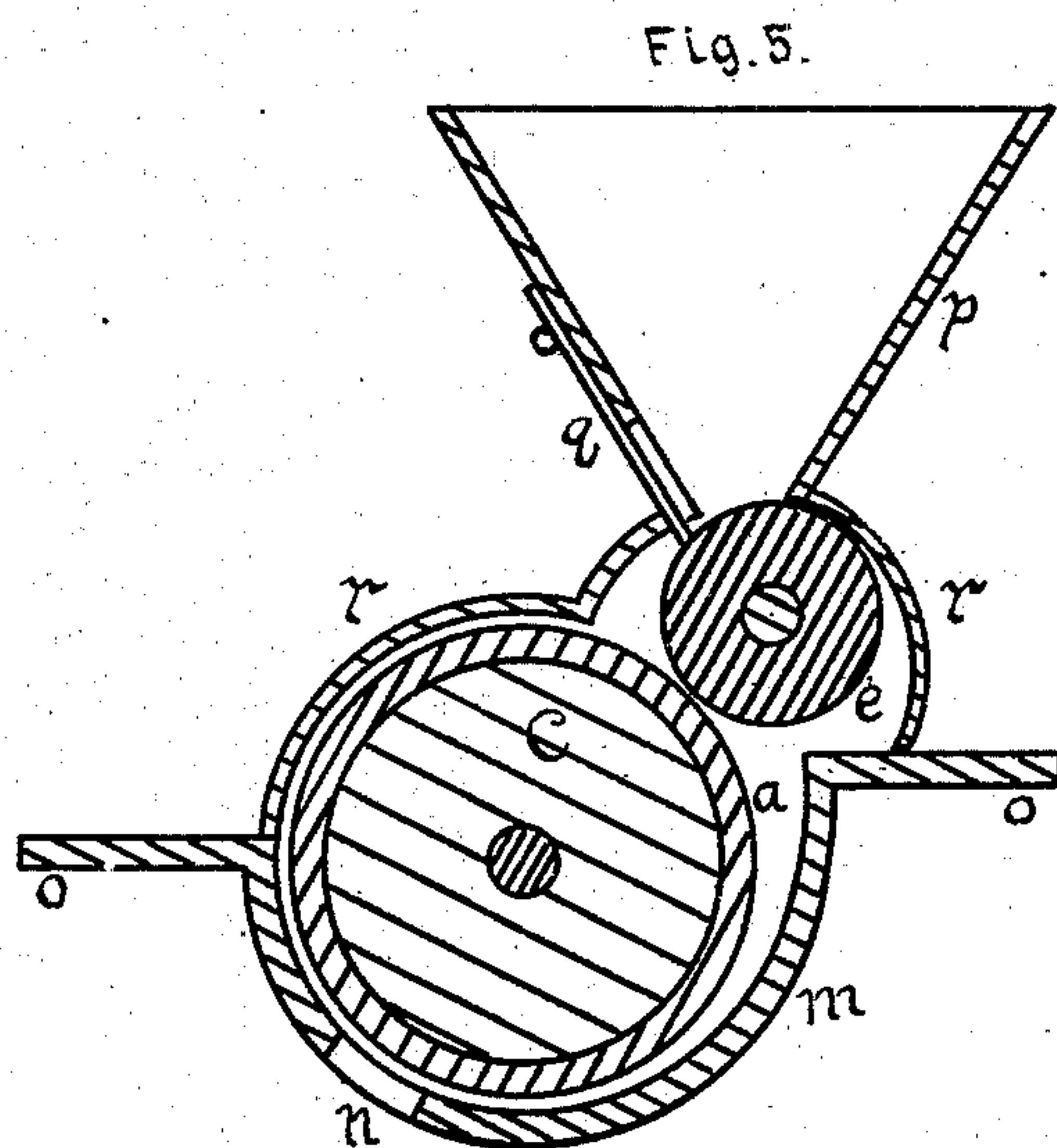
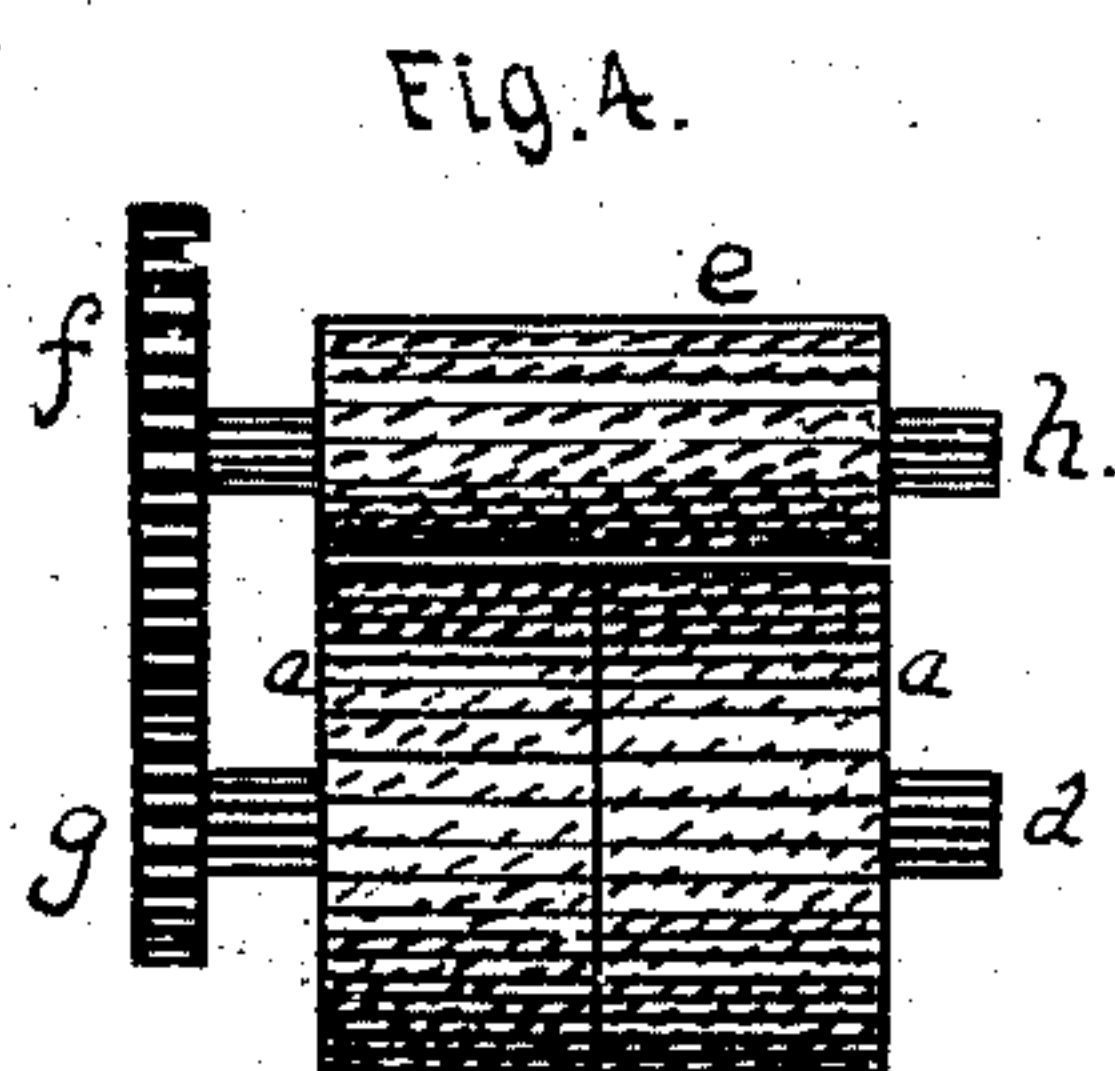
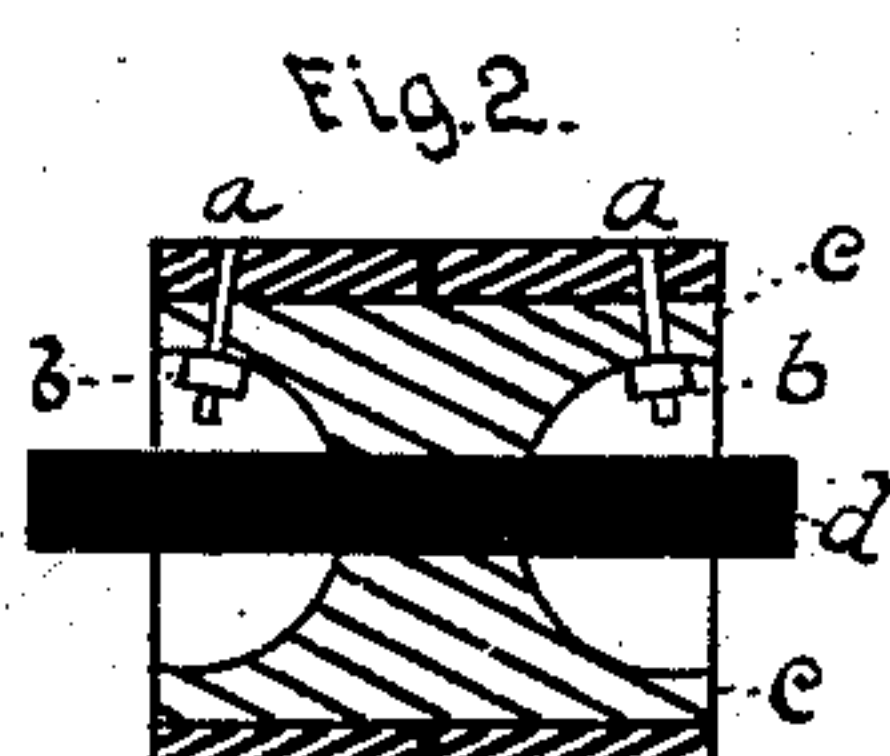
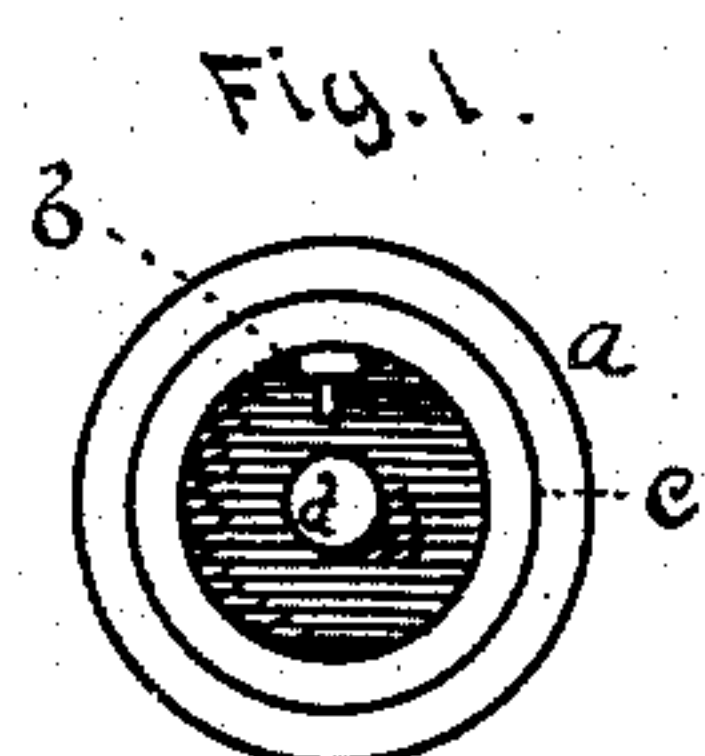


(No Model.)

J. BEALL.
GRINDING MILL.

No. 274,703.

Patented Mar. 27, 1883.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN BEALL, OF DECATUR, ILLINOIS.

GRINDING-MILL.

SPECIFICATION forming part of Letters Patent No. 274,703, dated March 27, 1883.

Application filed December 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN BEALL, of Decatur, of the county of Macon and State of Illinois, have invented certain new and useful
5 Improvements in Grinding-Mills, of which the following is a specification.

My invention relates to cylinders for grinding-mills; and it consists in a pair of rings having their circumferential surfaces provided
10 with a series of cutting prominences resembling those of a rasp or file, said rings being attached to a cylinder the ends of which are provided with deep concavities to receive the nuts and ends of the bolts that are used to effect the at-
15 tachment.

The object of my invention is to produce a grinding-cylinder that will operate effectually at a low rate of speed, and in which the cutting or grinding surfaces may be readily de-
20 tached and sharpened or replaced with new ones.

In the drawings accompanying and forming a part of this specification, Figure 1 is an end view of my device. Fig. 2 is a diametrical
25 section of the same, showing the shaft in solid black. Fig. 3 is a perspective view of a rasp-ring. Fig. 4 is a view of one-half of the cylindrical grinding-surface, in connection with a feed-roller and suitable gearing. Fig. 5 is a
30 longitudinal vertical section of a grinding-mill, in which my device is shown in transverse section.

a are the rasp-rings. *c* is the cylinder. *b* are the bolts that secure the rasp-rings to the cylinder. *d* is the shaft of the cylinder. *e* is a feed-roller provided with shaft *h* and gear-wheel *f*.
35 *g* is a gear-wheel on the shaft of the cylinder. *m* is a concave surface located under the cylinder, and supported and adjusted at *o o* in any ordinary or suitable manner. *n* is the discharge-opening. *p* is the hopper, provided with
40 slide-valve *q*, and *r r* is a casing for the grinding devices.

Rasp-rings *a* are placed on the cylinder and secured by bolts *b b*, the nuts of which lie in the concave ends of the cylinder. When the cutting-edges of the rasp-rings become dulled
45 said rings may be disconnected from the cylinder (by removing bolts *b b*) and recut or replaced by new rings.
50

I prefer to operate my cylinder in combination with the casing and feed-roller herein set forth; but

What I claim as new, and desire to secure by Letters Patent, is—

The cylinder or roller for grinding-mills, composed of the rasp-rings *a*, cylinder *c*, having concave ends, and securing-bolts *b b*, as
55 and for the purpose set forth.

JOHN BEALL.

Attest:

ISAAC D. WALKER,
L. P. GRAHAM.