Nov. 20, 1923. 1,474,372

W. W. LURCOTT

WIRE STRAP SEAL AND METHOD OF FORMING THE SAME

Filed Jan. 10, 1920

Fig. 1.

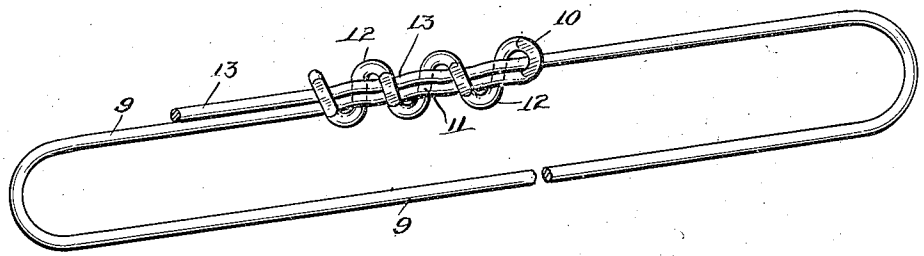


Fig. 2.

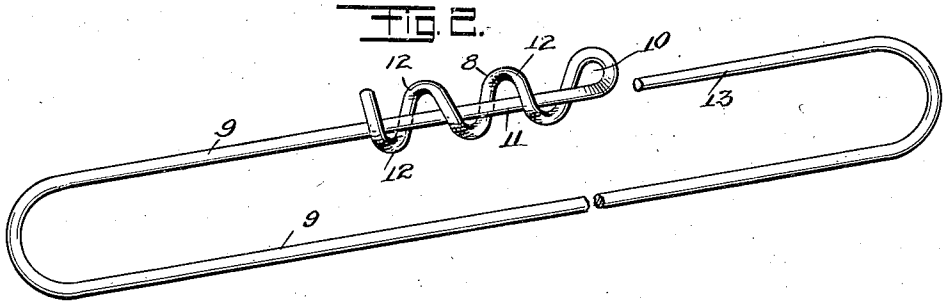
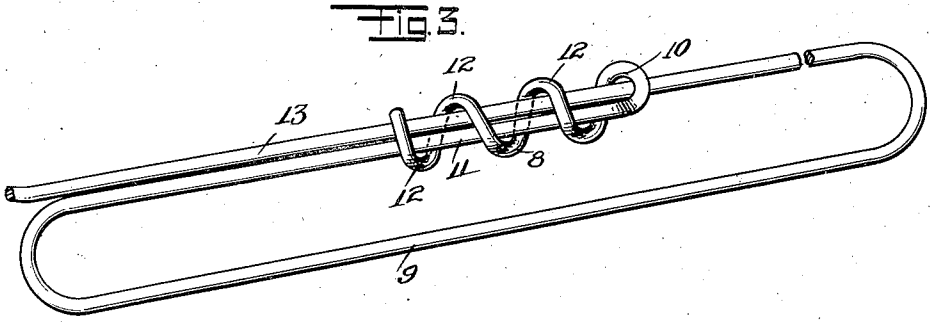


Fig. 3.



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UNITED STATES PATENT OFFICE.

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WIRE-STRAP SEAL AND METHOD OF FORMING THE SAME.

Application filed January 10, 1920. Serial No. 350,544.

To all whom it may concern:

Be it known that I, WINFRED N. LURCOTT, a citizen of the United States, and a resident of Weehawken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Wire-Strap Seals and Methods of Forming the Same, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: To form a substantial fastening for wire straps used for binding boxes, bales, and similar articles; to secure the ends of the strap and to seal the same quickly; to draw the strap tightly on the object being packed; and to provide a seal which may be fastened while the wire strap is under maximum tension.

Drawings.

Figure 1 is a view showing end fragments of a strap united by means of a seal constructed and arranged in accordance with the present invention;

Figure 2 is a view of an end fragment having an open spiral coil which when enclosed forms the seal; and

Figure 3 is a view showing the open coil with the straight end of the strap inserted therein prior to closing the coil.

Description.

Wire straps are used for securing packing cases, bales and other articles, and to that end are passed around the case or article, and the ends are drawn together and secured. The object in view is to draw the wire as securely as possible around the case, and to fasten the ends permanently and strongly without slacking or relieving the tension on the wire.

With this object in view the present invention provides an open spiral 8, the convolutions of which are formed by returning the wire strap 9 upon itself, to be wrapped about itself, so that when the spiral is completed at the extreme end is formed a loop 10, and the enclosed portion 11 of the strap 9. The portion 11 is parallel to and set at one side of the axis of the spiral 8, thereby leaving loops 12 of the spiral, through which can be freely passed the free end 13 of the strap. The open coil is best seen in Figure 2 of the drawings, where the free end 13 is in line with, and shown as in the act of being introduced through, the loops 10 and 12.

In Figure 3 the disposition of the free end within the loops of the spiral is shown. In this position the end of the wire strap having the spiral is drawn in one direction, while the free end 13 is drawn in the opposite direction, to bind the wire strap on the article being packed. When the strap has been drawn tightly, the coils of the spiral are pressed or flattened until the sections of the spiral beneath are forced upward, while the other sections above the portion 11 and end 13 are pressed downward with the effect that the said portion 11 and end 13 are crimped or waved by being displaced by the pressure applied to the portions of the spiral.

As shown in the drawings, the spiral is so open that the under and upper portions are removed from each other, so that the wire forming the portion 11 and the end 13 may move in accord with the pressure applied. When the portion 11 and the end 13 have been crimped, as shown in Figure 1 of the drawings, the end 13 cannot be drawn from the seal without straightening the coils and the wire itself, to do which the strain on the strap is insufficient.

The spiral may be flattened by any suitable means. The sections may be hammered on an anvil slipped below the seal, or an apparatus may be used to form the seal such as is disclosed in a co-pending application filed the 10th day of January, 1920, Serial No. 350,545, to which application cross reference is here made.

When the seal is perfected the coils and engaged wire are flattened to approximate the thickness of two layers of the wire. The seal being flat, rests snugly on the packing case to avoid catching or snagging other articles. The excess wire of the free end 13 is clipped close to the inner end of the seal.

While I prefer to form the spiral of the wire strap 9, and integral therewith, I may use a short section of spiral formed separately. Other forms of separate seals may be used having upper and lower bars held in spaced relation and staggered substantially as shown in the drawings. Through these various forms, both ends of the wire

strap 9 may be extended before the spiral is closed thereon to crimp the said ends, and thereby bind or seal the strap.

Claims.

1. A wire strap and seal therefor comprising a continuous double ended wire having at one end a portion thereof returned upon itself in open spiral coils enveloping said wire to form a passage for the opposite end of said wire, the ends of said wire being crimped upon the sections of said coil.

2. A wire strap and seal therefor comprising a continuous double ended wire having at one end a portion thereof returned upon itself in open spiral coils enveloping said wire to form a passage for the opposite end of said wire, the ends of said wire being crimped upon the sections of said coil, said crimped portions and coil forming a relatively flat structure.

3. A wire strap having at one end thereof an open helix integral with and enfolding the adjacent straight portion of said wire, said helix being offset in relation to the enfolded straight portion of said wire for holding said straight portion against the sides of said helix to provide a passage for the opposite end of said wire between the said straight portion of said wire and the opposite side of said helix.

WINFRED N. LURCOTT.