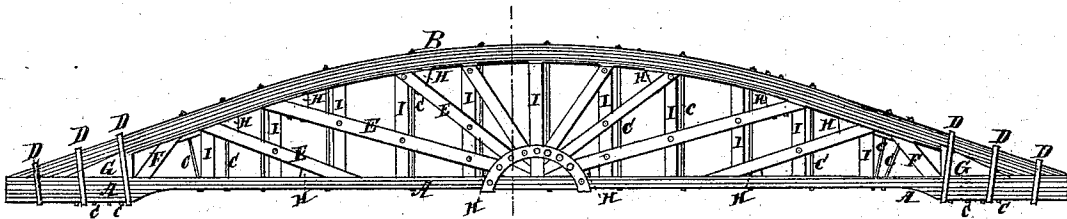


**B. F. DAVIS.**  
**Bridges.**

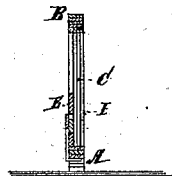
No. 143,125.

Patented September 23, 1873.

*Fig. 1.*



*Fig. 2.*



Witnesses.  
*G. Watkins*  
*Solon C. Kemow*

Inventor.  
*Benjamin F. Davis*  
 Per *[Signature]*  
 Attorneys.

# UNITED STATES PATENT OFFICE.

BENJAMIN F. DAVIS, OF HEARNE, TEXAS.

## IMPROVEMENT IN BRIDGES.

Specification forming part of Letters Patent No. **143,125**, dated September 23, 1873; application filed May 26, 1873.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. DAVIS, of Hearne, in the county of Robertson and State of Texas, have invented a new and useful Improvement in Bridges and Self-Supporting Roofs and Girders; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is an elevation, and Fig. 2 is a cross-section.

The invention relates to the construction of truss-bridges and self-supporting roofs and girders, and will be first described in connection with all that is necessary to a full understanding thereof, and then clearly pointed out in the claim.

In the drawing, A represents the main chords of a bridge, and B the arches or bows, both formed by nailing or bolting securely together successive layers of planks joined at different points. To fasten securely together the ends of the bows and chords, large wedge-shaped pieces G, of timber or hollow metal, are used, to which the layers of planks are nailed or bolted firmly by as many large nails or bolts as can be used without seriously injuring and

destroying the wood, the layers forming the chords, and arches extend beyond the points of the wedges, and the ends of the successive layers of the arches are securely nailed to the top planks of the chords. As additional securities, heavy metallic bands D D and iron bolts C C hold rigidly chords and arches, and braces E and F are extended from chords to arches in the manner shown in drawing. These braces are held rigidly to prevent swaging or springing by studding I wherever necessary; and the ends of these braces are secured to chords and arches by being bolted to wedge-shaped pieces H, of timber or metal, secured to the chords and arches.

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

The combination of chords and arches A B, made of successive layers of planks, the end wedges G G, the bands D, the braces E F, and the studding I, as and for the purpose described.

BENJAMIN F. DAVIS.

Witnesses:

J. W. TIRMID,  
W. A. ADAMS.