

(No Model.)

2 Sheets—Sheet 1.

L. RITTER.

WATER PROOF DEVICE FOR CELLARS OR BASEMENTS.

No. 391,862.

Patented Oct. 30, 1888.

Fig. I.

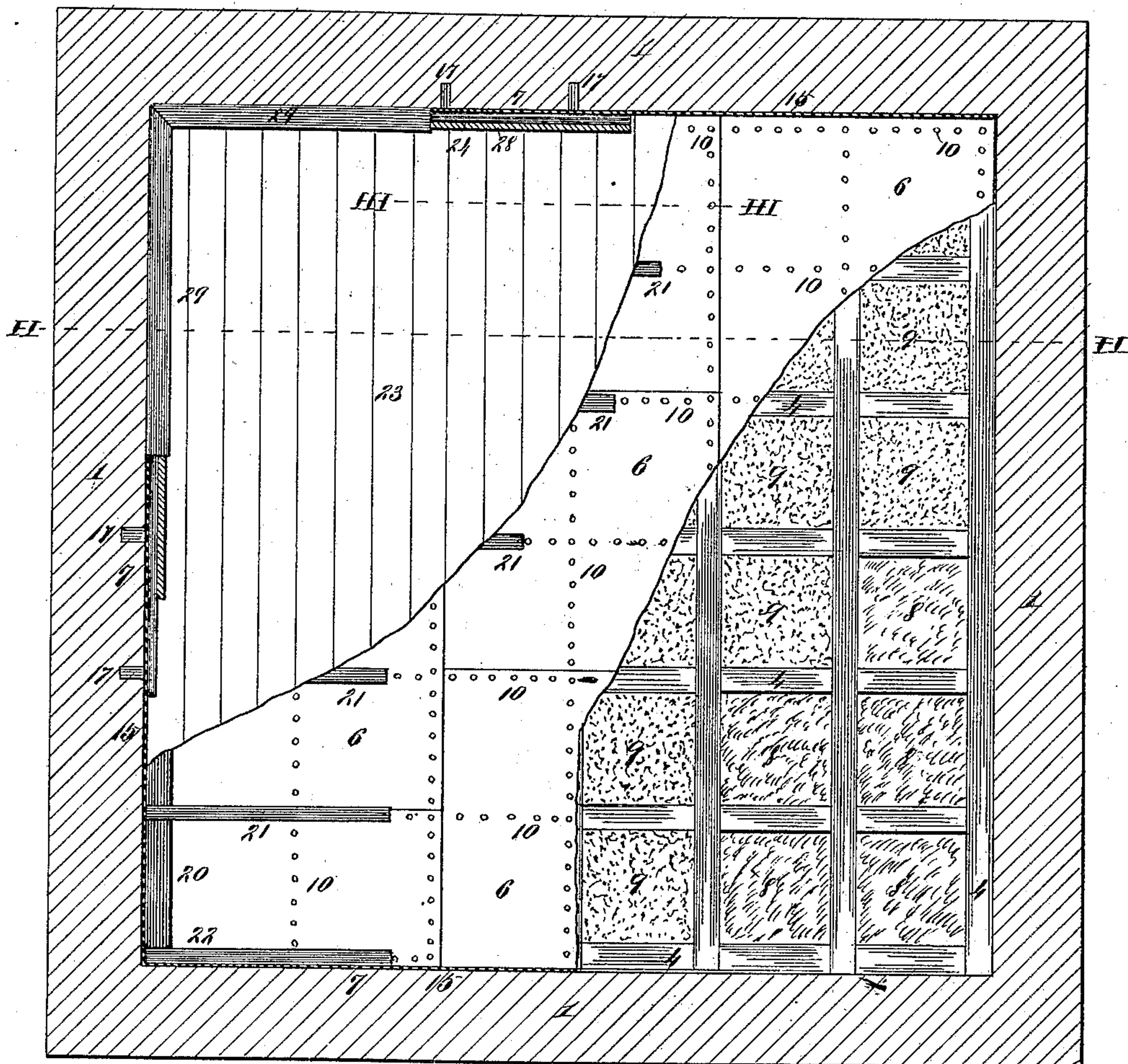


Fig. II.

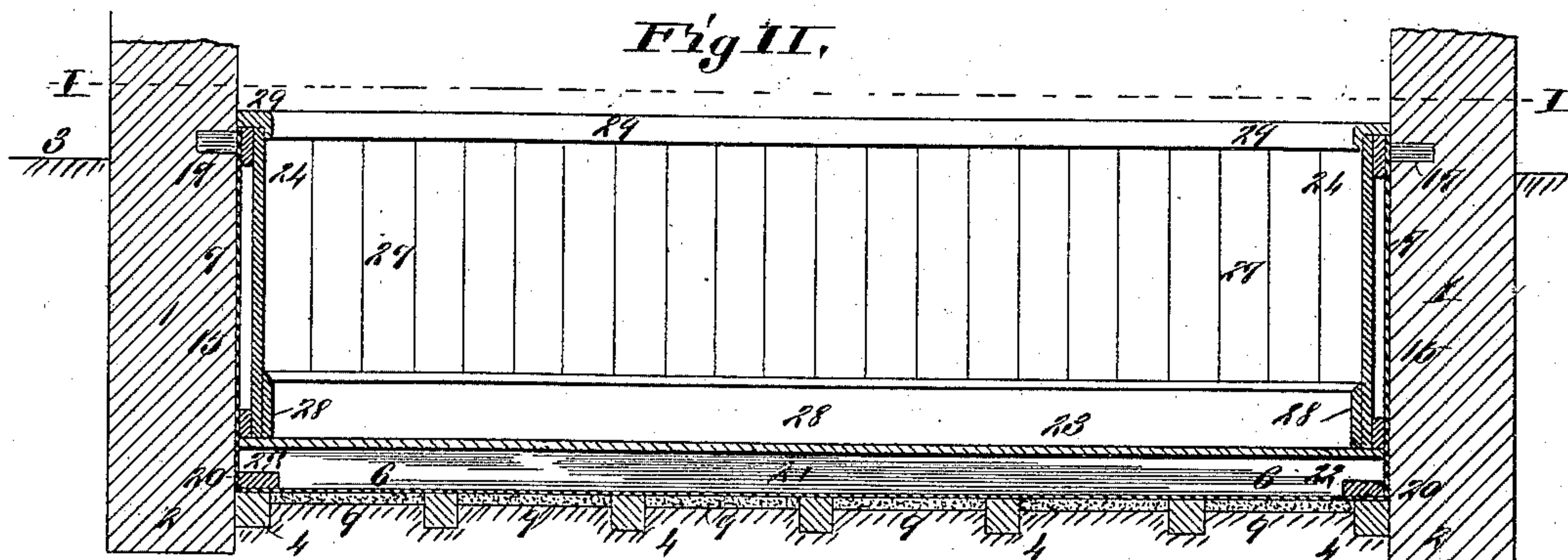
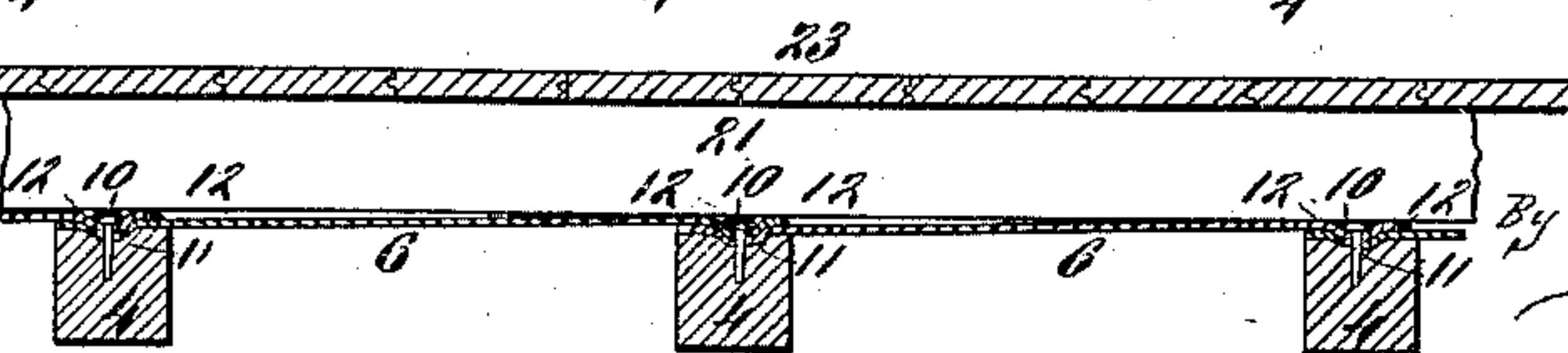


Fig. III.

Attest;
Charles Pickles,
C. Arthur,



Inventor,
Louis Ritter,
Knight Bros.
Atty's.

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Fig. IV,

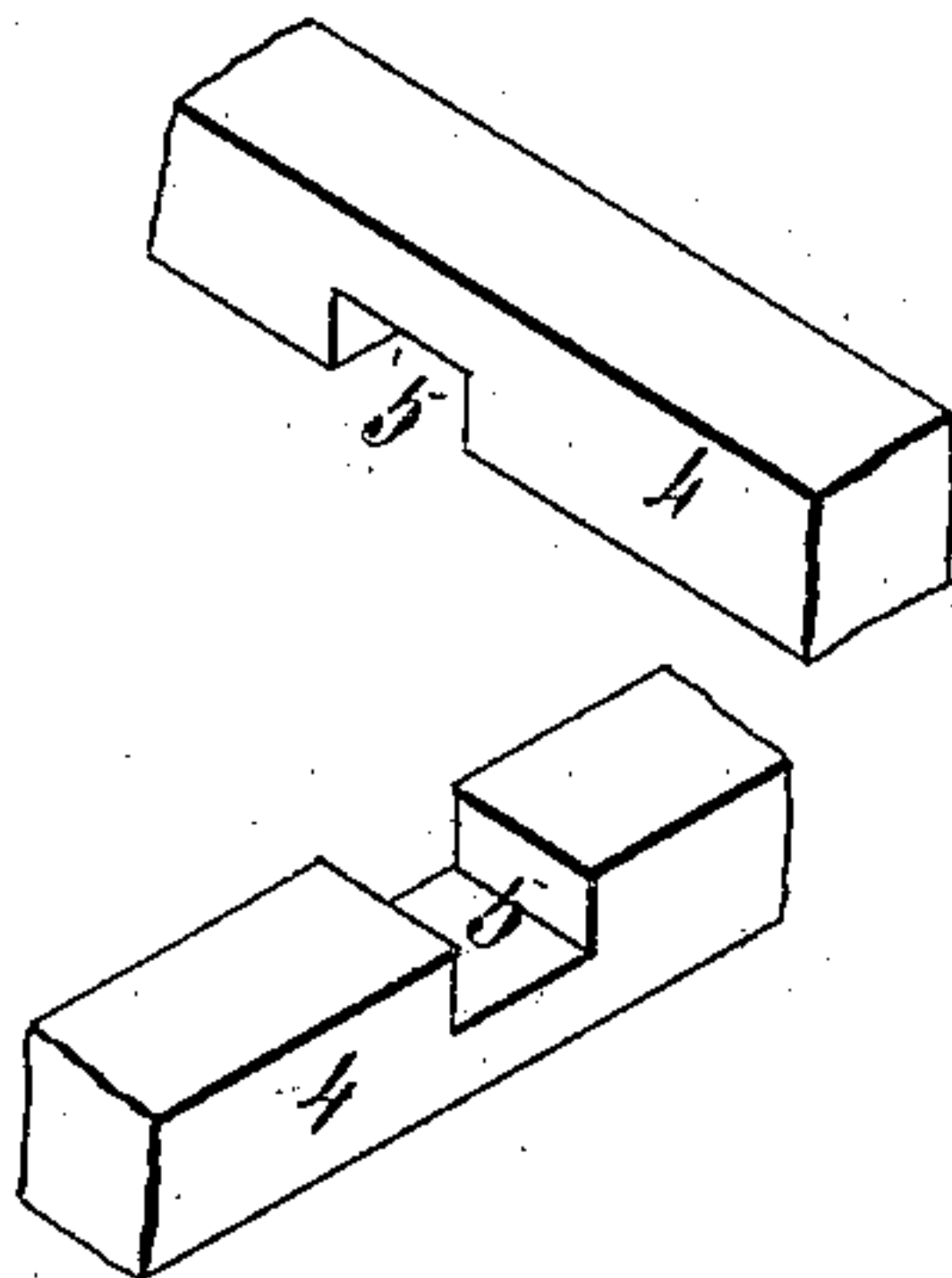


Fig. V,

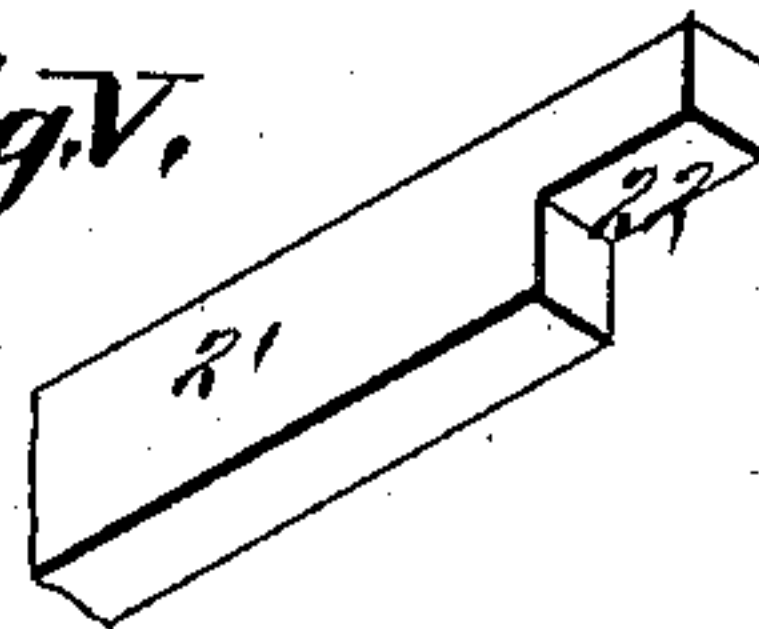


Fig. VI,

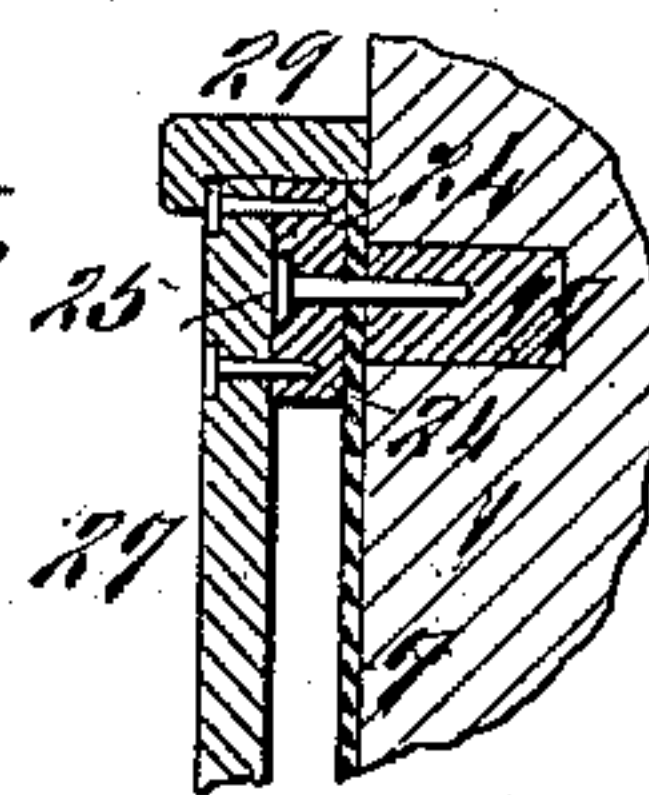


Fig. VII,

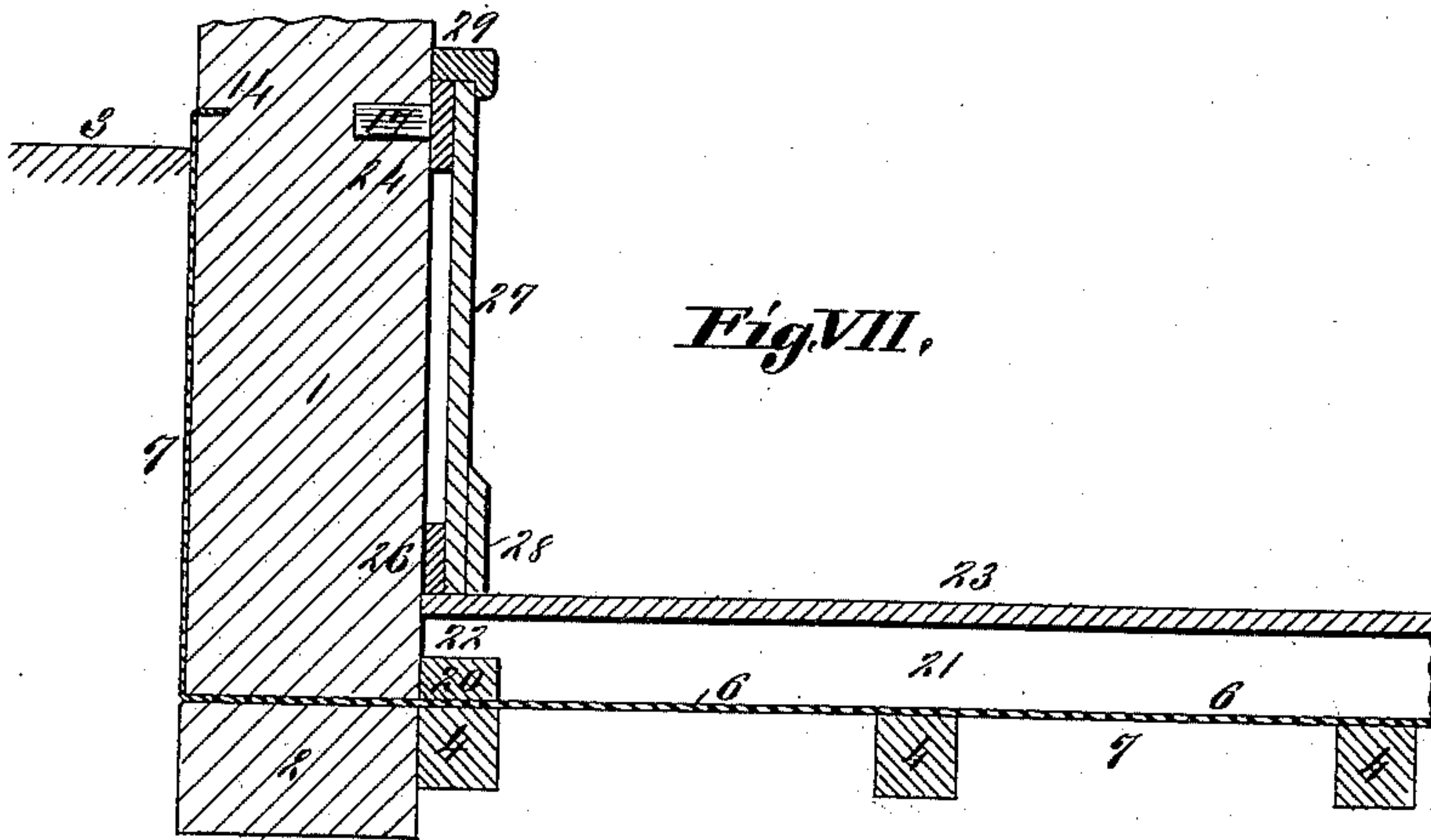


Fig. VIII,

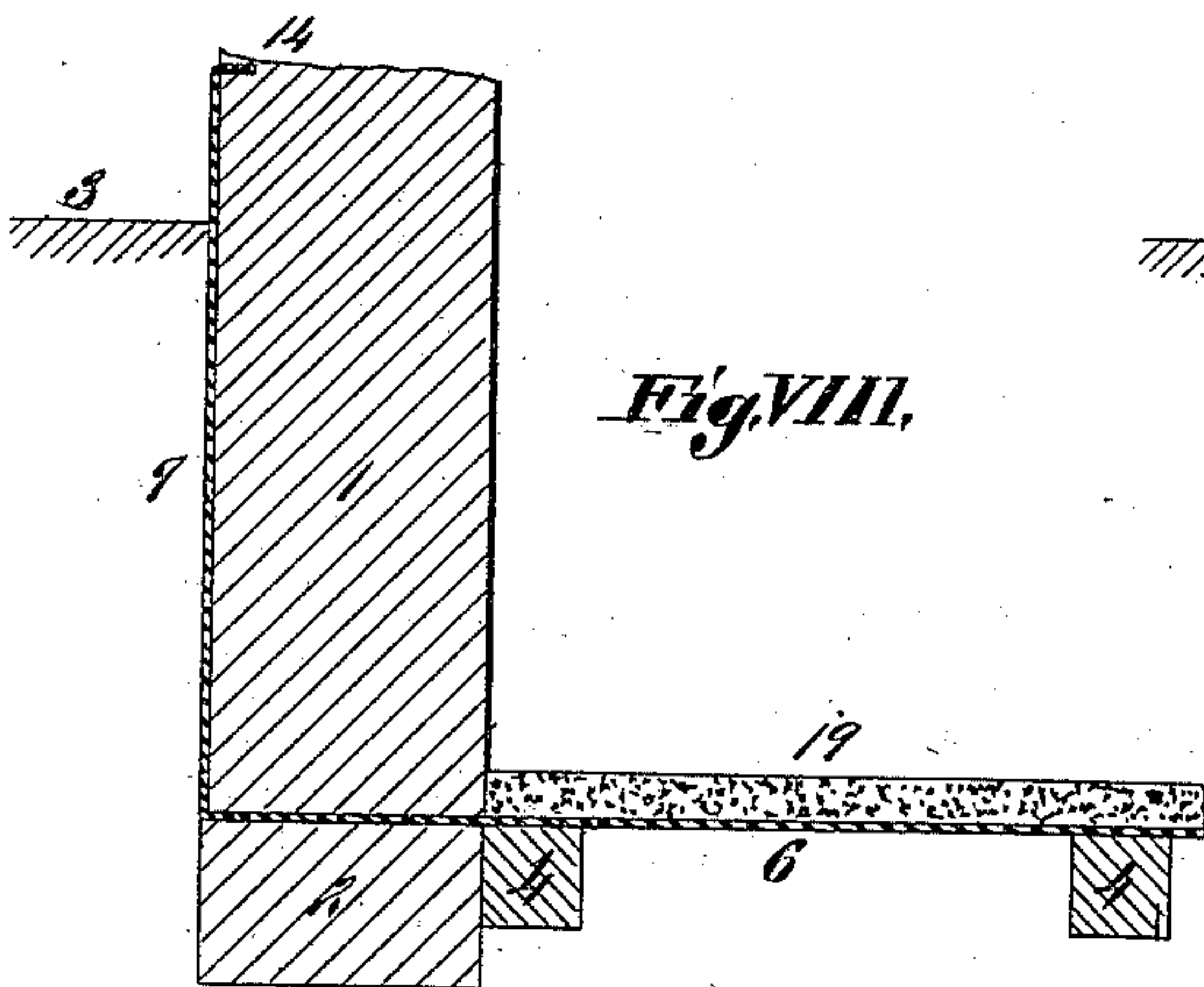
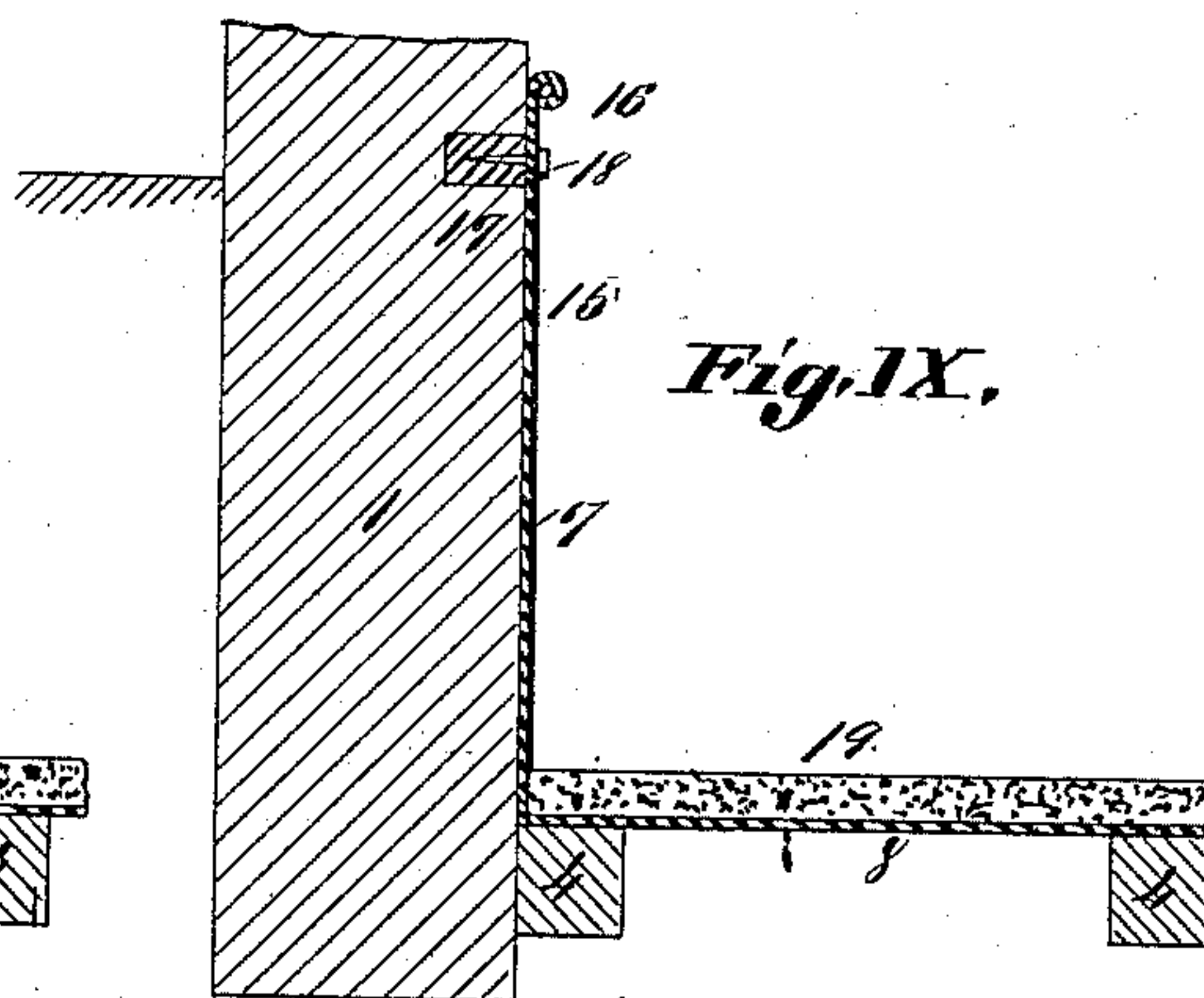


Fig. IX,



Attest;
Charles Pickles,
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Inventor;
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By Knight Bros.
Attys.

UNITED STATES PATENT OFFICE.

LOUIS RITTER, OF ST. LOUIS, MISSOURI.

WATER-PROOF DEVICE FOR CELLARS OR BASEMENTS.

SPECIFICATION forming part of Letters Patent No. 391,862, dated October 30, 1888.

Application filed October 27, 1887. Serial No. 253,547. (No model.)

To all whom it may concern:

Be it known that I, LOUIS RITTER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Water-Proof Devices for Cellars or Basements, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is a top view showing the position of the main sleepers, the concrete or other filling flush therewith, the metal plates, floor-sleepers, matched floor, and wainscot. Fig. II is a vertical section taken on line II II, Fig. I, showing a transverse view of the same parts and the wood strip built into the basement-wall for the attachment of the wainscot. Fig. III is a vertical section taken on line III III, Fig. I, showing the metal plates and their means of attachment to the sleepers, with the floor and its sleepers surmounting the same. Fig. IV is a detail perspective of the sleepers, showing them half cut away at the intended points of intersection. Fig. V is a detail perspective of one of the floor-sleepers. Fig. VI is a detail section showing the means of attachment of the top of the wainscot and metal plate to the wall. Fig. VII is a vertical section showing the metallic plate extending between the footing-base and the foundation and passing outside, instead of inside, the basement-wall, with floor-sleepers, matched flooring, and wainscot surmounting the metal plate in the basement. Fig. VIII is a like view to Fig. VII, with a cemented floor in the place of the matched floor and minus the wooden wainscot. Fig. IX is a like view to Fig. VIII, with the exception that the metal plate follows up inside the cellar or basement wall, instead of the outside.

This invention relates to water-proof devices for basements or cellars; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, in which similar figures of reference indicate like parts in all the views, 1 represents the basement or cellar wall of a building; 2, its footing-base beneath the foundation; 3, the surface of the ground outside; 4, the main sleepers that lie transversely and are halved into each other at their points of intersection by the notches 5. These

sleepers and the under-floor surface of the ground or cement that comes flush with their upper surfaces support the metallic flooring-plates 6. Extensions 7 of said plates are turned up at the wall and form the siding or wainscot plate that follows up the basement or cellar wall, either inside or out, and reaches above the height of the surface ground outside.

8 represents the ground-surface under-floor into which the main sills are sunk until their top surfaces are flush therewith, except when a layer of concrete or cement, 9, in accordance with my preferable plan, is filled in the squares formed by the intersecting sleepers, when said concrete, in the place of the ground-surface, comes flush with the sleepers. (See Figs. I and II.)

The waterproofing metallic plates may be constructed of copper, zinc, galvanized iron, or other suitable and lasting metallic material. The said metallic plates are secured to the sills by nails 10, which pass through corresponding perforations 11 in the adjoining plates and into the sleepers, to which they secure the plates. The heads of the nails slightly depress the plates against which they are driven, giving them a slight surface hold of the sleepers, and thus re-enforcing the hold of the nails. The perforations 11, through which the nails pass, the heads of the nails, and the edges of the metallic plates, are covered with solder, 12, so as to seal the perforations and joints and make them water-proof.

The vertical extension of the metallic plates may be turned upward at a right angle either inside the wall ascending to above the level of the surface ground outside (see Figs. I, II, and IV) or the plates may extend on a horizontal line between the footing-base 2 and the foundation or basement wall 1, and ascend upward outside the wall to above the surface-level. (See Figs. VII and VIII.) This latter adaptation of the device is well suited for use and is my preferred construction in both cellars and basements, in conjunction both with the concrete floor, preferably constructed in cellars, and the matched board floor and wainscot, preferably constructed in basements, when my waterproofing devices are laid simultaneously with the construction of the building.

Although the application of my devices is so far well adapted for attachment to houses

that are already built that they secure a perfectly dry basement or cellar even on ground in the vicinity of which there are no lower levels for outlets to drains, (a desideratum of vital importance to the health and comfort of the occupants,) yet my preferable application of the device when the building has not already been constructed is to extend the horizontal metallic plates beyond the ground-sills between the footing-base and the foundation and turn then upward outside the foundation-wall, which they incase to above the surface of the ground, and their upper ends, 14, are then bent around inward and inserted in the wall, as shown in Figs. VII and VIII, to prevent the descent or seepage of dampness following down the outside of the wall and finding entrance within the water-proof casing of its basement. The invention is thus utilized to securing dry foundation-walls, that both adds to their stability; and what is, if possible, of still more importance, by thus preventing the entrance of moisture in said foundation-walls it cannot ascend *via* the foundation to the surrounding walls of the building, carrying with it all its injurious influences on health, life, and property that need not be here enumerated.

When the building is already erected, or if for any reason it is preferred not to extend the metallic plates through and up the outside of the foundation-walls of the building, the plates are turned up inside the walls at 15, and if in connection with a cellar are thus preferably made to take the place of wainscoting around said walls to and slightly above the level of the surface ground. The top edges of said wainscot-plates are preferably turned or beaded at 16 around a wire to give a finished appearance to the work and to leave no sharp obtruding edges thereto. A small strip of timber, making a nail strip, 17, is built into the inside of the wall at a suitable height for the insertion of nails 18, and thus securing the upper edge of the wainscot-plates or other wainscot thereto.

When the water-proof devices are used in connection with cellars, the metallic floor-plates are preferably covered with a surface-floor of concrete or cement, 19, to make a hard and enduring floor, as also to protect the metallic plates from the corrosive effects of the air. When said devices are used in connection with basements, where wooden floors and wainscots are preferred instead of the concrete floor 19, bed-sills 20 are laid along each side of the cellar on the horizontal metallic floor-plates, and where the basements are wide one or more intermediate bed-sills may be provided; but, as the sleepers they support are also supported their whole length on the metallic floor-plates resting on the sleepers beneath, the two end bed-sills will generally be found sufficient.

The floor-sleepers 21 are jointed at their points of intersection with the bed-sills by being halved therewith at 22, and matched

flooring-boards 23 are laid thereon. The vertical metallic plates in this form also extend upward, either inside or outside, lining or incasing the foundation-walls, as before described, in cases where no wooden wainscot is used. Horizontal nail-strips 24 are secured to the strips 17 that are built into the wall by nails 25, and similar strips, 26, are toe-nailed to the floor.

To the above-named strips 24 and 26 the upright matched wainscot-boards 27 are nailed; also the skirting-boards 28 and top rails, 29, may be nailed to said strips and to the wainscot-board, to which they are a finish.

This invention is intended for use where it is deemed of importance to provide dry cellars, basements, and foundation-walls; and it is also especially adapted for use in localities where, in consequence of the lay of the land, there is no outlet-drainage from the basement; so that without such devices it is impossible to provide cellars to the houses or to construct houses themselves with dry foundations and a due regard for hygiene.

I claim as my invention—

1. In a water-proof device for basements and cellars, the combination of the metallic plates 6, the intersecting sleepers 4, on which they rest, the cemented interspaces between the sleepers, also the extension metallic water-tight wainscot or lining arranged to provide a water-proof device for cellars and basement-walls, substantially as described, and for the purpose set forth.

2. In a water-proof device for basements and cellars, the combination of the main sleepers 4, transversely intersecting each other, the cemented interspaces between sleepers, the metallic waterproofing-plates 6, 7, and 15, provided with water-tight sealed joints 12, and the concrete surface-floor 19, substantially as and for the purpose set forth.

3. In a water-proof device for basements and cellars, the combination of the main sleepers, the cemented interspaces between said sleepers, the metallic waterproofing floor, wainscot, and lining plates provided with water-tight sealed joints, arranged to provide water-proof devices for basements and cellars, and the bed-sills 20, floor-sleepers 21, matched board flooring 23, and wainscot-boards 27, substantially as and for the purpose set forth.

4. In a water-proof device for basements and cellars, the combination of the main sleepers, the cemented interspaces between sleepers, the metallic waterproofing floor, wainscot, and lining plates, provided with water-tight sealed joints, the said plates being arranged to inclose in a water-tight compartment the basement, the cellar, and the foundation-walls, to prevent the ingress of moisture therein, substantially as and for the purpose set forth.

LOUIS RITTER.

In presence of—

BENJN. A. KNIGHT,
EDW. S. KNIGHT.