No. 654,206. Patented July 24, 1900.

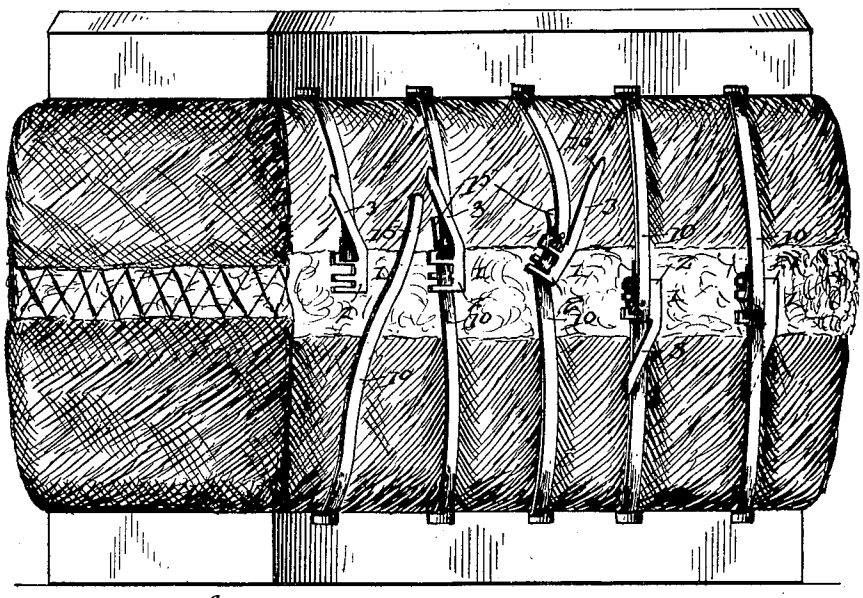
M. F. WALKER.

BALE TIE.

(Application filed May 14, 1900.)

(No Model.)

Fig. 1.



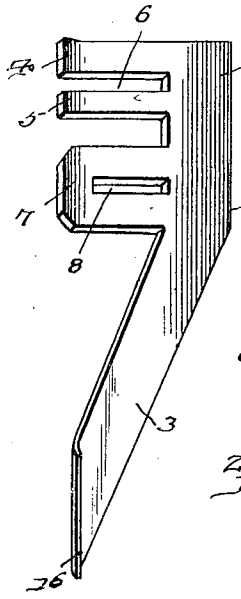


Fig. 2.

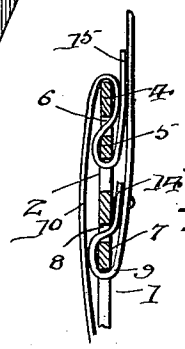
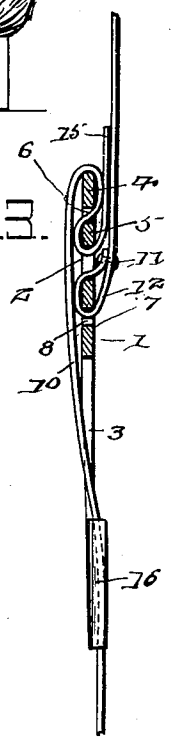


Fig. 4.

Fig. 3.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MILLARD FILLMORE WALKER, OF FLATONIA, TEXAS.

BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 654,206, dated July 24, 1900.

Application filed May 14, 1900. Serial No. 16,629. (No model.)

To all whom it may concern:

Be it known that I, MILLARD FILLMORE WALKER, a citizen of the United States, residing at Flatonia, in the county of Fayette and State of Texas, have invented a new and useful Bale-Tie, of which the following is a specification.

The invention relates to improvements in bale-ties.

One object of the present invention is to improve the construction of bale-ties and to provide a simple, inexpensive, and efficient one adapted to be readily manipulated in both attaching it to and removing it from a bale or package and capable of firmly holding a bale or package under pressure and of preventing the same from expanding after the pressure has been removed, whereby the bulk of a bale will be reduced to a minimum and a maximum density secured.

A further object of the invention is to provide a bale-tie of this character adapted to be readily applied to a band to facilitate cutting the bands of the proper length without surplus or waste and capable of stretching the bands to a uniform tension, whereby the pressure will be equally distributed and the breakage of a band prevented.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a bale provided with bale-ties constructed in accordance with this invention. Fig. 2 is a detail perspective view of the bale-tie. Fig. 3 is a longitudinal sectional view of one of the bale-ties, illustrating the arrangement of the band. Fig. 4 is a detail sectional view illustrating a slightly-different arrangement of the attached end of the band.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a bale-tie consisting of a lever having a head 2 at one end and provided with a laterally-bent or diagonally-extended shank 3. The head of the lever is provided with a pair of laterally-extending parallel arms 4 and 5, located adjacent to one end of the lever and forming an intervening space or opening 6 between them, and the arm 5 is spaced from a slotted arm 7, having an aperture 8 for the attached end 9 of a band 10. The arms 5 and 7 have an intervening space or opening 8 between them. The bands are adapted to be applied to a bale 2 of any material while the same is under compression, and the end 9 of the band 10 is passed through the opening 8 of the arm 7 and is riveted to the body portion at 11 to form a loop 12. This loop 12 may extend around the inner side of the arm 7, as illustrated in Fig. 3 of the accompanying drawings, or, as shown in Fig. 4, the attached end of the band may be looped around the outer side of the arm 7, with the extremity thereof interposed between the inner side of the arm 7 and the body portion of the band. The loop may be provided with a rivet, or such a fastening device may be omitted, as the pressure and friction resulting from the arrangement of the terminal 14 between the body of the band and the arm will prevent the band from slipping.

The bale-tie is preferably applied to the upper side or end of the band when the parts are arranged as illustrated in Fig. 1 of the accompanying drawings, and the free end 15 of the band is passed beneath the outer arm 4, through the opening 6, and over the intermediate arm 5, and then beneath the arm 7. This brings the free end of the band to the position shown in the second bale-tie from the left-hand end of Fig. 1. The lever is then swung downward to the position illustrated at the right-hand end of Fig. 1, and the engaging end of the shank of the lever is passed beneath the adjacent portion of the band, as clearly illustrated in dotted lines in Fig. 1. The engaging end of the shank is provided with a lip or flange 16, adapted to abut against the edge of the adjacent portion of the band to prevent the shank from becoming accidentally disengaged therefrom. The diagonal disposition of the shank of the lever brings the engaging outer end thereof in alinement with the apertures or spaces formed by the said arms, and the bale-tie is in alinement with the band when it is in its final position and there is no lateral strain tending to throw the outer end of the shank out of engagement

with the band. The inner edge of the shank may, if desired, be reduced to facilitate introducing it beneath the adjacent portion of a band.

The bale-tie may be applied to bales and packages of various kinds of material and goods, and instead of employing flat bands, as illustrated in the accompanying drawings, wire or other material may be used, and it will be seen that by arranging the apertures or openings at different points on the bale-tie or lever for the reception of the attached and free ends of the band the latter is taken up by the partial rotation or oscillation of the lever and is wrapped around the head, thereby enabling all slack to be taken up and preventing all liability of the bale or package expanding after the pressure has been removed from it.

It will be seen that the bale-tie is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it is adapted to be readily manipulated in applying it to and removing it from a bale. It will also be apparent that it is adapted to place the several bands of a bale under uniform tension and that it will effectually prevent the bale from expanding after the pressure has been removed, whereby the bulk is reduced to a minimum and a maximum density is secured.

What is claimed is—

1. A bale-tie consisting of a lever composed of a head located at one end of the lever and provided at one end with the laterally-extending arms 4 and 5 spaced apart, said head being also provided at its inner end with the enlarged arm 7 spaced from the arm 5 and provided with an aperture to receive the attached end of a band or other flexible connection, and a shank extending from one side of the head, substantially as described.

2. A bale-tie consisting of a lever composed of a head provided with laterally-extending arms forming apertures or openings and projecting from one side of the head, and the diagonally-disposed shank extending laterally from the inner end of the head and having its inner end located at the side of the same from which the said arms project, the outer end of the shank being arranged in the same plane as the outer ends of the arms, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MILLARD FILLMORE WALKER.

Witnesses:
E. A. ARNIM,
W. A. THATCHER.