

March 14, 1933.

T. F. JOHNSON

1,900,990

CONNECTER

Filed Oct. 30, 1930

Fig. 1

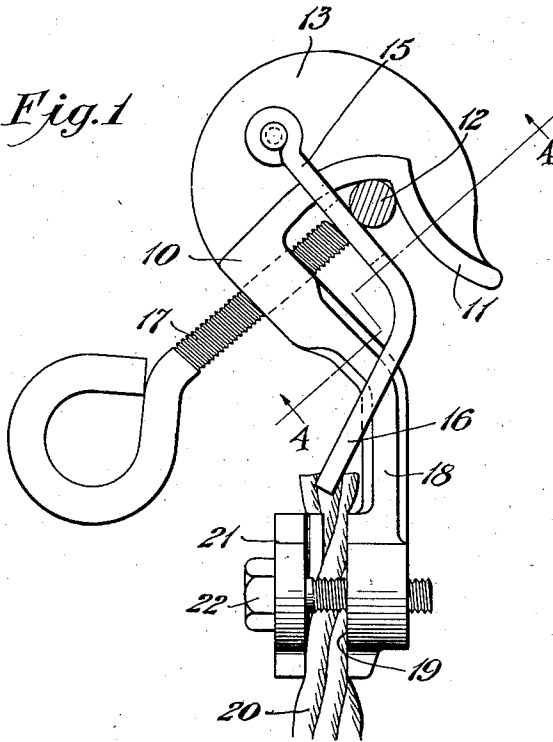


Fig. 2

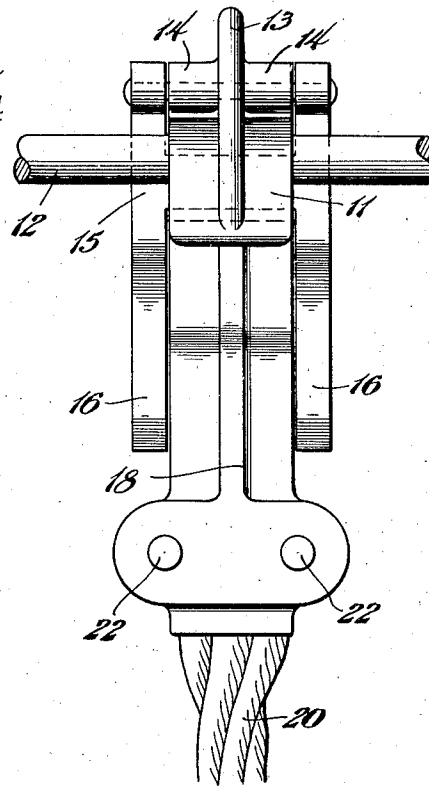


Fig. 3

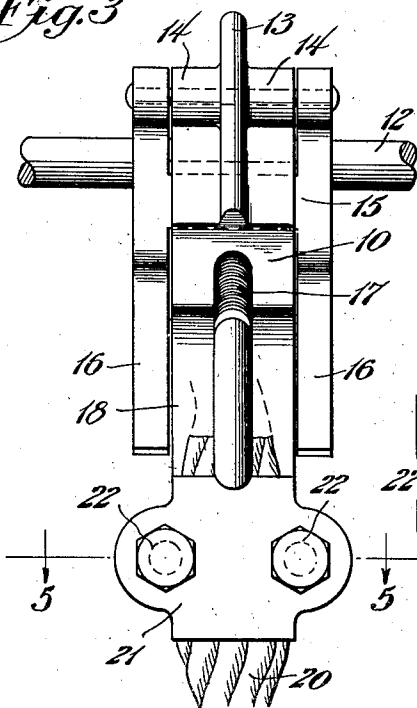


Fig. 4

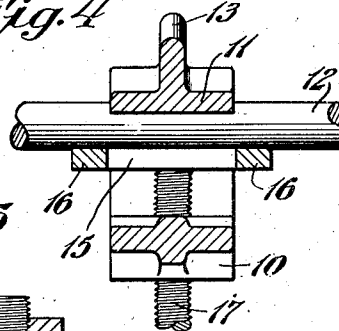
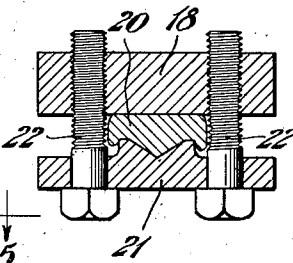


Fig. 5



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CONNECTER

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This invention relates to connectors and, among other objects, aims to provide an improved clamp of the type adapted to tap a live line and to be connected to or disconnected therefrom without cutting off the current. The principal aim is to provide a relatively simple, reliable and cheap connector which can always be applied in an upright position to a live conductor so that the clamping member is always easily accessible to an operator standing on the ground or on a tower structure.

Other aims and advantages of the invention will appear in the specification when considered in connection with the accompanying drawing, wherein:

Fig. 1 is a side elevation of a connector embodying the invention applied to a conductor;

Fig. 2 is a front elevation of the connector shown in Fig. 1;

Fig. 3 is a rear elevation of the connector;

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1; and

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

Referring particularly to the drawing and to that form of the invention shown for illustrative purposes therein, the connector includes a body portion 10 in the form of a hook having a curved bill 11 adapted to be slipped over a conductor 12. The upper portion of the hook member has a vertical reinforcing rib or flange 13 which preferably has integral bosses 14 to which an H-shaped, clamping member 15 is shown as being pivotally connected. In this instance, the clamping member is conveniently made of sheet metal and the lower arms 16 are bent downwardly as indicated so as to guide the conductor properly into the hooked portion as will be seen upon inspection of Fig. 1.

To exert clamping pressure upon the conductor after the hooked portion is slipped over it, there is shown an eye-bolt or screw 17 threaded through the body portion 10 and abutting the crosspiece of the H-shaped clamping plate opposite from the conductor. As shown in Fig. 1, the bolt projects down-

wardly at an angle to the horizontal so that it is easily accessible by the ordinary insulated tool used for manipulating eye-bolts on live transmission lines. The arrangement is such that a hooked stick can be inserted in the eye and used like a wrench. Moreover, the construction of the connector is such that it will always hang by gravity in substantially a vertical position as shown and the eye is easily accessible from the ground or a tower.

The lower end 18 of the hook is shown as being bent, gooseneck fashion, so as to hang in a substantially vertical plane and presents a clamping face 19 against which a tapping cable or branch line 20 is clamped by means of clamping plate 21 and a pair of bolts 22. The construction is such that the tapping cable can extend either downwardly or upwardly without the necessity of inverting the clamp. If the clamp had to be inserted so that the cable 20 runs upwardly, the eye of the clamping bolt 17 would not be readily accessible and the hooked end of the connector would easily fall out of engagement with the line conductor.

From the foregoing description, it will be seen that the body portion of the connector may be made of a single bronze casting. The clamping member can be made of any ordinary non-corrosive sheet metal of adequate strength and the other parts are greatly simplified. Thus, the connectors can be made and sold at a very much lower cost than other devices for the same purpose. Also, they are easily and quickly applied to and removed from transmission lines.

Obviously the present invention is not restricted to the particular embodiment thereof herein shown and described.

What is claimed is:—

1. A connector of the character described comprising, in combination, a hook member having a strengthening rib and a curved bill adapted to be slipped over a conductor; a sheet metal clamping member having arms straddling and pivotally connected to said strengthening flange and having a connecting portion to engage the conductor and clamp it in said hook member; an eye-bolt

passing through said hook member having its end abutting the clamping member to exert clamping pressure on said clamping member; an arm projecting downwardly from said hook member; and means on the lower end of said arm for clamping a tapping cable or conductor thereto so that the cable may extend either upwardly or downwardly while the hook member is clamped in upright position.

2. A connector of the character described comprising, in combination, a hook member adapted to be slipped over and engage a conductor; a top shank on the hook an H-shaped, sheet metal clamping member pivotally connected to the hook member and having downwardly bent arms straddling the shank to guide the conductor into the hook member; a bolt extending through the hook member and co-operating with the clamping member to exert clamping pressure on the conductor; and means to secure a branch conductor to said shank.

3. A connector of the class described comprising, in combination, a hook member adapted to engage a conductor; a shank having a conductor clamp thereon; an H-shaped clamping member in the bight portion of the hook having one pair of arms straddling and pivotally connected to the hook member, the other pair of arms being bent to straddle the shank and to provide flared surfaces to guide the hook over a conductor; and a bolt contacting with the clamping member to exert clamping pressure on the conductor.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

TOMLINSON F. JOHNSON.