

May 30, 1933.

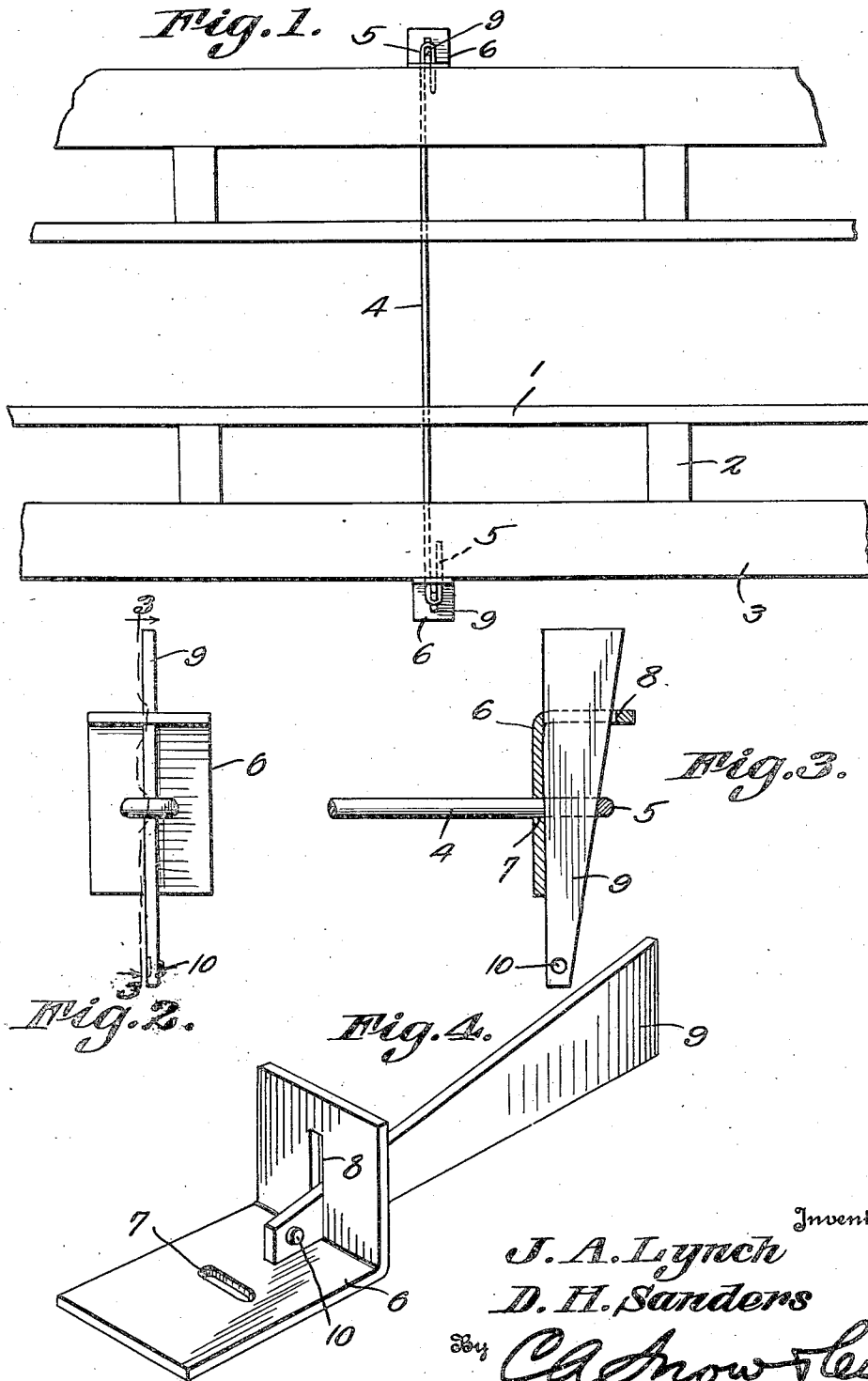
J. A. LYNCH ET AL

1,911,701

CLAMP FOR FORM TIES

Filed June 16, 1930

2 Sheets-Sheet 1



Inventors
J. A. Lynch
D. H. Sanders
By *Chas. Snow & Co.*
Attorneys.

May 30, 1933.

J. A. LYNCH ET AL

1,911,701

CLAMP FOR FORM TIES.

Filed June 16, 1930

2 Sheets-Sheet 2

Fig. 5.

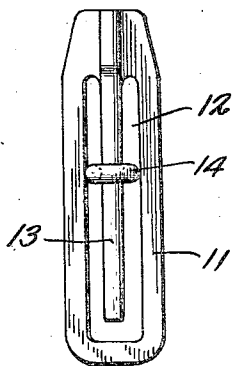
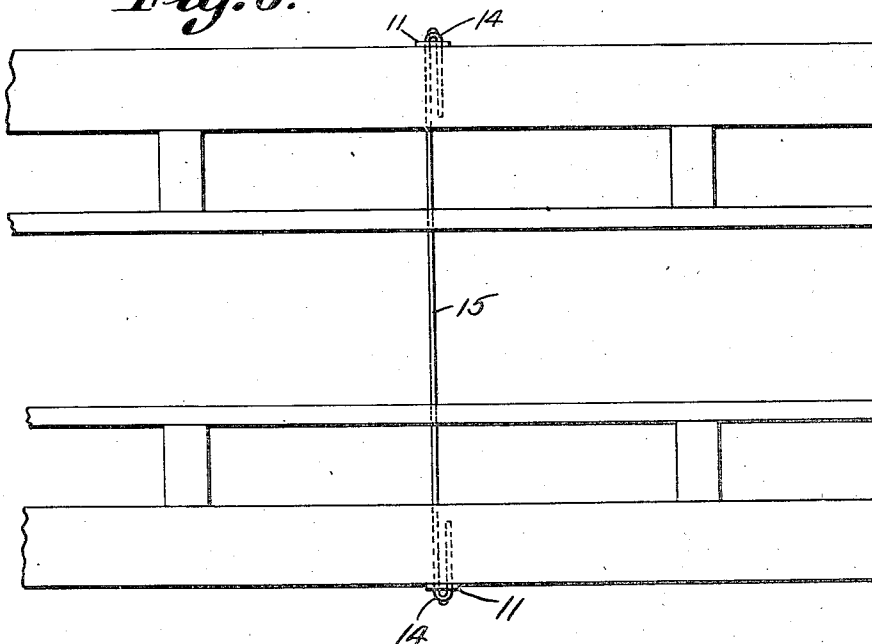


Fig. 6.

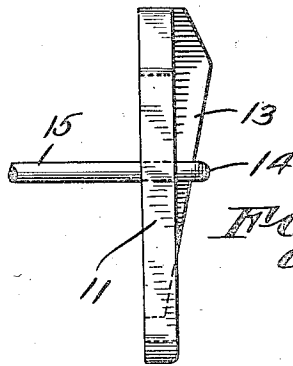


Fig. 7.

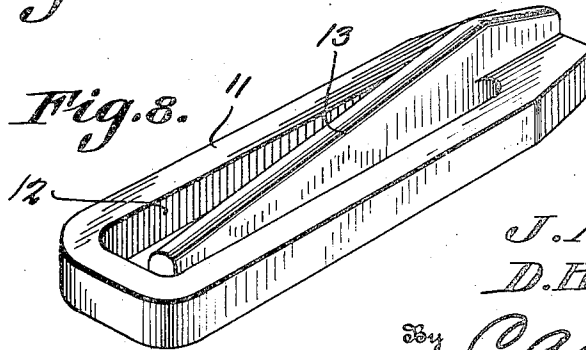


Fig. 8.

Inventor
J. A. Lynch
D. H. Sanders
By *CA Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE

JAMES A. LYNCH AND DENSMORE H. SANDERS, OF LOS ANGELES, CALIFORNIA

CLAMP FOR FORM TIES

Application filed June 16, 1930. Serial No. 461,450.

This invention relates to a clamp for form ties used in concrete construction work.

It is an object of the invention to provide a clamp adapted to act as a wedge for the purpose of drawing the tie taut, the construction of the clamp being such as to hold the end of the tie from spreading and becoming accidentally disengaged from the clamp.

A further object is to provide a clamp which can be quickly placed in engagement with a tie or disengaged therefrom.

Another object is to provide clamps which are adapted to be driven into holding positions at which time they will act to prevent the form containing the tie from spreading.

With the foregoing 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 the preferred forms of the invention have been shown.

In said drawings

Figure 1 is a plan view of a portion of a concrete form equipped with the present improvements.

Figure 2 is an elevation showing the clamp combined with a tie.

Figure 3 is a section on line 3—3, Figure 2.

Figure 4 is a perspective view of the clamp.

Figure 5 is a view similar to Figure 1 showing a modified structure.

Figure 6 is an elevation of the clamp in engagement with a tie.

Figure 7 is a side view thereof.

Figure 8 is a perspective view of the clamp.

Referring to the figures by characters of reference, 1 designates a concrete form the studding 2 of which is reinforced by timbers or walers 3 such as commonly employed. At suitable points tie rods 4 are extended transversely through the form, the ends of the rods being bent to form hooks 5.

The clamp shown in Figures 1 to 4 in-

clusive consists of an angle bracket or body 6 having a transverse slot 7 in one arm thereof for the reception of one of the hooks 5 which, when seated therein, will be prevented from spreading open. The other arm of the bracket has a longitudinal slot 8 in which is slidably mounted a wedge 9. A retaining lug 10 can be struck from the small end of the wedge to prevent its withdrawal from the bracket.

After a tie rod has been placed in a form, the elongated hooks are inserted into slots 7 and the wedges 9 are then driven downwardly through the hooks. The tie will thus be drawn taut and the brackets pressed against the form to hold it from spreading.

In Figures 5 to 8 another form of the device has been illustrated. Instead of making the clamp of a bracket with a separate wedge, the entire device can be made in one piece. In this structure the body of the clamp, which has been indicated at 11, has a longitudinal slot 12. A tongue 13 in the form of an elongated wedge is made integral with the body at one end and is extended longitudinally within the slot, its small end being spaced from the adjacent end wall of the slot.

This form of clamp is used in substantially the same way as the one first described. The hooked end 14 of the tie rod 15 is inserted into the slot 12 across the small end of the wedge. The wedge is then driven longitudinally so as to be forced into the hook, thereby pulling the tie taut.

In both forms of the device the free end portion of each hook is restrained by the adjacent wall of the slot in which it is seated so that the hook can not spread when the tie is subjected to tensile strain.

When it is desired to remove a clamp it is merely necessary to knock the wedging element out of the engaged hook. The projecting end of the tie can then be cut off. If desired, only one clamp can be removed and the adjacent end of the tie can be cut off. The wedging element of the other clamp can then be driven into the hook so as to pull the tie rod longitudinally a short distance to loosen it. The rod can then be withdrawn from the moulded structure.

It is to be understood that instead of providing hooks at the ends of the rods, loops may be employed. Consequently the term "hook" used in the claims is designed to cover
5 broadly either a loop or a hook.

What is claimed is:

A tie clamp including an angle body for engagement with a form, said body having a tie receiving slot in one arm and a wedge
10 containing slot in its other arm, a tie engaging wedge slidably engaging the body and movable in the slot provided therefor, and means for holding the wedge against removal from its slot.

15 In testimony that we claim the foregoing as our own, we have hereto affixed our signatures.

JAMES A. LYNCH.
DENSMORE H. SANDERS.

20

25

30

35

40

45

50

55

60

65