

No. 685,555.

Patented Oct. 29, 1901.

J. P. ASHBY & S. H. MILLER.

DOWEL CONNECTION.

(Application filed July 23, 1901.)

(No Model.)

Fig. 1.

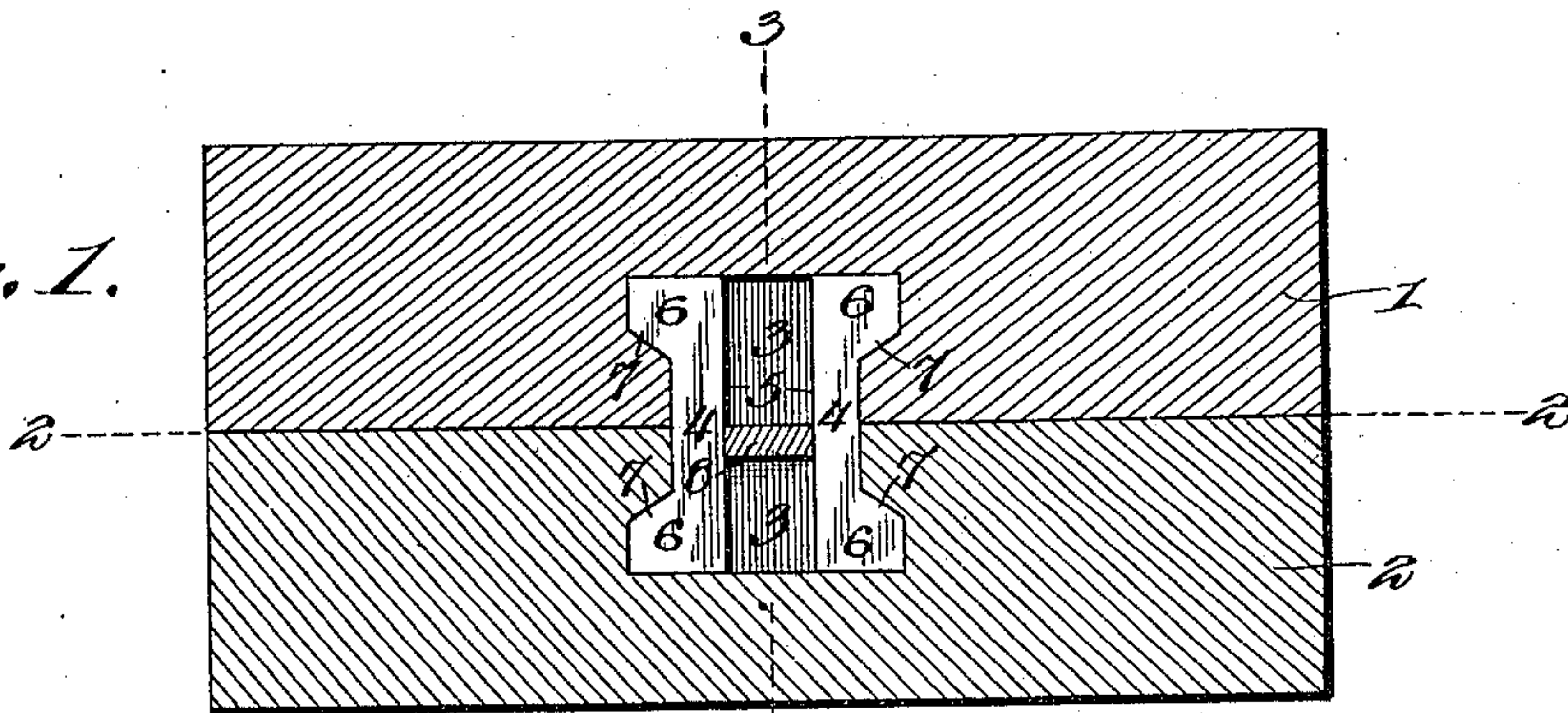


Fig. 2.

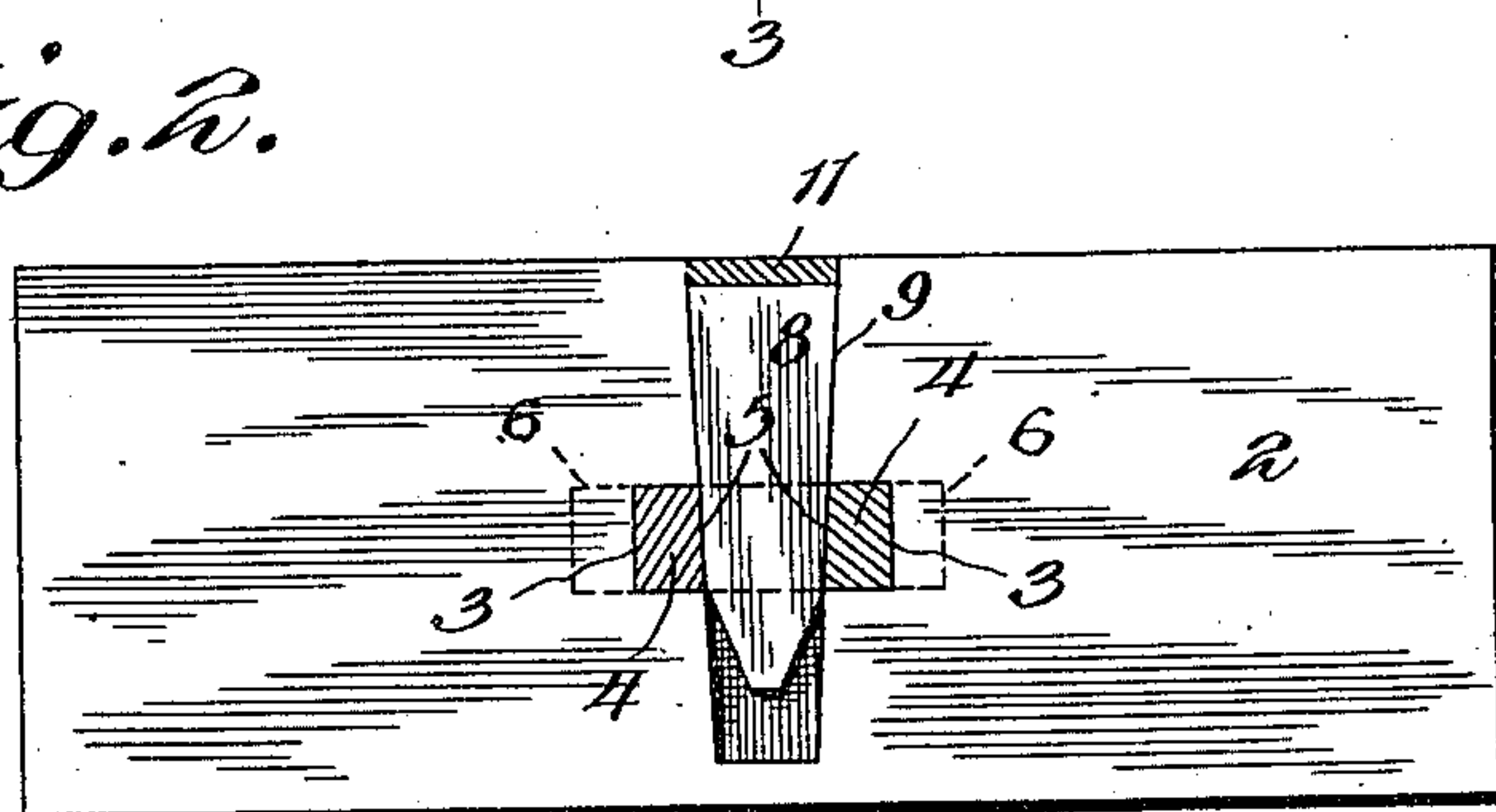


Fig. 3.

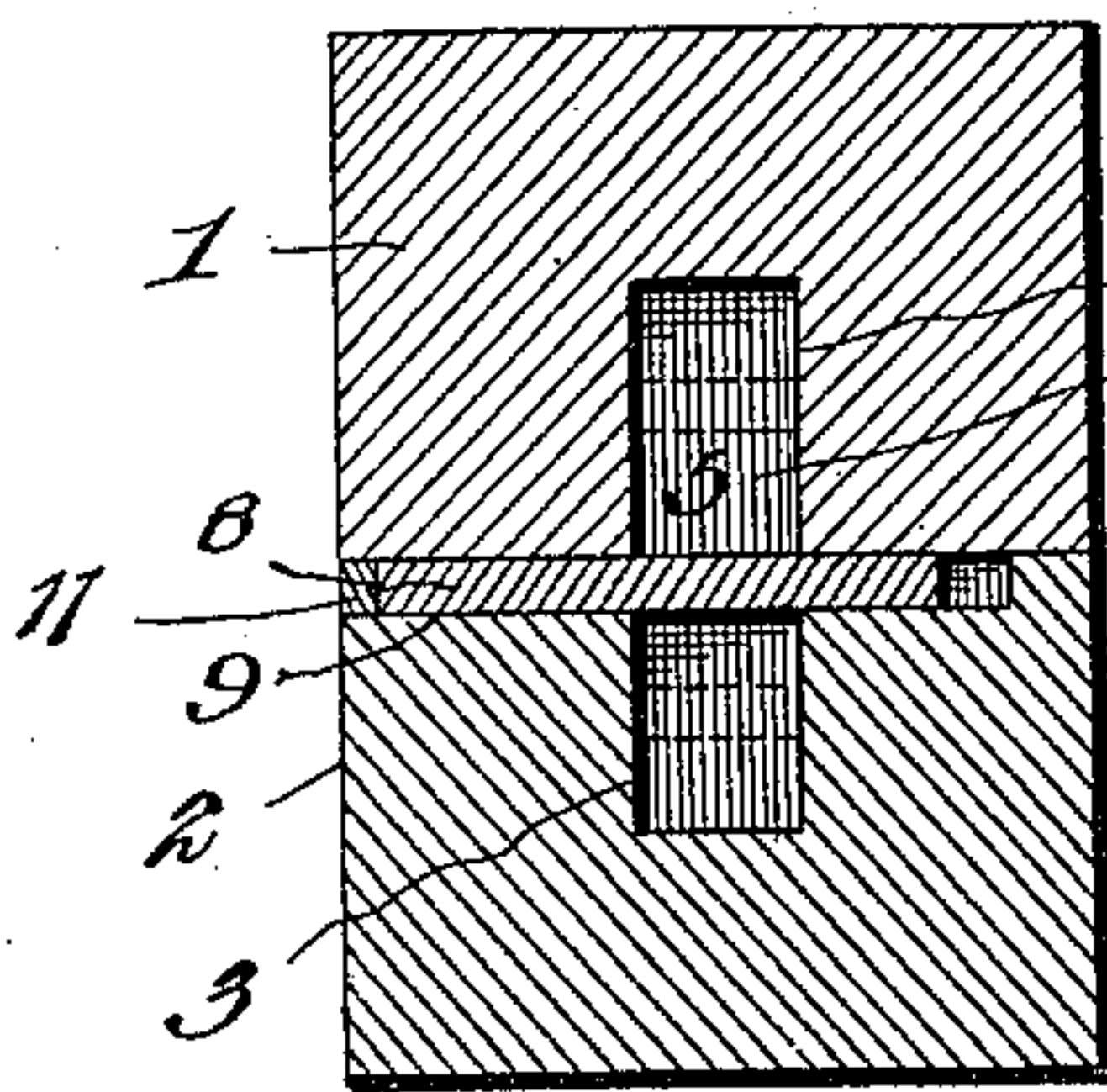


Fig. 4.

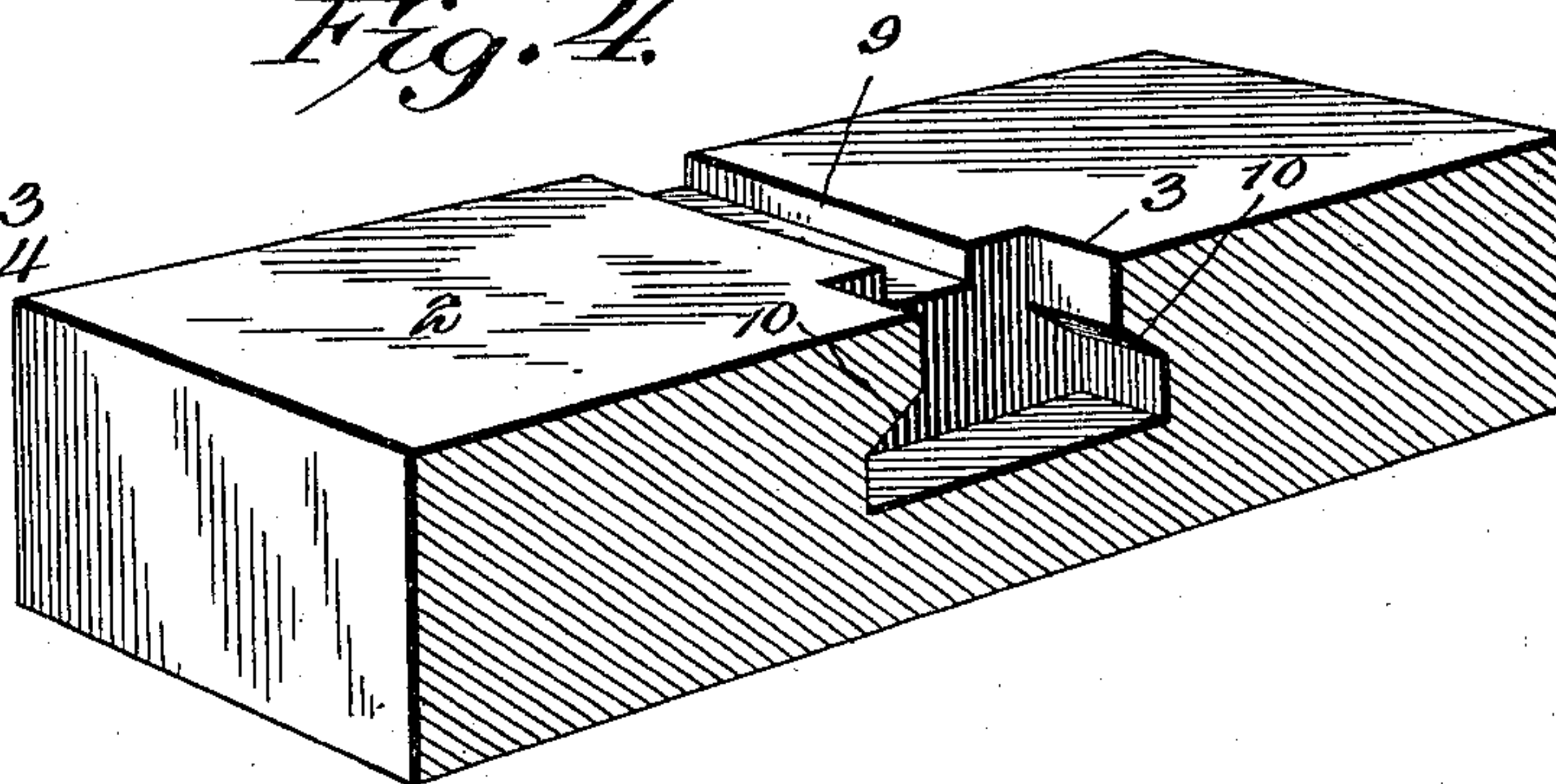
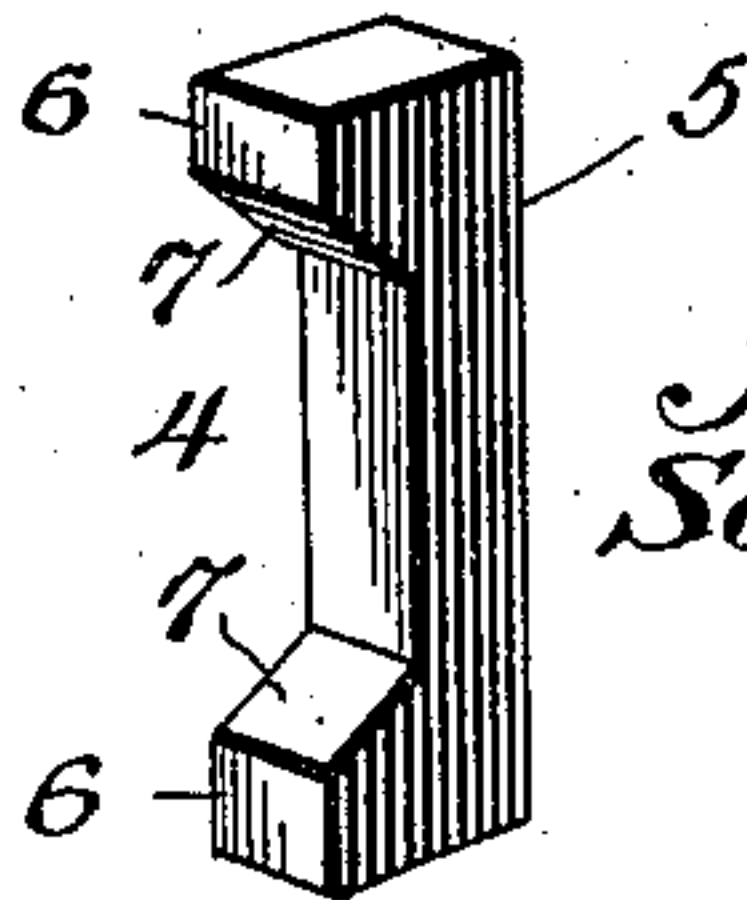


Fig. 5.



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JOHN P. ASHBY AND SAMUEL H. MILLER, OF OKLAHOMA, OKLAHOMA TERRITORY.

DOWEL CONNECTION.

SPECIFICATION forming part of Letters Patent No. 685,555, dated October 29, 1901.

Application filed July 23, 1901. Serial No. 69,418. (No model.)

To all whom it may concern:

Be it known that we, JOHN P. ASHBY and SAMUEL H. MILLER, citizens of the United States, residing at Oklahoma city, in the county of Oklahoma and Territory of Oklahoma, have invented a new and useful Dowel Connection, of which the following is a specification.

This invention relates to means for connecting blocks or sections of wood, metal, stone, &c., and has for its object to provide an improved dowel connection which can be readily applied to draw the sections snugly together in a strong and durable manner. It is furthermore designed to arrange for convenient access to the dowel-pins after they have been placed in the blocks or sections in order that said pins may be conveniently spread, so as to cooperate with the opposite sections and form a rigid connection therebetween, the entire connection being contained within the blocks or sections, and thereby housed and protected against damage and displacement.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a sectional view taken through opposite members which are connected by means of the present invention. Fig. 2 is a sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a sectional view taken in the plane which lies between the connected members. Fig. 4 is a detail sectional perspective view of one of the socketed members. Fig. 5 is a detail perspective view of one of the dowel-pins.

Like characters of reference designate corresponding parts in all the figures of the drawings.

Referring to the drawings, 1 and 2 designate the opposite members which are to be connected by means of the present invention,

the contiguous faces of said members being provided with corresponding undercut sockets or recesses 3, which are preferably located centrally of the members, so that the upper ends of said sockets register when the members are placed in mutual contact. For connecting these members there is provided a pair of duplicate dowel-pins 4, each of which consists of a straight shank having one longitudinal edge 5 beveled or inclined transversely and provided at opposite ends with laterally-enlarged heads 6, that are projected upon that side of the pin which is opposite the beveled edge thereof, the inner ends of said heads being beveled inwardly in opposite directions, as indicated at 7.

In assembling the parts a pair of dowel-pins are thrust endwise through the open end of one of the sockets, said open end being slightly greater than the combined length of the corresponding heads of the pins, after which the other section or member is placed in contact with the first-mentioned member, so as to receive the projected ends of the pins. A wedge 8 is then driven inwardly between the members and the dowel-pins, one of the members having its inner face provided with a groove or seat 9 for the reception of the wedge, which is in frictional engagement with the dowel-pins, so as to forcibly separate the latter, and thereby force the beveled heads thereof into engagement with the respective beveled walls 10 of the sockets, thereby drawing together the members in a strong and durable manner. It is designed to drive the wedge inwardly beyond the outer face of the members, so as to obviate any projections, and the outer end of the groove or seat is filled with molten metal or other suitable filling 11, thereby to prevent accidental endwise displacement of the wedge, as well as to fill the end of the groove or seat.

From the foregoing description it is apparent that the present invention may be conveniently applied without requiring skilled labor, and when the sectional members have been connected the dowel-pins and wedge are contained within the members, and thereby housed and protected against damage, displacement, and the effects of the weather.

Moreover, the members or sections are entirely free from external projections, so that when connected a plurality of such members may lie flat against each other.

5 While the present invention is particularly designed for setting monuments together, it will of course be understood that it may be employed for connecting members or sections of any character and is therefore not limited
10 for use in connection with stone.

What we claim is—

1. The combination with opposite members having corresponding registered undercut sockets formed in the contiguous faces there-
15 of, of opposite dowel-pins having their opposite ends provided with laterally-enlarged heads fitted in the respective sockets, and a wedge driven inwardly between the opposite members and also between and in frictional
20 engagement with the inner edges of the dowel-pins, whereby the latter are separated and forced into engagement with the walls of the sockets.

2. The combination with opposite members
25 having corresponding registered undercut sockets formed in the contiguous faces thereof, of opposite dowel-pins having their opposite ends provided with laterally-enlarged heads fitted in the respective sockets, the in-
30 ner face of one of the members having a transverse groove or seat lying between the pins, and a wedge received within said seat and driven into frictional engagement with the inner edges of the dowel-pins, whereby the
35 latter are separated and forced into engagement with the walls of the sockets.

3. The combination with opposite members

having corresponding registered undercut sockets formed in the contiguous faces there-
of, of a pair of dowel-pins fitted in said sockets
40 and overlapping the joint between the members, the opposite ends of the pins being provided with laterally-enlarged heads lying in the undercut sockets, the inner edges of the
45 pins being beveled transversely, and a wedge driven in between the members and in frictional engagement with the beveled edges of the dowel-pins, whereby the latter are separated and forced into engagement with the
50 walls of the sockets.

4. The combination with opposite members having their contiguous faces provided with corresponding registered sockets provided with beveled undercut walls, of a pair of
55 dowel-pins lying in the sockets and overlapping the joint between the members, the opposite ends of the pins being provided with outwardly-directed enlarged heads having their inner ends beveled to correspond with the beveled undercut edges of the sockets,
60 and a wedge driven inwardly between the members and in frictional engagement with the inner edges of the dowel-pins, whereby the latter are spread and the beveled heads are forced into frictional engagement with the
65 beveled undercut walls of the sockets.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN P. ASHBY.

SAMUEL H. MILLER.

Witnesses:

A. L. WELSH,
J. M. OWEN.