

Dec. 29, 1959

H. G. PRATT
CONCRETE FORM.

2,918,716

Filed June 11, 1957

2 Sheets-Sheet 1

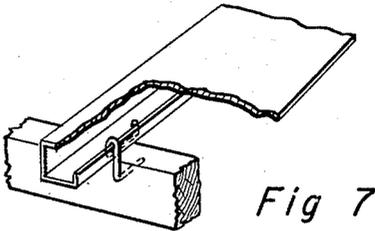
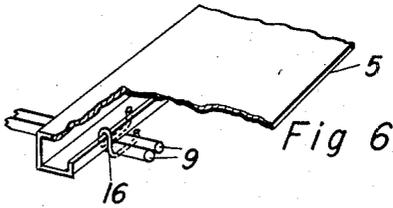
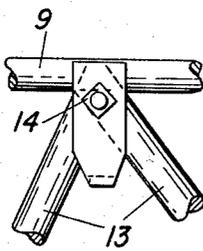
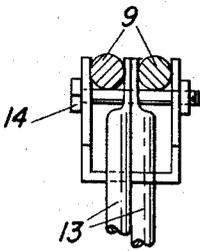
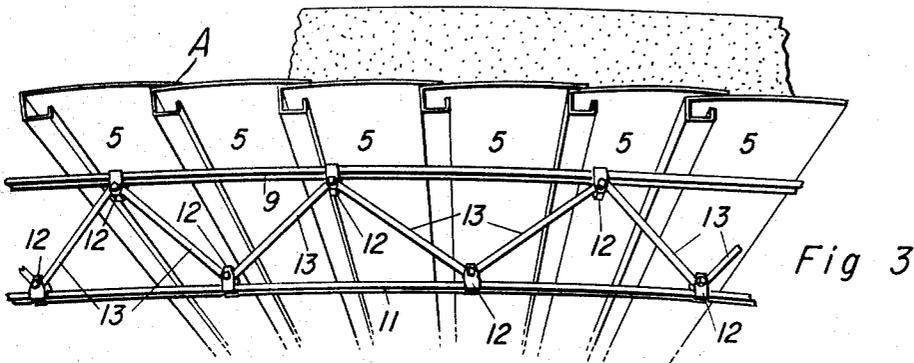
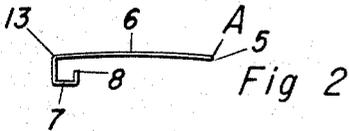
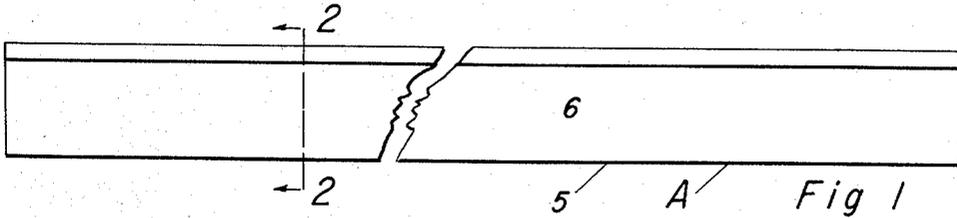


Fig 4

Fig 5

Fig 6

Fig 7

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Fig 8

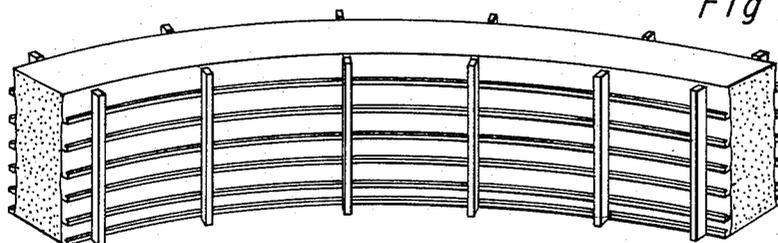


Fig 9

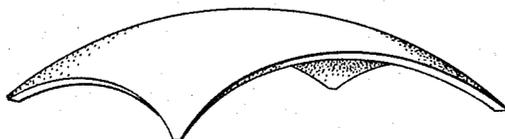


Fig 10

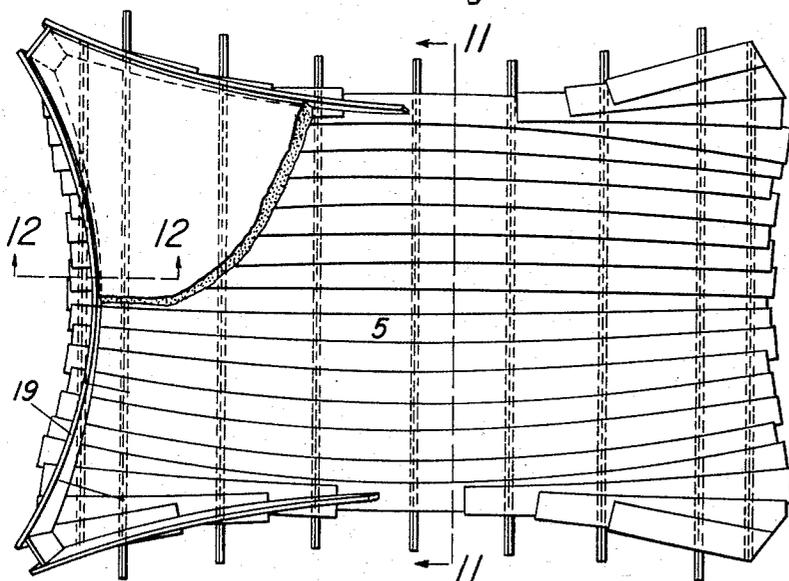


Fig 11

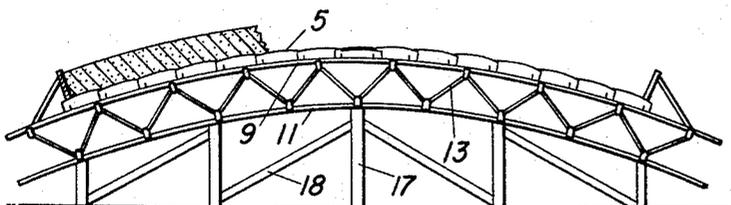
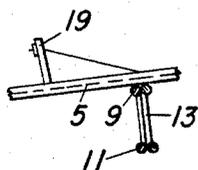


Fig 12



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2,918,716

CONCRETE FORM

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1 Claim. (Cl. 25—131)

This invention relates to improvements in concrete forms and has particular reference to a form which can take various compound curves in counterdistinction to the ordinary wooden or metal forms which can be bent in only one direction to form a single curve.

The principal object of this invention is to provide a plurality of form members of relatively narrow width which may be bent from end to end and which also may be arranged in overlapped positions so as to accomplish a compound curve whereby when the wet concrete is poured thereon or thereagainst, the form members will have sufficient rigidity to resist any tendency to become deformed during the pouring or hardening of the cement.

A further object is to produce a form which is economical to erect and one which may be used over and over in various structures having contours different from those of previous structures formed with the units.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numbers are employed to designate like parts throughout the same,

Fig. 1 is a top plan view of one of my forms showing a channel formed along one edge thereof;

Fig. 2 is a cross sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a perspective view of a plurality of form members arranged in overlapped position and supported by adjustable truss members;

Fig. 4 is a side elevation of one of the truss members;

Fig. 5 is a front elevation of one of the truss members;

Fig. 6 is a fragmentary detailed view showing the manner of attaching the truss bars to the individual form members;

Fig. 7 is a modified form of a fastening element for use when wooden truss bars are used;

Fig. 8 is a perspective view of a curved wall using my form boards;

Fig. 9 is a perspective view of a roof structure having compound curves;

Fig. 10 is a top plan view of the arrangement of my forms to form a structure such as shown in Fig. 9;

Fig. 11 is a fragmentary cross sectional view taken on the line 11—11 of Fig. 10; and

Fig. 12 is a cross sectional view taken on the line 12—12 of Fig. 10.

Ordinarily in pouring concrete it is necessary to use forms in order to confine the plastic concrete in the desired shape until the plastic material hardens. Heretofore it has been customary to use form boards which are difficult to bend wherever a curved surface is necessary. Also, it is necessary to use segments sawed to the proper curvature and spliced together, and if a compound curve is desired, it is necessary to taper the sheeting so as to form wedges wherever a taper exists. Also, after one such use, these form boards are of no value whatsoever.

Applicant has therefore devised a form for concrete wherein a plurality of relatively narrow metal strips hav-

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ing a channel formed along one edge thereof and each provided with a crown whereby when these form members are overlapped, there will be a point of contact only between the edge of one form member and the adjacent crown portion of the next form member. By now supporting these forms against a curved truss, a plane curved supporting surface is formed.

These forms may be vertically arranged or laterally arranged and due to the narrow widths and small channels they may take an endwise bend if necessary, as shown in Fig. 8, or undergo a slight twist, as may in some instances be necessary.

Referring now to Fig. 1, the numeral 5 designates one of the form members as a whole having a relative flat portion 6, which flat portion is slightly crowned from its edge A to its edge B. One edge of this form is bent upon itself to form a channel 7 having an intumed end 8.

Referring now to Fig. 3, it will be noted that a plurality of these form members are arranged in overlapping positions so that the end A of for instance the first section to the left rests upon the crowned portion of the next adjacent section, and this arrangement is shown throughout the figure.

In order to support these form sections, I provide a pair of parallel rods 9 and a pair of parallel rods 11 spaced one from the other and connected through the medium of adjustable clamps 12, between which clamps spacers 13 extend. These spacers 13 have their ends connected to the clamp by means of a bolt 14, the tightening of which bolt tends to secure the clamps to the rods 9 or 11 as the case may be.

In erecting a structure, the rods 9 and 11 are bent roughly on the location to the desired curvature and then the clamps 12 are tightened, with the result that the rods 11 and 12 will form a truss arrangement to which the forms may be secured, as by wire clamps 16 (see Fig. 6), or, if wooden trusses are used, then clamps are used in the form shown in Fig. 7, wherein one end of the clamp is driven into the wooden truss.

In Fig. 8 I have shown the form boards bent from end to end and arranged in horizontal position and supported by vertical posts or stanchions to which the forms are attached.

In Fig. 10 I have illustrated how the forms may be used to form a compound curved structure, as for instance the roof of a building, in which case supporting posts 17 suitably braced as shown at 18 serve to support the truss members 9 and 11, which truss members 11 rest upon the post.

The forms are then superimposed upon the truss members, following the great circle curve across the truss members, with the result that the ends of the form members will overlap more or less as they follow said contours (see Fig. 10), thus forming a fairly smooth surface upon which the concrete may be poured to any desired depth.

In Fig. 12 I have shown a means of securing retaining boards 19 against which the concrete at the lower edge of the pour may rest. In some cases these boards will be braced from the outside, and in other places they will be braced with guy wires from the inside.

It will thus be seen that by use of the form members as shown in Fig. 1, together with suitable supporting structures, that these forms may be adjusted to accommodate almost any curvature desired in the pouring and supporting of concrete during its curing period.

It will therefore be noted that my invention will accomplish all of the objects above set forth. It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to

without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

A concrete form comprising a plurality of elongated members all of the same width and having parallel elongated edges, said members each having a slight curvature to produce a crown formed between the elongated edges of each member, reinforcing means formed along one of said elongated edges of each of said members, the axis of each member being at variance with the axes of the other members, and said members overlapping each other whereby the terminal edge of the non-reinforced edge of a member contacts the next adjacent member only at a

point substantially anywhere along the crown to form an overlapping structure.

References Cited in the file of this patent

UNITED STATES PATENTS

1,144,862	Peoples et al. -----	June 29, 1915
1,533,960	Wells -----	Apr. 14, 1925
1,898,319	Soule -----	Feb. 21, 1933
2,019,195	Simpson -----	Oct. 29, 1935
2,418,758	Cooper -----	Apr. 8, 1947

FOREIGN PATENTS

519,663	Great Britain -----	Apr. 2, 1940
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