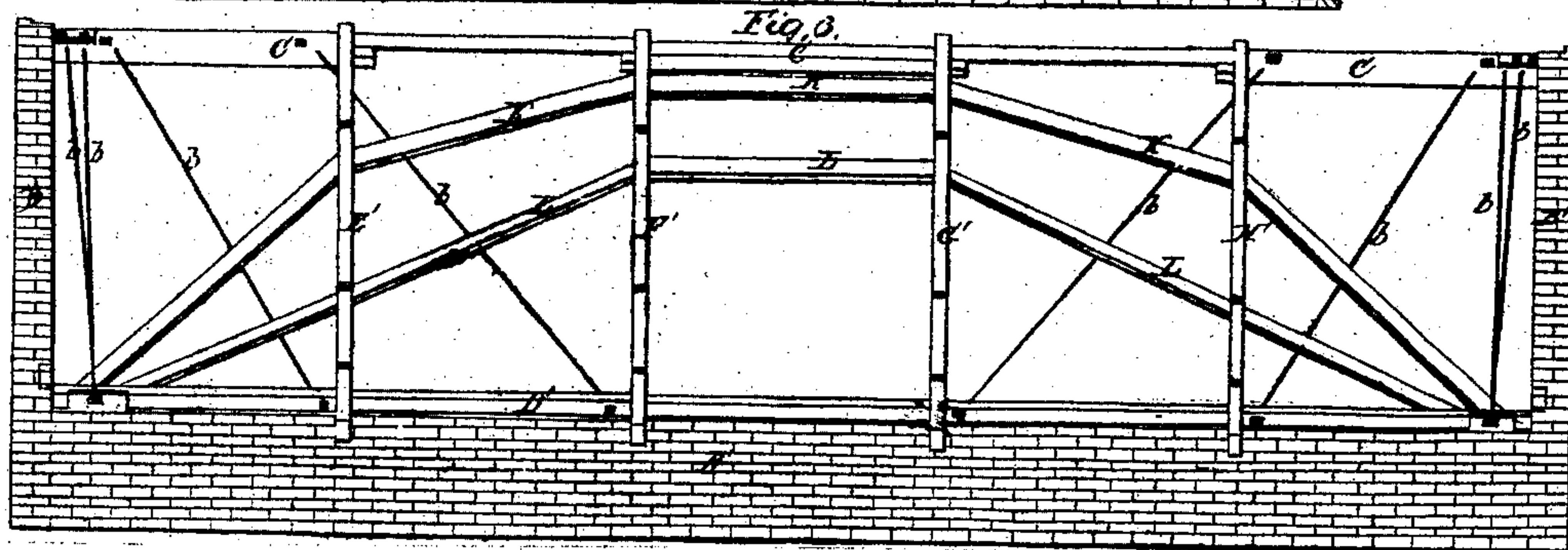
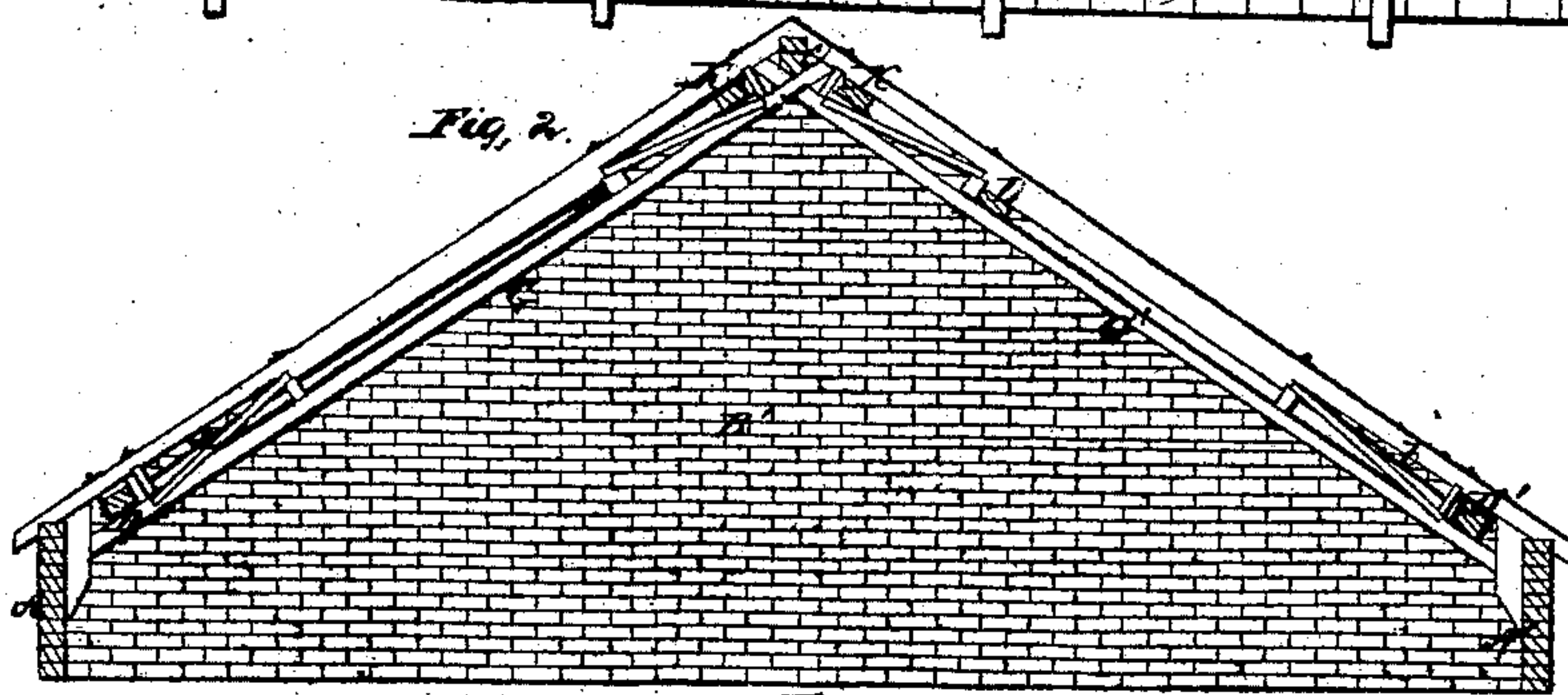
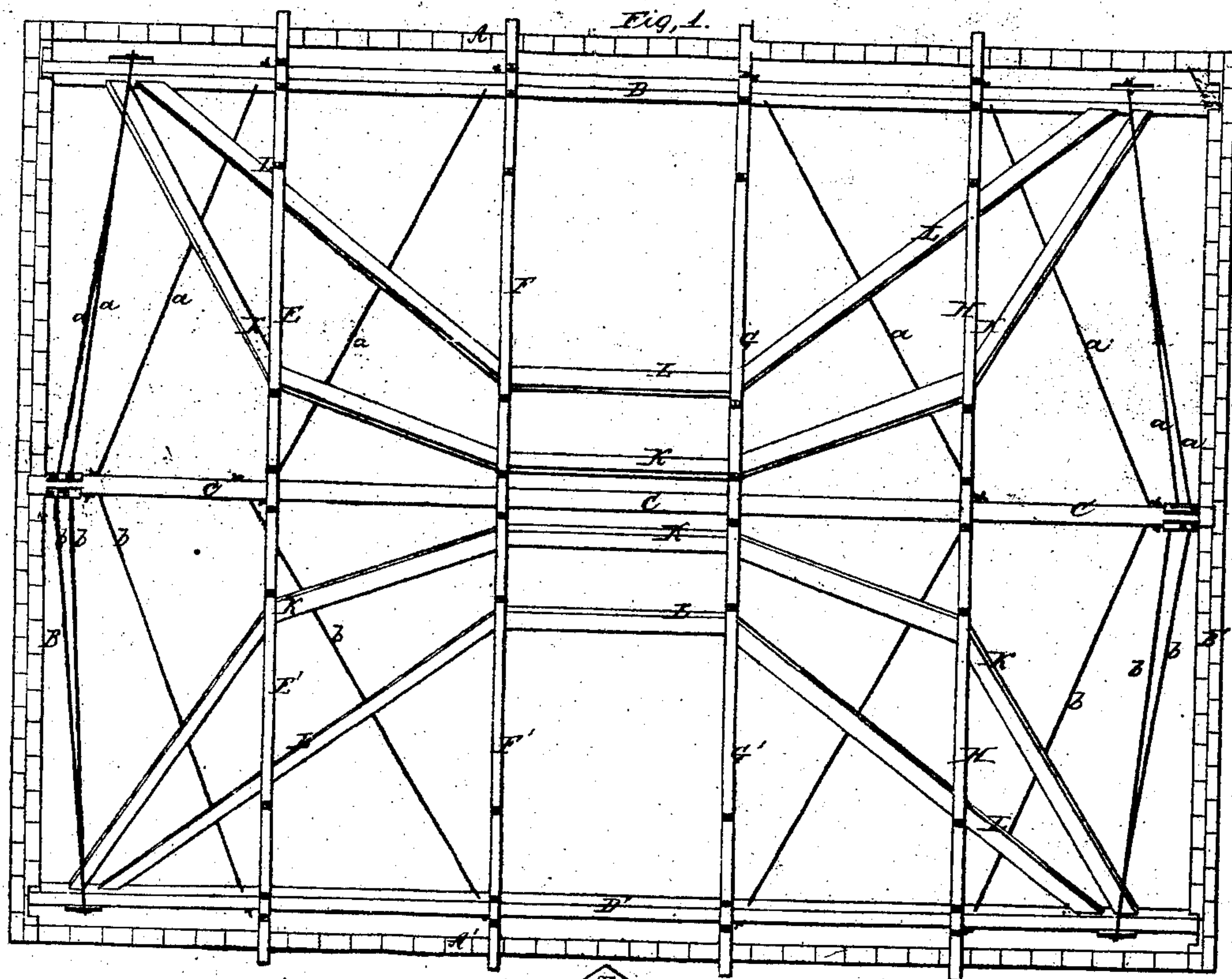


*F. Wilbar,*

*Applying Roofs to Buildings,*

*N<sup>o</sup> 8,295.*

*Patented Aug. 12, 1851.*





# UNITED STATES PATENT OFFICE.

FRANCIS WILBAR, OF ROXBURY, MASSACHUSETTS.

## CONSTRUCTION OF ROOFS.

Specification of Letters Patent No. 8,295, dated August 12, 1851.

*To all whom it may concern:*

Be it known that I, FRANCIS WILBAR, of Roxbury, in the county of Norfolk and State of Massachusetts, have invented a new and  
5 useful Improvement in Making and Applying Roofs to Buildings; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures,  
10 and references thereof.

Of the said drawings, Figure 1, denotes a top view of one of my improved roofs, as applied to a building. Fig. 2, is a central and transverse section of it. Fig. 3 is a side  
15 elevation of it.

In the said drawings A, A', represent the two opposite side walls, and B, B', the two opposite end walls of a building having my improved roof applied to them.

20 The ridge timber of the roof is seen at C, and is made to rest at its ends on the upper parts of the two end walls. D, D', are chord timbers placed respectively close to the tops of the side walls, and made to rest at their  
25 ends on the end walls, as seen in the drawings. Each of them is connected to the ridge timber C, by means of any suitable number of timbers or trusses, E, F, G, H, or E', F', G', H', which being fastened to them  
30 may be made to project by or beyond their chords D, D', and rest on the side walls and extend from each chord to the ridge as seen in the drawings. One or more arcs or arches  
35 K, L, of thrust timber, may be made to rest on such chord D, or D', at or near its extremities, and extend either upon, against, or through the trusses or timbers E, F, G, H, or E', F', G', H'. From the ridge timbers,  
40 iron or other suitable suspension bars or rods a, a, a, &c., b, b, b, &c., are made to extend down on each side of the roof and to be so applied to the ridge and chord timbers as to suspend such chord timbers, from the ridge timber. The framing of the roof so made,  
45 may have a suitable covering applied to it in any proper manner.

The objects I have had in view in the construction of this roof, are to obtain one

which should not only be suitable for large spans, and without having any timbers extending across from one side of the framing to the other side of it, so as to interrupt the groining or arching of the cylinder close up to the roof, but one which at the same time, or under such circumstances should cause no  
55 injurious outward thrust upon the side walls of the building; a roof which having such advantages should be mainly supported by the end walls. In the ordinary methods of constructing roofs of great span suitable for  
60 churches or other large structures, it has been customary to compose them of trusses extending from one side wall to the other, each of such trusses serving to sustain a portion of the two inclined sides of the roof. 65  
In my improved roof such is not the case, as the trusses thereof are confined to their respective sides of the roof, and do not extend from one side to the other of it. Consequently the trusses of one side of the roof  
70 are intended to sustain that side only, and afford little or no support to the other side. Each side of the roof, being suspended from the ridge timbers, counterbalances the other side, and thereby takes from the side wall of  
75 the latter the outward horizontal thrust, which would otherwise be exerted to overturn such wall.

What I claim as my invention is—

The above described peculiar arrangement  
80 of the arches, trusses, or framing of my improved roof, in combination with the suspending of both inclined sides of the roof from the ridge timber; so that each inclined side shall be made to counterbalance the  
85 other inclined side, and by so doing operate to prevent lateral and horizontal thrust upon the side walls all essentially as specified.

In testimony whereof I have hereto set my signature this fifteenth day of July, A. D. 90  
1851.

FRANCIS WILBAR.

Witnesses:

GEO. B. DAVIS,  
JOHN I. CLARKE.