

No. 668,720.

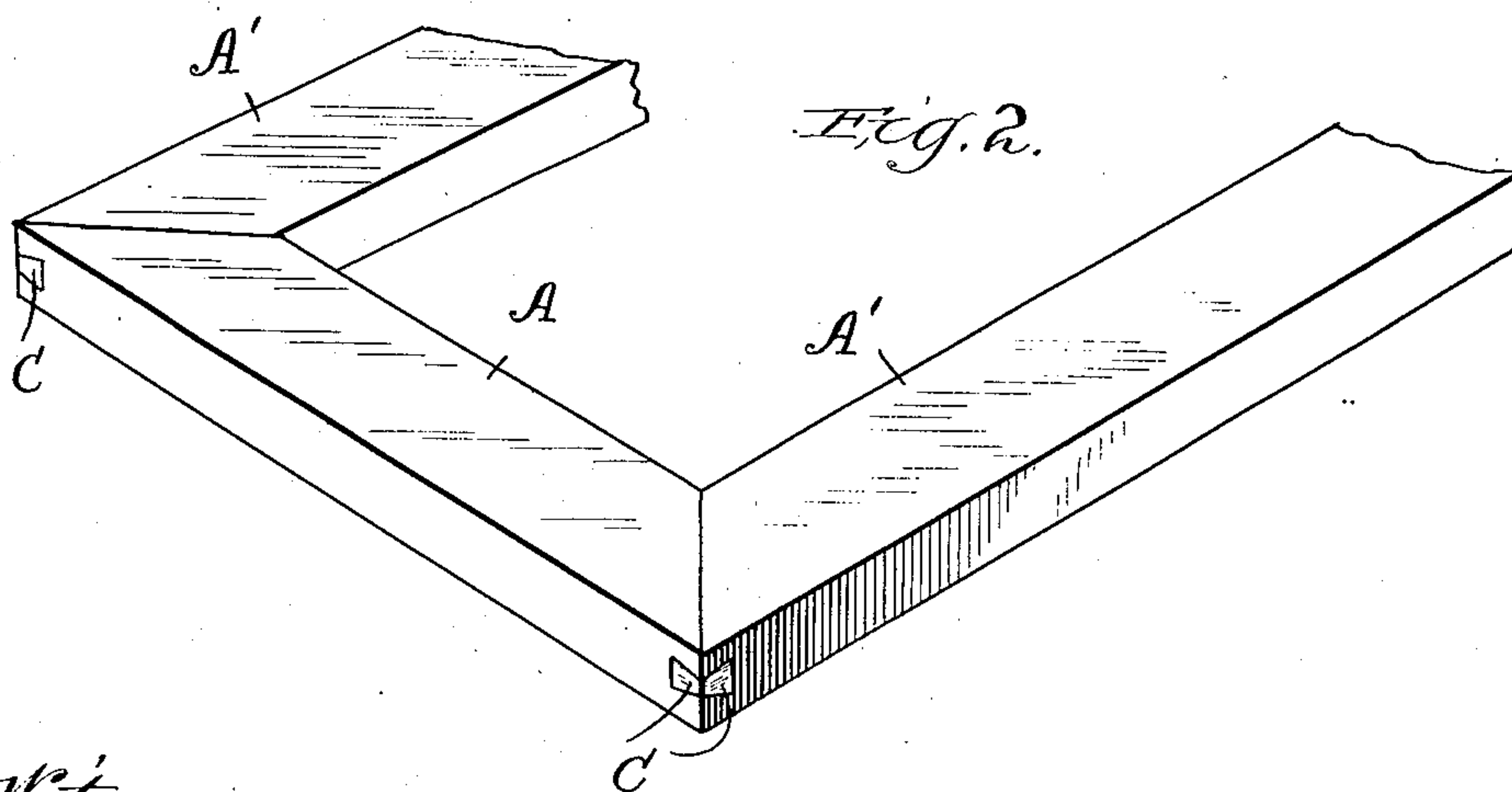
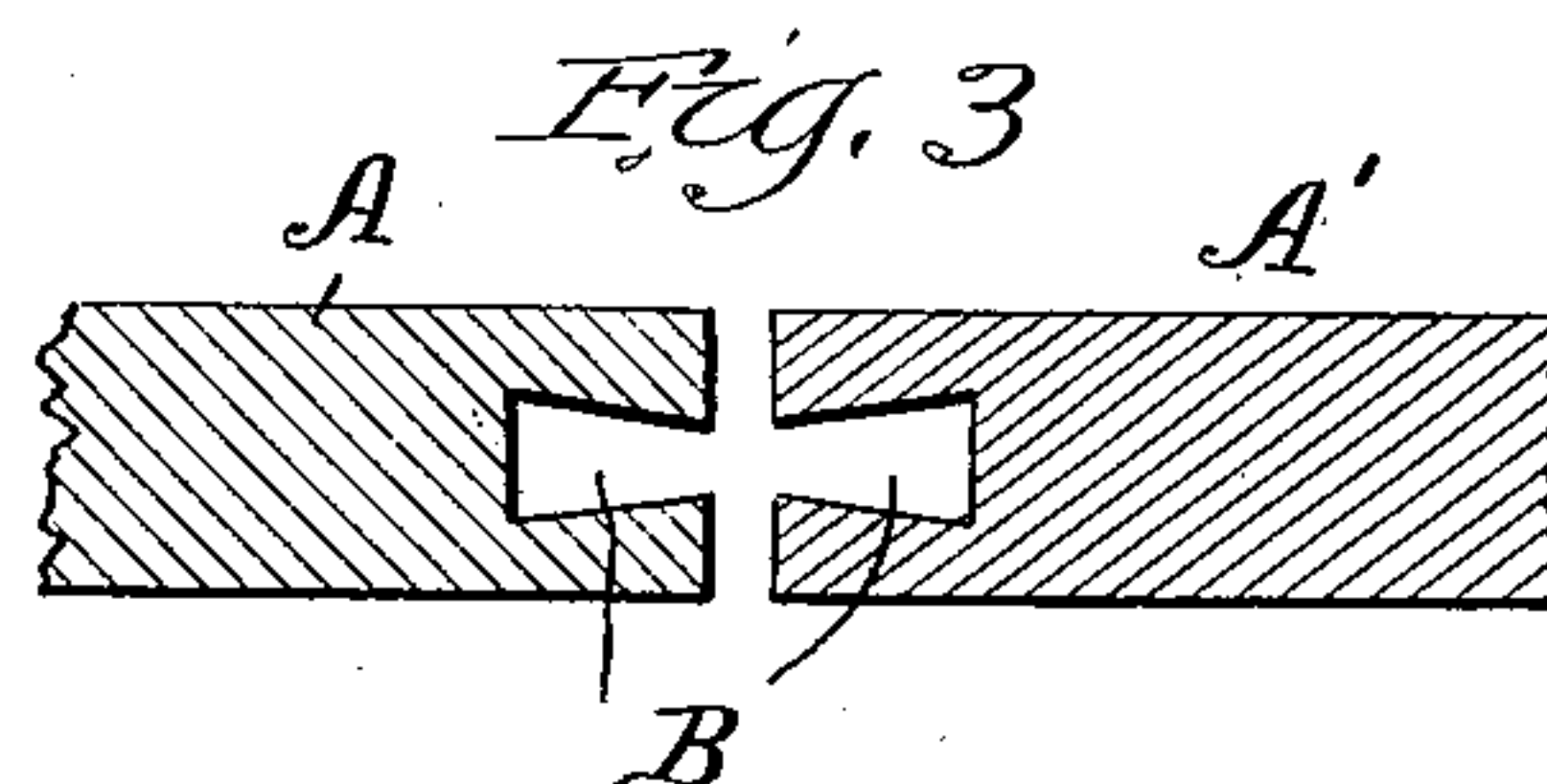
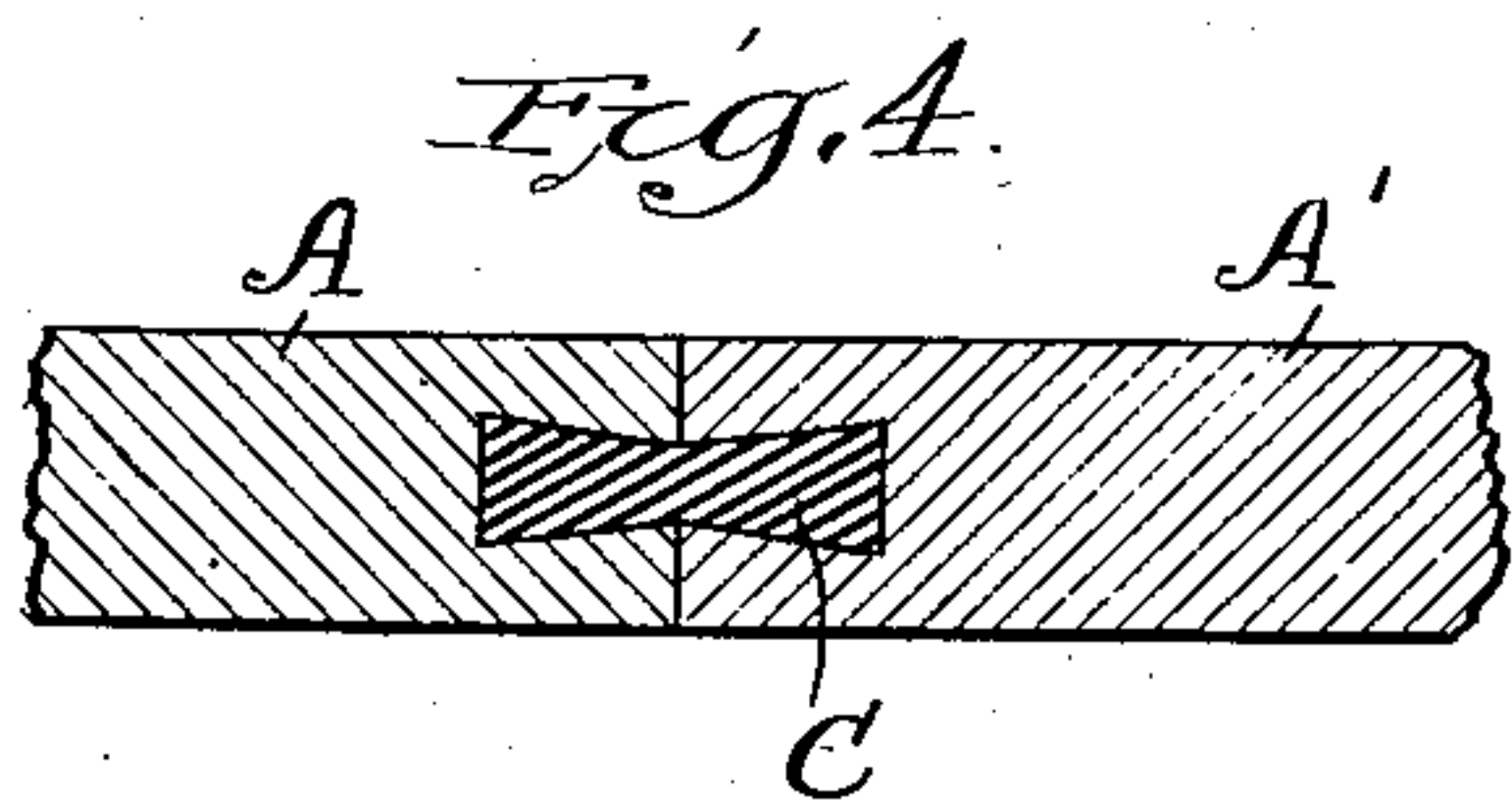
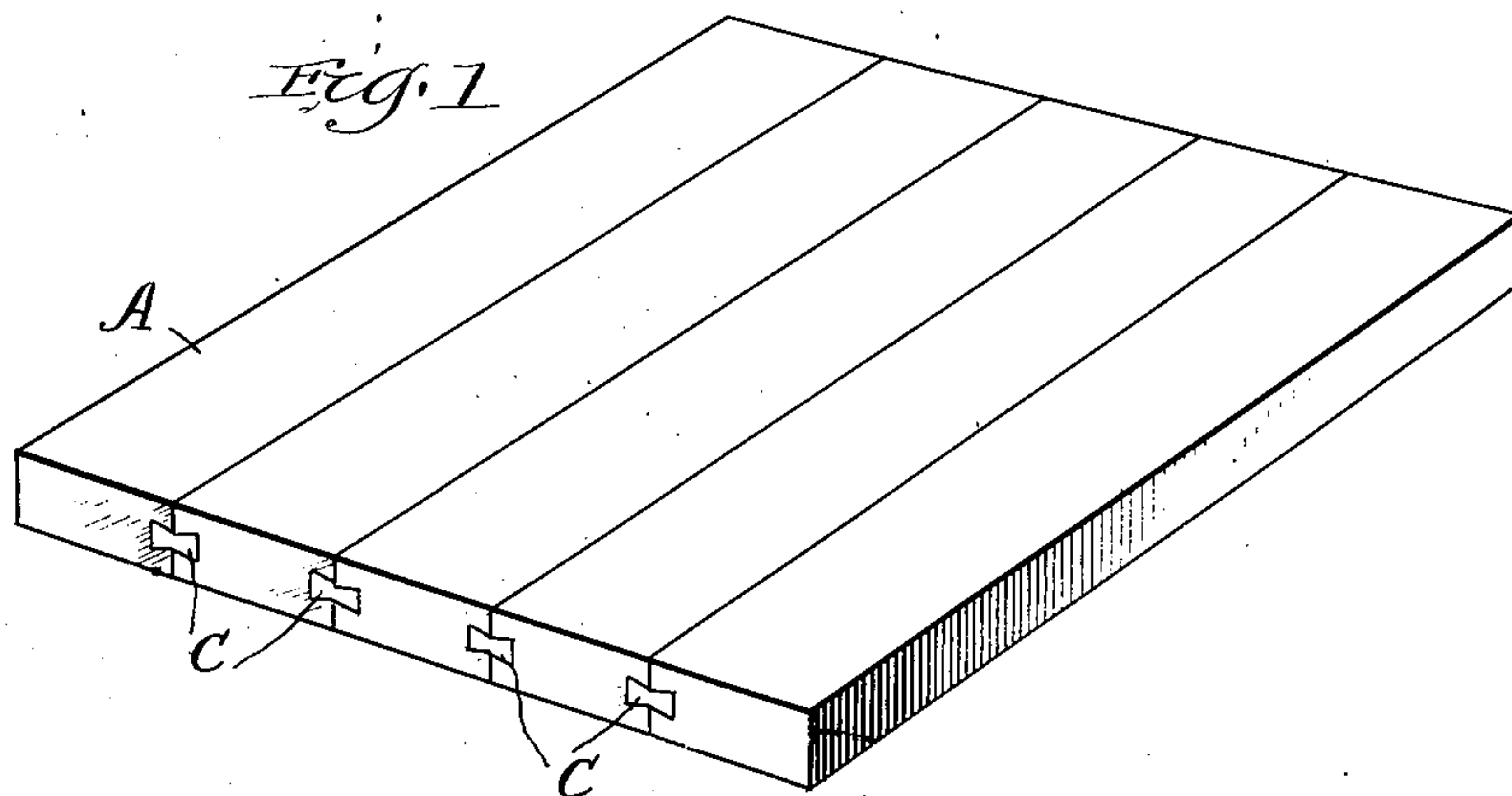
Patented Feb. 26, 1901.

F. H. E. SIEGMUND.

JOINT.

(Application filed Mar. 3, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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JOINT.

SPECIFICATION forming part of Letters Patent No. 668,720, dated February 26, 1901.

Application filed March 3, 1899. Serial No. 707,624. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK H. E. SIEGMUND, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Joints; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a joint for uniting two adjoining surfaces of wood.

My joint is applicable more particularly in connection with the drip-boards of sinks and in connection with the wooden framework that is placed upon the top of a metal sink, although it is not necessarily confined to these uses. In this class of work, however, much difficulty has heretofore been encountered in making drip-boards and the like which would properly keep their shape after being repeatedly soaked with moisture and dried. If the boards were made of one piece, they would warp. If they were made of more than one piece and glued or fastened together, the moisture would soon loosen the joints, and thus spoil the board. The same is true of the wooden frames that are placed upon the edges of metal sinks. It is to obviate these difficulties and to obtain a joint that would securely unite two adjoining faces of wood and which would neither corrode nor loosen in any way that I have devised my present joint, which consists, essentially, in providing in each adjoining face of the wood a kerf or recess, bringing these adjoining faces together, and pouring into the recess or orifice thus formed molten lead or other similar metal. From experiment I have found that when this is done the molten metal fills all the interstices of the wood and when it cools it binds the adjoining faces tightly together.

In the drawings, Figure 1 is a perspective view of a drip-board embodying my invention. Fig. 2 illustrates the joint when ap-

plied to an angle. Fig. 3 shows the parts before the molten metal is poured. Fig. 4 shows the parts after the molten metal is poured.

In carrying out the invention, A A' represent two adjoining faces of wood which are to be united by my joint. In the adjoining face of each is a kerf or recess B, preferably of dovetailed shape in cross-section, as shown. C is a body of molten metal, preferably lead, which is poured into the recesses after the two adjoining faces are brought together. In making the joint the operator should be careful to heat the metal just sufficiently so that it will properly run, but not enough to burn the wood to any extent. By this joint very long surfaces can be easily united, since the distance to which the molten metal will run is practically unlimited.

By the above-described construction pieces of wood are thoroughly united and bound together, dampness or moisture cannot in any way affect the joint, it will not corrode or rust, and for uses where the wood must be subjected to moisture it is superior to any other form of joint.

I am aware that it is old to unite two pieces of wood by driving into them a solid-metal key, and I am also aware that metal plates have been joined by molten metal; but my invention is distinguished from both of these constructions; in that with the dovetail-shaped grooves when the metal cools it shrinks and there is a broad bearing-surface, which being tapered makes a much more solid joint than if the sides of the groove were straight and only the ends of the grooves were depended on for a bearing, and particularly by the fact that the grooves referred to run along the meeting edges of the joint for the length of the latter, and consequently the metal key also runs for its length or greatest dimension along the joint, thus strengthening it against lateral strains, while the strain brought on the dovetailed edges of the groove by shrinking in cooling of the metal acts simultaneously throughout the length of the groove, and thus does not tend to split the latter, and the strain on the wood in drawing

it together is not exerted step by step successively at different portions, as would be the case with a solid-metal key which is driven in.

What I claim is—

- 5 The combination with a joint in wooden framing having dovetailed grooves running along the meeting edges of the joint of a metal key cast in such grooves and acting in shrinking to simultaneously draw together

the edges of the joint throughout their length, so substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FREDRICK H. E. SIEGMUND.

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