(No Model.)

T. W. B. MUMFORD & R. MOODIE.

ROLLER MILL.

No. 308,568. Patented Nov. 25, 1884.

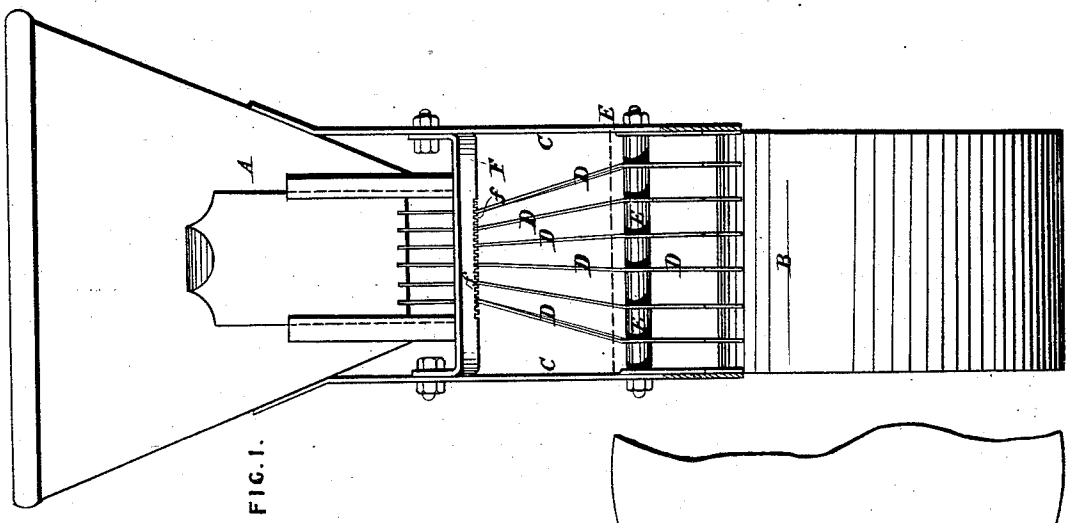


FIG. 1.

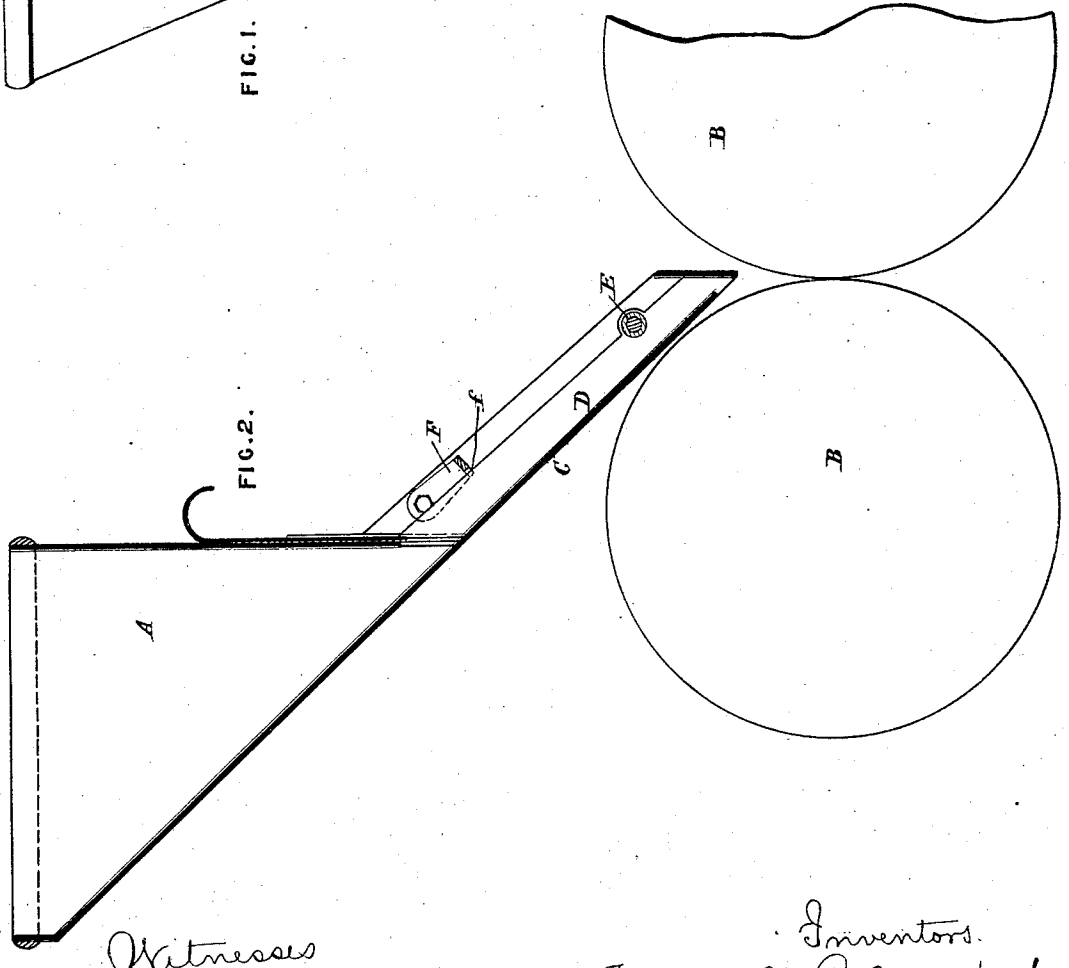


FIG. 2.

Witnesses
John M. Clayton
James F. Johns

Inventors.
Thomas W. B. Mumford
and
Robert Moodie
by their Attorneys
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UNITED STATES PATENT OFFICE.

THOMAS WILLIAM BASSETT MUMFORD AND ROBERT MOODIE, OF VICTORIA DOCKS, COUNTY OF ESSEX, ENGLAND.

ROLLER-MILL.

SPECIFICATION forming part of Letters Patent No. 308,568, dated November 25, 1884.

Application filed May 28, 1884. (No model.) Patented in England April 25, 1884, No. 6,828; in France May 5, 1884, No. 161,905; in Belgium May 6, 1884, No. 65,063.

To all whom it may concern:

Be it known that we, THOMAS WILLIAM BASSETT MUMFORD and ROBERT MOODIE, both subjects of the Queen of Great Britain and Ireland, and both residing at Victoria Docks, in the county of Essex, England, have invented certain Improvements in Roller-Mills, (for which we applied for British Letters Patent April 25, 1884, No. 6,828; German patent, May 8, 1884, and Austrian patent May 7, 1884; and for which we have obtained a French patent, No. 161,905, dated May 5, 1884, and Belgian patent, No. 65,063, dated May 6, 1884,) of which the following is a specification.

Our invention consists of an improved construction of feeding device for crushing machinery, in order to secure an equalized feed for various grades of material—such as ore, seed, grain, and other substances—from the feed-hopper to the grinding or crushing rollers; and our invention consists, more particularly, of an inclined feeding-surface having adjustable strips or ribs radiating from a point behind the outlet from the hopper down toward the rollers, together with a retaining-bar to hold the ribs in the positions to which they have been adjusted. These adjustable strips or ribs diverge, so that the series at the discharge end next the rollers extends through a space equal to or about equal to the length of the rollers, so that the said ribs form separate channels extending throughout the length of the plate. The said ribs or strips are made of soft iron or steel, and are so connected with the plate or surface that they can be bent or turned to one side or the other, and held there by the retaining-bar, so as to give an equalized or regulated feed of the material to all parts of the peripheries of the rollers, and thus the wear of the rollers can be equalized and a much more perfect crushing effect of the rollers upon the material be obtained. An equalized feed will also be insured, notwithstanding considerable variation in the size of the pieces or particles of the substance under treatment, as the apertures at the outlet from the receptacle or hopper are made much deeper than usual, and are of a size to admit of the passage of the largest pieces or particles which are likely to present themselves, and which would with the ordinary arrangement cause an obstruction of the feed.

The invention is applicable, generally, for feeding matters to the rollers by which they are to be crushed.

Figure 1 of the accompanying drawings represents in front elevation, and Fig. 2 in transverse section, an apparatus constructed according to our invention; but we do not limit ourselves to the precise details shown.

A is the hopper from which the substance to be crushed is delivered, and B are the crushing-rollers.

C is a plate extending from the outlet of the hopper to the rollers. The said outlet is of a width less than the length of the rollers. The strips D divide the plate C into a series of channels, which radiate or widen out as they approach the crushing-rollers.

E E represent filling and distance pieces upon a bolt for securing the strips in position, and F is a bar which can be raised and lowered, and is provided with notches *f*, into one or other of which the strips can be placed to equalize the feed, as required.

We claim as our invention—

1. The herein-described feeding-surface for roller-mills and other machinery, said surface having a series of adjustable ribs and a retaining-bar therefor, substantially as described.

2. The herein-described feeding-surface for roller-mills and other machinery, said surface having a series of adjustable ribs, a securing-bolt and distance-pieces, and a retaining-bar for the adjustable portions of the ribs.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

THO. WM. BASSETT MUMFORD.
ROBERT MOODIE.

Witnesses:
CHAS. MILLS,
CHAS. JAS. JONES,
Both of 47 Lincoln's Inn Fields, London.