F. N. BIXBY.

**Tumbling-Barrels for Cleaning Castings.**

No. 137,409. Patented April 1, 1873.

*Fig. 1.*

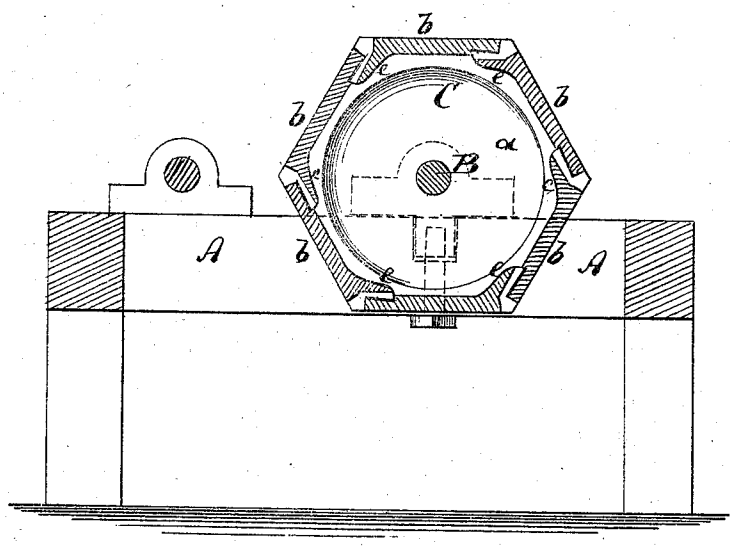
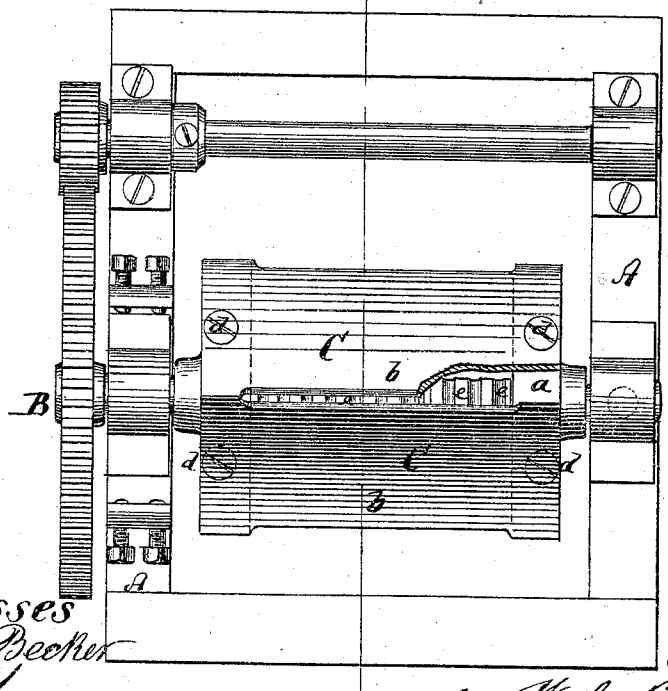



*Fig. 2.*

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# UNITED STATES PATENT OFFICE.

FREDERICK N. BIXBY, OF WEST MERIDEN, CONNECTICUT.

## IMPROVEMENT IN TUMBLING-BARRELS FOR CLEANING CASTINGS.

Specification forming part of Letters Patent No. **137,409**, dated April 1, 1873; application filed February 17, 1873.

*To all whom it may concern:*

Be it known that I, FREDERICK N. BIXBY, of West Meriden, in the county of New Haven and State of Connecticut, have invented an Improved Tumbling-Barrel, of which the following is a specification:

Figure 1 is a vertical transverse section of my improved tumbling-barrel and Fig. 2 a top view, partly in section, of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention has for its object to so construct tumbling-barrels for the cleansing of parts of machinery and other articles, that such articles cannot be injured during the tumbling process by any creases or projecting edges within such barrel, a defect frequently occurring in tumbling-barrels of the ordinary construction.

My invention consists in constructing a prismatic tumbling-barrel of a series of plates which are fastened to the heads or ends of the barrels, and which are provided with lips that underlap the plates, the lips being corrugated or grooved on their outer surfaces to form discharge-openings for the dust that becomes disengaged during the tumbling operation. The inner ends of the lips are rounded to furnish within the barrel corresponding rounded shoulders, by which the articles being tumbled cannot be injured.

In the accompanying drawing, the letter A represents the supporting frame-work of my improved tumbling-barrel. Upon the same is hung, in suitable bearings, the shaft B which carries the barrel C. This barrel consists of two head or end plates, *a a*, and of six, more or less, rectangular plates, *b b*, which are fastened by means of screws *d*, or otherwise, to the edges of the peripheries of the heads, to constitute a hexagonal or otherwise prismatic barrel. Each plate *b* has at one side or edge an inwardly-projecting lip, *e;* which lip, when the barrel is put together, fits under the adjoining plate *b*, in the manner clearly shown in Fig. 1. The several lips *e e* are corrugated on their outer surfaces, or grooved in such manner that channels are formed between the lips and the plates that cover them for the discharge of dust from the barrel. Instead of grooving the outer surfaces of the lips *e* the contiguous inner surfaces of the plates *b* may be grooved in equivalent manner. The edges of the lips *e e* are rounded, as shown, so that the articles which are being tumbled in the barrel will not meet any sharp edges whereby they can be injured.

### *Claims.*

1. The plate *b* of the tumbling-barrel provided with a rounded lip, *e*, substantially as and for the purpose herein described.

2. The tumbling-barrel composed of plates *b*, which have lips *e*, and are made with channels or grooves, substantially as described.

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