(No Model.)

J. D. BISHOP.

MACHINE FOR COVERING CABLES.

No. 429,255. Patented June 3, 1890.

Fig. 1.

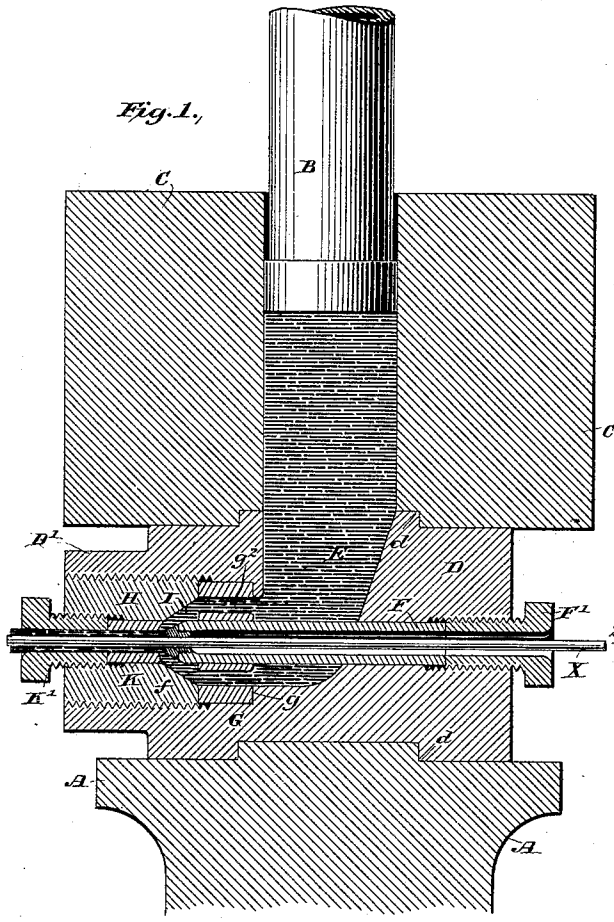


Fig. 3.

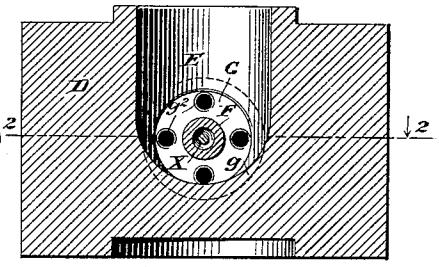
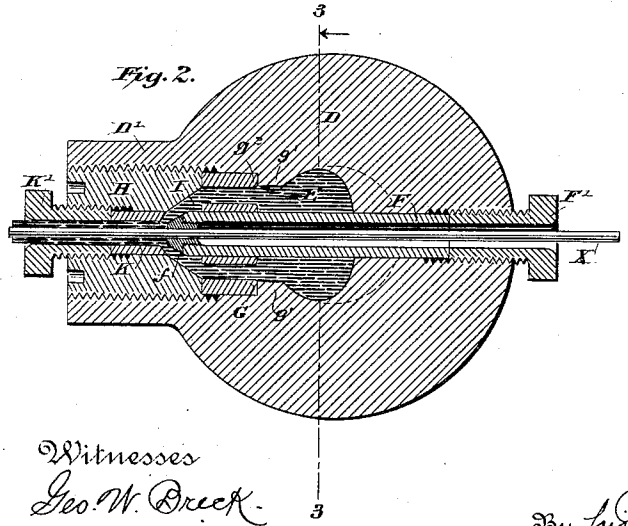


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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MACHINE FOR COVERING CABLES.

SPECIFICATION forming part of Letters Patent No. 429,255, dated June 3, 1890.

Application filed March 6, 1890. Serial No. 342,847. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. BISHOP, a subject of the Queen of Great Britain, residing in New York city, in the county and State of New York, have invented certain new and useful Improvements in Machines for Covering Electric Cables and Conductors with Lead, of which the following is a specification.

My machine is in some respects similar to many of the well-known machines for making lead pipe and forming lead pipe around insulated electrical conductors.

The invention contemplates certain improvements whereby I am enabled to incase cables and conductors with lead in a practical and efficient manner, and whereby I can readily open and have complete access to the lead-chamber in case of accident.

In my improved machine the lead-cylinder is arranged transversely to the hollow core-bar and die, but at the rear of the die proper, where the end of the core-bar and the face of the die approximate each other, and between the end of the core-bar and the extension of the lead-cylinder I place a partition, which serves as a support for the end of the core-bar, and has apertures through which the lead is forced into the lead-chamber surrounding the end of the core-bar. This partition is made removable, as hereinafter described, so that the opening in the block, which constitutes an extension of the lead-cylinder and contains the lead-chamber and the core-bar and die, may be entirely opened through and through.

In the accompanying drawings, Figure 1 is a vertical section of so much of the apparatus as is necessary to illustrate my invention. Fig. 2 is a horizontal section on the line 2 2 of Fig. 3, and Fig. 3 is a vertical section on the line 3 3 of Fig. 2 through the block in which the extension of the lead-cylinder is formed.

A represents the head of any suitable hydraulic press, B the plunger, and C the lead-cylinder. Between the head A and cylinder C a block D is removably seated. An interlocking joint, as at *d d*, is formed between the head of the press and the block and between the block and the lead-cylinder. An extension E of the lead-cylinder is formed in the block, its curve in horizontal section being preferably contracted toward the base of the chamber E on one side, which we call the rear of the chamber. The block is bored from its rear face into the chamber D for the reception of the hollow core-bar F, that is held up to its work by a hollow screw-threaded follower F′. The front of the block D, which is formed with a lateral extension D′, is also bored out into the front of the chamber E, and into the opening thus formed the partition G is inserted. This partition may have its rear face curved to conform to the curved front wall of the chamber E, and has bearings in the walls of the chamber, as at *g′*. The forward part of this enlarged opening in the block is screw-threaded for the reception of a plug H, which, when screwed in, as shown in the drawings, firmly holds the partition G in place. The partition has a central opening concentric with the opening in the block, through which the hollow core-bar passes, and in this central aperture in the partition the forward end of the core-bar has its bearing. Preferably the core-bar projects through the partition into the lead-chamber I, formed by the recessed end of the plug H only a sufficient distance to permit the removal and replacement of the noses or tips *f* of the core-bar, which are to be changed, as usual, according to the size of the wire or cable to be covered. The partition G is also formed with a series of apertures g^2, (four being shown,) arranged equidistant around the central opening, in which the hollow core-bar is seated. These openings serve for the passage of the lead from the chamber E, forming the extension of the lead-cylinder into the lead-chamber I. The block H is bored centrally concentric with the core-bar, and in the opening thus formed is seated the die K, which is held in position and adjusted by a screw-threaded follower K′, as usual. The die K and follower K′ are also removable at pleasure for the substitution of other dies and followers adapted to the size of the wire or cable to be covered. The lead-cylinder having been charged with lead in the proper condition and the press being operated, the lead from the chamber E

is forced through the opening g^2 into the lead-chamber. The direction of flow of the lead through the openings g^2 is in line with the direction of travel of the insulated conductor or cable X, that is passing through the hollow core-bar and die.

In case of accident, which, however, in such a machine as this would be very unusual and unlikely, the core-bar and plug H may be removed and the partition G taken out. This may be done either by cutting the lead away from the partition both at front and rear or by operating the press and causing the lead to force the partition out ahead of it. However, aside from such functions of the organization, the construction is one which enables me to construct a very cheap and efficient apparatus. Of course by removing the lead-cylinder the block D may be lifted from its seat on the head of the press, if desired.

I claim as my invention—

1. The combination, substantially as set forth, with the lead-cylinder, of the block D, having a chamber E, forming an extension of the lead-cylinder, an aperture for the hollow core-bar transverse to the axis of the cylinder, and an opening on the opposite side, also extending into the cylinder, and the removable apertured partition G, in which the inner end of the core-bar is mounted, the recessed plug H, and the die mounted therein concentrically with the hollow core-bar.

2. The combination, with a block D, of the recessed removable plug H and apertured partition G, between which the lead-chamber I is formed, a removable hollow core-bar having its end mounted in the partition, and the removable die K, mounted in the removable plug concentrically with the core-bar, substantially as and for the purpose set forth.

3. The combination, with the lead-cylinder, of the block having a chamber E, constituting an extension of the lead-cylinder, and an opening through the block from each side into the chamber E and transverse to the lead-chamber, an apertured partition between the chamber E and one of said transverse openings, a hollow core having its inner end mounted in said partition, and an opposite concentrically-arranged die.

In testimony whereof I have hereunto subscribed my name.

JAMES D. BISHOP.

Witnesses:

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MAMIE J. KELLEY.