No. 842,329. PATENTED JAN. 29, 1907.

H. T. McCLEAN.

WIRE GRIP.

APPLICATION FILED MAY 9, 1906.

Fig. 1.

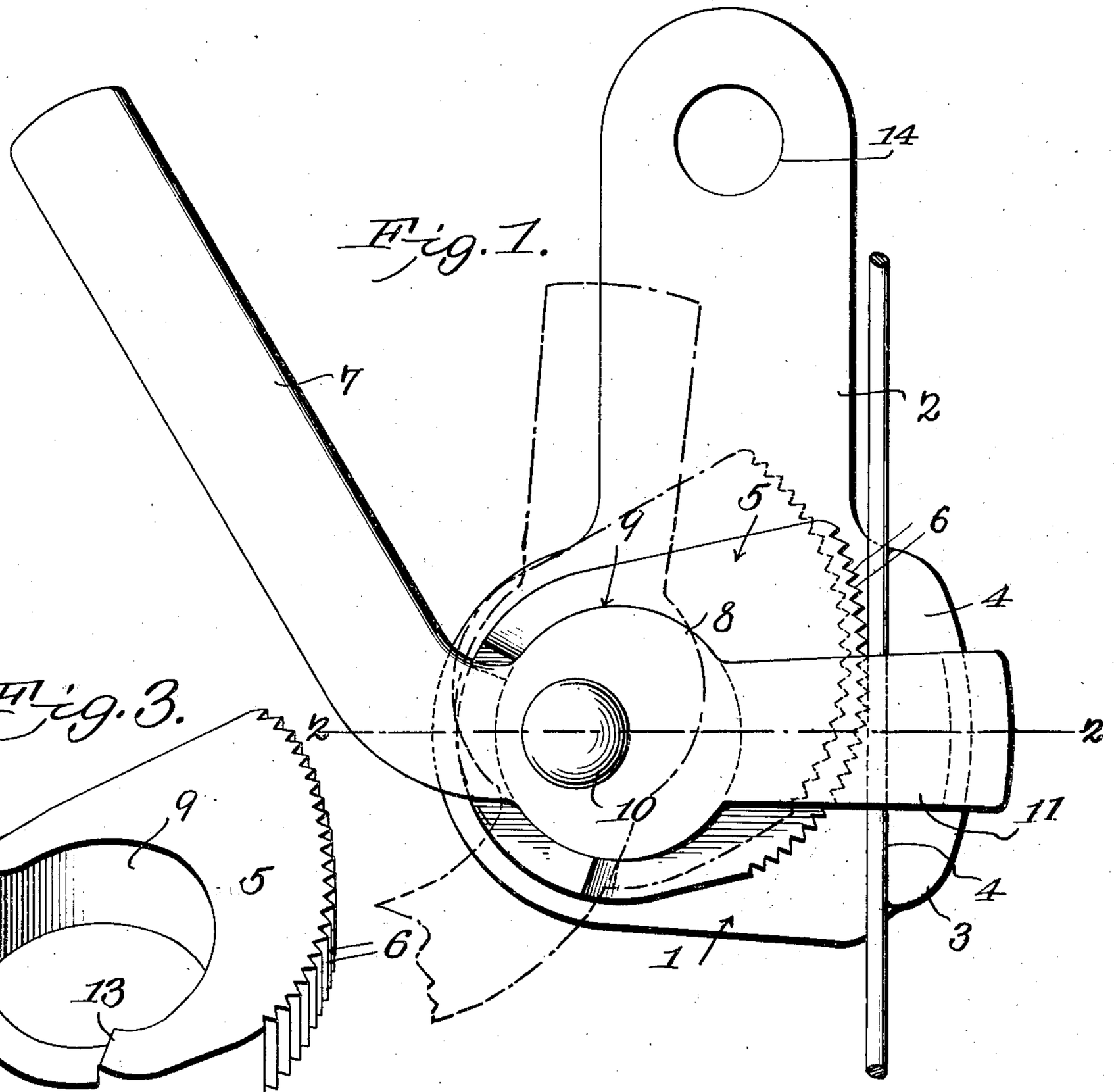
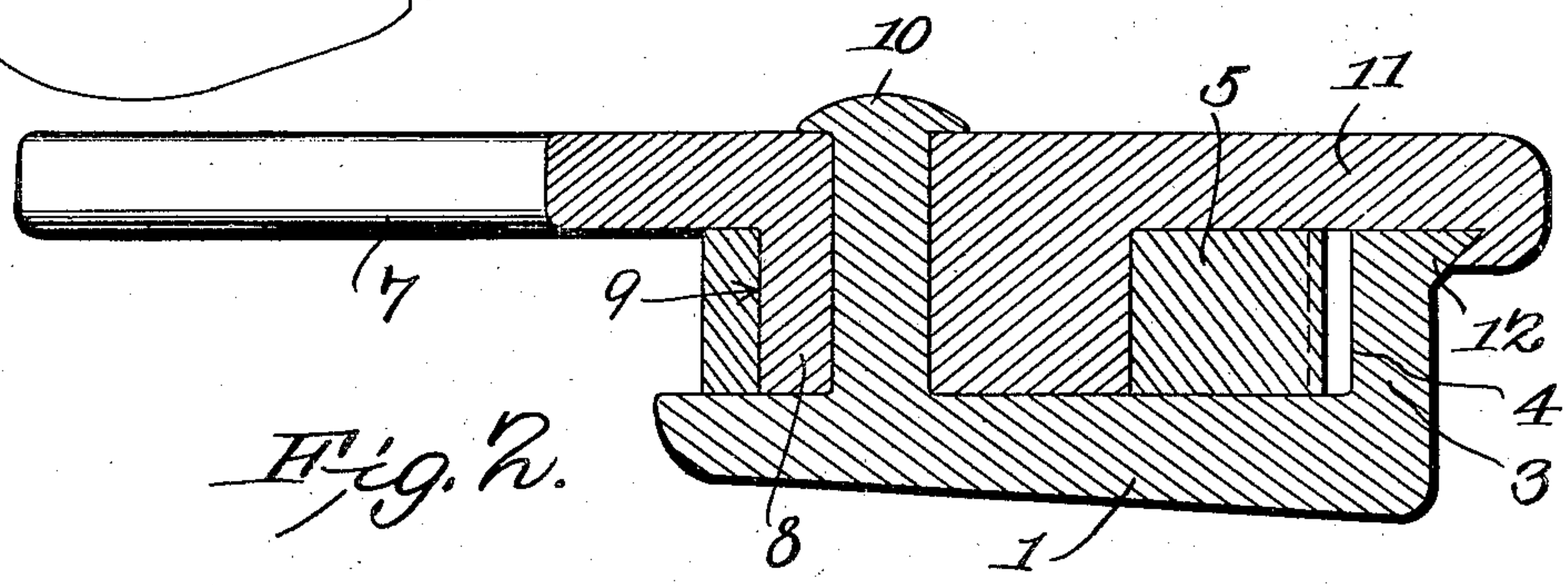


Fig. 3.

Fig. 2.



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HORATIO T. McCLEAN, OF DURANT, IOWA.

WIRE-GRIP.

No. 842,329. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed May 9, 1906. Serial No. 316,016.

To all whom it may concern:

Be it known that I, HORATIO T. McCLEAN, a citizen of the United States, residing at Durant, in the county of Cedar and State of Iowa, have invented a new and useful Wire-Grip, of which the following is a specification.

This invention relates to a wire-grip designed for use in stretching wire, as is necessary in stringing fence-wire, telephone and telegraph wires, and the like.

The objects of the invention are to simplify and improve devices of this character, so that a construction which is substantial, inexpensive to manufacture, and easily and effectively operated is produced.

To these ends the invention comprises the various novel features of construction and arrangement of parts which will be hereinafter more fully described, and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention, Figure 1 is a plan view of the grip. Fig. 2 is a section on the line 2 2 in Fig. 1, and Fig. 3 is a perspective view of the movable jaw of the grip

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

Referring to the drawings, 1 represents a support upon which the various parts of the grip are mounted. The support comprises a plate provided with an arm 2, extending in one direction therefrom, and at right angles to the arm is an extension 3, that projects upwardly from the support or base-plate to form the stationary jaw 4 of the grip. This jaw is preferably straight in both dimensions, so that the same forms a flat abutment against which the wire rests. Mounted for partial rotation on the base-plate 1 is a cam-shaped movable jaw 5, which is provided with teeth or serrations 6 in the cam portion thereof. The jaw 5 is made in the shape of a cam, so that it will effectively grip wires of a large variety of gages. The movable jaw 5 is actuated by the lever 7, which is provided with an eccentric 8, preferably formed integral therewith and depending from the under surface thereof into the cylindrical opening 9 in the movable jaw, as shown in Fig. 2. The lever is mounted on the base-plate by means of an integral rivet 10, extending upwardly from the base-plate, or by any other suitable means. Extending radially from the fulcrum of the lever and over the two jaws of the grip is an arm 11, that is provided with a shoulder on its bottom surface that interlocks with the shoulder 12 on the exterior portion of the jaw 4. This arm serves as a keeper for holding the wire in the jaws, and it also serves to keep the parts firmly together, so that no lost play will be developed with use. In order to retain the movable jaw in proper operative relation to the lever, the movable jaw is provided with two upwardly-extending lugs or projections 13, as shown more clearly in Fig. 3, which are adapted to engage the opposite sides of the operating-lever 7, thus limiting the independent rotary movement of the movable jaw 5 on the eccentric. The lever 7 is capable of sufficient rotary movement to move the arm from a position over the fixed jaw to one side of the latter, as indicated by broken lines in Fig. 1, so that the wire can be placed vertically between the two jaws. After the wire is inserted the lever is moved in the direction to cause the jaw 5 to grip the wire, and by this movement the arm 11 moves with the lever, so that the interlocking jaws 12 engage. When the parts are in this position, the wire is prevented from moving out between the jaws. At the end of the arm 2 is an eye 14, by which the grip is attached to a suitable draft device.

It will be observed that the cam of the jaw 5 is arranged in such a way that the tighter the draft device is drawing the firmer will be the grip between the jaws, because the movable jaw wedges deeper and deeper into the wire.

I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof; but I desire to have it understood that various changes in the arrangement of the parts and proportions as are within the scope of the claims may be made without sacrificing any of the advantages of the invention.

What is claimed is—

1. In a device of the class described, the combination of a supporting member, a fixed jaw mounted thereon, a cam-shaped jaw mounted for movement on the member to and from the fixed jaw and provided with an opening, and a device independent of the movable jaw arranged to engage in the opening of the latter for actuating the movable jaw.

2. In a device of the class described, the combination of a support, a fixed jaw carried thereby, a cam-shaped movable jaw pivoted on the support, and a device on the support independent of the movable jaw for actuating the latter, said device including an arm arranged and adapted to coöperate with the jaws for holding the wire between the latter.

3. In a device of the class described, the combination of a support, movable and fixed jaws thereon, an eccentric, means on the movable jaw engaging the eccentric for actuating the movable jaw thereby, and a common means for actuating the eccentric and retaining the wire between the jaws.

4. In a device of the class described, the combination of a support, a movable and a fixed jaw thereon, an eccentric engaging the movable jaw, a lever for actuating the eccentric and arranged to hold the movable jaw on the support, means carried by the lever for preventing the wire from disengaging from the jaws, and an integral rivet formed on the support for fulcruming the lever thereon.

5. In a device of the class described, the combination of a support, a movable jaw mounted thereon provided with spaced lugs, a lever fulcrumed on the support for holding the movable jaw thereon and arranged to engage between the lugs to limit the independent rotary movement of the movable jaw, means intermediate the lever and movable jaw for actuating the latter by the lever, and a fixed jaw arranged in coöperative relation with the movable jaw.

6. In a device of the class described, the combination of a support, a movable jaw having an opening, a lever mounted on the support, an eccentric independent of the movable jaw and formed integral with the lever and engaging the opening of the movable jaw, and means for retaining the wire between the said jaws.

7. In a device of the class described, the combination of a support, a movable and a fixed jaw thereon, a lever mounted on the support and extending over and independent of the movable jaw, an eccentric carried by the lever for actuating the movable jaw, an arm actuated with the lever which is arranged over both jaws, and interlocking shoulders between the outer end of the arm and the fixed jaw for holding the parts together while the device is in operation.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HORATIO T. McCLEAN.

Witnesses:
D. H. SNOKE,
H. ROHLFS.