

J. A. KIMBALL.
COUPLING OR MORTISE BRACKET.
APPLICATION FILED DEC. 18, 1909

963,585.

Patented July 5, 1910.

Fig 1

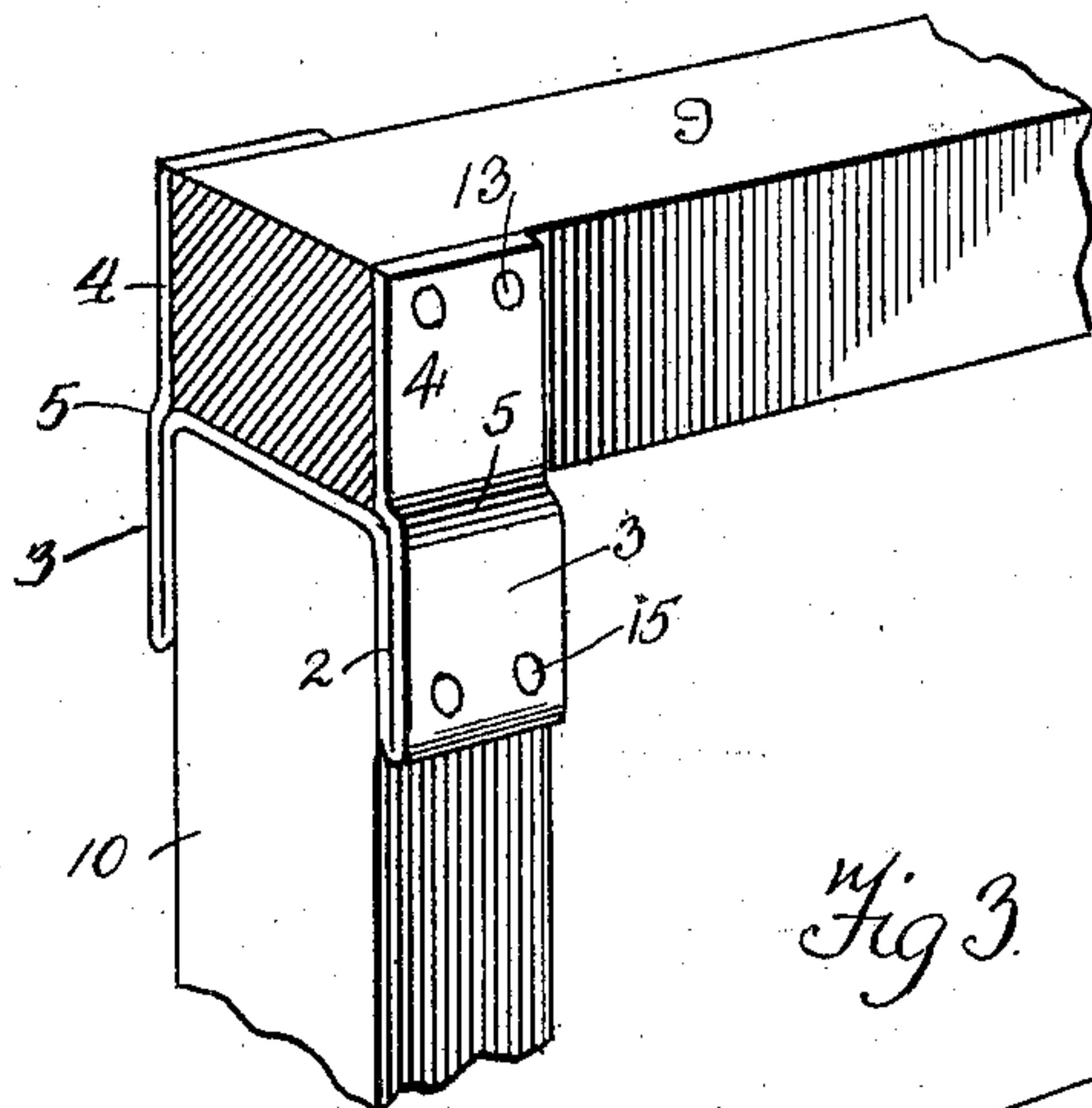


Fig 2

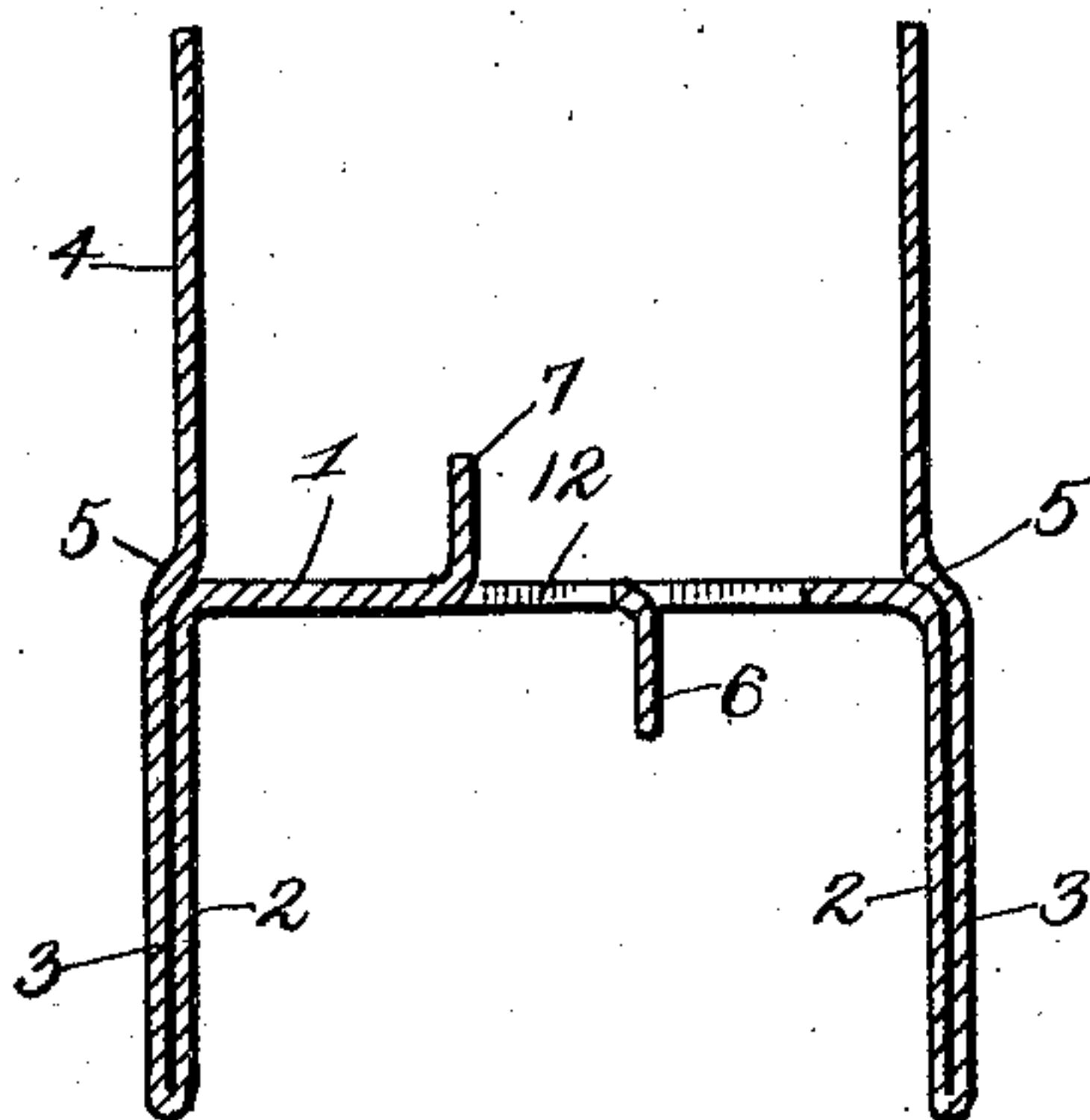


Fig 3

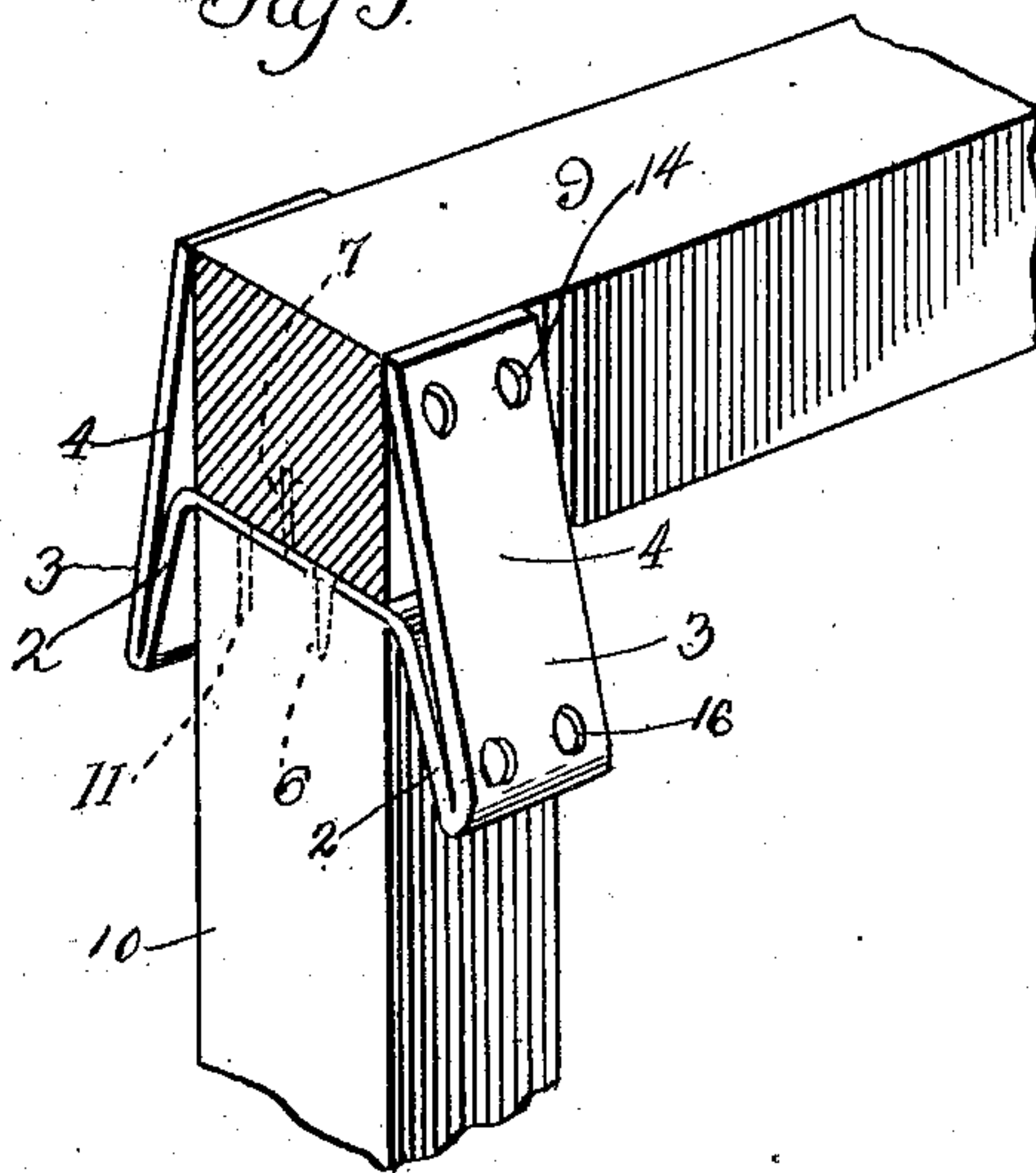
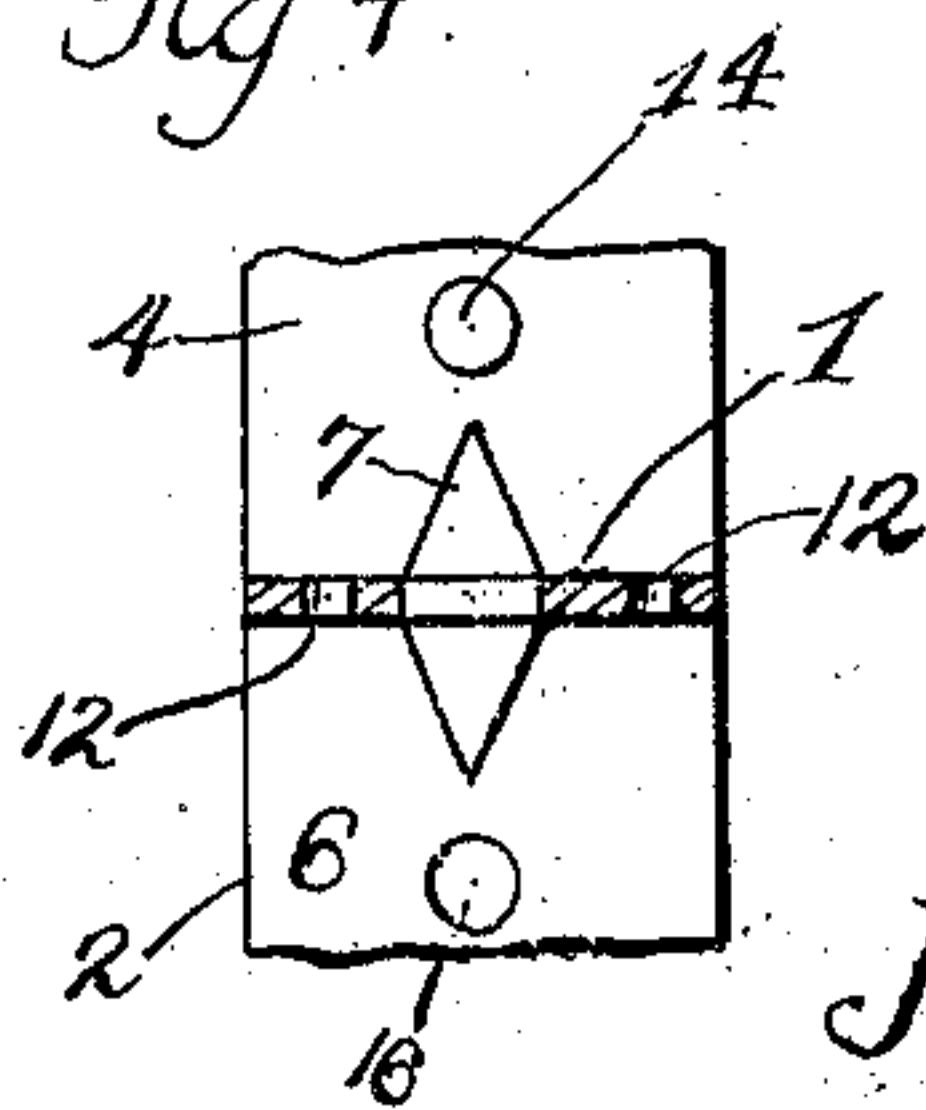


Fig 4



Witnesses

W. S. McHowell.

C. A. Hines.

Inventor

John A Kimball

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

JOHN A. KIMBALL, OF TAYLORVILLE, ILLINOIS.

COUPLING OR MORTISE BRACKET.

963,585.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed December 18, 1909. Serial No. 533,914.

To all whom it may concern:

Be it known that I, JOHN A. KIMBALL, a citizen of the United States, residing at Taylorville, in the county of Christian and State of Illinois, have invented new and useful Improvements in Coupling or Mortise Brackets, of which the following is a specification.

This invention relates to a coupling or mortise bracket for use in connecting the adjacent ends of rails or bars in the construction of doors, screen frames, etc., the object of the invention being to provide a simple, inexpensive and effective coupling bracket which may be applied to firmly and securely connect the adjacent ends of the rails without the necessity of forming the usual mortises and tongues.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view showing a pair of rails connected by my improved coupling bracket. Fig. 2 is a central vertical cross section through the bracket in the form it takes when applied. Fig. 3 is a perspective view of the same partially applied. Fig. 4 is a section taken transversely through the body portion of the bracket, showing the arrangement of the holding spurs.

In carrying my invention into practice, I provide a bracket formed of a single piece or length of strap metal, preferably malleable metal. The central portion of this strap is arranged to form the body or cross piece 1 of the coupling, which is coextensive in length with the width of the bars to which the bracket is to be applied. From this cross piece or body portion the metal is bent in one direction to form a pair of legs 2, thus providing a stirrup or socket to receive and engage the end of one of the bars. At the outer ends of the legs 2 the metal is bent in the reverse direction to form bracing arms 3 bearing against the outer sides of said legs and strengthening and reinforcing the same. These arms are continued beyond the opposite side of the body portion 1 to provide a pair of legs 4 disposed opposite the legs 2 and adapted to receive the adjacent end of the other bar. In practice the legs 4 are preferably offset at their point of juncture of the arms 3, as at 5, so

that they will overlap the ends of the body portion 1 and lie in the plane of the legs 2, while the body portion 1 is slitted to partially displace portions thereof which are bent in opposite directions to form V-shaped tongues or spurs 6 and 7. Normally, the legs 2 diverge or incline outwardly and downwardly, while the bracing arms 3 and legs 4 incline or converge inwardly and upwardly, as shown in Fig. 3.

In the operation of connecting the adjacent ends of a pair of bars or rails 9 and 10, the stirrup portion of the bracket is first fitted upon the end of one of the bars as the bar 10, so that the body portion 1 will extend across the end of said bar, while the legs 2 incline away from the sides thereof, the end of the bar thus being fitted within the stirrup or socket. The body portion 1 is then tapped to force the spur 6 into said bar, after which one or more fastenings 11 are driven through openings 12 in the body portion and into the bar. The bar 9 is then placed on the body portion between the legs 4 and tapped so as to force the spur 7 thereinto, after which fastenings 13 are passed through openings 14 in the legs 4 to fasten them to said bar. The legs 2 and bracing arms 3 will remain in this operation in their normally inclined positions. Fastenings 15 are then passed through registering openings 16, in said legs and bracing arms and driven into the bar 10, by which operation the legs and arms will be bent inward to lie in parallel relation against each other and with the legs bearing against the sides of the bar. In such action, the legs and bracing arms will move inward on an arc of curvature, thus drawing down upon the bar 10 to force it into closer engagement with the body portion 1 by means of which an absolutely firm and rigid connection is secured.

From the foregoing description, the construction and mode of use of the bracket will be readily understood and its advantages appreciated, and it will be seen that it may be manufactured and sold at a comparatively low cost.

What I claim is—

1. A coupling bracket formed from a single piece of strap metal and comprising a body portion, legs projecting beyond one face of the body portion, reinforcing arms integral with and overlapping said legs, and

a second pair of legs integral with said arms and projecting beyond the opposite face of the body portion.

2. A coupling bracket formed from a single piece of strap metal and comprising a body portion, a pair of diverging legs projecting beyond one face of the body portion, a pair of converging legs projecting beyond the opposite face of the body portion, and
10 reinforcing arms disposed on the outer sides

of said diverging legs and integrally connecting the respective diverging legs with the adjacent converging legs.

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

JOHN A. KIMBALL.

Witnesses:

J. L. OATES,
HOMER BRENTS.