

J. Wister.

Flour Bolt.

N<sup>o</sup> 36,317.

Patented Aug. 26, 1862.

Fig. 1.

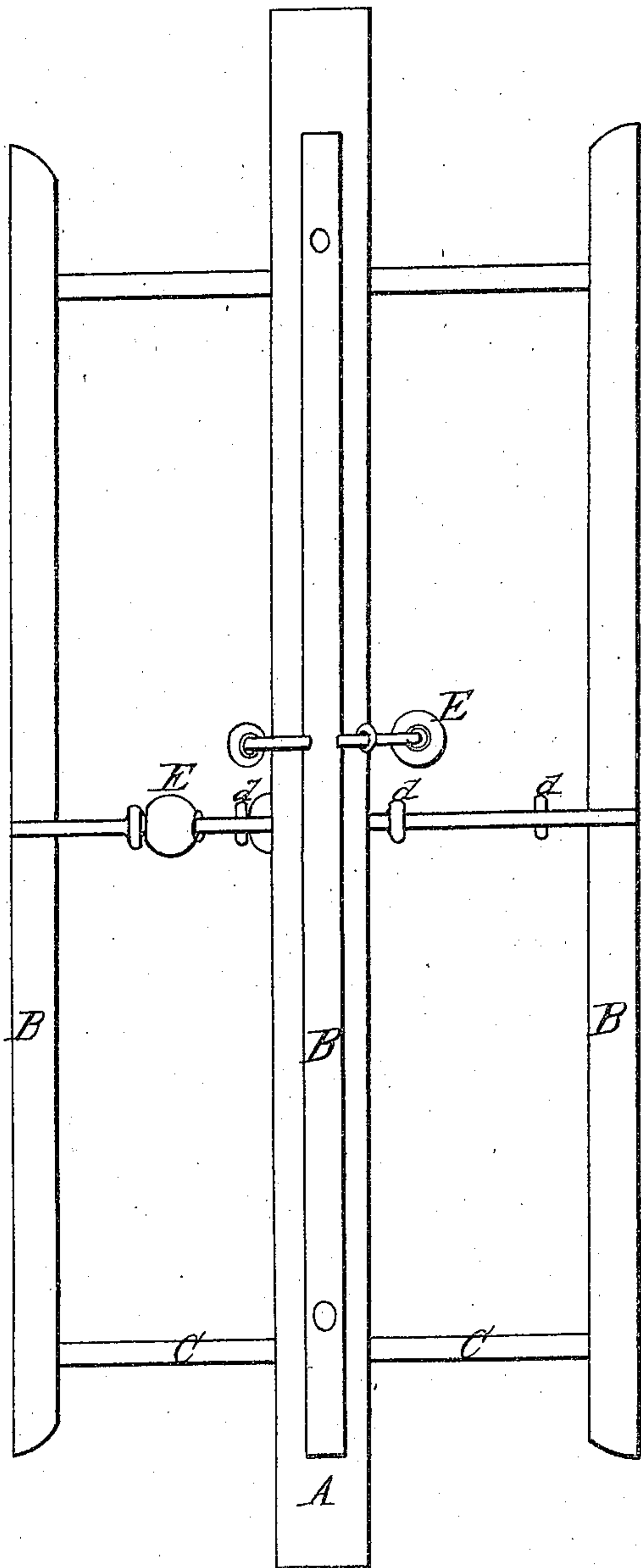
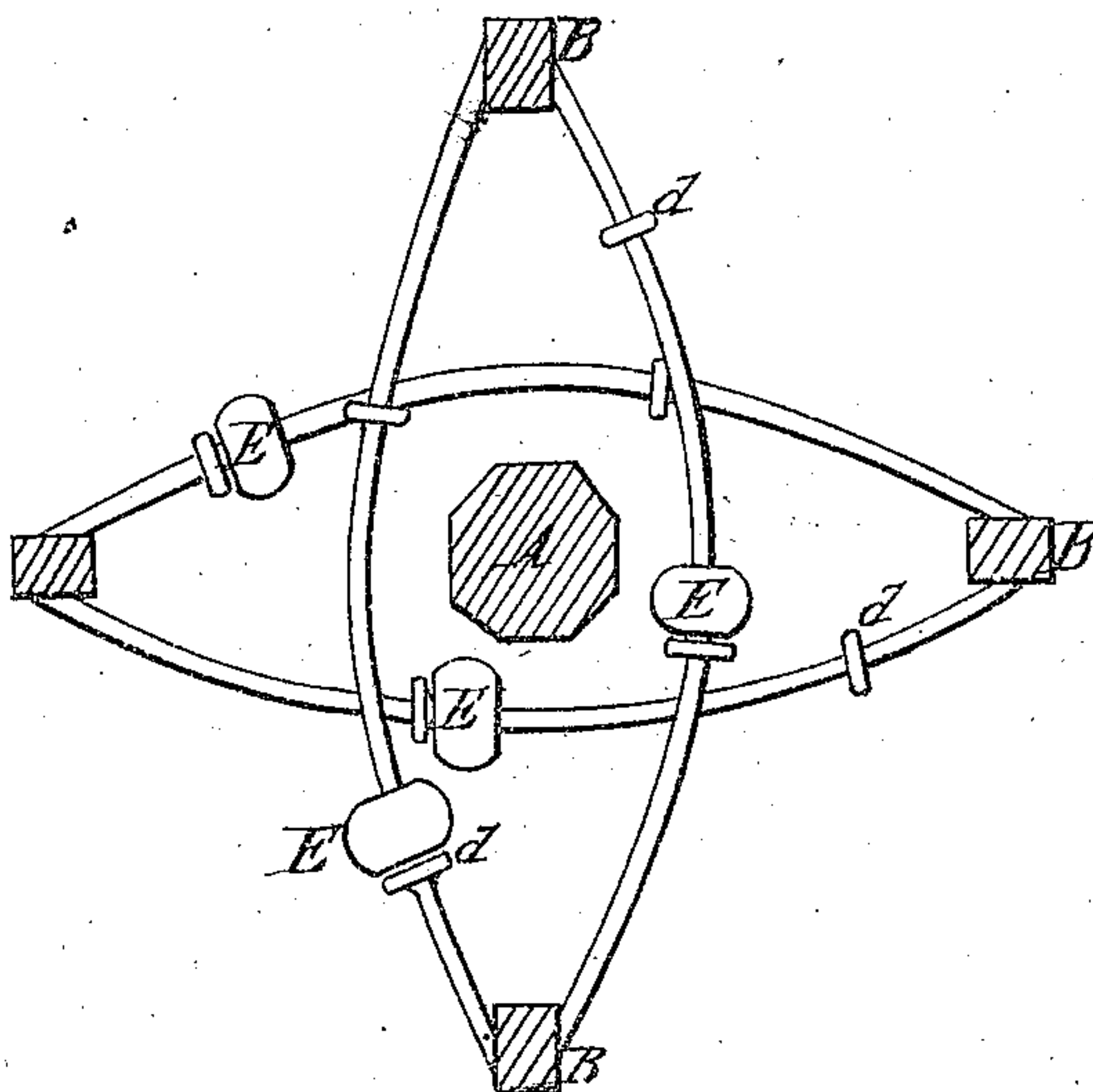


Fig. 2.



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# UNITED STATES PATENT OFFICE.

JACOB WISTER, OF GREENCASTLE, PENNSYLVANIA.

## IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. 36,317, dated August 26, 1862.

*To all whom it may concern:*

Be it known that I, JACOB WISTER, of Greencastle, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in Knockers for Flour-Bolts; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Knockers for flour-bolts are usually so arranged as to bring the stroke of the knocker upon the shaft of the bolt, thus requiring a very heavy blow to jar the ribs and canvas sufficiently to clear the bolt, and it often happens that the ribs are soon loosened by the severe stroke of the knockers.

My improvement in knockers for flour-bolts consists in an arrangement of braces and knockers carried upon the ribs of the bolt without immediate connection with the shaft of the bolt.

In the accompanying drawings, Figure 1 is a top view of the frame of a flour-bolt with my arrangement of knockers attached. Fig. 2 is a transverse section of the same, giving a side view of my braces or slide-rods for the knockers.

The shaft A, the ribs B, and the spokes C may be of the usual construction. Upon the ribs B, I attach the slide-rods D in pairs, the rods being curved, as shown in Fig. 2, so as to completely brace the ribs and hold them in a fixed position upon the spokes C. The rods D are provided with stops *d* to limit the motion of the knockers or sliding balls E. The stops *d* are not placed opposite each other on the slide-rods, but so arranged that the lower ball (on each pair of rods) starts first to slide down, thus giving a double stroke for each

pair of rods, and in this way completely clearing the bolt by giving a jar sufficient to detach the particles of flour from the canvas. It will be seen that the knockers act chiefly upon the ribs, (and not upon the spokes, as is common with other bolts,) thus shaking the canvas and effectually clearing the same. One great advantage is the jar produced upon the upper rib, where the canvas is in position to be thoroughly cleared of the finest flour, which usually adheres tenaciously to the canvas or bolting-cloth and clogs the bolt.

My new arrangement of knockers is very cheaply made, and is not only durable in itself, but it also strengthens and protects the bolt-frame. With my curved braces D the bolt-frame may be constructed with a less number of spokes, and yet be sufficiently strong. The balls E may be fastened or fixed upon the rods D by the common method when necessary.

I am aware that various kinds of sliding knockers have been used upon flour-bolts. Therefore I confine my claim to the arrangement by which the knockers act upon the ribs and not upon the shaft.

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

The use of the slide rods or braces D, extending from rib to rib and carrying sliding balls or knockers E, thus bracing the ribs and at the same time bringing the action of the knockers chiefly upon the ribs and bolting-cloth, substantially in the manner and for the purposes set forth.

JACOB WISTER.

Witnesses:

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