Dec. 31, 1946. C. D. DAVIDSON 2,413,547

DIE

Filed Jan. 15, 1945

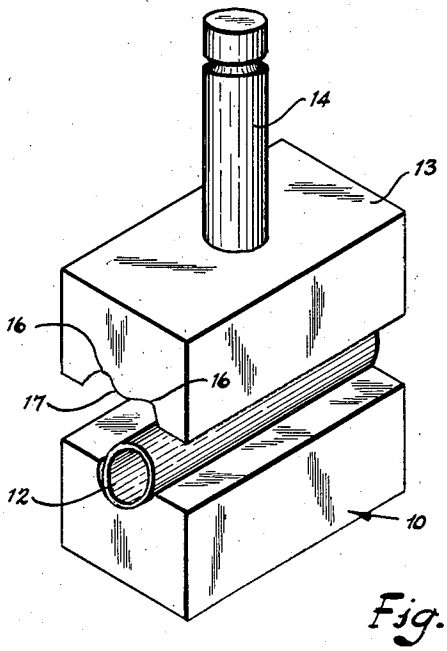


Fig. 1.

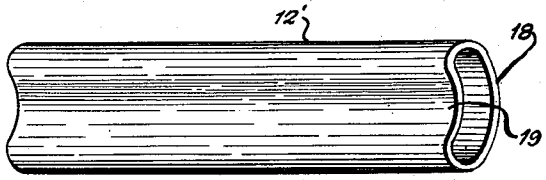


Fig. 2.

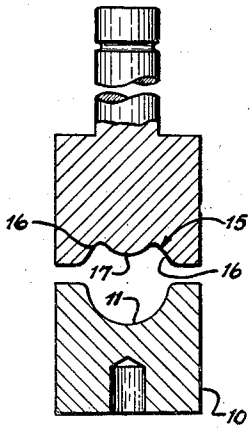


Fig. 3.

Fig. 4.

Inventor

Cyril D. Davidson

By Clarence O'Brien and Harvey B. Jacobson

Attorneys

Patented Dec. 31, 1946

2,413,547

UNITED STATES PATENT OFFICE

2,413,547

DIE

Cyril D. Davidson, Washington, Pa.

Application January 15, 1945, Serial No. 572,956

1 Claim. (Cl. 140—113)

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This invention relates to a die, and more particularly to a die adapted to be utilized in conjunction with a velocity power press.

A primary object of this invention is the provision of an improved die particularly adapted for pressing a connecting sleeve on the copper conductors (return wires, Simplex direct current cable).

An additional important object of this invention is the provision of such a die adapted to press a sleeve on the copper conductors, in such manner that the sleeve is condensed in a shape to allow more insulation on the return wires for vulcanizing the splice.

A still further object of the invention is the provision of such a die which when utilized produces a sleeve leaving no sharp ends to protrude through the insulation, on either the hot wire or the return wires.

A further and more specific object of the invention is the provision of a die adapted to produce a connecting sleeve of unique configuration, particularly adapted to return wires surrounding the hot wire of a mine cable or the like.

Other objects will in part be obvious and in part be pointed out as the description of the invention proceeds, and disclosed in the accompanying drawing wherein there is shown a preferred embodiment of this inventive concept.

In the drawing:

Figure 1 is a perspective view of the die of the instant invention, shown in open position in conjunction with metal sleeve received on the cooperating block.

Figure 2 is a perspective view of the connecting sleeve produced by the use of the die of the instant invention.

Figure 3 is a view partially in section and partially in elevation taken transversely through the vertical center line of the top die of Figure 1, and

Figure 4 is a similar sectional view through the lower die.

Having reference now to the drawing, there is generally indicated at 10 a lower die, having a longitudinally extending semi-cylindrical recess 11 therein, in which is adapted to be positioned the metal sleeve 12, of a mine cable or the like, a suitable sleeve surrounding the portion thereof to be spliced.

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The upper die block 13 is provided with a projecting shaft 14 adapted for attachment in any desired conventional manner to a velocity press. The upper die 13 has a longitudinally extending recess 15 therein, the recess being characterized by two aligned concave depressions 16 separated by a longitudinally extending convexity 17.

Now from the foregoing it will be seen that when a cable sleeve 12 is positioned in the die, with the sections of the cable to be spliced within it the opposed dies 10 and 13 brought together, forming the resultant cable, as best shown in Figure 2, will take the form as shown at 12' of a circular cable sleeve 18 having a longitudinally extending concave groove 19 throughout the length of the splice.

Thus if the die of the instant invention is utilized in connection with the return wires of the round mine cable, the concavities 19 may rest in alignment with the center or hot wire, in such manner as to provide relatively close spacing of the inner and outer wires, and at the same time provide an adequate space for insulation about the connecting sleeve on the outer or return wires.

From the foregoing it will now be seen that there is herein provided a die accomplishing all the objects of this invention and others including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

A cable die comprising a fixed lower block having a semi-cylindrical longitudinal groove therein, and an upper die movable towards said block to engage the same and having a groove therein characterized by a longitudinally extending convexity, the sides of said convexity merging into aligned concavities, said block adapted to receive a metal sleeve, and said die when forced to engage said block and sleeve shaping the sleeve to have spaced concave sides substantially parallel with each other throughout their length.

CYRIL D. DAVIDSON.