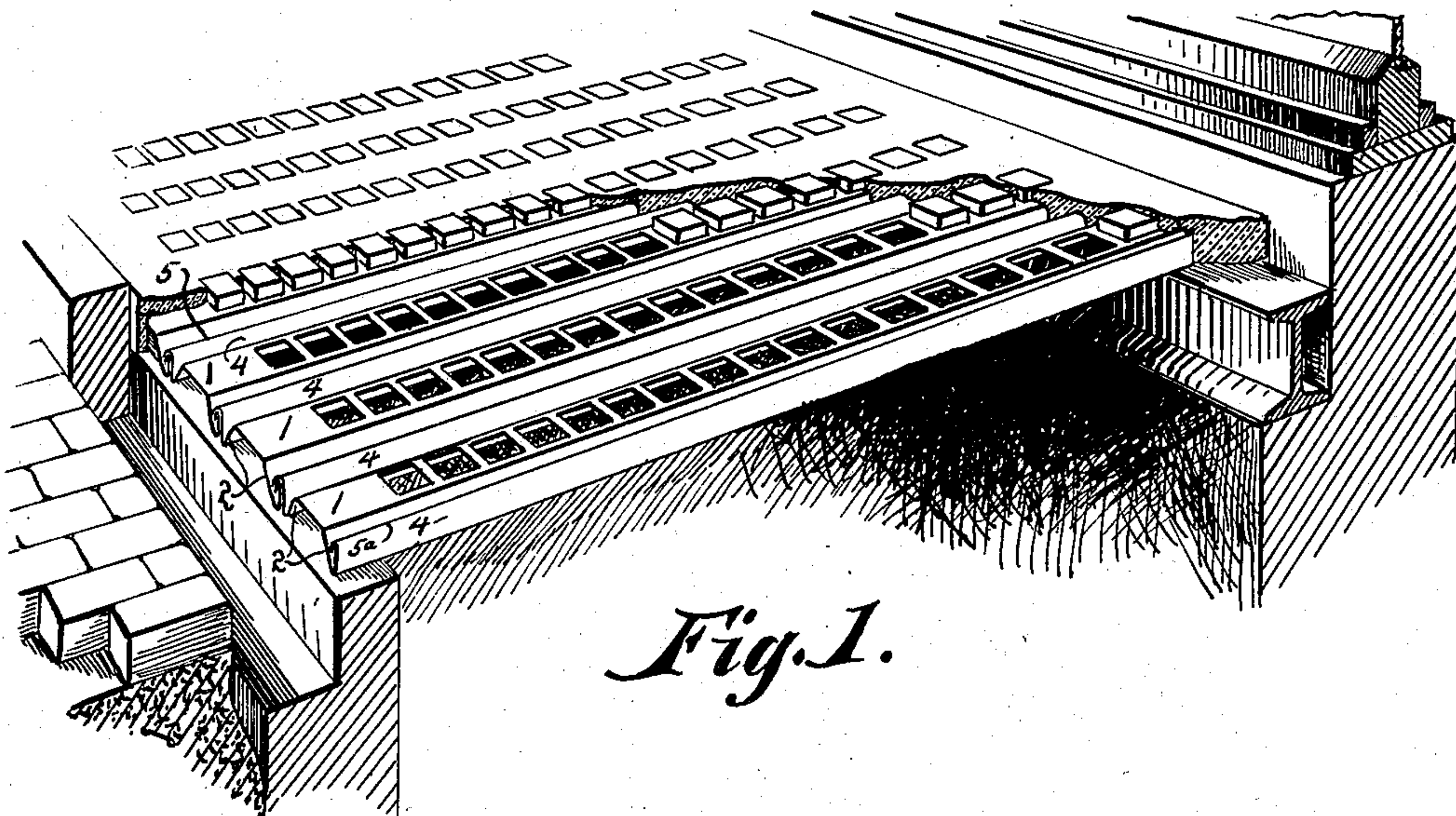


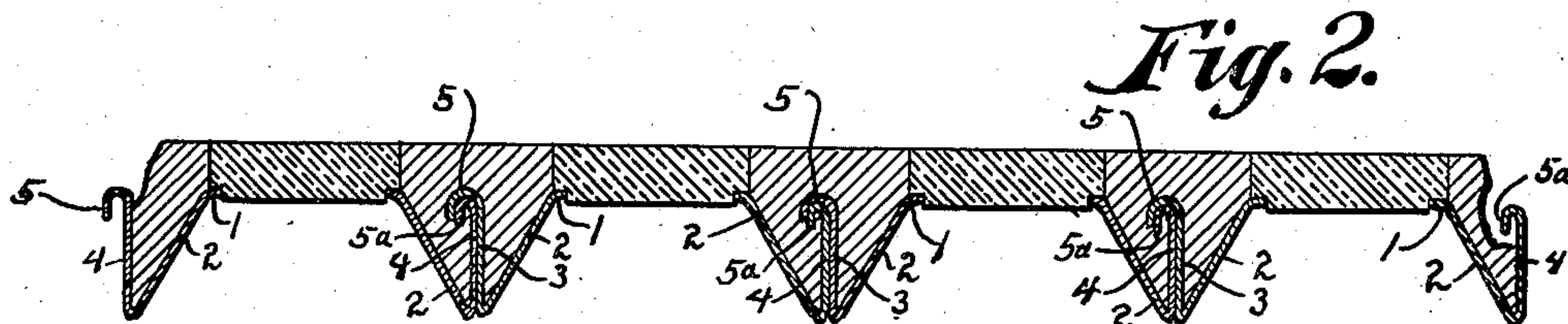
No. 847,700.

PATENTED MAR. 19, 1907.

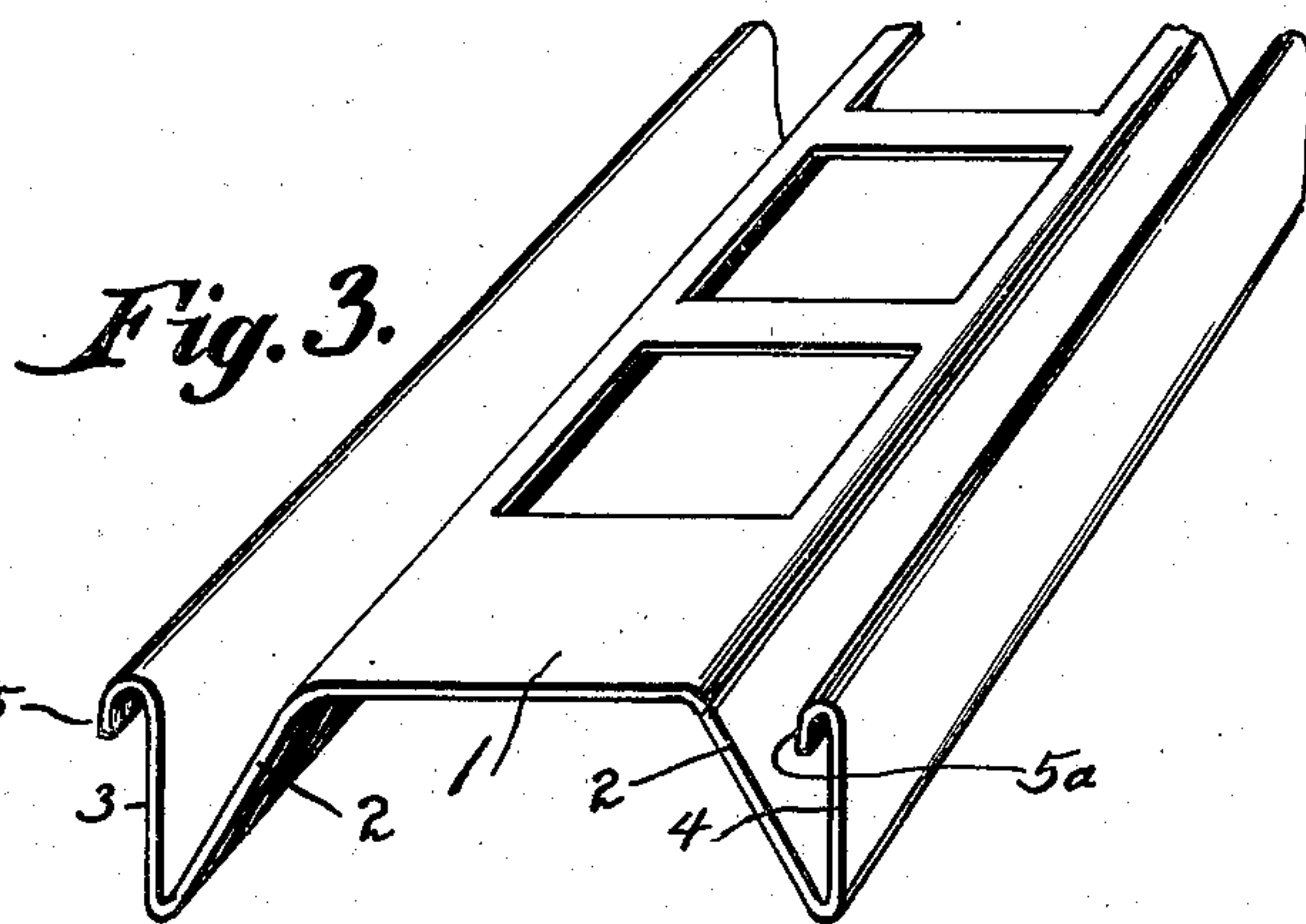
J. H. SCHLAFLY.  
SIDEWALK OR CONCRETE CONSTRUCTION.  
APPLICATION FILED OCT. 19, 1905.



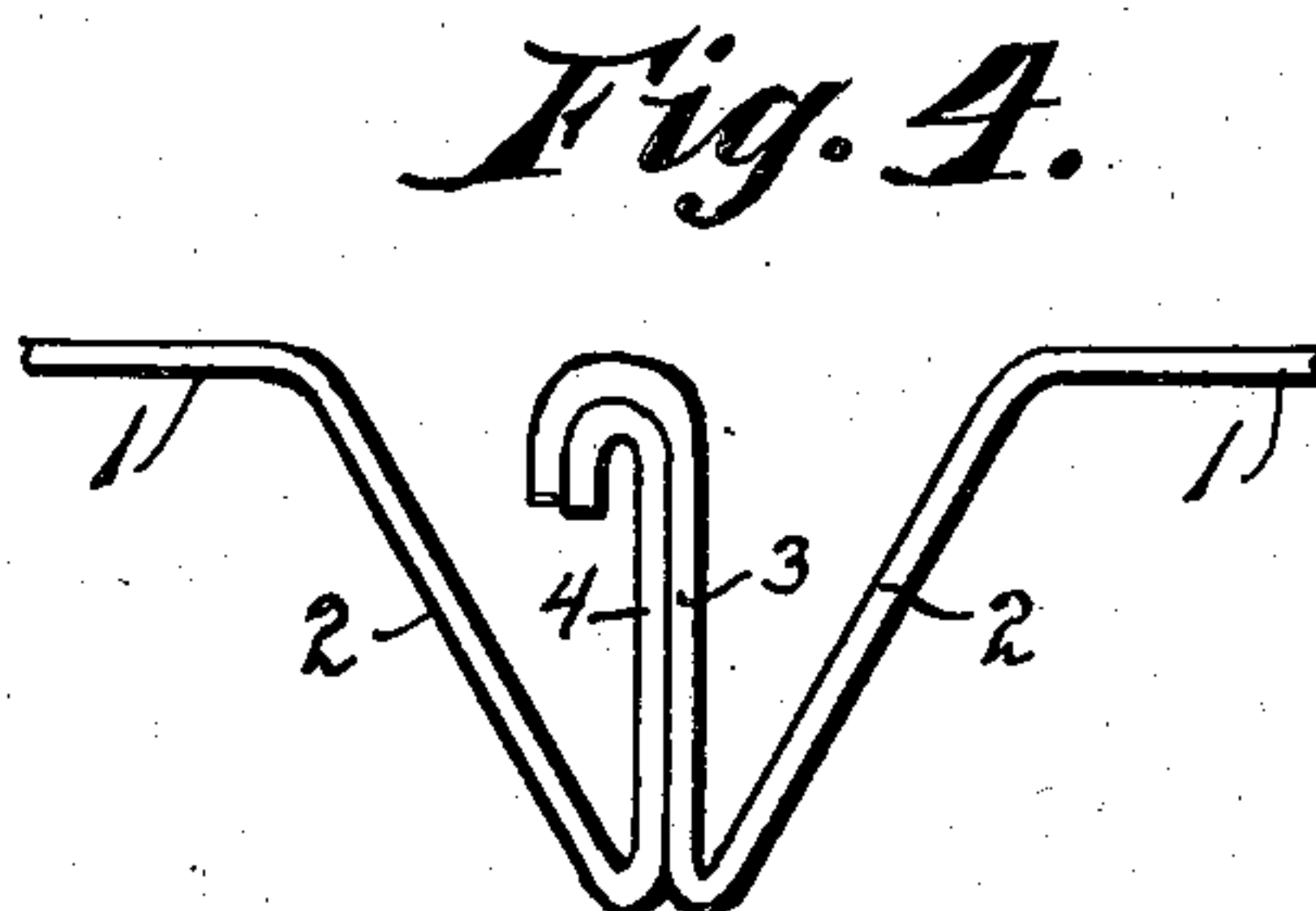
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

WITNESSES

*Jos. J. Hosler.*  
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# UNITED STATES PATENT OFFICE.

JULIUS H. SCHLAFLY, OF CANTON, OHIO, ASSIGNOR TO THE BERGER MANUFACTURING COMPANY, OF CANTON, OHIO, A CORPORATION OF OHIO.

## SIDEWALK OR CONCRETE CONSTRUCTION.

No. 847,700.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed October 19, 1905. Serial No. 283,447.

*To all whom it may concern:*

Be it known that I, JULIUS H. SCHLAFLY, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Sidewalk or Concrete Construction; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a perspective view showing a portion of a sidewalk and illustrating part of the cement broken away. Fig. 2 is a transverse section. Fig. 3 is a view showing a portion of one of the metallic bars. Fig. 4 is an end view showing portions of two of the metallic bars connected together.

The present invention has relation to sidewalk or concrete construction wherein a series of bars, preferably formed of sheet metal, are employed and so connected together that the series will be held in proper relation with reference to each other and the construction of the bars being such that great rigidity is produced with comparatively thin strata of cement or other material adapted while in a plastic state to be applied and afterward harden to produce rigid formation. If in the event a sidewalk or other structure is to be used wherein it is desired to allow light to enter below the walk or structure, the bars are to be provided with suitable apertures for the reception of glass or other transparent or semitransparent blocks.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the bars, which are substantially of the form shown, and, as shown, they are provided with integral diverging flanges 2 and the integral flanges 3 and 4. Said integral flanges 3 and 4 are extended upward from the bottom or lower portions of the diverging flanges 2, and for the purpose hereinafter described said flanges are located at substantially right angles to the top of the bars 1. In use the bars proper are formed of any desired length and are supported in the usual manner at their ends.

In the construction of sidewalks wherein it is desired to have light penetrate through the sidewalk proper it is desirable to do away with all framework between the extreme edges of

the walk or, in other words, to so construct the walk that a clear space is left between the end supports of the bars. This is true regardless of the location of the structure herein described, owing to the fact that where intermediate framework is employed to prevent the sagging or bending down of the bars, owing to the fact that any and all intermediate supports have a tendency and to a great extent cut off a greater or less part of the light, thereby materially decreasing the amount of light permitted to enter below the walk or structure. For the purpose of preventing the sagging or bending down of the bars 1 they are provided with the vertical flanges 3 and 4, which vertical flanges are located in pairs, as best illustrated in Figs. 2 and 4, by which arrangement a double thickness of metal can be utilized and said double thickness of metal located in substantially true vertical position. For the purpose of connecting the vertical flanges 3 and 4 together the flanges 3 and 4 are each provided with the folds or hems 5 and 5<sup>a</sup>, which folds or hems are seated over each other, the fold or hem 5<sup>a</sup> located under the fold 5, by which arrangement the bars 1 are connected together, so that there can be no relative movement in a horizontal plane, as between the bars 1, when connected together.

It will be understood that other means than the ones shown may be employed for connecting the vertical flanges together, and hence I do not desire to be confined to the exact manner herein shown, as the only object designed to be accomplished or carried out so far as the connecting of the series of the bars 1 is concerned is to provide means for holding the vertical flanges in proper relation with each other. By providing the integral diverging flanges 2 spaces are provided between the exposed faces of the vertical flanges 3 and 4, which spaces are for the purpose of receiving the plastic cement or other material, thereby binding the vertical flanges and preventing any possibility of their buckling or springing when downward pressure is brought to bear upon the walk or structure and at the same time assist in holding the vertical flanges in proper relationship with each other and in such manner that there can be no relative movement as between the bars.

By providing the hems or folds 5 and 5<sup>a</sup> and locating one hem over the other the vertical flanges 3 and 4 are connected together



and at the same time so connected together that when plastic material has been placed in proper position it will form a support for the vertical edges by reason of the plastic material finding its way under the lowermost hem or fold, and of course the uppermost hem or fold will rest upon the lowermost one, thereby forming a substantial support for both of the vertical flanges and such a support that there can be no relative or slipping movement as between the vertical flanges.

It will be understood that by my peculiar arrangement I am enabled to construct a sidewalk or like structure wherein sheet metal can be employed, which sheet metal may, if desired, be galvanized, and any desired number of bars linked, connected, or hooked together to produce a sidewalk of any desired length without any supplemental supporting-bars located intermediate the ends of the bars.

In the construction of sidewalks and like structure it is a desirable feature to produce a completed structure that will be rigid and yet at the same time leave the bottom or under side of the structure practically free from framework or other supports. By my peculiar construction I am enabled to construct a sidewalk with comparatively thin strata of cement or like material, and by embedding the vertical flanges of the metal bars and forming the vertical flanges integral

with the opposite inclined flanges a rigid structure is produced and maintained after the plastic material has become set and hardened. By providing the diverging flanges the rays of light permitted to penetrate or pass through the blocks are deflected, thereby producing a structure capable of allowing the greatest amount of illumination, and at the same time produce a structure of great rigidity and of little obstruction to the rays of light.

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

In a structure for sidewalk or concrete construction, a series of metallic bars, the tops of said bars provided with a series of apertures, transparent, semitransparent or translucent blocks adapted to fit in the apertures diverging flanges located upon opposite sides of the tops and extended downward therefrom, flanges located substantially at right angles to the tops and adapted to be connected together, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JULIUS H. SCHLAFLY.

Witnesses:

ED LAUGENBACH,  
M. B. HOSTETTER.