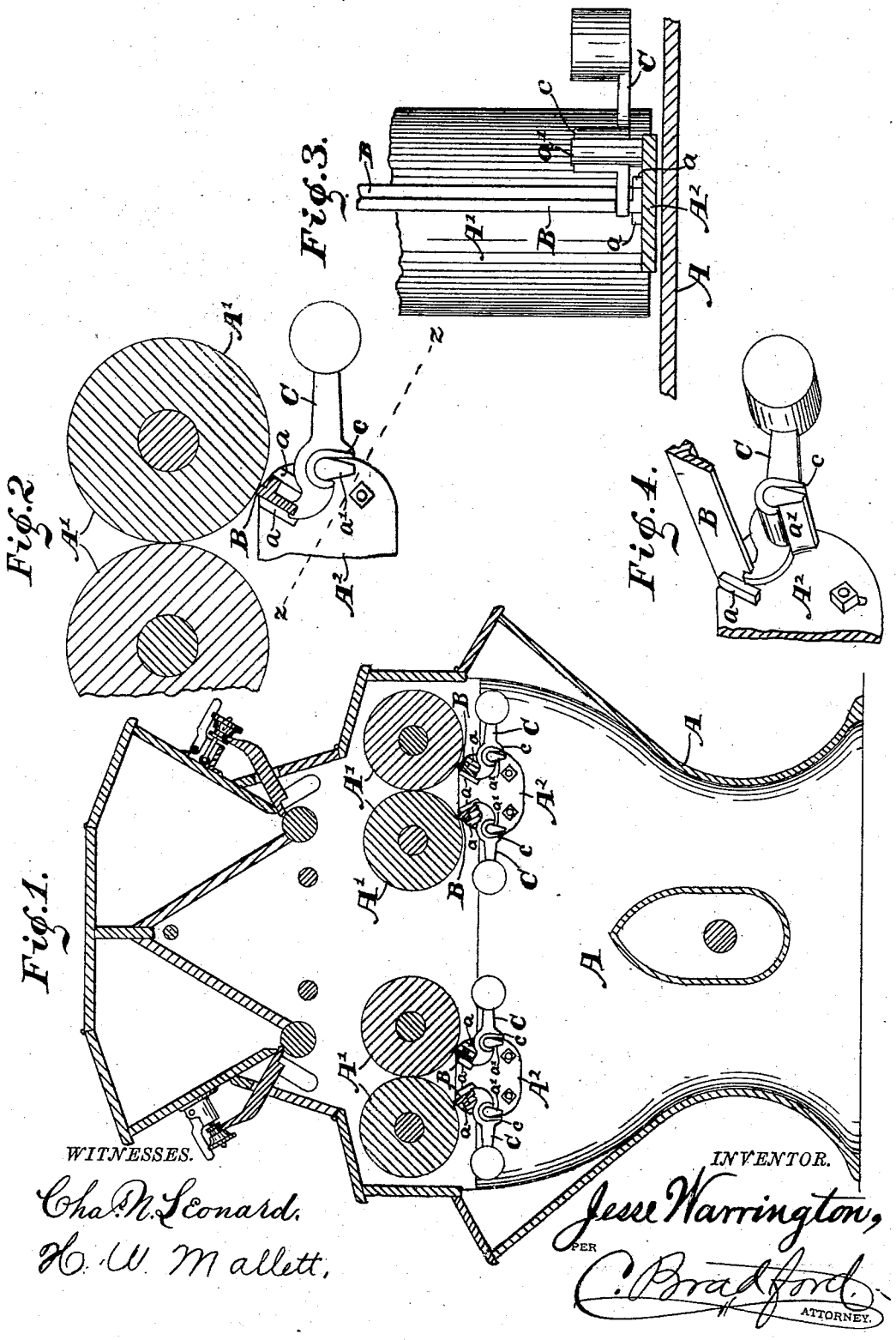
(No Model.)

J. WARRINGTON.

SCRAPER FOR ROLLER MILLS.

No. 314,278. Patented Mar. 24, 1885.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JESSE WARRINGTON, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE NORDYKE & MARMON COMPANY, OF SAME PLACE.

SCRAPER FOR ROLLER-MILLS.

SPECIFICATION forming part of Letters Patent No. 314,278, dated March 24, 1885.

Application filed August 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JESSE WARRINGTON, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Scrapers for Roller-Mills, of which the following is a specification.

Said invention relates to that class of machinery for the reduction of grain known as "roller-mills," and is especially applicable to the style of mills illustrated in the Letters Patent of the United States issued to the Nordyke & Marmon Company, No. 274,508, dated March 27, 1883, and No. 277,525, dated May 15, 1883, being two of the patents referred to.

My present invention consists in an improved construction of scrapers for the rolls, said scrapers being composed of a blade mounted in slides on the frame-work, and weighted levers mounted on fulcrums, which operate to keep said blades in contact with the rolls, as will be hereinafter more fully described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a transverse vertical section of a roller-mill provided with scrapers embodying my said invention; Fig. 2, an enlarged sectional view of one of the scrapers and rolls, similar to a portion of Fig. 1; Fig. 3, an under-side plan of the same, as seen from the dotted line *z z* in Fig. 2; and Fig. 4, a detail perspective view showing one end of one of the scrapers and the adjacent parts.

In said drawings, the portions marked A represent the supporting frame-work of a mill; B, the scraper-blades, and C the weighted levers, whereby said scraper-blades are kept in contact with said rolls. The frame A is, in the main, similar to the frames of all the roller-mills manufactured by the aforementioned Nordyke & Marmon Company, and described in the aforesaid Letters Patent, and needs no special description. The ordinary rolls A′ are mounted upon and supported by this frame. A casting, A^2, provided with projecting portions *a*, forming the slides for the blades, and *a′*, forming fulcrums for the levers, is preferably secured to this frame at each side; but said projections forming said slides and fulcrums may, if desired, be formed upon the frame itself. The scraper-blades B are mounted in slides composed of the projections *a*, as stated, and are adapted to move therein toward and from the rolls. The weighted levers C rest on the fulcrums *a′*, and operate to hold the blades against the rolls. These fulcrums are so formed (see particularly Figs. 2 and 4) that when the rolls are lifted out of the machine, as is occasionally done for the purposes of repair, the said levers will be held thereby from forcing the scrapers out of place, as the lips *c* on said levers will come in contact with the flat sides of the fulcrums shortly after the scrapers pass above the point where they come in contact with the rolls. These levers are held from slipping endwise off the fulcrums by notches in the under sides of the scrapers, into which they enter. (See particularly Fig. 4.)

My said invention, as a whole, forms a simple, effective, and inexpensive means for accomplishing the result sought. The parts are all strong and durable, and not likely to be broken or get out of order.

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

1. The combination, with the grinding-rolls of a roller-mill, of a scraper consisting of the scraper-blade B, slides *a* therefor, fulcrums *a′*, and levers C, extended across and supported by said fulcrums, the inner ends of which pass under and support said scraper-blade, and the outer ends of which are weighted, said several parts being arranged and operating substantially as shown and specified.

2. The combination, in a roller-mill, of a grinding-roll, a scraper-blade mounted in slides on the frame-work, having notches in its lower edge, and levers which extend across and rest upon fulcrums and pass under and enter said notches, whereby said levers are secured against endwise movement on said fulcrums, substantially as set forth.

3. The combination of a scraper-blade, weighted levers for sustaining said scraper-blade, and fulcrums on which said levers are mounted, said fulcrums being flattened and

said levers having lips *c*, adapted to come in contact with the side of said fulcrums, and thus hold said levers from too great a movement, substantially as set forth.

4. The combination of the scraper-blade B, the weighted lever C, having lips *c* on the weight side of the fulcrum, and the fulcrum *a'*, flattened or extended downwardly to form a stop, with which said lip may come in contact, substantially as shown and specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 26th day of August, A. D. 1884.

JESSE WARRINGTON. [L. S.]

In presence of—
C. BRADFORD,
CHAS. L. THURBER.