

D. W. BOWE.
POST REINFORCEMENT.
APPLICATION FILED FEB. 28, 1916.

1,237,159.

Patented Aug. 14, 1917.

Fig. 1.

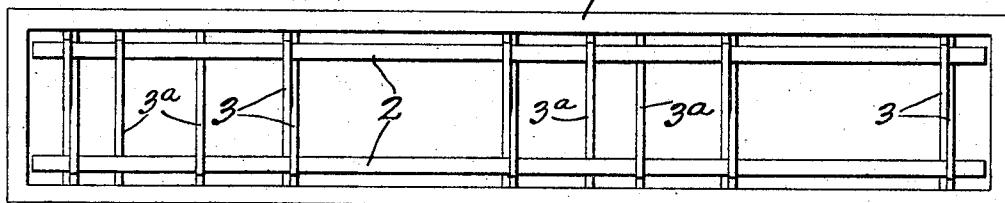


Fig. 2.

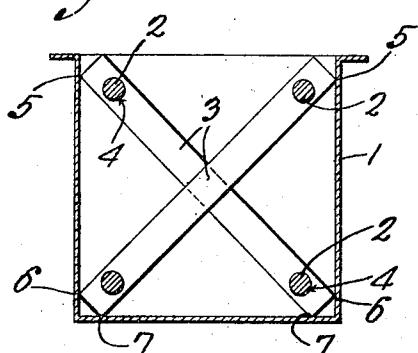


Fig. 3.

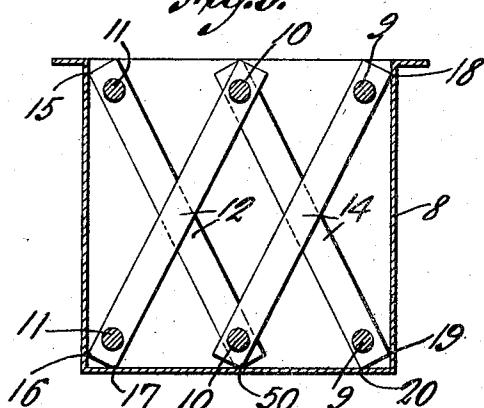


Fig. 4.

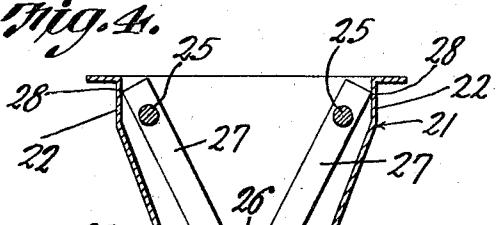


Fig. 5.

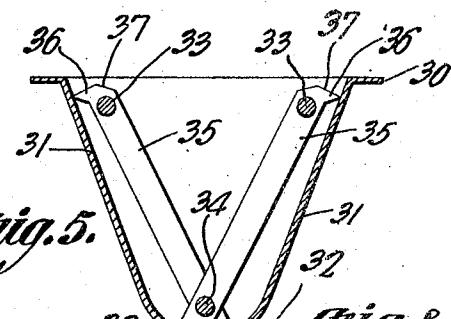


Fig. 6.

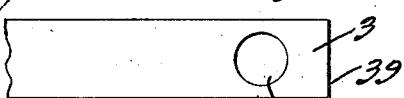
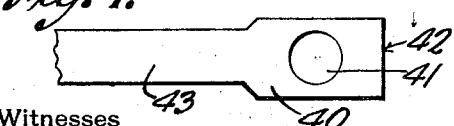


Fig. 7.



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Fig. 9.

Witnesses

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POST-REINFORCEMENT.

1,237,159.

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To all whom it may concern:

Be it known that I, DAVID W. BOWE, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Post-Reinforcement, of which the following is a specification.

The device forming the subject matter of this application aims to provide novel means whereby the longitudinal reinforcing elements in a concrete post or beam may be held in spaced relation to the sides and the bottom of the mold, during the molding of the post or beam.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:—

Figure 1 shows the invention in top plan; Fig. 2 is a cross section of the structure shown in Fig. 1;

Fig. 3 is a cross section showing a modification;

Fig. 4 is a cross section showing another modification;

Fig. 5 is a cross section showing a further modification;

Fig. 6 is a fragmental plan showing one of the strips employed in that form of the invention disclosed in Figs. 1 and 2;

Figs. 7, 8 and 9 are plans showing modifications in the strips.

Referring to Figs. 1 and 2 there is shown a rectangular mold 1 within which are located longitudinal reinforcing bars 2 adapted to constitute a part of the product made in the mold 1. A plurality of crossed reinforcing strips 3 are provided, the same having openings 4 in their ends through which the bars 2 pass removably. The upper ends of the strips 3 bear as shown at 5 against the side walls of the mold adjacent the top of the mold, the lower ends of the strips 3 bear as shown at 6 against the side walls of the mold adjacent the bottom of the mold,

and the lower ends of the strips 3 bear as shown at 7 against the bottom proper of the mold.

Owing to the construction last above described, the bars 2 will be held in proper spaced relation to sides and to the bottom of the mold and the weight of the reinforcing elements 2 and 3 will be carried by the bottom of the mold.

In Fig. 3 of the drawings there is shown a mold 8 of rectangular cross section. Disposed within the mold 8 are outer longitudinal reinforcing bars 9—11 and inner longitudinal reinforcing bars 10. Cross strips 12 connect the bars 11 and 10 in the manner hereinbefore set forth, and cross strips 14 connect the bars 10 and 9 as above described. One of the strips 12 abuts as shown at 15 against the side wall of the mold 8 adjacent the top of the mold. The lower end of the other of the strips 12 abuts as shown at 16 against the side of the mold, the lower end of the said strip 12 abutting as shown at 17 against the bottom of the mold. Those strips 12 and 14 which are connected with the lower bar 10 abut against the bottom of the mold as shown at 50. The upper end of one of the strips 14 abuts as shown at 18 against the side wall of the mold 8 adjacent the top of the mold. The lower end of the other strip 14 abuts as shown at 19 against the side wall of the mold, the lower corner of the said strip abutting as shown at 20 against the bottom of the mold.

From the foregoing it will be observed that in that form of the invention disclosed in Fig. 3, as in the form disclosed in Fig. 2, the strips coöperate with the sides and the bottom of the mold and to hold the longitudinal reinforcing bars positioned with respect to the mold, so that when the concrete is poured into the mold, the longitudinal reinforcing bars will be arranged in proper positions with respect to the outer surface of the product.

In Fig. 4 there is shown a mold 21 which is of approximately triangular contour, the mold 21 including upright sides 22 and inclined sides 23 merging into a bottom 24. Longitudinal reinforcing bars 25 are disposed within the mold 21 adjacent the top of the mold, and a single longitudinal reinforcing bar 26 is disposed within the mold, adjacent the bottom 24 of the mold. Crossed strips 27 are provided, the upper ends of the crossed strips 27 being mounted on the bars

25, and the strips 27 at their point of crossing, being mounted on the bottom bar 26, in the manner hereinbefore set forth. At their upper ends, the strips 27 bear as shown 5 at 28, against the sides 22 of the mold, the lower ends of the strips 27 bearing against the bottom 24 of the mold as shown at 29.

In Fig. 5 of the drawings, there is shown an approximately triangular mold 30 comprising inclined walls 31 defining a bottom 32. Bars 33 are located within the mold 30 adjacent the top of the mold, and within the mold 30, near to its bottom, is placed a longitudinal bar 34. Cross strips 35 are provided, 15 the upper ends of the strips 35 being mounted on the bars 33, and the strips being mounted, at their point of crossing, on the bottom bar 34. Near their upper ends, the strips 35 are equipped with outwardly extended projections 36 which bear on the side walls 31 of the mold. The inner corners of the strips 35 are cut away as shown at 37, so that the corners of the strips will not project outwardly through the concrete. As 25 shown at 38, the lower ends of the strips 35 bear on the bottom 32 of the mold.

In Fig. 6 of the drawings, the strips 3 are shown as provided with rectangular end edges 39.

30 In Fig. 7 of the drawings there is shown a strip 40 provided with an opening 41 and with a rectangularly disposed end edge 42. The strip 40 may be reduced, intermediate its ends, to form a neck 43.

35 In Fig. 8 of the drawings, there appears a strip 44 provided, as will be understood, at both ends, with openings 45, the strip 44

having a V-shaped notch 46 in each of its ends.

In Fig. 9 of the drawings, the numeral 47 40 denotes a strip having openings 48 adjacent each of its ends, each of the end edges of the strip being provided with concaved notches 49.

In any form of the invention, it is not 45 necessary that the crossed strips be in contact. The strips may be placed at any desired distances apart, along the rods, as shown in the case of the strips 3^a in Fig. 1.

Having thus described the invention, what 50 is claimed is:—

A reinforcement of the class described, comprising straight, parallel rods; and crossed strips provided at their ends with 55 openings lying entirely within the contour of the strips, the rods being loosely received in the openings, whereby the strips may swing transversely on the rods, to effect an expansion and a contraction of the reinforcement, and to permit the reinforcement to fit 60 in molds of different cross-sections, the loose mounting of the strips on the rods, permitting the strips to be shifted longitudinally 65 of the rods, whereby the strips may be arranged in groups at points between the ends of the product of which the reinforcement constitutes a part.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

DAVID W. BOWE.

Witnesses:

PHYLLIS HACKETT,
MAMIE ALLEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."