T. McIntire,

Bale Tie.

No. 29,185. Patented July 17, 1860.

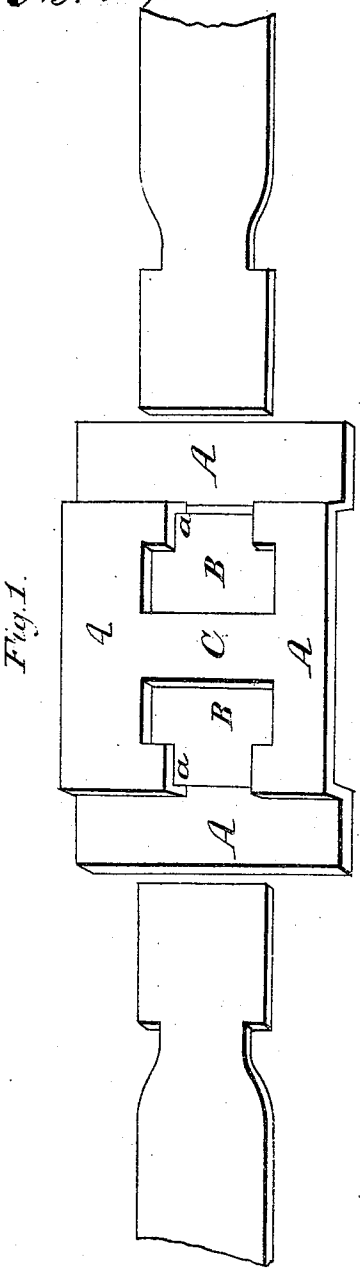

Fig. 1.

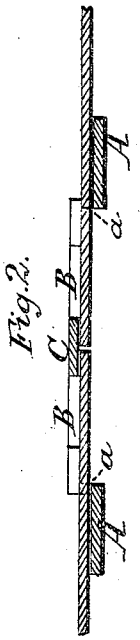

Fig. 2.

Witnesses.

Goodwin & Alee

Gustavus Dieterich

Inventor.

Thos McIntire.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS McINTIRE, OF FRANKLIN FURNACE, OHIO.

IMPROVEMENT IN COTTON-BALE FASTENINGS.

Specification forming part of Letters Patent No. 29,185, dated July 17, 1860.

To all whom it may concern:

Be it known that I, THOMAS McINTIRE, of Franklin Furnace, in the county of Sciota and State of Ohio, have invented a new and useful Improvement in Cotton-Bale Fastenings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of the two ends of a hoop and the tie-plate. Fig. 2 is a vertical section of the same.

Similar letters of reference in each of the figures indicate corresponding parts.

An objection has been urged against the tie-plate which is constructed with two T-shaped slots near its ends and a transverse bar at its center, and my invention is intended to obviate that objection.

The nature of my invention consists in the new article of manufacture herein described, to wit; a stiff metal tie-plate for cotton-bale hoops, made with two T-slots in it, a transverse stop-bar between the slots, and two vertical square shoulders at the outer termination of the slots and below the under side of the bar, for use in combination with a cotton-bale hoop which has T-shaped ends, in the manner and for the purpose hereinafter described. By thus constructing the fastening the necessity of using the best quality of iron in the construction of the hoops is obviated, for if the hoops are not subjected to an oblique tearing strain they are not liable to give out, even if constructed of an inferior quality of metal.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A B C represent a slotted tie-plate similar in construction to several which have before been presented to the public, with the exception of having a vertical shoulder, *a*, formed on it at the outer termination of each of the T-slots B. The plates, with the slots, transverse bar C, and shoulders *a a*, are formed at one operation by passing a bar of metal through a machine which I have designed especially for the purpose. The ends of the hoop are made in T form, as usual, and are inserted into the slots as represented in the drawings. It will be observed that the shoulders are parallel vertically with the binding-edge of the T ends of the hoop, and therefore no oblique or tearing strain is experienced when an expansion in the cotton-bale takes place. It will also be observed that the tie is nearly level with the top of the bale and hoop, and that therefore very little obstruction to the rolling of the cotton-bale is offered. It will be further observed that the T ends of the hoop are by reason of the shoulders allowed to bear flat against the under side of the bar C, and that the outward pressure of the cotton comes in a straight direction upon the same, and thus a perfect retention of the ends of the hoop by the tie-plate insured without any oblique tearing strain.

My tie-plate as a whole certainly answers a good purpose, and while I do not give to myself the credit for the origination of the T ends on the hoop, nor for the T-slots B and transverse bar C, I think I have so combined, with these almost useless things, the vertical bearing-shoulders as to be able to present the public with an article which is really useful and practical, and thus entitled myself to protection by Letters Patent.

I am aware that the belt-fastening of Messrs. Maxwell and Bird, rejected October 23, 1855, shows a plate which is countersunk so that shoulders are formed on it. This fastening, however, does not admit of the two ends of the hoop being fastened by T-heads, and without bending the metal in such a manner as to weaken it; nor does it present a central stop between two slots and elevated above two shoulders, so that the outward pressure of the cotton on the ends of the hoop shall be resisted, and the strain on the two ends of the hoops shall be in a direct line, or on a line parallel with the surface of the cotton with which they come in contact.

I am also aware that a plate with two T-slots and a transverse bar has been presented at the Patent Office by Badger, 1856, and by Dubs in 1860; but this plate has no shoulders, and therefore subjects the hoop to an oblique and tearing strain.

I do not claim the device of Messrs. Maxwell and Bird, nor do I claim the devices of Badger and Dubs; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The new article of manufacture herein de-

scribed, to wit: a stiff metal tie-plate for cotton-bale hoops, made with two T-slots in it, a transverse stop-bar, C, between the slots, and two vertical square shoulders, *a a*, at the outer termination of the slots and below the under side of the bar C, for use in combination with a cotton-bale hoop which has T-shaped ends, in the manner and for the purpose herein described.

THOS. McINTIRE.

Witnesses:
GOODWIN Y. ATLEE,
I. H. DARRELL.