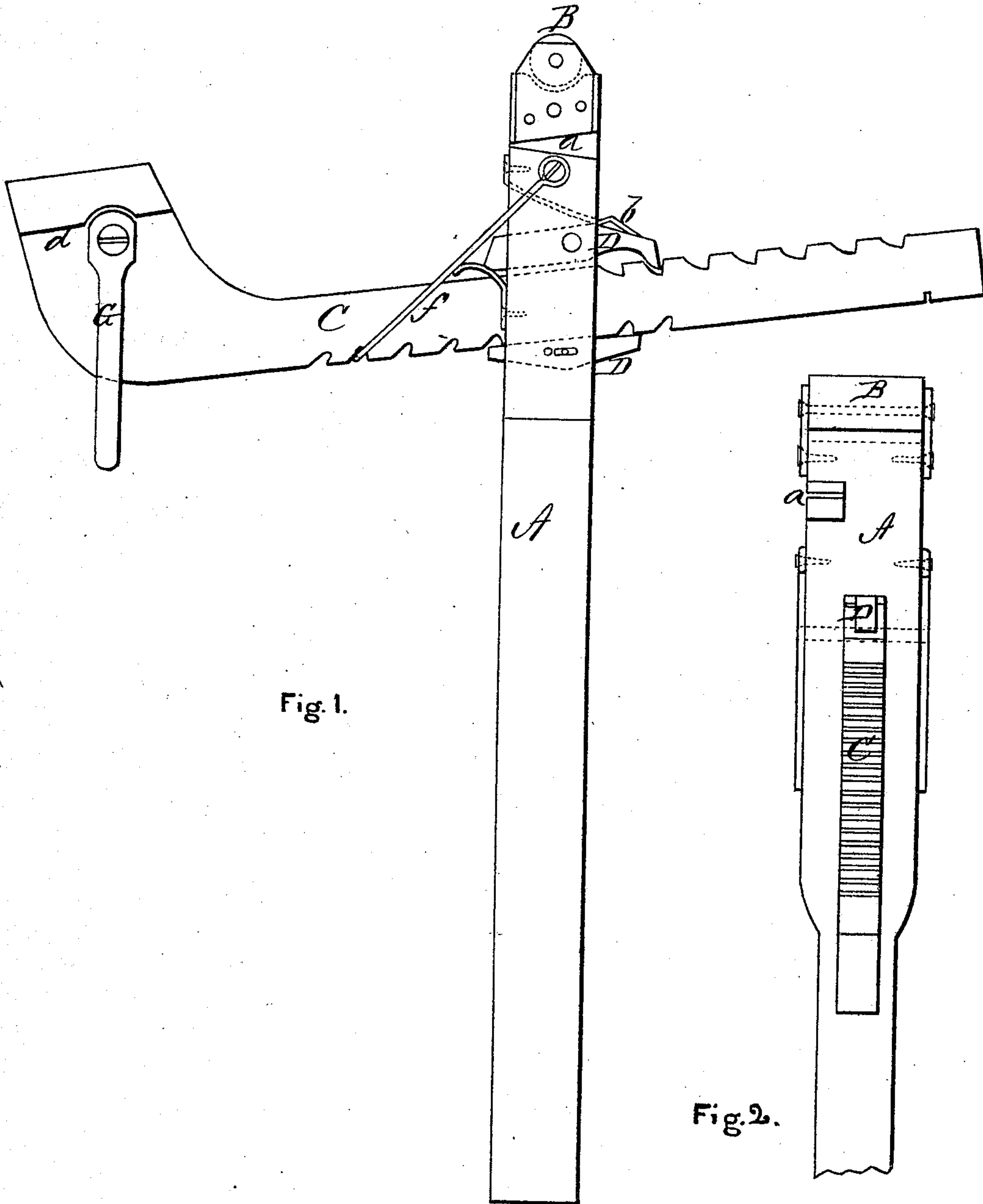


**T. D. LEONEARD.**  
**Bale-Tie Clamps.**

No. 144,776.

Patented Nov. 18, 1873.



**WITNESSES.**  
*George E. Upham.*  
*Emory H. Bates.*

**INVENTOR.**  
*Thomas D. Leonard.*  
*Chipman & Son, Attys.*

# UNITED STATES PATENT OFFICE.

THOMAS D. LEONEARD, OF WACO, TEX., ASSIGNOR OF TWO-THIRDS HIS RIGHT  
TO JOHN D. JOHNSON AND BENJAMIN C. DRURY, OF SAME PLACE.

## IMPROVEMENT IN BALE-TIE CLAMPS.

Specification forming part of Letters Patent No. **144,776**, dated November 18, 1873; application filed  
July 26, 1873.

*To all whom it may concern:*

Be it known that I, THOMAS D. LEONEARD, of Waco, in the county of McLennan and State of Texas, have invented a new and valuable Improvement in Ratchet Cotton-Tie Dogs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my invention in side elevation; and Fig. 2 is an end view of the same.

My invention relates to a device for tightening cotton-bale ties; and it consists in the construction and arrangement of certain parts constituting my ratchet cotton-tie dog, as will be hereinafter more fully set forth.

Like letters of reference indicate corresponding parts.

A represents a lever, of any suitable size, at the lower end of which is pivoted a roller, B, between suitable ears, as shown. A short distance from this end a V-shaped recess, *a*, is made in the face of the lever, the angle of the V being cut through the edge of the lever. Through the lever A is made a slot or mortise for the passage of a double ratchet-bar, C, or a bar with ratchet-teeth on both the upper and lower edges. Into this ratchet-bar works two dogs, D D, the lower one of which is held up by a spring, *b*, and which dogs are pivoted in

the mortise through the lever. One end of the ratchet-bar C is curved downward, and has a shoulder or offset at *d*, against which works a cam-lever, G. *f* is a stirrup, pivoted to the lever A, and working in the upper teeth of the ratchet-bar C, as shown in the drawing, the stirrup being held down by a spring, *e*. One end of the tie—that is, the one with the buckle or fastening on—is passed through the recess *a*, and the other end, after being passed around the bale, is fastened by the cam-lever G against the shoulder or offset *d*. By now working the lever A backward and forward the lever will advance on the ratchet-bar C, it moving freely over the bale by means of the roller B, thus drawing the two ends of the tie closer together to be fastened. Broken ties may be refastened by the same device.

What I claim as new, and desire to secure by Letters Patent, is—

The mortised lever A provided with roller B, recess *a*, and dogs D D, in combination with the double ratchet-bar C with offset *d* and cam-lever G, and the stirrup *f*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS DUNLAP LEONEARD.

Witnesses:

JNO. L. DYER,

W. R. LENARD.