

(No Model.)

J. A. GRESHAM.

BALE TIE.

No. 296,686.

Patented Apr. 8, 1884.

Fig. 1.

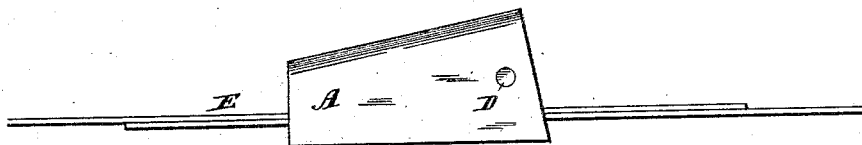


Fig. 2.

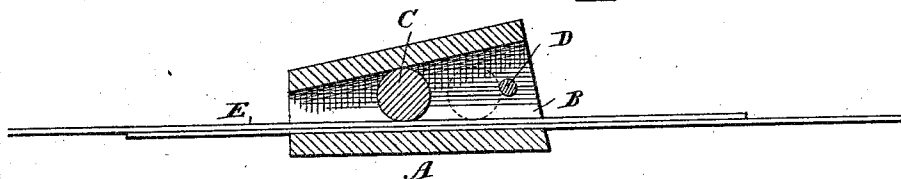
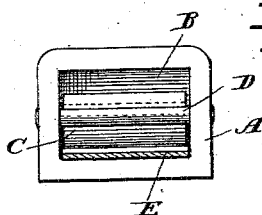


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

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BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 296,686, dated April 8, 1884.

Application filed January 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, J. A. GRESHAM, a citizen of the United States, residing at Waynesborough, in the county of Burke and State of Georgia, have invented certain new and useful Improvements in Bale-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the tie with the band through the same. Fig. 2 is a vertical section through the tie, and Fig. 3 is an end view.

My invention relates to bale-ties; and it consists in constructing the same with a wedge-shaped slot, in which the two ends of the band are secured by a suitable automatic fastening device held within the wedge-shaped slot by the contracted end thereof, and by a pin or bar passed transversely through the enlarged end of the slot, whereby both ends of the tie may pass into the slot, and the tie can be made without lips or flanges, and the fastening device prevented from slipping endwise or otherwise out of the slot when the bands are removed therefrom.

In the drawings, the letter A indicates the tie, made of any suitable form and material, but preferably of cast metal, and has a slot, B, formed through it, wedge-shaped in cross-section, and provided within the same with any suitable automatic fastening, preferably a roller, C, of metal or other suitable material. This roller is prevented from slipping out of the slot at one end by the opening at that end being contracted in vertical section, so as to be smaller than the diameter of the roller, and is prevented from slipping out of the enlarged other end by a rod, bar, or pin, D, passed transversely through the tie, inside the edges thereof, at such point as will prevent the roller from slipping out from between it and the walls of the slot. By passing the pin or rod transversely through the tie, the roller or ball, if such is preferred, is prevented not only from slipping out sidewise, but also endwise, if it should turn within the slot so as to move lengthwise. Furthermore, by passing the rod or pin

through the tie, as described, there are no flanges or lips or projecting ends to be caught and wrenched off, which would impair, if not completely destroy, the future efficiency and usefulness of the tie. The tie can also be easier cast or molded than when formed with flanges. The tie has holes cast or drilled in its opposite sides for the passage of the rod or pin after the introduction of the fastening into the slot, the ends of the rod or pin being riveted or upset to hold it in place; but it may be otherwise applied without departing from my invention. The rod or pin is located so that both ends of the band may pass between it and the walls of the tie.

In applying the tie to the band E, one end of the latter is passed through the tie from its enlarged end under the cross rod or pin and roller. The other end is next passed through the tie from its contracted end, either over or under the first-introduced end of the band and under the roller. Now, when the pressure is taken off the bale, the tendency of the latter to expand and draw out the band from the tie causes the band to draw the roller toward the contracted end of the tie and wedge it between the band and tie, so that the bite of the roller on the upper band will press the latter against the lower band and firmly and securely hold the two ends of the band together. The greater tendency to force out the band the tighter will the roller bite and more securely will the ends of the band be held together. Of course, the bands may be introduced from the opposite ends in reverse order to that described without departing from my invention.

The simplicity of the tie renders it very cheap of production, and the absence of flanges renders it very strong, and at the same time it is very efficient.

When the tie is separated from the band, there is no danger of the fastening slipping out of the slot either endwise or sidewise, and hence the tie is good for continued use.

By passing the pin or bar through the tie, as shown and described, it is wholly inside of the edges of the tie, so that nothing can possibly catch in the same, it can be more securely held to its place than when otherwise applied, it can be more easily applied, and it cheapens the construction. The construction is also

cheapened by placing the rod or pin so that both bands can pass through the slot.

I am aware that a bale-tie has been made with two wedge-shaped openings through the same—one for each end of the band—one of said openings having a roller held within the same by a guard passed across one end and seated in notches or recesses formed in the edges of the sides of the tie, said guard having bent ends passing into the tie in the direction that the band passes through the openings. My bale-tie differs therefrom, among other particulars, in having a rod passed through the slot into holes made in the sides of the tie, inside of the edges thereof, whereby the rod will be housed within the tie and braced from all sides by the latter.

I am also aware that it has been proposed to make a bale-tie with a single wedge-shaped opening for the passage of one end of the band, to be held therein by a loose roller, the other end of the band being riveted to an extension of the tie. My invention differs therefrom in having no extension, in not riveting either end of the band to the tie, and in providing a fixed pin or rod inside the tie to prevent the roller from slipping out.

Having thus described my invention and set forth its merits, what I claim is—

1. The within-described bale-tie having a single wedge-shaped opening therein for the passage of both ends of the band, an automatic fastening, C, in said opening, and the rod or pin D, passed transversely through the enlarged end of the tie and located within the said wedge-shaped opening, substantially as and for the purpose set forth.

2. The within-described bale-tie having a single wedge-shaped opening therein for the passage of both ends of the band, the roller C in said opening, and the rod or pin D, passed transversely through the enlarged end of the tie within the said wedge-shaped opening, and having its ends upset against the sides of the tie, substantially as and for the purpose set forth.

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

JOB A. GRESHAM.

Witnesses:

W. A. WILKINS,
R. L. PHELPS,
I. H. WILKINS.