

C. W. WARNER.

Improvement in the Construction of Bridges.

No. 130,959.

Patented Aug. 27, 1872.

Fig 1

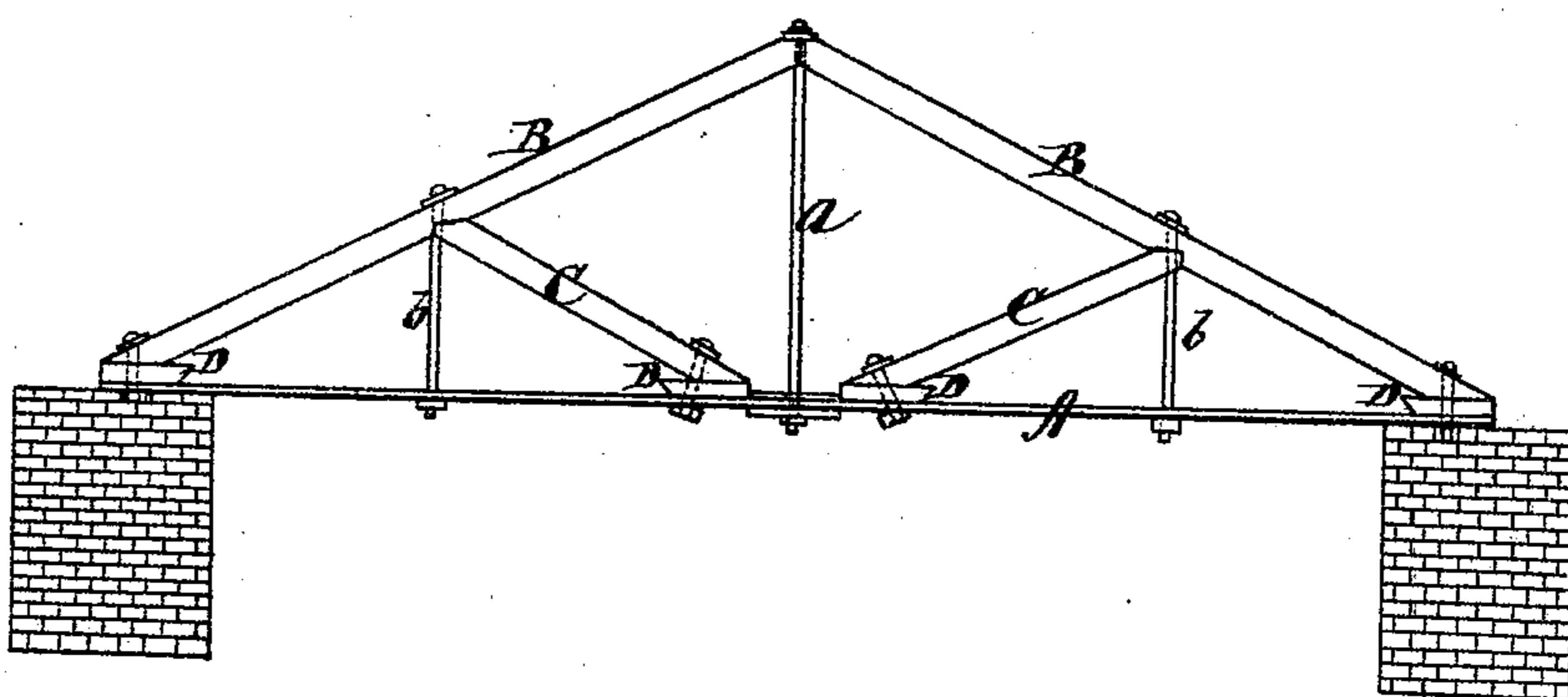


Fig 2

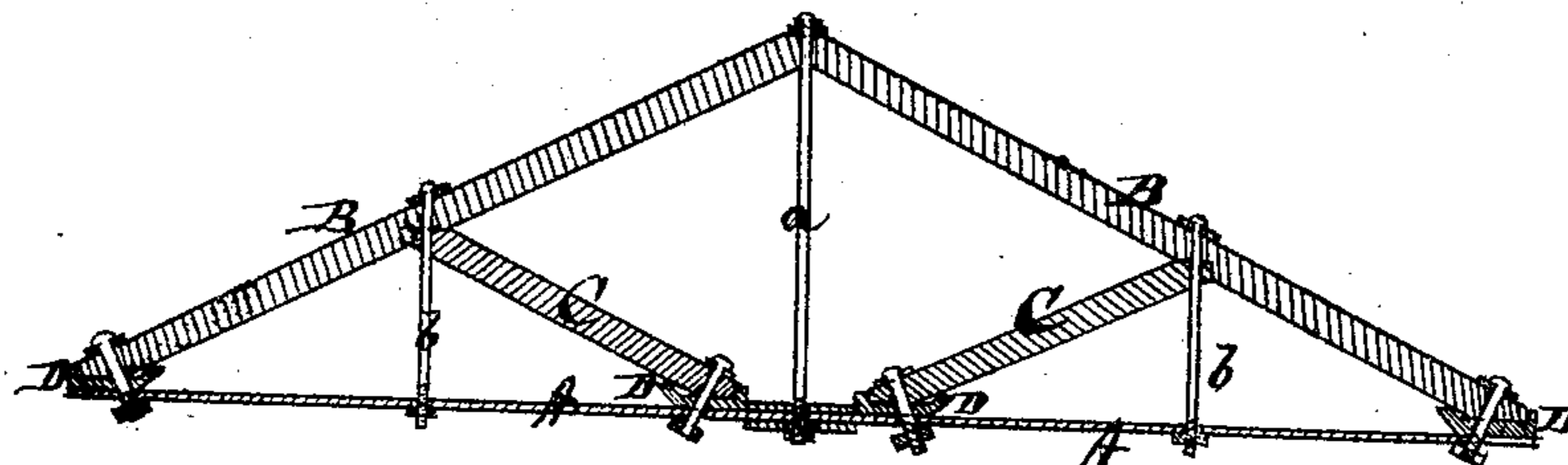
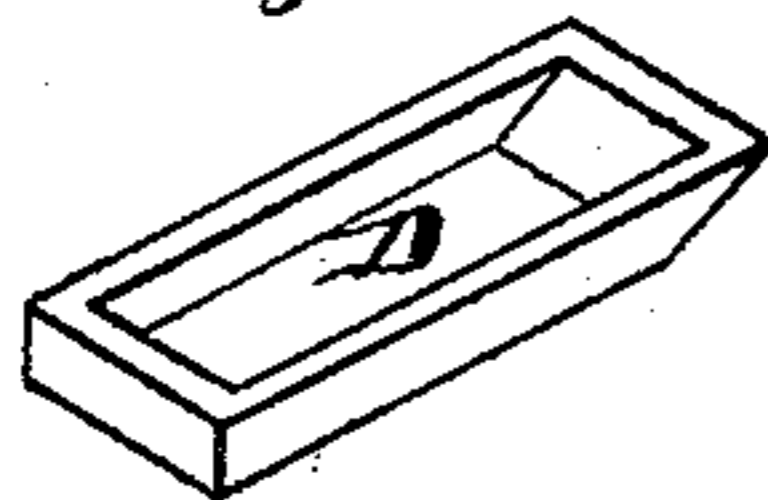


Fig 3



Witnesses:

Francis L. Curand
O. L. Evers

Inventor.

C. W. Warner.
per Alexander Mason

Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES W. WARNER, OF ESSEX, VERMONT, ASSIGNOR OF ONE-HALF
HIS RIGHT TO C. H. NICHOLS, OF SAME PLACE.

IMPROVEMENT IN THE CONSTRUCTION OF BRIDGES.

Specification forming part of Letters Patent No. 130,959, dated August 27, 1872.

To all whom it may concern:

Be it known that I, CHARLES W. WARNER, of Essex, in the county of Chittenden and in the State of Vermont, have invented certain new and useful Improvements in Bridge; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a wooden bridge with a bottom chord of metal and metal holders for the feet of the braces, said holders being constructed so as to contain oil, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a side view of my bridge. Fig. 2 is a longitudinal section through one side of the bridge; and Fig. 3 is an enlarged perspective view of one of the holders.

A represents the bottom chord or sill of one side of my bridge. B B are the two beams or braces, connected in the center and the ends attached to the ends of the bottom chord. This bottom chord A I make of wrought-iron or other suitable metal, instead of, as usual in wooden bridges, making it of wood, thus making the bridge much stronger and more durable. A rod, *a*, connects the bottom chord A with the braces B B at the joint thereof; and at a suitable point on each brace B is attached another brace, C, which extends toward the center downward to the bottom chord and fastened to the same. Rods *b* also pass through

the joint between the braces B C connecting with the bottom chord. Between the lower ends of the braces B B and C C and the bottom chord are interposed holders D D, made concave or hollow on the upper side, in which the feet or lower ends of said braces rest, the bolts securing said braces to the bottom chord passing through said holders, as shown in Fig. 2. The ends of these holders project beyond the braces on the lower side sufficient to allow oil to be poured into the same for the purpose of keeping moisture from the ends of the braces, and thus preserving the timber.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the braces of a wooden bridge, an oil-chamber surrounding the lower end of each brace, substantially for the purposes set forth.

2. The recessed holders D forming oil-chambers to receive and surround the lower ends of the braces, substantially as herein set forth.

3. The combination of the metal chord A, wooden braces B B and C C, holders and oil-chambers D D, and rods *a b*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of May, 1872.

C. W. WARNER.

Witnesses:

A. B. HALBERT,
L. A. HALBERT.