

No. 813,253.

PATENTED FEB. 20, 1906.

J. H. SULLIVAN.  
MOLD.

APPLICATION FILED JUNE 15, 1905.

FIG. 1.

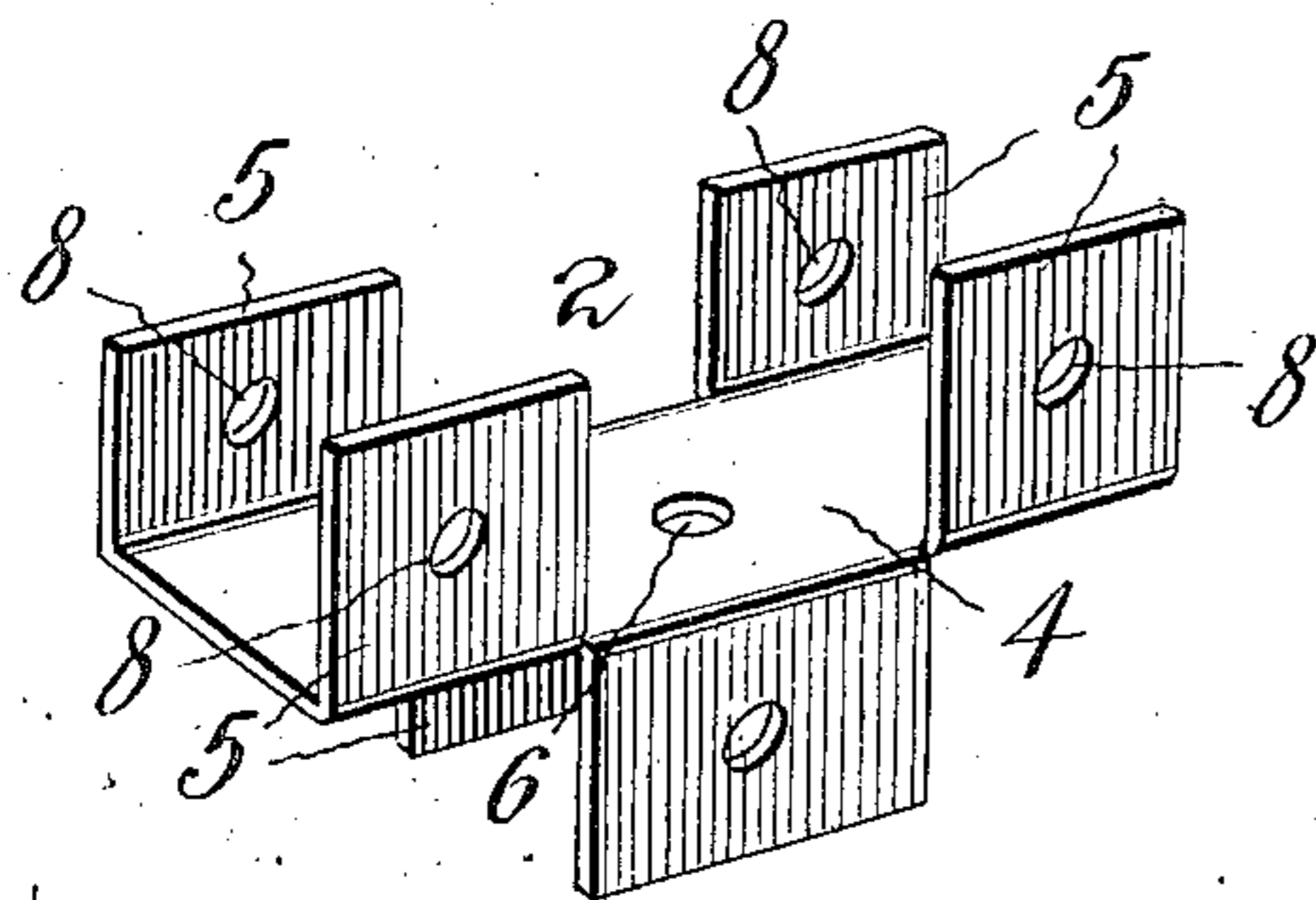


FIG. 2.

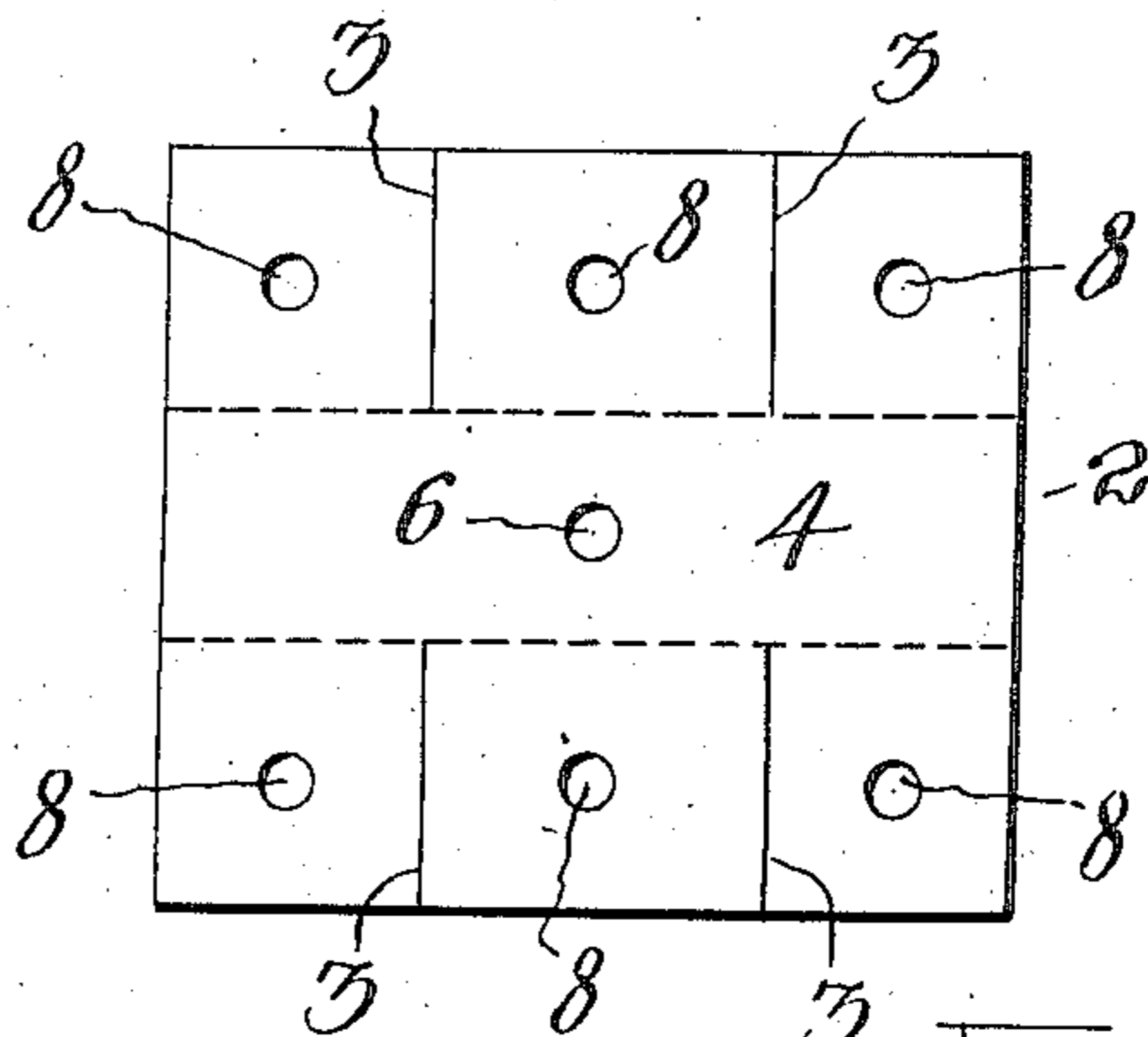


FIG. 3.

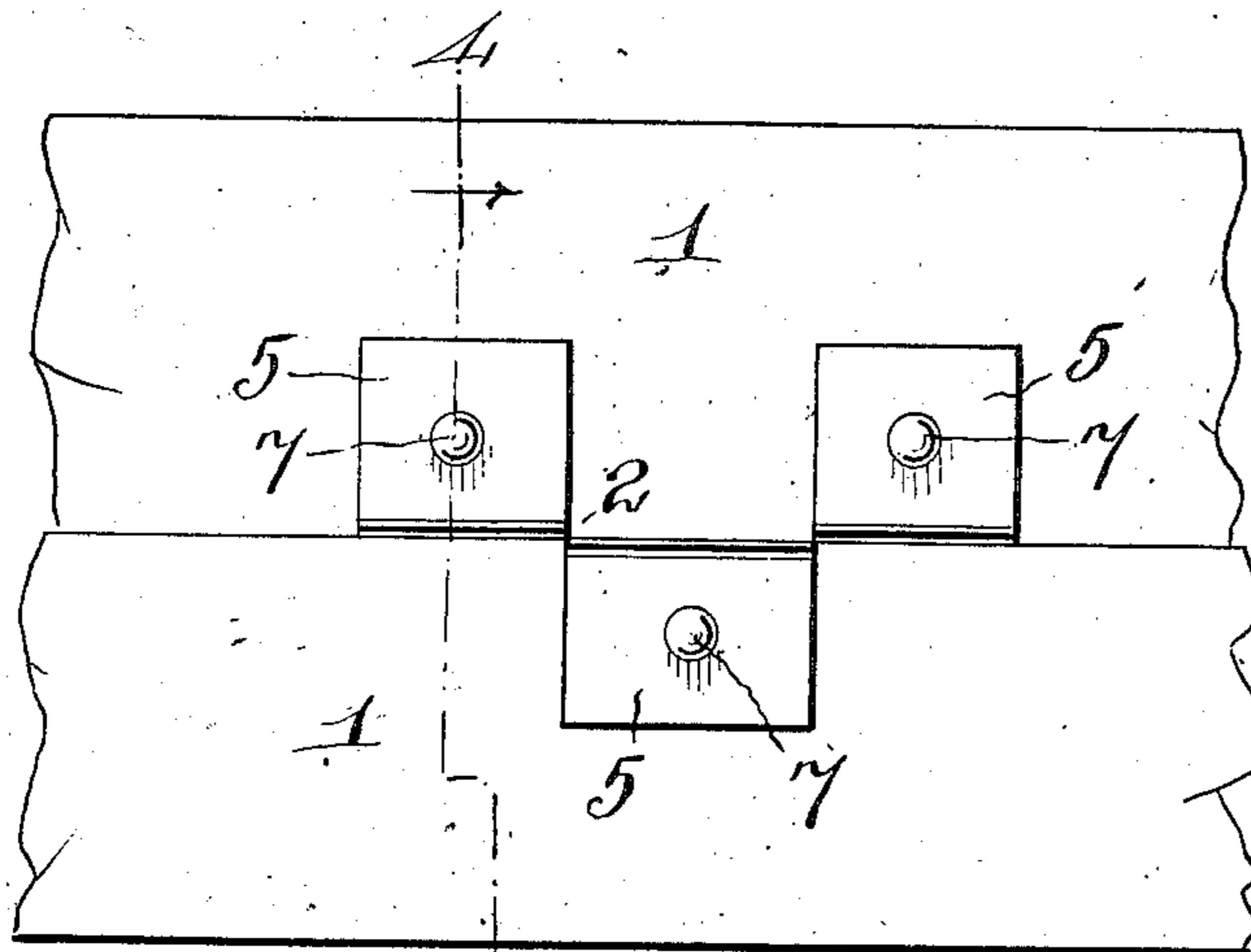


FIG. 4.

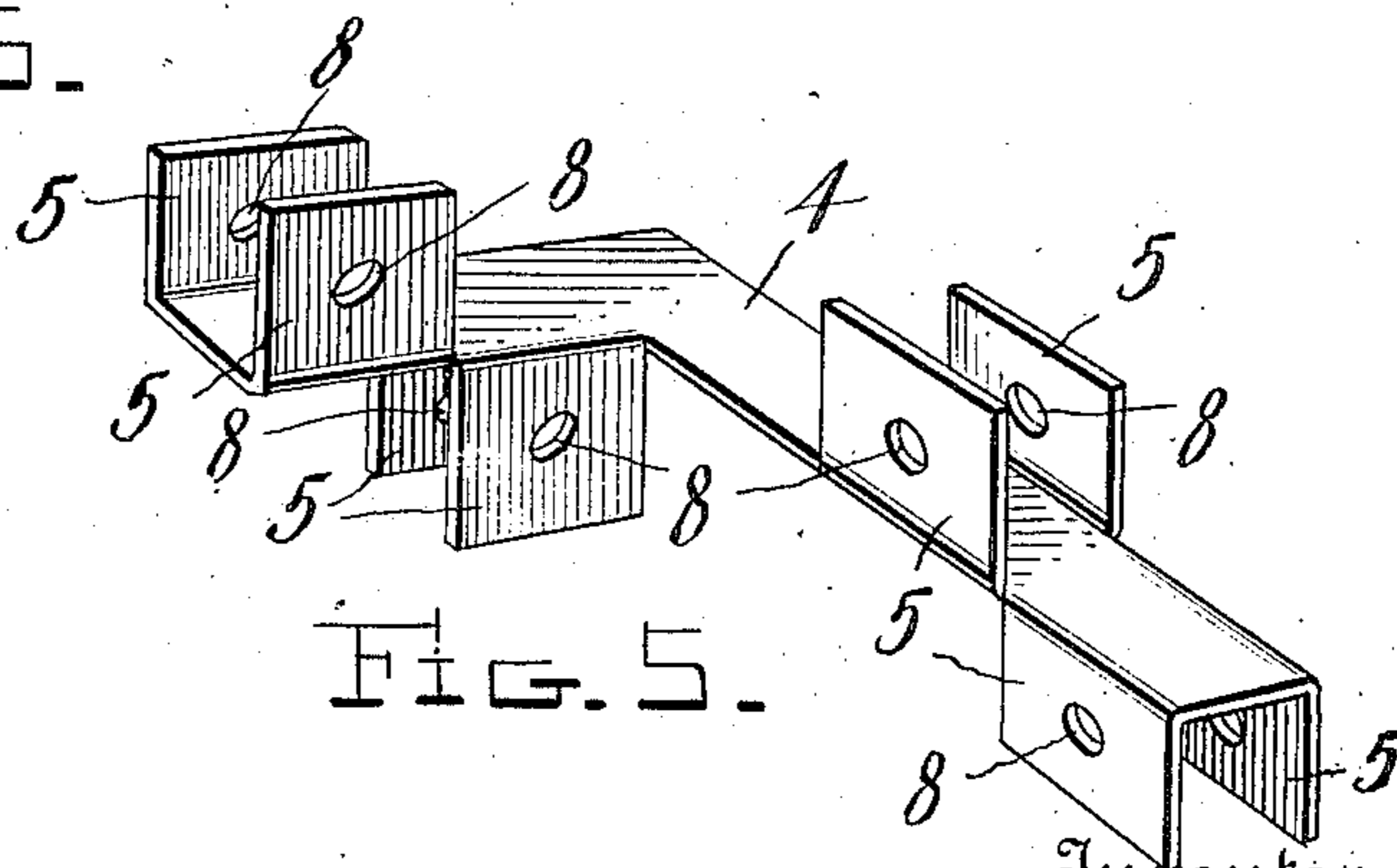
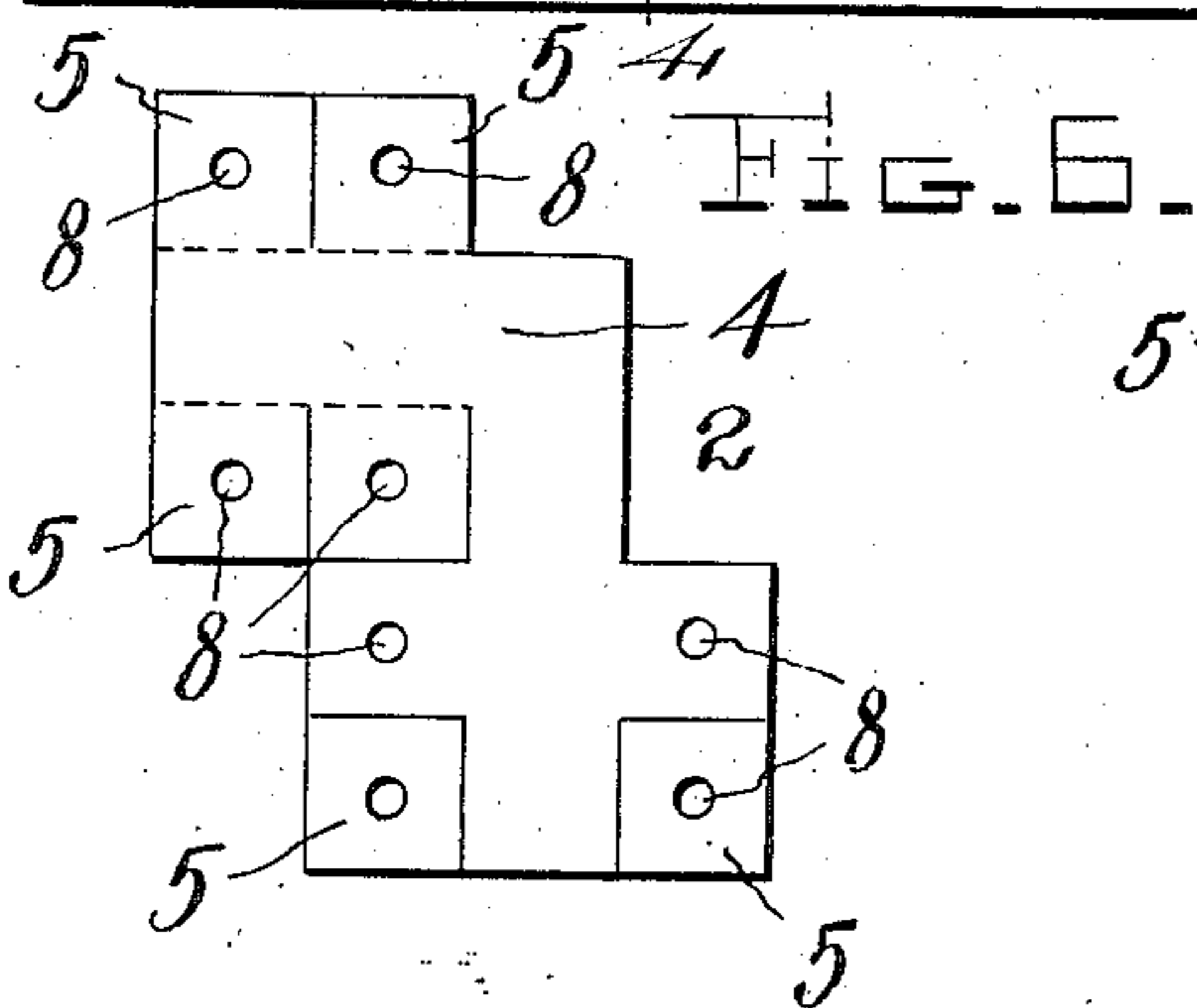
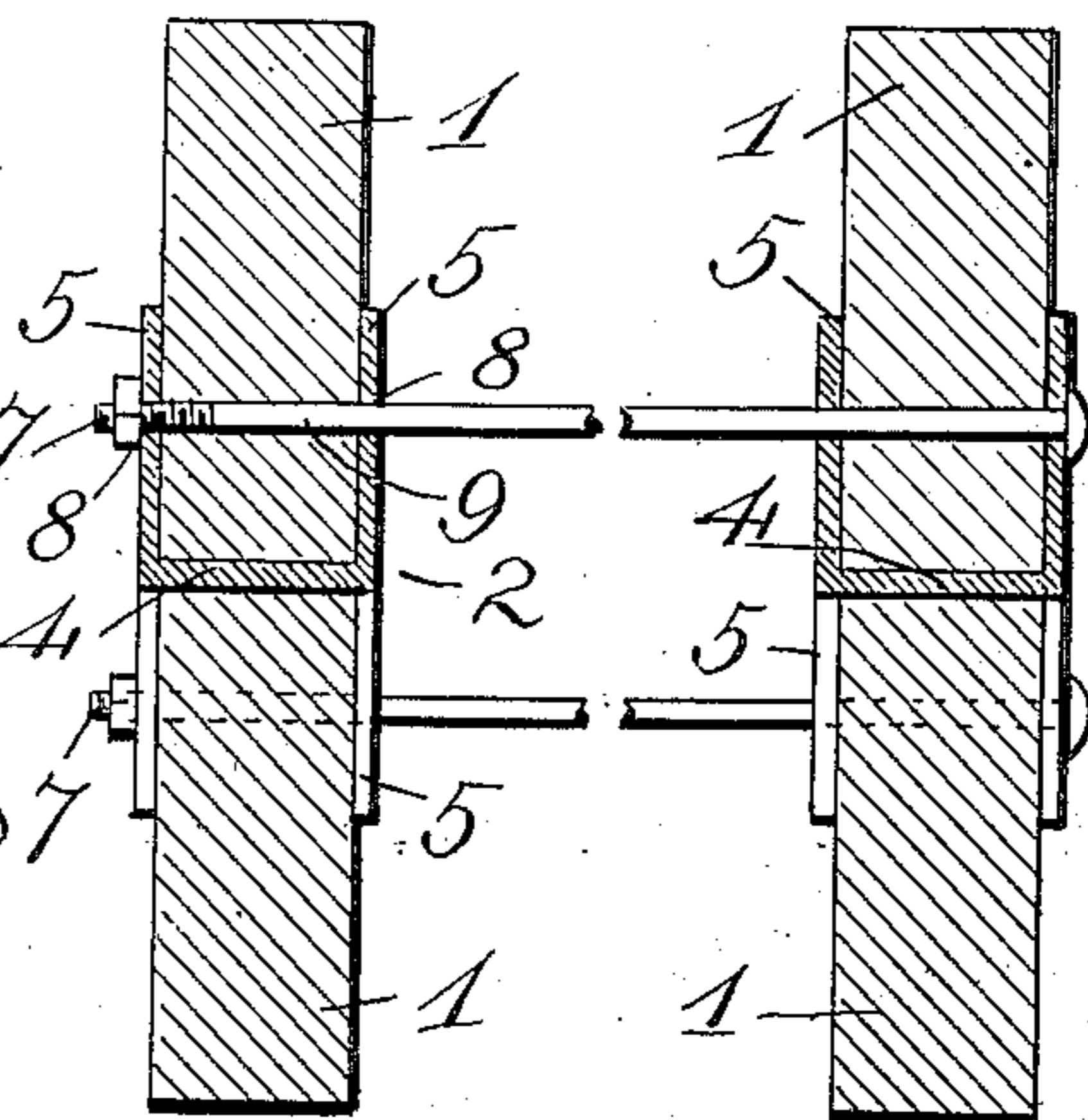


FIG. 5.

Witnesses  
Jas. A. Koehl,  
C. H. Griesbauer.

Inventor  
John H. Sullivan  
by *H. Blawie*  
Attorney

# UNITED STATES PATENT OFFICE.

JOHN H. SULLIVAN, OF GRAND RAPIDS, MICHIGAN.

## MOLD.

No. 813,253.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed June 15, 1905. Serial No. 265,359.

*To all whom it may concern:*

Be it known that I, JOHN H. SULLIVAN, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Molds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in molds, and more particularly to fastening devices for securing together the sections or planks of a mold for concrete, cement, or other plastic material.

The object of the invention is to provide a simple, inexpensive, and efficient fastening device of this character by means of which planks or mold-sections may be rigidly secured together.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of one of my improved plank-fasteners. Fig. 2 is a view of the blank from which the same is constructed. Fig. 3 is a detail view of a portion of one side of a mold, showing its sections or planks secured by the fasteners. Fig. 4 is a detail transverse sectional view taken on the line 4 4 in Fig. 3. Fig. 5 is a perspective view of one of the fasteners adapted to be used at a corner of a mold, and Fig. 6 is a view of the blank from which the fastener shown in Fig. 5 is formed.

Referring to the drawings by numeral, 1 denotes a series of planks or sections of a cement or concrete mold used for building purposes, and 2 denotes my improved fasteners for detachably securing said planks or sections together. Each of the fasteners, as clearly shown in Fig. 2 of the drawings, is formed from a single piece of sheet metal by slitting or cutting the sides of the same, as shown at 3, to form a body portion 4 and a series of flanges or tongues 5. The latter are arranged in pairs which project in opposite directions, the flanges or tongues being bent at right angles to the body portion 4. The body portion 4 corresponds in width to the

thickness of the planks or sections 1, so that when it is placed between them, as shown in Figs. 3 and 4 of the drawings, the flanges or tongues 5 will engage opposite faces of the planks or mold-sections. The fasteners may be retained in position by nails or the like driven through centrally-disposed openings 6, formed in the body portions 4, and the fasteners are adapted to be secured upon the planks or mold-sections 1 by bolts or tie-rods 7, which are passed through alining openings 8, formed in the flanges 5, and through alining openings 9 in the planks or mold-sections, as clearly shown in Fig. 4 of the drawings. The bolts or tie-rods 7, which extend through both sides of the mold, may be of any desired form of construction; but I preferably employ ordinary screw bolts or rods.

In Figs. 5 and 6 of the drawings the fastener is right-angular in form, so as to engage the abutting ends of two of the walls of a mold. This fastener is also formed from a single piece of sheet metal, as will be readily seen upon reference to Fig. 6 of the drawings.

The use of the fastener will be readily understood upon reference to Figs. 3 and 4 of the drawings. In beginning a concrete wall or other structure the lowermost planks or sections 1 are supported upon a suitable foundation, and the concrete is then packed firmly within the sides of the mold formed by two or more of the planks or sections 1 placed one above the other and secured by the fasteners. As the concrete becomes set the lowermost plank or planks may be removed and placed upon the uppermost ones, so that the same planks or sections may be used repeatedly in the building of a wall or similar structure. Owing to this feature, it will be seen that very few planks or mold-sections will be required in the building of a wall.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

The herein-described mold, consisting of the planks 1 provided with apertures and a fastener consisting of a sheet-metal body portion 4, formed with oppositely-projecting

pairs of right-angular flanges 5, said flanges having apertures 8 located to aline with the apertures in the planks 1, said fastener being secured at the meeting edges of the planks by  
5 means of tie-rods 9 passed through the alining apertures in the planks and fastener, as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN H. SULLIVAN.

Witnesses:

GEORGE W. THOMPSON,  
FRANK L. CARPENTER.