No. 809,226. PATENTED JAN. 2, 1906.

F. L. SESSIONS.

WIRE CARRIER.

APPLICATION FILED JULY 17, 1902.

Fig. 1.

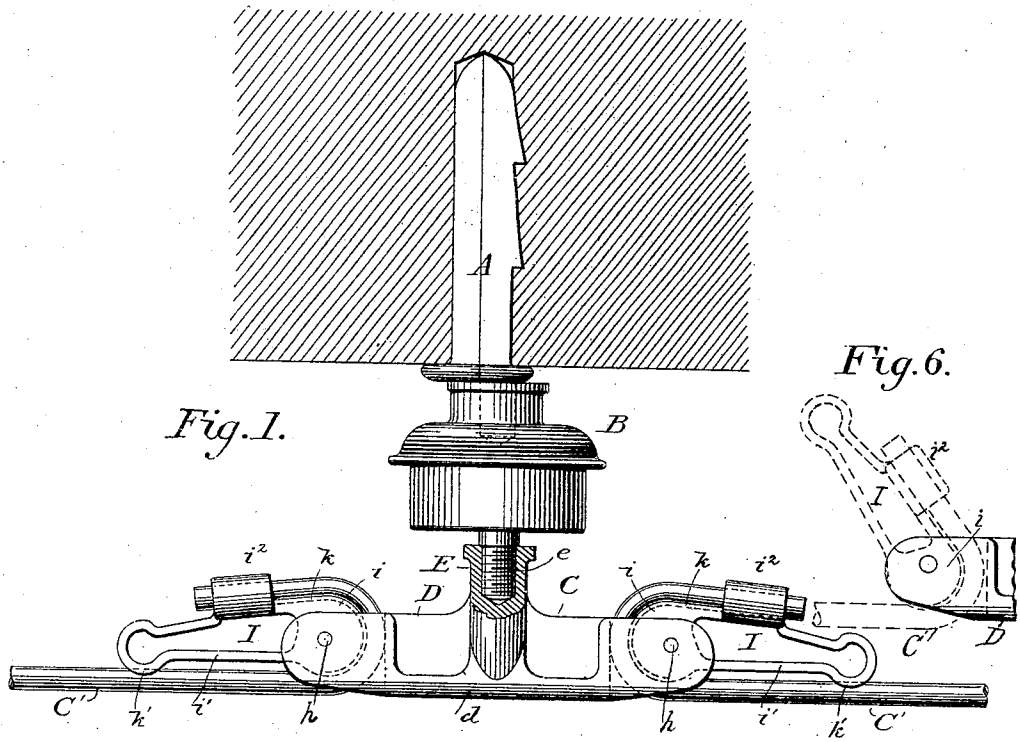


Fig. 6.

Fig. 2.

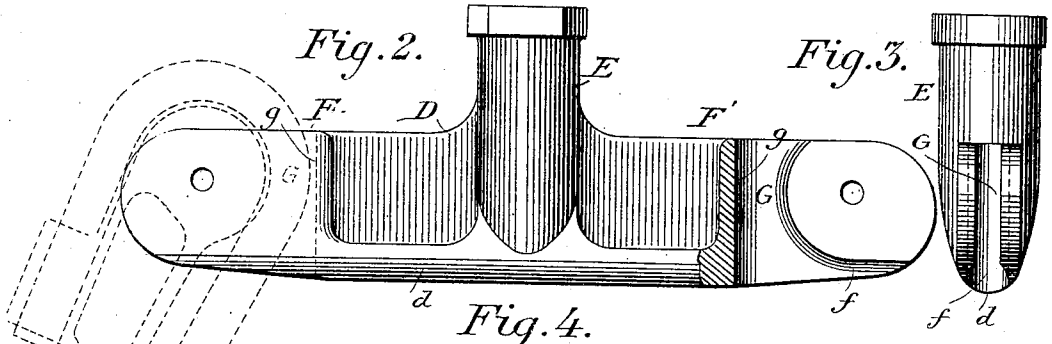


Fig. 3.

Fig. 4.

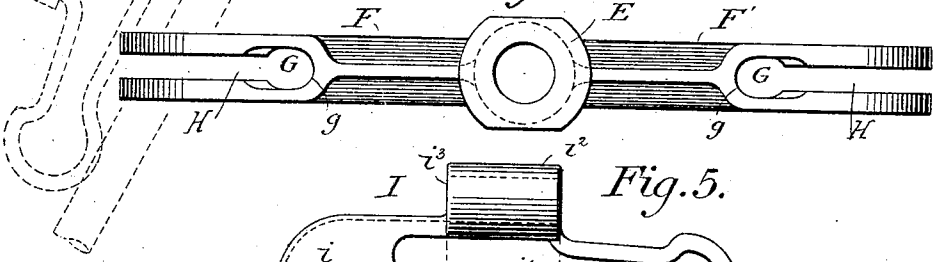
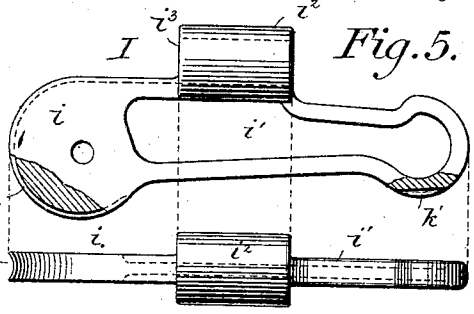


Fig. 5.



Witnesses

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WIRE-CARRIER.

No. 809,226. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed July 17, 1902. Serial No. 115,976.

To all whom it may concern:

Be it known that I, FRANK L. SESSIONS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Wire-Carriers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improved device for connecting and carrying wires, being particularly adapted for coupling and supporting electric conductors—as, for instance, trolley-wires for electric systems.

Figure 1 shows, partly in section and partly in side elevation, a wire-hanging mechanism embodying my improvements. Fig. 2 shows a side elevation of the carrier-frame, partly in section, with the locking-cams detached. Fig. 3 is an end view, and Fig. 4 is a plan view, of the same. Fig. 5 shows one of the locking-cams in side elevation partially sectioned and in plan view. Fig. 6 shows a modification.

In the drawings the invention is illustrated as applied to the roof of a coal-mine, the latter being conventionally shown in cross-section.

The fastening device which supports the insulating-hanger is indicated as a whole by A.

B indicates the hanger, C the wire-carrier or splicing-ear, and C′ the wire.

The fastening device A and insulating-hanger B require no detailed description here, the same being the subject-matter in part of my application for hanger for wires, filed of even date herewith, Serial No. 115,977. However, any of the numerous styles of fastening devices or hangers may be employed.

The frame D of the carrier C, which is preferably made of cast metal, has the upwardly-extending neck E, having the threaded aperture *e* to receive the hanger-bolt and the outwardly-extending arms F F′. Each arm of the carrier is provided on its under side with a wire-receiving groove *f*, connected with the vertically-extending hole G, through which the wire is passed upwardly. The interior wall of this passage-way G forms an abutment or bearing-surface at *g*, against which the wire is locked or clamped by means of the locking-arm or eccentric-lever I. The arms are slotted at H to receive the cams I, which are free to revolve about the pivots *h*, which hold them in place.

Each cam is formed with an eccentric *i*, a lever-arm *i′*, and a projection i^2 containing a hole i^3 to receive the wire. The bearing-face of the cam or eccentric is slightly grooved to receive the wire wherever it comes into contact with it, as indicated at *k*, which insures against lateral slipping of the wire, and provides a greater bearing-surface for the same. The head of the lever-arm *i′* is also slightly grooved at *k′* to receive the wire.

The under surface of the frame D, against which the trolley-wheel bears, is rounded to accommodate the wheel, as shown at *d*. The eccentric-levers or locking-cams are so mounted relative to the frame D as to provide a practically smooth and continuous bearing-surface for the trolley-wheel when the wire is clamped into place.

The operation of the device is very simple. With the locking-cams or eccentric-levers in the positions shown in dotted lines in Fig. 2 the wire C′ is passed up through the hole G, bent around the eccentric *i*, and inserted into the hole i^3. As the lever is then forced up into normal working position the eccentric or cam presses the wire tightly against the abutment *g*, at the same time securing the wire firmly in place and establishing an efficient electrical contact between the wire and its carrier. It will be noted that the greater the upward pressure on the wire the more securely and tightly will it be locked or clamped in the carrier. Only one of this form of cam or locking-lever is used in connection with a given length of wire. The length of wire to be hung is first introduced into and secured in the end of the carrier or hanger in which this form of cam is mounted, and the other end of the wire may be secured in proper position by any other form of clamp or hanger which will keep the wire properly taut.

In Fig. 6 is shown a modification in which the eccentric cams or levers are so hung that the eccentric throw operates upwardly about the pivotal connection instead of downwardly, as in the first instance. With this form of device the wire is bent at right angles and inserted, as shown in dotted lines in Fig. 6. The lever is then pressed down into normal working position, clamping the wire against the abutment *g* and at the same time tending to take up slack in the line. This bending downward and securing of the end of the wire by the projection i^2 further serves to prevent the upward movement of the arm I about its pivot

and the loosening of the wire under the tension caused by the pressure of the trolley thereon.

The projection i^2 with its aperture i^3 serves to receive the end of the wire and retain it in a position where it will not interfere with the trolley or any part of the hanging mechanism. When a device of the form shown in Fig. 6 is used, this projection further serves to pull the end of the wire downward around the pivot h into normal working position and helps to take up the slack in the wire.

A wire-carrier of the type I have selected to describe is for many purposes superior to any with which I am acquainted. In mines, such as coal-mines, it is desirable to have just such a simple form of carrier or splicing-ear to be used in connection with temporary wiring or where short lengths of wire must be hung and taken down and rehung at intervals as the work progresses.

What I claim is—

1. A wire-carrier having a body part provided with a wire-passage and an opposing gripping element pivotally connected to the body part and adjusted by means of a handle or projecting arm having a projection with a passage-way through it for receiving the end of the wire.

2. A wire-carrier having a body part provided with a wire-passage and an opposing gripping element pivotally connected to the body part and adjusted by means of a handle or projecting arm having a projection normally above the main line of the wire with a passage-way through it for receiving the end of the wire.

3. A wire carrier having a body part formed with a vertically-arranged passage-way through which can be passed a bent portion of the wire, and a gripper movably connected to the body part and having a wire-gripping part and means for adjusting the wire-gripping part adapted to be engaged at its free end by the line-wire substantially as set forth whereby the trolley-pressure against the line-wire tends to increase the locking or clamping pressure between the gripping elements.

4. A wire-carrier having a body part with an aperture having a wall or abutment on a line inclined to the main line of the wire, and a pivoted gripper pivotally connected to the body part having a wire-gripping part and means for adjusting the wire-gripping part adapted to engage the line-wire at a point some distance from its clamped portion.

5. A wire-carrier having a body part provided with a wire-passage and an opposing gripping element pivotally connected with the body part and adjusted by means of a handle or lever-arm provided with means for receiving and holding the end of the wire to be clamped, substantially as set forth.

6. A wire-carrier having a body part provided with a wire-passage and an opposing gripping element pivotally connected with the body part and adjusted by means of a handle or lever-arm, said handle being provided with a device for receiving the end of the wire and carrying it around said pivotal connection as the handle is adjusted to cause the gripping of the wire, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK L. SESSIONS.

Witnesses:

ALICE PRICE,

ANTHONY RUPPERSBERG.