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W. E. WHITE

1,950,343

REINFORCEMENT FOR HEADERS AND STRETCHERS

Filed Sept. 6, 1930

Fig. 1.

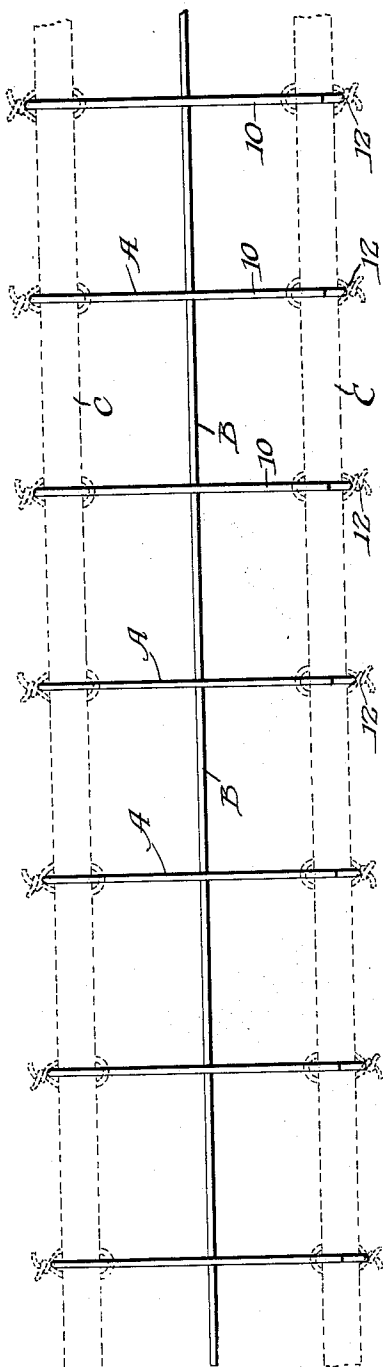
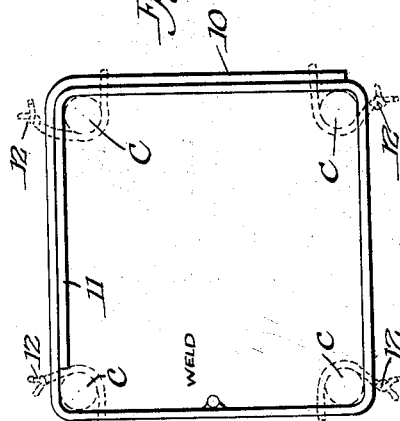


Fig. 2.



Witness:  
R. B. Dawson.

Inventor  
William E. White.  
By Murray Murray  
Attys

## UNITED STATES PATENT OFFICE

1,950,343

REENFORCEMENT FOR HEADERS AND  
STRETCHERS

William E. White, Chicago, Ill., assignor to  
Kalman Steel Company, Chicago, Ill., a cor-  
poration of Delaware

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2 Claims. (Cl. 72-76)

My invention relates to concrete reenforce-  
ment and particularly to novel means for sup-  
porting and spacing the reinforcing required for  
special concrete structures.

8 An object of my invention is to provide simple  
and easily constructed means adapted for the  
required use. It is necessary to provide a suit-  
able structure with which the required reenforc-  
ing bars may be associated, such structure being  
10 in the form of a cage having a function corre-  
sponding to that of the familiar spiral. In cer-  
tain uses the helically formed cage is satisfac-  
tory, but for uses such as those contemplated in  
the structure we disclose, the spiral cage is prac-  
15 tically valueless; this for the reason that the  
square form of the ultimate reenforcing structure  
calls for very accurate bending of the members  
forming the cage, and the practical certainty that  
notwithstanding the greatest care, the reenforc-  
20 ing structure when completed will not be straight.  
That is there will result a rectangular structure  
in which the bars are not perpendicular to a  
plane surface intersecting them. This objection  
is overcome by providing a series of separate rec-  
25 tangular shapes suitably joined by a longitudinal  
wire member, the separate shapes being formed  
from a length of wire rod, the ends of the rod  
being overlapped and unjoined. The separate  
shapes with the reinforcing rods held in inside  
30 angles constitute a series of stirrups which add  
materially to the stress resisting capacity of the  
structure. In view of the nature of the structure  
the feature of overlapping the ends of the rod  
avoids the necessity for joining by welding or  
35 otherwise. A cage constructed as described may  
be conveniently shipped and handled and bars  
assembled with the cage in the field if desired.

The invention will be more readily understood  
by reference to the accompanying drawing in  
40 which:

Fig. 1 is a side elevation of a structure such as  
contemplated, the reinforcing bars and ties being  
shown in dotted lines, and

Fig. 2 is an elevation of the same structure.

45 In the drawing I have shown the cage as com-

posed of a series of wire rod shapes A, and a lon-  
gitudinal tie rod B, all preferably composed of  
approximately 8 gauge wire rod. The shapes are  
composed of a length of rod substantially greater  
than the circumferential measurement of the 50  
shape, whereby the two ends 10 and 11 are over-  
lapped for a substantial distance. While I have  
shown the shapes as of rectangular or square out-  
line, it will be obvious that they may be con-  
structed in different outlines if desired. The sep- 55  
arate, duplicate shapes A, are joined in properly  
spaced relation by means of the longitudinal rod  
B, which is welded to the shapes at a point prefer-  
ably between the angles.

The reenforcing rods C, are located in the 70  
angles of the wire shapes and held in place by  
means of the light wire ties 12. These ties serve  
the additional purpose of uniting the overlapped  
ends of the wire composing the shapes.

A cage or support as described may be cheaply 75  
constructed, easily handled and readily adapts  
itself to the attachment of the reinforcing bars  
thereto.

Obviously the construction is capable of con-  
siderable modification, and I do not wish to be 80  
limited except as indicated in the appended claims.

I claim:

1. A support and spacer of the class described  
comprising in combination a plurality of separate  
wire rod shapes each of which is composed of a 85  
length of wire rod bent into a circumferentially  
complete form with overlapped unconnected ends  
terminating at substantially diametrically oppo-  
site points, and a single longitudinally extending  
rod secured to the separate shapes to space and 90  
hold the shapes in proper relation prior to the  
attachment of bars thereto.

2. A support and spacer for reinforcing bars  
of headers and stretchers comprising a plurality  
of separate wire rod rectangles, each composed of 95  
a length of wire rod bent to the required shape  
with its ends overlapped and terminating adja-  
cent diagonal corners of said rectangle, and a  
straight length of wire rod to which said rec-  
tangles are welded. WILLIAM E. WHITE. 100