

E. N. ROEDER.
MILLSTONE DRESS.

No. 185,133.

Patented Dec. 5, 1876.

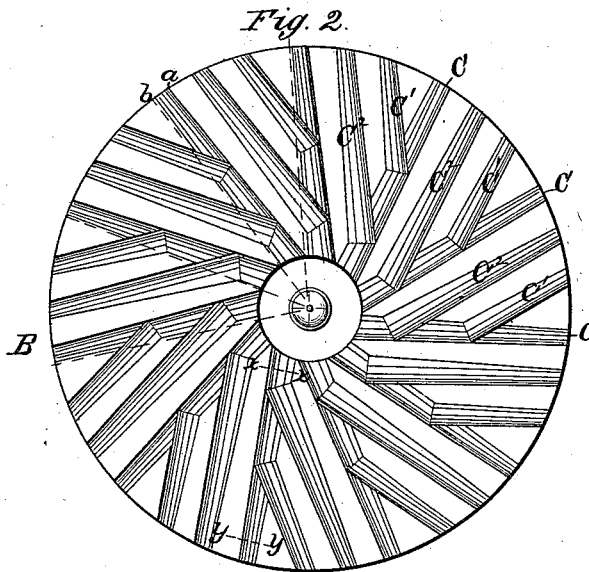
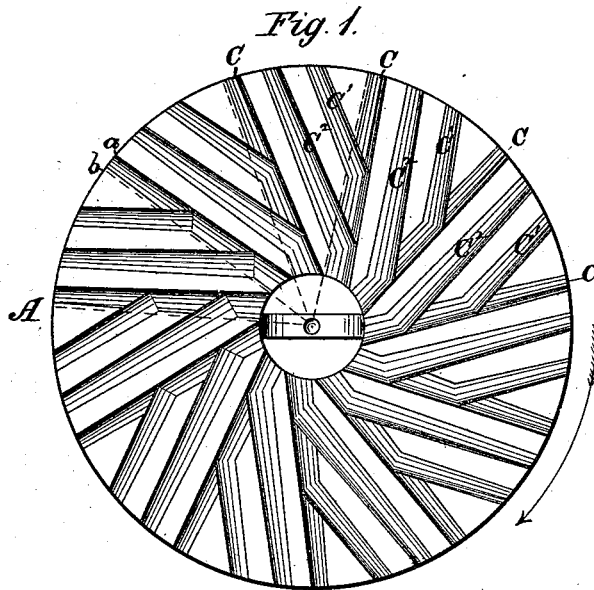
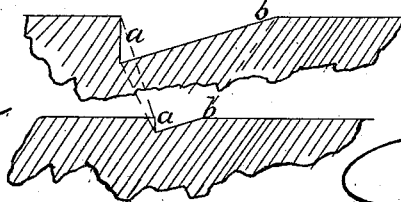


Fig. 3.

WITNESSES:
Edw. W. Ryan
John Kemmer



INVENTOR:
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BY *[Signature]*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ELIAS N. ROEDER, OF QUAKERTOWN, PENNSYLVANIA.

IMPROVEMENT IN MILLSTONE-DRESSES.

Specification forming part of Letters Patent No. 185,133, dated December 5, 1876; application filed September 26, 1876.

To all whom it may concern:

Be it known that I, ELIAS N. ROEDER, of Quakertown, in the county of Bucks and State of Pennsylvania, have invented a new and Improved Millstone-Dress; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is an inverted plan view of the runner-stone; Fig. 2, a plan of the bed-stone with the runner removed; Fig. 3, enlarged sectional details, through lines *xx* and *yy*, showing the inclined bottom of the tapering furrow.

The object of my invention is to provide an improved "dress" for millstones, which will enable them to grind faster with less power and better results. To this end my invention consists in dressing both stones exactly alike, with a series of tapering leading-furrows, wider at the eye than at the skirt, deep upon one side and tapering to a feather-edge upon the other, which feather-edge is arranged radially with the center of the stones, so as to have no draft in the leading-furrows, the necessary draft being supplied by the quarter-furrows which open into the leading-furrows, and are formed with an inclined bottom and of a tapering shape, similar to the leading-furrows.

In the drawing, A represents the runner and B the bed stone of a mill, both of which are dressed exactly alike, and in accordance with my invention. C C represent the leading-furrows, which are eleven in number, and taper from about two and one-half inches in width and three-eighths in depth at the eye to one and three-eighths inch in width and three-sixteenths in depth at the skirt. These furrows have bottoms inclined transversely in straight lines, and are deep upon the one side *a* and taper to a feather-edge, *b*, upon the other. This feather or trailing edge constitutes the grinding-edge, and is arranged radially with the center of the stone, as shown in dotted lines, so as to have no draft. C¹ C¹ represent the short quarter-furrows, and C² C²

the long quarter-furrow, both of which open into the leading-furrow at an angle, and are in width, the first one and one-half inch at the point where they open into the leading-furrow, and the second set two inches, while both taper to one and three-eighths inch at the skirt. Both these quarter-furrows are of the same depth as the corresponding portions of the leading-furrows, and have similar feather-edges and inclined bottoms.

By means of the construction and arrangement of the furrows, as thus described, it will be seen that there is not that throwing of the grain from the center and cutting it with a shearing motion throughout its entire passage as is commonly the case, but with my dressing the millstones grind at the eye without draft, and thus take in the grain without the objectionable cutting and shearing of the same.

By thus grinding at the eye without draft the stones first mash and press the grain without cutting up the bran into small particles, which are with difficulty separated, and after they have reached the quarter-grooves then permit the draft to be exerted for the purpose of facilitating the passage of the pulverized grain and finishing the grinding of the same. As the grinding commences at the eye, it takes less power and grinds faster, and the bran not being cut up by the shearing action, a better grade of flour is produced. As the stones commence to grind at the eye, also, they need not be pressed together so tightly, and the flour is consequently ground cooler, and the dress lasts longer.

I am aware of the fact that the tapering furrow is not new, and that millstones have been dressed with furrows which in one or the other of the stones have no draft, but both stones were dressed differently, so that in grinding a draft was always produced. I, therefore do not claim these features, except when arranged as shown and described.

Having thus described my invention, what I claim as new is—

The combination of the similarly-dressed runner A and bed-stone B, having each the

tapering leading-furrows C wider and deeper at the eye than at the skirt, and having their feather or trailing edges arranged radially for no draft, together with the tapering quarter-furrows C¹ C² arranged for a draft, substantially as and for the purpose described.

The above specification of my invention signed by me this 25th day of September, 1876.

ELIAS N. ROEDER.

Witnesses:

SOLON C. KEMON,
CHAS. A. PETTIT.