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CONCRETE FORM JOIST HANGER

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Fig. 1.

Fig. 2.

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My invention relates, in general, to concrete-form construction, and, in particular, to a novel joist-hanger for use in forms adapted for building flat concrete slabs.

Such forms comprise a platform of wood, on top of which the concrete is poured; joists, upon which the planking of said platform is laid; and posts, which support the joists. After the concrete is set, the posts, planking and joists are removed.

Both in the building of the form, and in its removal there are certain considerations, which open the way to improvement over common practise; for example, ease of erection, stability in use, facility in dismemberment, and, most important, the avoidance of injury tending to preclude the practically indefinite reuse of the lumber.

It is in these particulars that my invention has its object; and to this end it consists in the novel joist hanger which I shall hereinafter fully describe by reference to the accompanying drawings, in which is illustrated the preferred form of the device, it being understood that changes may be made without departing from the spirit of the invention as defined by the claims hereunto appended.

In the drawings:

Fig. 1 is a plan of the form.

Fig. 2 is a section on the line 2—2 of Fig. 1 including the concrete slab.

1 is a post. 2 is a joist extending between posts. 3 is the planking of the platform upon which the concrete 4 shown in Fig. 2 is poured.

The planking 3 is supported upon the joists, and the joists are supported by the posts. 5 is the bracket member of the joist-hanger. It is a metal plate bent in what may be termed a right-angle Z shape, and formed with an angular or diagonal foot extension.

Specifically, it comprises a horizontal head section a, a vertical body section b, a horizontal foot section c, a downwardly and backwardly diagonal foot extension section d and a vertical extremity section e. The foot section c is slotted at f, and the foot extension section d is slotted at g.

The other member of the hanger is a wedge 6 seated in the slotted sections c and d.

The hanger is fitted to the post 1 by nailing its head section a on top of the post. Its body section b lies snug against the side of the post. Its foot section c is perpendicular to the post's side; and the extremity section e is nailed to the side of the post. The joist 2 is carried upon the foot section c and is clamped in place against the body section b of the wedge member 6.

In order to better understand the advantages of my hanger, it will be well to briefly point out common practise in form-construction of this type. Such practice consists in nailing upon the side of the post a small cleat of wood. Upon this cleat the joist rests a few nails being usually driven through the joist into the post to hold it in place until the posts are braced. Nailing the cleats to the sides of the posts damages the posts so that they cannot be used again to any great extent.

By the use of my hanger, all nailing into the post is eliminated, with the exception of the original nailing of the hanger to the post, the hanger remaining on the post until it is used up. With my hanger, the vertical load of the joist is braced by the diagonal foot extension d attached to the post. By the use of the wedge member 6 the joist is pressed snugly against the vertical body section b of the hanger, thereby eliminating all preliminary nailing. After the concrete is set, the wedge 6 can be easily knocked out from the bottom, and the joist removed horizontally, allowing all the planking to fall with the exception of the one plank over the post. The fact that this one plank remains is of great advantage. It enables the contractor to strip 90% of the concrete slab, allowing the air to get to it, but still leaving one prop in the center of each panel. It has been customary to strip a concrete floor, taking down all the shores and posts and then return and re-erect the posts until the concrete is thirty days old. Such re-erection is eliminated by my device. The aim of building form work for pouring concrete, is to use as little lumber as possible, drive as few nails as possible, and so erect the work that it can be taken down with the greatest ease and with the
least damage to the lumber, so that it can be used again.

That this aim is realized by my invention may be seen from the following advantages: to wit, ease of erection, due to the fact that the wedge holds the joists in place without nailing; reuse of all shores, since no nails are driven into them, avoiding splitting and other injury; ability to strip practically the entire floor and leave one slab-supporting shore, without re-shoring; saving in lumber and labor, this hanger remaining with the post and can be taken to another job and used again and, finally, greater strength, avoiding splitting and coming off of cleats, sometimes dropping a large area of wet concrete.

I claim:

1. In concrete-forms of the type described, and in combination with the posts, joists and planking thereof, a hanger comprising a bracket member of approximately Z shape, hung from and secured to the post top by its head section, with its body section bearing against the side of the post, and its foot section supporting the joist; and a wedge member fitted to said foot section, adapted to tighten the joist against the body section of the bracket member.

2. In concrete-forms of the type described, and in combination with the posts, joists and planking thereof, a hanger comprising an approximately Z-shaped bracket member hung from and secured to the post top by its head section, with its body section bearing against the side of the post and its foot section supporting the joist, said foot section being formed with an underlying extension secured to the post side; and a wedge member seated in said foot section and its underlying extension, adapted to tighten the joist against the body section of the bracket member.

In testimony whereof I have signed my name to this specification.

ALAN MacDONALD.