United States Patent

[11] 3,595,514

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[45] Patented **July 27, 1971**

[54] **ADJUSTABLE FORM FOR POURED CONCRETE CONSTRUCTION**
13 Claims, 18 Drawing Figs.

[52] **U.S. Cl.** ..... **249/13,** 249/192, 25/131 YF, 249/50, 249/47
[51] **Int. Cl.** **B28b 7/22**
[50] **Field of Search** ..... 249/13, 18, 26, 50, 33, 34, 47, 155, 158, 160, 161, 162, 163, 189, 192, 195; 25/131 SA, 131 SB, 131 M, 131 P, 131 YF

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ABSTRACT: An adjustable preassembled and self-contained form comprising a pair of laterally spaced braced form walls pivotally suspended from a series of overhead crossbeams or outriggers. The form walls are adjustable so as to assume either a parallel forming position or an outwardly swung placing and removal position. End walls are also provided for relative adjustment to vary the effective length of the form.

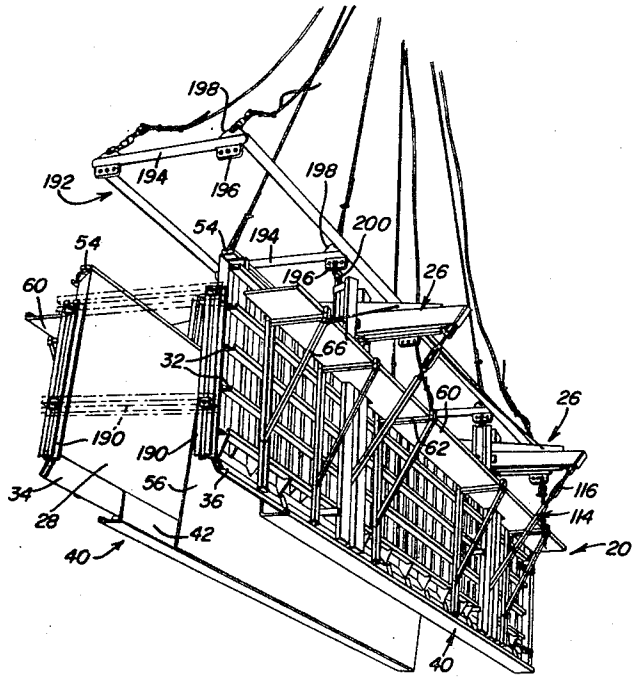
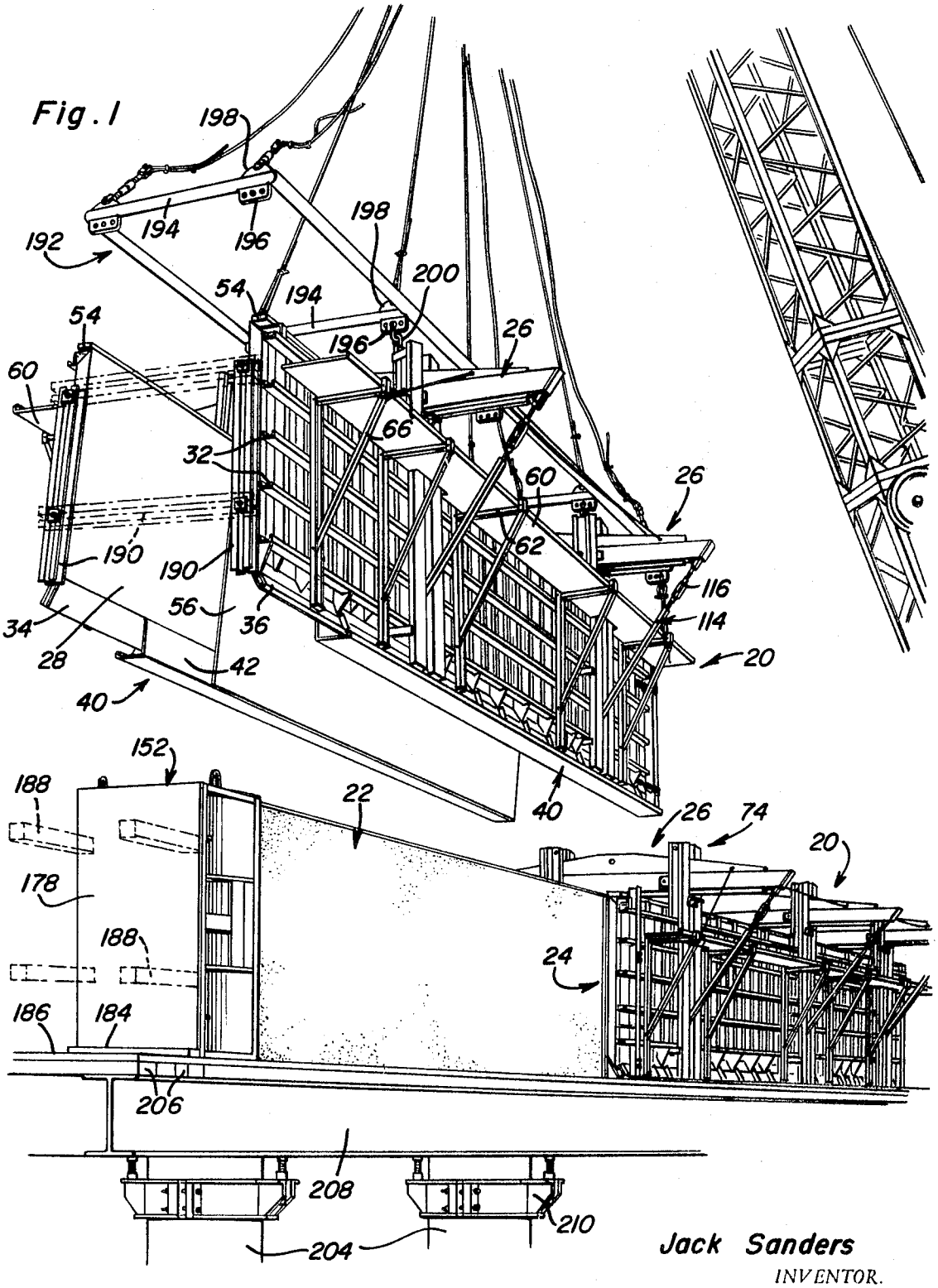


Fig. 1



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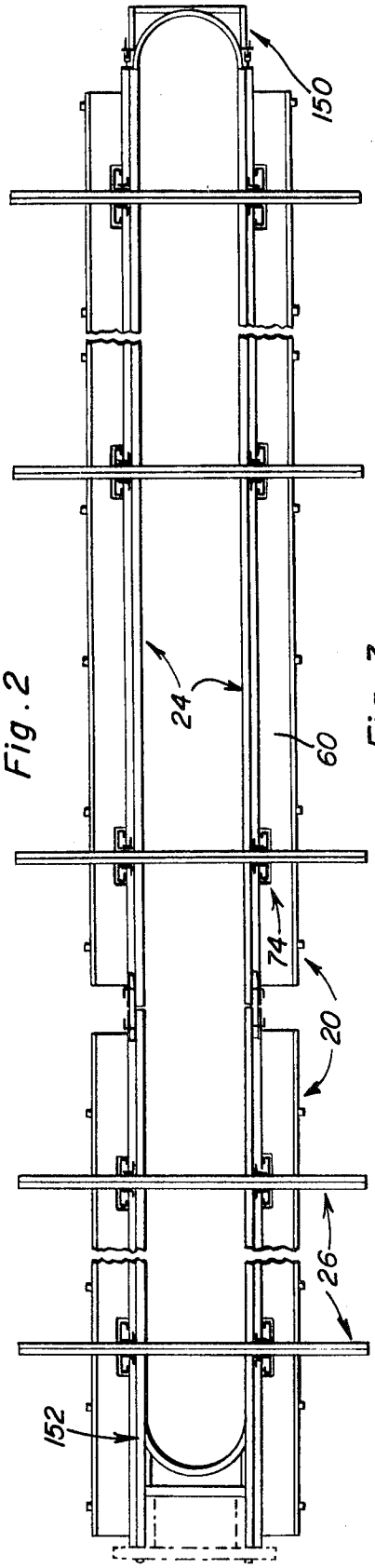


Fig. 2

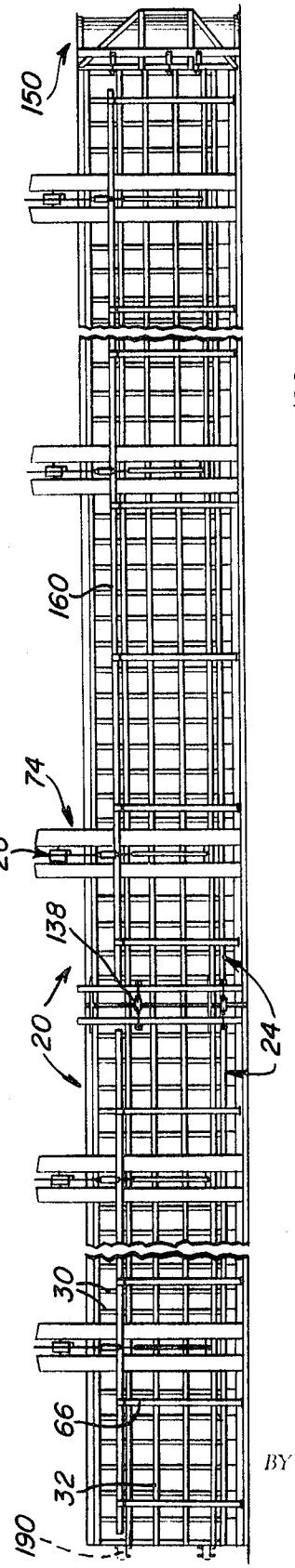


Fig. 3

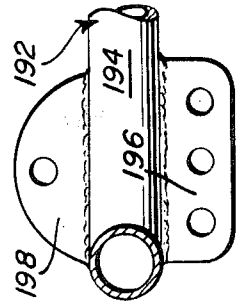


Fig. 18

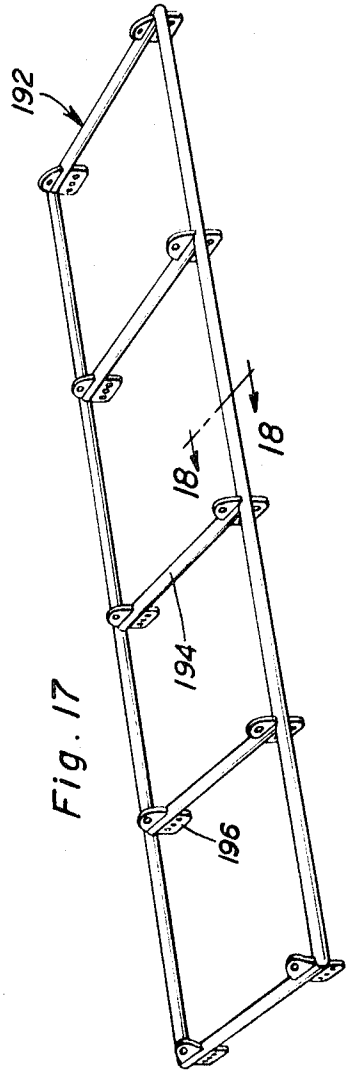


Fig. 17

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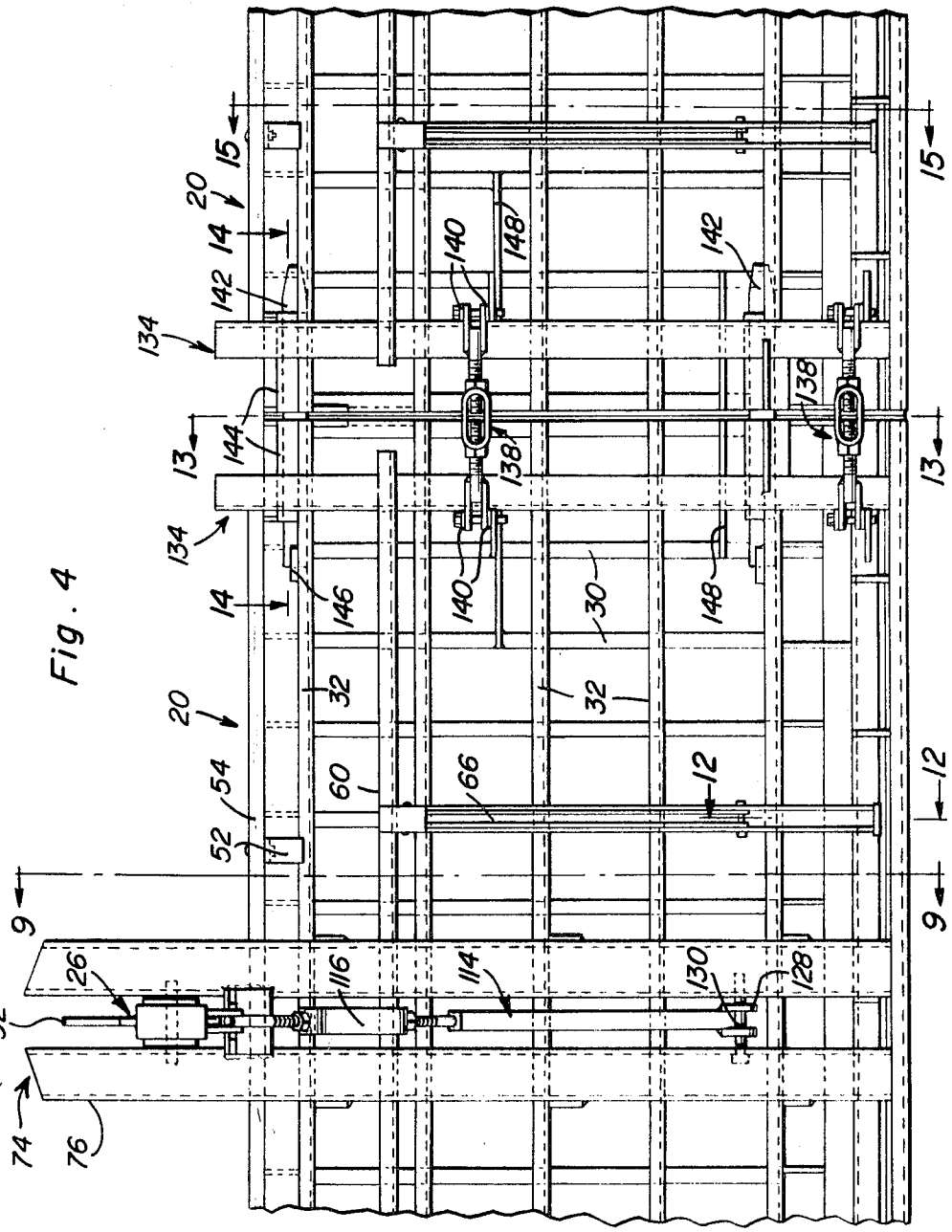


Fig. 4

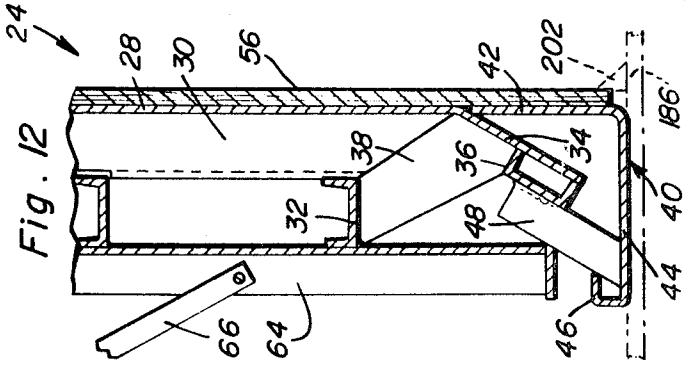


Fig. 12

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Fig. 6

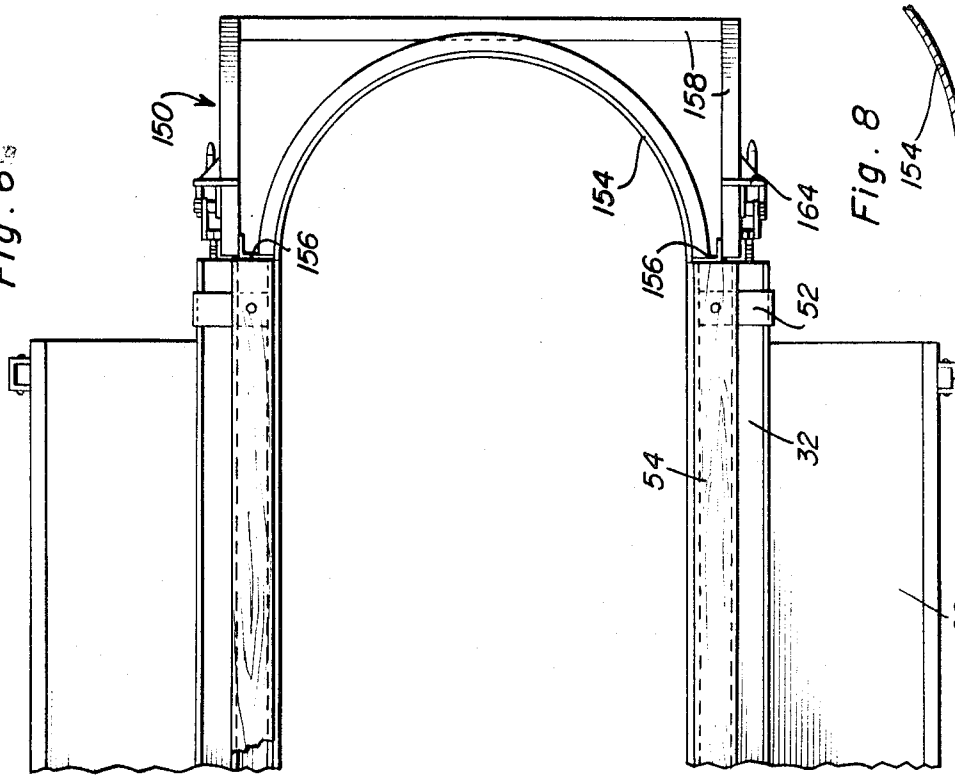


Fig. 8

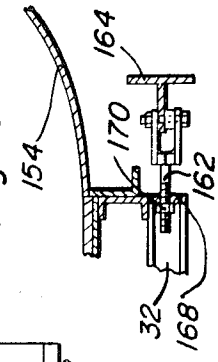


Fig. 5

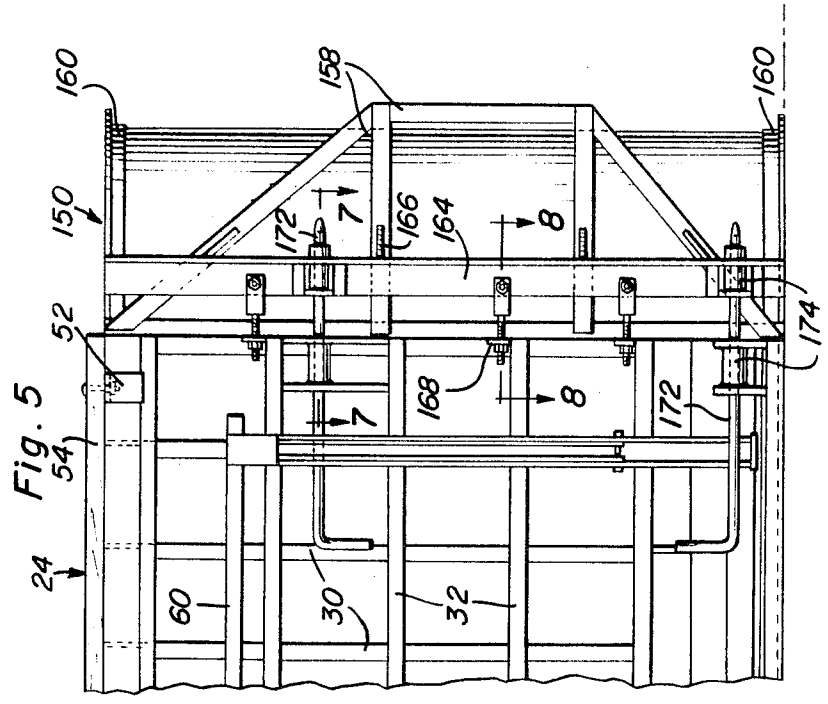
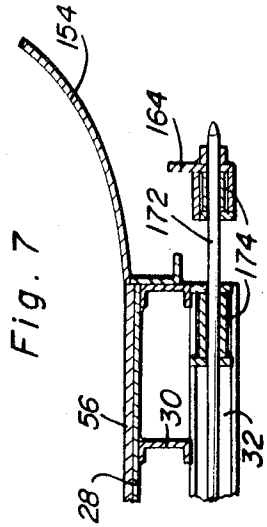


Fig. 7



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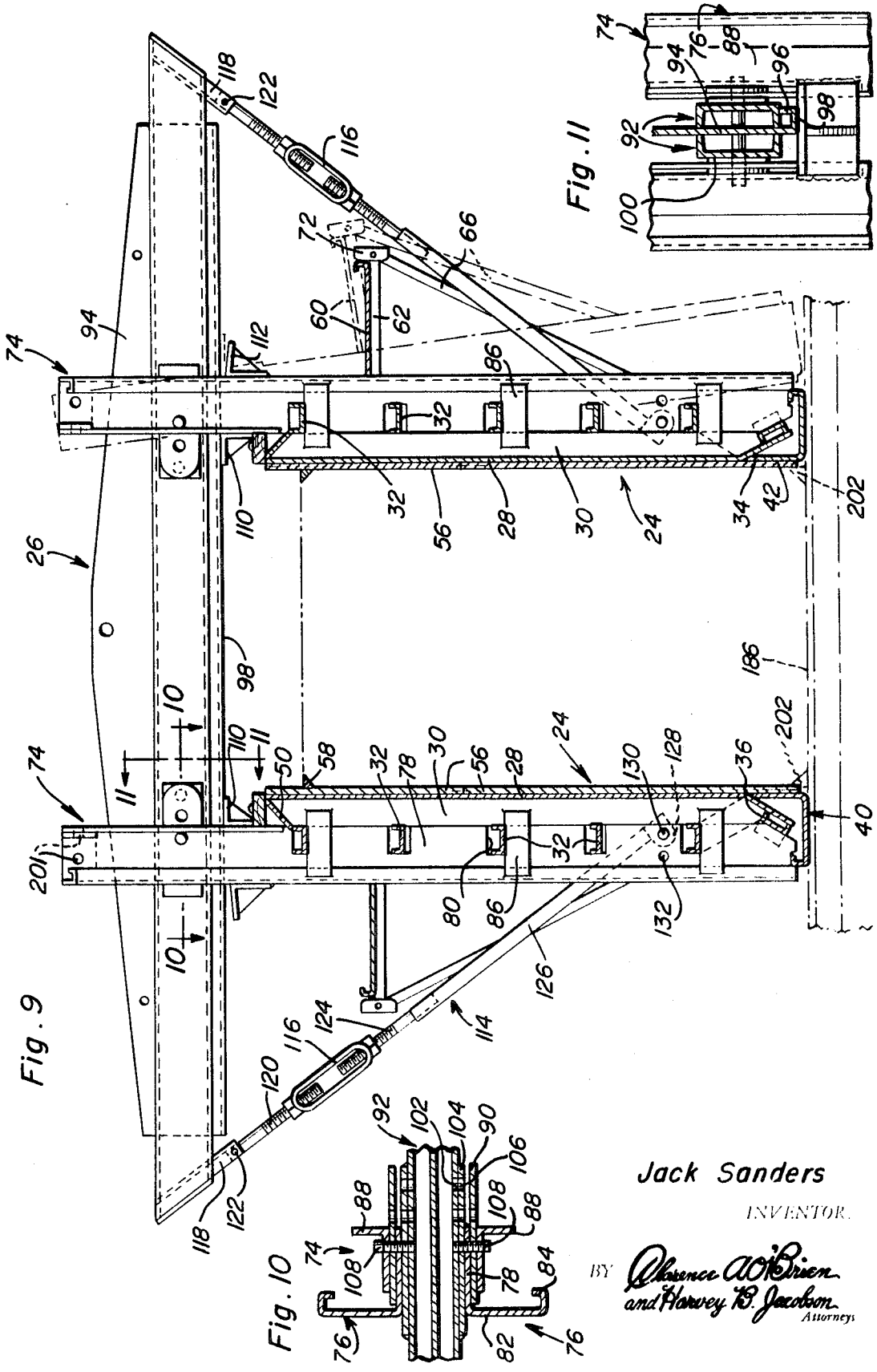

Fig. 9
Fig. 10
Fig. 11
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Fig. 14

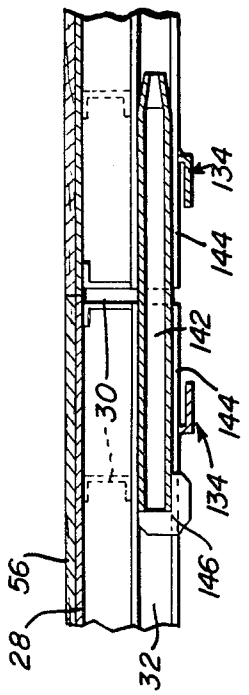


Fig. 16

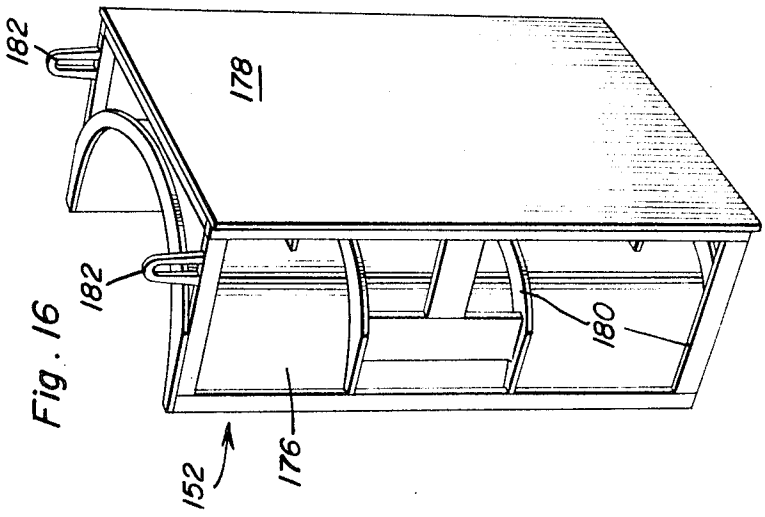


Fig. 15

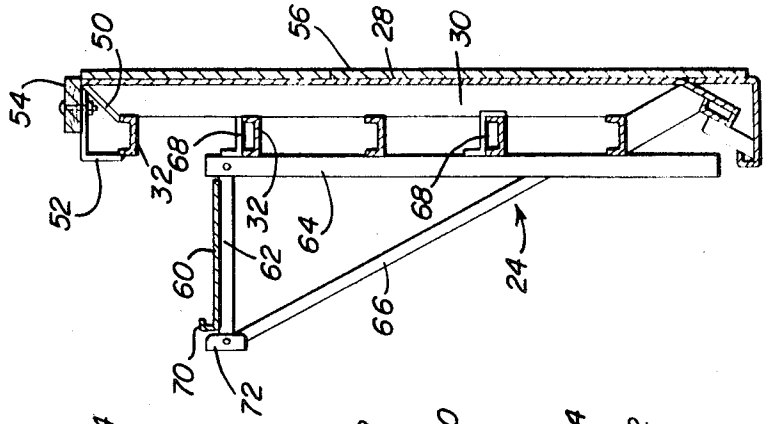
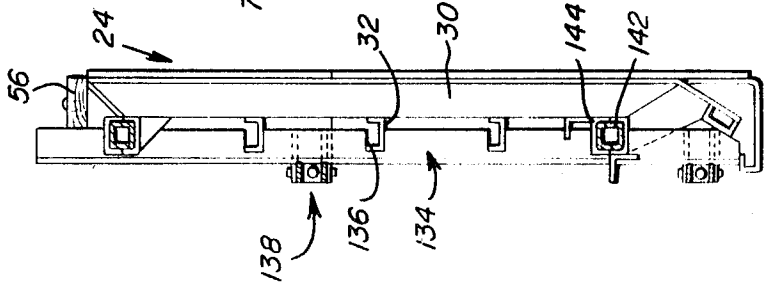


Fig. 13



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ADJUSTABLE FORM FOR POURED CONCRETE CONSTRUCTION

The instant invention is generally concerned with concrete form work, and more particularly relates to a unique self-contained preassembled form which can be positioned and removed as a unit, eliminating the time-consuming manual construction and dismantling as is now commonly required in field concrete work.

A significant object of the instant invention resides in the provision of a completely constructed form which, in addition to being both positionable and removable as a unit, is adjustable for use in the formation of different size poured concrete units, the vertical nature of the form making it particularly adaptable for use in the forming of bridge bent caps, walls, footings, and the like.

Another significant feature of the instant invention resides in the elimination of interior fasteners normally utilized in securing opposed form walls for the pouring operation. This elimination of the internal fasteners, through the exteriorly braced unitized construction of the instant invention, in turn eliminates the labor, time and materials normally required to remove the interior fasteners or ties and patch up the holes left thereby so as to finish the exterior faces of the concrete.

Particularly significant with regard to the elimination of the necessity for manually constructing and dismantling the form work is the fact that forming costs utilizing the form of the instant invention are reduced to approximately one-quarter to one-fifth of the costs utilizing conventional forming methods.

Basically, the above advantages are achieved through the provision of a pair of laterally spaced braced rigid forming walls pivotally secured to and depending from a series of overhead crossbeams or outriggers with the walls being both pivotally adjustable toward each other for facilitating a placing and removal of the form, and slidably adjustable toward each other so as to adapt the form for use in the formation of different thickness walls or the like. In addition, the form is provided with a pair of end walls, at least one of which is adjustably positionable so as to vary the length of the pour.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a perspective illustration of two forms constructed in accordance with the instant invention, one being removed upon the completion of the forming operation;

FIG. 2 is a top plan view of a pair of adjustable forms constructed in accordance with the instant invention;

FIG. 3 is a side elevational view of a joined pair of forms;

FIG. 4 is an enlarged side elevational detail illustrating, among other things, the joining structure between a pair of aligned forms;

FIG. 5 is an elevational detail at one end of the form work,

FIG. 6 is a top plan view of the end structure of FIG. 5;

FIG. 7 is an enlarged cross-sectional detail taken substantially on a plane passing along line 7–7 in FIG. 5;

FIG. 8 is an enlarged cross-sectional detail taken substantially on a plane passing along line 8–8 in FIG. 5;

FIG. 9 is a transverse cross-sectional view through the form of the instant invention, taken substantially on a plane passing along line 9–9 in FIG. 4;

FIG. 10 is an enlarged cross-sectional detail taken substantially on a plane passing along line 10–10 in FIG. 9;

FIG. 11 is an enlarged cross-sectional detail taken substantially on a plane passing along line 11–11 in FIG. 9;

FIG. 12 is an enlarged cross-sectional detail taken substantially on a plane passing along line 12–12 in FIG. 4;

FIG. 13 is a cross-sectional detail taken substantially on a plane passing along line 13–13 in FIG. 4;

FIG. 14 is an enlarged cross-sectional detail taken substantially on a plane passing along line 14–14 in FIG. 4;

FIG. 15 is a vertical cross-sectional view taken substantially on a plane passing along line 15–15 in FIG. 4;

FIG. 16 is a perspective view of the adjustable end or end wall used at the end of the form work opposite from that illustrated in FIGS. 5 and 6;

FIG. 17 is a perspective view of the lift cradle utilized in the positioning of the form; and

FIG. 18 is an enlarged cross-sectional detail taken substantially on a plane passing along line 18–18 in FIG. 17.

Referring now more particularly to the drawings, reference numeral 20 has been used to generally designate a form constructed in accordance with the instant invention. This form 20 can be used either by itself or in series with similarly constructed forms depending upon the length of the particular pour. For example, FIG. 1 illustrates the use of two forms 20, one of which is being removed subsequent to a sufficient hardening of the formed concrete structure 22. FIGS. 2, 3 and 4 likewise illustrate adjacent interlocked forms, FIGS. 4, 13 and 14 are illustrating details of the form-joining construction.

The form 20 basically includes a pair of vertically oriented laterally spaced form sidewalls 24 pivotally suspended from a series of transversely extending overhead crossbeams or outriggers 26. Each sidewall 24 includes a flat steel skin 28 externally braced by a series of laterally spaced vertical channel bar ribs 30 welded directly to the outer face of the skin or plate 28. Vertically spaced horizontally extending channel bar stiffeners 32 extend transversely across the outer flanges of the vertical ribs 30 and are welded thereto for further bracing and rigidifying the sidewall construction. As will be possibly best appreciated from the enlarged sectional view of FIG. 12, the lower edge portion 34 of the metal skin 28, which may, as an example, be 3/16-inch steel, is angled outwardly along the full length thereof and has and elongated stiffening bar 36 welded to the outer face thereof. The lower end of each of the vertical ribs 30 is appropriately cut so as to terminate at or slightly above the angled lower edge portion 34 of the skin 28. Further, gussets or bracing plates 38 are provided between the angled portion 34 and the lowermost horizontal stiffener 32 at spaced points therealong, being welded to each so as to provide an additional degree of stability.

An elongated right angular metal bearing shoe 40 is provided along substantially the full length of each sidewall 24. The bearing shoe 40 including a vertical flange 42 affixed to the skin 28 along the line at which the lower edge portion 34 angles outwardly, this vertical flange 42 forming a coplanar continuation of the skin downwardly to a point below the lower extremity of the angled lower edge portion 34, at which point it integrally meets the outwardly extending horizontal flange 44 which forms the bearing or support surface for the corresponding wall 24. This horizontal flange 44 terminates in a reversely curled outer edge portion 46 and is rigidly braced by bracing plates 48 extending between and welded to both the horizontal flange 44 toward the curled outer edge 46 thereof, and the rigidifying bar 36 fixed to the edge portion 34 of the skin 28, such bracing plates 48 being provided at longitudinally spaced points along the bearing shoe 40.

The upper end of each of the vertical ribs 30 is cut at an angle downwardly and outwardly with a longitudinally extending rigidifying plate 50 being welded to these cut ends. Noting FIG. 15, a series of right angular brackets 52 are welded to both the upper edge of the plate 50 and the outer flange of the uppermost horizontal stiffener 32 with these brackets 52 in turn having an elongated wood beam or plate 54 bolted thereto for use in supporting special concrete forms for any formations which might be desired on top of the main poured structure 22, such as for example girder risers or pads, assuming the structure 22 is a bridge bent cap.

The sidewalls 24 also include plywood facing panels 56 screwed or otherwise directly secured to the steel skin 28 so as to form the actual forming face, such plywood panels 56 normally being waxed or otherwise provided with a release substance immediately prior to each pour. As will be noted from FIG. 9, the plywood forming panels 56 are provided with an

elongated wood chamfer **58** nailed therealong toward the upper edge thereof, the opposed chamfers **58** being used to define the height or upper limit of the pour. As will be appreciated, the chamfers **58** can be positioned at any required height. Further, noting FIG. **1**, the plywood facing panels **56** need only extend along that portion of the length of the form **20** which is to actually be utilized.

A scaffold or walkway **60** is provided along substantially the full length of each form sidewall **24** to the outer side thereof, the walkway being supported on a series of horizontal outwardly projecting arms **62**, each having the inner end thereof rigid with a vertical mounting post **64** and the outer end thereof stabilized by a diagonal brace **66**. Each post **64** in turn has a pair of upper and lower inwardly directed Z-shaped brackets **68** which are received over a pair of upper and lower horizontal stiffeners **32** with the inner edge of the post **64** engaged against the outer edges of the stiffeners **32**, thus suspending the entire walkway unit in a stable manner on the braced outer face of the corresponding sidewall **24**. The walkway **60** itself includes a curled outer edge portion **70** which acts so as to rigidify the walkway, especially between horizontal support bars **62**. In addition, short upward directed retaining members **72** are provided so as to confine the walkway **60** against outward movement off of the support structure.

The mounting of the sidewalls **24** on the crossbeams **26** is effected by column units **74**, each of which includes a pair of column members **76** which receives the corresponding crossbeam or outrigger **26** therebetween. Each column member **76** is formed of an angle plate having a first flange **78** notched as at **80** for reception over the horizontal stiffeners **32** to which it is welded. In addition, each column member **76** includes an outer flange **82** integral with the first flange **78** and paralleling the wall **24** in outwardly spaced relation thereto, this flange **82** terminating in a reversely curled stiffened edge portion **84**. Transverse braces **86** are also welded between the curled outer edge portion **84** and adjoining ones of the vertical ribs **30** at vertically spaced points along the column members **76**, preferably in direct supporting underlying relation to selected ones of the horizontal stiffeners **32** as will be best recognized from FIG. **9**.

As will be appreciated, the column units **74** project both above the corresponding sidewall **24** and above the overlying crossbeam **26** with each column member **76**, from the uppermost horizontal stiffener **32** upward, having an angle member **88** rigidly affixed to the flange **78** with one flange of the angle member **88** being in opposed parallel relation to the column member flange **82** and with an inwardly projecting apertured mounting plate **90** being rigidly affixed between the column member flange **76** and the flange of the member **88** secured thereto. Attention is particularly directed to FIG. **10** for this construction.

The crossbeams or outriggers **26**, noting FIGS. **9**, **10** and **11**, consist, in each instance, of a pair of opposed inwardly facing channel beams **92** welded to the opposed vertical faces of a relatively higher plate beam **94** which extends both above and below the channel beams **92** and terminates short of the opposed ends of these beams **92**. The lower edge portion of the plate beam **94**, below the opposed channel beams **92**, is reversely bent as at **96** to provide a flat downwardly directed bearing edge **98**. The opposed webs **100**, in the vicinity of the two column units **74** through which the particular crossbeam **26** passes, are provided with a series of pin-receiving apertures **102** therethrough, in addition to an apertured overlying plate **104**, the apertures **106** in which align with the apertures **102**. The aligned apertures **102** and **106** selectively receive pivot pins **108** extended through similar aligned apertures provided in each flange **78** of the column members **76**, as well as the angle member flanges secured thereto and the sandwiched apertured ears **90** so as to in effect pivotally suspend the corresponding wall **24** on the crossbeams **26**. The provision of a series of apertures allows for a lateral adjustment of the walls **24** toward and away from each other so as to vary the width of the pour and thus adapt the form **20** for a range of different projects. Further, after a pivotal adjustment of the walls **24**, bringing these walls to a vertical orientation, additional pins **108** can be inserted so as to act to assist in locking the walls **24** against outward swinging and further stabilize these walls during the actual pouring of the concrete.

With reference to FIG. **9** in particular, it will be noted that a braced angle member **110** is welded to the coplanar inner flanges of the angle members **88** associated with each column unit **74** with the upper flange of each angle member **110** being horizontally orientated so as to abut the flat bearing surface **98** of the beam **26** as the sidewalls **24** come to a completely vertical position, thereby functioning as stops for insuring a proper positioning of the walls and so as to preclude an overswinging of these walls **24** inwardly toward each other, providing in effect a self-aligning or plumbing feature. By the same token, these angle member stops **110** also contribute significantly to preventing any tendency for the form to sway or collapse laterally.

A similar braced angle stop **112** is affixed across the column members **76** of each column unit **74** on the outer face thereof, the stop angles **112** differing from the angles **110** in that the upper crossbeam engaging flanges thereof are angled, relative to the vertical flange, at a less than 90° angle so as to allow for an outward swinging of the corresponding sidewall **24** as illustrated in phantom lines with regard to the right-hand wall **24** in FIG. **9**. In other words, the angle stops **112** allow for a predetermined outward swinging of the sidewalls **24**, this outward swinging being limited by an engagement of the acutely angled upper flanges thereof with the lower bearing surfaces **98** of the crossbeam **26**.

The actual adjustment of the opposed sidewalls **24** is effected by a plurality of elongated braces **114** adjustably extensible and retractable through an interposed turnbuckle unit **116** through which the effective length of the corresponding brace **114** can be increased or decreased, causing a corresponding swinging movement of the sidewall. The upper end of each of the braces **114** includes an upper extension **118** rigidly welded to one outer end of a crossbeam **26** and angled downwardly and inwardly toward the adjoining wall **24**, and an elongated threaded rod **120** pinned, as at **122**, to the lower end portion of the rigid extension **118**, this threaded rod **120** constituting a part of the turnbuckle unit in conjunction with an opposed threaded rod portion **124**. The rod portion **124** constitutes a rigid extension of the brace portion **126** which carries a pair of laterally projecting ears **128** on the lower end thereof for a pinning of the lower end of the brace **114** to the corresponding column unit **74** by means of a transversely extending pin **130** engaged through the apertured ears **128** and one of two pairs of opposed holes **132** formed through the opposed flanges **78** of the column members **76**. The two pairs of aligned holes **132** provide for a degree of adjustability in pivotally fixing the lower ends of the braces **114**. As will be appreciated, one brace is mounted between each crossbeam end and the adjoining column unit **74**.

When two of the forms **20** are to be used so as to increase the effective length of the pour, a first form will be positioned and the second form brought into alignment therewith and secured thereto in a manner which will be best appreciated from FIGS. **4**, **13** and **14**. Basically, each of the forms **20** is provided with a column **134** adjacent the particular end of the form **20** which is to be aligned with the adjacent form. This column **134** is notched as at **136** so as to receive the horizontal stiffeners **32** to which the column **134** is permanently welded. The opposed columns **134** mount upper and lower turnbuckle units **138** between mounting ears **140** welded to the columns **134** and projecting outwardly therefrom. The turnbuckle units **138**, in use, overlie the outer faces of the columns **134** and are of course pinned to both sets of ears **140**. During nonuse, the turnbuckle units **138** can be unpinned from one set of mounting ears **140** and swung about the pins associated with the second pairs of ears so as to release the two forms **20**. Alignment of the two forms **20** is further ensured by means of enlarged upper and lower alignment pins **142** which are rectan-

gular in cross section and received through aligned rectangular sleeves **144** welded to the upper and lower channel-shaped horizontal stiffeners **32**. An appropriate stop **146** can be associated with one end of each of the alignment pins **142** with the end of the pin **142** opposed from the stop **146** being tapered so as to facilitate its insertion into a prepositioned form **20** as the second form **20** is moved into position adjacent thereto. Appropriate bracing plates **148** can be provided as needed to rigidify the columns and insure a proper transfer of stress from the tensioned turnbuckle units **138** to the sidewalls **24**.

The longitudinal ends of the pour, whether utilizing one or more forms **20**, are defined by end walls **150** and **152**. The end wall **150**, noting FIGS. **5—8**, includes a forming panel or face **154** shaped to the desired configuration for the end of the structure **22**, in this instance semicylindrical. The forming panel **154**, normally formed of sheet metal, is appropriately braced and rigidified both by reversely bending the opposed vertical edge portions **156** thereof and providing a network of rigid bracing bars **158** welded to the outer surface thereof, including upper and lower edge rigidifying angle members **160** which are conformed to the shape of the panel **154** and welded thereto. The reversely bent vertical edge portions **156** form flat abutment faces which engage against the adjoining end of the form **20**, normally the endmost vertical ribs **30**.

The actual locking of the end wall **150** to the adjoining form end is effected through a series of bolts **162** which are pivotally mounted to a pair of T columns **164** extending vertically along the opposed sides of the end wall **150** adjacent the free edges thereof, these columns **164** of course being rigidly welded to the end wall bracing structure, utilizing gusset plates **166** as required. Each of the bolts **162** is swingable to an extended position whereby the threaded end thereof is received within an upwardly opening notched plate **168** normally positioned on and welded to the end of one of the horizontal stiffeners **32**. After a seating of the bolts **162** within the corresponding notched plates **168**, the nuts **170** on the bolts **162** are tightened so as to effectively draw the end wall **150** against the form sidewalls **24** for a clamped engagement thereagainst. The actual alignment of the end wall **150** with the sidewalls **24** is facilitated by means of elongated alignment pins **172** which are slidably received through upper and lower pairs of alignment sleeves **174** fixed to both the sidewalls **24** and an aligned portion of the end wall **150**.

The second end wall **152**, noting FIGS. **1**, **2** and **16**, is slidably received within the opposite end of the form work and positioned therein at a depth corresponding to the desired length of the structure **22** being formed. This end wall **152** is basically similar to the end wall **50**, including a braced forming panel or sheet **176**. The end wall **152** differs from the end wall **150** in that the end wall **152** does not include the side columns **164** or the associated alignment and clamping means. In addition, the end wall **152** has a full height flat back panel **178** rigidly affixed to the bracing members **180**, as well as a pair of upwardly directed hangers **182** for use in facilitating the positioning of the end wall **152**.

The end wall **152** is of course of a size so as to be slidably although snugly received between the opposed sidewalls **24**. With reference to FIG. **1**, as previously noted, the plywood facing panels **56** can and will preferably terminate at the point corresponding to the location of the adjustable end wall **152**.

The end wall **152** is maintained in position by means of a beam **184**, normally a 2×6, nailed directly to the soffit or pouring deck **186** immediately rearward of the back panel **178** as well as upper and lower pairs of beams **188**, normally 4×4's, wedged between the back panel **178** and upper and lower transverse beams **190** which span the extreme end of the form **20** and are releasably bolted to the opposed sidewalls **24**. These beams **190** are each preferably formed of a pair of spaced back to back channel bars welded together to form an integral beam positionable between an operative position transversely across the end of the form **20** and an inoperative or stored position bolted along the vertical edge of one of the sidewalls **24**. It will of course be appreciated that the timbers **188** will be cut to length so as to correspond with the desired depth of the end wall **152**.

The actual positioning of the form **20** is effected through a cable suspended overhead lift cradle **192** which is of a rectangular configuration generally conforming to the shape of the form **20**. The lift cradle **192** includes rigid crossbars **194** positioned so as to have selected ones of these crossbars **194** aligned with the form crossbeams **26**, each of the crossbars **194** having an elongated platelike lug **196** having a plurality, normally three, holes therein. Each of the crossbars **194** is additionally provided with an upstanding apertured lug **198** welded on the opposed end portions thereof. In use, cables are engaged with the upper lift cradle lugs **198** and appropriate clevises **200** engaged between the depending lugs **196** and the crossbeam column units **74** aligned therewith, the clevises **200** engaging through appropriate apertures **201** provided through the upper ends of the column units **74**, these upper ends including, if deemed necessary, appropriate reinforcing plates. Incidently, the slack suspension cables noted in FIG. **1** would normally only be used in the lifting operation when a longer form than that illustrated as suspended from the lift cradle **192** is being raised, for example the form still positioned about the poured structure **22**.

In actual use, the forming deck or soffit **186** is provided with chamfer strips **202** nailed therealong so as to define the lateral width of the pour and provide alignment means for the opposed lower edge portions of the sidewalls **24**. The desired reinforcing is mounted on the base **186** and tied into any additional reinforcing, after which the form or forms **20** are lowered into position and the sidewalls **24** swung inwardly to their vertical position abutting against and aligning with the chamfer strips **202**. The forms **20**, assuming more than one, then are tied together and the opposed end walls **150** and **152** positioned, after which the unit is ready for the pouring operation. Incidentally, it will of course be appreciated that the clevises **200** securing the form **20** to the lift cradle **192** are easily released so as to allow the cradle to be quickly detached from the form after it is positioned, the form itself being both freestanding and self-supporting, as well as of such stability as to receive and contain the pour against the outward forces generated thereby, any tendency for the walls to move outwardly being easily resisted by the locked and braced engagement of these sidewalls with the crossbeams or outriggers **26**.

Once the pour has sufficiently hardened, the lift cradle will be pinned into the forms **20** one at a time with these forms being quickly lifted and removed, after of course initially swinging the sidewalls **24** outwardly. The forms are then ready for immediate reuse, the whole procedure completely eliminating any manual assembly or disassembly such as associated with conventional form work. The only actual manual labor involved with the use of the form **20** of the instant invention being the placing and removal of several locking and alignment pins, and the adjustment of the various turnbuckle units, such procedures involving only a matter of minutes.

Again, it should of course be appreciated that while the form **20** has been illustrated in conjunction with the formation of a bridge bent cap **22**, the form is equally adaptable for use in the pouring of any type of vertical structure. As a point of information, in the forming of the illustrated bridge bent cap, reinforcement is extended vertically from previously formed support columns **204**, this reinforcement being extended through the pouring deck or soffit **186** and tied to horizontally positioned bent cap reinforcing. The soffit **186** is in turn supported on a series of transversely extending 4×4 beams **206** which rest on a pair of longitudinally extending support I-beams **208** mounted on the aligned columns **204** by means of a series of friction collars **210**. The construction is then ready for the placing of the form or forms **20** as described above.

With regard to the adjustment of the sidewalls **24** laterally toward each other so as to vary the width of the pour, such is done basically by unpinning one sidewall at a time from the

crossbeams and, through appropriate jacks engaged between the transversely aligned column units **74**, and a manipulation of the turnbuckles on the braces associated with the unpinned wall, shifting this wall toward or away from the pinned wall, after which the unpinned wall is again pinned into the crossbeams **26** and the process repeated with the other wall. Incidently, it should also be appreciated that the ease with which the cooperating elements of the form can be unpinned and released from each other contributes significantly to a rapid collapsing of the entire form for storage or shipment purposes with the reassembling of the form again involving only the placement of several pins, primarily those pins pivotally mounting the walls on the crossbeams and the pins pivotally mounting the lower ends of the turnbuckle braces.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

I claim:

1. An adjustable form for poured concrete construction comprising a pair of laterally spaced form sidewalls, support means overlying said walls, connecting means pivotally securing said sidewalls to said support means for a pivotal swinging of said sidewalls toward and away from each other, adjusting means engaged between said sidewalls and said support means for pivotally adjusting said sidewalls, first and second end walls engageable with the opposite end portions of the sidewalls, the first end wall engaging against the extreme ends of said sidewalls at one end of the form, and means directly engaged between the first end wall and the adjacent sidewalls for effecting a clamping of the first end wall to the sidewalls.

2. The form of claim **1** including alignable sleeves on said sidewalls and said first end wall, and elongated alignment pins engageable through said sleeves for an alignment of said first end wall with said sidewalls, said means for clamping said first end wall to said sidewalls comprising adjustable bolts pivotally mounted on said first end wall and bolt-receiving means on said sidewalls for rotatably receiving and retaining said bolts.

3. The form of claim **1** wherein the second end wall is slidably received between the sidewalls at the opposed end portion of the form from the first end wall, and rigid brace means engaged between the sidewalls and the second end wall for releasably fixing the second end wall in a predetermined position between said sidewalls.

4. An adjustable form for poured concrete construction comprising a pair of laterally spaced form sidewalls, support means overlying said walls, connecting means pivotally securing said sidewalls to said support means for a pivotal swinging of said sidewalls toward and away from each other, adjusting means engaged between said sidewalls and said support means for pivotally adjusting said sidewalls, said support means extending laterally beyond said sidewalls, said adjusting means comprising longitudinally adjustable elongated rigid braces engaged between the outer end portions of said support means and the lower portions of said sidewalls, said support means comprising a plurality of spaced transversely extending crossbeams, and vertically elongated column units fixed to he sidewalls vertically thereacross and extending thereabove to intersect said crossbeams, said connecting means comprising removable transversely extending pins engaged through the column units and the crossbeams, said column units projecting vertically above the crossbeams, said column units including means on the upper end portions thereof, in spaced relation above the crossbeams, for engagement with overhead lift equipment.

5. The form of claim **1** including stop means limiting the pivotal swinging of said sidewalls to a first substantially vertical position parallel to each other and a second outwardly moved position.

6. The form of claim **1** including vertically elongated column units fixed to the sidewalls vertically thereacross and extending thereabove to intersect said crossbeams, said connecting means comprising removable transversely extending pins engaged through the column units and the crossbeams, said column units projecting vertically above the crossbeams, said column units including means on the upper end portions thereof, in spaced relation above the crossbeams, for engagement with overhead lift equipment.

7. The form of claim **1** including a wide bearing shoe fixed to the lower edge of each sidewall along the full length thereof and projecting laterally outward therefrom to define a support for the form.

8. The form of claim **7** wherein said form is self-supporting.

9. The form of claim **1** wherein said form is self-supporting.

10. An adjustable form for poured concrete construction comprising a pair of laterally spaced form sidewalls, support means overlying said walls, connecting means pivotally securing said sidewalls to said support means for a pivotal swinging of said sidewalls toward and away from each other, adjusting means engaged between said sidewalls and said support means for pivotally adjusting said sidewalls, said support means comprising a plurality of spaced transversely extending crossbeams, vertically elongated column units fixed to the sidewalls vertically thereacross and extending thereabove to intersect said crossbeams, said connecting means comprising removable transversely extending pins engaged through the column units and the crossbeams, said column units projecting vertically above the crossbeams, said column units including means on the upper end portions thereof, in spaced relation above the crossbeams, for engagement with overhead lift equipment.

11. An adjustable form for poured concrete construction comprising a pair of laterally spaced form sidewalls, support means overlying said walls, connecting means pivotally securing said sidewalls to said support means for pivotal swinging of said sidewalls toward and away from each other, adjusting means engaged between said sidewalls and said support means for pivotally adjusting said sidewalls, and a wide bearing shoe fixed to the lower edge of each sidewall along the full length thereof and projecting laterally outward therefrom to define a support for the form.

12. The form of claim **11** wherein said form is self-supporting.

13. An adjustable form for poured concrete construction comprising a pair of laterally spaced form sidewalls, support means overlying said walls, connecting means pivotally securing said sidewalls to said support means for a pivotal swinging of said sidewalls toward and away from each other, and adjusting means engaged between said sidewalls and said support means for pivotally adjusting said sidewalls, said form being self-supporting.