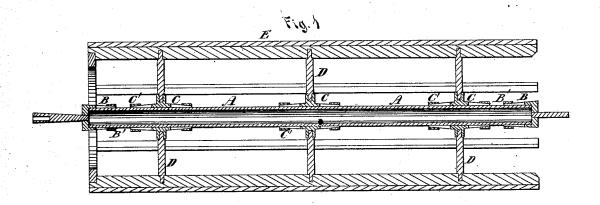
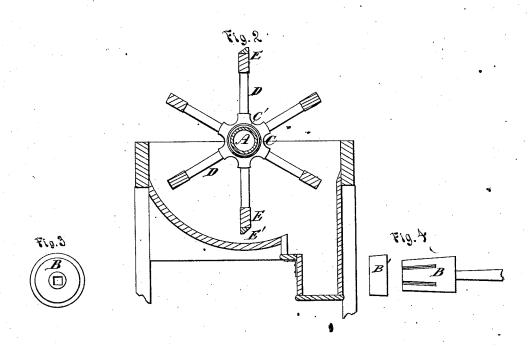
## A. H. NORDYKE. Bolting-Reel.

No. 162,408.

Patented April 20, 1875.





Witnesses.

A. Ruppert. Paley Eils A. N. Nordyke Inventor. D.P. Howoway 460 Atty

## UNITED STATES PATENT OFFICE.

ADDISON H. NORDYKE, OF RICHMOND, INDIANA.

## IMPROVEMENT IN BOLTING-REELS.

Specification forming part of Letters Patent No. **162,408**, dated April 20, 1875; application filed September 6, 1873.

To all whom it may concern:

Be it known that I, Addison H. Nordyke, of Richmond, in the county of Wayne and State of Indiana, have invented a new and useful Improvement in Bolt-Reels for Flour-Mills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making part of this specification, in which—

Figure 1 is a vertical longitudinal section. Fig. 2 is a vertical transverse section. Fig. 3 is an end view of the reel shaft. Fig. 4 is a side elevation of the socket and band for attaching the journal to a hollow shaft.

The same letters are employed in the designation of identical parts in all the figures.

This invention relates to an improvement in bolt-reels, designed to render the reel strong without making it heavy, and also to facilitate the putting up of the reel; and consists in the use of a hollow metallic shaft, having cast spiders attached by means of a conical band, compressing sections of the hub formed by longitudinal slits, to which spider wooden arms are attached for support of the cloth-bars.

In the annexed drawings, A is a tubular metallic shaft, on the ends of which are caps, the tubular portion of which is feathered to the inner end, and cut with longitudinal slits, which may be compressed upon the shaft by means of conical rings B', which are driven onto the tapered end of the cap. In the outer end of the cap is a solid head, from the center of which projects the journal. As bolts are

always set at a slight inclination, this construction affords not only the journal, but also a solid smooth head to sustain the end thrust. In the end of one of the journals I have shown a recess intended to receive the end of the driving-shaft. Spiders C C are also cast to fit loosely on the shaft. Their hubs are extended, feathered, and slit like the caps, and they, in like manner, are adjustably attached at any part of the shaft by conical rings C'. These spiders are also formed with socketed short arms, intended to receive the tenons on the end of the wooden arms or spokes D, supporting the wooden bars E, on which the bolting-cloth is fastened by cleats E'.

No claim is made herein to the caps and journals, nor their mode of attachment, as this part of my invention must be made the subject of another application.

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

A bolt reel for a flouring-mill, combining in its construction a tubular shaft and adjustable spiders with tapering flexible hubs attached by rings, and receiving wooden arms carrying the cloth-bars, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADDISON H. NORDYKE.

Witnesses:

WM. W. AUSTIN, D. P. HOLLOWAY.