Oct. 5, 1943. H. P. NEPTUNE 2,330,990

CONCRETE FORM WALE CLAMP

Filed Nov. 17, 1941

Fig. 1

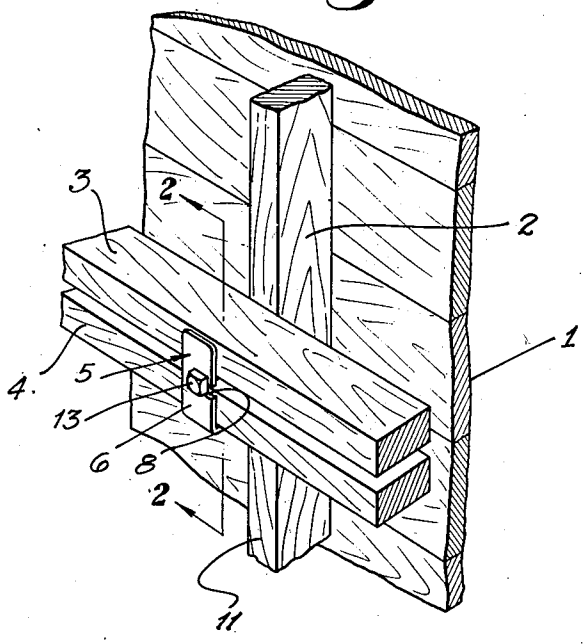


Fig. 3

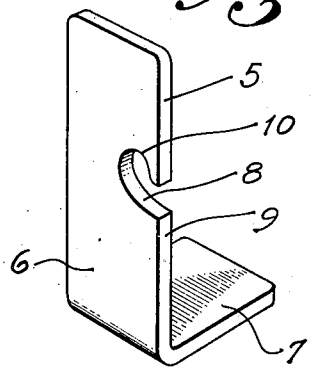
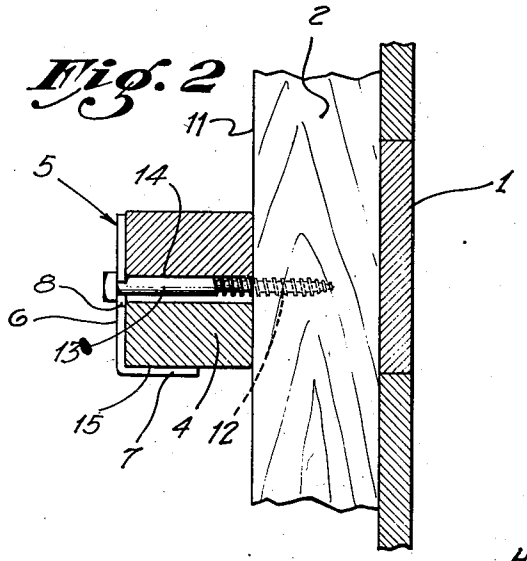


Fig. 2



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CONCRETE FORM WALE CLAMP

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2 Claims. (Cl. 25—131)

This invention relates to devices for securing wales to studs.

The average concrete building construction requires form boards between which the concrete is poured. These form boards must be rigidly maintained; otherwise, the resultant concrete wall is uneven. Ordinarily, the form boards are held in position by studs, which run vertically of the form boards. The studs in turn have secured thereto members termed wales. Form clamps are adapted to be secured between the wales of two form board structures to hold the form boards in position of service.

It is ordinary practice at the present time to toe-nail the wales to the stud. As workmen use the wales as a ladder, toe-nailing is not always safe, as the nails may give away and an accident may result. Furthermore, such a method does not tend to in any manner align the form board structure. Another objection to this method of construction is that when the concrete wall has finally set and it becomes necessary to remove the walls, studs, and wales, a lumber loss is incurred for the reason that the wales are often split in an attempt to pry the same loose from the studs.

The present invention has to do with a novel construction whereby the wales are quickly secured to the studs, securely clamped in position to align the form boards, and which permits a ready stripping of the wales when the studs and form boards are to be removed.

The invention is of simple structure, inexpensive in cost of manufacture, and generally superior.

With the above mentioned and other objects in view, the invention consists in the novel and useful provision, formation, construction, association, and relative arrangement of parts, members and features, all as shown in one embodiment in the accompanying drawing, described generally, and more particularly pointed out in the claims.

In the drawing:

Figure 1 is a fragmentary, partially sectional view of a series of form boards, a stud secured thereto, and wales secured to the stud by the means of the present invention,

Figure 2 is a sectional view on the line 2—2 of Figure 1, and on an enlarged scale, and,

Figure 3 is a perspective view of a bracket which may be utilized in the practice of the invention.

Referring now to the drawing, I have shown in Figure 1 a form board structure 1. Ordinarily, two of such form board structures are provided, between which is adapted to be poured some building material, such as concrete. These form boards are maintained in position by means of studs 2. I have illustrated a single stud, although it is evident that a plurality are provided. To the studs are secured wales 3 and 4. As has previously been stated, the wales are ordinarily toe-nailed to the studs. It is intended that form clamps, not illustrated, should extend between the wales of a pair of form board structures. The form board clamps form no part of the invention and are ordinary practice in the art.

My invention has more particularly to do with the means for securing the wales to the studs. This means includes, in its simplest embodiment, a bracket or clamp 5, which has two portions 6 and 7 in substantially right angular relationship. The portion 7 may be termed the supporting base while the portion 6 functions as a wale aligning means. The portion 6 is provided with an undercut slot 8 having entrance along one edge 9. This construction provides a hook portion 10.

The operation of the device is as follows:

Assuming that form boards are to be erected, as shown in Figure 1, studs are placed thereagainst in the usual manner, and the outwardly facing front edges 11 of said studs are inwardly bored, as shown at 12, to accommodate lag screws 13. These lag screws are secured within the bores with the top wales 3 resting on the tops thereof as, for instance, shown in Figure 2, at 14. The bottom wales 4 are then placed beneath the lag screws with the clamp 5 positioned so that the supporting base 7 carries the wale 4, as shown in Figure 2, at 15. The shank of the lag screw is received within the slot 8 and positioned in the hook portion 10. The lag screw is then tightened so as to bring the portion 6 into forcible engagement with the two wales, which aligns the wales and forces the studs into proper position, resulting in alignment of the form board structure.

When the lag screws are secured tightly against the clamps, a rigid structure results, and one which permits the workmen to use the wales as a ladder.

After the wall has been poured between the form boards and allowed to properly set, stripping of the wales from the studs is simple of accomplishment by merely releasing the lag screws, which permits the clamps to be unhooked and the wales removed.

Actual cost figures show that the use of the present invention effects an actual saving over toe-nailing the wales to the studs, not counting

damage that occurs to the wales by reason of said toe-nailing.

A great deal of time is saved by the use of the bracket or clamp, and unskilled labor may be utilized for attaching the wales to the studs. It is, of course, evident that when nails are used that the nails must be removed; otherwise, they provide a constant source of danger to workmen.

I claim:

1. As a new article of manufacture, a metallic wale clamp provided with a horizontally extending base portion and with an integral wale aligning portion at substantially right angles to the base portion, said wale aligning portion formed with a slot adapted to receive a lag screw, said slot sloping upwardly from one edge of said wale aligning portion.

2. In combination, a form board structure, a stud for one side of said structure, a lag screw extending from said stud, a metallic wale clamp carried by the lag screw, and a pair of spaced wales; one wale resting on said lag screw and the other wale supported upon a part of said clamp, said clamp engaging both wales to align the same when the lag screw is tightened within the stud, said clamp being provided with a horizontally extending base portion and with an integral wale aligning portion at substantially right angles to the base portion, said wale aligning portion formed with a slot adapted to receive the lag screw, said slot sloping upwardly from one edge of said wale aligning portion.

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