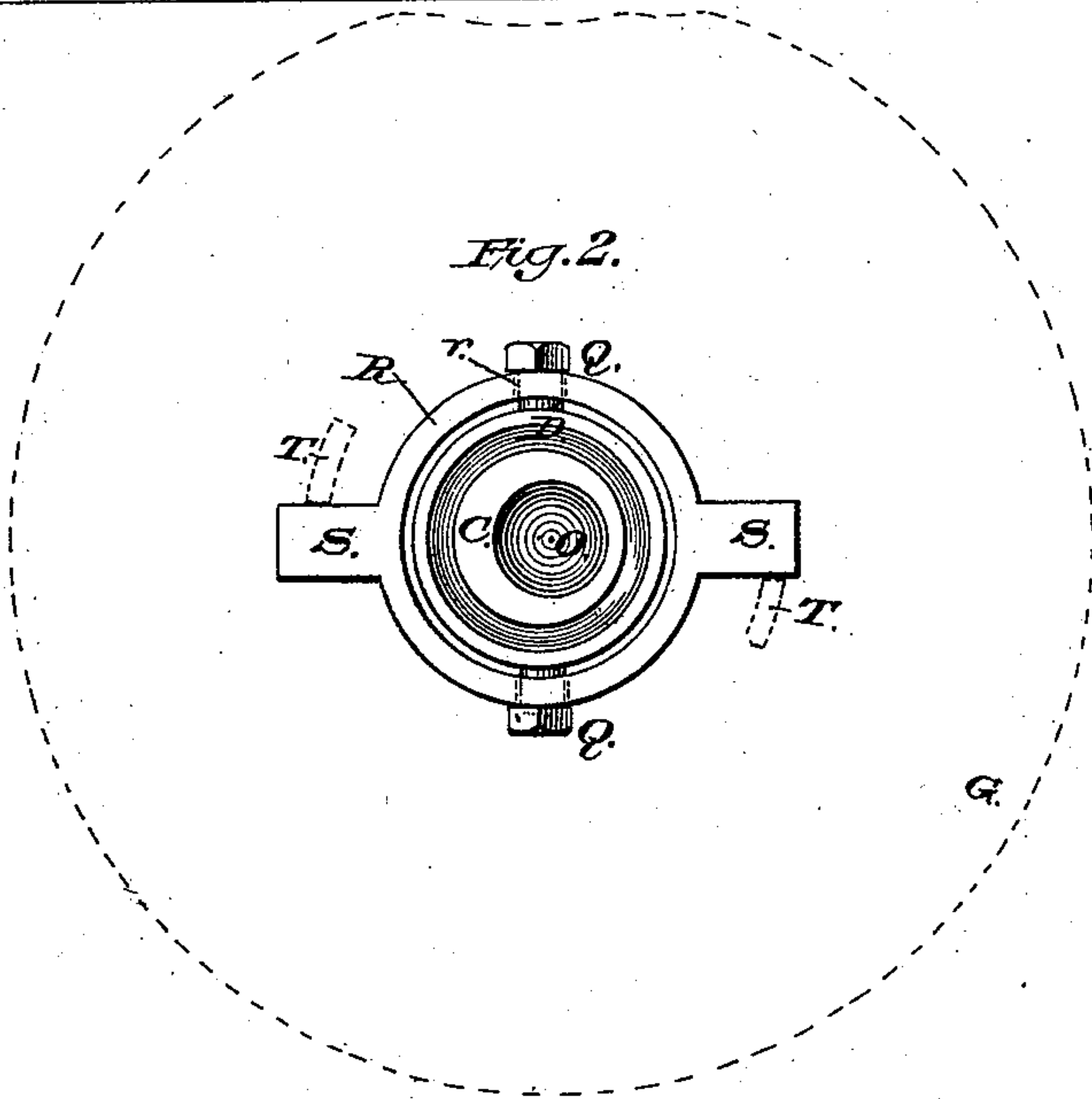
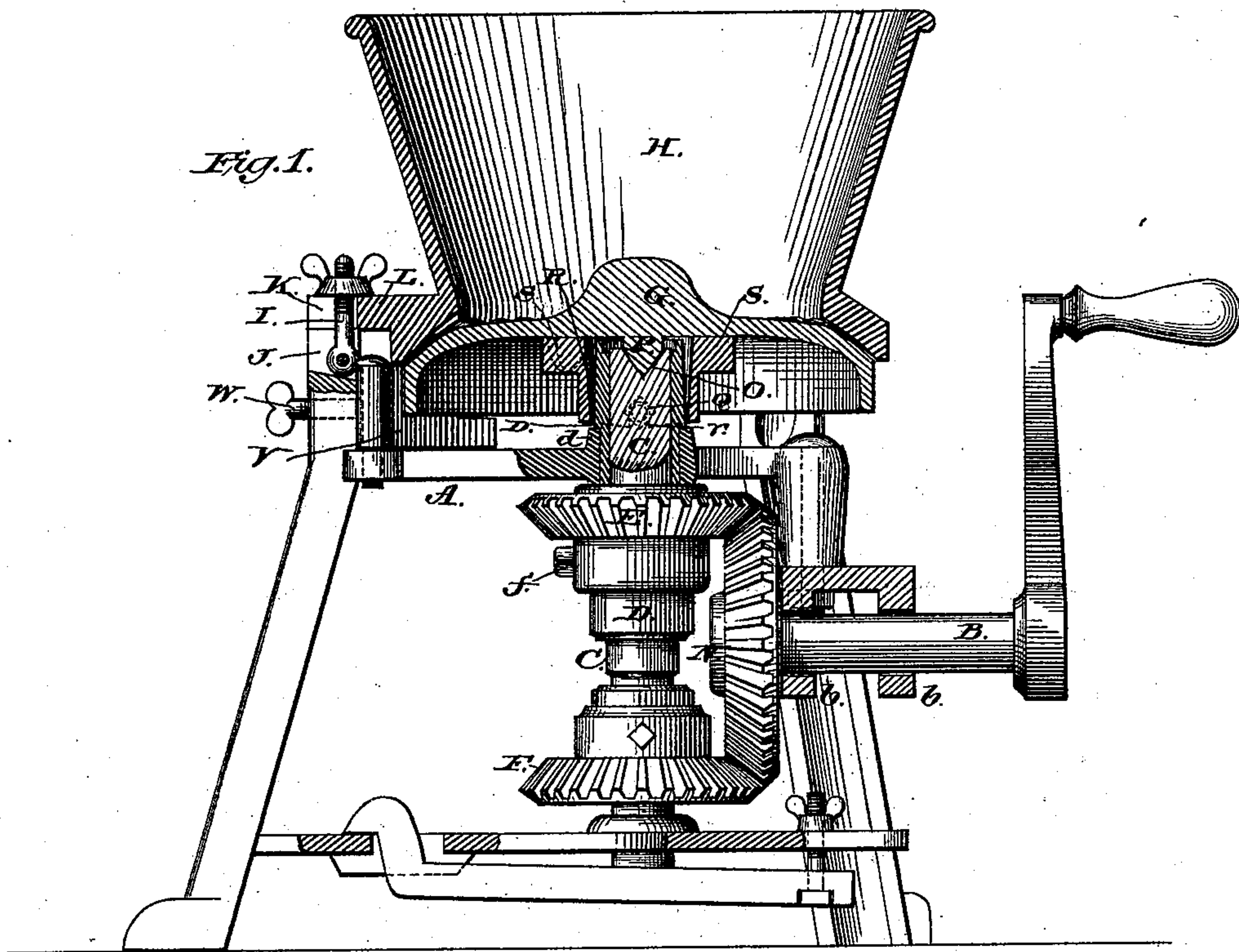


W. R. AXE.
Paint-Mill.

No. 209,792.

Patented Nov. 12, 1878.



WITNESSES

John A. Ellis.
John O'Donnoghue.

INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM R. AXE, OF ROCKTON, ILLINOIS.

IMPROVEMENT IN PAINT-MILLS.

Specification forming part of Letters Patent No. 209,792, dated November 12, 1878; application filed September 19, 1878.

To all whom it may concern:

Be it known that I, WILLIAM R. AXE, of Rockton, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Paint-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical sectional view of a paint-mill embodying the improvements in my invention; and Fig. 2 is a plan view of the shaft and removable collar for supporting the removable lower grinding-disk, the hopper being shown in dotted lines.

This invention has relation to paint-mills; and it consists in the improvements in the construction of the same hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawing similar letters of reference indicate corresponding parts in the figures.

A represents the stand or supporting-frame, cast in a single piece. B is the driving-shaft and crank. *bb* are the bearings of the driving-shaft. G is the lower grinding-disk, having furrows cut around its upper face near the outer edges thereof.

H is the hopper, secured to the frame A by means of thumb-screws I, pivoted in slots J in the upper ends of the standards of the frame A, said screws I being turned up into slots K in the arms L, cast with the base of the hopper H, and held therein by turning the thumb-nut down upon said arms.

D is the sleeve surrounding the shaft C, resting upon the collar *d* in the upper cross-bars of the frame A, and carrying the upper miter-gear, E, which is secured thereto by a set-screw, *f*. A similar miter-wheel, F, is secured to the shaft C near its lower end, and a miter-gear wheel, N, on the end of the crank-shaft B, between them, drives the miter-gears E and F in opposite directions.

The portions hereinbefore described are all old and well known in paint-mills.

A step, O, set eccentrically in the upper end of the shaft C, receives a stud, P, cast on the under side of the disk G. Stud or screws Q project from the sleeve D above the collar *d*.

A collar, R, having slots or recesses *r* and arms S, encircles the upper end of the sleeve D, and is carried around with it by the studs or screws Q.

Studs T project or depend from the under face of the lower disk, G, and come in contact with the arms S, which cause the disk G to revolve in the same direction with the sleeve D. The shaft C revolves in the opposite direction, and imparts a reverse eccentric motion to the disk G by reason of the stud P, set eccentrically in step O, whereby the grinding-disk G has a double motion—one which grinds the paint and the motion which triturates the same as it passes between the upper face of the grinding-disk G and the lower furrowed face in the base-flange of the hopper H.

V is the spring-scraper, having the adjusting-screw W.

The operation of the machine is obvious. The paint is ground as ordinarily, and triturated at the same time by the motion imparted to the grinding-disk G by the eccentric step O in the upper end of the main shaft C.

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

In a paint-mill, the combination of the lower grinding-disk, G, having studs P and T, with the sleeve D and shaft C, having step O set eccentrically in its upper end, and the removable collar R, having slots *r* and arms S, and suitable driving mechanism, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM R. AXE.

Witnesses:

JOE W. FORWARD,
ERASTUS L. STILES.