A. J. BLAESER.

METHOD OF MANUFACTURING GUY CLAMPS.

APPLICATION FILED MAY 19, 1921.

1,388,692. **Patented Aug. 23, 1921.**

Fig. 1.

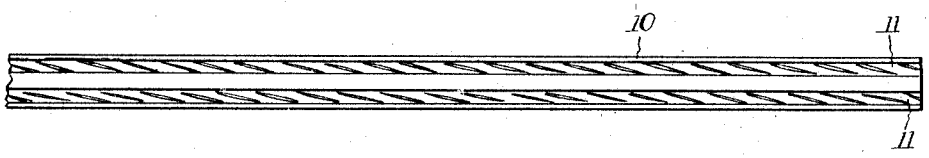


Fig. 2.

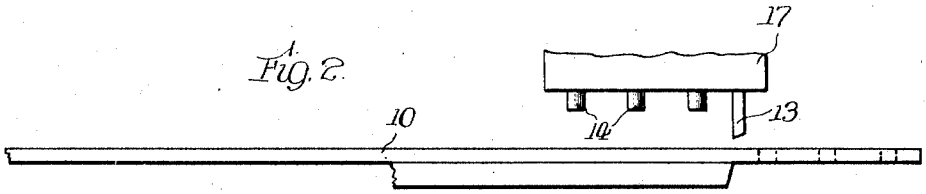


Fig. 3.

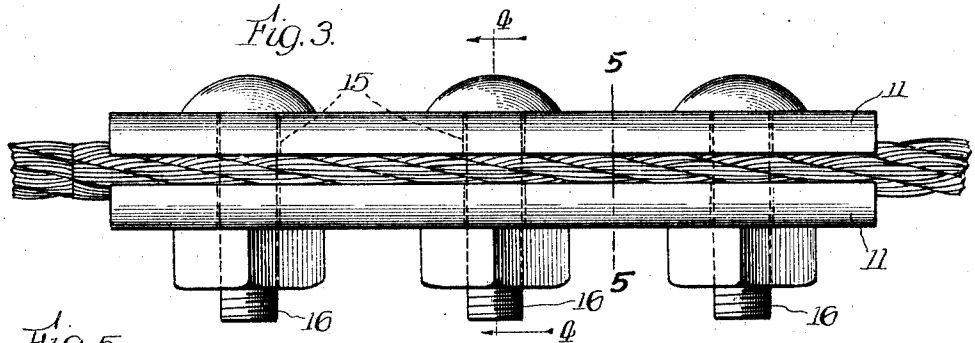


Fig. 5.

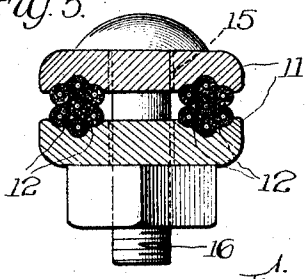


Fig. 4.

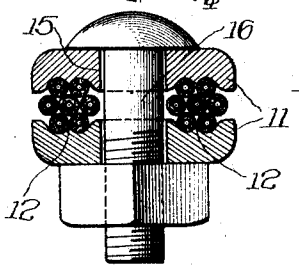
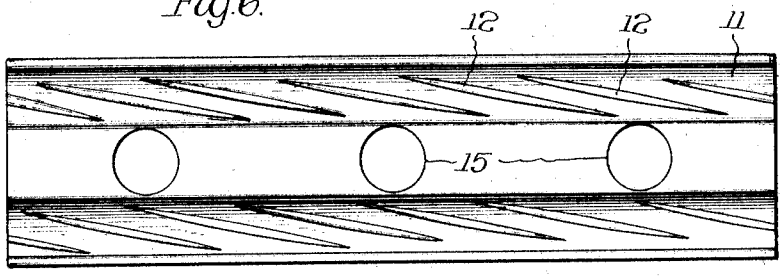


Fig. 6.



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UNITED STATES PATENT OFFICE.

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METHOD OF MANUFACTURING GUY-CLAMPS.

1,388,692. Specification of Letters Patent. Patented Aug. 23, 1921.

Application filed May 19, 1921. Serial No. 470,778.

To all whom it may concern:

Be it known that I, ANTHONY J. BLAESER, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Method of Manufacturing Guy-Clamps, of which the following is a specification.

My invention relates to guy clamps and particularly to a novel method of producing such clamps.

One of the objects of the present invention is to provide a highly efficient clamp for guy wires or cables, and to manufacture the same in such a manner as to materially reduce the cost thereof. It has been found to be desirable to employ elements which are adapted to be clamped upon a cable in such manner as to distort the cable longitudinally in order that the frictional resistance to sliding of the cable between the clamps may be materially augmented. In the manufacture of the clamps heretofore proposed, however, it is necessary to accurately construct coöperating sections of the pairs of clamping members in order that convex and concave portions of the mating sections shall be directly opposite each other. If this is not done the efficiency of the clamp is not only reduced but is, in fact, less than that of a clamp in which there are no deflecting or distorting elements provided.

In my improved guy clamp I provide a pair of clamping elements, each having parallel, longitudinal grooves, and in the grooves I provide a series of diagonal ribs, the pitch of which corresponds substantially to the lay of the strands composing the cable to be clamped. As shown the ribs are substantially straight on their edges, but are diagonally disposed on a cylindrical surface—that is on the surface of the grooves. Thus the bases of the ribs—which are of varying width from end to end—serve to outline a series of helical grooves which conform to the lay of the strands of the cable. As the upper edge of the ribs is flat they are of varying depth, being deepest at the bottom of the longitudinal groove and disappearing as they approach the upper edge of the groove. This results in a construction which is very easily rolled and simplifies and reduces the cost of making the rolls. In the process of manufacture the devices are formed by rolling a continuous strip of metal to provide on one flat surface a pair of parallel, longitudinal grooves, the ribs being formed in the bottom of the grooves, and being so disposed in such grooves that any rib will be in proper position relative to the ribs on a mating clamp. Thus it follows that the long rolled section may be cut up into pieces of the required length, and parts may be selected promiscuously and assembled with assurance that there will be exact coöperation and a high degree of clamping efficiency secured. This has not been possible in any clamp heretofore constructed. The beneficial result is secured by utilizing the helical grooves formed by the described ribs by a rolling process.

The method of producing will be better understood by reference to the accompanying drawings, in which,

Figure 1 is a plan view of a section of flat bar which has been produced between rolls of the desired configuration. These rolls have not been illustrated as the form is well known and their use is common;

Fig. 2 is a side elevation somewhat diagrammatic in form which illustrates the next step in the operation, that of punching and severing desired lengths;

Fig. 3 is a view showing the use of the clamp;

Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 3;

Fig. 5 is a sectional view on the line 5—5 of Fig. 3; and

Fig. 6 is an enlarged plan view of one-half of a completed clamp.

In the first step of the operation, a bar 10 is rolled into the flat shape shown in Fig. 1, it being provided with parallel, longitudinal grooves 11, formed near the edge thereof. In the bottom of the grooves I form ribs 12, which are disposed along the bottom sides of the grooves and are of relatively short length; in other words, the ribs do not extend up the sides of the groove but are terminated at such a point as to make the rolling thereof as simple as possible. To this end the ribs are not of uniform size from end to end, being thick at their middle portions, and tapering off toward their ends. In effect the ribs serve to form a plurality of helical grooves in the bottoms of the longitudinal grooves, these helical grooves serving to accommodate the strands of the cable to be held in the clamp. The holding effect

of the device, relative to a twisted cable, is very great by reason of the described construction of the holding ribs.

The next step in the operation is shown in Fig. 2, in which the bar 10 is shown in position beneath a shear and punch, the shear element 13 being about to sever a previously punched section from the bar. The punches 14 simultaneously act to form the apertures 15 in the bar for the accommodation of the holding bolt 16. It will be seen, therefore, that at each operation of the part 17, which carries the punches and shear, a complete section is formed.

After having been formed as described, the parts may be galvanized and assembled at random with the assurance that there will be complete coöperation so far as the clamping action is concerned without selection of parts.

Obviously the method is capable of some modification but I do not wish to be limited except as indicated in the appended claims.

I claim:

1. The method of making guy clamps, which consists in rolling strips of metal to provide on one flat surface a pair of parallel, longitudinal grooves having helical grooves disposed therein, then severing sections of desired length therefrom and punching said sections, and then assembling promiscuous sections to form properly coöperating clamps for guy cables.

2. The method of making guy clamps, which consists in rolling strips of metal to provide on one flat surface a pair of parallel, longitudinal grooves having helical grooves disposed therein, said ribs being arranged to conform to the lay of the strands of the cable to be clamped thereby.

3. The method of making guy clamps, which consists in rolling a continuous length of flat bar to provide on one side a plurality of parallel, longitudinal grooves having helical grooves in their deepest portions only, the pitch of the helical grooves corresponding to the lay of the strands composing the cables to be clamped, then severing short sections from said grooved bar, and then assembling any two of said severed sections to form a clamp.

4. The method of making guy clamps, which consists in rolling a continuous length of flat bar to provide on one side a plurality of parallel, longitudinal grooves having tapered straight ribs therein, the pitch of the ribs corresponding substantially to the lay of the strands composing the cables to be clamped, then severing short sections from said grooved bar, and then assembling any two of said severed sections to form a clamp.

Signed at Chicago, Ill., this 21st day of April, 1921.

ANTHONY J. BLAESER.