An adjustable concrete form support bracket for bracing a concrete form. The adjustable concrete form bracket includes a body, a stake receiving member, and an interconnecting means for adjustably coupling the body and the stake receiving member together. The body is attachable to a concrete form, and the stake receiving member is constructed to receive a stake inserted into the ground to support the concrete form. The interconnecting means operates to adjust the lateral position of the stake receiving member to adjust the spacing between the concrete form and the stake, and thus, the horizontal or lateral position of the concrete form across the ground surface. In this manner, the stake does not need to be removed from the ground so permit this repositioning of the concrete form. The stake receiving member may include a stake securing means to permit grade adjustment of the concrete form.
ADJUSTABLE CONCRETE FORM SUPPORT BRACKET

FIELD OF THE INVENTION

[0001] The present invention relates generally to concrete form systems. More particularly, the present invention relates to an adjustable concrete form support bracket that is useful in positioning and retaining sections of concrete forms at a desired grade and lateral position.

BACKGROUND OF THE INVENTION

[0002] Flexible sheet metal or wood slat forms are quite often used for pouring concrete structures such as walkways, patios, driveways, etc. Conventionally, the forms are arranged and connected together to correspond to the desired shape of the final concrete structure. Frequently, stakes are driven into the ground around the outside perimeter of the form in an attempt to retain the position of the forms. Quite often, the stakes are not attached to the form sections and the sections are primarily supported by the ground surface. This method creates a problem if the grade of the supporting ground differs from the desired grade of the final concrete structure. To overcome this, certain form support brackets hereofore engage the stake and permit elevation adjustments of the form. However, at times it is desirable to not only position the elevation of the forms to the desired grade, but also adjusting the lateral position of the forms across the support surface may be required. Quite often, during construction of these forms, the spaced distance between two parallel forms along the length of the form from one end to the other may deviate from the desired spacing. The conventional method for correcting this is to pull the stakes at the locations of variance, reposition the form sections, and then redrive the stakes into the ground. This process is very time consuming and may need to be repeated several times until each section is correctly positioned. As such, there is a need for an improved concrete form support bracket that is useful in positioning and retaining sections of concrete forms at a desired grade and lateral position.

SUMMARY OF THE INVENTION

[0003] To overcome the problems discussed above, and other disadvantages inherent in the known types of concrete form systems and concrete form support brackets, the preferred embodiments of the present invention provides a concrete form support bracket of an improved construction that supports a concrete form and that permits elevation and lateral adjustment of a concrete form without requiring the pulling and redriving the securing stake.

[0004] To achieve these and other advantages, in general, and in one aspect, a concrete form bracket attachable to a concrete form for supporting and positioning the form is provided. The concrete form bracket includes a body attachable to a concrete form so as to be at least partially disposed outwardly of an outward facing vertical surface of a concrete form; a stake receiving member; and an interconnecting means for adjustable connecting the stake receiving member to the body such that the stake receiving member is laterally positionable at any location toward and away from the outward facing vertical surface of the concrete form between an inward most position and an outward most position, whereby the lateral position of the concrete form can be adjusted relative to a stake that is secured to a ground surface and that is received by the stake receiving member.

[0005] In general, in another aspect, a concrete form system is provided. The concrete form system includes a concrete form; a form bracket, the form bracket including a body attached to the concrete form so as to be at least partially disposed outwardly of an outward facing vertical surface of the concrete form; a stake receiving member adjustably attached to the body such that the stake receiving member is laterally positionable at any location toward and away from the outward facing vertical surface of the concrete form between an inward most position and an outward most position, whereby the lateral position of the concrete form can be adjusted relative to a stake that is secured to a ground surface and that is received by the stake receiving member.

[0006] In general, in another aspect, a concrete form bracket for supporting and positioning a concrete form both in grade and laterally is provided. The concrete form bracket includes a body attachable to a concrete form so as to be at least partially disposed outwardly of an outward facing vertical surface of a concrete form; a stake receiving member adjustably attached to the body such that the stake receiving member is laterally positionable at any location toward and away from the outward facing vertical surface of the concrete form between an inward most position and an outward most position; and a stake securing bolt operably connected to the stake receiving member for selectively securing a stake to the stake receiving member, whereby the lateral position of the concrete form relative to a stake that is secured to a ground surface and that is received by the stake receiving member is adjusted by adjustment of the lateral position of the stake receiving member, and whereby the grade of the concrete form relative to the ground is adjusted by securing the stake receiving member to the stake at the desired grade by the stake securing bolt.

[0007] There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood and in order that the present contribution to the art may be better appreciated.

[0008] Numerous objects, features and advantages of the present invention will be readily apparent to those of ordinary skill in the art upon a reading of the following detailed description of presently preferred, but nonetheless illustrative, embodiments of the present invention when taken in conjunction with the accompanying drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of descriptions and should not be regarded as limiting.

[0009] As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based, may readily be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

[0010] For a better understanding of the invention, its operating advantages and the specific objects attained by its use, reference should be had to the accompanying drawings and
descriptive matter in which there is illustrated preferred embodiments of the invention.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0011] The accompanying drawings, which are included to provide further understanding of the invention and are incorporated in and constitute a part of this specification, illustrate preferred embodiments of the invention and together with the description serve to explain the principles of the invention, in which:

[0012] FIG. 1 is a perspective view of a concrete form system including the concrete form support bracket constructed in accordance with the present invention; and

[0013] FIG. 2 is a perspective view of the concrete form support bracket removed from a concrete form;

[0014] FIG. 3 is a top plan view of the concrete support bracket; and

[0015] FIG. 4 is a cross-section view of the concrete support bracket taken along line 4-4 in FIG. 3.

**DETAILED DESCRIPTION OF THE INVENTION**

[0016] Referring now to the drawings, reference numeral 10 generally designates the adjustable concrete form support bracket of the present invention. With particular reference to FIG. 1, there is shown a partial section of a concrete form 100 used for pouring a concrete structure 102. The concrete form 100 is shown as a typical wooden slat form having an outward facing vertical surface 104. The concrete form support bracket 10 is attached to the concrete form 100 at the vertical surface 104 by fasteners 106 and is held in place by a stake 108 that is inserted into the ground surface 110. The concrete form 100 may be of other suitable materials, such as, but not limited to metal and plastic. The concrete form support bracket 10 will be attached to the concrete form 100 using an appropriate method for the material in which the concrete form is made. The concrete form support bracket 10 comprises a body 12, a stake receiving member 14, and an interconnecting means 16 for adjustable coupling the body and the stake receiving member together.

[0017] With reference to FIGS. 1-4, the body 12 is of a general C-shaped construction including two side members 18 and 20, and a back member 22 connected to and extending between each side member. An attachment flange 24 extends generally perpendicular from side member 18 opposite of the back member 22, and an attachment flange 26 extends generally perpendicular from side member 20 opposite of back member 22. The body 12 may be produced rapidly and inexpensively by roll forming methods of metal sheet material. Alternatively, the body 12 may be formed from separate pieces of steel plate welded together or may be cast formed or molded from other suitable materials. The flanges 24 and 26 provide a bracing surface 28 against the concrete form 100. The bracing surface 28 is generally placed flush against the outward facing vertical surface 104 of the concrete form 100. Preferably, the bracing surface 28 is generally flat. A plurality of apertures 30 on each flange 24 and 26 may be provided permitting the concrete form support bracket 10 to be attached to the concrete form 100 with screws, nails or other fasteners 106. Alternatively, the concrete form support bracket 10 may be attached to a metal concrete form by welding, or may be integrally molded to a plastic concrete form.

[0018] The stake receiving member 14 provides a means for receiving the stake 108 that will hold the concrete form 100 in place during forming of the concrete structure. The stake receiving member 14 is positioned into a receiving area 32 defined by the side members 18 and 20 and the back member 22 of the body 12. The receiving area 32 is generally elongated in a direction perpendicular to the back member 22 and is dimensioned to permit horizontal or lateral movement of the stake receiving member 14 towards and away from the back member. The stake receiving member 14 can be constructed in any number of configurations so long as it securely, yet removably engages the stake 108. The stake receiving member 14 may comprise a hollow tube 34 having an inner diameter corresponding to the outer diameter of the stake 108, and is of a sufficient length to hold a stake within it and to prevent the stake from pivoting within the stake receiving member. As shown, the tub 14 has a circular cross-section to correspond to the circular cross-section of the stake 108. Alternatively, the cross-section of the tube 34 may have another shape, such as square, rectangular or triangular to correspond to or otherwise accommodate stakes of other cross-sections.

[0019] The stake receiving member 14 is adjustably attached to the body 12 by the interconnecting means 16, which permits the stake receiving member to be positioned at any location between an inner most and outer most position. The outer most position being the farthest from the back member 22 and the closest to the vertical surface 104 of the concrete form 100. The inner most position being the closest to the back member 22 and the farthest from the vertical surface 104 of the concrete form 100. In this manner, with the concrete form 100 attached to the concrete form support bracket 10, which is held in place by stake 108, the lateral or horizontal position of the concrete form relative to the stake can be adjusted inwardly or outwardly by adjusting the position of the stake receiving member 14. Adjusting the position of the stake receiving member 14 towards the inner most position, as shown in FIG. 3, increases the distance between the stake 108 and the form 100. Adjusting the position of the stake receiving member 14 towards the outer most position decreases the distance between the stake 108 and the form 100. Accordingly, the horizontal positioning of the form 100 across the ground surface can be adjusted without requiring removal of the stake 108 from the ground surface.

[0020] Referring to FIG. 4, the interconnecting means 16 may comprise a threaded shaft 36 that is threadably received by a hole 37 in the back member 22. End 38 of the shaft 36 is connected to the stake receiving member 14 in a manner that permits the shaft to rotate about its longitudinal axis, and which permits the shaft to apply a pushing and pulling force to the stake receiving member. The opposite end 40 of the shaft 36 can be fitted with a handle, knob or formed to receive a separate driving tool, such as a wrench, such as shown. Alternatively, the shaft 36 and the hole may not be threaded, and a clamp, cam lock or the like may be provided to lock the shaft in position.

[0021] Additionally, the stake receiving member 14 may include a stake securing means 42. The stake securing means 42 serves to hold the stake 108 in place once received by the stake receiving member. The stake securing means 42 operates to selectively engage the stake 108, such that the position of the stake in the stake receiving member 14 may be adjusted. In this manner, the elevation or grade of the concrete form 100 may be adjusted by selectively raising or lowering
the concrete form support bracket 10 on the stake 108. The stake securing means 42 may comprise one or more set screws or lock bolts 44 which are tightened against the stake 108. The one or more lock bolts 44 may extend through a longitudinal slot 46 on the respective side member 18 or 20.

A number of embodiments of the present invention have been described. Nevertheless, it will be understood that various modifications may be made without departing from the spirit and scope of the invention. Accordingly, other embodiments are within the scope of the following claims.

What is claimed is:

1. A concrete form bracket attachable to a concrete form for supporting and positioning the form, the bracket comprising:
   a body attachable to an outward facing vertical surface of a concrete form;
   a stake receiving member; and
   an interconnecting means for adjustable connecting said stake receiving member to said body such that said stake receiving member is laterally positionable at any location toward and away from the outward facing vertical surface of the concrete form between an inward most position and an outward most position, whereby the lateral position of the concrete form can be adjusted relative to a stake that is secured to a ground surface and that is received by said stake receiving member.

2. The concrete form bracket of claim 1, further comprising:
   a stake securing means for selectively securing a stake to said stake securing member, whereby the elevation of the concrete form can be adjusted relative to a ground surface to which a stake is secured and is received by the stake receiving member.

3. The concrete form bracket of claim 1, wherein said stake receiving member comprises a vertically oriented tubular body open at both ends through which a stake is insertable.

4. The concrete form bracket of claim 1, wherein said interconnecting means includes:
   a bolt threadably received by an aperture through said body and being rotatably connected at one end to said stake receiving member, whereby rotation of said bolt adjusts the lateral position of said stake receiving member.

5. The concrete form bracket of claim 4, wherein said body defines a receiving portion into which said stake receiving member is disposed.

6. The concrete form bracket of claim 5, wherein said receiving portion is defined by at least a forward surface, a first side surface, and a second side surface; and wherein said aperture is through said forward surface.

7. A concrete form system, comprising:
   a concrete form;
   a form bracket, said form bracket including:
   a body attached to said concrete form so as to be at least partially disposed outwardly of an outward facing vertical surface of said concrete form;
   a stake receiving member adjustably attached to said body such that said stake receiving member is laterally positionable at any location toward and away from the outward facing vertical surface of said concrete form between an inward most position and an outward most position, whereby the lateral position of said concrete form can be adjusted relative to a stake that is secured to a ground surface and that is received by said stake receiving member.

8. The concrete form system of claim 7, further comprising a stake securing bolt operably connected to said stake receiving member for selectively securing a stake to said stake receiving member, whereby the elevation of said concrete form can be adjusted relative to a ground surface to which a stake is secured and which is received by said stake receiving member.

9. The concrete form system of claim 7, wherein said stake receiving member comprises a vertically oriented tubular body open at both ends through which a stake is insertable.

10. The concrete form system of claim 7, further comprising:
    a bolt threadably received by an aperture through said body and being rotatably connected at one end to said stake receiving member, whereby rotation of said bolt adjusts the lateral position of said stake receiving member.

11. The concrete form system of claim 10, wherein said body defines a receiving portion into which said stake receiving member is disposed.

12. The concrete form system of claim 11, wherein said receiving portion is defined by at least a forward surface, a first side surface, and a second side surface; and wherein said aperture is through said forward surface.

13. A concrete form bracket for supporting and positioning a concrete form both in grade and laterally, the form bracket comprising:
    a body attachable to a concrete form so as to be at least partially disposed outwardly of an outward facing vertical surface of a concrete form;
    a stake receiving member adjustably attached to said body such that said stake receiving member is laterally positionable at any location toward and away from the outward facing vertical surface of said concrete form between an inward most position and an outward most position; and
    a stake securing bolt operably connected to said stake receiving member for selectively securing a stake to said stake receiving member, whereby the lateral position of the concrete form relative to a stake that is secured to a ground surface and that is received by said stake receiving member is adjusted by adjustment of the lateral position of said stake receiving member, and whereby the grade of the concrete form relative to the ground is adjusted by securing said stake receiving member to the stake at the desired grade by said stake securing bolt.

14. The concrete form system of claim 13, further comprising:
    a bolt threadably received by an aperture through said body and being rotatably connected at one end to said stake receiving member, whereby rotation of said bolt adjusts the lateral position of said stake receiving member.

15. The concrete form of claim 14, wherein said body defines a receiving portion into which said stake receiving member is disposed.

16. The concrete form system of claim 15, wherein said receiving portion is defined by at least a forward surface, a first side surface, and a second side surface; and wherein said aperture is through said forward surface.

17. The concrete form system of claim 13, wherein said stake receiving member comprises a vertically oriented tubular body open at both ends through which a stake is insertable.

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