Dec. 6, 1927. 1,652,056

E. B. SELWAY

ADJUSTABLE FLOOR AND ROOF FORM

Filed April 21, 1927

Fig. 1.

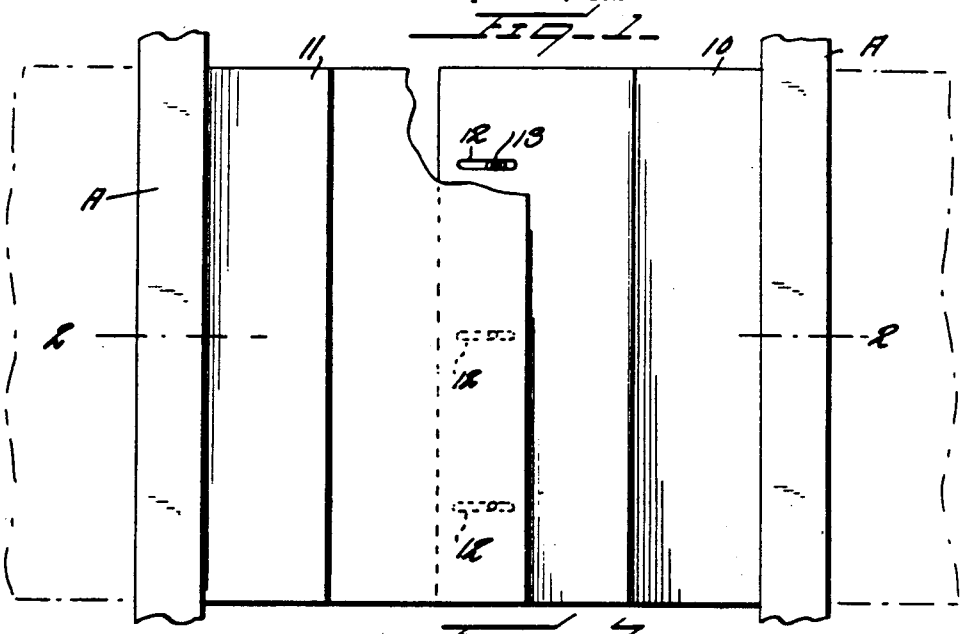
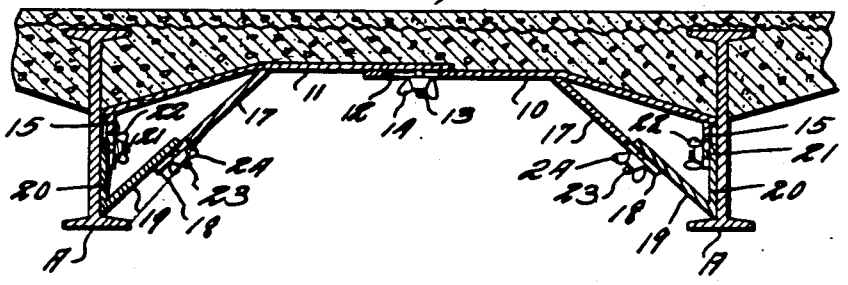


Fig. 2.



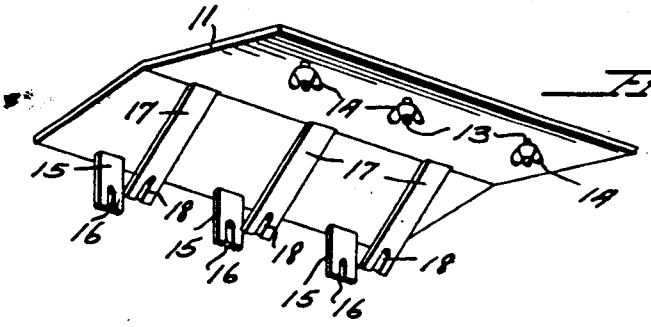
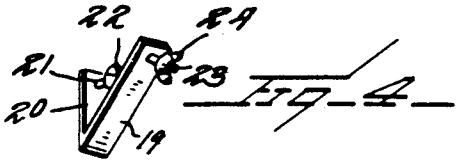


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE FLOOR AND ROOF FORM.

Application filed April 21, 1927. Serial No. 185,588.

This invention relates to forms used in building operations and particularly to forms designed to be used for centering and holding up concrete floors and roofs while in process of formation.

The general object of the present invention is to provide an adjustable form supported by I beams.

A further object is to provide an adjustable form which may be made in very light sections so that one man may put up the form and take it down.

Another object is to provide a form which will do away with the ordinary wood forms now in use and which will permit the ready removal of the form after the concrete is set.

Further objects will appear in the course of the following description;

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a top plan view showing my form in place.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a perspective view of one section of the form.

Figure 4 is a perspective view of the brace 19.

Referring to these drawings, it will be seen that my improved form consists of the two sheet metal sections 10 and 11 which are together wide enough to span the space between the two I beams A. The sheet metal section 10 is adapted to be disposed with its margin beneath the margin of the section 11 and the section 10 is formed with slots 12, while the section 11 has the stud bolts 13 adapted to extend through these slots and carrying wing nuts 14. Thus it will be seen that these sections 10 and 11 may be laterally expanded or contracted within the range of the slots 12 so as to suit the distance between any pair of I beams. Extending downward from the outer margins of the sections 10 and 11 are the steel bars 15 which in actual practice will be about two inches wide, a half inch thick and three and three-fourths inches long. These may be welded to the sections 10 and 11 and each of these bars 15 will be longitudinally slotted as at 16. Welded to the under face of the sections 10 and 11 are the downwardly and outwardly extending steel bars 17 which are preferably two inches wide and have a length of about six and one-half inches. These are also longitudinally slotted as at 18. Coacting with the members 15 and 17 is an angular connecting member 19 made of bar steel two inches wide and approximately eleven inches long, bent to an angle of approximately forty-five degrees. The short arm 20 of this angular member or brace 19 is provided with a stud bolt 21 and a wing nut 22, this stud bolt being adapted to pass through the slot in the corresponding bar 15. The upwardly and inwardly directed arm of the angular member or brace 19 is also provided with a stud bolt 23 and nut 24 which passes through the slot 18 of the corresponding bracing member 17. Each member 15 with its corresponding member 17 and the angular member 19 constitutes a footing and brace so, as shown in Figure 2, the form may be supported upon the flanges of the beams A and the sections 10 and 11 raised to any desired height, from the lower flanges of these beams A. The inwardly and upwardly projecting arms of the angular irons 19 and the members 17 constitute braces supporting the sheet metal sections 10 and preventing any tendency of these sections to sag. The members 15 with the vertically extending portions of the angular members 19 constitute legs.

In the use of this device, the sheet metal sections 10 and 11 are engaged with each other by the wing nuts 14 and the members 19 and 15 are adjusted so as to secure the proper height for the sections 10 and 11 with reference to the top of the beams A. The sections 10 and 11 are collapsed or shifted inward with relation to each other and then the form may be raised above the lower flanges of the I beams A and then expanded. After expansion occurs, the wing nuts are turned so as to clamp the sections 10 and 11 in their adjusted positions. Concrete, brick or other material for the floor or roof is then placed upon the form and supported by the form until the concrete or other material has hardened sufficiently to permit the removal of the form. The form may be then readily contracted and removed.

This form is adjustable as before stated and it does away with all floor boards now in use for the casting of concrete. The form may be removed from below the cast of concrete, brick or other floor material and may be quickly applied and quickly removed. The form keeps all concrete suspended from the top flange of the I beam and permits a strong and fire-proof floor to be made at a

saving of approximately half of the material now used. The forms of course, may be made of various sizes and each form will have a range of adjustment permitting it to be used for varying sizes within its range. The sheet metal sections 10 and 11 are supported by the upwardly extending sectional braces so that the middle portion of the form cannot sag. Obviously many minor changes might be made in the details of construction without departing from the spirit of the invention as defined in the appended claims.

I c'aim:—

1. A floor and roof form comprising two overlapping sheet metal sections adapted to be disposed between the I beams and transversely adjustable upon each other, each section at its outer margin having depending parts adapted to rest on the lower flange of the I beam, and each section having upwardly and inwardly extending braces extending from the vertically adjustable parts and engaging with the sections, said braces being expansible and contractible.

2. A floor and roof form comprising two sheet metal sections adapted to be disposed between I beams and overlapping at their inner margins, said sections being transversely adjustable upon each other, each of said sections at its outer margin being provided with depending expansible and contractible legs and expansible and contractible braces connected to the legs of each section and extending upward and inward to the corresponding section.

3. A roof and floor form comprising two sheet metal sections adapted to be disposed between the I beams and having overlapping inner margins, the sections being transversely adjustable upon each other, each section at its margin having a plurality of depending slotted legs, angular irons having vertical portions overlying the legs and vertically adjustable thereon and having upwardly and inwardly extending portions constituting brace sections, and brace members attached to the sheet metal sections adjacent their inner margins and extending downward and overlapping the upwardly and inwardly extending portions and longitudinally adjustable thereof.

4. A floor and roof form comprising two sheet metal sections adapted to be disposed between I beams and having overlapping inner margins, the margins of one section being slotted and the margin of the other section being provided with bolts and nuts to coact with said slots whereby the sections may be transversely adjusted upon each other, the outer margin of each section having depending slotted legs, angular members one for each of said legs the angular members having upwardly extending vertical sections overlapping the legs and upwardly and inwardly extending portions, the vertical portion of each angular member being adjustable upon its corresponding leg, and brace members extending downward from each sheet metal section and overlapping the upwardly extending portion of the corresponding angular iron and having adjustable engagement therewith.

In testimony whereof I hereunto affix my signature.

EDWARD B. SELWAY.