

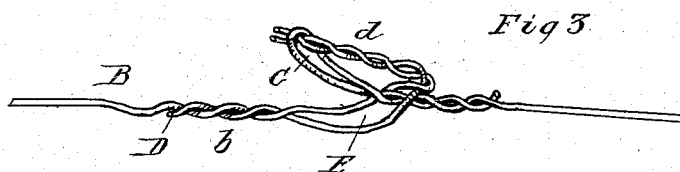
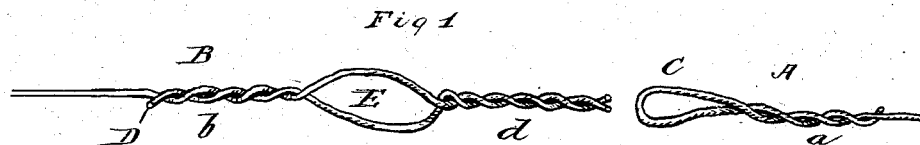
(No Model.)

M. CAMPBELL.

BALE TIE.

No. 263,760.

Patented Sept. 5, 1882.



Witnesses

W. C. Coates
Jno. C. MacGregor

Inventor

Marvin Campbell

By *Coburn & Thacher*
Attorneys

UNITED STATES PATENT OFFICE.

MARVIN CAMPBELL, OF SOUTH BEND, INDIANA.

BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 263,760, dated September 5, 1882.

Application filed March 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, MARVIN CAMPBELL, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Bale-Ties, fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of a portion of a bale-tie, showing the two ends and embodying my invention; Fig. 2, a side elevation of the same with the tongue thrown back preparatory to fastening; Fig. 3, a similar elevation showing the mode of uniting the two ends; Fig. 4, a similar elevation showing the same as finally secured on the bale.

My invention relates to that class of bale-ties in which wire is the material employed; and the invention relates particularly to the fastening device by means of which the two ends of the bale are secured.

I will proceed to describe in detail the construction of a wire bale-tie in which my invention is carried out in one form, and will then point out particularly in the claims the special improvements which I believe to be new and wish to protect by Letters Patent.

In the drawings, A and B represent the two ends of a wire bale-tie, the body of the bale not being shown. In the end A a loop, C, is formed by bending a portion of the extreme end of the wire back upon itself and twisting it with the main wire so as to secure the two strands firmly together by means of the twist *a*. A short section of wire, D, is applied to the end B and the two twisted together at the inner end of the section, thereby forming a twist, *b*, by means of which the two wires are fastened together. The outer ends of these wires are also twisted so as to form a twist, *d*, at the extreme end, and between these two twists a loop, E, is left, formed by spreading slightly the two wires. The twisted end *d* is intended for a fastening-tongue, and in use is turned back over the loop E, as shown in Fig. 2 of the drawings.

The operation of this fastening device is as follows: The band is placed in the usual way around the bale, which is ordinarily under pressure, of course, and the ends are brought together. The loop C is then passed through the loop E, and the former passed over the end

of the tongue *d*, as shown in Fig. 3 of the drawings. The two ends are then drawn together, or will be drawn together by expansion of the bale when released from compression; but obviously the tongue will prevent the loop C from being drawn through the loop E, thereby securely fastening the two ends together in position, substantially as shown in Fig. 4 of the drawings.

I have described the tongue and loop in the end B as formed by applying a separate strand of wire to the end of the bale-wire. This is the mode I prefer, as it enables me to utilize small pieces of wire; but, if desired, the main wire may be bent back upon itself, and the tongue and loop then formed by the two twists, as described above.

The bale-ties may be readily unfastened by reversing the fastening operation described above, the bales being compressed sufficiently to give slack wire for this purpose. Hence the ties may be used repeatedly, and at the same time the construction is simple and cheap and the fastening perfectly secure. If the tie cannot be readily slackened so that the fastening may be released, of course it must be cut in order to release the bale.

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

1. A wire bale-tie one end of which is provided with a simple loop and the other end with a loop and a tongue arranged at the front of and with its free end extending back over the latter, whereby the two ends are fastened together by passing the first loop through the second and then over the end of the tongue, substantially as and for the purposes set forth.

2. A wire bale-tie having the loop C at one end and at the other end a loop, E, and a tongue, *d*, extending back over the latter loop, substantially as and for the purposes set forth.

3. The two wires B and D, twisted at the inner end of the latter and at the outer end thereof forming the two twists *b d*, and the loop E between them, substantially as and for the purposes set forth.

MARVIN CAMPBELL.

Witnesses:

SCHUYLER CARSKADDON,
JOHN M. BROWN.