J. F. DILLON.

CABLE SPLICE.

APPLICATION FILED APR. 20, 1918. RENEWED APR. 22, 1920.

1,343,251. **Patented June 15, 1920.**

Fig. 1

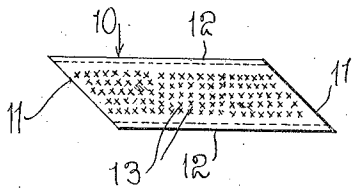


Fig. 2

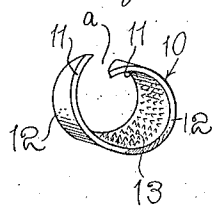


Fig. 3

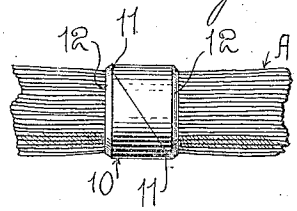


Fig. 6

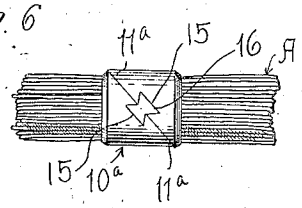


Fig. 5

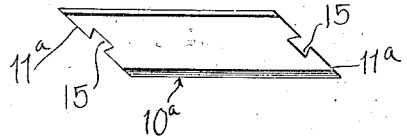
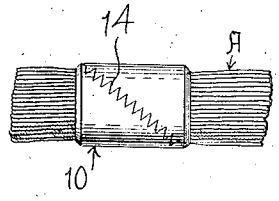


Fig. 4



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CABLE-SPLICE.

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To all whom it may concern:

Be it known that I, JAMES F. DILLON, a citizen of the United States, residing at Crown City, in the county of Gallia and State of Ohio, have invented certain new and useful Improvements in Cable-Splices, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to cable splices, and particularly, though not necessarily, to splices for splicing electric wires or cables.

The general object of this invention is the provision of a very simple and cheaply made splice for the purpose above described, which may be applied to the engaged ends of the wires or cables to be spliced, by means of a hammer or by means of a simple tool constructed for the purpose.

A further object is to provide a splice of this character comprising a strip of metal having its ends cut obliquely with respect to the axis of the strip and in opposite directions with respect to each other, so that when the strip is bent into a circle, the inclined ends of the strip will abut against each other and these inclined faces will act to draw the ends of the strip into proper alinement.

Still another object is to provide a strip as above described, with means for interlocking and engaging the ends of the strip with each other when the strip is bent into a circle.

A further object is to provide means for so interlocking the abutting ends of the strip or splice that they will be held from independent longitudinal movement or from movement away from each other.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is an inside face view of the blank from which one form of splice is made:

Fig. 2 is perspective view showing the blank in Fig. 1 partly formed;

Fig. 3 is an elevation of the splice shown in Fig. 2 applied to the cable;

Fig. 4 is a like view to Fig. 3 showing a modified form of splice;

Fig. 5 is an outside face view of a preferable form of blank; and

Fig. 6 is a like view to Figs. 3 and 4 showing this preferable form of splice.

In Figs. 1, 2 and 3, I illustrate the simplest form of my invention, and in this case the splice is made from a blank of metal, designated 10 in Fig. 1, which blank has its ends disposed diagonally to the longer axis of the strip, the ends being parallel to each other. In other words, the blank has the form of a rhomboid. These diagonally cut ends are designated 11. The side edges of the blank are beveled in the same direction, as at 12, and the inner face of the blank is burred, as at 13.

The blank illustrated in Fig. 1 is initially bent or curved, in the manner illustrated in Fig. 2. In other words, the splice is not closed but an opening *a* is left to permit the positioning of the splice on the cable. After the splice has been placed upon the cable, then the splice is closed as illustrated in Fig. 3, so as to bring the blank edges 11 in abutting engagement with each other. This completes the splice and it will be seen that the ends of the sleeve formed by the splice are beveled as at 12, as previously stated. It will likewise be seen that the inclined faces of the ends 11, as the splice is compressed upon the wires A, will cause the ends of the strip 10 to be brought into proper alinement with each other. This form of splice is entively effective for small cables where there is no great amount of strain on the cable. Where there is strain, however, which would tend to open the splice, that is, pull the splice longitudinally so as to open it, it is best that the splice should be formed so that the ends of the strip 10 will interlock with each other.

One manner of interlocking the ends of the strips with each other is illustrated in Fig. 4, wherein the ends of the strips are not only cut obliquely, as previously described, but are toothed as at 14. Now, under these circumstances, when the splice is closed upon the wires A, the teeth on one end will interlock with the teeth on the opposite end, the teeth on the two ends being in staggered relation, and this will prevent the splice from being opened by longitudinal pull in opposite directions on the splice.

In order to prevent the splice from being opened, either by circumferential strain or by longitudinal strain, I provide the construction illustrated in Figs. 5 and 6. In Fig. 5 the blank 10^a is shown having the blank ends 11^a and these ends are formed

with dove-tailed recesses or notches 15. The blank is partly closed before it is applied to the cable, as illustrated in Fig. 2 and then when it is entirely closed upon the cable which is to be spliced, the inclined edges 11ª will abut against each other and ride on each other until the dove-tailed notches 15 are brought into register. When this is accomplished, a double dove-tailed key 16 is forced into the recesses, thus locking the cut ends of the splice from either longitudinal or circumferential strain, which tend to open the splice.

In the practical use of this invention, the outer insulation of the ends of the cable to be spliced is removed for any suitable distance. Then the ends of the wires within the cable are overlapped and worked into each other and then the middle splice section is placed around the joint and the splice is closed down around the wires in the manner previously illustrated. The burs on the inner face of the splice will, of course, frictionally engage the wires surrounded by the splice so as to assist in locking the two sets of wires in close engagement with each other.

The form of my invention illustrated in Figs. 5 and 6 is particularly useful in splicing very large, heavy, steel cable, as the splice illustrated in Figs. 1 and 2 would not hold against any great strain where pressure upon the splice was removed. In other words, it would tend to open up slightly, thereby reducing the yielding effect. By providing the key 16 it is impossible for the two ends of the splice to open, even a fraction of an inch. It will be understood, of course, that this splice is to be used for cables of any character and of any material.

Having described my invention, what I claim is:—

1. A cable splice comprising a single metallic strip bent to form an open ring, the end edges of the strip being oblique and parallel to each other and being formed with coacting notches adapted when the strip is bent around a cable to register with each other, and a key adapted to be inserted in said notches to interlock the ends of the strip.

2. A cable splice comprising a single metallic strip bent to form an open ring, the end edges of the strip being formed with dove-tailed notches, and a key adapted to be inserted in said notches to interlock the ends of the strip to each other.

3. A cable splice comprising a single metallic strip bent to form an open ring, the ends of the strip being oblique to the axis of the strip and parallel to each other, said end edges being formed with dove-tailed notches, and a double dove-tailed key insertible into said notches when the ends are abutted to thereby lock the ends to each other.

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

JAMES F. DILLON.

Witnesses:
W. A. SINNAR,
C. H. FOWLER.