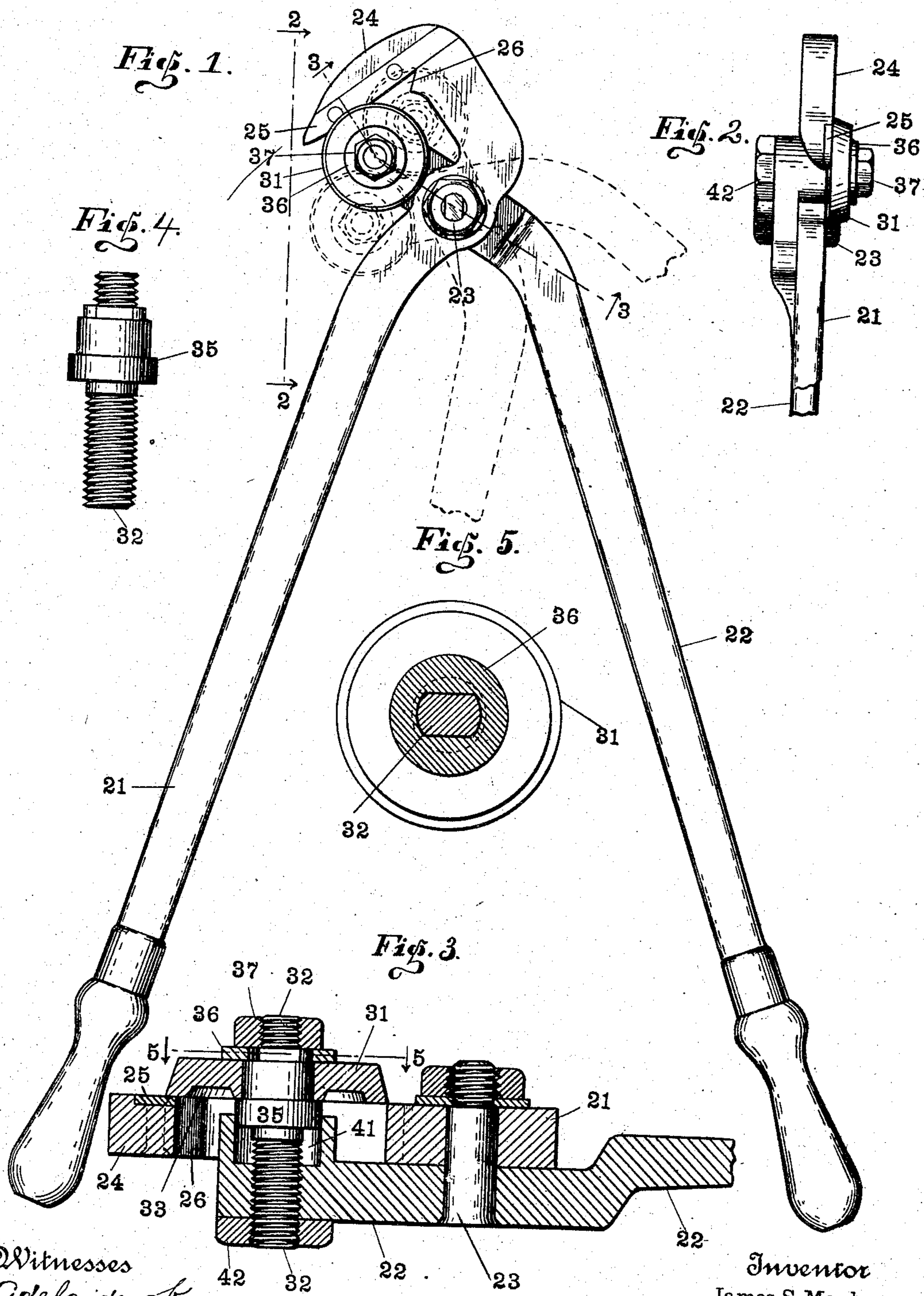


No. 785,225.

PATENTED MAR. 21, 1905.

J. S. MANLY.
BAND CUTTER.

APPLICATION FILED NOV. 27, 1903.



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UNITED STATES PATENT OFFICE.

JAMES S. MANLY, OF TAYLOR, TEXAS.

BAND-CUTTER.

SPECIFICATION forming part of Letters Patent No. 785,225, dated March 21, 1905.

Application filed November 27, 1903. Serial No. 182,762.

To all whom it may concern:

Be it known that I, JAMES S. MANLY, a citizen of the United States, residing at Taylor, in the county of Williamson and State of Texas, have invented certain new and useful Improvements in Band-Cutters, of which the following is a specification.

My present invention relates to that variety of cutting instruments which is designed especially for the purpose of cutting bale-ties, such as are employed in the preparation of bales of cotton and the like, or other bands or wires when used in situations requiring the service of such an instrument; and it consists, generally speaking, in certain improvements upon the band-cutter which forms the subject-matter of my former Letters Patent, No. 660,195, dated October 23, 1900. It especially relates to the cutter and the means of mounting it, whereby it is rendered adjustable for the purpose of compensating for wear, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts, Figure 1 is a plan view of my improved band-cutter, the parts being shown in the position they occupy at about the beginning of the cutting operation by means of full lines, while the completely open position and the final position when the cut is completed are indicated by means of dotted lines; Fig. 2, a front elevation of the operative parts of the cutter as seen when looking in the direction indicated by the arrows from the dotted line 2 2 alongside of Fig. 1; Fig. 3, a detail sectional view, on an enlarged scale, through the cutter and immediately adjacent parts as seen when looking in the direction indicated by the arrows from the dotted line 3 3 in Fig. 1; Fig. 4, a view of the spindle on which the cutter is mounted, separate from the other parts; and Fig. 5, a detail sectional view at the point indicated by the dotted line 5 5 in Fig. 3.

My improved band-cutter comprises two main lever-handles 21 and 22, which are united where they cross by a pivot-bolt 23. The operative end of the part 21 terminates

in a bill or hook 24, the cutting edge of which is preferably armed with a piece of tool-steel 25, which is shown as set into a recess therein and secured thereto by rivets. At the point where this cutting-strip intersects that portion of the handle which it crosses is a notch 26. The side of the band or tie or wire being cut opposite from that with which the rotary cutter comes in contact engages with this notch and is thus held securely from slipping during the cutting operation. A spindle 32 (which will presently be described more in detail) is mounted upon the other member, 22, and carries the rotary cutter 31. This cutter is in the form of a disk beveled at the edge. Its cutting edge is at its largest diameter and operates in connection with the cutting-strip 25 on the hook 24. The under side of this disk cutter is recessed at 33 to avoid friction. This recess or annular groove leaves only a narrow rim, which comes in contact with the adjacent portion. When the disk becomes dull, it is sharpened by grinding the cutting edge.

The spindle 32, upon which the cutter 31 is mounted, is capable of longitudinal adjustment in order to maintain the proper relation between the cutting edges. By proper manipulation any desired character of contact between the cutting edge of the rotary cutter and the opposing cutting edge can be produced that may be desired. The cutter itself is mounted between a collar 35 and a washer 36 on a bearing on said spindle, which bearing is formed to fit the orifice in the rotary cutter. Above the washer 36 is a jam-nut 37, which holds said washer firmly against a shoulder formed on the spindle just above the bearing for the cutter. The part of the spindle which carries the washer has flattened sides, as best shown in Fig. 5, so that there is no tendency to cause the nut to become unscrewed as the cutter revolves while doing its work. Similar washers may be used under the other nuts, if desired. The longitudinal movement of the spindle, and consequently the lateral adjustment of the rotary cutter, is secured by the following means: Within an enlargement formed on the extreme end of the lever-handle 22 is a cham-

ber 41 of substantially the same diameter as the collar 35 on the spindle and which is adapted to receive said collar, and thus hold the spindle firmly laterally, while permitting its longitudinal adjustment. The spindle is screw-threaded on the end below the collar, and the perforation through the lever-handle 22 is correspondingly screw-threaded to receive it, so that by turning the spindle slightly it is capable of being easily and accurately adjusted. This adjustment is effected by removing the nut 37 and the washer 36 and applying a wrench to the flattened sides of the part which is surrounded by said washer when in place. The spindle is securely locked in its adjusted position by means of a jam-nut 42 on the lower end thereof.

As in the case of my previous band-cutter, the bill or hook 24 is inserted (in operation) beneath the band to be cut until the one side or edge of said band is engaged by the notch 26. The handles are then operated upon their pivotal connection to force the rotary cutter inwardly against the other edge or side of the band, which is impinged between said rotary cutter and the stationary cutter, and said band is thereby easily cut, as will be readily understood.

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

1. A band-cutter comprising pivotally-connected handles, a cutting edge carried by the outer end of one of the handles and a laterally-adjustable cutting-disk mounted upon the other handle, substantially as and for the purposes specified.

2. A band-cutter comprising pivotally-connected handles, a cutting edge carried by the outer end of one of the handles, and a laterally-adjustable cutting-disk mounted upon the outer end of the other handle, the cutting edge being provided with a notch adapted to receive and hold the band which is to be cut.

3. In a band-cutter, a cutting-disk mounted upon the outer end of one of the handles, the disk being beveled toward its base, and provided on its lower face with a concentric circular depression, an axle screwed through the handle and upon which the disk is rotatably mounted, a thread and nut on the axle to hold the disk thereon, and a nut whereby the axle is locked to the handle, substantially as described.

4. The combination of a supporting member having a chamber, a spindle mounted in said supporting member and having a portion fitted into said chamber, a rotary cutter mounted on said spindle, means for adjusting said spindle longitudinally, the enlarged portion of said spindle fitting within said chamber and supporting the spindle and cutter at all points of adjustment.

5. The combination of a supporting member, a spindle carried thereby and provided with a bearing for a cutter and with a collar on one side of said bearing and a non-circular portion on the other side of said bearing, a rotary cutter mounted on said bearing, a washer mounted on said non-circular portion, and a nut above said washer.

6. The combination of a supporting member having a chamber on one side and a screw-threaded perforation arranged centrally of said chamber and extending through said support, a spindle having a screw-threaded portion entering said screw-threaded perforation and a collar fitting within the surrounding chamber, a rotary cutter mounted on said chamber, and means for adjusting said spindle longitudinally.

In witness whereof I have hereunto set my hand and seal, at Winona, Mississippi, this 23d day of November, A. D. 1903.

JAMES S. MANLY. [L. S.]

Witnesses:

J. S. ACEE,

W. Y. BASKENILL.