

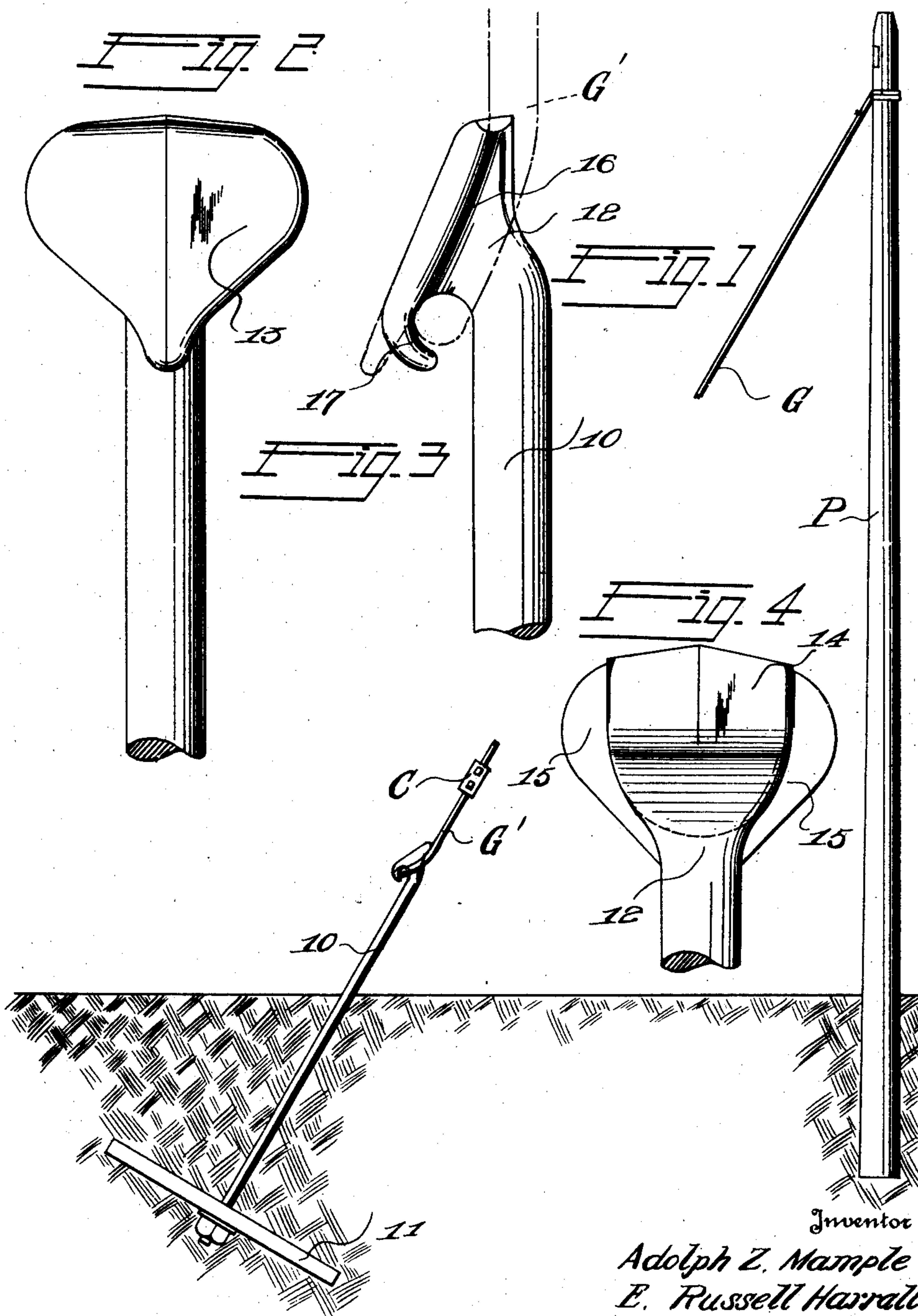
May 29, 1928.

1,671,867

A. Z. MAMPLE ET AL

FASTENING DEVICE FOR GUY ROPES AND OTHER TENSIONING MEMBERS

Filed March 17, 1927



Inventor

Adolph Z. Mample
E. Russell Harrall

ॐ

Eugene C. Brown
Attorney

Patented May 29, 1928.

1,671,867

UNITED STATES PATENT OFFICE.

ADOLPH Z. MAMPLE, OF GLEN ROCK, AND EDWIN RUSSELL HARRALL, OF ENGLEWOOD, NEW JERSEY, ASSIGNORS TO THE WESTERN UNION TELEGRAPH COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FASTENING DEVICE FOR GUY ROPES AND OTHER TENSIONING MEMBERS.

Application filed March 17, 1927. Serial No. 176,070.

This invention relates to fastening devices for attaching, holding or anchoring ropes, cables, wires, etc., and is particularly adapted to secure the guy ropes or cables to the guy rods or anchorage used to brace poles, posts and other structures.

Among the objects of the invention are the provision of an improved end or head for post anchors which enables the bracing strand or cable to be fastened to the guy rod as readily as may be done by providing the rod with an ordinary hook end, the improvement being such that the disadvantages of eccentricity of stress, placed in an ordinary hook, are eliminated and hence the extra weight of metal necessary to give an ordinary hook adequate strength and at the same time to provide a broad saddle for the guy rope, is not required; other improvements residing in the provision of a novel form of anchor end wherein the major portion of the strain occurs as a shearing stress, such small bending strains as may be produced by the pull on the guy rope being in opposite directions so that they substantially counteract each other. A further object of our invention is to provide an anchoring head which permits the guy wire or cable to be looped around the head or end, pulled up, fastened and cut off, thus saving the labor of a preliminary cut heretofore necessary in order to pass the guy through an eye of the usual form of anchor rod and also eliminating the wastage of guy wire or cable resulting from the necessity of cutting off a portion of the end to make a neat job after the cable is fastened.

With these and other objects in view as will be presently understood, the invention will now be particularly described in detail and afterwards claimed, reference being made to the accompanying drawings, wherein

Figure 1 is a view showing the device as used in connection with a telegraph pole.

Figure 2 is a face view of the head.

Figure 3 is a side view of said head.

Figure 4 is a rear view of the head.

The invention is here shown as used in connection with a telegraph pole P and guy wire or cable G which has at its lower end a loop G', a clip C being used in ordinary manner to form this loop. This guy wire is connected to an anchor plate 11, this being

merely indicative of any suitable means for anchoring the lower end of the rod 10.

On the upper end of the rod 10 is the special arrangement of head forming the principal subject matter of this invention. It will be seen, especially from Figure 3, that the upper end of the rod 10 is offset at the portion 12. On this offset portion is formed a substantially triangular body 13 having the upper portion 14 of its rear face flattened and with laterally extending thin flanges or wings 15, which merge into the central thickened portion by easy curves, as at 16, to provide a groove which extends under the head, thereby forming a broad curved saddle for the loop of the guy rope or cable.

The upper edges of the back faces of the flanges 15 are offset from the center of the rod 10 to an extent substantially half the diameter of the guy G, to thereby bring the guy wire into axial alinement with the rod. The body 13 is provided with a downwardly extending finger 17 at its lower end, which as formed, is spaced from the rod 10 a distance at least equal to the diameter of the guy G, as indicated in dotted lines, so that the loop of the guy may be slipped over the head or body and pulled up into the groove of the saddle. The rods are preferably made of malleable metal so that the finger 17 may be bent from the dotted line position shown in Figure 3 to the full line position by a blow of a hammer, in order to prevent accidental disengagement of the loop from the head.

With this construction it is obvious that it is not necessary to cut off the material or guy wire from the roll of wire or cable in order to thread it through an eye, since the guy strand or cable is simply looped around the curved saddle portion 12 and tensioned by means of the usual "come-along" or other suitable means. The clip G is then applied and the strand or cable cut off close to the clip thus making only one cut necessary and eliminating all waste of strand or cable.

Owing to the angular disposition of the offset part 12 and the head 13, the angular stresses tending to rotate the head are in opposite directions at the upper and lower ends of the head respectively and consequently they counteract each other so that there is no effective tendency toward def-

ormation of the head in either direction. The major strain on the head due to the pull of the rope or cable produces a shearing stress in the plane of the groove or saddle where the sectional area of the metal is greatest.

Our construction overcomes the objection to an eye which requires the rope to be threaded there-through and provides all the advantages of a hook, yet without the weaknesses of a hook which requires a very great increase in the thickness of metal in the hook to withstand the stresses which constantly tend to bend the hook and to either disrupt the metal or bend it into alinement with its support. Our head maintains the full strength of the rod with only a very slight increase in the cross section of metal at the offset portion and the strains are reduced to a shearing stress which occurs along the greatest cross-sectional area. Finally the pull on the guy wire or rope is brought into alinement with the longitudinal axis of the rod. The curved saddle affixed to the side of the rod provides a broad surface to receive the loop of the tension member.

While we have shown our guy anchor applied to the bracing of a pole or post it will be evident that our anchoring head may be applied to many other uses, wherever a looped fastening of any tension member is required for bracing or supporting purposes.

Having thus described the invention, what is claimed as new, is:

1. In a fastening device for guy ropes and other tensioning members, a rod having an offset portion at one end extending angularly therefrom, and a flat head carried by said offset portion and merging therewith at its sides by easy curves, said head having a relatively thick central portion having a peripheral grooved part forming a saddle for the loop of the guy rope and relatively thin lateral flanges against the rear faces of which the loop is adapted to rest.

2. In a fastening device for guy ropes and other tensioning members, a rod having an offset portion at one end extending angularly therefrom, and a flat head carried by said offset portion and merging therewith

at its sides by easy curves, said head having a relatively thick central portion having a peripheral grooved part forming a saddle for the loop of the guy rope and relatively thin lateral flanges against the rear faces of which the loop is adapted to rest, the upper edges of the rear faces of the flanges terminating at a distance laterally offset from the axis of the rod substantially equal to one-half the diameter of the guy rope, whereby the longitudinal axis of the rope is brought into alinement with the axis of the rod.

3. In a fastening device for guy ropes and other tensioning members, a guy rod having an offset portion at one end extending angularly therefrom, and a head carried by said offset portion having a relatively thick central portion provided with a peripheral grooved part forming a saddle for the loop of the guy rope and having relatively thin lateral flanges against the rear faces of which the loop is adapted to bear, said head having a finger projecting downwardly from its lower part at a distance from the rod at least equal to the diameter of the guy rope.

4. In a fastening device for guy ropes and other tensioning members, a guy rod having an offset portion at one end extending angularly therefrom, and a head carried by said offset portion having a relatively thick central portion and merging therewith at its sides by easy curves, said head having a relatively thick central portion provided with a peripheral grooved part forming a saddle for the loop of the guy rope and having relatively thin lateral flanges against the rear faces of which the loop is adapted to bear, the upper edges of the rear faces of the flanges terminating at a distance laterally offset from the axis of the rod substantially equal to one-half the diameter of the guy rope whereby the guy rope and the rod are alined, said head having a bendable finger projecting from its lower part at a distance from the rod at least equal to the diameter of the guy rope, whereby the finger may be bent inwardly beneath the rope to hold the loop from detachment.

In testimony whereof we affix our signatures.

ADOLPH Z. MAMPLE.
EDWIN R. HARRALL.