Aug. 9, 1932. D. H. BITNEY 1,870,487

STRUCTURAL UNIT

Filed Jan. 10, 1931

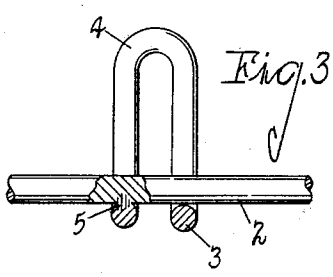


Fig. 3

Fig. 1

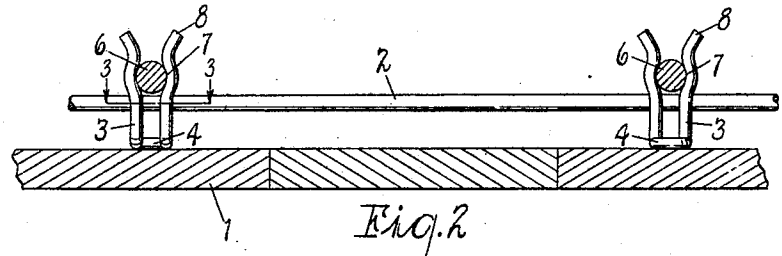


Fig. 2

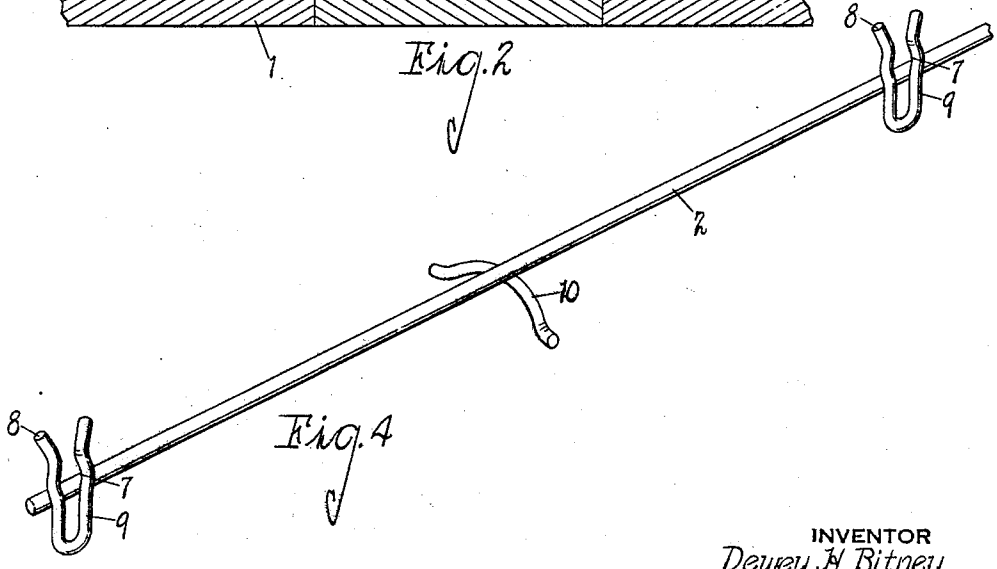


Fig. 4

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UNITED STATES PATENT OFFICE

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STRUCTURAL UNIT

Application filed January 10, 1931. Serial No. 507,777.

The main object of this invention is to provide a structural unit adapted as a support for reinforce bars and other reinforcing elements in concrete structures with which the reinforcing elements may be quickly and easily engaged and by which they are securely supported in a definitely fixed relation relative to each other.

Objects pertaining to details and economies of my invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of my invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a structural element embodying the features of my invention.

Fig. 2 is a fragmentary view of a portion of a form and my improved structural unit with reinforcing bars in operative relation thereto.

Fig. 3 is a fragmentary view partially in section on line 3—3 of Fig. 2.

Fig. 4 is a fragmentary perspective view of a modified form or embodiment of my invention.

In the accompanying drawing 1 represents a fragment of a form. My improved structural unit comprises a longitudinal rod 2 which in practice is of substantial length and to which I secure a plurality of combined legs and reinforce attaching members designated generally by the numeral 3. These members 3 are of U shape, the bight portions 4 in the embodiment shown in Figs. 1, 2 and 3 being laterally offset providing feet. One arm of each member is secured to the longitudinal rod preferably by welding as indicated at 5 in Fig. 3, the other arm being free so that it may spring or yield to permit the engagement of the reinforcing bars 6 between the arms.

The arms of these members 3 project above the longitudinal rod and are preferably oppositely curved above the rod to provide reinforce seats 7. The ends 8 of the arms are diverged outwardly to facilitate engagement of the reinforce bars, it only being necessary to place the bars between these diverging ends and push downwardly thereon. The unattached arms will readily yield or spring to receive the bar but closes upon the same to effectively hold it in position.

The feet portions of these members 3 are disposed so that part of them project to one side of the longitudinal rod and part to the other, thus providing in effect a base of substantial width.

In the modification shown in Fig. 4 the U-shaped combined leg and attaching members 9 are not provided with laterally disposed feet portions, and in this empodiment strut-like legs 10 are provided to hold the unit in upright position.

With the parts thus arranged the units may be made of substantial length and cut to the desired length for use. The reinforce elements may be quickly engaged without the aid of tools and they are supported so that they are not likely to be displaced prior to the pouring of the concrete.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A structural unit comprising a longitudinal supporting rod, and a plurality of U-shaped combined leg and attaching members disposed in spaced relation transversely of said rod, one arm of each member being fixedly secured to the rod, the other being free to permit springing thereof, the arms of said members being oppositely curved above the rod providing opposed inwardly facing reinforce seats, the upper ends of the arms being disposed in diverging relation, the bight ends of the members being disposed horizontally providing feet which are disposed with a part thereof projecting at one side of the longitudinal rod and the remainder projecting oppositely at the other side of the longitudinal rod.

2. A structural unit comprising a longitudinal supporting rod, and a plurality of U-shaped combined leg and attaching members disposed in spaced relation transversely of said rod, one arm of each member being fixedly secured to the rod, the other being free to permit springing thereof, the arms of said members being oppositely curved

above the rod providing opposed inwardly facing reinforce seats, the upper ends of the arms being disposed in diverging relation.

3. A structural unit comprising a longitudinal supporting rod, and a plurality of U-shaped combined leg and attaching members disposed in spaced relation transversely of said rod, one arm of each member being fixedly secured to the rod, the other being free to permit springing thereof, the bight ends of the members being disposed horizontally providing feet which are disposed with a part thereof projecting at one side of the longitudinal rod and the remainder projecting oppositely at the other side of the longitudinal rod.

4. A structural unit comprising a longitudinal supporting rod, and a plurality of U-shaped combined leg and attaching members disposed in spaced relation transversely of said rod, one arm of each member being fixedly secured to the rod, the other being free to permit springing thereof, the arms of said members projecting above the rod and spaced to receive a reinforce element between them, the bight ends of the members being disposed horizontally providing feet which are disposed with a part thereof projecting at one side of the longitudinal rod and the remainder projecting oppositely at the other side of the longitudinal rod.

5. A structural unit comprising a longitudinal supporting rod, and a plurality of U-shaped combined leg and attaching members disposed in spaced relation transversely of said rod, one arm of each member being fixedly secured to the rod, the other being free to permit springing thereof, the arms of said members projecting above the rod and spaced to receive a reinforce element between them.

In witness whereof I have hereunto set my hand.

DEWEY H. BITNEY.