

A. W. HESS.

BALE-TIES.

No. 183,053.

Patented Oct. 10, 1876.

Fig. 1.

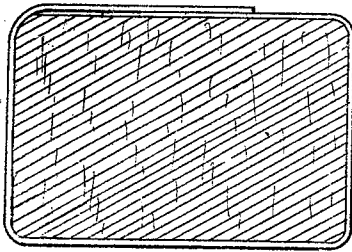


Fig. 2.

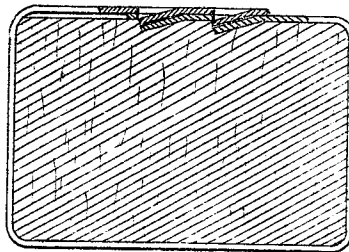


Fig. 4.

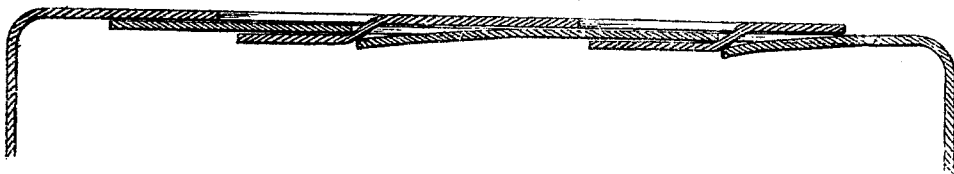
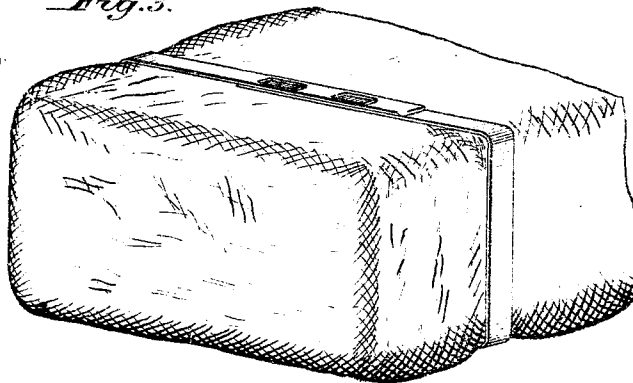


Fig. 3.



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IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **183,053**, dated October 10, 1876; application filed October 26, 1875.

To all whom it may concern:

Be it known that I, ABRAM W. HESS, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Automatic Ties for Baling Cotton, and in iron hoops and other similar bindings; and I hereby declare the following to be a full and accurate description of the same, reference being had to the accompanying drawings, and to the letters and figures marked thereon, forming a part of this specification.

The nature of my improvement and invention is the cutting of tongues and slots at the same instant and in the same places in the ends of the tie or hoop where they lap each other, so that the tongue of the upper lap enters the slot of the lower lap, and thus becomes the means of fastening the ends of the tie or hoop securely in the place desired, all which is done during the process of baling.

In the accompanying drawings, Figures 1, 2, and 3 give different views of the mode of applying my improvement in baling cotton, which may likewise be applied to other bindings or hoopings.

Figure 1 represents the tie or hoop placed around the cotton-bale ready to be fastened. Fig. 2 represents the same tie or hoop with the tongues and slots cut in the ends or lap. Fig. 3 represents the bale after the same is bound. Fig. 4 is a longitudinal section of the tie, showing the position of the tongues after the same is fastened.

The process of applying my said invention in the baling of cotton, hay, or other articles is as follows: The bale being prepared in the usual manner by pressing for the tie, the iron band is passed around the bale, so that the ends of the tie lap by each other about four inches. A male and female die are then applied, the female die underneath the lap and the male die above the same, and in such a position in respect to each other that when brought together the male die shall cut through both ends of the tie and in about the middle of the lap, forming the slot and tongues in both the upper and lower lap, as represented in Fig. 2 of the accompanying drawings. The die is then withdrawn, and the tongues of the upper lap pass into the lower slot, and the outward pressure of the bale brings them

together, and the bale is securely fastened. The tongue of the under lap presses firmly against the back of the hoop at the point opposite the commencement of the tongue in the upper lap, so that great additional strength in the fastening is secured.

I am aware that in the specification of English Patent No. 1,097, of 1866, is described a method of fastening a cotton-bale tie by means of indentations and projections fitted together, the metal of the upper lap being bent down into a corresponding recess in the under lap. In that case there are no projecting tongues which pass through slots from the upper through the under lap, and lap under the tie longitudinally, as in my invention. I regard such fastening as of little or no value on account of its insecurity.

I am also aware that in the specification of English Patent No. 2,838, of 1868, is described a bale-tie in which tongues and slots are formed in the ends of the tie before the same is placed around the bale. These tongues are struck out in reverse directions, and, when the tie is placed around the bale, the ends are interlocked by the tongues of each lap projecting respectively through the slots of the other. I regard this fastening as less secure than mine, and it has another serious objection, namely, that one set of the tongues project outside of the tie, where they are liable to catch in adjoining bales. Furthermore, ties thus formed cannot be accurately adjusted to the varying size of the bales.

Having thus described the nature of my said improvement, and a method of applying the same to practical use, I claim—

A bale-tie, consisting of a metallic strip fastened by means of tongues and slots cut at one and the same time in the overlap of the ends of the tie, the tongues of the upper lap projecting into the slots of the under lap, and the tongues of both the upper and under lap being on the inside of the tie when the same is fastened, leaving the outside thereof free from any projections, substantially as described.

A. W. HESS.

In presence of—

JOEL TIFFANY,
DANL. W. HESS.