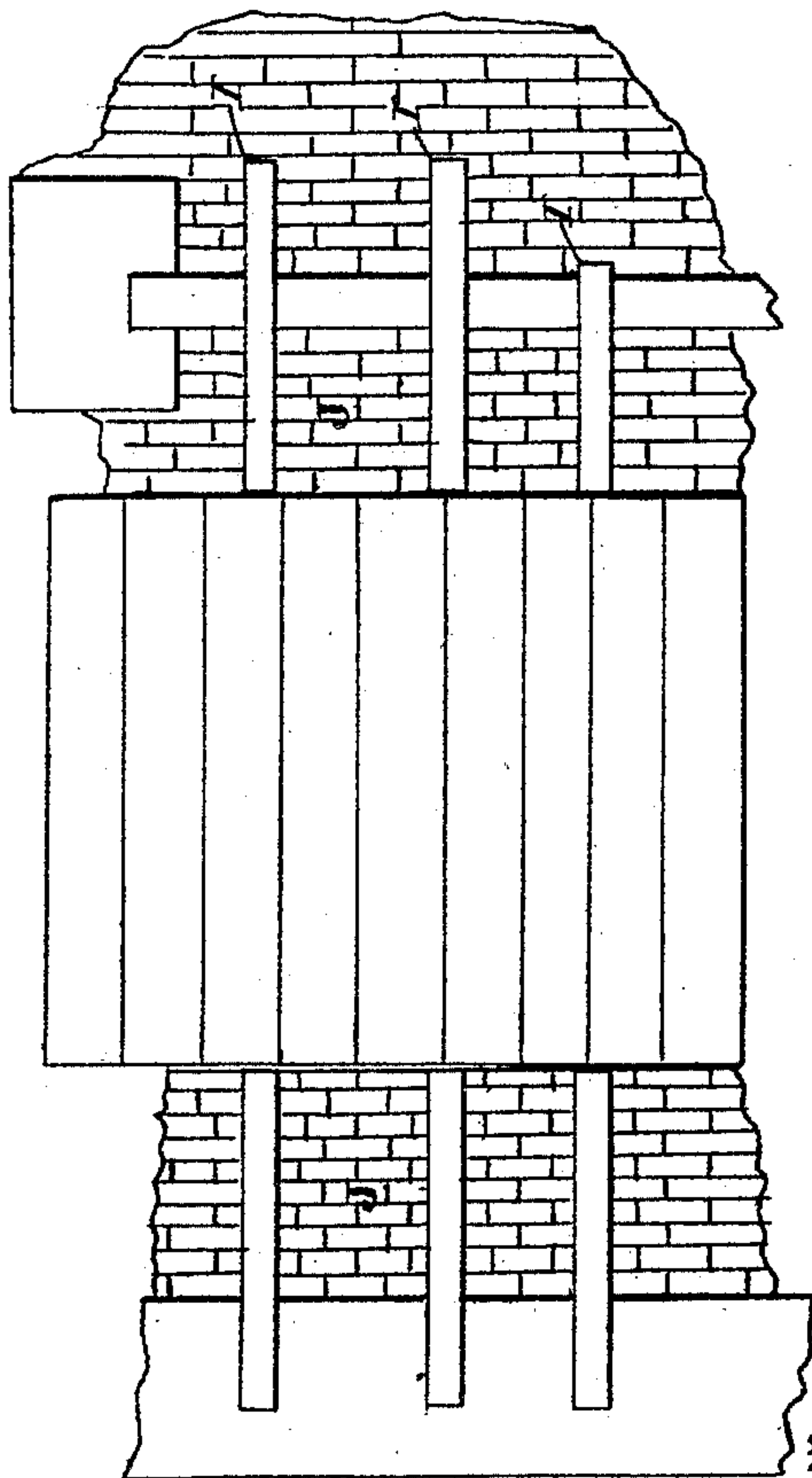
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FIG-4-



Witnesses,  
Geo. H. Strong,  
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FIG. 5.

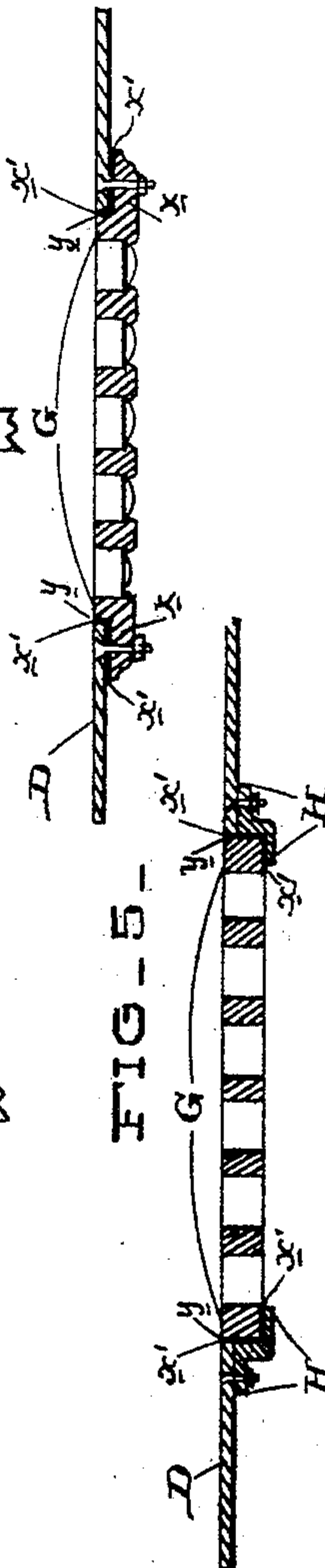


FIG-5-

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# UNITED STATES PATENT OFFICE.

PETER H. JACKSON, OF SAN FRANCISCO, CALIFORNIA.

## BASEMENT AND SIDEWALK CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 437,895, dated October 7, 1890.

Application filed May 31, 1890. Serial No. 353,864. (No model.)

*To all whom it may concern:*

Be it known that I, PETER H. JACKSON, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Basement and Sidewalk Construction; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of basements and sidewalks for buildings, and especially to those constructions of this class wherein a basement-entrance is present and located, as is generally the case with stores, directly under a show or display window.

My invention consists in the novel construction and arrangement of the panel, sash, grating, or other filling of the space beneath the show-window and above the basement-entrance, the novel clamps for the sectional arches which form the roof of the basement-extension or that part under the sidewalk, and the novel arrangement of the illuminator-covers in connection with the basement-entrance doors, all of which will be hereinafter fully described, and the novel features specifically pointed out in the claims. The objects of these several improvements will hereinafter appear in connection with the description of each.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of a store-front, showing two show-windows, the basement-entrance doors on the left being shown closed and those on the right being shown open. Fig. 2 is a detail vertical section of the base of the show-window, the entrance-doors and filling-panel closed and the open position of the latter shown in dotted lines. Fig. 3 is a view of a store-front and a vertical section of the sidewalk to show the clamps for the sectional arches. Fig. 4 is a horizontal section of the basement-entrance in the plane of the arch-clamps. Fig. 5 is a section of the entrance-door, showing the separate ring H, serving as a support for the illuminator-cover. Fig. 6 is a section showing the attachment of an illuminator-cover to the door.

The store-front is A, the show-windows B, the sidewalk C, the basement-entrance doors D, and the filling-in panel, grating, or sash is

E, located under the windows, the one on the left being shown as a grating and the one on the right as a panel, Fig. 3.

My first improvement relates to the panel, grating, or sash E. It is hinged at or near its top, as shown at *e* in Fig. 2, so that it may swing from a closed position (shown in full lines in Fig. 2) to a position shown in dotted lines in said figure. Its lower end has a flange or stop *e'*, which serves as a rest or support for the inner sides of the entrance-doors. When it is swung back out of the way, it provides sufficient head-room when the entrance-doors are open to permit a person to pass up-right from the street down the stairs into the basement, and in case the opening is used as a slideway from sidewalk to basement for sliding down boxes, casks, and the like, the swinging panel, sash, or grating when swung back admits of sufficient room for the purpose.

When the basement-entrance is not in use and it is desirable to have it closed, as if there were no basement-entrance, then by dropping the panel or sash and fastening it and closing the entrance-doors with their inner ends resting on a flange or stop *e'*, formed on the bottom of the panel, a walking-surface on top of the doors is formed on a plane with the rest of the sidewalk, so that a person may stand directly in front of the show-window where goods are displayed.

Sidewalk or basement entrance-doors are usually of iron or steel in two folds, hinged at the sides to an iron or steel frame, which extends on all four sides in box form, so as to equally support the doors on all outside edges; but to admit passage to the basement the frame on the inside must be removed, and to meet this requirement I form, as before described, on the bottom of the swinging panel, sash, grating, or equivalent filling a projecting strip or flange *e'*, which may extend the width of the sidewalk-doors and upon which they rest, or they may be separate stops, but a continuous support, as before described, is preferred. By this arrangement a substantial plane surface and a continuance of the sidewalk are secured when the doors are closed.

When it is desired to have access to the



basement, first the doors are lifted, and then the panel, sash, or its equivalent filling is swung back, which catches in notches  $f$  in a quadrant-piece  $F$ , Fig. 2, secured at the side of the panel and over which said panel freely plays. This prevents its swinging back. The quadrant is secured by a pivot  $f'$  at the top end only, and passes through a slot in the end of the panel. Its gravity causes it to catch in any of the notches, the tendency of the quadrant being to seek a perpendicular. To lower the swinging panel, raise it off the notch and lift the lower end of the quadrant in an opposite direction to the perpendicular, and the panel will swing down to a vertical position. To fasten it so that it cannot be lifted from the outside to prevent entrance to basement, a pin  $f^2$  may be inserted through the bottom of the quadrant just back of the panel, or any other common fastening may be used.

My next improvement consists in setting distinct illuminating vault-covers  $G$ , either round or square, in the iron or steel sidewalk-doors inserted from beneath, so that the top surface of the illuminating-cover is on a plane with the top surface of the door, and it is so placed and secured as not to leak. This is shown particularly in Figs. 2 and 6, and is in contradistinction to the method of setting the vault-cover on top of the door, which makes its thickness project above the top surface of the door, which said method is inconvenient, forming a "stub-toe" or impediment to travel.

Referring to Figs. 2 and 6, it will be seen that the illuminating-cover  $G$  is distinct from the door; that it is not a part of the door. In setting the cover it is shoved up from below, so that its surface is even with the top of the door. The flange  $x$  projects all around and is riveted to the door by a number of rivets around its circumference. A plastic putty or cementing material  $x'$  is placed in the joint  $y$  and flat surface between as well, so as to prevent leakage, or the cover may be made to fit the hole and a separate ring  $H$ , Fig. 5, may close the vertical and horizontal seams against leakage. By making these covers  $G$  separate from the iron or steel door, which latter is very heavy, if the door is let fall in opening or closing, which occasionally occurs from its heavy weight, the jar of the frame and plate iron is not communicated with that severity to loosen the glass (the tremor of the shock being broken by hanging upon the rivets for support) to what it would be were the glasses inserted directly in apertures formed in the steel or iron plate and resting upon it. The large surface of the under flange  $x$  on the vault-cover, as well as the cement in the vertical seam, or the equivalent ring  $H$ , with a large number of attached rivets, prevents leakage from the shock. The plastic putty, cementing material, or fusible cement  $x'$  serves as a cushion to break the jar, and it will be observed that this arrangement permits the putty or other cementing

material to be placed in the vertical joint, whereas in the old construction where this joint is open below putty would be shaken out, and consequently it is not used. In practice I prefer to put fusible cement in the vertical seam and plastic cement in the horizontal seam.

Another improvement herein consists in the clamps  $I$  to resist the horizontal thrust of the sectional arches  $J$ , Figs. 3 and 4. The frame of the doors does not project far enough down to form an abutment to resist the horizontal thrust of the arch, as shown in the drawings. Besides there is no frame to the door on one part to resist this thrust. To provide for this requirement—that is, the horizontal thrust of these parts of the arches for sidewalk door and other openings in the roof of basement or vault and on sidewalks—I build in the iron clamps  $I$ , with the ends turned down. One end is built in the adjacent arch or attached to a beam, while the other end projects over to the edge of the brick-work in the opening. The parts of these arches that form the openings are to be built up in good cement mortar with the brick, or, if of concrete, to be stronger than usually used for full arches, so that they are of uniform strength—that is, if of brick and cement mortar, the cementing material to be fully as strong as the brick, so as to be monolithic, or like a stone in one piece, as regards strength. These several improvements apply to and are adapted for retail stores, whereby the basement-entrance does not impair the value of the show-window.

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

1. In sidewalk and basement construction, the swinging panel, sash, grating, or filling over the basement-entrance stairs, whereby when swung back out of the way head-room is provided, substantially as herein described.

2. In combination with the swinging sidewalk or basement-entrance doors, the swinging panel, grating, sash, or other filling over the entrance and adapted when down to support the door at their inner sides and when swung back out of the way to provide head-room, substantially as herein described.

3. In combination with the swinging sidewalk or basement-entrance doors, the swinging panel, grating, sash, or other filling over said entrance, having a flange or stop on its lower edge adapted to support the doors at their inner sides when closed, said filling when swung back out of the way providing head-room, substantially as herein described.

4. In combination with the swinging sidewalk or basement-entrance doors, the swinging panel, grating, sash, or other filling over said entrance and having on its lower edge a flange or stop to support the doors when closed and the means for holding the panel, sash, or grating open at any angle, consisting



of the notched swinging quadrant upon which said panel, sash, or grating works, substantially as herein described.

5 In sidewalk and basement construction, the means for resisting the horizontal thrust of the top of the sectional brick or concrete arch forming the roof of a basement extension or vault, consisting of the clamps I on its top, having one end turned down and built  
10 in or secured to the adjoining arch or beam,

and the other end turned down and secured at or near the face of the sectional arch, substantially as herein described.

In witness whereof I have hereunto set my hand.

PETER H. JACKSON.

Witnesses:

S. H. NOURSE,

H. C. LEE.