(No Model.)

S. L. CARPINTER.

BALE BAND TIGHTENER.

No. 312,704. Patented Feb. 24, 1885.

Fig. 1.

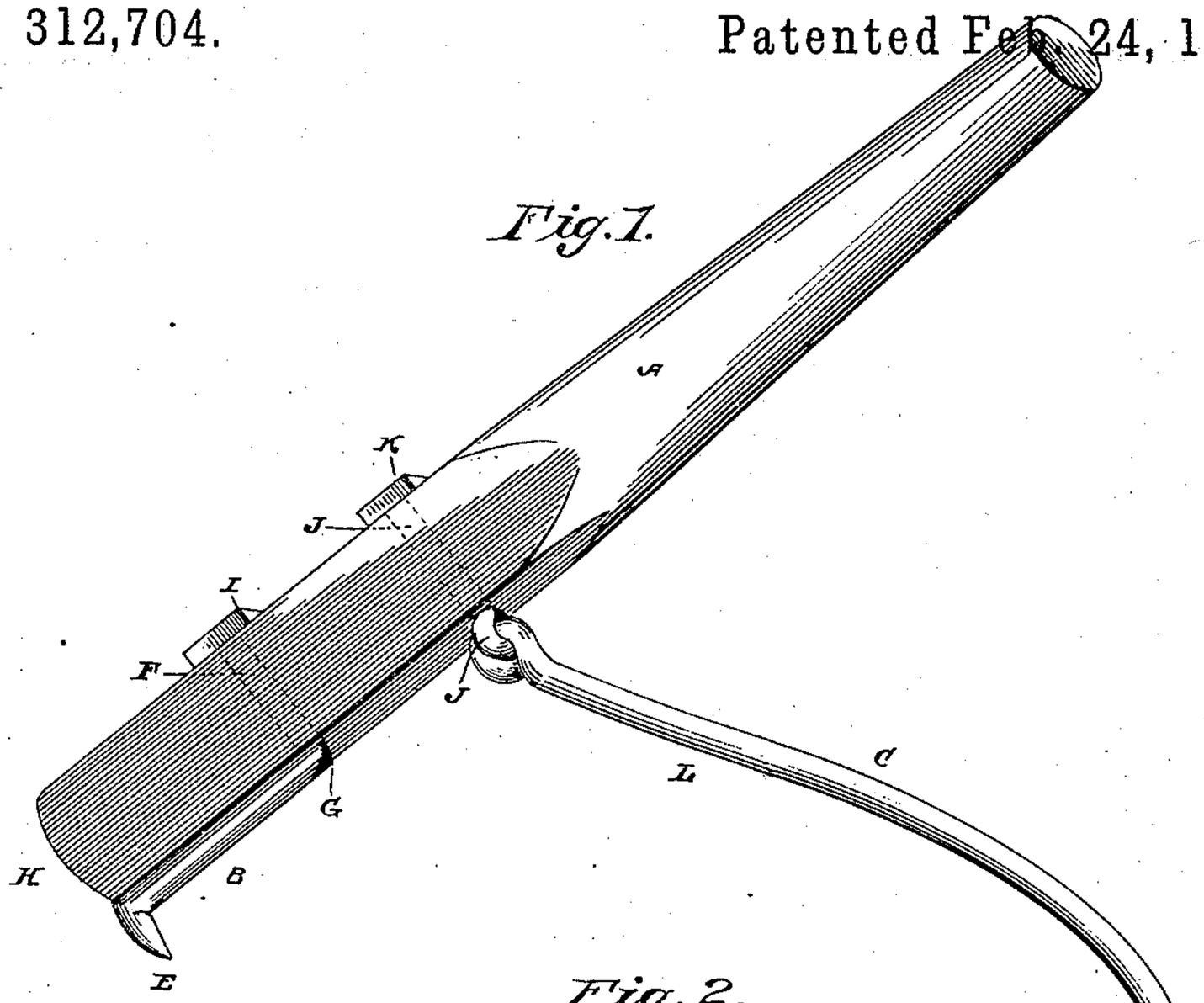


Fig. 2.

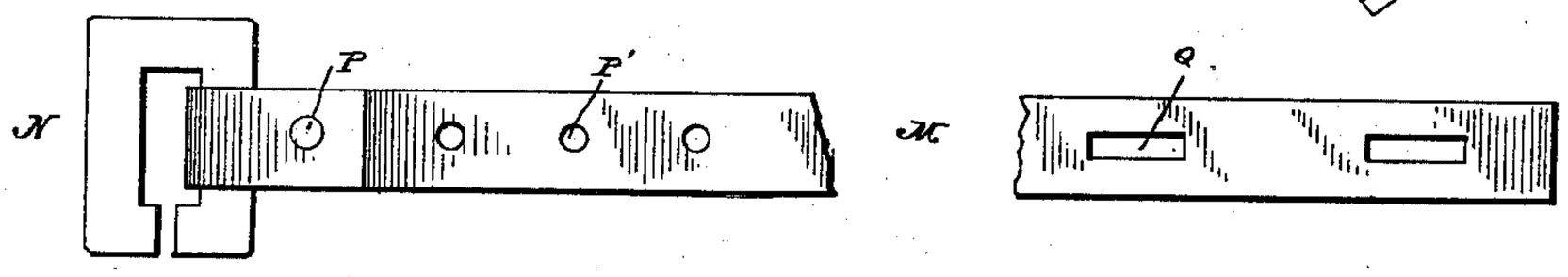
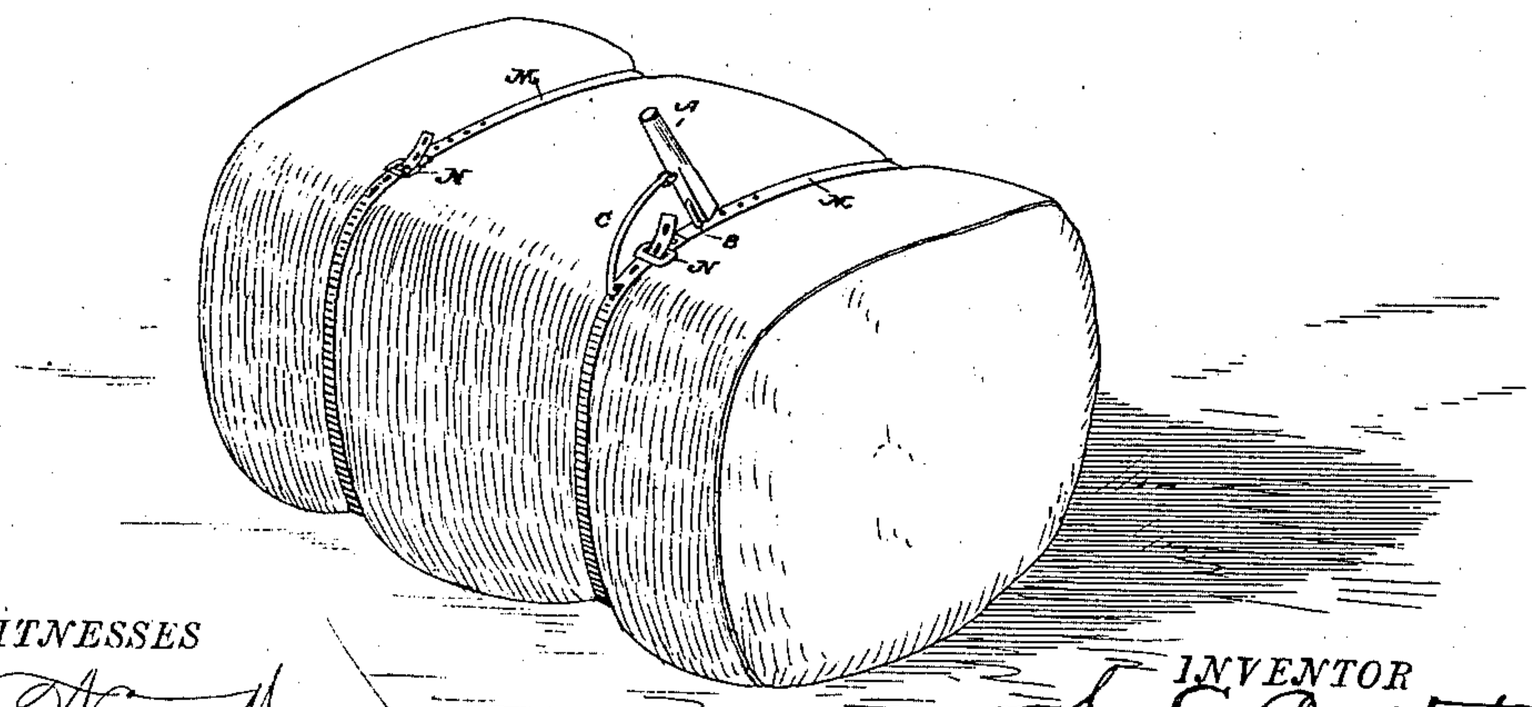


Fig. 3.



WITNESSES

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STEVEN LAFAYETT CARPINTER, OF ROSSVILLE, TENNESSEE.

BALE-BAND TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 312,704, dated February 24, 1885.

Application filed December 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, STEVEN L. CARPINTER, a citizen of the United States, residing at Rossville, in the county of Fayette and State of Tennessee, have invented a new and useful Improvement in Bale-Band Tighteners, of which the following is a specification, reference being had to the accompanying drawings.

My invention has relation to bale-band tighteners; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings, Figure 1 is a view in perspective of a bale-band tightener embodying my improvements. Fig. 2 is a plan view of the bale-tie, showing the round holes and elongated slots which the hooks of the bale-band tightener engage when the device is operated to tighten the bale-band; and Fig. 3 is a view in perspective of a bale and bale-band, showing the band-tightener in position to tighten the bale-band.

Referring by letter to the accompanying drawings, A designates the handle or lever of the band-tightener, which in practice should be about four feet long, in order to insure sufficient leverage to enable one man to operate the device with ease in tightening the bale-bands. This lever A is made of strong wood, and is preferably rectangular in cross-section throughout the portion H, to which the pike B and hinged hook-arm C are secured, and is round throughout the remaining portion of its length to permit the operator to conveniently grip and operate it. The pike B has the downwardly-projecting point E, and has a threaded angle-arm, F, at its other end, which is bent in a direction directly opposite to the point E, and is passed up through a hole, G, a short distance from the end H of the lever A, and is secured in place by a nut, I, screwed down upon the threaded projecting end of the angle-arm F and bears upon the face of the rectangular portion. The point or dog E projects slightly beyond the rounded or curved end of the portion H. A short distance from the threaded angle-arm F an eyebolt, J, is passed up through the rectangular portion of the lever nearer to the power end of the lever, and this eyebolt J is also secured in place by a threaded nut, K. To the eye of this bolt J a long curved hook-arm, L, is linked, the hook being turned slightly up and in the direction of the rectangular end of the lever A. The bale-tie M is provided with the clamp N at one end, said clamp being secured in an integral loop of the bale-tie by a rivet, P. A short distance from the clamp N the bale-tie M is provided with round holes P′, which the pike D enters. This part of the tie rests on top of the bale. The portion of the tie having the slots Q rests against the vertical side of the bale, and the hook of the hook-arm L enters the proper slot Q, and the operater lifts up on the lever and draws the bale-tie M tightly around the bale. The clamp N prevents the tie from slipping back by reason of the expansive force of the material, causing the material to bear outwardly against the tie and clamp and to bind the parts tightly.

I am aware of the patent to McComb, October 23, 1866, No. 59,151, and would have it understood that I do not seek to claim anything shown therein, as it is the object of my invention to improve on the arrangement shown in the aforesaid patent.

The device patented by McComb consisted of a hand-lever having its end pivoted to engage the holes in one end of the bale-band, and a hook-arm journaled at one end to a side projection of the lever, and having its other end engaging with the holes in the opposite extremity of the bale-band. In practice this has been found objectionable in many respects.

In making the pointed end of the hand-lever it is necessary to construct this end of iron and make it detachable, or construct the whole thing in one piece of iron, as wood or like material is out of the question. A heavy iron band-lever would require extra effort in tightening the bale, and, besides, would be highly objectionable, especially in cold weather. I avoid these objections by constructing the handle of stout oak wood, with the pike secured in place in the manner shown, so as to be detachable in case the handle or pike becomes broken.

Another necessary feature of my invention, resulting from the construction of the handle of wood, is the manner of securing the hook-arm by means of the eyebolt. By means of this construction the hook-arm is fitted securely to the lever, has a universal movement, and cannot possibly get out of order. The manner of connection on a line with the pike, and the whole device drawing in a common straight line, prevents slipping, and enables the operator to hold the band tight while adjusting it in the buckle or tie. Again, the detachability of the parts enables the owner, in case the hand-lever becomes broken, to apply the parts to a new one with ease, thereby saving the additional cost.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

As an improvement in bale-band tighteners, the combination, with the handle or lever A, of the pike B, provided with an arm, F, secured within the lever, the eyebolt J, also fitted in the lever in rear of the arm, and the hook-arm C, interlocked with the eye of the bolt, arranged and operating so that the hook-arm and pike will draw the band on a common straight line, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

STEVEN LAFAYETT CARPINTER.

Witnesses:
T. B. ALLEN,
I. H. SMITH.