Feb. 3, 1953 T. JELKS 2,627,100

FORM FOR PROGRESSIVELY MOLDING CONCRETE WALLS

Filed Dec. 20, 1949 5 Sheets-Sheet 1

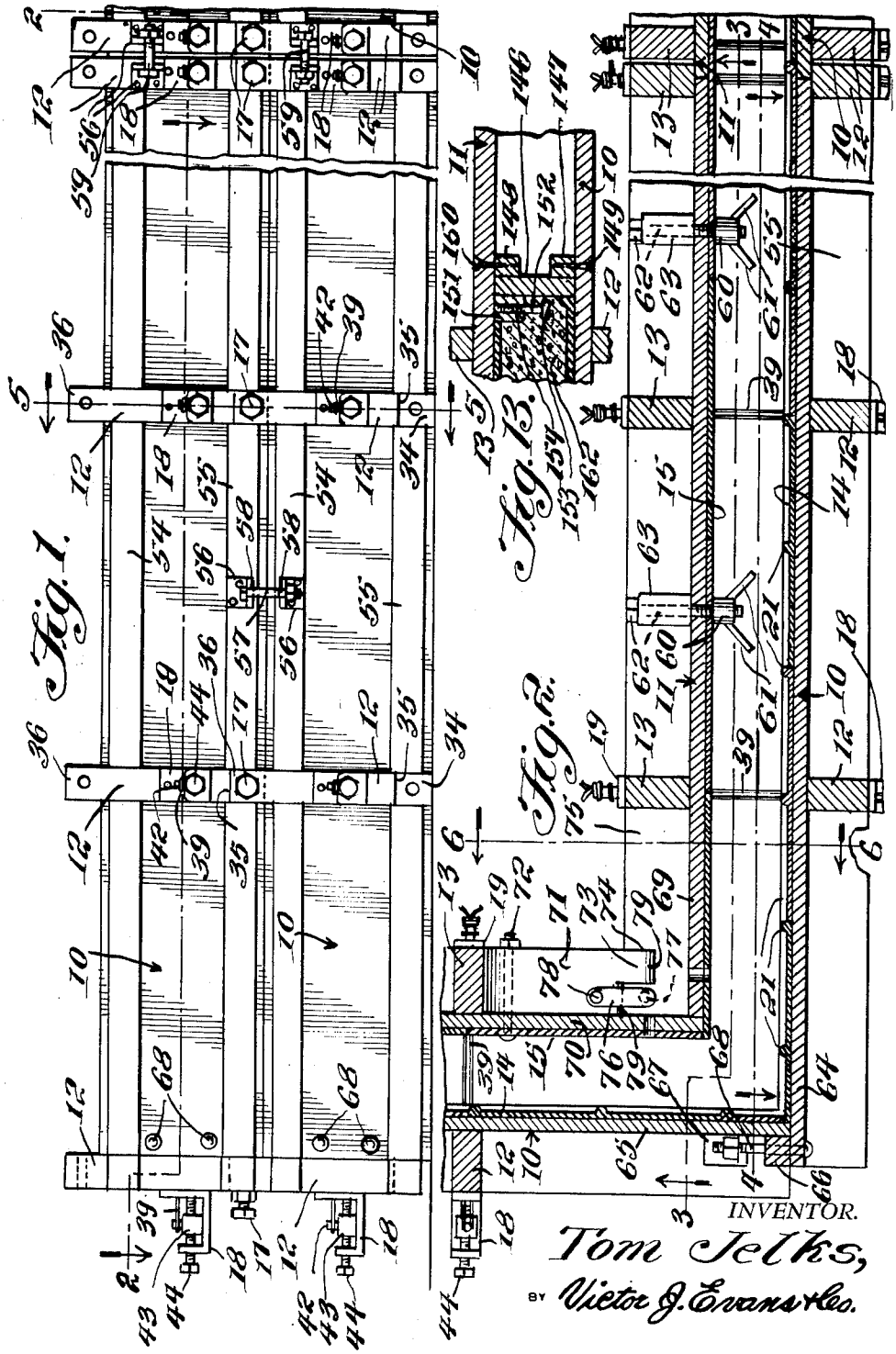


Fig. 1.

Fig. 2.

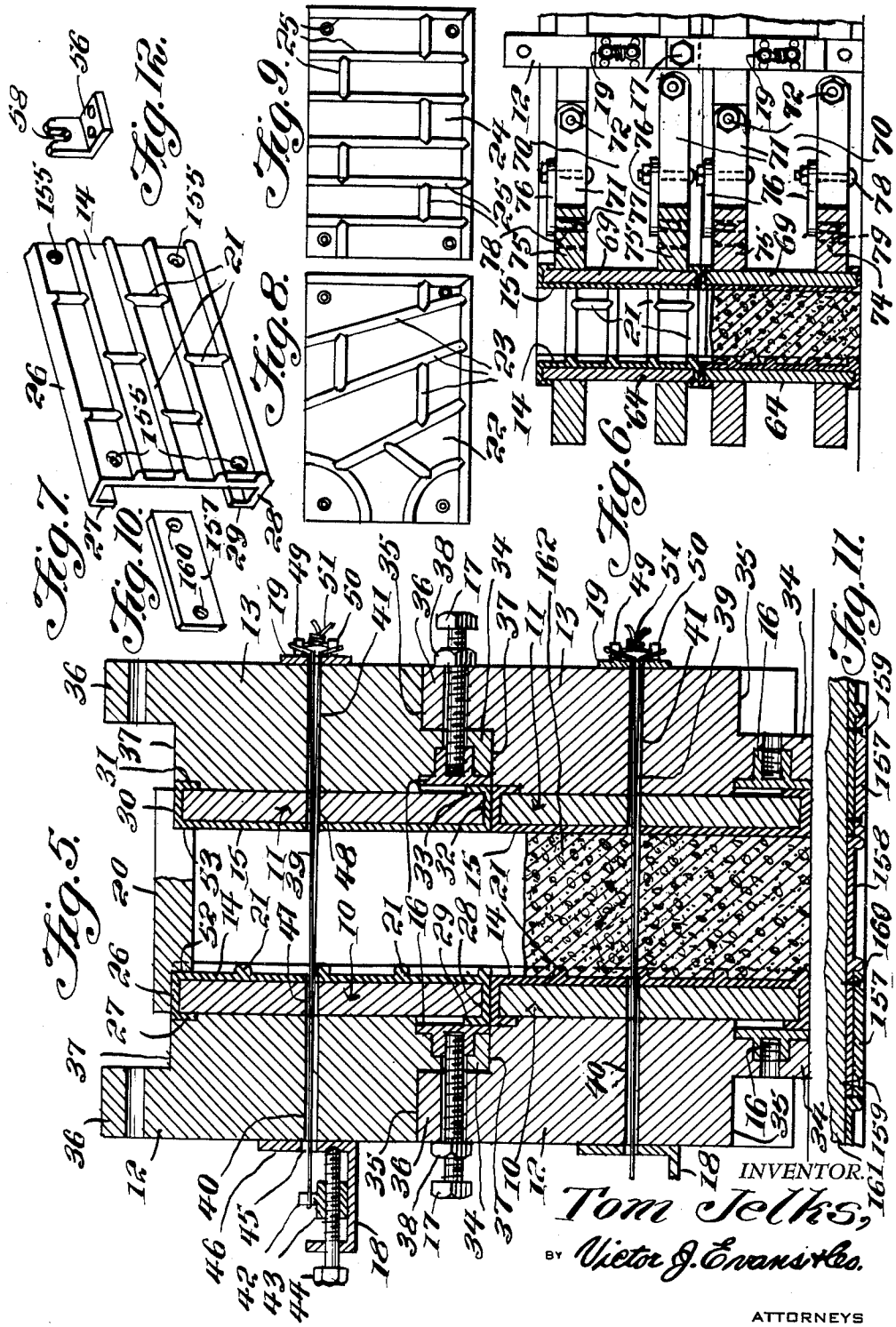
Fig. 3.

INVENTOR.
Tom Jelks,
BY Victor J. Evans & Co.
ATTORNEYS

Feb. 3, 1953 T. JELKS 2,627,100

FORM FOR PROGRESSIVELY MOLDING CONCRETE WALLS

Filed Dec. 20, 1949 5 Sheets-Sheet 2



INVENTOR.
Tom Jelks,
BY Victor J. Evans & Co.
ATTORNEYS

Feb. 3, 1953 T. JELKS 2,627,100

FORM FOR PROGRESSIVELY MOLDING CONCRETE WALLS

Filed Dec. 20, 1949 5 Sheets-Sheet 3

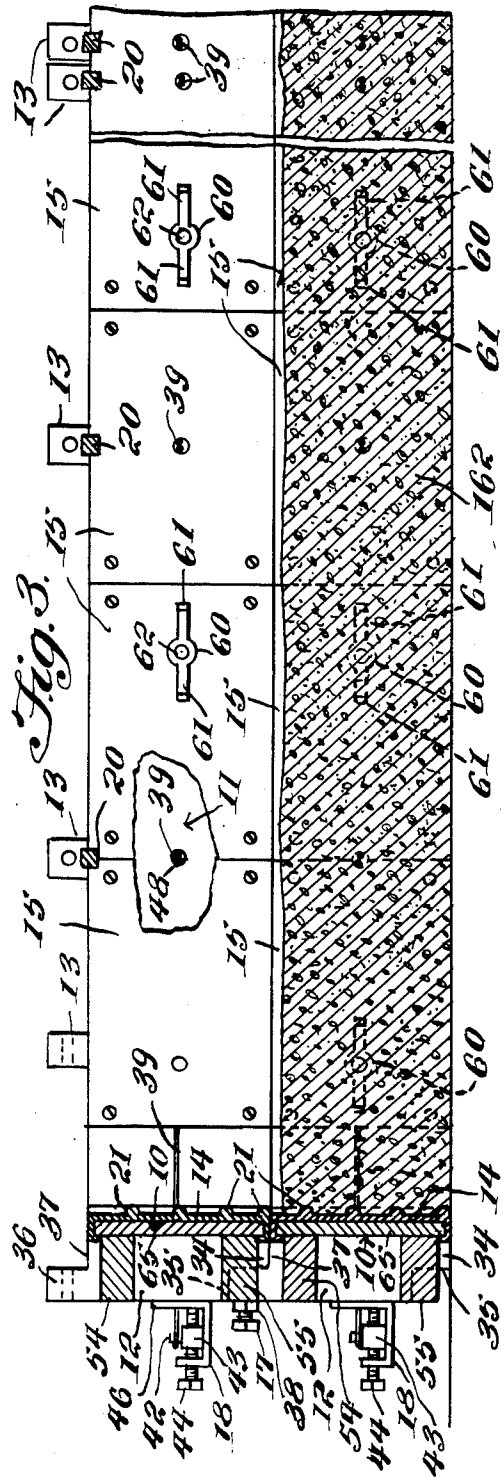


Fig. 3.

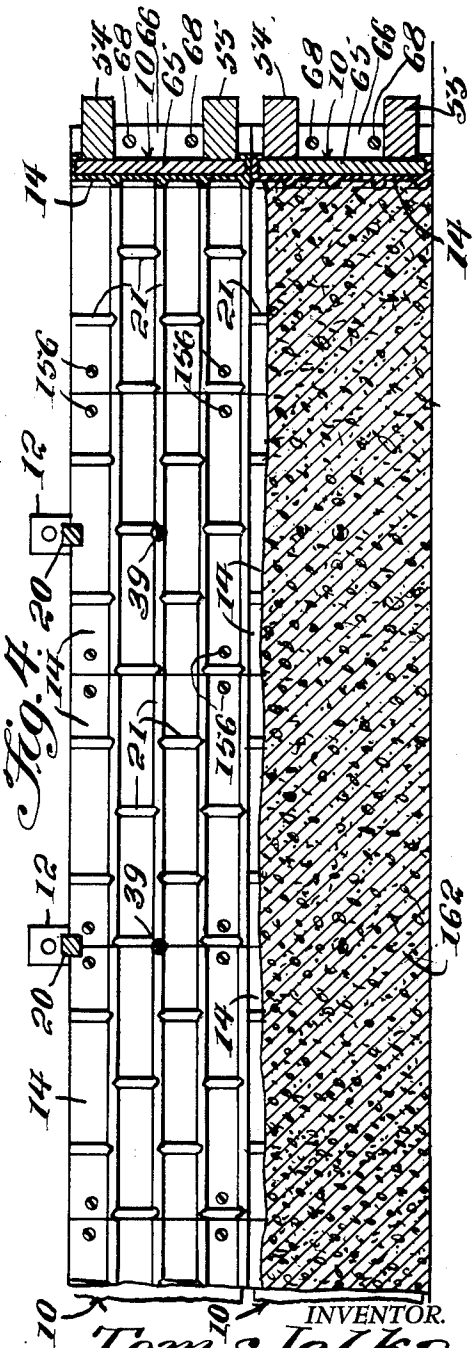


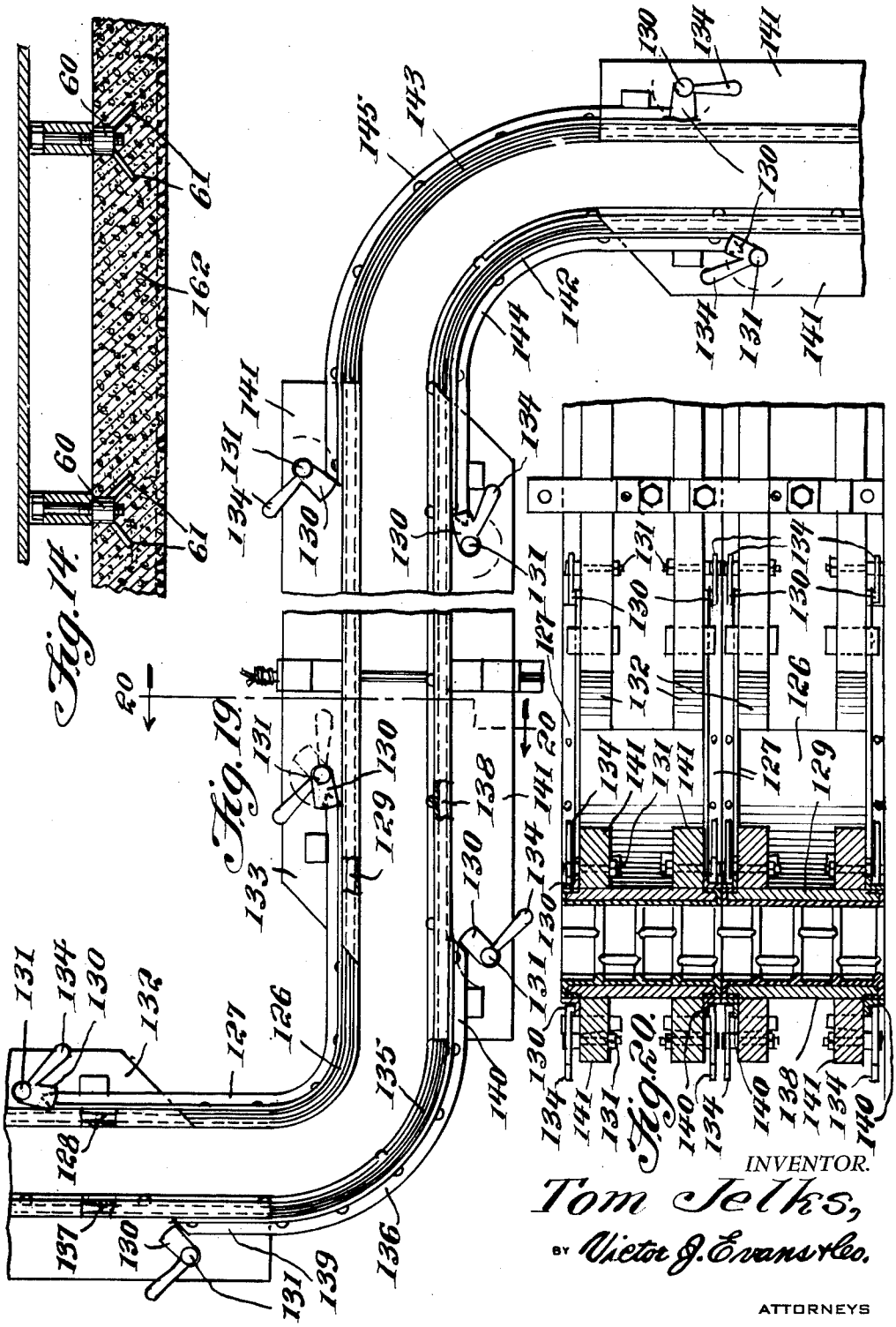
Fig. 4.

INVENTOR.
Tom Jelks,
BY Victor J. Evans & Co.
ATTORNEYS

Feb. 3, 1953 T. JELKS 2,627,100

FORM FOR PROGRESSIVELY MOLDING CONCRETE WALLS

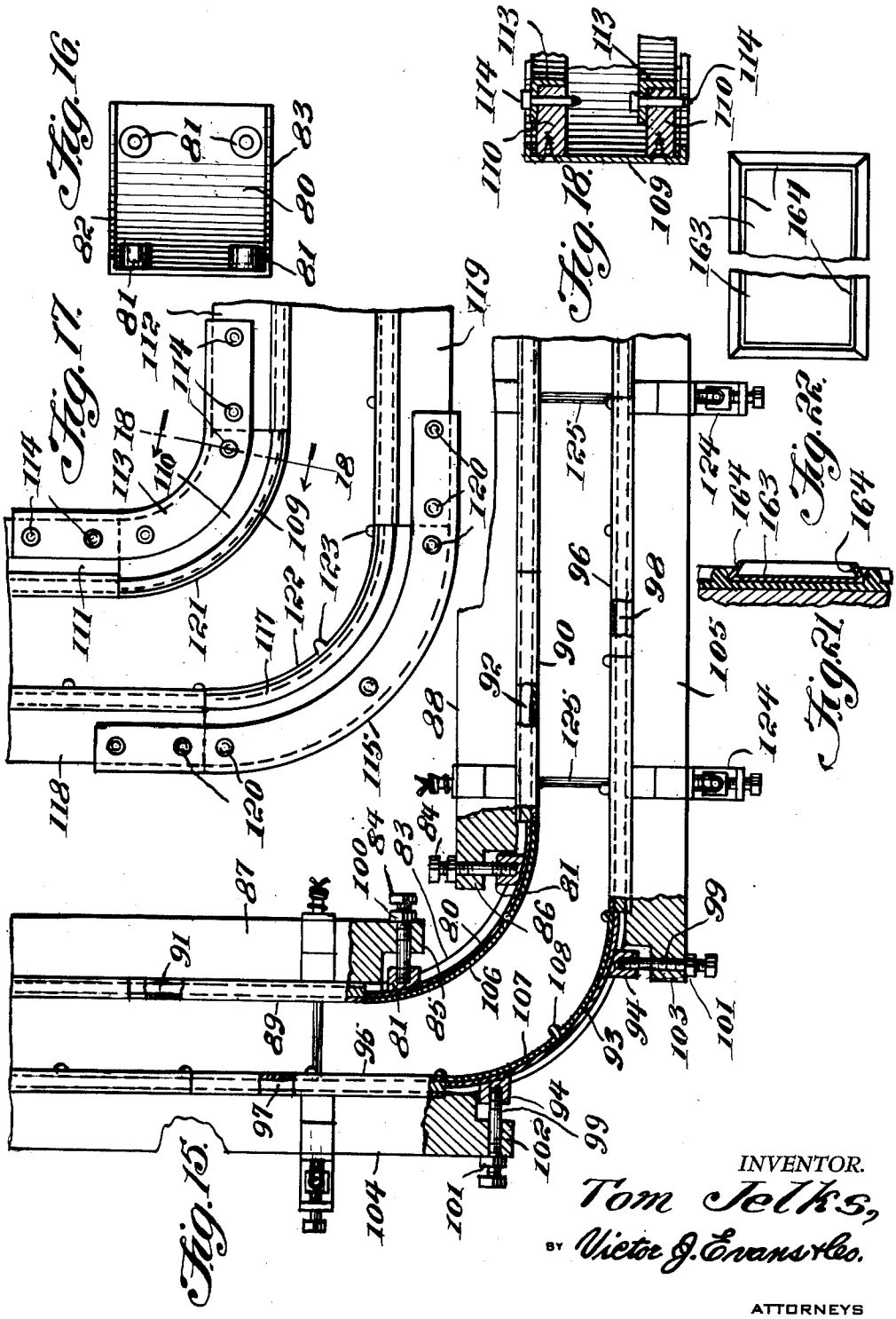
Filed Dec. 20, 1949 5 Sheets-Sheet 4



Feb. 3, 1953 T. JELKS 2,627,100

FORM FOR PROGRESSIVELY MOLDING CONCRETE WALLS

Filed Dec. 20, 1949 5 Sheets-Sheet 5



INVENTOR.
Tom Jelks,
BY Victor J. Evans & Co.
ATTORNEYS

Patented Feb. 3, 1953

2,627,100

UNITED STATES PATENT OFFICE

2,627,100

FORM FOR PROGRESSIVELY MOLDING CONCRETE WALLS

Tom Jelks, Chickasha, Okla.

Application December 20, 1949, Serial No. 134,112

10 Claims. (Cl. 25—131)

1

This invention relates to the construction of building walls with forms of the progressive type wherein a form positioned on a wall is removed and installed in a superimposed position as concrete sets to form a portion of a wall, and in particular this invention relates to pairs of forms with one pair positioned upon a lower pair with the sides of the pairs tied together by wires extended therethrough, and in which simulated mortar joints may be formed in the face of a wall by projections on the inner surfaces of the outer sections of the forms.

The purpose of this invention is to provide a progressive type of form for the construction of building walls wherein forms used to cast the lower part of a wall are removed and reused to cast upper parts thereof, and wherein the lower edges of the removed forms which are repositioned to form upper parts of the wall are adjustable to eliminate lines or offsets where adjoining edges of the forms meet.

In the usual type of progressive form for concrete walls in building construction the entire form is moved upwardly and repositioned on the upper edge of the set concrete and where forms of this type are used it is difficult to line up the inner surfaces to provide smooth and uninterrupted wall surfaces. With this thought in mind this invention contemplates an improved type of progressive form wherein one section remains in position on a wall while a lower set is removed and installed above the set remaining on the wall and with this type of construction it is possible to provide adjusting means between the upper edge of the form remaining on the wall and the superimposed form whereby the inner surfaces may be adjusted until the meeting edges are in common planes.

The object of this invention, is therefore, to provide means for constructing a building wall form of the progressive type whereby lower sections are removable and installed upon upper sections and the inner faces of the upper sections are adjustable in relation to the inner faces of the lower sections.

Another object of the invention is to provide a building wall form of the progressive type in which simulated mortar joints may be provided in the outer face of a wall formed thereby.

A further object of the invention is to provide a building wall form of the progressive type in which means is provided for keeping the thickness of the wall constant.

A further object of the invention is to provide progressive building wall forms having upper and

2

lower pairs of sections and in which one section is superimposed upon another with the former section in position on a wall, which provides a form of a simple and economical construction.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a side elevational view showing a pair of wall forms in superimposed relation and showing means for connecting the forms at the ends.

Figure 2 is a sectional plan taken on line 2—2 of Figure 1 showing molding strip nuts carried by the form and positioned to be embedded in the wall.

Figure 3 is a vertical section through the wall form taken on line 3—3 of Figure 2.

Figure 4 is a similar section taken on line 4—4 of Figure 2 showing the inner surface of the form positioned on the outer surface of the wall.

Figure 5 is a typical cross section through progressive wall forms of this invention being taken on line 5—5 of Figure 1.

Figure 6 is a cross section through the forms taken on line 6—6 of Figure 2 and illustrating locking means in the inner corner of a wall.

Figure 7 is a detail illustrating a lining element of a progressive wall form with ribs extended from the surface thereof to provide simulated mortar joints in the face of a wall formed with the form.

Figure 8 is a similar view showing simulated mortar joints of a different pattern.

Figure 9 is also a similar view showing a still further pattern.

Figure 10 is a detail illustrating the plates positioned on the inner face of the wall form for providing indentations in the face of the wall.

Figure 11 is a sectional plan illustrating the plates shown in Figure 10 attached to the inner lining of a wall form.

Figure 12 is a detail illustrating one of the clip angles for connecting adjoining sections of the progressive wall forms together.

Figure 13 is a detail showing a section through the wall form in which means is provided for forming a side of a window frame.

Figure 14 is a detail showing a section through a portion of a wall formed by the progressive wall form wherein studding is molded to the wall through nuts embedded therein whereby wallboard, plaster, and the like may be used on the wall.

Figure 15 is a plan view illustrating a combination of the wall form with arcuate sections

for forming round corners at the intersections of walls.

Figure 16 is a detail taken on line 16—16 of Figure 15 showing an end elevational view of one of the arcuate plates used in the corner of the wall form, with other parts of the form omitted.

Figure 17 is a detail illustrating a modification wherein angle irons are used to connect the ends of side beams of wall forms where arcuate corners are provided.

Figure 18 is a detail showing a section on line 18—18 of Figure 17 illustrating the method of connecting the angles to the side beams of the forms.

Figure 19 is a plan view of a wall with round corners at intersections, illustrating a modification wherein the opposite sides of the wall are formed from a common center and wherein the ends of arcuate connecting angles are secured in position by locking cams.

Figure 20 is a vertical section taken on line 20—20 of Figure 19 illustrating the modified form shown in Figure 19.

Figure 21 is a section through a liner or facing plate showing a veneer plate positioned between ribs on the face thereof.

Figure 22 is a detail showing an elevation of the veneer plate shown in Figure 21.

Referring now to the drawings wherein like reference characters denote corresponding parts the progressive building wall form of this invention is constructed with an outer panel 10, an inner panel 11, vertically disposed studs 12 and 13, a lining 14 on the inner surface of the outer panel, a lining 15 on the inner surface of the inner panel, threaded sockets 16 positioned in the lower edges of the vertically disposed studs, adjusting screws 17, adjusting brackets 18, tie plates 19 and spacers 20.

The inner facing plate 14, which forms a lining may be formed of plastic or other suitable material and ribs 21 are provided on the inner surface thereof which form simulated mortar joints, which in the design illustrated in Figure 7 are positioned to represent outer faces of bricks to indicate a brick wall.

In the design shown in Figure 8 a facing plate 22 is illustrated in which ribs 23 on the face thereof represent mortar joints that may indicate building stones, and in the design illustrated in Figure 9 a plate 24 is provided with ribs 25 that indicate vertically disposed bricks. It will be understood that the ribs or projections on the inner face of the facing plate or lining may be patterned to represent bricks, stone, wood, or any suitable material.

In the design illustrated in Figures 5 and 7 the plate 14 is provided with an upper flange 26 having a lip 27 on the edge thereof and the lower end is provided with a flange 28 having a lip 29 on the edge thereof. With the flanges formed in this manner the plate may readily be positioned over the panel 10 as illustrated in Figure 5. The inner facing plate 15 on the opposite side is provided with an upper flange 30 having a lip 31 thereon and the lower end is provided with a similar flange 32 having a lip 33 thereon. The panels 10 and 11 are preferably formed of boards and the boards extend throughout the length of the sections, as illustrated in Figure 1.

In the vertical studs on the sides of the boards, for which it is preferred to use two by fours, the lower ends are provided with tongues 34 with notches 35 in the outer surfaces and the upper ends are formed with tongues 36 positioned on

the outer surfaces and notches 37 in the inner surfaces. The tongues and notches are formed whereby a tongue 34 on the lower end of an upper section nests in a notch 37 of a lower section with the tongue 36 on the upper outer edge of the lower stud nesting in the notch 35 in the lower outer edge of the upper stud. By this means the studs are interlocked and the adjusting screws 17 may extend into the sockets 16, as illustrated in Figure 5. The position of the inner surfaces of the upper form may be adjusted by the lock nut 38 on the adjusting screw 17 so that the meeting edges are flush, thereby providing a smooth surface on a wall formed by the forms.

In positioning a pair of forms either on a foundation or upon another pair of forms, wires 39 are extended through openings 40 and 41 in the studs with the wires looped and positioned on a projection 42 of a traveling nut 43 on the bracket 18 and through which an adjusting screw 44 extends. The wires 39 also extend through openings 45 in upwardly extended flanges 46 of the brackets 18 and through openings 47 and 48 in the panels 10 and 11, respectively.

The tie plates 19 are provided with ears 49 and 50 around which the ends of the wire extend and after extending around the ears the ends of the wires are tied together as shown at the point 51 in Figure 5.

The ends of the spacers 20 are provided with shoulders 52 and 53 against which the upper edges of the side panels or inner facing plates are drawn by the adjusting screw 44 through the wires 39.

Each side of the form is provided with an upper longitudinally disposed beam 54 and a similar lower beam 55 and with clip angles 56, as shown in detail in Figure 12 positioned on the sides or outer edges of the beams the lower edge of the superimposed form may be secured to the upper edge of a lower form by a bolt 57 which is positioned in notches 58, as shown in Figure 1. By the same means and using similar clip angles 56 on vertically disposed studs at the ends of the forms the ends of the forms are secured together by bolts 59.

As illustrated in Figure 2 nuts 60 with arms 61 thereon may be suspended in the forms by studs 62 in blocks 63 on the outer surfaces of the forms whereby the nuts will be embedded in the concrete and the studs 62 unscrewed therefrom when the forms are removed. The nuts 60 may be positioned on the centers of studding, as illustrated in Figure 14 or at any suitable points throughout the surface of a wall.

The forms for a side wall may be connected to forms of an end wall by any suitable means, and in the design illustrated in Figure 2 a panel 64 of an outer form extends beyond a panel 65 of an end wall and the extending end of the panel 64 is provided with an inner strip 66 through which the extending end of the panel is bolted to a clip angle 67 on the panel 65 by a bolt 68.

The inner panels 69 and 70 are secured together by latch elements 71 which are pivotally mounted on the panel 70 by bolts 72. The outer ends of the latch elements 71 are provided with tongues 73 that extend into notches 74 of side beams 75 on the panels 69, and the latch elements 71 are also provided with bars 76 which carry pins 77 that drop into openings 78 in the side beams 75, as shown in Figure 6. The bars 76 are secured to the latch element 71 by bolts 79. By this means the inner sections of the wall forms may readily be separated, at the corners, when the concrete

of the wall is set. The latch elements may be provided in different sizes, as illustrated in Figure 6 and the elements may be provided with inner arcuate ends 79 to facilitate inserting the elements in locking positions and also to facilitate removing the elements from the said locking positions.

When it is desired to form building walls with round corners, forms as illustrated in Figures 15 and 19 may be used for connecting beams of side walls to beams of end walls and the ends of panels carried by the beams may be positioned in abutting relation as shown.

The side walls of the side and end wall forms are connected by arcuate plates 80 which are provided with threaded lugs 81 and upper and lower flanges 82 and 83, respectively. With the plates 80 positioned as illustrated in Figure 15 threaded studs 84 extending through tongues 85 and 86 on the ends of side beams 87 and 88, respectively extend into the lugs 81, and with the ends of the plate 80 adjusted to meet the ends of liners 89 and 90 of side panels 91 and 92, respectively, smooth joints may be obtained.

Similar arcuate plates 93 with threaded lugs 94 on the outer surfaces are positioned between the liners or plates 95 and 96 of the panels 97 and 98, respectively, and with the ends of the plate 93 adjusted by the threaded studs 99 the inner surfaces of the arcuate corner plates will be flush with the inner surfaces of the liners 95 and 96. The adjusting studs 84 and 99 are provided with lock nuts 100 and 101, respectively which provide adjusting means for adjusting the positions of the inner ends of the arcuate plates. The studs 99 are positioned in extended tongues 102 and 103 of side beams 104 and 105, respectively. The remaining portions of the forms are constructed as illustrated in Figures 5 and 6. The arcuate plate 80 is provided with an inner liner 106 which may be formed of plastic or other suitable material and the plate 93 may also be provided with a similar liner 107, the inner face of which may be provided with ribs 108 for forming mortar joints as illustrated in Figures 7, 8 and 9.

In the modification illustrated in Figure 17 an arcuate corner plate 109 forming the inner wall of the form is provided with horizontally disposed beams 110 and the beams 110 are connected to side beams 111 and 112 of the end and side forms, respectively by angles 113 with pins 114 extended through the angles and beams, as illustrated in Figure 18. Similar angles 115 connect arcuate beams 116 on outer panels 117 with beams 118 and 119, respectively of end and side forms. The angle 115 is provided with pins 120 similar to the pins 114. The arcuate panel 109 is provided with an inner liner or facing plate 121 and the panel 117 is provided with a similar plate 122. The plate 122 may be provided with ribs 123 corresponding to the ribs 118 in the design shown in Figure 15 and also to the ribs 21 of the lining plate 14. These forms are provided with brackets 124 similar to the brackets 18 and wires 125 extend through the form.

In the design illustrated in Figures 19 and 20 right angularly positioned building wall forms are connected as illustrated in Figure 19, with an inner arcuate panel 126 carried by angles 127 and the angles are provided with extended ends that are clamped against the outer surfaces of panels 128 and 129 of forms by cams 130 which are pivotally mounted on pins 131 on the side beams 132 and 133 of the form. The cams are provided with outwardly extended handles 134 by which the cams are actuated to clamp the ends of the angles 127 against the outer surfaces of the panels forming the sides of the forms of the wall section.

are positioned upon the farms 10 and 11 with thereon is positioned between the gap between the ends of side panels 137 and 138 and the angles 136 are provided with extended ends 139 and 140 by which the angles are clamped against the outer surfaces of the panels. The cams 130 are pivotally mounted by the pins 131 on horizontally disposed side beams 141 of the inner and outer form sections.

A similar corner framing is also provided at the opposite end of the wall in which arcuate sections 142 and 143 are positioned in the gaps at the ends of the wall sections with angles 144 and 145 clamped against the outer surfaces of the side panels of the forms by the cams 130.

In framing for window frames, doors and the like a member 146 is posiitoned between the outer panel 10 and the inner panel 11 with the edges of the member positioned against strips 147 and 148 and with the strips 147 secured to the panel 10 by screws 149 and the strip 148 secured to the panel 11 by screws 150. A strip 151 is also positioned against the panel 11 and threaded studs 152 with heads 153 on the inner ends are carried in openings 154 in the strips 151 whereby the heads of the studs 153 are molded in concrete of the wall with the threaded ends thereof extended into recesses provided by the strips 151 on the edges of the window opening. It will be understood that window openings may be formed of any suitable shape and the edges thereof may contain grooves or recesses of different patterns to accommodate different types of windows.

The liners or facing plates 14 may also be provided with openings 155 by which the plates may be secured in position by screws 156, as illustrated in Figure 4.

The ribs for the simulated mortar joints or other indentations may be formed in the face of a wall by plates or bars 157, as shown in Figures 10 and 11 and these plates may be secured to liners or facing plates 158 similar to the plates 14 by screws 159 that are positioned in openings therein. The plates 158 may be positioned between ribs 160 similar to the ribs 21 and these plates are secured over panels 161 similar to the panels 10 and 11.

With the parts arranged in this manner the building walls are constructed by setting a pair of forms on a foundation, as indicated by the numeral 162 with the spacers 20 between the upper edges and with the forms secured together by the tie wires 39 concrete is poured in the form to a point 162 corresponding with the lower edges of the spacers 20. After a predetermined period of time, when the concrete is set the spacers 20 are removed and a pair of similar forms are positioned upon the forms 10 and 11 with the adjusting screws 17 extended through the tongues 36 and into the sockets 16. The upper edges are held by the spacers 20 and the forms are held together by the tie wires 39. With the upper form in position the lower edges of the sides thereof are adjusted by the screws 17 until the inner surfaces of the liners 14 and 15 are flush with the corresponding surfaces of the liners of the form below. After the concrete in the lower pair of forms is set sufficiently to take the weight of a corresponding layer above concrete is poured between the upper forms, also to

a point spaced from the upper edges and substantially corresponding with the lower edges of the spacers 20.

When the concrete in the lower pair of forms has set for a predetermined period of time, such as 48 hours, the lower forms are removed and positioned upon the upper edges of the upper pair of forms and the cycle of operations is continued.

The spacers 20 govern the width of the wall so that the width remains constant throughout the height thereof and the adjusting screws 44 clamp the sections of the forms against the shoulders of the spacers with the adjusting screws 17 adjusting the lower edges thereof.

A plurality of veneer plates 163 as illustrated in Figures 21 and 22 may be used in combination with the form to provide a wall facing to imitate brick, stone or the like.

In the design shown these plates are provided with inwardly inclined flanges 164 which are embedded in the concrete wall to permanently retain the plates in position on the face of the wall.

The veneer plates 163 are inserted in the spaces between the ribs 21 on the liners or plates 14 whereby they are frictionally secured in position during the construction of the wall, and with the flanges 164 embedded in the material of the wall these plates will remain in position as the forms are removed.

By this means concrete walls may be faced with veneer panels or plates and the plates may be colored and shaped to represent brick, stone, wood, or other materials.

It will be understood that other modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels, spaced vertically disposed reinforcing studs positioned against the outer surfaces of the panels, said studs having upwardly disposed tongues with longitudinally disposed openings therethrough on the outer edges and downwardly disposed tongues with threaded sockets therein on the inner edges, the said tongues of the studs of one panel positioned to mesh with the tongues of the studs of an adjoining panel, adjusting screws extended through the openings of the tongues extended upwardly from the upper ends of the studs and positioned to be threaded into the sockets of the tongues extended downwardly on the inner edges of the lower ends of the adjoining studs, tie wires extended through the forms at spaced points, and removable spacers positioned between the upper edges of the panels.

2. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels, spaced vertically disposed reinforcing studs positioned against the outer surfaces of the panels, said studs having upwardly disposed tongues with longitudinally disposed openings therethrough on the outer edges and downwardly disposed tongues with threaded sockets therein on the inner edges, the said tongues of the studs of one panel positioned to mesh with the tongues of the studs of an adjoining panel, adjusting screws extended through the openings of the tongues extended upwardly from the upper ends of the studs and positioned to be threaded into the sockets of the tongues extended downwardly on the inner edges of the lower ends of the adjoining studs, liners the edges of which extend around the edges of the panels positioned on the inner surfaces of the panels, tie wires extended through the forms at spaced points, and removable spacers positioned between the upper edges of the panels.

3. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels, spaced vertically disposed reinforcing studs positioned against the outer surfaces of the panels, said studs having upwardly disposed tongues with longitudinally disposed openings therethrough on the outer edges and downwardly disposed tongues with threaded sockets therein on the inner edges, the said tongues of the studs of one panel positioned to mesh with the tongues of the studs of an adjoining panel, adjusting screws extended through the openings of the tongues extended upwardly from the upper ends of the studs and positioned to be threaded into the sockets of the tongues extended downwardly on the inner edges of the lower ends of the adjoining studs, plastic liners the edges of which extend around the edges of the panels covering the inner surfaces of the panels, means securing the plastic liners in position on the inner surfaces of the panels, tie wires extended through the forms at spaced points, and removable spacers positioned between the upper edges of the panels.

4. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels, spaced vertically disposed reinforcing studs positioned against the outer surfaces of the panels, said studs having upwardly disposed tongues with longitudinally disposed openings therethrough on the outer edges and downwardly disposed tongues with threaded sockets therein on the inner edges, the said tongues of the studs of one panel positioned to mesh with the tongues of the studs of an adjoining panel, adjusting screws extended through the openings of the tongues extended upwardly from the upper ends of the studs and positioned to be threaded into the sockets of the tongues extended downwardly on the inner edges of the lower ends of the adjoining studs, liners having smooth surfaces positioned against the inner surfaces of the inner panels on one side of the forms, liners having ribs on the inner surfaces with the ribs positioned to represent mortar joints positioned against the inner surfaces of the outer panels, tie wires extended through the forms at spaced points, and removable spacers positioned between the upper edges of the panels.

5. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels reinforced by spaced vertically disposed studs positioned against the outer surfaces of the panels, said studs having upwardly disposed tongues with longitudinally disposed openings therethrough on the outer edges and downwardly disposed tongues with threaded sockets therein on the inner edges, the said tongues of the studs of one panel positioned to mesh with the tongues of the studs of an adjoining panel, adjusting screws extended through the openings of the tongues extended upwardly from the upper ends of the studs and positioned to be threaded into the sockets of the tongues extended downwardly on the inner edges of the lower ends of the adjoining studs, a smooth lining plate positioned over the inner surface of the panel on one side of the form, a lining plate having ribs thereon representing mortar joints positioned against the inner surface of the panel on the opposite side

of the form, removable spacers having depending sections with shoulders thereon positioned between the upper edges of the panels with the shoulders retaining the panels in spaced relation, said liners having L-shaped flanges on the edges that overlap the upper and lower edges of panels against which the liners are positioned, tie wires extended through the panels and studs, and tie plates to which the ends of the wires are tied at one side of the form.

6. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels reinforced by spaced vertically disposed studs, a smooth lining plate positioned over the inner surface of the panel on one side of the form, a lining plate having ribs thereon representing mortar joints positioned against the inner surface of the panel on the opposite side of the form, removable spacers having depending sections with shoulders thereon positioned between the upper edges of the panels with the shoulders retaining the panels in spaced relation, said liners having L-shaped flanges on the edges that overlap the upper and lower edges of panels against which the liners are positioned, tie wires extended through the panels and studs, tie plates to which the ends of the wires are tied at one side of the form, said studs having downwardly extended tongues on the inner edges of the lower ends thereof with notches in the outer edges of the lower ends, said studs having upwardly extended tongues on the outer edges of the upper ends and notches in the inner edges of the upper ends with the notches in the inner edges of the upper ends positioned to receive the tongues on the inner edges of the lower ends of studs of superimposed forms, and means adjustably connecting the tongues of the studs.

7. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels reinforced by spaced vertically disposed studs, a lining plate positioned over the inner surface of the panel on one side of the form, a lining plate having ribs thereon representing mortar joints positioned against the inner surface of the panel on the opposite side of the form, removable spacers having depending sections with shoulders at the ends positioned between the upper edges of the panels with the shoulders retaining the panels in spaced relation, tie wires extended through the panels and studs, tie plates to which the ends of the wires are tied at one side of the form, said studs having downwardly extended tongues on the inner edges of the lower ends thereof with notches in the outer edges of the lower ends, said studs having upwardly extended tongues on the outer edges of the upper ends and notches in the inner edges of the upper ends with the notches in the inner edges of the upper ends positioned to receive the tongues on the inner edges of the lower ends of studs of superimposed forms, threaded sockets positioned in the downwardly extended tongues on the inner edges of the lower ends of the studs, and adjusting screws extended through the tongues on the outer edges of the upper ends of the studs with the inner ends of the adjusting screws threaded into the sockets in the tongues on the inner edges of studs of superimposed panels.

8. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels reinforced by spaced vertically disposed studs, a smooth lining plate positioned over the inner surface of the panel on one side of the form, a lining plate having ribs thereon representing mortar joints positioned against the inner surface of the panel on the opposite side of the form, removable spacers having depending sections with shoulders at the ends positioned between the upper edges of the panels with the shoulders retaining the panels in spaced relation, tie wires extended through the panels and studs, tie plates to which the ends of the wires are tied at one side of the form, said studs having downwardly extended tongues on the inner edges of the lower ends thereof with notches in the outer edges of the lower ends, said studs having upwardly extended tongues on the outer edges of the upper ends and notches in the inner edges of the upper ends with the notches in the inner edges of the upper ends positioned to receive the tongues on the inner edges of the lower ends of studs of superimposed forms, threaded sockets positioned in the downwardly extended tongues on the inner edges of the lower ends of the studs, adjusting screws extended through the tongues on the outer edges of the upper ends of the studs with the inner ends of the adjusting screws threaded into the sockets in the tongues on the inner edges of studs of superimposed panels, said panels having studs on the ends thereof with a stud on the end of one panel positioned to extend beyond the end of the panel and a stud on the meeting end of an adjoining panel spaced from the end of the panel providing an overlapping joint, and bolts extended through the studs for connecting the ends of forms.

9. A collapsible building wall form comprising a pair of spaced parallel longitudinally disposed panels reinforced by spaced vertically disposed studs, a lining plate positioned over the inner surface of the panel on one side of the form, a lining plate having ribs thereon representing mortar joints positioned against the inner surface of the panel on the opposite side of the form, removable spacers having depending sections with shoulders at the ends positioned between the upper edges of the panels with the shoulders retaining the panels in spaced relation, tie wires extended through the panels and studs, tie plates to which the ends of the wires are tied at one side of the form, said studs having downwardly extended tongues on the inner edges of the lower ends thereof with notches in the outer edges of the lower ends, said studs having upwardly extended tongues on the outer edges of the upper ends and notches in the inner edges of the upper end with the notches in the inner edges of the upper ends positioned to receive the tongues on the inner edges of the lower ends of studs of superimposed forms, threaded sockets positioned in the downwardly extended tongues on the inner edges of the lower ends of the studs, adjusting screws extended through the tongues on the outer edges of the upper ends of the studs with the inner ends of the adjusting screw threaded into the socket in the tongues on the inner edges of studs of superimposed panels, said panels formed with some of the vertically disposed studs positioned on the ends thereof, bolts positioned through the studs on the ends of the panels for connecting meeting ends of the panels and also for connecting the ends of forms of side walls to the ends of forms of end walls, and latches in the connecting means at the corners of the inner forms for disconnecting the forms with the forms in position.

10. A collapsible building wall form comprising a pair of spaced parallel longitudinally dis-

posed panels reinforced by spaced vertically disposed studs, a smooth lining plate positioned over the inner surface of the panel on one side of the form, a lining plate having ribs thereon representing mortar joints positioned against the inner surface of the panel on the opposite side of the form, removable spacers having depending sections with shoulders positioned between the upper edges of the panels with the shoulders retaining the panels in spaced relation, tie wires extended through the panels and studs, tie plates level with the ends of the wires are tied at one side of the form, said studs having downwardly extended tongues on the inner edges of the lower ends thereof with notches in the outer edges of the lower ends, said studs having upwardly extended tongues on the outer edges of the upper ends and notches in the inner edges of the upper end with the notches in the inner edges of the upper ends positioned to receive the tongues on the inner edges of the lower ends of studs of superimposed forms, threaded sockets positioned in the downwardly extended tongues on the inner edges of the lower ends of the studs, adjusting screws extended through the tongues on the outer

edges of the upper ends of the studs with the inner ends of the adjusting screw threaded into the socket in the tongues on the inner edges of studs of superimposed panels, arcuate plates positioned at the corners between inner panels of the forms of side and end walls, arcuate panels positioned between the ends of the outer panels of side and end walls, and means securing the said arcuate panels in position.

TOM JELKS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
651,019	Ransome	June 5, 1900
926,269	Magdiel	June 29, 1909
1,036,468	Dyhrkopp	Aug. 20, 1912
1,042,648	Crary	Oct. 29, 1912
1,112,112	Brandt	Sept. 29, 1914
1,533,960	Wells	Apr. 14, 1925
2,433,934	Symons	Jan. 6, 1948
2,465,871	Hardie et al.	Mar. 29, 1949