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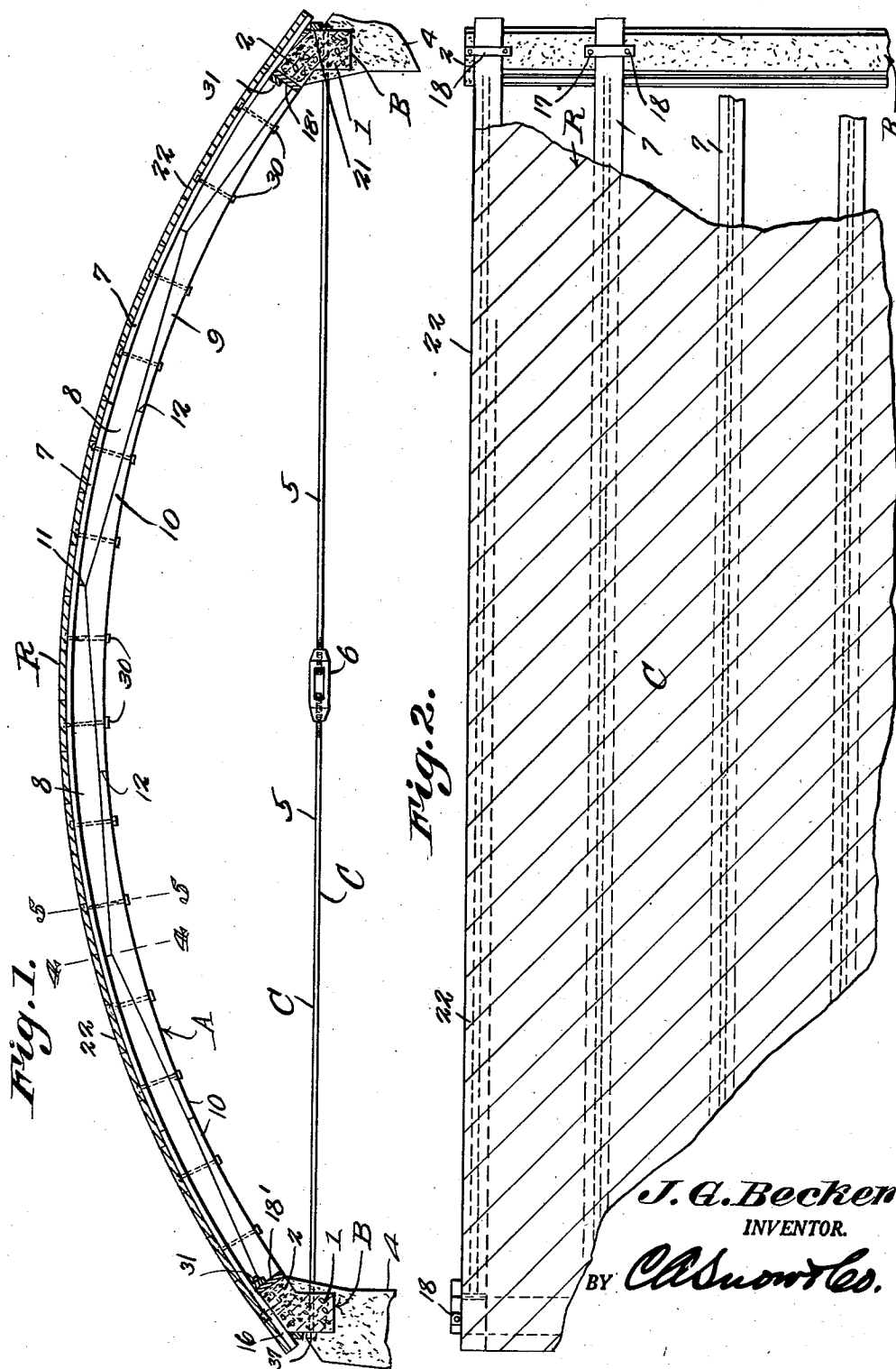
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ROOF FRAMING SUPPORT

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2 Sheets-Sheet 1



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ROOF FRAMING SUPPORT

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3 Claims. (Cl. 108-1)

This invention aims to provide a novel form of wooden arch, capable of being employed to support the roof of a gymnasium, auditorium or other building, where the span is great.

The invention aims to provide a device of the class described which will be strong and adequate to the end in view, the structural elements of the arch being simple, and being capable of being cut readily to the desired shape, intricate saw-work being avoided.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:

Fig. 1 shows, in vertical section, a device constructed in accordance with the invention;

Fig. 2 is a top plan wherein parts are broken away;

Fig. 3 is a detail enlarged from Fig. 1;

Figs. 4 and 5 are sections, taken, respectively, on the lines 4-4 and 5-5 of Fig. 1;

Fig. 6 is a vertical sectional view, similar to Fig. 3, but showing a modification.

The buttresses or skewbacks B may be variously constructed. They may be horizontally elongated, concrete beams, each including a depending wing 1 and an inwardly projecting wing 2, the wings being disposed at an obtuse angle to each other. The buttresses B are reinforced, as desired, and as indicated by the numeral 3 in Fig. 3. The depending wings 1 of the buttresses B may be seated in substantial concrete walls 4.

The chord C of the arch may be composed of metal rods 5, connected at their inner ends by a turn buckle 6, the outer end portions of the rods passing through the depending wings 1 of the buttresses B and carrying nuts 7, engaging the buttresses. If the firm foundation 4 of Fig. 1 is employed, if the snow load is small or non-existing, and under other conditions which suggest themselves to the architect, the chord C may be omitted.

As shown in Figs. 4 and 5, the bow A of the arch is T-shaped in cross section. The head of

the T is made up of any desired number of curved strips 7, disposed in end to end abutment, the strips, like most of the other elements of the arch, preferably being made of wood. The shank of the T comprises a line of elongated upper members 8, disposed end to end, and a line of lower members 9, disposed end to end. The members 8 and 9 are tapered, as shown at 10, from a central point to their extremities, the tapered portions of the members 8 of the upper line being superposed on the tapered portions of the members 9 of the lower line, in oppositely projecting relation, to give the shank of the T a uniform height, and to dispose the abutting ends 11 of the members 8, on the one hand, and the abutting ends 12 of the members 9, on the other hand, in break-joint relation, as shown in Fig. 1. The members 8 of the upper line are secured to the members 9 of the lower line, by bolts or other securing elements 30.

The shanks of the T are severed, at points determined by the span of the arch, to form transverse shoulders 15 and 31. The head 7 of the bow A, however, is continued to form tongues 16, which may be secured to the inwardly projecting wing 2 of the buttresses B by anchor bolts 17 and straps 18.

The shoulders 15 of the bow A abut against a thrust board 18', held on the end of the buttress wing 2 by anchor bolts 19, and filler strips 20, against which the shoulders 31 abut. The tongues 16 extend across the upper edges of the filler strips 20. Outer strips 21 are secured to the outer surface of the depending wing of the buttress B, and engage underneath so much of the tongue 16 as extends outwardly and laterally with respect to the buttress B.

The roof R may be constructed in any desired manner. Preferably it is composed of boards 22, secured to the bow A and preferably disposed otherwise than at a right angle thereto, as shown in Fig. 2. The word "board" is to be construed as placing no limitation on the material employed.

In Fig. 6, a modified form has been shown, and parts hereinbefore described have been designated by numerals already used, with the suffix "a."

In this form of the invention, the buttress, preferably, is in the form of a plurality of planks 23, held together by bolts 24 or the like, retaining the outer strip 21a, the wing 2 of the buttress B in Fig. 3 being replaced by a timber 25, received in an angular seat 26, formed in the composite member composed of the planks 23.

In either form of the invention, there is provided a simple structure which will be found thoroughly advantageous for the ends in view, and so constructed that a compression arch of great strength will result.

Having thus described the invention, what is claimed is:

1. In a roof arch, a bow which is T-shaped in cross section, comprising a transverse head and a depending shank, the shank comprising a line of upper members and a line of lower members, the members of the respective lines being disposed in longitudinal, edge-to-edge engagement, the members of each line being tapered from an intermediate point to their extremities, the tapered portions of the members of the upper line being superposed on the tapered portions of the members of the lower line, in oppositely-projecting relation, to give the shank a substantially uniform height, and to dispose the end surfaces of adjoin-

ing members of the upper line in break-joint order with respect to the end surfaces of adjoining members of the lower line, the head comprising strips disposed end-to-end, the end surfaces of the strips being located in break joint order with respect to the end surfaces of adjoining members of the upper line, and means for securing the head and the shank together.

2. A roof arch constructed as set forth in claim 1, and wherein the outer ends of the shank form transverse, buttress-engaging shoulders, the head being extended outwardly beyond the shoulders, to form tongues.

3. A roof arch constructed as set forth in claim 1, in combination with spaced buttresses, the outer ends of the shank forming shoulders which cooperate with the buttresses, the head being extended outwardly beyond the shoulders, to form tongues overlapping the buttresses.

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