N. T. EDSON.

TIGHTENING BALE-BANDS.

No. 194,080. Patented Aug. 14, 1877.

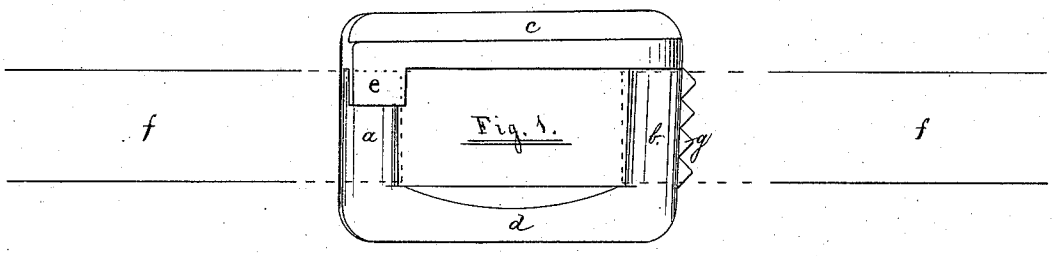

Fig. 1.

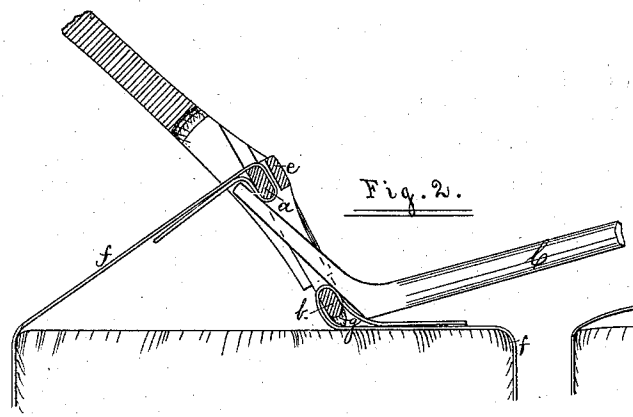

Fig. 2.

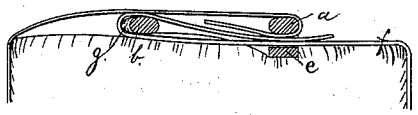

Fig. 3.

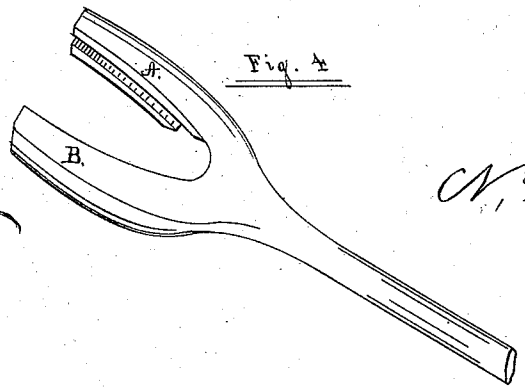

Fig. 4

Witnesses.

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NATHANIEL T. EDSON, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN TIGHTENING BALE-BANDS.

Specification forming part of Letters Patent No. **194,080**, dated August 14, 1877; application filed April 20, 1877.

To all whom it may concern:

Be it known that I, NATHL. T. EDSON, of New Orleans, State of Louisiana, have invented a new and useful improvement in the art or process of applying flexible bands in the baling of cotton, hay, and other materials, of which the following is a specification:

The object of my invention is to draw the band tight to the bale while under pressure, and secure it from slipping on release of the bale from pressure. This process is especially valuable in baling cotton and other elastic materials, both on plantations and where the same is being compressed, where, for economy in storage and transportation, it is of great importance to reduce and confine the bale in the smallest possible compass.

In baling these materials by the modes generally in practice, the bands, by reason of the rigidity of the metal of which they are made, are applied loosely around the bale when it is under pressure, and the slack is taken up by the expansion of the compressed material when the pressure is removed. It follows that the bulk of the bale is considerably increased by the expansion which is permitted by the looseness of the bands.

It is the object of this invention to provide an efficient method of overcoming this difficulty by taking up and securing the slack of the confining-bands while the bale is under its greatest pressure.

The accompanying drawing illustrates the device for carrying this process into practice.

Figure 1 is a plan view of the buckle and band. Fig. 2 is a sectional view of the buckle, band, and two levers when the buckle has been turned to a position where one lever is being applied to, and the other removed from, the buckle. Fig. 3 is a sectional view when the buckle has been turned completely over and brought down upon the surface of the bale, and the fastening made. Fig. 4 is a perspective view of a forked lever.

In the drawing, like letters refer to like parts in all the figures in which they appear.

a and *b* are the ends of the buckle, and *c* and *d* the sides of the same. *e* is a lip formed on the buckle at the junction of its side *c* and end *a*. *f* is the band, and C a lever. A and B are the prongs of lever, Fig. 4, and *g* teeth formed on the outer edge of end *b* of the buckle.

The length of the sides of the buckle may be greater or less, according to the amount of slack to be taken up, inasmuch as the buckle will take up an amount of slack equal to twice its length.

The invention is carried into practice by the use of the above-described buckle and levers in the following manner, viz: After band *f* has been connected to end *a* of the buckle and passed around the bale, the other end is passed around the end *b*. Lever C is then placed upon end *b*, and under end *a* of the buckle, and brought to the position shown in Fig. 2, in the performance of which teeth *g* penetrate the band *f*, and thus draw and hold the band without slip. At this stage lever C, Fig. 4, is placed on the buckle, the grooves of its prongs inclosing a part of the sides thereof. Lever C is then removed and the buckle turned completely over endwise, and secured in its final position by swinging the lever laterally from the band as the buckle is being brought down toward the surface of the bale till the end of lip *e* is outside the line of the band, when the lip *e* is forced underneath the band, and thus retained in place, the angular form of the buckle facilitating.

What is claimed as new is—

The lever, with its grooved prongs A and B, substantially as and for the purposes described.

NATHL. T. EDSON.

Witnesses:
H. N. JENKINS,
C. L. KOCK.