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H. H. TOOGOOD

APPARATUS FOR CONSTRUCTING CONCRETE FORMS

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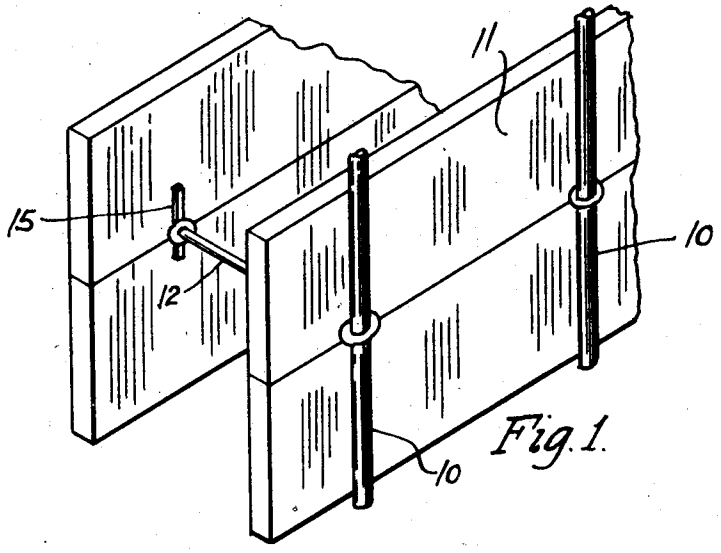
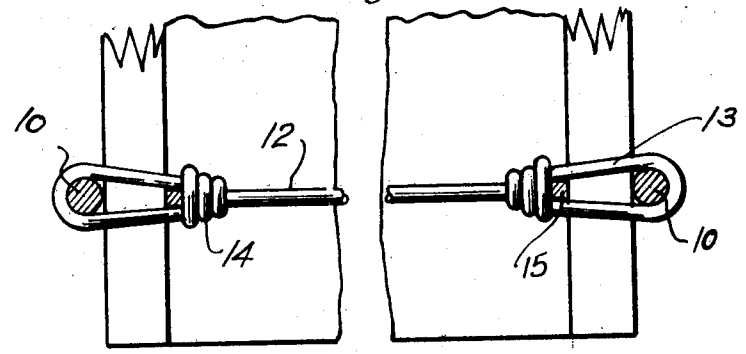


Fig. 1.

Fig. 2.



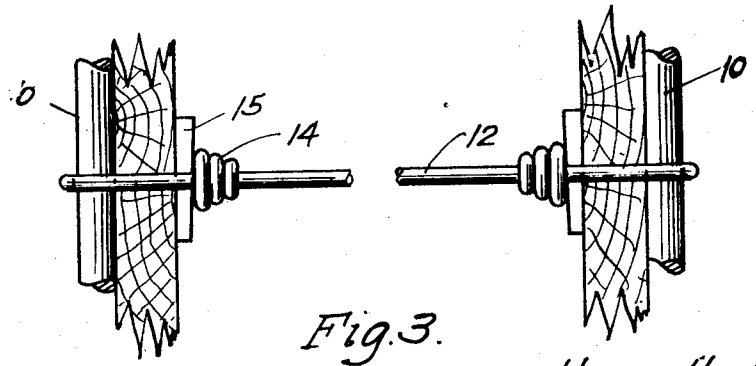


Fig. 3.

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR CONSTRUCTING CONCRETE FORMS.

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This invention relates to new and useful improvements in apparatus for constructing concrete forms and more particularly to the construction of ties for such forms and the means for connecting the form sections by the ties.

An important object of the invention is to provide a device of this character which may be very readily employed in the forms and will serve as a means for connecting the form boards to the usual uprights employed in such constructions without the necessity of employing nails or other securing elements for this purpose.

A further object of the invention is to provide a construction of this character which insures the adjacent faces of the form boards being always disposed at a proper distance from one another and by means of which the warped form boards may be drawn into a proper position.

These and other objects I attain by the construction shown in the accompanying drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a fragmentary perspective view of a concrete form embodying my invention;

Figure 2 is a plan view thereof;

Figure 3 is a vertical sectional view therethrough.

Referring now more particularly to the drawing, the numeral 10 generally designates vertically extending guide rods, which are generally employed in concrete forms as a guide for the outer faces of the boards or metallic form elements 11 employed in the construction of the actual form. In accordance with my invention, I provide a premade tie for use in such forms, comprising a body 12 having at its ends loops 13 of equal and predetermined length based upon the size of the vertical support and the thickness of the form element 11. These loops and the body are preferably formed from a single piece of wire, the ends of which are bent back and bound upon the body of the wire, as indicated at 14, to provide a relatively heavy shoulder. In employing the ties, the loops are slipped over the guide rods and placed between adjacent edges of the form elements 11. When the form elements 11 above and below a tie are in position, wedges 15 are employed to force the form elements 11 outwardly, so that their outer faces firmly contact against the guide rods 10 and the adjacent faces of the form elements are accordingly in properly spaced relation.

It will be obvious that the ties may be made in any desired size, are extremely readily applied and in combination with the use of wedges, provide an absolute guide for the form elements, preventing misalignment thereof. Nails or surplus wires are rendered unnecessary to hold the ties in proper position and accordingly considerable time is saved in the construction or wrecking of the form.

Since the particular formation of the tie herein illustrated is obviously capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. In a concrete form, vertically extending supporting elements at opposite sides thereof, form elements vertically stacked edge to edge against the supporting elements at opposite sides of the form, ties each comprising a body having in its ends a loop adapted to be extended between adjacent edges of form elements and about opposed supports and wedges disposed between the inner ends of the loops and the inner faces of the form elements and abutting the form elements above and below the tie.

2. In a concrete form, vertically extending supporting elements at opposite sides thereof, form elements vertically stacked edge to edge against the supporting elements at opposite sides of the form, ties each comprising a body having in its ends a loop adapted to be extended between adjacent edges of form elements and about opposed supports and wedges disposed between the inner ends of the loops and the inner faces of the form elements and abutting the form elements above and below the tie, said tie elements each comprising a single length of wire the ends of which are bent back upon themselves to provide a loop and then bound about the wire to provide a solid shoulder against which the wedge may act.

In testimony whereof I hereunto affix my signature.

HENRY HERBERT TOOGOOD.