April 23, 1968 J. C. SHOEMAKER 3,378,968

CEMENT FORM STAKE

Filed Oct. 22, 1965

Fig. 1

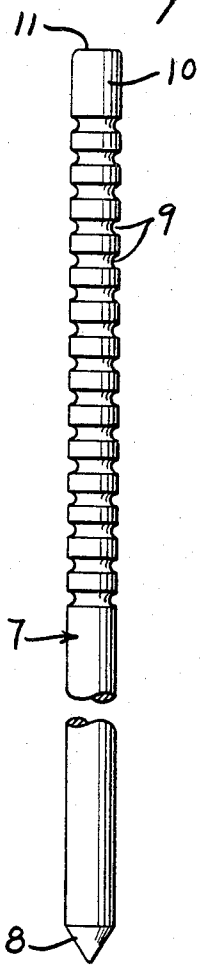


Fig. 3

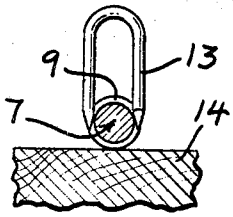


Fig. 4

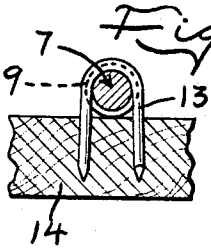


Fig. 2

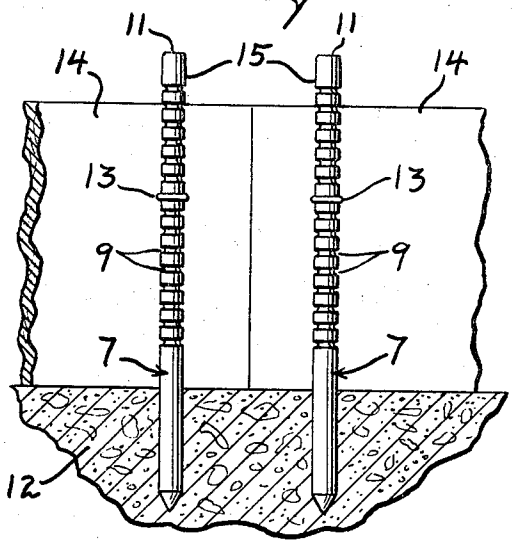


Fig. 5

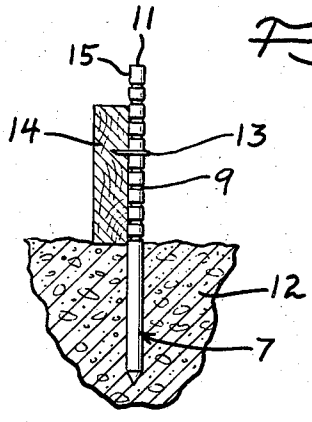
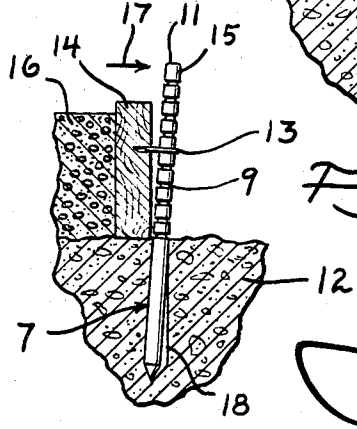


Fig. 6



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CEMENT FORM STAKE

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1 Claim. (Cl. 52—155)

ABSTRACT OF THE DISCLOSURE

This cement form stake is of cylindrical form and of a length sufficiently longer than the width of a form board to be supported thereby, so that it is adapted to be driven into the ground vertically to a pre-determined depth for good support of the board, leaving a length projecting above the board so that the projecting upper end may be struck on the inner side facing the form board to incline the stake away from the standing form board in the form stripping operation to loosen it and enable easier removal. The stake has a pointed lower end and a flat upper end adapted to be hammered upon, and has horizontal annular grooves provided therein in vertically spaced relation adapted selectively to receive a staple at a selected elevation for the fastening of the form board to the stake. U-shaped staples are used to fasten the boards to the stakes, each staple having the legs spaced slightly under the base diameter of the annular groove in which the staple is to be entered to permit hand placement of the staple, frictionally straddling the stake preliminary to driving the staple home in the board.

This invention relates to a forged stake designed for use by cement contractors for the speedy and economical erection and stripping of cement forms and the like.

The principal object is to provide a low-cost but extremely durable forged cement form stake which will avoid all of the objections inherent in the flat wooden stakes previously employed, which were difficult to drive into hard earth and were apt to split either during the driving or the nailing of the form boards thereto, besides having the tendency to turn askew enough to throw the stake out of alignment with the flat nailing surface of the form board, the present stake by virtue of its cylindrical form being easy to drive down to the required depth and then be fastened to the form board usually with one staple entered in any one of a series of parallel annular grooves provided therefor in the upper portion of the stake. The grooves are purposely made of a diameter slighily greater than the span of the staples used for nailing to the form boards so that a staple applied by hand in a groove is not apt to fall out and can be easily driven home with one or two blows of a hammer, for speedier erection of forms and equally speedy stripping later when all that is required is a blow on the inner side of the upper end of the stakes to loosen the staples enough to permit their easy removal, if they don't pop out, the stakes being then also easily removable by reason of the extent of enlargement of the hole in the ground, the grooves adding a non-slip handle grip surface to enable pulling out by hand in many instances.

The invention is illustrated in the accompanying drawing, in which:

FIG. 1 is a side view of a cement form stake made in accordance with my invention, the same being shown about half size with an intermediate portion of the length of the pointed lower end portion broken away to conserve space in the drawing, the stakes being preferably, though not necessarily, about three-quarters of an inch in diameter and about two feet long;

FIG. 2 is a face view of a cement form showing two

stakes made in accordance with my invention stapled to two abutting form boards;

FIGS. 3 and 4 are two views illustrating in FIG. 3 the medium tight fit of the staple to permit application by hand to the stake and in FIG. 4 the way in which the staple when driven home fastens the stake to a board, and

FIGS. 5 and 6 are two cross-sections at right angles to FIG. 2 illustrating in FIG. 5 the supporting position of the stake adjacent to a form board and in FIG. 6 how readily it can be removed by a blow on the upper end from the inner side causing the single staple usually to pop out or loosen sufficiently to permit its easy withdrawal, after which the stake is easily removable from its enlarged hole in the ground.

The same reference numerals are applied to corresponding parts throughout the views.

The steel stake body **7** is forged to cylindrical form as shown with a conical point **8** on its lower end and a series of horizontal annular grooves **9** near the upper end in uniformly spaced parallel relation leaving a plain upper end portion **10**, on the flat top **11** of which the stake will be struck when driven into the ground with a sledge hammer, two of these stakes **7** being so indicated in FIG. 2 driven into the ground **12**. The grooves **9** are large enough to receive a staple **13**, and the base diameter of the grooves is slightly larger than the span of the staples so as to permit entering a staple or staples by hand in any one or more of the grooves **9** with a slight spreading of the legs, so that the workman need not worry thereafter about the staple or staples falling off while he raises or lowers the form board **14** to the level of the grade before driving the staple or staples into the board. Usually one staple **13** is enough for each stake but, of course, more than one may be driven in if that is considered necessary, depending, of course, on how wide the boards are and how firmly anchored one wants the boards to be.

In operation, enough of the head end **10** of each stake **7** is left projecting above the form boards **14**, as indicated at **15** in FIGS. 2, 5, and 6 so that after the cement, indicated at **16** in FIG. 6, has set and it is time to strip off the forms, the workman can strike the stakes on their inner side as indicated by the arrow **17** in FIG. 6 to loosen them and also loosen the staples **12** sufficiently so that they can be easily removed, if they don't pop out by the lateral motion of the stake alone. Then the stakes can be easily pulled out of the ground, because of the widening of the hole, as indicated at **18** in FIG. 6, using a claw hammer, crow bar, or the like, if necessary, entered in any one of the annular grooves **9**. An advantage of the grooved length on the stake is that it forms a non-slip handle for easier pulling out by hand.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. The appended claims have been drawn to cover all legitimate modifications and adaptations.

I claim:

1. In combination, a form board supporting stake comprising an elongated rigid cylindrical metal stake body of a length sufficiently longer than the width of the form board to be supported thereby so that it is adapted to be driven into the ground vertically to a predetermined depth for form-board support leaving a length projecting above the ground level to more than the width of a form board to be backed up thereby, so that the projecting upper end may be struck on the inner side facing the form board to incline the stake away from the standing form board in the form stripping operation, said stake body having a pointed earth entering lower end and a flat upper end that is adapted to be hammered upon and having horizontal annular grooves provided therein in vertically spaced

relation in that portion that is usually above ground level and behind the form board, said grooves being adapted selectively to receive a staple at a selected elevation for the fastening of a form board to the stake, and a U-shaped staple, the legs of which are spaced slightly under the base diameter of the annular groove in which it is entered, whereby to permit hand placement of the staple in the groove frictionally straddling the stake preliminary to driving the staple home in a form board to fasten the latter to the stake.

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