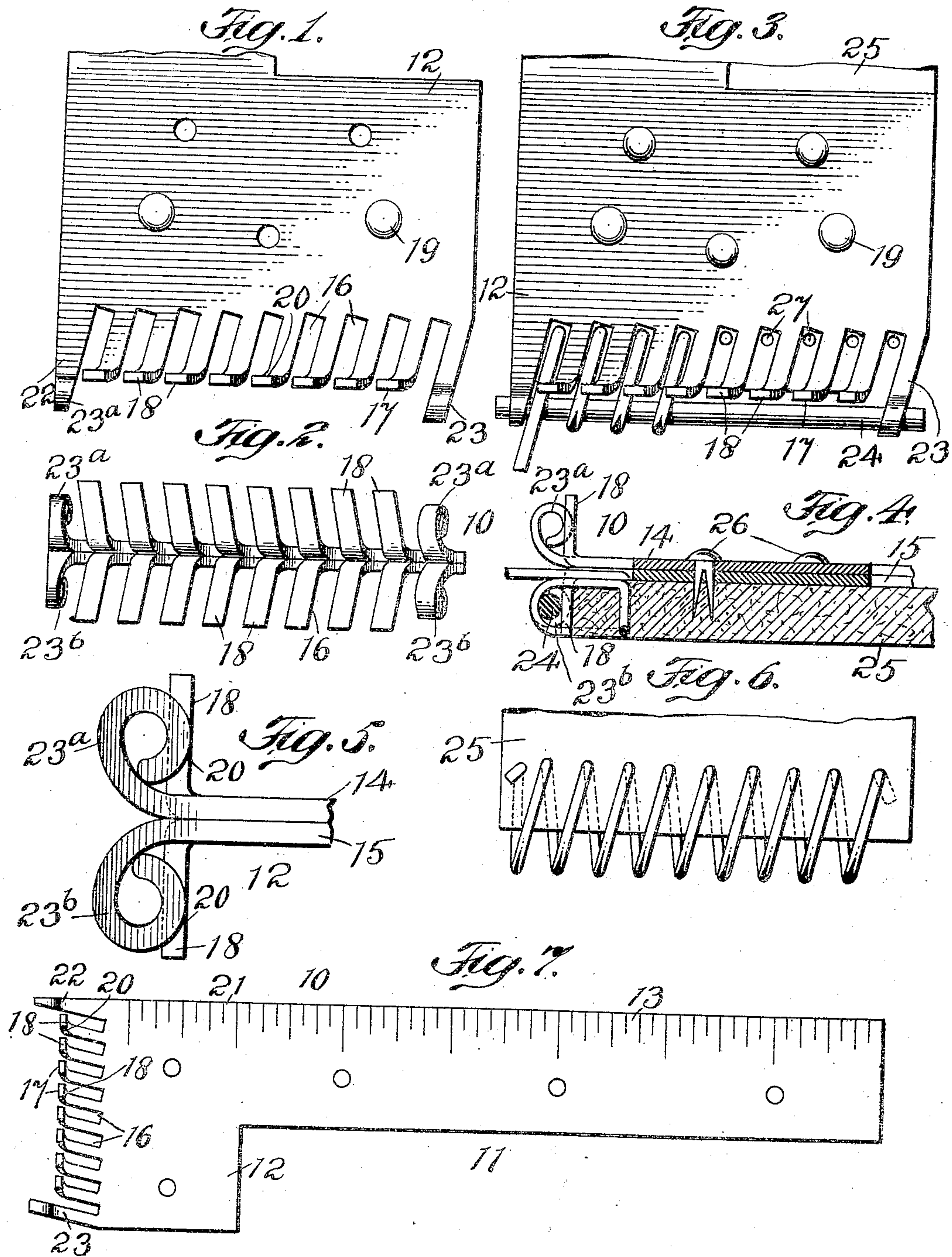


H. T. MUMFORD.
BELT LACING TOOL AND SQUARE.
APPLICATION FILED MAY 2, 1908.

940,400.

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HARRY THOMAS MUMFORD, OF NEW YORK, N. Y., ASSIGNOR TO MUMFORD MANUFACTURING AND SUPPLY COMPANY, A CORPORATION OF NEW YORK.

BELT-LACING TOOL AND SQUARE.

940,400.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed May 2, 1908. Serial No. 430,564.

To all whom it may concern:

Be it known that I, HARRY T. MUMFORD, a subject of the King of England, and a resident of New York, county and State of New York, have invented certain new and useful Improvements in Belt-Lacing Tools and Squares, of which the following is a full, clear, and exact description.

This invention relates more particularly to a tool adapted for squaring the ends or parts of belting and to form a metallic lacing at each end thereof.

The primary object of the invention is to provide a simple and efficient tool or device which may be cheaply made and which is adapted to be placed and held to the end of the belt to be laced in such a way as to form a guide for the wire employed as a lacing, and which lacing is formed as a spiral so as to adapt the same to be interlocked and held to a similar lacing formed in the same way on the other end of the belt.

A further object of the invention is to provide a device which may be employed as a square to straighten the edge properly for the lacing or for other purposes; which may be made out of sheet metal, and which is adapted to hold the lacing properly until it is formed into the required shape.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a fragmentary plan view of the tool before the same is applied to the belt. Fig. 2 is an end view of the tool. Fig. 3 is a plan view showing how the tool is used to form the lacing. Fig. 4 is a longitudinal section through the tool while forming the lacing as shown in Fig. 3. Fig. 5 is an enlarged fragmentary side elevation of the tool. Fig. 6 is a detail view of one end of a belt after the lacing has been formed; and Fig. 7 is a plan view of the tool complete.

The tool 10 may have a body portion 11 at one end of which is formed a head 12 and an extended portion 13 along the edge of which may be provided graduations so as to adapt the same as a scale for measuring purposes. The body portion 11 may comprise two sheet metal members 14 and 15

which may be riveted together, or the said body portion may be cast or otherwise made as desired.

At the upper edge of the head 12 may be arranged a plurality of slots or grooves 16 and these grooves project inward and are angularly disposed with respect to the outer edge 17 of the head. The outer end of the head is provided with teeth 18 formed by the grooves or slots 16 and these teeth at the upper ends of the member 14 are bent in one direction while the teeth of the member 15 are bent in the opposite direction, and said teeth are substantially L-shaped and so arranged that when the members are jointed together by riveting or otherwise, as at 19, along the surface thereof, the said teeth of the members will be opposed and the grooves or slots 16 in alinement with each other, the inner edge 20 of the teeth being made so as to lie at right angles to the edge 21 of the extension 13 and forming a transverse abutting surface, thus permitting the tool or device to square the ends of the belt by placing the abutting surface against the edge of the belt so that the edge 21 will extend transversely or across the belt, or permitting the device to be used for other purposes.

To support a former or mandrel while lacing the end of the belt I provide two extended portions 22 and 23 on each member, and each of said portions is bent or formed so as to provide eyes 23^a on the member 14 and eyes 23^b on the member 15, said eyes being arranged on opposite sides of the members, in which a mandrel 24 or other device may be inserted as shown in Figs. 3 and 4, to properly form the body of the lacing and also to space the same a proper distance from the edge of the belt.

When the tool is used, it is removably fastened to the end of the belt 25 by rivets 26 or otherwise, and the mandrel or former 24 is slipped through the eyes of one of the members, as the eyes 23^b. A plurality of holes 27 are formed in the end of the belt by an awl or other device at the inner end of each groove or slot 16, the edges of the teeth and the end of the slot serving as a guide for properly positioning the holes. The lacing wire is fastened at one end to the edge of the belt as shown in Fig. 4 and is then bent over the mandrel and threaded through one of the openings or holes 27

using the slots and teeth as a guide, and then pulling the wire so as to make the same very tight after which the wire is again threaded through the next opening and continued throughout the entire width of the belt. The mandrel 24 may now be removed and the tool removed from the end of the belt leaving the lacing formed in a spiral manner as shown in Fig. 6. The opposite end of the belt is likewise laced by means of the tool and when the lacing has been formed in the two ends of the belt they are brought together so that the lacing of one end will fit into the other and by inserting a rod or device through the opening formed between the laced members the said belt will be properly held together in the usual manner.

While the invention is shown as made of sheet metal it is to be understood that it may be cast or otherwise made of any suitable material, that the body portion thereof may be formed in any desired way and of any desired shape, and that the slots or grooves in the end serving as a guide for the belt lacing may be arranged in any desired way and the inner end of the grooves made round to better guide the awl or tool in making the holes for the lacing if desired.

From the foregoing it will be seen that a simple and efficient device is provided whereby the usual form of wire lacing for the end of belts may be quickly formed; that said tool is simple in construction and inexpensive to manufacture; and that the said tool may be utilized as a square for trimming the ends of the belt or for other purposes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A tool of the character described, having its body portion provided with a plurality of obliquely disposed teeth projecting therefrom and forming obliquely disposed slots extending into said body portion lengthwise thereof to form angularly disposed lacing.

2. A tool of the character described, having its body portion provided with slots obliquely disposed with relation to the lacing end of the tool to cause the lacing to assume a spiral form.

3. A tool of the character described, having its body portion provided with slots obliquely disposed with relation to the lacing end of the tool to cause the lacing to assume a spiral form, and with teeth projecting on opposite sides of the body portion.

4. A tool of the character described, comprising a body portion having a straight

edge at one side thereof, and a plurality of substantially L-shaped teeth spaced apart and extending on opposite sides of the body portion and at right angles to said edge.

5. A tool of the character described, comprising a body portion having a straight edge at one side thereof, and a plurality of teeth extending outward from opposite sides of the body portion and at right angles to said edge and spaced apart so as to provide angularly disposed grooves between said teeth.

6. A tool of the character described, comprising a body portion having a straight outer edge, a plurality of teeth having grooves between the same and extending angularly with respect to said edge and on opposite sides of the body portion to form guides for lacing a belt, and eyes located on each side of the teeth adapted to hold a mandrel around which the lacing may be formed.

7. A tool of the character described, comprising a body portion having a plurality of angularly disposed teeth spaced apart to provide grooves between the same, and eyes located on each side of the teeth adapted to hold a mandrel around which the lacing may be formed.

8. A tool of the character described, comprising a body portion having a straight outer edge, a plurality of teeth having grooves between the same projecting from the body portion to form guides for lacing a belt, and eyes located on each side of the teeth adapted to hold a mandrel around which the lacing may be formed.

9. A tool of the character described, comprising a body having two members suitably fastened together and each provided with a plurality of angularly disposed teeth having grooves between the same and extending on one side of the body, each member being provided with eyes arranged on opposite sides thereof, and a mandrel held in the eyes of the tool.

10. A tool of the character described, comprising a body provided with a plurality of teeth having grooves between the same and extending on opposite sides of the body, a pair of eyes arranged on opposite sides thereof, and a mandrel held in the eyes of the tool.

This specification signed and witnessed this 28th day of April A. D. 1908.

HARRY THOMAS MUMFORD.

Witnesses:

J. A. DODSON,
H. A. BELL.