

No. 836,686.

PATENTED NOV. 27, 1906.

E. L. HURD.

DIE BLOCK.

APPLICATION FILED MAR. 30, 1905.

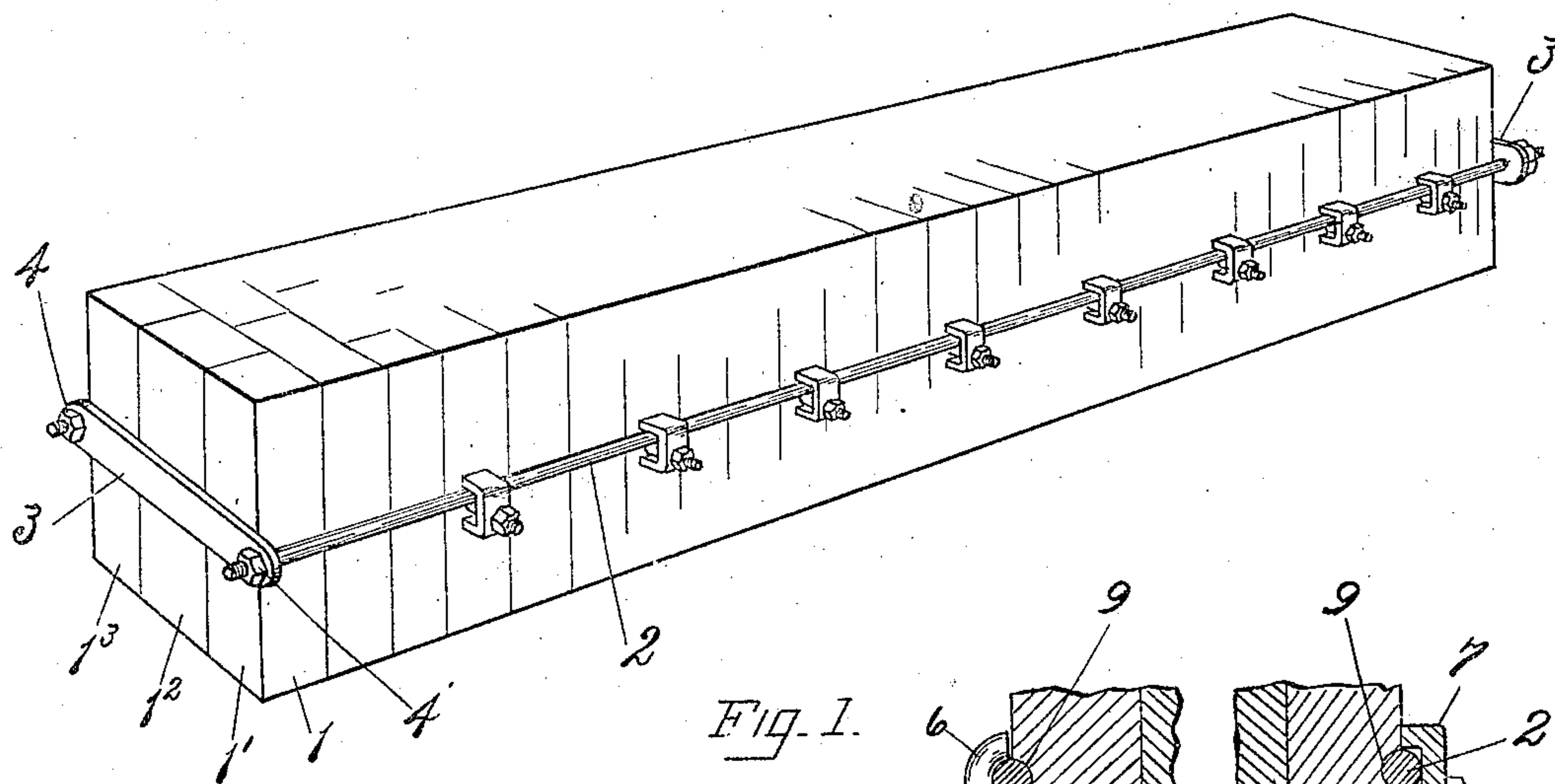


Fig. 1.

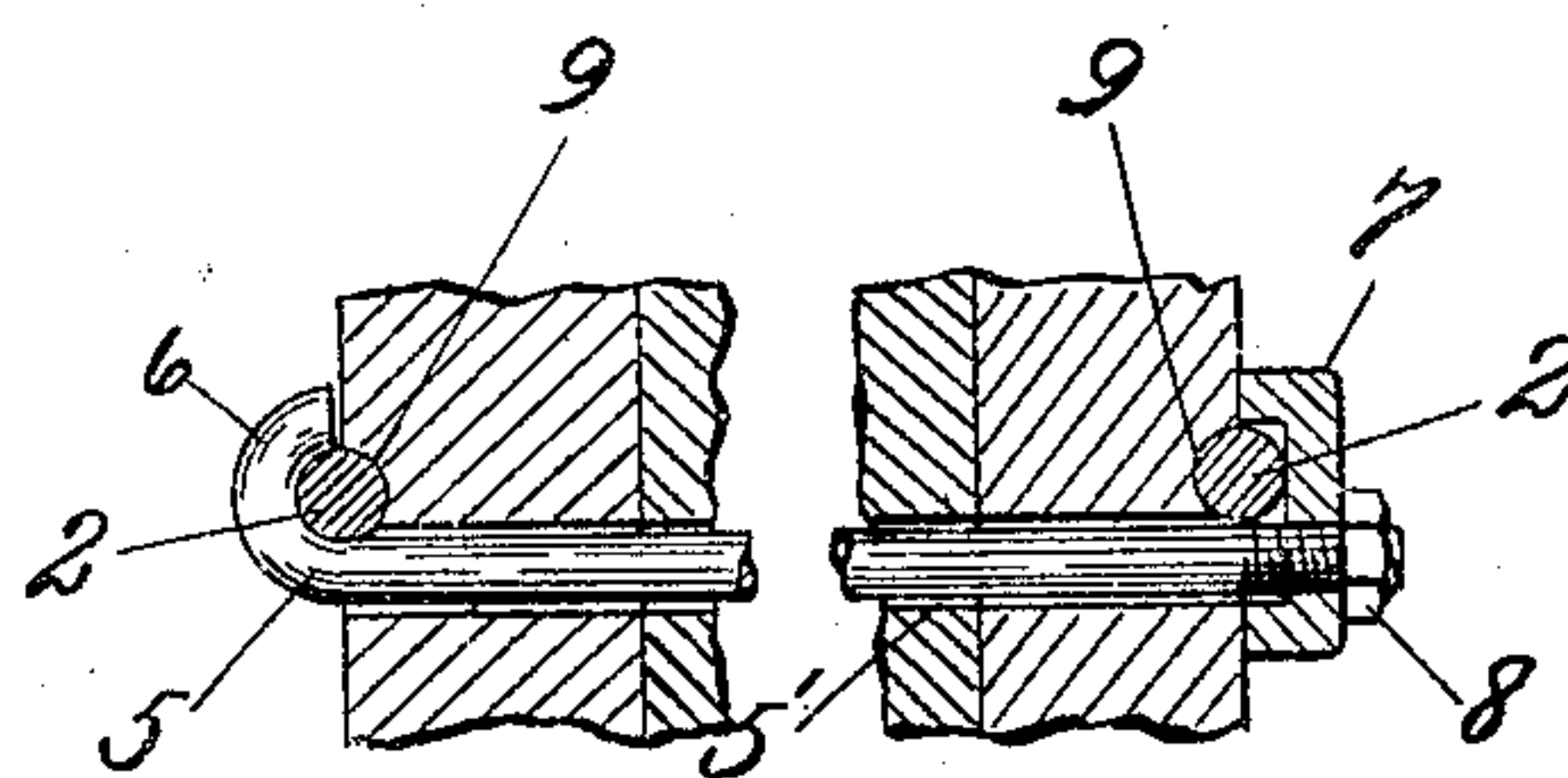


Fig. 3.

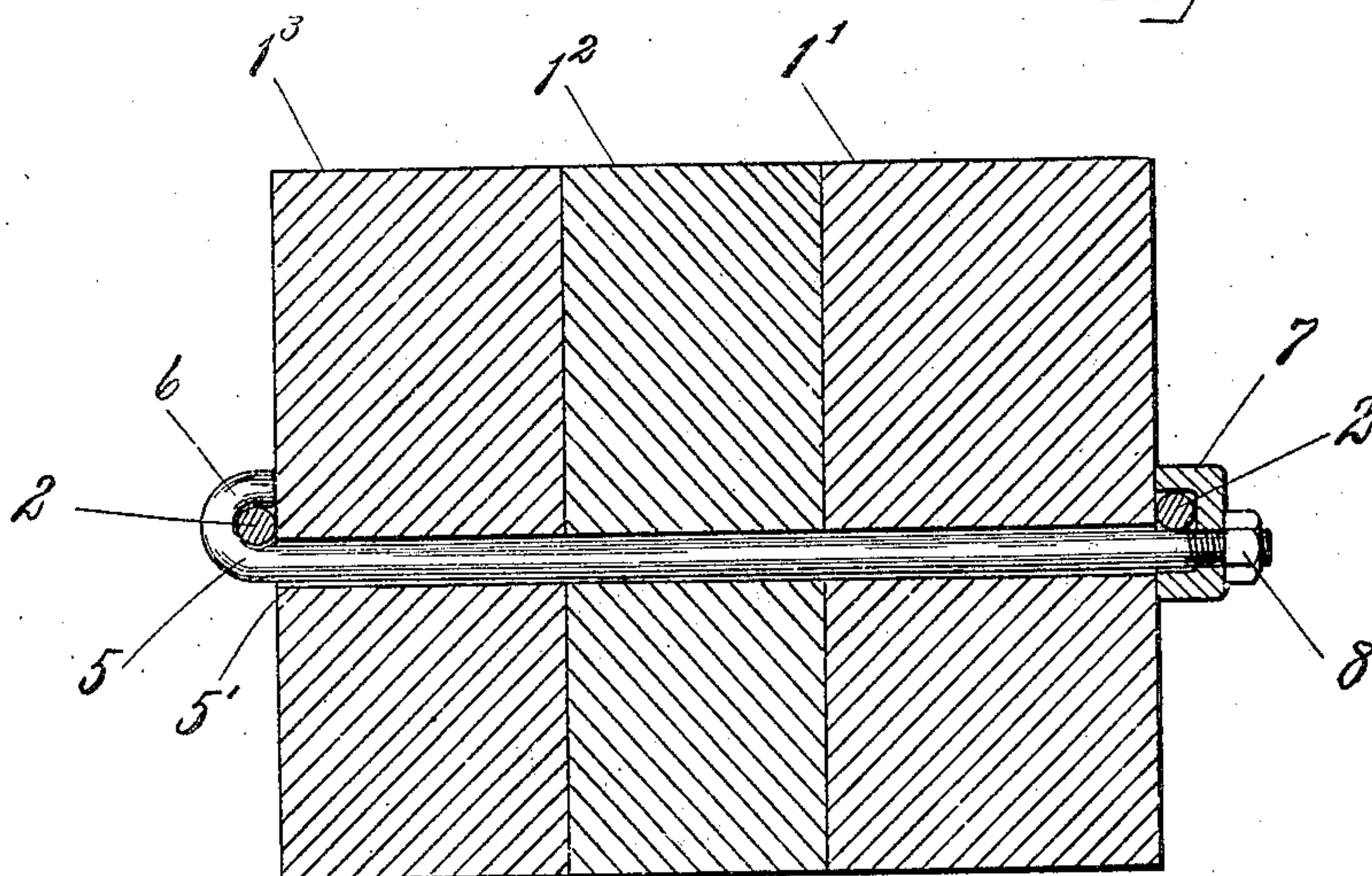


Fig. 2.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## DIE-BLOCK.

No. 836,686.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed March 30, 1905. Serial No. 252,976.

*To all whom it may concern:*

Be it known that I, EDWARD L. HURD, a citizen of the United States, residing at Milton, in the county of Norfolk and Commonwealth of Massachusetts, have invented certain Improvements in Die-Blocks, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to die-blocks, and more particularly to sectional die-blocks in which the parts of the block are held together by clamping-irons.

In sectional die-blocks as heretofore constructed block-sections have been held together by clamping-irons arranged longitudinally and transversely of the block, the longitudinal irons being arranged exteriorly of the block and the transverse members passing through the block from side to side, some of the block-sections being provided with perforations to receive said transverse irons.

A common form of block heretofore used has been provided with longitudinal strips having perforations at the proper points to receive the transverse rods. In the use of these blocks some difficulty has been occasioned by the liability of the perforations above mentioned in the blocks being out of alinement with the perforations in the longitudinal strips.

An important object of my invention is to provide a system of irons obviating this difficulty.

It is also an object of the invention to simplify and reduce the cost of production of such irons.

According to the preferred embodiment of the invention clamping members are arranged in two sets, preferably located longitudinally and transversely of the block, respectively, the longitudinal members serving to clamp the block longitudinally, the transverse members being adapted to engage the longitudinal members, so as to force said longitudinal members together to clamp the block transversely, and the engagement between the two sets of members being such that the transverse members may be given any desired position in the length of the longitudinal members.

Other features of my invention, including combinations of parts and details of construction, will be herein described, and defined in the claims.

Figure 1 of the drawings is a perspective view of a preferred form of device embodying my invention. Fig. 2 is a transverse vertical section; and Fig. 3 is a view similar to Fig. 2, showing additional features.

I have illustrated the application of my invention to an ordinary form of die-block comprising the sections 1, placed face to face and each section being itself comprised of a plurality of sections, as 1' 1<sup>2</sup> 1<sup>3</sup>. The dimensions of the block may of course be varied to suit requirements, the block shown being of considerably greater length than width.

The block-sections 1 are clamped in two different directions—viz., longitudinally and transversely of the block. The means for clamping the block longitudinally comprises the members 2, extending longitudinally and exteriorly of the block and provided at each end with the clamping-strips 3 and nuts 4. To clamp the block transversely, I prefer to use the arrangement shown, comprising one or more transverse members or rods 5, extending through the block-passages 5' and provided with means whereby they may be connected to the longitudinal rods at any point in the length of said longitudinal rods. I have shown said rods 5 as provided at one end with the hooks 6, adapted to engage the rod 2 on one side of the block, and at the other end with the washer 7, adapted to bear against and embrace the rod 2 on the other side of the block. The washers 7 may be adjusted longitudinally of the rods 5 by the nuts 8, thus drawing the rods 2 together and clamping the block-sections tightly between said rods 2. The transverse rods 5 are shown as passing at one side of the rods 2, and the washers 7 may be U-shaped, as shown, to receive said rods 2 and to afford bearing for said washers on the side of the block-sections in the operation of drawing together the rods. The end of the hook 6 need not come in contact with the block-sections.

In Fig. 3 I have shown the block-sections as provided with grooves 9 in their edge faces, the longitudinal rods 2 being arranged in said grooves. The provision of the grooves 9 is advantageous in that it facili-



tates the assembling of the block-sections, permits the sections to be held more securely, and tends to compactness of construction.

It will be apparent that according to my invention there is provided a system of irons by which the block-sections may be clamped together in the desired directions and at the desired points which can be conveniently applied to the block and which is capable of adjustment to compensate for such variations in the block-sections as are liable to occur.

The system of irons shown permits the attachment of the transverse rods to the longitudinal rods at any point, and consequently there is no such necessity of accurately locating the bolt-passages in the block-sections as would occur if the transverse members were capable of being attached to the longitudinal members at fixed points only.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a die-block, the combination with the block-sections, of a plurality of tie-rods arranged to clamp the sections together in one direction, a plurality of rods arranged transversely of the first-named rods, and means for connecting said transverse rods to said first-named rods arranged to permit the

connection to be made at any point in the length of the first-named rods.

2. A die-block comprising block-sections, tie-rods extending longitudinally and exteriorly of the block and provided with means to clamp said sections together in a direction longitudinally of the block, one or more transverse rods each provided at one end with a hook adapted to receive the longitudinal rod on one side of the block and at the other end with means adjustable on said rods and arranged to engage the longitudinal tie-rods to clamp the block-sections laterally.

3. In a die-block, the combination with block-sections provided with grooves in their edge faces, of tie-rods extending longitudinally and exteriorly of the block and arranged in said grooves and provided with means to clamp said sections together in a direction longitudinally of the block, and a plurality of rods arranged transversely of the first-named rods and provided with means to clamp the longitudinal rods transversely of the block.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD L. HURD.

Witnesses:

BERNARD BARROWS,  
FREDERICK L. EDMONDS.