J. A. BERRILL.

Paint Mill.

No. 30,288. Patented Oct. 9, 1860.

Fig. 1.

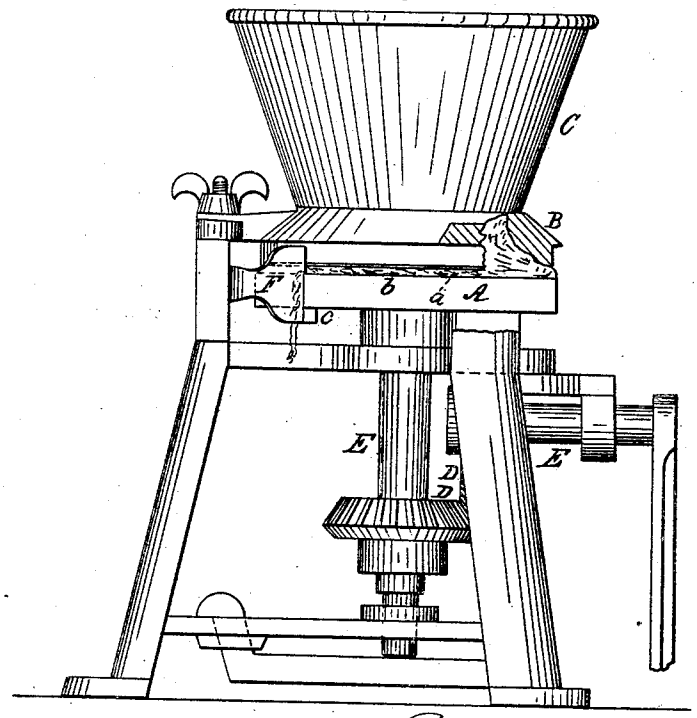
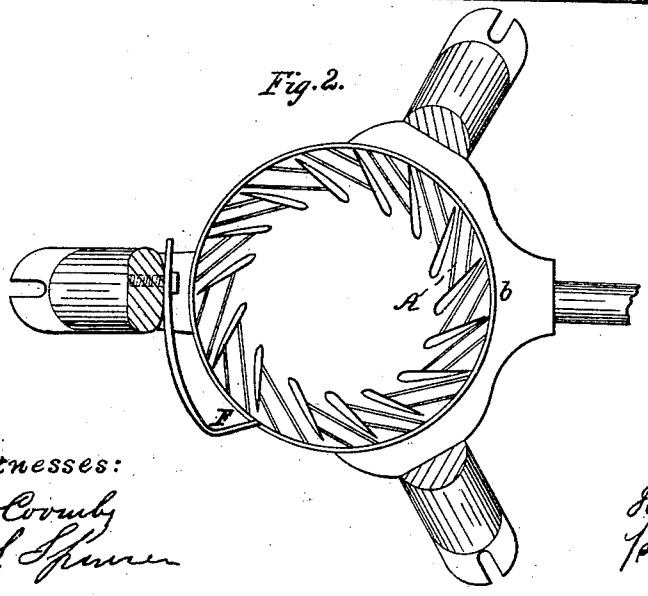


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN A. BERRILL, OF WATERVILLE, NEW YORK.

PAINT-MILL.

Specification of Letters Patent No. 30,288, dated October 9, 1860.

To all whom it may concern:

Be it known that I, JOHN A. BERRILL, of Waterville, in the county of Oneida and State of New York, have invented a new and useful Improvement in Paint-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 a part of this specification, in which—

Figure 1, is a side sectional view of a paint mill, constructed according to my invention. Fig. 2, a horizontal section of the same, taken in the line *x*, *x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to prevent the paint as it is ground from flying off from the runner or revolving grinding plate as it is discharged from between said plate and the upper stationary one. This contingency occurs in the mills of usual construction in consequence of the runner or revolving grinding plate having a smooth periphery which allows the paint to drop down thereon to its lower edge from which it is discharged by centrifugal force before reaching the scraper.

In order to avoid this difficulty I form the periphery of the runner or revolving grinder with a rabbet or recess which leaves a horizontal ledge or shoulder to serve as an obstruction to the descent of the ground-paint before it reaches the scraper. The paint is therefore discharged from the mill at a single point.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the runner or revolving grinding plate of an ordinary paint mill.

B, is the stationary grinder, C, the hopper, and D, D, E, E, the gearing and shafts, through which the power is applied to the revolving grinding plate.

The above parts with a scraper F, compose the ordinary paint mill and do not require a minute description.

The periphery of the ordinary revolving grinding plate A, however is made entirely smooth from top to bottom, whereas in my implement a rabbet *a* is made in its upper edge so as to form a horizontal ledge *b*, as shown clearly in Fig. 2.

The scraper F, has its edge so formed as to fit snugly the periphery of the runner or revolving grinding plate both above and below the ledge *b*, and also to project a trifle underneath its bottom as shown at *c*, in Fig. 1.

The paint as it is ground is discharged from between the edges of the two plates A, B, and dropping down the periphery of the plate A, is caught by the ledge *b*, and retained thereby until it reaches the scraper F, which scrapes it off from the ledge and discharges it at a single point from the machine.

Thus by this simple arrangement the chief difficulty attending the operation of the ordinary paint mills is avoided, and the work of grinding paint rendered as cleanly as the grinding of other substances.

It will be understood that the ledge *b*, serves as a barrier to the descent of the paint and prevents it reaching the lower edge of the plate A, and thereby accomplishes the desired result; for if the paint reaches the lower edge of plate A, it will be immediately thrown off by centrifugal force.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

Forming the periphery of the rotating grinding plate A, with a recess *a*, to provide a ledge *b*, as and for the purpose herein set forth.

JOHN A. BERRILL.

Witnesses:

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