

C. B. SLATER.

Flour Bolts.

No. 133,805.

Patented Dec. 10, 1872.

FIG. 1.

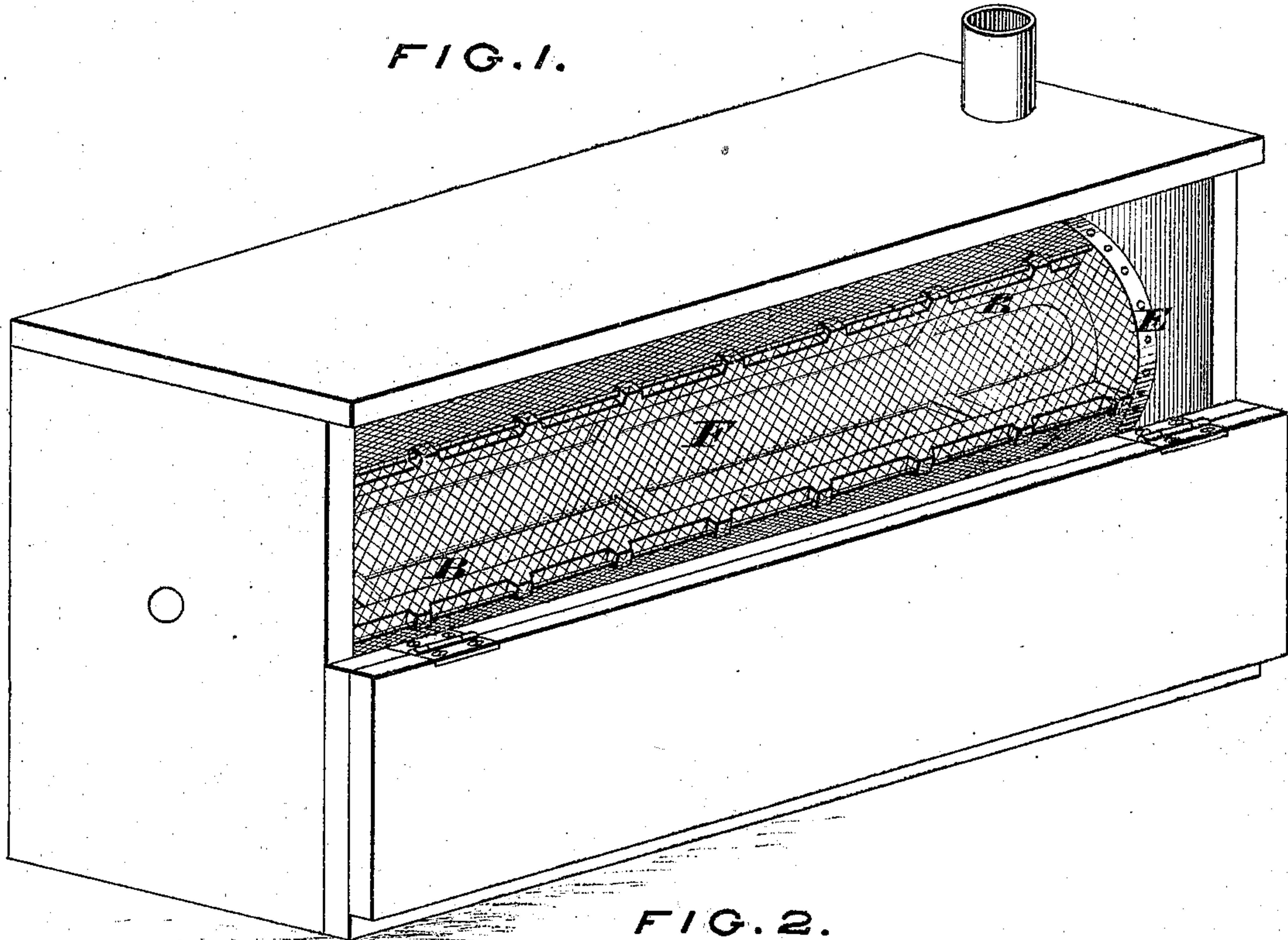


FIG. 2.

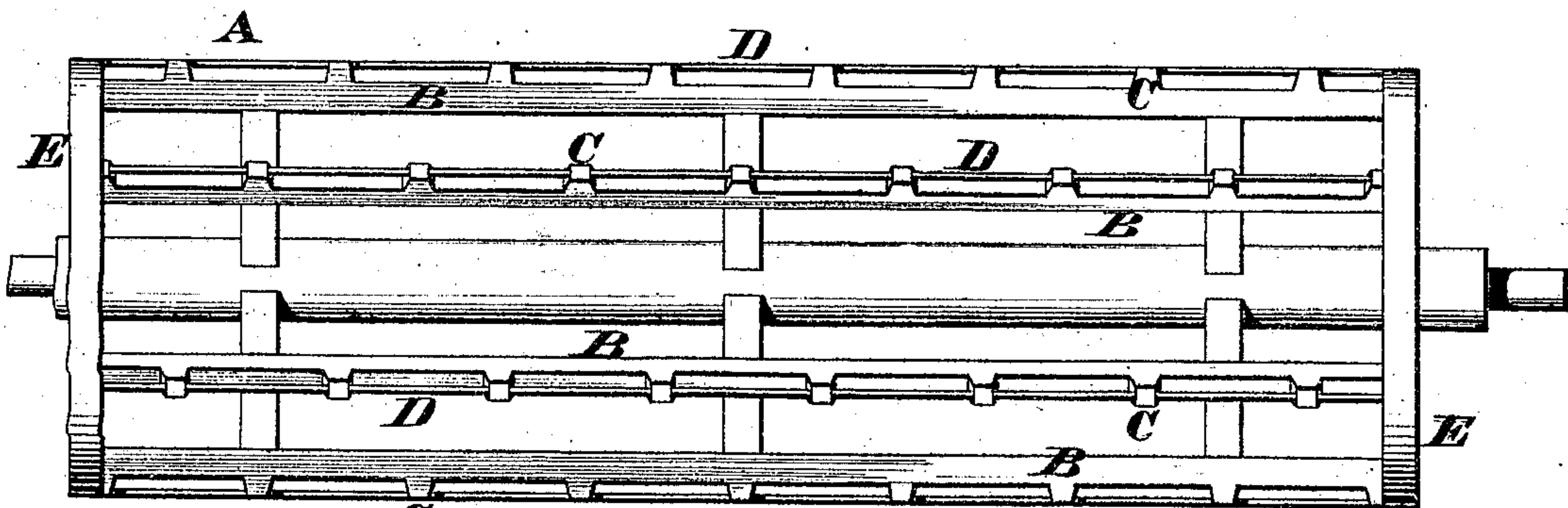


FIG. 3.

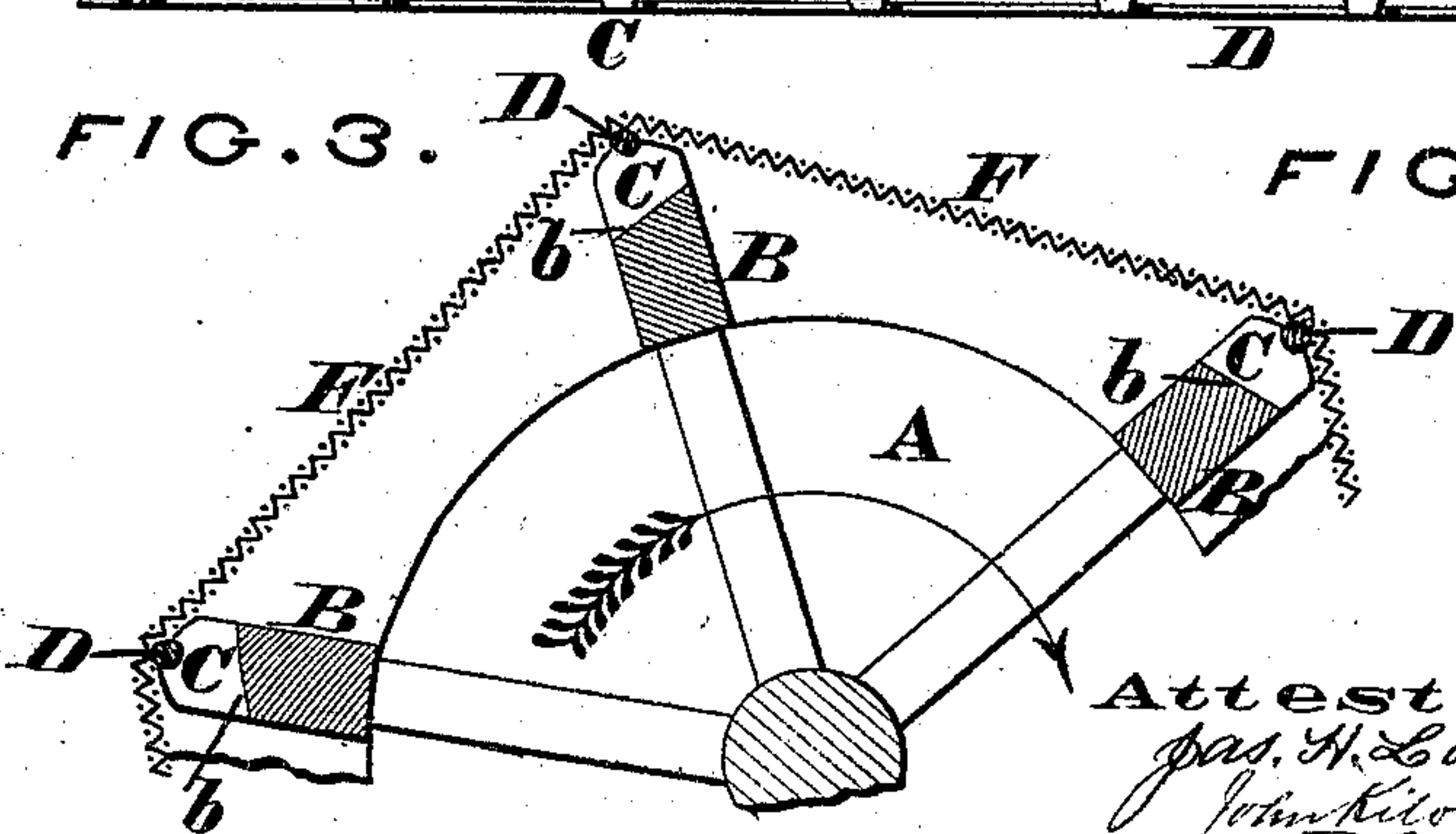
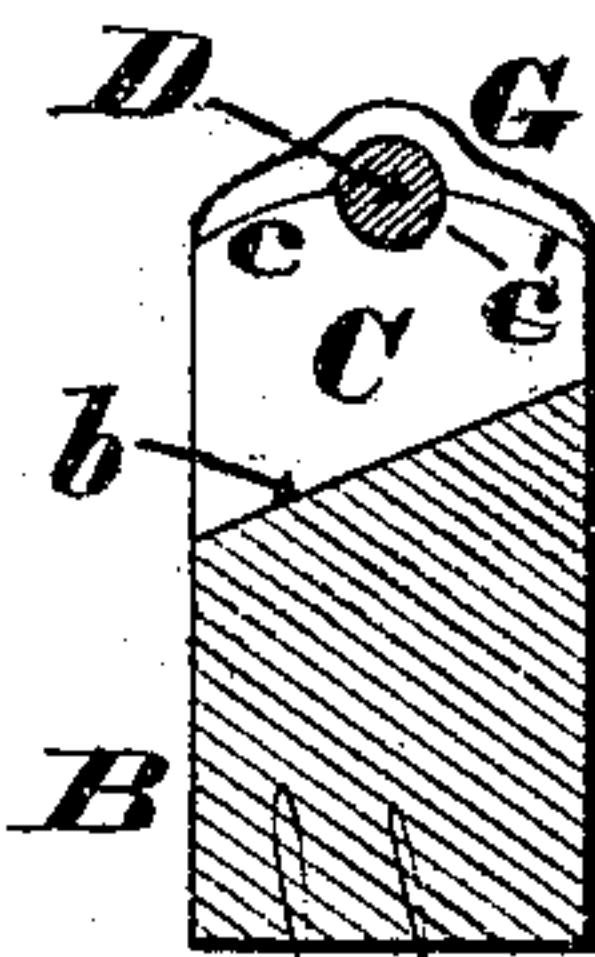


FIG. 4.



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# UNITED STATES PATENT OFFICE.

CHARLES B. SLATER, OF BLANCHESTER, OHIO.

## IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. 133,805, dated December 10, 1872.

*To all whom it may concern:*

Be it known that I, CHARLES B. SLATER, of Blanchester, Clinton county, Ohio, have invented an Improved Bolting-Reel, of which the following is a specification:

### *Nature and Objects of the Invention.*

This is an improvement on those sifting-bolts whose cloth is stretched around a cylindrical reel, composed of longitudinal splines or ribs; and said improvement consists essentially in the provision upon said ribs of a series of projections, which support longitudinal rods or wires against which only the cloth impinges in such a manner as to permit the application of a continuous bolting-cloth, the effective bolting-surface being thereby materially enlarged, besides being almost entirely freed from the customary objectionable harbors and lodging-places for moisture, vermin, and decaying particles of dust and other impurities. My improvement further consists in an alternate or interrupted arrangement of said projections upon the successive splines or ribs in order to still further aid and increase the efficiency of the bolt.

### *General Description.*

Figure 1 is a perspective view of a bolting-reel embodying my improvements. Fig. 2 is a side elevation of the reel-frame, the cloth being detached therefrom. Fig. 3 shows, by transverse section a portion of my improved reel to a larger scale. Fig. 4 is a still more enlarged section of my improved reel-rib.

A represents my improved reel-frame, the peripheries of whose splines or ribs B have projections C instead of the customary plain or flush surface. These projections may either form a part of the substance of the rib or may consist of separate pieces of any suitable substance—such as iron coated with zinc or tin. These projections are arranged spirally on the reel-frame so that no projection shall occupy the same orbital path as those immediately preceding and following it. This spirality may be, as in Fig. 2, such as to place the projections of either rib midway between those of the preceding and following ribs, or the spirality may be such as to give each individual projection a separate and distinct orbit from any other. Each projection has a rounded outer edge, *c*, and has a groove, *c'*, to receive a metallic rod or wire, D, whose ends may be firmly secured in the heads E of the reel. These

rods of iron or other oxidizable metal are protected by zinc, tin, or nickel. Around the reel thus constituted the cloth F is secured by stitching to the said rods D. The outermost of the ribs are beveled, as at *b*, to enable the easy escape of any flour passing between the rods. The round of the outer edges *c* of the projections is such as to relieve them from any contact with the cloth.

Pads or caps G, of wash-leather or cloth, may be introduced between the projections and the cloth, so as to inclose and protect the rods at those parts, and these caps may be secured by suitable cement.

Several decided advantages accrue from this improvement—for example, the comparatively small area of contact of the bolt and the rods afford no lodgment for particles of flour and offal, such as, under the present system, accumulate upon the ribs, and absorbing moisture operate to rot the cloth and harbor “worms,” dust, &c.; and I thus also avoid the disturbance of the reel's equilibrium from unequal accumulations thereupon.

The effective service of the bolt is increased and the flour, instead of being gathered in windrows, which clog the meshes of the cloth at every rib, has free and unrestricted passage in every direction, even between the ribs and the cloth.

I do not claim, broadly, constructing the ribs of the reel with projections so as to leave spaces between the ribs and the cloth. Neither do I claim, broadly, supporting the cloth by supplementary longitudinal ribs. I am aware that each of these inventions, separately considered, is old.

### *Claims.*

I claim as new and of my invention—

1. The combination of the ribs B, the projections C, and the metallic rods D, arranged for the application of a continuous bolting-cloth, in the manner and for the purposes set forth.

2. The alternating arrangement of the projections C C upon the successive ribs B, in combination with rods D, substantially as explained.

In testimony of which invention I hereunto set my hand.

CHARLES B. SLATER.

Attest:

GEO. H. KNIGHT,  
JAMES H. LAYMAN.