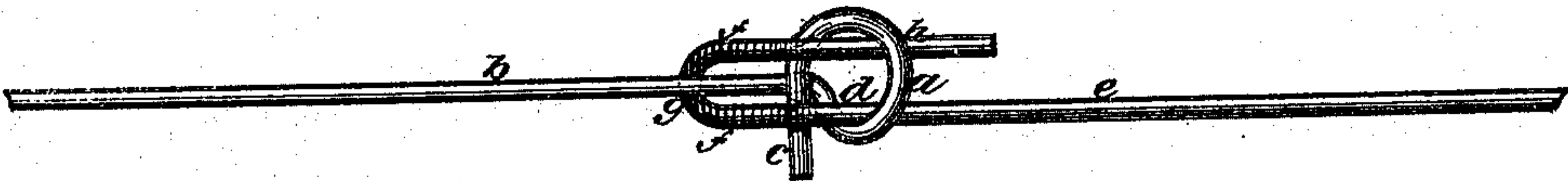


S. CALLANAN.  
BALE-TIE.

No. 173,843.

Patented Feb. 22, 1876.

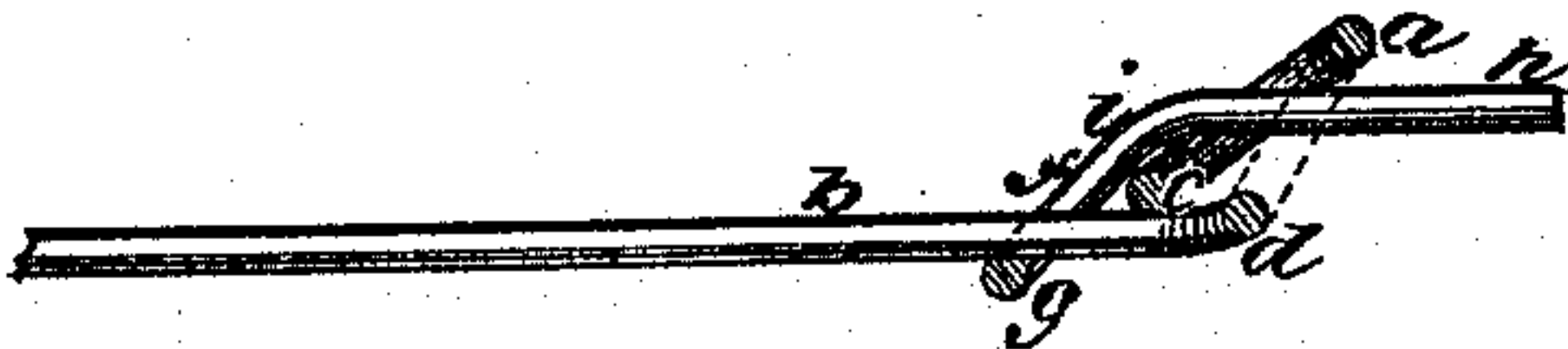
*Fig. 1*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

*Alfred Surratt.*  
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BY

*Wm. L. ...*

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# UNITED STATES PATENT OFFICE.

STEPHEN CALLANAN, OF CASTLETON, NEW YORK.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **173,843**, dated February 22, 1876; application filed February 5, 1876.

*To all whom it may concern:*

Be it known that I, STEPHEN CALLANAN, of Castleton, Rensselaer county, New York, have invented a new and Improved Bale-Tie, of which the following is a specification:

My improved bale-tie consists of a ring bent on one end of a wire, and a hook on the other, such as are employed in a "weaver's knot," together with a bend on each wire at the point where the ring and hook begin, or thereabout, in such manner that the hook may be passed through the ring, hooked around the wire above the ring, and then drawn back into it, forming a substantial knot.

Figure 1 is a top view of my improved tie, showing the positions when first put together. Fig. 2 is a top view, showing the tie complete; and Fig. 3 is a longitudinal sectional elevation of Fig. 1.

Similar letters of reference indicate corresponding parts.

*a* is the ring, which is formed on the wire *b* by binding the end around and across, as represented at *c*, and *d* is the bend in the wire at the beginning of the ring, so that the hook

of the other parallel wire *e* may pass through it. *f* is the hook of wire *e*, passing through the ring, hooking around wire *b* at *g*, and then going back through the ring at *h* again, and making a substantial knot. The hook is bent at *i*, so as to hook around wire *b* after coming through the ring.

In connecting the tie, the parts are held as in Fig. 3, the hook passed through the ring, hooked around wire *b*, and the point of the hook drawn back into the ring again, in which position the hook binds the end *c* of the ring, and the ring binds the point of the hook.

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

The improved bale-tie, consisting of the ring *a*, formed on the wire *b*, bent as at *d*, and the hook *f* of wire *e*, bent as at *i*, substantially as specified.

STEPHEN CALLANAN.

Witnesses:

T. B. MOSHER,

ALEX. F. ROBERTS.