(No Model.)

F. M. CASEY.

INSULATED NIPPERS.

No. 419,111. Patented Jan. 7, 1890.

Fig. 1.

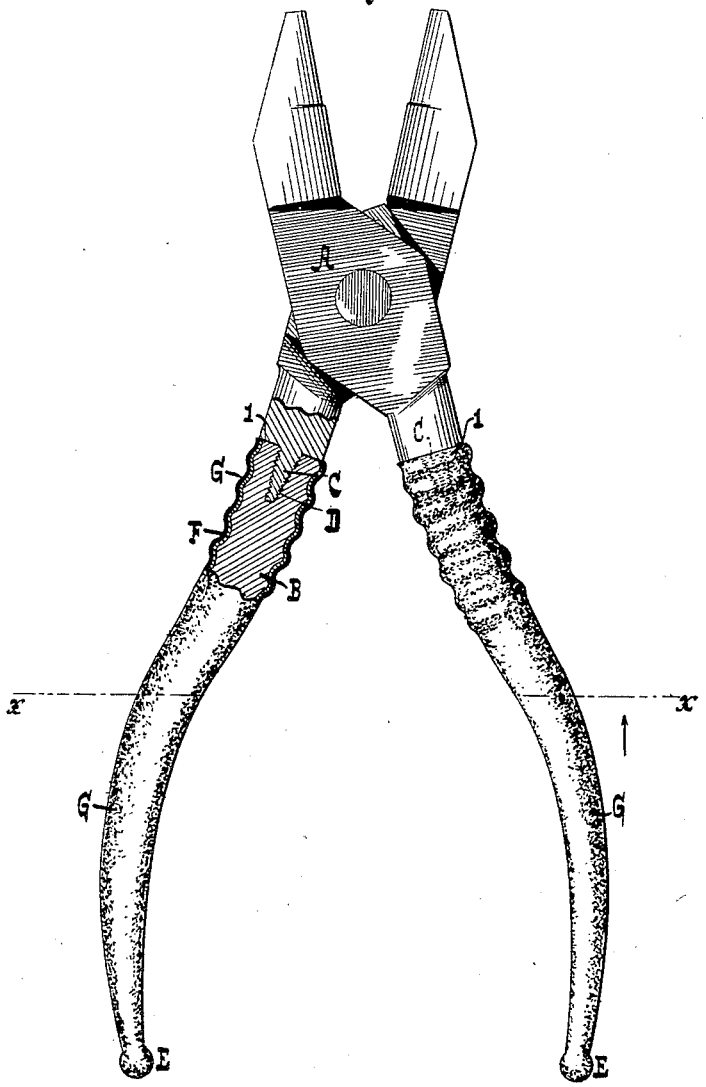
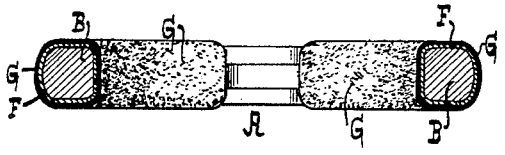


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FIRMIN M. CASEY, OF MOUNT VERNON, NEW YORK.

INSULATED NIPPERS.

SPECIFICATION forming part of Letters Patent No. 419,111, dated January 7, 1890.

Application filed October 24, 1889. Serial No. 328,061. (No model.)

To all whom it may concern:

Be it known that I, FIRMIN M. CASEY, a citizen of the United States, residing at Mount Vernon, in the county of Westchester and State of New York, have invented new and useful Improvements in Insulated Nippers and Cutting-Instruments, of which the following is a specification.

This invention relates to nippers and cutting-instruments provided with insulated handles for protecting operators using the same in cutting or handling electric wires, so that they will be protected from the electric current with which they may be charged.

The invention consists in certain novel features which are hereinafter described in this specification, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional perspective view of a combined cutting-instrument and nippers to which this improvement is applied. Fig. 2 is a cross-section on the line *x x* of Fig. 1.

Similar letters indicate corresponding parts.

The letter A designates a combined nippers and cutting-instrument, from the body of which extend handles B B, by means of which the instrument is operated. When the handles are insulated by means of a coating of vitreous material, the coating is liable to be cracked or broken by falling upon a pavement or any hard substance, and the insulation thereby impaired, and when great heat is used in applying the insulating material the body and jaws of the instrument, which are usually made of steel, are liable to lose their temper from the influence of the heat, and the value of the instrument may be impaired from that cause. In order to avoid injuries to the instrument from those causes, I make the handles B B separate from the body and jaws of the instrument; or, as in the present example, I cut off the handles near to the body of the instrument—say on the line 1 1—and form on the stumps of the handles strong screws C C, which enter threaded sockets D D, formed in the removed portions of the handles.

It is obvious that the screws may be formed on the ends of the handles and the threaded sockets be formed in the stumps of the handles with a substantially similar result.

In order to protect the insulated handles from accidents and injuries, especially when the insulating material is composed of glass or vitreous material, or other fragile material, I cover the handles with a covering of india-rubber, which will protect the insulating material from injury by falling on hard substances or by blows. The india-rubber covering may be formed from a tube of that material.

In order to provide ready means for securing the india-rubber protector upon the insulated handles, I corrugate the upper portions of the handles before the vitreous insulating material is applied, so that when applied the same conforms to the shape and form of the handles and will itself become corrugated, and the india-rubber covering will, when stretched over the corrugations, have a tendency to grasp the handles closely.

The ends of the handles are provided with knobs E, to the shape of which the insulating vitreous material conforms, as does the india-rubber protector, thus enabling the operator to retain a firm grasp on the handles.

In order to promote the formation on the handles of an even coating of vitreous material and one of uniform thickness, I round off the corners of the metal handles B B, so as to prevent the said coating from being too thin at those parts. This feature of my improvement is seen best in Fig. 2, where the metal handles are marked B, the same being surrounded by the insulating vitreous material F, and the latter protected by the india-rubber tubing G.

It is obvious that when the body or jaws of the nippers or cutting-instrument are injured or become useless a new instrument may be fitted with handles, and thus the same handles may be used for more than one body or pair of jaws.

The protecting-cover G on the insulated handles may be made of any other suitable yielding substance or material besides india-rubber.

Only one of the handles is shown in the drawings to be provided with a screw-connection, the screw-connection of the other handle being concealed by the rubber covering.

What I claim as new, and desire to secure by Letters Patent, is—

1. In insulated nippers, cutting-instruments, and similar articles, the handles B B, made separate from the body and jaws, and connected therewith by screw-connections, substantially as shown and described.

2. In insulated nippers, cutting-instruments, and similar articles, the handles B B, coated with vitreous insulating material, in combination with a covering or protector of india-rubber or other suitable yielding material, substantially as and for the purpose described.

3. In insulated nippers, cutting-instruments, and similar articles, the handles B B, provided with corrugations, in combination with the insulating vitreous material and the protecting-covering, substantially as and for the purpose described.

4. In insulated nippers, cutting-instruments, and similar articles, the handles B, provided with knobs, in combination with the insulating vitreous material and rubber or yielding covering, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FIRMIN M. CASEY.

Witnesses:
THOMAS F. HUNT,
J. VAN SANTVOORD.