

D. LEWIS.
SCREEN.

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975,441.

Patented Nov. 15, 1910.

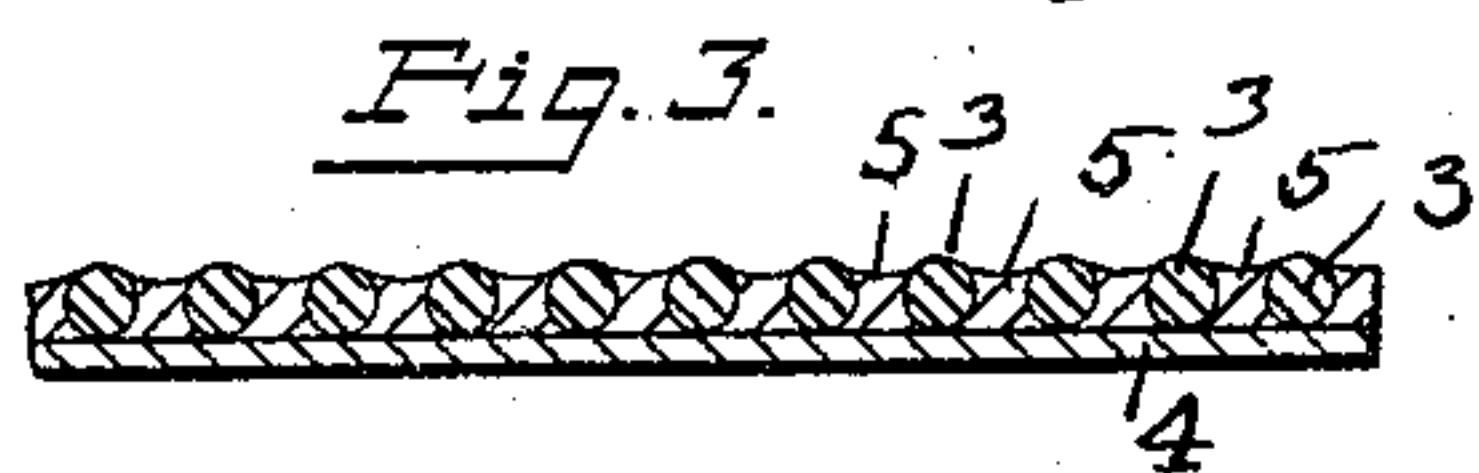
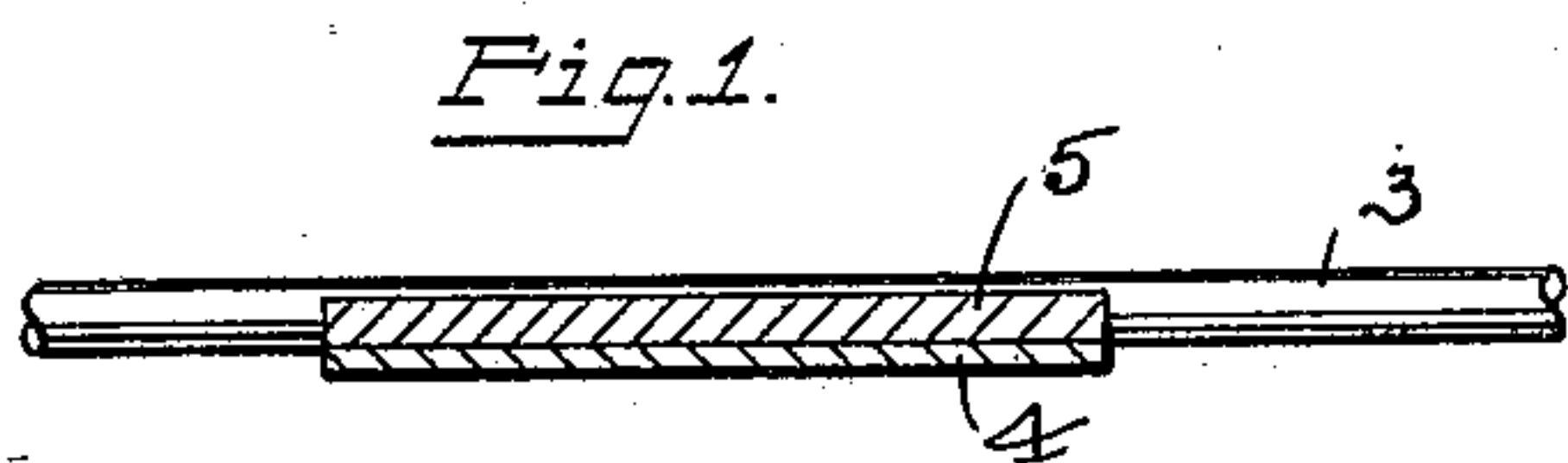
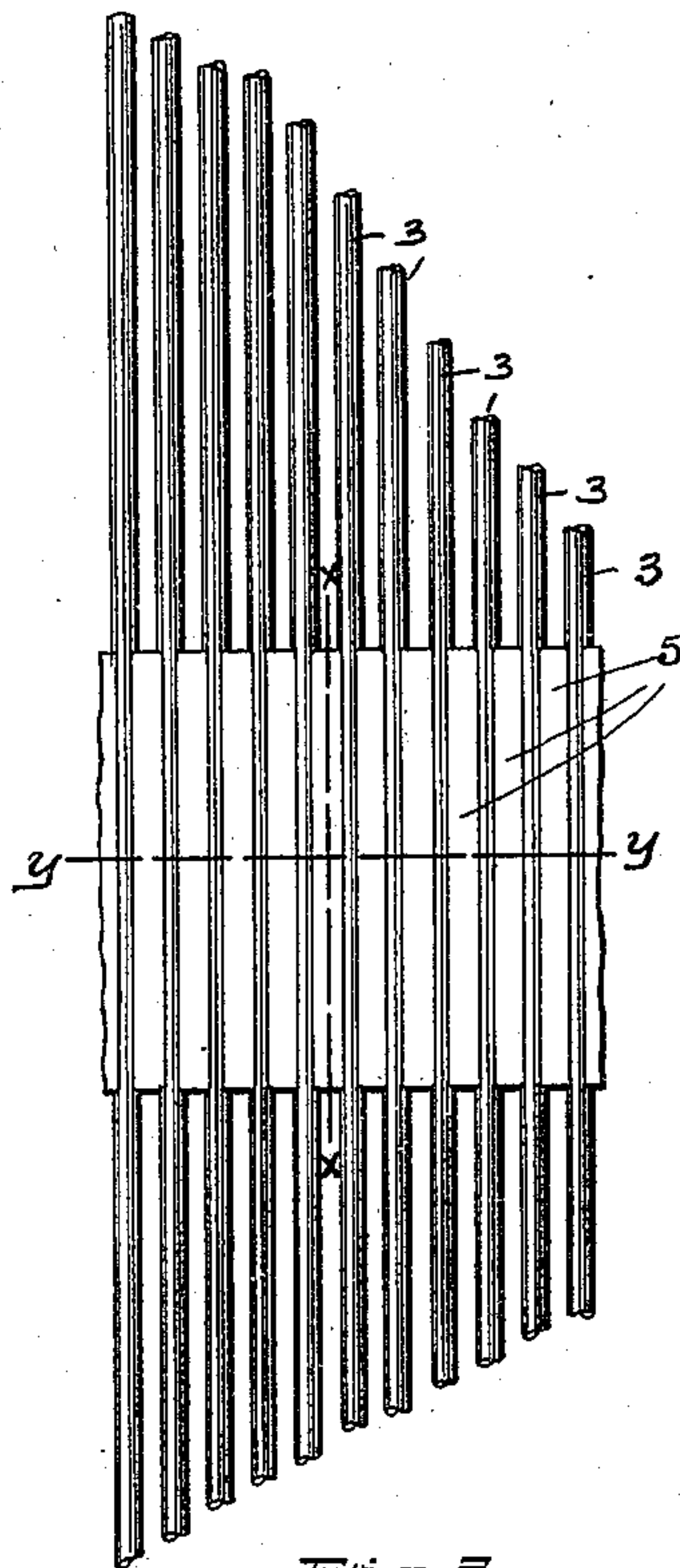
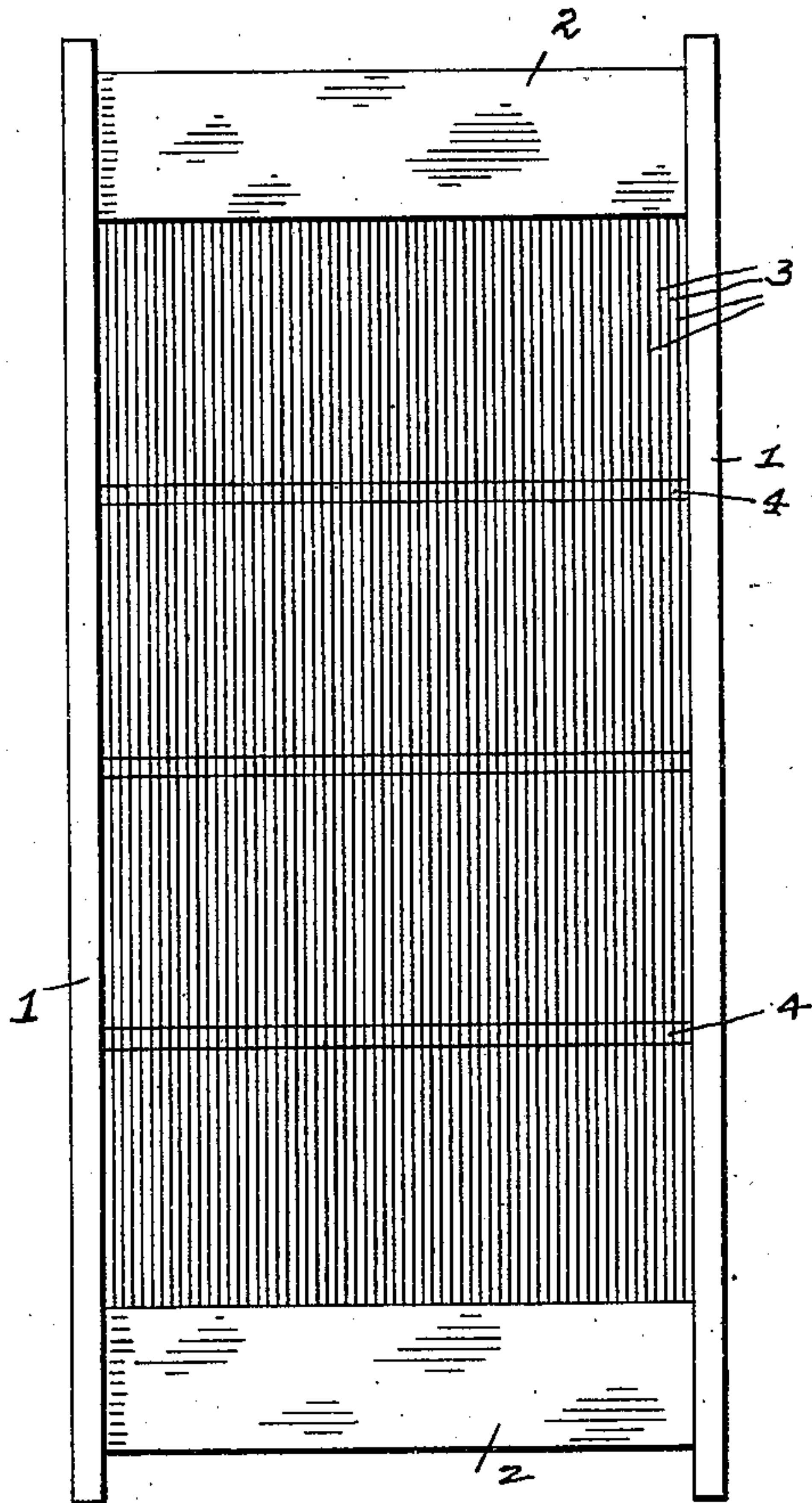


Fig. 4.

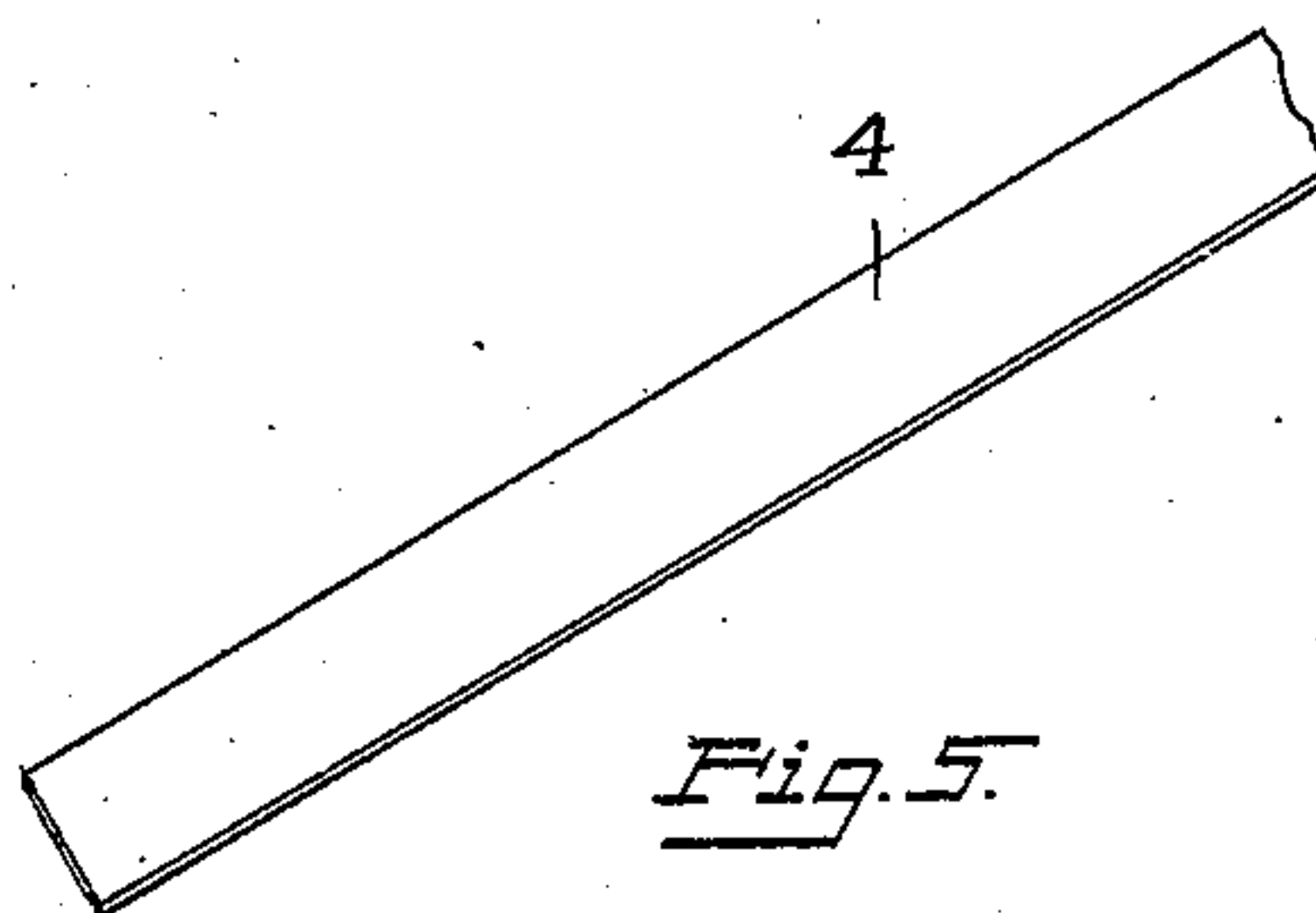


Fig. 5.

Witnesses

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SCREEN.

975,441.

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To all whom it may concern:

Be it known that I, DOUGLAS LEWIS, a citizen of the United States, residing at Renton, in the county of King and State of Washington, have invented certain new and useful Improvements in Screens, of which the following is a specification.

My invention relates to the improvement of screens and has particular relation to that class of screens in which piano wires or other comparatively small wires are arranged in close parallel alinement, said screens being usually employed for the purpose of screening clay or other material in a reduced state.

The objects of my invention are to provide an improved screen of this class whereby the screen wires will be retained throughout their lengths in their proper parallel relations and at uniform distances one from the other; to so connect the wires forming my improved screen as to obviate any tendency of the same being spread apart or separated to an undesirable degree by the wedging of flakes or comparatively large pieces of clay or other material between the wires and to otherwise produce an improved wire screen of this character in which the wires forming the screen will have imparted thereto the desired rigidity and maintain their fixed relation with each other. These objects I accomplish in the manner illustrated in the accompanying drawing, in which—

Figure 1 represents a plan view of a wire screen having my improved construction, Fig. 2 is an exaggerated view of a portion of the screen surface, showing the manner of connecting the wires, Fig. 3 is a detail sectional view on line $x-x$ of Fig. 2, Fig. 4 is a transverse section on line $y-y$ of Fig. 2, and, Fig. 5 is a detail view in perspective of one of the metal connecting strips which I employ in the manner hereinafter described.

Similar numerals refer to similar parts throughout the several views.

In order to illustrate the construction of my improved screen, I have shown an ordinary screen frame, which may be of any suitable construction, but which in the present instance, consists of two parallel side frame members 1 and end frame members 2.

Between these end frame members are stretched and held taut lengthwise of the frame the screen wires 3, these wires being parallel one with the other and forming a screen of comparatively fine mesh. In order to connect these wires and thereby hold the same rigidly in such positions with relation to each other as to resist the tendency of clay flakes or larger particles of the material to be screened, from wedging between the same, I connect the wires of the screen at desirable intervals with transversely arranged strips 4, preferably of tin or other sheet metal. In forming this connection with the wires, the metal strips 4 extend transversely beneath the wires to which they are soldered and in order to form a more perfect union of the wire members, the body of solder which is indicated at 5, is extended upward or outward between the wires until said solder body is substantially flush with the outer surfaces of the wires, thus forming not only a strip connection of the wires, but providing a substantially solid filling of solder between the wires.

In screens of the class to which my invention relates, the wires employed are of considerable length and owing to the natural resilience of the wires, comparatively large particles of materials to be screened occasionally become wedged between the wires, thus impairing the screening action, but by the construction which I have described, it is obvious that owing to the rigid connection of the wires at intervals throughout the length of the screen, said wires will be held in such rigid condition between the connecting strips as to resist being forced apart by the material in contact therewith. While this form of screen has been found to be particularly effective in the screening of clay in a reduced state, it is obvious that it may be adapted for screening other materials as well.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise con-

struction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

What I claim is—

- 5 In a screen, the combination with a frame and a plurality of parallel wires extending between opposing members of said frame, of strips crossing the wires of said frame at intervals, said strips being soldered to said

wires, and a filling of solder between the 10 wires opposite said strips.

In testimony whereof I affix my signature in presence of two witnesses.

DOUGLAS LEWIS.

Witnesses:

JOE WOOD,

BENJ. TICHNOR.