Oct. 23, 1945. W. W. HERRING 2,387,445

CONCRETE WALL FORM

Filed Aug. 16, 1943 3 Sheets-Sheet 1

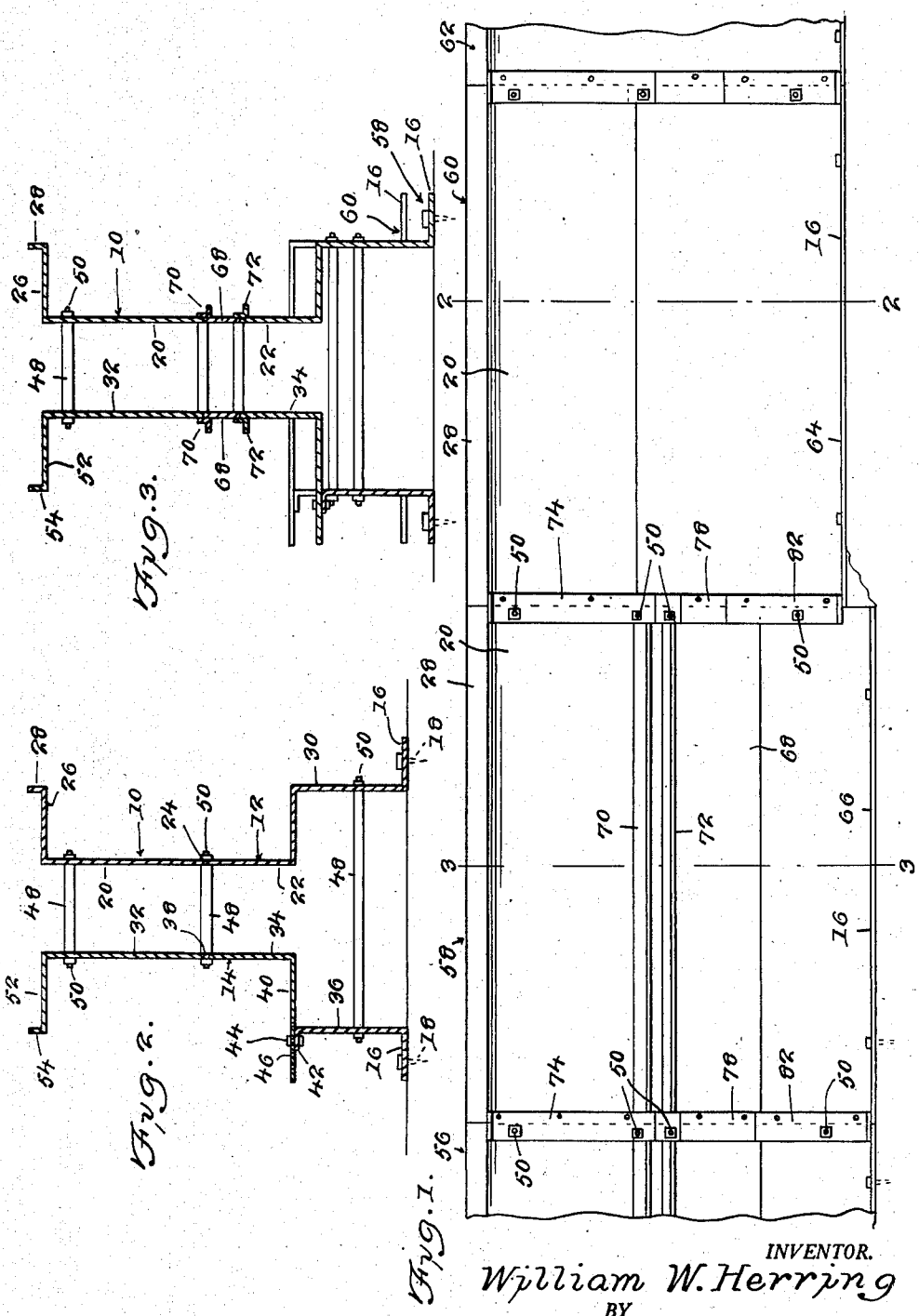


Fig. 3.

Fig. 2.

Fig. 1.

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CONCRETE WALL FORM

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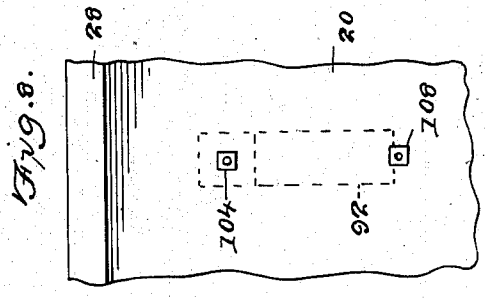


Fig. 8.

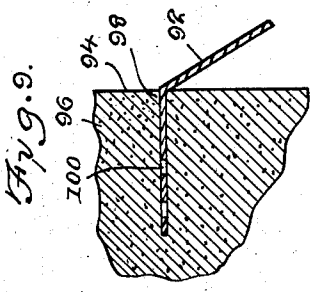


Fig. 9.

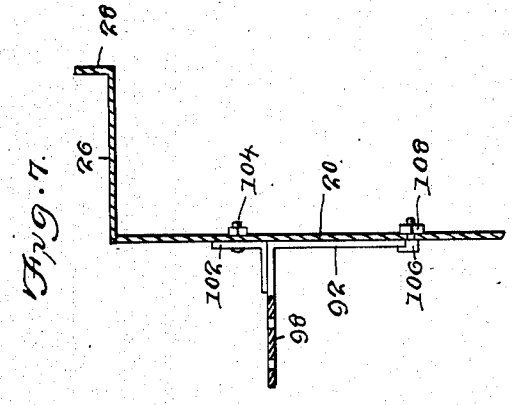


Fig. 7.

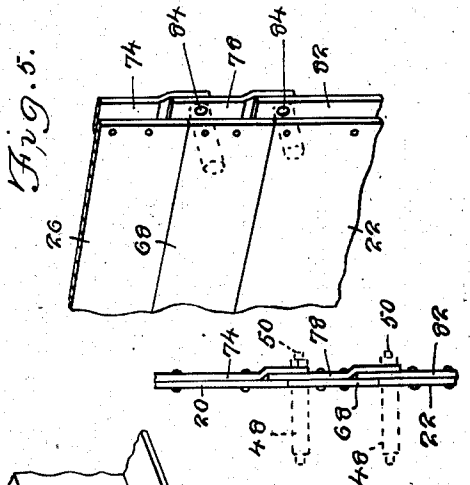


Fig. 5.

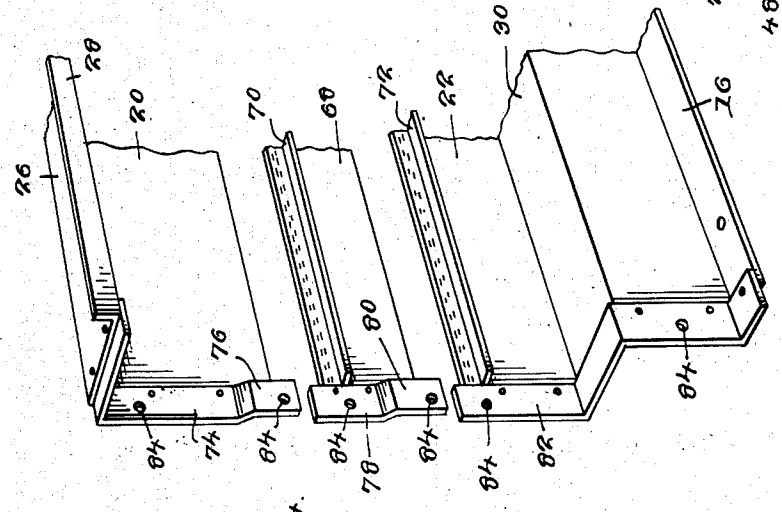


Fig. 6

Fig. 4.

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CONCRETE WALL FORM

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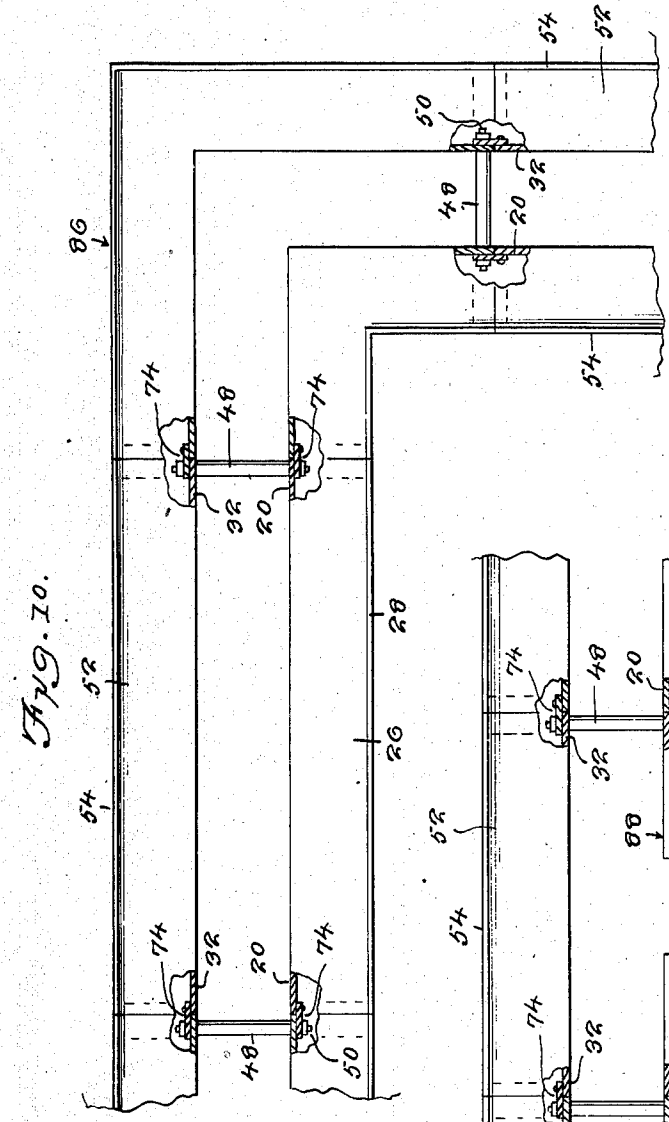


Fig. 10.

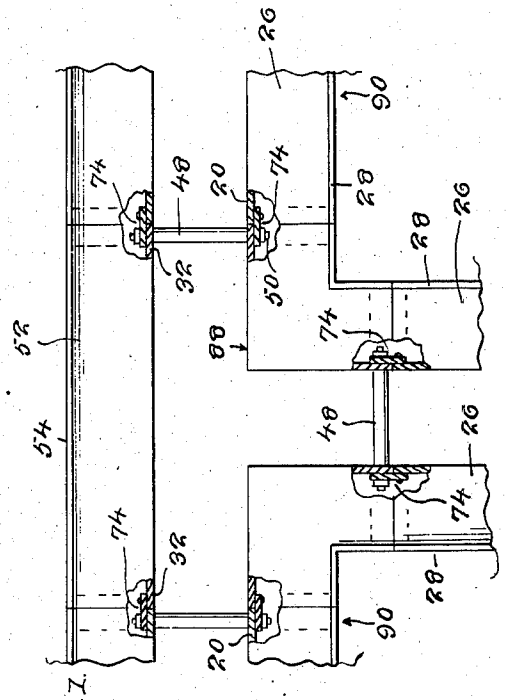


Fig. 11.

WITNESSES:

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2,387,445

CONCRETE WALL FORM

William W. Herring, Oklahoma City, Okla.

Application August 16, 1943, Serial No. 498,818

4 Claims. (Cl. 25—131)

My invention relates to concrete building structures, and has among its objects and advantages the provision of an improved self-supporting form embodying adjustment for size and flexibility as to uneven ground contour to facilitate the construction of foundations for buildings and the like.

In the accompanying drawings:

Figure 1 is a side elevational view of a form in accordance with my invention;

Figure 2 is a sectional view along the line 2—2 of Figure 1;

Figure 3 is a sectional view along the line 3—3 of Figure 1;

Figure 4 is a perspective detail view of parts of the form separated for the purpose of illustration;

Figure 5 is a view similar to Figure 4 but illustrating the parts in their connected relationship;

Figure 6 is an end view of the structure of Figure 5;

Figure 7 is a sectional detail view illustrating a mount for a termite plate to be incorporated in the foundation;

Figure 8 is a face view of the structure of Figure 7;

Figure 9 is a sectional view through a portion of the foundation illustrating the termite plate anchored therein;

Figure 10 is a top plan view of a corner form unit; and

Figure 11 is a top plan view of a partition unit for disposition between the wall sections.

In the embodiment selected for illustration, the form 10 comprises spaced side walls 12 and 14. Both side walls are formed of sheet metal and each includes a base flange 16 perforated for the reception of anchor pins 18 which may be driven into the earth to make the form secure.

Wall 12 comprises sections 20 and 22 divided longitudinally and engaging edge to edge, as at 24. The upper section 20 is bent to provide a horizontal flange 26 having an upstanding flange 28. The lower section 22 is provided with an offset 30 so as to give the concrete foundation sufficient width along its base.

Wall 14 comprises an upper section 32, an intermediate section 34 and a base section 36. Sections 32 and 34 are divided horizontally and meet edge to edge as at 38. Section 34 includes a relatively wide horizontal flange 40 lying on the flange 42 of the section 36, the latter being channel-shaped in cross section. A bolted connection 44 fixedly secures the flange 40 to the flange 42, and the flange 40 is provided with a series of openings 46 so that the section 36 may be adjusted to different positions for varying the width of the foundation base, as by shifting the section 36 toward or away from the section 30. Sections 32 and 34 are spaced from the sections 20 and 22 and are fixedly retained in such spaced relationship by means of spacer tubes 48 having bolts 50 extended throughout. The horizontal flange 52 of the section 32 lies in a common plane with the flange 26 and the flange 32 is provided with an upstanding flange 54 arranged in parallelism with the flange 28.

The flanges 28 and 54 function as rails for guiding cars employed in conveying the concrete from the mixed to its place of dumping in the form. Such cars are provided with flanged wheels. Thus the upper part of the form embodies a track function to facilitate movement of cars therealong.

Figure 1 illustrates the form 10 as being divided vertically into sections 56, 58, 60 and 62. Sections 56 and 58 are of the same vertical height, which height is somewhat greater than the sections 60 and 62. Sections 60 and 62 are mounted on a ground level 64 higher than the ground level 66 on which the sections 56 and 58 are mounted. The number of sections of the same height will depend upon the length of the building foundation and the inclined nature of the ground formation. Ground levels 64 and 66 are dug to lie in horizontal planes. All the sections terminate in a common horizontal plane at their tops, and inclination of the ground surface is compensated for through the employment of form walls of variable heights. This feature greatly facilitates the construction of foundations on inclined ground formation.

Figure 3 illustrates the section 58 in cross section, which section is identical with the section 60 of Figure 2, with the exception that wall plates 68 are inserted between the respective wall sections 20 and 22 and 32 and 34. The wall sections 20 and 32 of Figure 3 are provided with angles 70 fixedly secured thereto and overlapping edge margins of the plates 68. Angles 72 are secured to the respective plates 68 and overlap edge margins of the walls 22 and 34. Plates 68 represent the difference in height between the sections 58 and 60.

In Figure 4, the walls 20 and 22 are separated from their respective plates 68. To one end of the wall 20 is riveted a bar 74 having an offset 76 between which and the wall 20 is inserted one end of a bar 78 riveted to the plate 68. Bar 78 also includes an offset 80 between which and the plate 68 is inserted one end of a bar 82 riveted

to the wall 22. All the bars 74, 78 and 82 project beyond respective ends of the walls and the plate so as to have overlapping relationship with end margins of corresponding walls and plates which may be connected in end to end relationship. Openings 84 are provided in the bars 74, 78 and 82 for the reception of the bolts 50. Offset 76 is designed for coaction with the bar 78 in cases where the plate 68 is inserted or with the bar 82 in cases where the form wall is of minimum height.

Figure 10 illustrates a corner form unit 86 which is identical in construction with the adjoining sections with the exception of the bend therein. Figure 11 illustrates a partition unit 88 interposed between the wall sections 90. Partition unit 88 is identical with the wall sections 90 with the exception of the T-shaped contour of Figure 11.

Figure 9 illustrates a termite plate 92 arranged at an acute angle to the outside face 94 of the foundation 96. Plate 92 has a wide edge margin 98 embedded in the foundation 96, the margin 98 being provided with openings 100 for anchoring purposes. Plate 92 originally lies flat against the inner face of the wall section 20 with the edge margin 98 arranged at right angles to the plate. Margin 98 lies adjacent an angle 102 bolted at 104 to the wall section 20. Clips 106 engage the lower edge margin of the plate 92 and are made secure to the wall section 20 by nuts 108. Plate 92 is bent to its angular position of Figure 9 after the concrete has set. The angular plate 92 extends completely about the building and provides a barrier which prevents the termites from ascending the foundation beyond the plate.

The form is so contoured as to balance in an upright position. The base flanges are pegged to the earth so as to restrain the form from accidental shifting. In addition, the form may be adjusted to provide foundations of different thicknesses.

Without further elaboration, the foregoing will so fully illustrate my invention, that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

1. A concrete form comprising spaced vertical walls, means acting on the walls to hold the latter in predetermined spaced relationship, opposed outwardly and downwardly extending base formations in said walls flanges on the lower edges for supporting the form in an upright position, and outwardly and upwardly extending portions on the upper edges of said walls to provide a track for a wheeled concrete carrier.

2. The invention described in claim 1 wherein one of said walls is extending upwardly and is adjustably connected with its respective base formation for adjusting either with respect to the other to vary the thickness of the form.

3. A concrete form comprising spaced vertical walls, each wall comprising upper and lower sections, unflanged filler plates adapted for location between the sections in edge to edge relationship, reinforcing members for said sections and filler plates, means acting on the walls to hold the latter in predetermined spaced relationship, base formations in said walls for supporting the form in an upright position, and an extended part on one base flange for adjusting the base formation in one wall laterally of that wall.

4. A concrete form comprising two units arranged end to end, means for connecting the two units in end to end relationship, each unit comprising spaced vertical walls, means acting on the walls to hold the latter in predetermined spaced relationship, base formations in said walls for supporting the form in an upright position, said walls being divided horizontally into sections, and unflanged filler plates interposed in edge contacting relationship between the sections of one of said units to locate the base formations thereof beneath the base formations of the other unit, wherein said vertical walls are provided with outwardly and upwardly extending portions along their upper edges to provide a track for a wheeled concrete carrier.

WILLIAM W. HERRING.