

H. M. Claflin,

Splice for Timber:

Nº 47,395-

Patented Apr. 25. 1865.

Fig. 1.

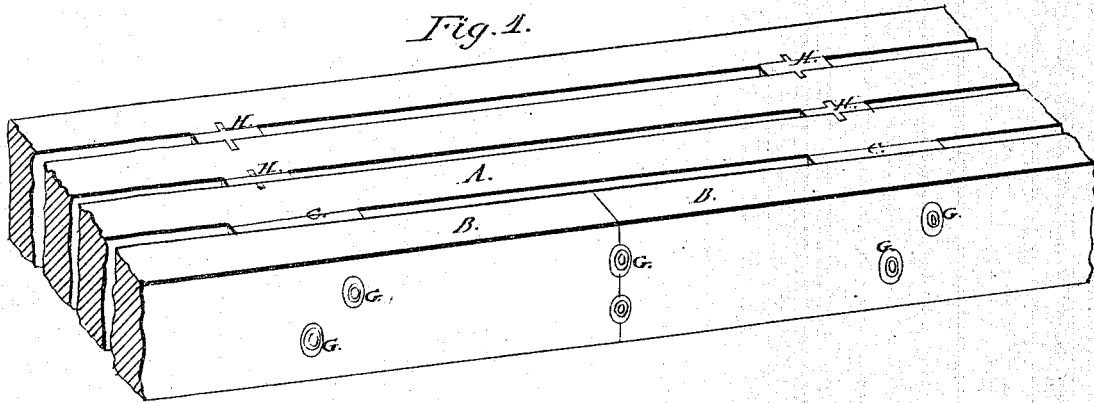


Fig. 2.

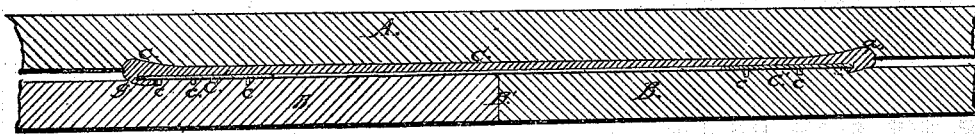


Fig. 3.

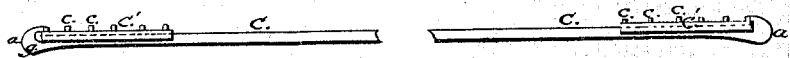


Fig. 5.

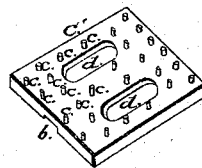
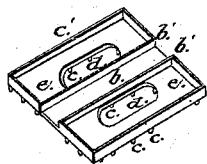
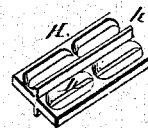


Fig. 6.



Witnesses:
W. A. Partridge
J. Holmes

Inventor:
H. M. Claflin.

UNITED STATES PATENT OFFICE.

H. M. CLAFLIN, OF CLEVELAND, OHIO.

IMPROVED MODE OF SPLICING TIMBERS.

Specification forming part of Letters Patent No. 47,395, dated April 25, 1865.

To all whom it may concern:

Be it known that I, H. M. CLAFLIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Splicing Timber for Bridges, Roofs, &c.; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a section of a chord of a bridge. Fig. 2 is a longitudinal section. Figs. 3, 4, 5, and 6 are detached sections that will be referred to in the description.

Like letters of reference indicate like parts in the different views.

My improvement relates to the mode of joining or splicing timbers together, whereby the fiber of the wood is not injured or its strength impaired, making a safe and secure splice for any wood structure.

Fig. 1, representing a section of a chord of a bridge, shows the timbers as they are secured together with my improvement, the manner of which is clearly represented in the other figures, together with Fig. 1, and will be described as follows:

Fig. 2 is a section of timbers A and B of a chord. The timbers B are joined or spliced at B'. C is a link, formed at the ends into heads *a a*, represented detached from the timbers in Fig. 3. The link fits into a groove in the timber A and the heads fit into depressions in the timbers B, clasping round under one edge of the plates C', which are secured on the timbers, as will be described. A perspective view of both sides of these plates is shown in Figs. 4 and 5. *b* represents a groove on one side in which the link C fits, and the sides or flanges *b'* of the plate extend up on both sides of the link, as shown and indicated by the dotted lines in Fig. 3. The plate can be solid or recessed out, as at *e*, and there can be openings *d* for the bolts to pass through. On the other side of the plate are knobs *c*, that fit into the timbers so that the face of the plate is flush with the surface of the timber, as shown in Fig. 2. The knobs are some distance apart, and may or

may not be placed alternately with each other, so that the fiber or grain of the wood is not broken in any way to injure or weaken the structure, for, as the knobs may be so placed in relation to each other that there need be no two of them in a direct line, and the grain of the wood between the knobs across the timbers being entire, it is found by practical tests that the timber is not at all weakened by the use of these plates. Instead of these knobbed ribbed plates may be used, as represented in Figs. 1 and 6, H being the plate and *h'* the ribs projecting on each side; but the objection to this plate is that there has to be a groove entirely across the timber, which cuts the fiber off so as to materially weaken the structure, and, the strength of each timber being thus diminished, greatly impairs the strength of the chord.

When timbers are joined together, as at B', the knobbed plates C' fastened on the timbers, and the link C or its equivalent in place, there is a key, *g*, (seen in Figs. 2 and 3,) driven in at one end or head of the link on one side of the plate, which draws the timbers B still closer together and holds them more firm and securely in place.

In place of the link C one or more rods may be used and connected to the knobbed plates by screws, so arranged that by turning the rods the plates and timbers will be secured together.

G are bolt-heads; the bolts extending entirely through the section of timbers and plates, securing the structure together.

In some cases a knobbed plate may be used without the link by making the plate of sufficient length so as to lap over or extend across the joint of the timbers.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The knobbed plates C', as and for the purpose set forth.

2. The knobbed plates C', in combination with the link C, or its equivalent, substantially as and applied to the purpose specified.

H. M. CLAFLIN.

Witnesses:

W. H. BURRIDGE,
J. HOLMES.