Nov. 11, 1941. L. H. BOCK 2,262,162

WIRE CLAMP

Filed Jan. 16, 1940

Fig. 1.

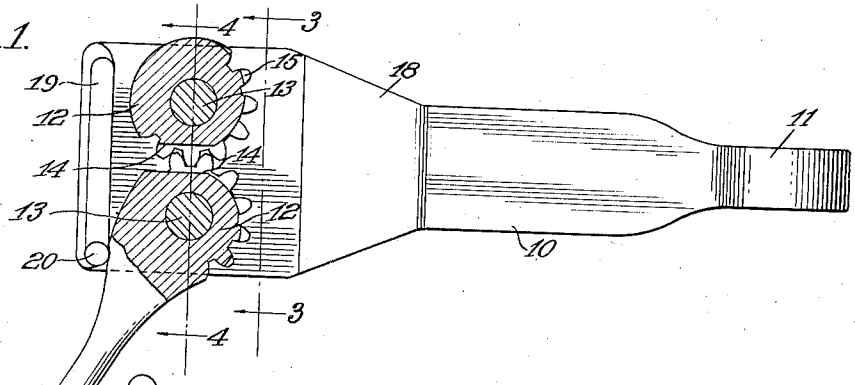


Fig. 2.

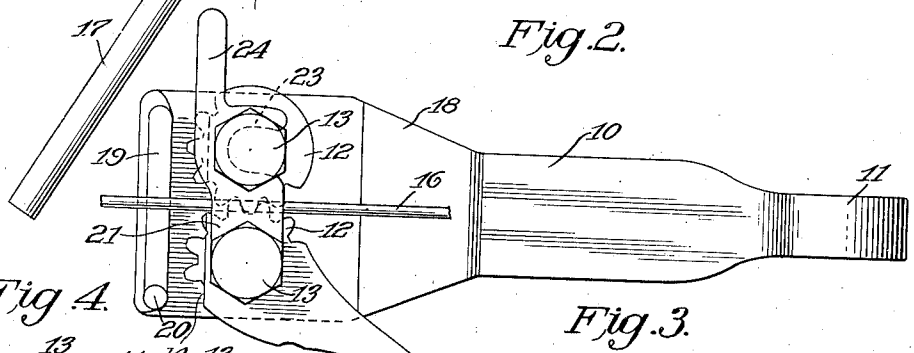


Fig. 4.

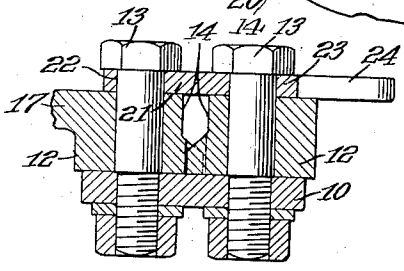


Fig. 3.

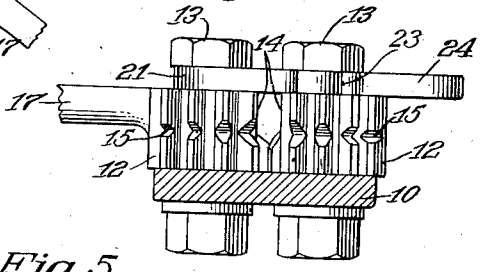


Fig. 5.

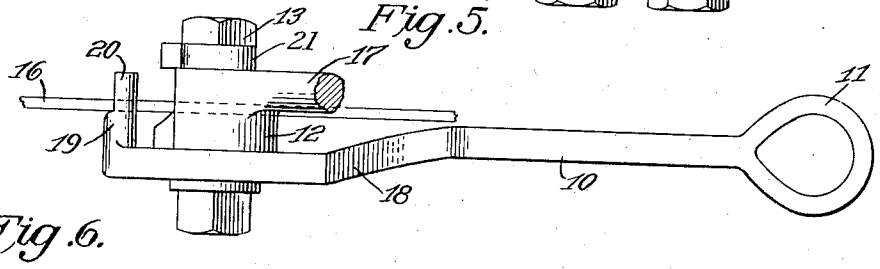
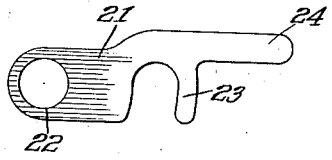


Fig. 6.



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WIRE CLAMP

Louis H. Bock, Flint, Mich.

Application January 16, 1940, Serial No. 314,151

3 Claims. (Cl. 24—134)

This invention relates to wire clamps and has for an object to provide a device of this character having jaws adapted to permit the easy insertion of a smooth wire therebetween, such as a telephone wire, and to permit the subsequent clamping and stretching of the wire with minimum manual effort.

A further object is to provide a device of this character in which the gripping jaws are in the form of meshing gears provided in opposed faces with V-shaped grooves adapted to grip the wire, the grooves in sequence gradually becoming shallower and narrower to promote quick and effective gripping of the wire to be stretched.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a top plan view of a wire clamp constructed in accordance with the invention, with parts broken away, and shown with the flat sides of the jaws turned toward each other to receive a wire to be stretched.

Figure 2 is a top plan view of the wire clamp showing the jaws turned to clamp the wire firmly between them.

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a cross sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a side elevation of the wire clamp with parts broken away.

Figure 6 is a plan view of the latch member.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a bottom bar provided at its rear end with an eye 11 adapted to receive the usual anchor rope. Jaws 12, in the form of meshing gears, are rotatably mounted upon bolts 13 which are engaged through the bottom bar 10, as best shown in Figure 4. The peripheral faces of the jaws have flat portions 14 and also a plurality of the teeth of the gear are mutilated to provide aligned V-shaped grooves 15, best shown in Figure 3.

The grooves 15 extend rearwardly from the flat portions 14 and gradually decrease in depth and in width progressively rearwardly from the flat portions, as also best shown in Figure 3. When the jaws are in open position the flat portions are located directly opposite each other, as best shown in Figure 1, so that the wire 16 to be stretched may be easily inserted between the jaws. After the wire has been inserted, the jaws are turned by a handle 17 which is formed integral with one of the jaws, to effect the clamping of the wire. The wire is guided to clamped position by the V-shaped grooves which feather out as the teeth progress rearwardly from the flat portions to eventually engage the wire between unmutilated teeth. The V-shaped grooves also prevent the wire from slipping laterally between the jaws prior to the wire being clamped firmly between the jaws.

The bottom bar 10 is provided with an offset portion 18 upon that side thereof on which the jaws 12 are disposed. The offset portion is located rearwardly of the jaws. A transversely disposed rib 19 is disposed on the bar forwardly of the jaws. The offset portion 18 and the rib 19 are so related with respect to the grooves 15 that the wire will, when pressed against them, be positioned for accurate engagement by the grooves when the jaws are being turned to closed position upon the wire.

A projection 20 is disposed on the front end of the bar at one end of the rib 19. The handle 17 contacts the projection to limit forward turning movement, that is, opening movement of the jaws 12.

A latch member 21 is provided with an opening 22 at one end to receive one of the bolts 13 and is provided with a notch 23 to receive the other bolt. The purpose of the latch member is to reinforce the bolts 13 and prevent spreading apart of the same when the strain of stretching the wire is exerted upon the bolts.

Since the operation of the device has been described as the description of the parts progressed, it is thought the invention will be fully understood without further explanation.

What is claimed is:

1. A wire clamp comprising a bottom bar, means at one end of the bar for anchoring the bar in place, and a pair of meshing gears on the opposite end of the bar forming jaws, a plurality of the teeth of said gears being mutilated to provide aligned V-shaped grooves adapted to

grip a wire to be stretched, the grooves in sequence gradually becoming shallower and narrower to guide the wire into engagement with unmutilated teeth to be clamped thereby preparatory to stretching the wire.

2. A wire clamp comprising a bar adapted at its rear end to receive an anchor means, jaws in the form of meshing gears rotatably mounted on the opposite end of the bar, the peripheral faces of the gears having flat portions and also having a plurality of the teeth mutilated to provide aligned V-shaped grooves extending rearwardly from the flat portions and gradually decreasing in depth and with progressively rearwardly from the flat portions, the flat portions being located directly opposite each other when the jaws are open so that a wire to be stretched may be easily inserted between the jaws and guided by the V-shaped grooves to clamped position between the jaws, and a handle integral with one of the jaws for rotating the jaws.

3. A wire clamp comprising a bar adapted at its rear end to receive an anchor means, jaws in the form of meshing gears rotatably mounted on the opposite end of the bar, the peripheral faces of the gears having flat portions and also having a plurality of the teeth mutilated to provide aligned V-shaped grooves extending rearwardly from the flat portions and gradually decreasing in depth and width progressively rearwardly from the flat portions, the flat portions being located directly opposite each other when the jaws are open so that a wire to be stretched may be easily inserted between the jaws and guided by the V-shaped grooves to clamped position between the jaws, a handle integral with one of the jaws for rotating the jaws, the said bar being provided with an offset portion upon that side thereof on which the jaws are disposed, the offset portion being located rearwardly of the jaws, and a transversely disposed rib on the said bar forwardly of the jaws coacting with the offset portion to guide a wire accurately into engagement with the V-shaped grooves when the jaws are turned to closed position upon the wire.

LOUIS H. BOCK.