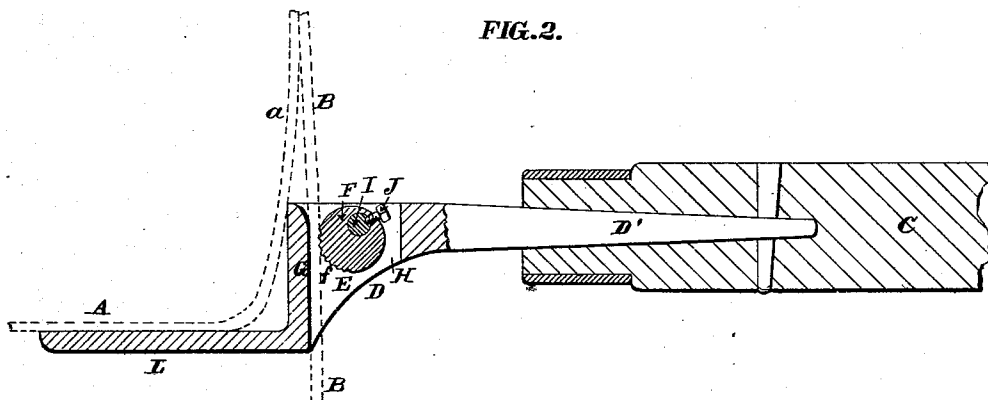
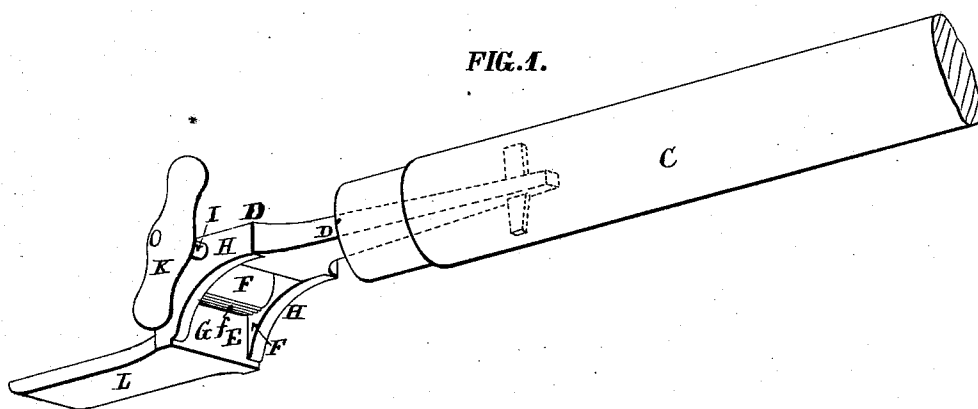


D. E. MCGARRAH.
Bale-Band Tightener.

No. 162,672.

Patented April 27, 1875.



ATTEST:

Robt. Burns.
Henry Tanner.

INVENTOR:

Daniel E. McGarrah
By Knight & Co.
Atty.

UNITED STATES PATENT OFFICE.

DANIEL E. MCGARRAH, OF ROSEMOND, ILLINOIS.

IMPROVEMENT IN BALE-BAND TIGHTENERS.

Specification forming part of Letters Patent No. **162,672**, dated April 27, 1875; application filed March 20, 1875.

To all whom it may concern:

Be it known that I, DANIEL E. MCGARRAH, of Rosemond, Christian county, State of Illinois, have invented a certain new and useful Improvement in Bale-Band Tighteners, of which the following is a specification:

My improvement relates to a lever constructed to tighten the hoop upon a bale, being more particularly intended for the tightening of wooden hoops upon hay-bales.

The improvement consists in a toe, which passes beneath the first or lower end of the band, and an eye, through which the last end of the band passes, and in which it is held by an eccentric roller, which is furnished with serrations upon its gripping side to give a firm hold of the band.

In the drawings, Figure 1 is a perspective view of my improvement. Fig. 2 is a longitudinal section.

A is the lower part of the band, which extends beneath the bale, and is lapped around the corner at the end *a*, which extends upward and lies against the side of the bale. B is the other end of the band, which laps past the end *a*, and is secured thereto by nails when the band is tightened upon the bale. The tightener has a handle or helve, C, in whose end is fixed the tang D' of the iron head D. This head D may be made of wrought or malleable iron. E is an opening through the head, through which the end B of the hoop passes, and within this opening is an eccentric clamping-roller, F, by which the end of the hoop or band is gripped when the free end of the handle C is borne down to tighten the band. The eccentric roller F has serrations *f* upon its clamping side to give it a firm hold upon the band, which passes down between the roller and the end G of the opening. The eccentric is journaled in the sides H of the opening by means of a mandrel, I, which passes through the said sides and eccentrically through the roller, and the latter is fastened upon the mandrel by a set-screw, J, or other suitable

means. Upon the end of the mandrel is a cross-handle, K, by which the eccentric roller may be turned to bring its toothed side into or out of contact with the band.

The arrangement of the clamping-roller is such that as the free end of the handle C is borne downward the clamping-roller is turned by the draft upon the hoop, so as to gripe the hoop or band with increasing firmness, the said roller in this case turning in the direction indicated by the arrow, so as to decrease the size of the aperture between the roller and the end of the opening, through which the end of the band passes. The toe L of the tightener is inserted beneath the bottom part A of the band, and as the free end of the handle C is moved below the horizontal line from the toe the end B of band is not only drawn down, so as to tighten the band upon the bale, but said end is brought into close contact with the end *a*, so that it is easily nailed thereto. When the band is secured by nailing the free end of the handle C is raised, and this relieves the gripe of the clamping-roller, which may then be turned by the cross-handle K, to entirely release the hold upon the band end B. When the end B is first inserted in the opening E the clamping-roller is turned by means of the cross-handle K, so as to gripe the band, and so that when the lever-handle C is depressed the band shall become more tightly gripped by the friction of the serrations *f* against it.

Having described the construction and mode of operation of my improved bale-band tightener, what I claim as new and of my invention is—

The band-tightener having toe L, helve or handle C, opening E, and clamping eccentric roller F, all combined and constructed substantially as and for the purpose set forth.

DANIEL E. MCGARRAH.

Witnesses:

WM. TURNER,
C. B. HARWOOD.