Apr. 10, 1923. **1,451,457**

J. C. BUCHENAU

ADJUSTABLE FORM TIE AND SPACER

Filed Sept. 23, 1921

Fig. 1.

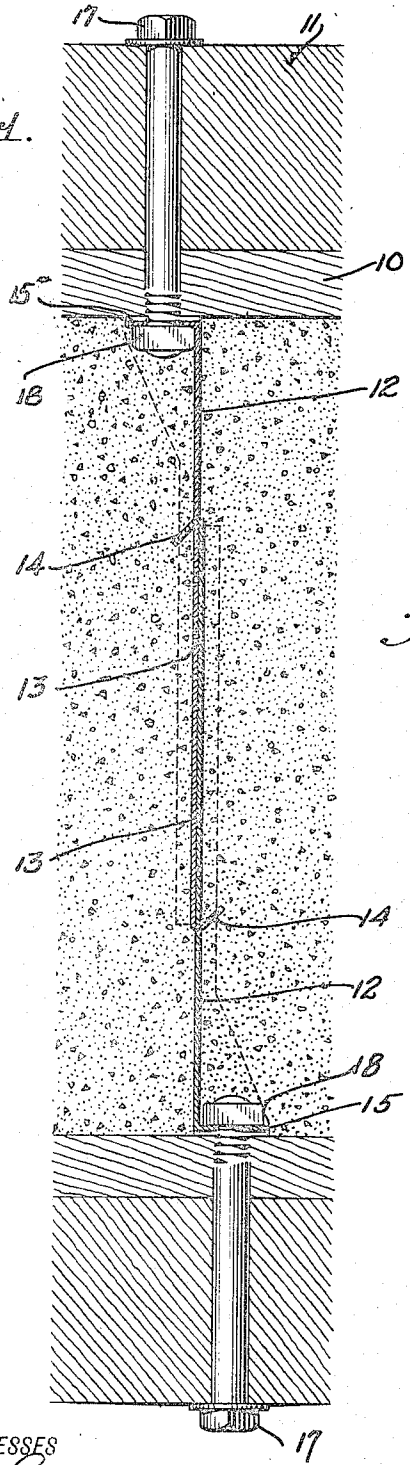


Fig. 2.

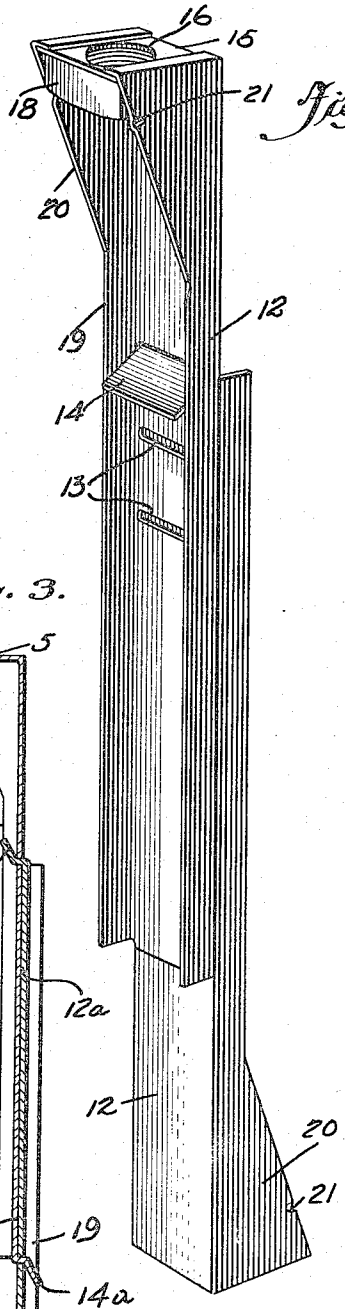
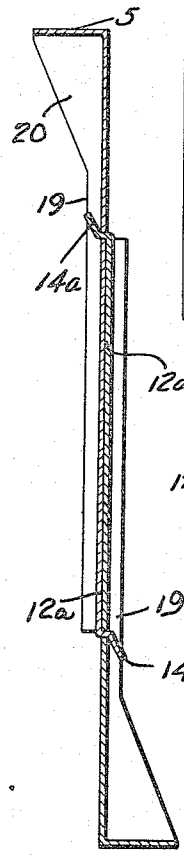


Fig. 3.



WITNESSES

INVENTOR
JOHN C. BUCHENAU
BY

ATTORNEYS

Patented Apr. 10, 1923. 1,451,457

UNITED STATES PATENT OFFICE.

JOHN C. BUCHENAU, OF DE WITT, NEW YORK.

ADJUSTABLE FORM TIE AND SPACER.

Application filed September 23, 1921. Serial No. 502,746.

To all whom it may concern:

Be it known that I, JOHN C. BUCHENAU, a citizen of the United States, and a resident of De Witt, in the county of Onondaga and State of New York, have invented a new and Improved Adjustable Form Tie and Spacer, of which the following is a description.

The invention relates to a wall mold or form and the general object of my invention is to provide a device adapted to constitute an adjustable tie and spacer between the sides of the form. A more specific object of the invention is to provide for adjustably connecting the sections without the employment of bolts, screws, or other adventitious fastening means, although the invention in all its phases is not limited for practical embodiment to a sectional tie self-contained as to the means for adjustably connecting the sections.

The above and other objects are attained by a novel device hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a horizontal section showing a tie and spacer illustrating the same in connection with a wall form or mold and a section of the wall;

Figure 2 is an enlarged perspective view of the tie and spacer;

Figure 3 is a plan view of the tie and spacer slightly modified with respect to the means for adjustably connecting the sections.

In Figure 1 the numeral 10 indicates the planks or other material forming the sides of the wall mold, and 11 indicates portions of uprights to which said sides are secured. My improved tie and spacer is formed of two similar sections 12 which advantageously are made of channel material. Each section is formed with a plurality of transverse openings 13 in the web thereof and the terminal 14 of each section is given a form to be passed through said openings and be disposed at an angle for interlocking the two sections. The separate holes 13 permit of the tie being adjusted to suit walls of different thicknesses. In the form shown in Figures 1 and 2 the inner terminals 14 are returned into hooked form. In the form shown in Figure 3 the inner terminal 14^a of one section 12^a may be passed through the transverse openings in the other section. The terminals instead of being return bent into hook form are bent forwardly at an angle, the material at the base of the angular terminal having a transverse direction to take the tensile strain on the tie and hold the sections against separation.

The outer end of each section is formed with a laterally directed flange 15 having a bolt hole 16 therein. Bolts 37 pass through uprights 11 and sides 10, there being separate bolts at each side of the mold, said bolts at their inner ends passing through the holes 16 and having nuts 18 to draw up the sections of the tie to secure the same to the sides 10 at the inner surfaces of the latter. Adjacent to the outer end of each section the sides of the flanges 19 of the channel material are widened as at 20 and accommodate the nut 18. If desired, in order to hold the nut 18 to the sections 12, the widened portions of the sides 20 may have indentations 21 therein.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the exact details herein illustrated, since, manifestly, the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. In an adjustable tie and spacer for inner and outer sides of a wall mold, a channel member having a plurality of slots in the web, a tongue at one end and a socket at the other for receiving a nut.

2. In an adjustable tie and spacer for mold boards, a member presenting a socket at one end adapted to receive a nut and slots adjacent its central portion adapted to engage the opposite end of a similar member co-acting therewith.

3. In an adjustable tie and spacer for wall molds, a member presenting at one end laterally extending flanges to accommodate a nut, and at the other a bendable tongue adapted to be inserted in transverse slots in the body of a cooperating similar member.

4. A tie and spacer for wall molds comprising a pair of oppositely disposed channel members having adjacent their central portion transverse slots, each of said members presenting at one end a bendable tongue

adapted to engage said slots, and at the opposite end a socket adapted to receive a nut.

5. In a tie and spacer for wall molds, a member presenting laterally extending flanges, said flanges being wider at one end and turned laterally inward to form a reinforced socket adapted to receive a nut, and at the other end terminating short of the end of the member whereby a bendable tongue is presented.

6. In a tie and spacer for wall molds, a member presenting laterally extending flanges, said flanges being wider at one end and turned laterally inward to form a reinforced socket adapted to receive a nut, and at the other end terminating short of the end of the member whereby a bendable tongue is presented; together with bolts for securing said member to a mold board.

JOHN C. BUCHENAU.