

No. 749,847.

PATENTED JAN. 19, 1904.

W. B. CURTIS.
BALE TIE.

APPLICATION FILED MAY 27, 1903.

NO MODEL.

Fig. 1.

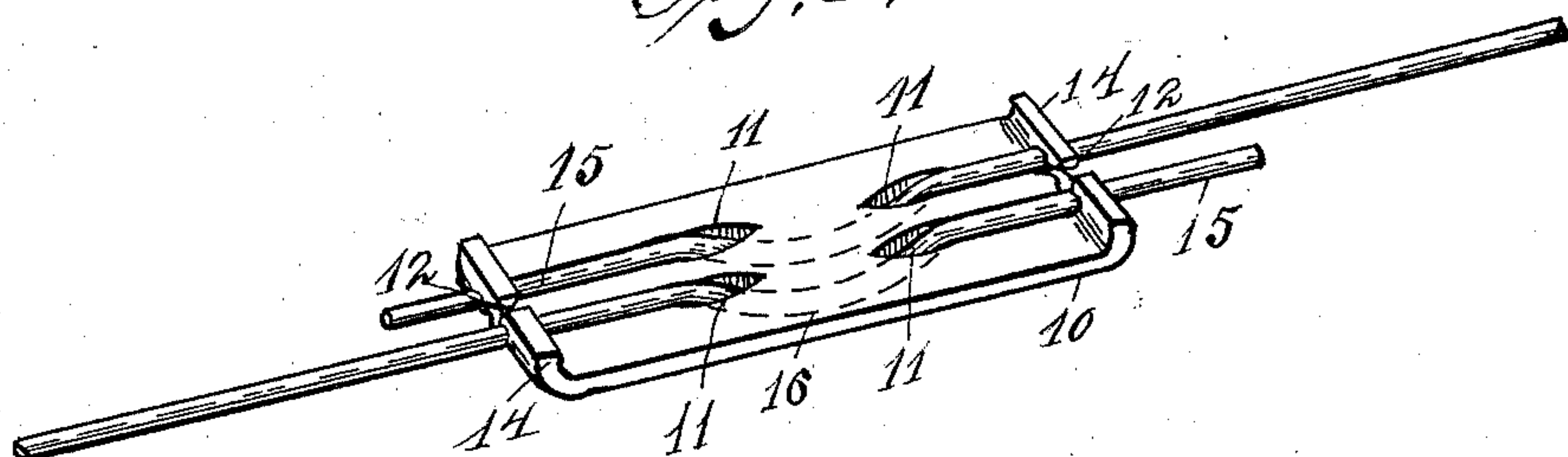


Fig. 2.

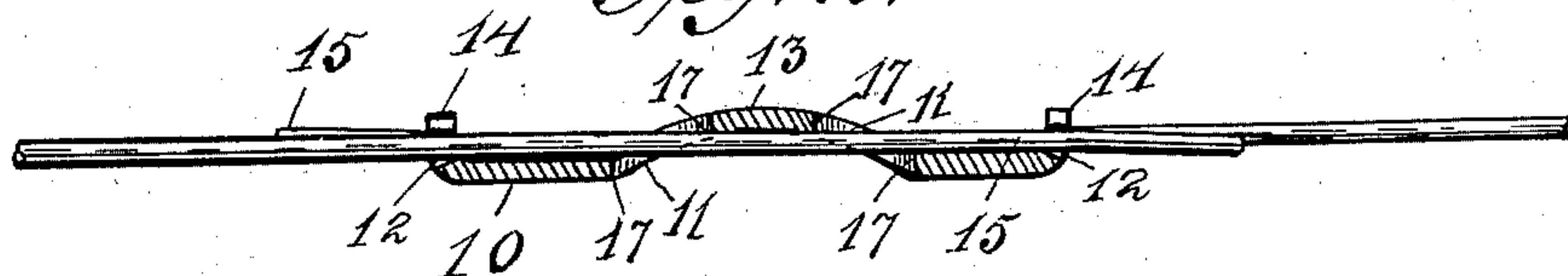


Fig. 3.

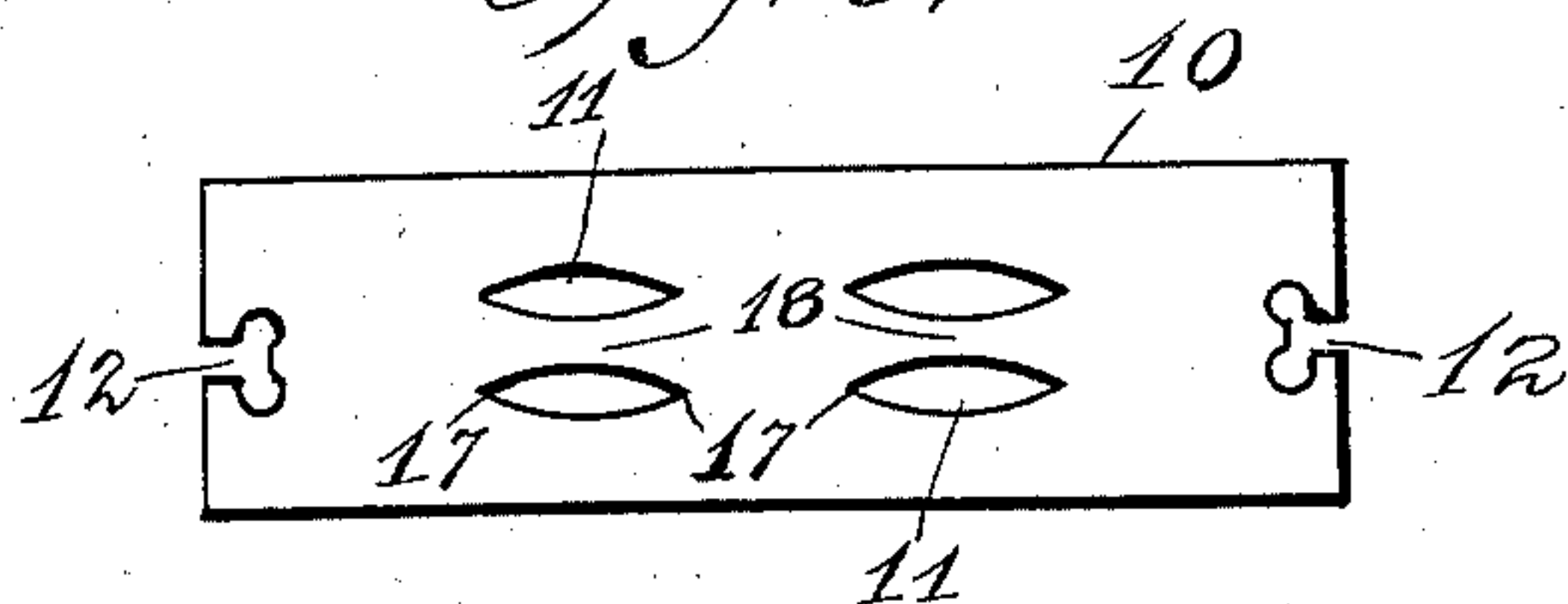
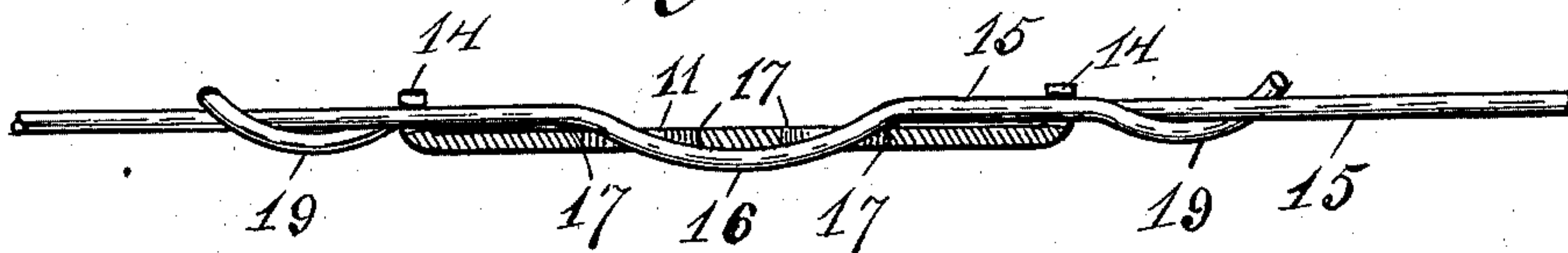


Fig. 4.



Witnesses

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BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 749,847, dated January 19, 1904.

Application filed May 27, 1903. Serial No. 159,008. (No model.)

To all whom it may concern:

Be it known that I, WALLACE B. CURTIS, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Bale-Ties, of which the following is a specification.

This invention is an improvement over my former bale-tie, as shown in Letters Patent No. 448,830, bearing date the 24th day of March, 1891; and the objects of my present improvement are to provide double lines of locking-slots in the tie-piece, whereby both ends of the bale-wire are received and locked in the taper-ended slots, thus doing away with the necessity of my former twisted-loop attachment to the tie-piece; also, to provide locking-notches in the ends of the tie-piece, which prevent its twisting or turning sidewise from the opposite draw of the two ends of the bale-wire. These improvements are shown in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved bale-tie, showing my new tie-piece and the manner of inserting both the ends of the bale-wire in the double locking-slots of the tie-piece. Fig. 2 is a lengthwise sectional view of the tie-piece in the bent form with the wire ends in the slots ready to lock the ends by the straightening of the central bend. Fig. 3 is a plan view of the blank of the tie-piece as cut by the die. Fig. 4 is a lengthwise sectional view of the tie-piece after it has been flattened to lock the bale ends.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 is the tie-piece, which has the double line of taper-ended slots 11 cut therein and the notches 12 for the wire. Piece 10 is usually struck from sheet metal by suitable dies, which give it the central bend 13 and the bent-up ends 14. Slots 11 are made in the tapered form at both ends in order to obtain a wedging hold on the ends of the bale-wire 15 when the tie-piece is straightened out. The central bend 13 facilitates the

easy insertion of the ends 15 of the bale-wire through the slots 11. After the wire ends have both been inserted in their respective slots the bend 13 is flattened out by a quick blow of a hammer or in any other suitable manner. The straightening of bend 13 causes wire 15 to bend, as at 16, and causes the two ends 17 of the slots 11 to impinge or cut slightly into the wire 15 and obtain a wedging hold on the wire at each end 17, thereby locking the wire fast.

It has been found that when the space 18 between the double line of slots is made too great tie-piece 10 has a tendency to twist sidewise from the draw of the ends 15 in the opposite directions. Accordingly the locking-notches 12 have been provided, which prevent any such movement and insure a straight draw on the bale-wire. Notches 12 are preferably made with an enlarged inner opening and room for the admission of but one wire at a time. This strengthens the holding power of the tie-piece, as well as prevents twisting, as above stated. The end 15 of the bale-wire may be turned under the bale-wire, as shown at 19 in Fig. 4, though this precaution is hardly necessary, since it is found that the tie-piece holds the wire ends 15 absolutely against slipping.

In order to release the ends 15, the bend 13 is remade in piece 10, thereby allowing the ends to slip from the grip of tie-piece. It is best, however, to raise the wire out of notches 12 before rebending the tie-pieces.

It is apparent that the tie-pieces 10 may be struck into form with suitable dies and furnished to the users, who can cut their own bale-wires from the coiled wire. Or the bale-wires may be cut in suitable lengths and furnished with the tie-pieces 10, for straight-ended wires are used with my tie-pieces. It is also obvious that my improved tie-piece would serve a good purpose without notches 12, though I usually prefer them as a factor of safety.

I claim as new—

1. A bale-tie consisting of a metal plate hav-

ing double lines of locking-slots, and the ends of said slots tapered, substantially as and for the purpose specified.

2. A bale-tie consisting of a metal plate having a double line of locking-slots, and notches in the ends of said plates, substantially as and for the purpose specified.

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

WALLACE B. CURTIS.

Witnesses:

A. W. KETTLE,
ALMEDA C. BERLIN.