S. D. KNUDSEN.

ROOF TRUSS.

APPLICATION FILED MAY 5, 1919.

1,391,122.

Patented Sept. 20, 1921.

2 SHEETS—SHEET 1.

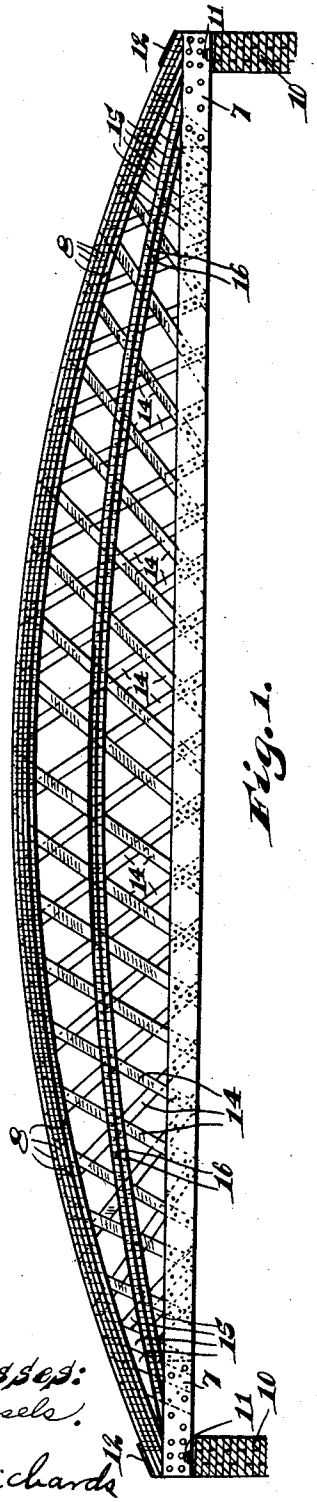


Fig. 1.

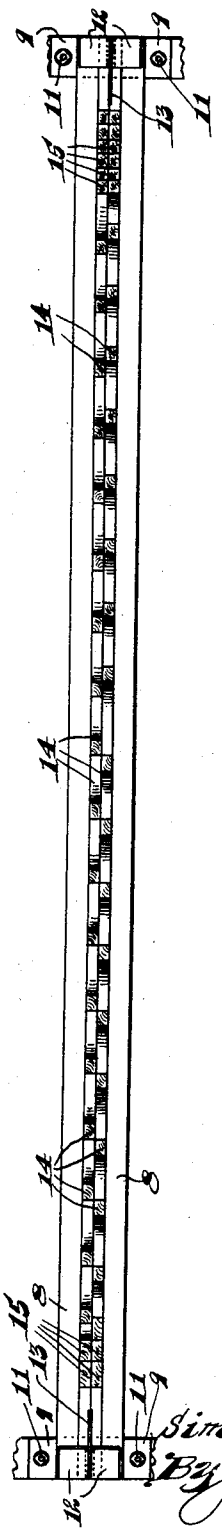


Fig. 2.

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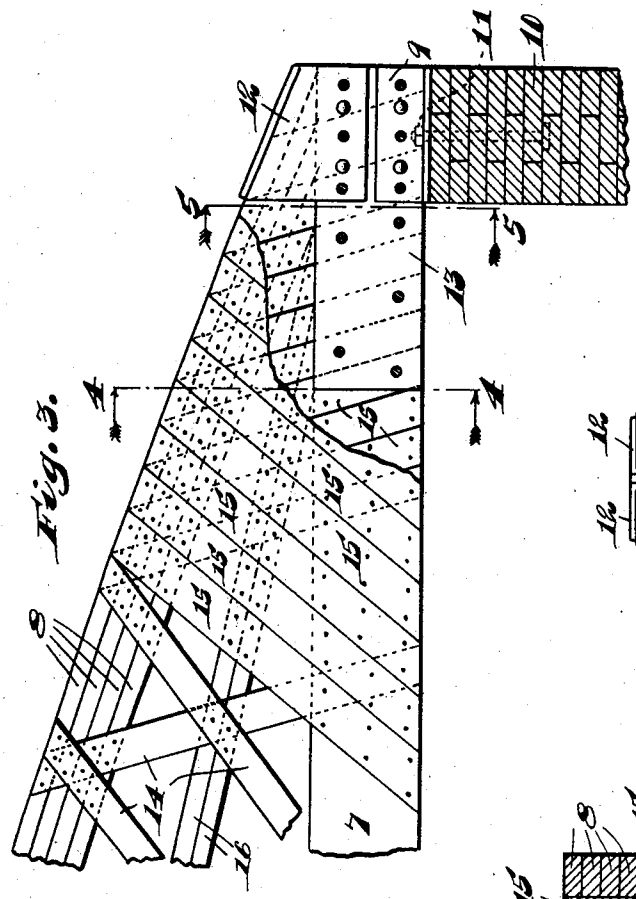


Fig. 3.

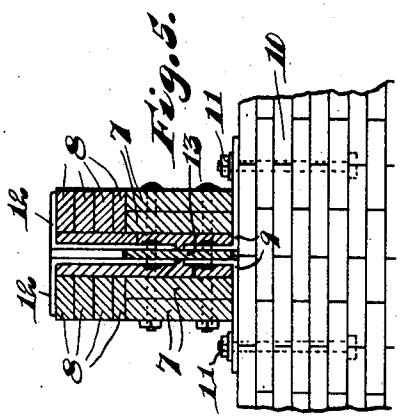


Fig. 5.

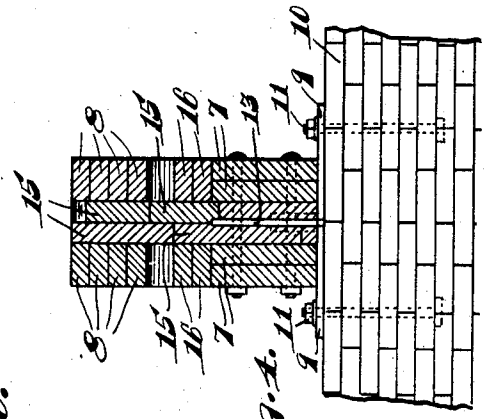


Fig. 4.

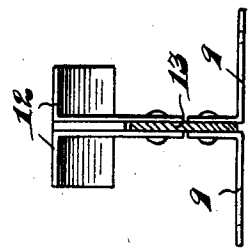


Fig. 6.

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UNITED STATES PATENT OFFICE.

SIMON D. KNUDSEN, OF CHICAGO, ILLINOIS.

ROOF-TRUSS.

1,391,122. Specification of Letters Patent. Patented Sept. 20, 1921.

Application filed May 5, 1919. Serial No. 294,630.

To all whom it may concern:

Be it known that I, SIMON D. KNUDSEN, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Roof-Trusses, of which the following is a specification.

My invention relates to improvements in roof trusses and has for its object the provision of an improved construction of this character having a special bracing arrangement whereby a great rigidity and strength is attained.

A further object of the invention is to provide an improved mounting for the ends of the truss.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a side view of a truss embodying the invention.

Fig. 2, a top plan view of the same;

Fig. 3, an enlarged side view, shown partially in section, of one end of the truss;

Fig. 4 is section taken on line 4—4 of Fig. 3;

Fig. 5 is section taken on line 5—5 of Fig 3 and

Fig. 6 a detailed view of one of two end members employed in the construction.

The preferred form of construction as illustrated in the drawings comprises a stringer and a main chord, said stringer consisting of two parallel adjacent members, each formed of adjacent beams 7 arranged and secured together in parallel relation, as shown, with a space between them and said chord likewise consisting of two parallel members, each consisting of four beams or strips 8 superposed as shown with a space between them corresponding with the space between the pairs of beams 7. The ends of the stringer and chord rest in end members, each of said end of members comprising two adjoining angle irons 9 arranged to be positioned on top of a wall or abutment 10 and secured thereto by anchoring bolts 11 as shown. Coöperating with the angle irons 9 are two oppositely disposed angle irons 12 and a web 13 is secured between the vertical legs of said angle irons as shown, said web extending well into the space between the members of the stringer 7 and being secured to said stringer by means of bolts passing through said stringer beyond said end member and also through said end member as shown. Suitable diagonal lattice work 14 is positioned in the spaces between the members of the stringer and main chord being secured thereto as indicated, suitable filler blocks being employed where needed. At each end of the truss the lattice work is made solid or continuous to form webs consisting of adjoining planks 15 as shown, thus stiffening and strengthening the structure adjacent the abutments. A supplemental bracing chord also formed of adjacent parallel parts, each consisting of superposed beams 16, is also provided and arranged between the main chord and the stringer. The members of the bracing chord are positioned on opposite sides of the lattice work 14—15 and secured thereto, thus greatly stiffening and strengthening the structure.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. A truss comprising end members secured to an abutment, each of said end members consisting of two pairs of oppositely disposed angle irons secured together by means of a web extending into the truss section and a stringer formed of two parallel adjacent members having their ends positioned in said end members and extending on opposite sides of said web; means securing the ends of said stringer to said end members and to said web beyond said end members; a main chord formed of two parallel adjacent members with a space between them, said members having their ends positioned in said end members, lattice work positioned in the spaces between the mem-

bers of said main chord and said stringer and secured thereto, substantially as described.

2. A truss comprising end members secured to an abutment, each of said end members consisting of two pairs of oppositely disposed angle irons secured together by means of a web extending into the truss section and a stringer formed of two parallel adjacent members having their ends positioned in said end members and extending on opposite sides of said web; means securing the ends of said stringer to said end members and to said web beyond said end members; a main chord formed of two parallel adjacent members with a space between them, said members having their ends positioned in said end members; lattice work positioned in the spaces between the members of said main chord and said stringer and secured thereto; and a supplemental bracing chord having its ends secured to said stringer, said bracing chord consisting of two parallel adjacent members arranged on opposite sides of said lattice work and secured thereto, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SIMON D. KNUDSEN.

Witnesses:

JOSHUA R. H. POTTS,

HELEN F. LILLIS.