No. 732,150. PATENTED JUNE 30, 1903.

D. E. WISEMAN.

SPLICING TOOL.

APPLICATION FILED OCT. 24, 1902.

NO MODEL.

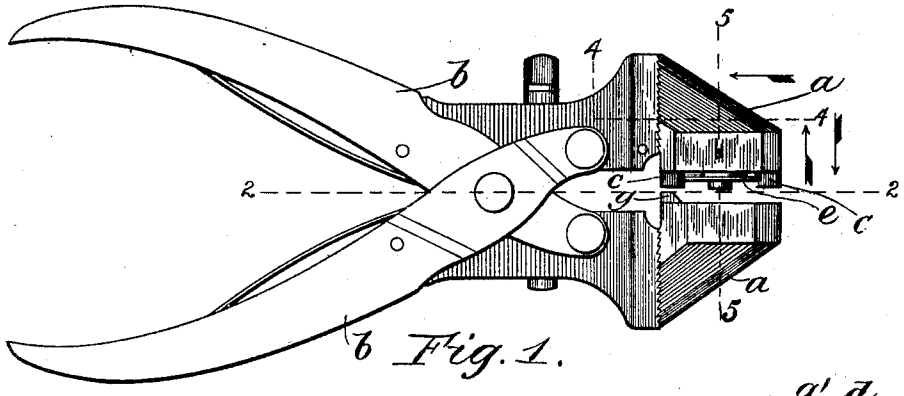

Fig. 1.

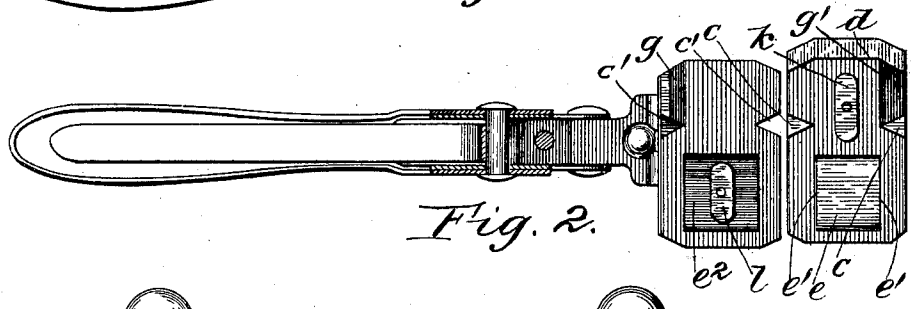

Fig. 2.

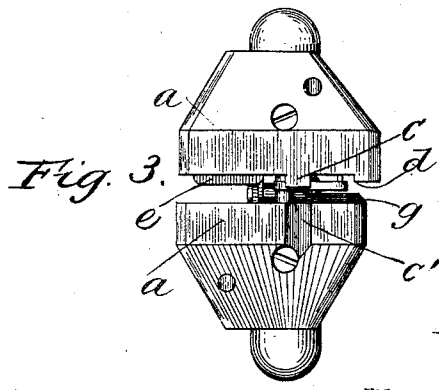

Fig. 3.

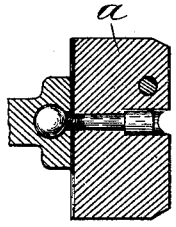

Fig. 4.

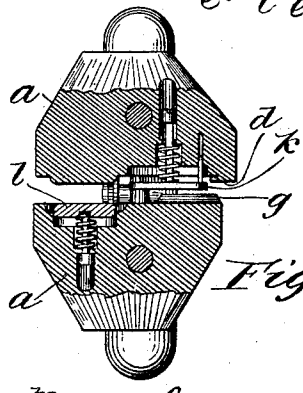

Fig. 5.

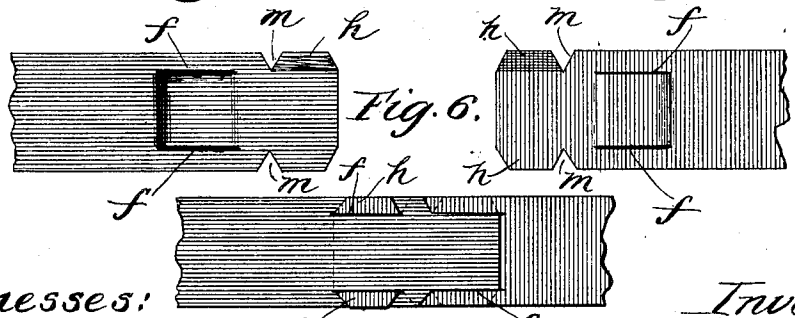

Fig. 6.

Fig. 7

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No. 732,150. Patented June 30, 1903.

UNITED STATES PATENT OFFICE.

DANIEL E. WISEMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SPLICING-TOOL.

SPECIFICATION forming part of Letters Patent No. 732,150, dated June 30, 1903.

Application filed October 24, 1902. Serial No. 128,551. (No model.)

To all whom it may concern:

Be it known that I, DANIEL E. WISEMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Splicing-Tools, (Case No. 1,) of which the following is a full, clear, concise, and exact description.

My invention relates to a splicing-tool, and its object is to provide an improved device for quickly preparing the ends of strips of paper or like material so that they may be spliced or interlocked with one another. The tool is particularly designed for use in joining the ends of the paper bands which are used as insulating material in electric cables. It has heretofore been the practice to sew the ends of the strips of paper together; but this process required some little time and the resulting splice was not altogether satisfactory. By using the tool of my invention the end of both paper strips may be quickly cut by a single operation, so that the two strips may be interlocked with one another end to end, slits being cut longitudinally in each strip a short distance from the end in which tongues formed at the outer edges of the other strip are engaged.

I will describe my invention by reference to the accompanying drawings, which illustrate the preferred embodiment thereof, and the features which I regard as novel will be pointed out in the appended claims.

Figure 1 is a view in elevation of my splicing-tool. Fig. 2 is a sectional plan view thereof on line 2 2 of Fig. 1, the face of the upper jaw being also shown beside the face of the lower jaw to illustrate their coöperation. Fig. 3 is an end view. Fig. 4 is a detail sectional view on line 4 4 of Fig. 1. Fig. 5 is a transverse sectional view of the jaws on line 5 5 of Fig. 1. Fig. 6 shows the opposed ends of two paper strips which have been prepared for splicing by means of my improved tool. Fig. 7 shows these two ends interlocked with one another to form a complete splice.

The same letters of reference are used to designate the same parts throughout the several figures.

The two jaws *a a* are fastened to the plier handles or levers *b*, which are adapted to close said jaws together, while maintaining the faces thereof parallel. Plier-levers of this character are well known in the art.

In accordance with my invention triangular notch-cutters *c c* are provided in each side of the upper jaw, corresponding V-shaped grooves *c' c'* being provided in the sides of the lower jaw with which said notch-cutters coöperate. An end-cutter *d* is also preferably provided on the upper jaw and slides over the end of the lower jaw to trim off the end of the paper strip. I further provide a die *e* in the face of the upper jaw behind the notch-cutters and a corresponding depression e^2 in the lower jaw with which said die is adapted to coöperate, the longitudinal edges *e' e'* of the die and the corresponding edges of the depression being shaped to cut the longitudinal slits *f f* in the tape just behind the notches *m m* formed by the cutters *c c*. The transverse edges of the die *e* are rounded, so that the paper is merely bent down at these points to open the slits *f f* instead of being cut through. I preferably provide a beveled tooth *g* on one side of the lower jaw between the groove *c'* and the end of the jaw, which tooth coöperates with a corresponding beveled depression *g'* in the upper jaw to bend up one side of the head of the paper strip between the notch and the end of said strip. The object of this is to bend out one of the tongues *h* formed by the notches *m*, so that such tongue will slip more readily into the corresponding slit *f* in the other piece of paper.

As shown most clearly in Figs. 2 and 5, I preferably provide spring-mounted plates *k* and *l* in the face of the upper jaw *a* and in the bottom of the depression e^2 in the lower jaw, which serve to disengage the paper from the cutters to prevent the same from sticking to the jaws after said jaws have been opened.

In using the tool of my invention the ends of the strips of paper to be spliced are placed between the jaws and the plier-handles *b* are squeezed together, so that the jaws engage the paper. The notch-cutters *c c* cut the notches *m m* in the sides of the paper, the end-cutter *d* trims off the end, whereby the tongues *h h* are formed, and the die *e* cuts

the longitudinal slits *f f* just behind the notches *m m*. When the two ends of the paper strips have thus been prepared, they are brought together and tongues *h h* of each strip thrust through the slits *f f* in the other strip, whereby the two pieces are interlocked and effectively spliced together.

Having thus described my invention, I claim—

1. A tool for preparing the ends of strips of paper or the like for splicing, comprising the opposed jaws *a a* and the lever-handles for operating the same, said jaws having notch-cutters *c c* at the sides and longitudinal slit-cutters *e' e'* behind the notch-cutters, substantially as set forth.

2. A splicing-tool comprising the opposed jaws *a a* having notch-cutters *c c* at the sides thereof, a die on the face of one jaw and a corresponding depression in the face of the other jaw, the longitudinal edges of said die and depression being sharpened and the transverse edges thereof being rounded, and an end-cutter *d* on one jaw adapted to fit over the end of the other jaw.

3. A splicing-tool comprising the opposed jaws *a a* having the notch-cutters *c c* in the sides thereof, slit-cutters *e' e'* behind the notch-cutters, and a spring-actuated disengaging plate *k* in the face of one of said jaws, substantially as set forth.

4. A splicing-tool comprising the opposed jaws *a a* having the notch-cutter *c c* at the sides, longitudinal slit-cutters *e' e'* behind said notch-cutters, an end-cutter *d* and a bending-tooth *g*, substantially as set forth.

In witness whereof I hereunto subscribe my name this 19th day of May, A. D. 1902.

DANIEL E. WISEMAN.

Witnesses:

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EDWIN H. SMYTHE.