

D. M. CAMPBELL.
BALE BAND FASTENING.

(Application filed July 24, 1902.)

(No Model.)

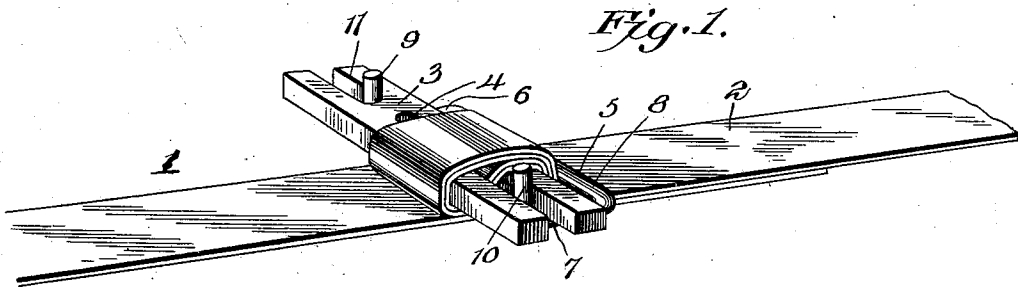


Fig. 1.

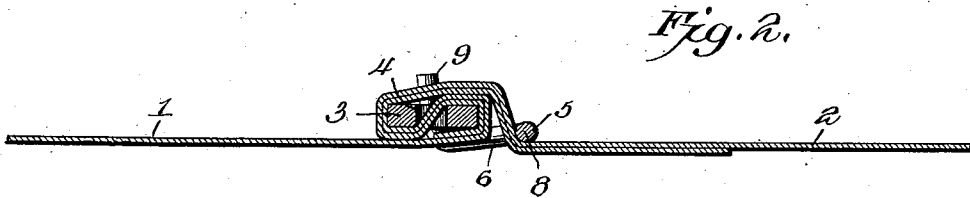


Fig. 2.

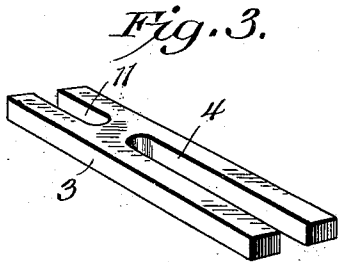


Fig. 3.

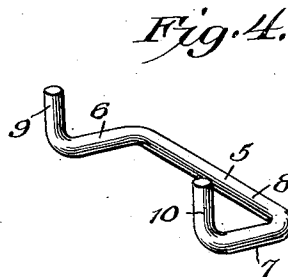


Fig. 4.

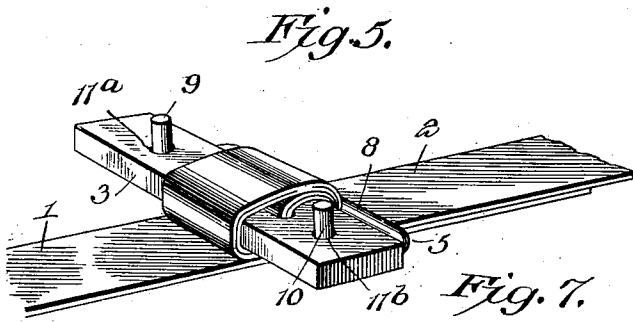


Fig. 5.

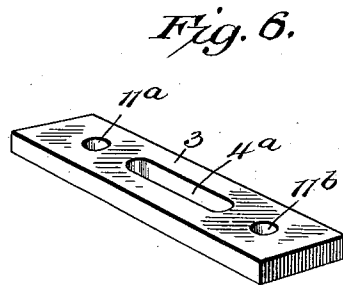


Fig. 6.

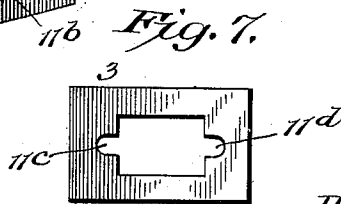


Fig. 7.

Witnesses
 Howard W. Orr.
 Louis Gulik.

Inventor,
 Douglas M. Campbell,
 By
 E. J. Siggers,
 Attorney

UNITED STATES PATENT OFFICE.

DOUGLAS M. CAMPBELL, OF HOUSTON, TEXAS, ASSIGNOR TO THE CAMPBELL COTTON TIE BUCKLE COMPANY, OF HOUSTON, TEXAS.

BALE-BAND FASTENING.

SPECIFICATION forming part of Letters Patent No. 713,203, dated November 11, 1902.

Application filed July 24, 1902. Serial No. 116,866. (No model.)

To all whom it may concern:

Be it known that I, DOUGLAS M. CAMPBELL, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented a new and useful Bale-Band Fastening, of which the following is a specification.

This invention relates to a novel bale-band fastening of that type which includes a winding-key engaging the lapped ends of a bale-band and a lock for retaining the winding-key against reverse movement after the latter has been turned to wind the connected ends of the band for the purpose of taking up the slack in the latter.

The objects of the invention are to construct the key and lock in a manner to facilitate the attachment of the key to the band, to effect such interlocking engagement of the parts as will prevent the accidental displacement of either the key or lock, and to so dispose the lock with reference to the key and band that the attachment of the key will be made easy and will prevent the slipping of the band. Subordinate to these objects are others which will appear during the course of the succeeding description of those embodiments of my invention which for the purpose of this disclosure are illustrated in the accompanying drawings and embraced within the scope of the appended claims.

In said drawings, Figure 1 is a perspective view of the ends of a bale-band connected by my improved fastenings. Fig. 2 is a sectional view of the subject-matter of Fig. 1. Fig. 3 is a detail perspective view of the buckle-plate or winding-key detached. Fig. 4 is a similar view of the lock. Fig. 5 is a view similar to Fig. 1, but showing a modified form of key. Fig. 6 is a detail perspective view of the key shown in Fig. 5, and Fig. 7 is a plan view of still another form of key.

Like numerals of reference are employed to designate corresponding parts throughout the several views.

1 and 2 indicate the lapped ends of a bale-band, which, as is well understood in the art, passes around a bale or other package and is designed to be drawn tight.

3 indicates the buckle-plate or winding-key, which is an oblong block or plate of metal

provided with a longitudinal slot or opening 4 for the reception of the lapped ends of the band. By preference the slot 4 is open-ended, so that the bifurcated end of the key may be slipped upon the band from one side thereof and then turned by means of a suitable winding-tool (not illustrated) to simultaneously wind the two ends of the band around the key for the purpose of taking up the slack. This will be obvious by reference to Figs. 1 and 2, as it will be seen that the two lapped ends of the band extend through the opening or slot 4, so that when the key is rotated the band will be formed with a double loop passing around the opposite side portions or legs of the key, further turning of the latter serving to cause the widening of the band entirely around the key in a manner which will be obvious.

When the key has been turned sufficiently to take up the slack in the band, it is necessary, of course, to prevent reverse movement when the winding-tool is removed. For this reason I provide a lock 5, preferably constructed of a stout piece of wire, which is bent substantially in the form of a staple—that is to say, it comprises a pair of parallel legs 6 and 7 and a cross-bar 8. The lock, however, differs in form from that of an ordinary staple by the angular construction of the legs, each of which has an angular end 9 or 10 disposed at right angles to those portions of the legs which are connected by the cross-bar 8. When the key has been turned sufficiently, the lock is presented over the band in position to straddle the same, and the angular engaging ends 9 and 10 of its legs are passed into the openings in the key, one leg of the lock being accommodated by the slot 4 beyond one side of the band and the other leg being accommodated in a slot or opening 11, formed in the key 3 beyond the end of the slot 4. After the engagement of the lock and key has been effected the band is permitted to slacken until the cross-bar 8 rests upon the band, as shown in Fig. 1. At this point attention is called to what is deemed to be an important feature of the invention. It will be noted that the key rests upon the legs 6 and 7, and thus disposes the cross-bar 8 in position to retain the band flat against the

side of the bale, and it will also be seen that the angular ends of the lock have interlocking engagement with the key at opposite sides of the band, so that it is impossible to
 5 remove either the key or lock in a lateral direction. The length of the lock is such that the engagement of the end 9 with the wall of the opening 11 will prevent the end 10 of said lock from being moved outwardly through
 10 the end of the slot 4, while the withdrawal of the end 9 from the end of the opening 11 will be prevented by the engagement of the end 10 with one side of the band. The key and the lock are so interlocked that not only will
 15 the band be prevented from slipping and producing slack therein, but it will also be impossible for the lock or the key to become displaced in consequence of the rough handling received by the bale. The release of
 20 the bale is effected by severing the ties in a manner well understood in the art.

Inasmuch as the key shown in Figs. 1 and 3 is bifurcated at both ends, it must be made of very strong metal in order to stand the
 25 strain. Therefore, while this form is preferable, it is also contemplated to employ the form of key shown in Figs. 5 and 6. In this modification the key is provided with a band-receiving slot 4^a and with openings 11^a and
 30 11^b beyond the opposite ends of the slot 4^a for the reception of the ends of the lock. In this form, as in the form heretofore described, it is impossible to withdraw either the lock
 35 or the key in a direction transverse to the band, and the band is also held flat against the side of the bale by the cross-bar 8 of the lock; but it is necessary to thread the ends of the band through the key instead of slipping the key upon the band, as in the first
 40 instance.

In Fig. 7 is shown a key or buckle plate in which the openings 11^c and 11^d are formed as recesses offset in the end walls of the band-receiving slot.

45 It will be noted that each of the illustrated forms of fastening includes a key having a band-receiving slot and openings adjacent to the opposite ends of the key for the reception of the angular ends of a lock having leg portions disposed under the key and a cross-bar
 50 connecting the leg portions and designed to hold the band flat against the side of the bale.

It is thought that from the foregoing the construction and mode of manipulation of
 55 my band-fastening will be clearly apparent; but while the illustrated embodiments of the invention are thought at this time to be preferable I do not wish to limit myself to the structural details defined, as, on the
 50 contrary, I reserve the right to effect such

changes, modifications, and variations as may be fairly embraced within the scope of the protection prayed.

What I claim is—

1. A bale-band fastening comprising a key 65 engaging the band, and a lock having a cross-bar fitted upon the band and angular legs disposed under the key with their ends extending upwardly into the key at opposite sides of the band. 70

2. A bale-band fastening comprising a key having a plurality of openings and engaged with the band, and a lock having a cross-bar imposed upon the band and a pair of legs extended under the key, said legs having angular ends located at opposite sides of the band and extended upwardly into different openings in the key. 75

3. A bale-band fastening comprising a key having an open-ended slot for the reception 80 of the band and an opening beyond the closed end of said slot, and a lock having a cross-bar imposed upon the band and legs located at opposite sides of the band and engaging the slot and opening in the key, whereby the endwise withdrawal of said key is prevented. 85

4. A bale-band fastening comprising a key having a longitudinal open-ended slot and an opening beyond the closed end thereof, and a lock having a cross-bar to engage the band 90 and a pair of legs disposed at opposite sides of the band, said legs having right-angular ends to respectively engage the slot and opening in the key.

5. A bale-band fastening comprising a key 95 having its opposite ends bifurcated, and a lock having a cross-bar to engage the band beyond one edge of the key and legs extending under the key from the cross-bar, said legs having angular ends engaging the bifurcated ends of the key at opposite sides of the band. 100

6. A bale-band fastening, comprising a key having a plurality of openings through one of which the band is passed, and a lock having 105 a cross-bar imposed upon the band and a pair of legs disposed substantially at right angles to the cross-bar and extending under the key, said legs having substantially right-angular ends extending upwardly into different openings in the key from those portions of the legs located thereunder. 110

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

DOUGLAS M. CAMPBELL.

Witnesses:

J. I. WILSON,
 LA VAL DEANE.