H. H. LAMPERT.

BAR SUPPORT AND SPACER FOR CONCRETE REINFORCEMENTS.

APPLICATION FILED DEC. 14, 1917.

1,287,052. Patented Dec. 10, 1918.

Fig. 1.

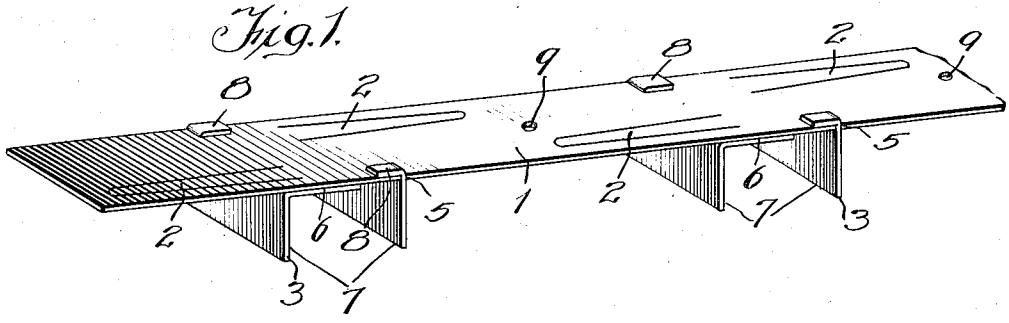


Fig. 2.

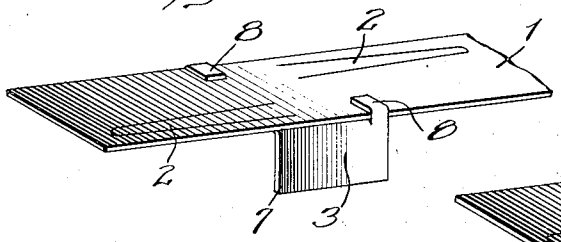


Fig. 3.

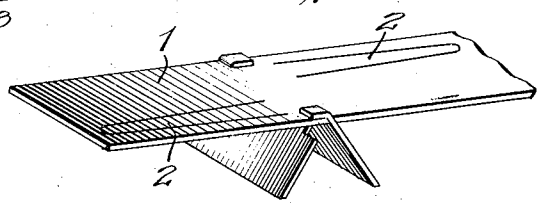


Fig. 4.

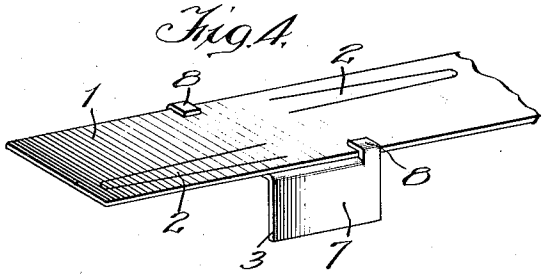


Fig. 5.

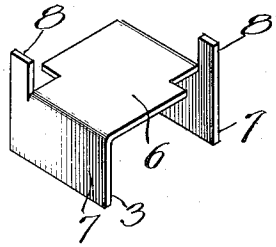
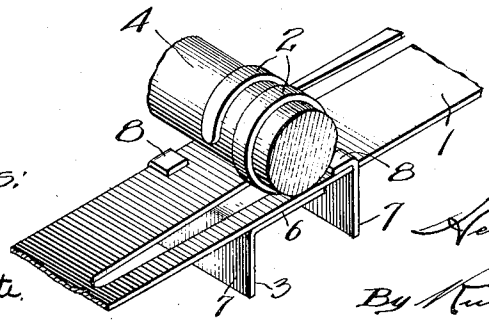


Fig. 6.



Witnesses:
W. Kilroy
Harry R. C. White.

Inventor:
Henry H. Lampert,
By Rummler & Rummler,
Attys.

UNITED STATES PATENT OFFICE.

HENRY H. LAMPERT, OF CHICAGO, ILLINOIS.

BAR SUPPORT AND SPACER FOR CONCRETE-REINFORCEMENTS.

1,287,052. Specification of Letters Patent. Patented Dec. 10, 1918.

Application filed December 14, 1917. Serial No. 207,114.

To all whom it may concern:

Be it known that I, HENRY H. LAMPERT, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Bar Supports and Spacers for Concrete-Reinforcements, of which the following is a specification.

The main objects of this invention are to provide an improved construction and arrangement of bar supporting devices for use in concrete reinforcements whereby a plurality of bar supporting means are connected together in spaced relation so that they may be quickly and conveniently placed on the falsework in properly alined positions to receive the bars preparatory to pouring the concrete; to provide an improved form and arrangement of the bar clamping and spacing means; to provide an improved form of supporting means for said spacing and clamping means; and to provide an improved manner of securing together the separately formed supporting-means and spacing-and-clamping-means.

An illustrative embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a bar supporting and spacing device constructed according to this invention.

Fig. 2 is a fragmentary view showing the clamping-and-spacing means secured to the same form of supporting means shown in Fig. 1 but differently arranged with respect to the strip.

Fig. 3 is a similar view of a slightly modified form of supporting means.

Fig. 4 is a view showing still another arrangement of the form of supporting means shown in Fig. 1.

Fig. 5 is a perspective view of one of the supporting means separate from the spacing-and-clamping means.

Fig. 6 is a perspective view of the form shown in Fig. 1, with the clamping means bent over a bar.

In arranging reinforcing bars for concrete construction it is desirable to have the supports uniformly spaced apart transversely of the length of the bars and alined longitudinally thereof. In order to accomplish this without involving the loss of time and incurring additional expense incident to marking off the position for each clamping device on the falsework and fastening it thereto, the clamping means may preferably be combined with suitable spacing means whereby said clamping means are spaced apart in series or groups. In this condition, bar clamping means may be very quickly arranged on the falsework, and only one or two fastening means are required to secure a plurality of clamping means in their proper positions. Various forms of clamping means and spacing and supporting means have been provided, some of which are shown in my copending applications Ser. No. 108,913, filed July 12, 1916, and Ser. No. 202,439, filed November 17, 1917. Many of the constructions heretofore used or proposed are objectionable because of the difficulty or expense to manufacture, or their failure to stand up under extreme conditions of use. Therefore, the present invention contemplates the production of a combined bar support and spacing means which is simpler in construction and less expensive to manufacture than any of the forms heretofore proposed or used. The construction herein shown involves the use of a spacing strip having formed therein at intervals along the length thereof a plurality of clamping means which are supported above the falsework on which the concrete is to be poured, by a plurality of separately formed supporting members secured to said strip also at intervals along its length.

The several modifications herein shown embody the same general construction comprising a strip 1, clamping fingers 2, and a chair or support 3.

The spacing strip 1 is in the form of a comparatively narrow strip of wrought metal straight from end to end and of uniform cross section, and is provided with a

plurality of longitudinally disposed fingers 2 formed therein and adapted to be struck up therefrom and bent over reinforcing bars 5 for supporting and clamping them on the spacing strip 1. By forming the clamping and spacing means from the same strip of metal, a considerable amount of material is saved and much expense and trouble are avoided. The fingers 2 are preferably formed in pairs at certain specified intervals along the length of the strip as shown in Fig. 1, so as to provide a support on each side of the reinforcing bars, which prevents them from becoming displaced when subjected to excessive strains. The strip 1 is also provided with notches or recesses 5 extending inwardly from the opposite edges thereof and also formed in pairs preferably adjacent the fingers 2.

Each of the supporting members 3 as herein illustrated is formed from sheet metal so as to provide a seat 6, depending legs 7 and upwardly disposed lugs 8. The seat 6 and depending legs 7 constitute a substantially inverted U-shaped chair, and the lugs 8 are preferably located at diagonally opposite sides thereof.

The parts thus formed are assembled by setting the lugs 8 disposed as shown in Fig. 5 into the notches 5 of the opposite sides of the strip 1 with the strip resting upon the seat 6. The lugs 8 are then bent down so as to lock the supporting members to the spacing strip. A plurality of the supporting members are thus supported in a predetermined spaced relation along the strip, and said supporting members may be set on the falsework in the desired arrangement with very little trouble and labor.

In the embodiment shown in Fig. 2, the legs 7 of the supporting member 3 are disposed longitudinally with respect to the strip 1 and the apertures 5 are necessarily differently arranged from those shown in Fig. 1.

In the embodiment shown in Fig. 4, the lugs 8 do not engage apertures formed in the strip 1, but are bent around the opposite sides thereof so as to allow shifting of the supporting member along the length of the spacing strip.

Apertures 9 are formed at points along the spacing strip 1 so that a series of the supports may be nailed in position on the falsework by a few nails or other fastening means.

The reinforcing bars 4 are placed between the arms 2 so as to rest upon the strip 1 directly above the seats 6. The arms are then struck up and bent over the bars as shown in Fig. 6, so as to firmly clamp said bars on the spacing member above the falsework.

It will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. As an article of manufacture, a structure for use as a bar supporting device for concrete reinforcements, comprising a strip, bar clamping means fixed thereon, separately formed supporting means, and interlocking parts integrally formed on said supporting means and strip, said supporting means being assembled on and secured to said strip by passing the parts on said means into interlocking engagement with the parts on said strip.

2. As an article of manufacture, a structure for use as a bar supporting device for concrete reinforcements, comprising a strip, bar clamping means fixed thereon, and separately formed supporting means for said strip, said strip and supporting means having lugs and slots formed thereon, said supporting means being assembled on and secured to said strip by passing said lugs into said slots and bending them over.

3. As an article of manufacture, a structure for use as a bar supporting device for concrete reinforcements, comprising a strip having recesses formed therein, bar clamping means fixed thereon, separately formed supporting means, and lugs formed on said supporting means, said means being assembled on and secured to said strip by passing said lugs through said recesses and bending them over onto said strip.

4. As an article of manufacture, a structure for use as a bar supporting device for concrete reinforcements, comprising a strip having recesses formed therein, bar clamping means fixed thereon, and separately formed supporting means for said strip each comprising a depending leg and upstanding lugs, said means being assembled on and secured to said strip by passing said lugs into said recesses and bending them over onto said strip.

5. As an article of manufacture, a structure for use as a bar supporting device for concrete reinforcements, comprising a strip having recesses formed therein, bar clamping means fixed thereon, and separately formed supporting means comprising a pair of depending legs connected by a transverse part, and upwardly disposed lugs located at diagonally opposite edges of said transverse part, said lugs engaging said recesses and coacting therewith for securing said supporting means to said strip and bar clamping means.

6. As an article of manufacture, a structure for use as a bar supporting device for concrete reinforcements, comprising a strip having recesses formed therein, bar clamp-

ing means comprising a pair of fingers formed in said strip and adapted to be struck up and bent over a bar for clamping said bar on said strip, and separately formed supporting means comprising a pair of depending legs connected by a transverse part, and upwardly disposed lugs located at diagonally opposite edges of said transverse part, said lugs engaging said recesses and coacting therewith for securing said supporting means to said strip and bar clamping means.

Signed at Chicago this 11th day of Dec., 1917.

HENRY H. LAMPERT.