C. GILBERT.

Starch Mills.

No. 137,912. Patented April 15, 1873.

Fig. I

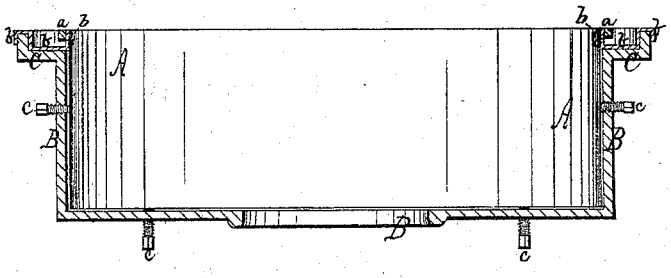
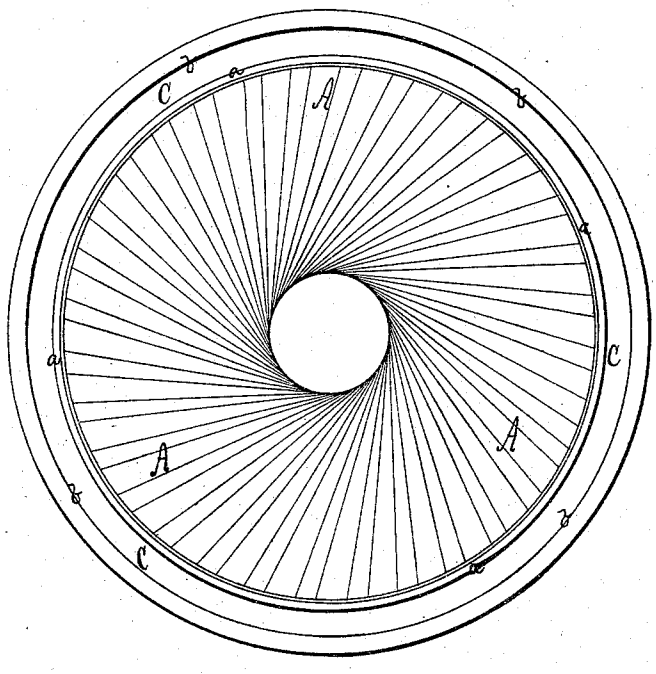


Fig. II



Witnesses.

F. P. Drake,

C. N. Woodward

Colgate Gilbert.

Inventor, By

Burke Fraser & Leo.

Atty's

UNITED STATES PATENT OFFICE.

COLGATE GILBERT, OF BUFFALO, NEW YORK.

IMPROVEMENT IN STARCH-MILLS.

Specification forming part of Letters Patent No. **137,912**, dated April 15, 1873; application filed November 25, 1872.

To all whom it may concern:

Be it known that I, COLGATE GILBERT, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Starch-Mill Machinery for Wet Grinding, of which the following is a specification:

Nature and Object of the Invention.

The object of this invention is to overcome the leakage consequent to a certain extent in wet-grinding, more especially in starch-mills; and the invention consists in arranging in the usual rim or gutter that encircles the bed-stone a leaden lining that passes entirely over the rim and up between the band and bed-stone, whereby a sufficient elasticity is obtained as well as perfect water-tightness.

In the drawing, Figure 1 is a cross-section of the frame of the bed-stone, showing the gutter and leaden cover and lining. Fig. 2 is a plan view.

A represents the stone; B, the case; C, the gutter; and *a*, the usual metal band or ring that encircles the bed-stone.

The difficulty has hitherto been to prevent the constant leakage between the gutter and the band and stone. A rigid metal band does not withstand the constant jar of the grinding, and leaks in spite of all kinds of packing devices resorted to. To overcome this difficulty, which is one of great importance in wet-grinding, I provide a lead lining, *b*, that not only covers the entire rim and gutter C, but is also continued up around the bed-stone between it and the band *a*. Whenever it needs it it can be calked or packed also. This of itself forms an elastic packing between the stone and band; besides continuing in one piece forms a connection between the stone A and gutter C, thus effectually preventing any liquid getting through or leaking out between the rim and stone or gutter and stone. The elasticity is also important as it takes off from the jar of the stone, and permits the adjustment of the bed-stone laterally and perpendicularly by screws *c c* at the sides and bottom.

The lead lining *b* is first set tight around the stone A, then the metal band *a* is put on hot, and as it cools contracts, forcing itself into the lead somewhat, and also forcing it close against the stone.

Claim.

I claim—

The lead (or its equivalent) lining *b*, arranged in and on the gutter C, and passing up between the band *a* and bed-stone A, as and for the purpose hereinbefore specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

COLGATE GILBERT.

Witnesses:
J. R. DRAKE,
C. N. WOODWARD.