July 9, 1946. B. W. FROMSON 2,403,853

EXTENDIBLE BEARER OR SUPPORT FOR TEMPORARY OR PERMANENT USE IN BUILDING CONSTRUCTION

Filed Aug. 10, 1943

Fig. 1.

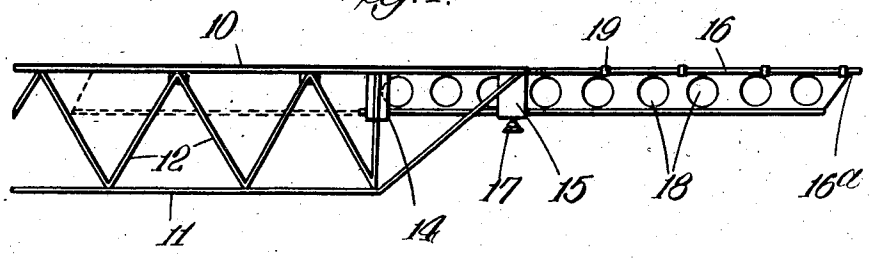


Fig. 2.

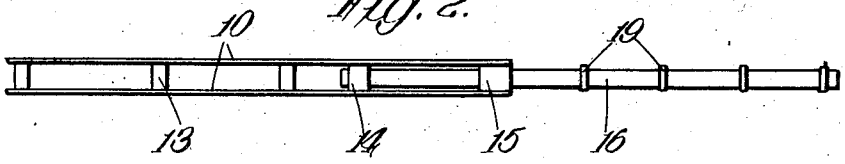


Fig. 3.

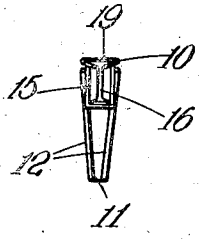
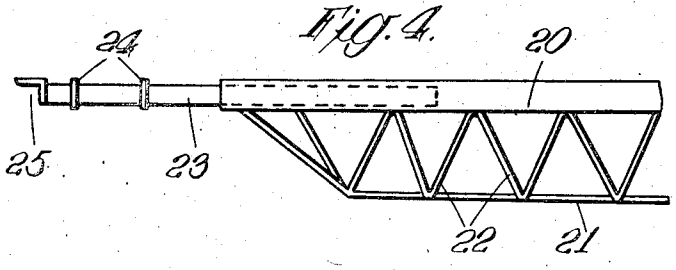


Fig. 4.



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EXTENDIBLE BEARER OR SUPPORT FOR TEMPORARY OR PERMANENT USE IN BUILDING CONSTRUCTION

Bertram William Fromson, Manchester, England

Application August 10, 1943, Serial No. 498,044
In Great Britain October 21, 1941

4 Claims. (Cl. 189—37)

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This invention relates to extensible trusses, bearers, or supports for temporary or permanent use in building construction.

Some embodiments of the invention will now be described by way of example, reference being made to the accompanying drawing in which Fig. 1 is a fragmentary side view, Fig. 2 a plan and Fig. 3 an end view of a truss constructed according to one form of the invention. Fig. 4 is a fragmentary side view of a similar type of truss constructed according to a modified form of the invention.

Referring to Fig. 1, the reference numeral 10 indicates the top chord and 11 the bottom chord of a truss, said chords comprising metal rods of appropriate length spaced apart in a vertical direction by web members 12 electrically welded or otherwise secured to said top and bottom chords, the two rods forming the top chord being arranged in parallelism at a short distance apart, said top rods being secured together at intervals by cross plates 13.

Secured to the under side of the top chord adjacent to each end and to the adjacent members of the web section are hollow metal sections 14, 15 forming slideways for the extension members. Each extension member comprises a bar 16 of I section slidably mounted in said hollow sections 14 and 15 and adapted to be slid in and out of the aforesaid slideway to adjust the effective length of the truss. A set-screw 17 having a wing nut penetrates the metal section 15 and serves to secure the extension bar 16 in position. In order to lessen the weight of the extension bar holes 18 are formed in the web of the I section bar 16. To compensate for the difference in the level of the upper surface of the extension bars 16 and the upper surface of the top chord 10 runners 19 are loosely mounted on the top member of the I section bar to ensure that shuttering placed in position on the truss is on a uniform plane throughout. The outer end of the extension member 16 is so shaped as to provide a step 16a to enable the truss to rest on a supporting surface.

In the construction of truss illustrated in Fig. 4, the top chord is formed of hollow tubes 20 and the bottom chord of a metal bar 21, joined to the top chord by a bent bar 22 to form a web section, the parts being electrically welded or otherwise secured together in like manner to the truss described with reference to Figs. 1 to 3. Slidable in the tubular top chord 20 is an extension tube or rod 23 of appropriate length having threaded thereon sliding members 24 to compensate for the difference in levels of said top chord and the extension rod 23. At its outer end the

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extension rod 23 is fitted with a stop member 25 preferably formed of angle-iron electrically welded or otherwise secured thereto.

The extending arms may be restrained against accidental lateral movement relatively to the truss in any suitable manner, for example, in the arrangement as in Figure 4, each extending arm may be formed with a series of evenly spaced holes along its length adapted to register with a corresponding hole of an unevenly spaced series in the hollow member through which the arm slides. When the arm is adjusted to its required position a metal pin or bar is passed through a hole in the slide and a corresponding hole in the arm thereby locking said arm in position.

To withdraw the extending arms in order to remove the truss, said locking pin is removed and a key or lever is inserted through the hole in the arm nearest to the inward end of the hollow section whereby to force the extending arm in reverse direction along the truss proper to shorten the effective length of said truss and facilitate its removal.

The extendible movements of the truss are apparent from the drawing, the dotted lines in Figures 1 and 4 showing the extent of the inward movement of the extension members.

What I claim and desired to secure by Letters Patent of the United States is:

1. In a truss for use in building construction, a pair of metal members in parallel forming the top chord of the truss, a third member below the said pair of members and parallel thereto forming the bottom chord of the truss, a pair of additional members bent to form a web between said top and bottom chords, said additional members being rigidly and permanently secured to all the three first named members, a hollow socket secured to said top chord and to the web at each end of the truss, extension arms slidable in each of said hollow sockets to vary as cantiliver extensions the effective length of the truss, runners loosely mounted on said extension arms to compensate the difference in level between the top of the truss and the top of the extension arms, and means to lock each of said extension arms in the position to which it has been adjusted relatively to the length of the truss.

2. A truss as in claim 1 wherein each extension arm consists of a metal bar perforated to lighten the weight thereof.

3. A truss as in claim 1 wherein each extension arm is undercut at its outer end to provide a step whereby the arm may rest on a support.

4. A truss as in claim 1, wherein the extension arms are of I section.

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