

T. W. TRUSSELL.

Millstone Dress.

No. 11,978.

Patented Nov. 21, 1854.

Fig. 1

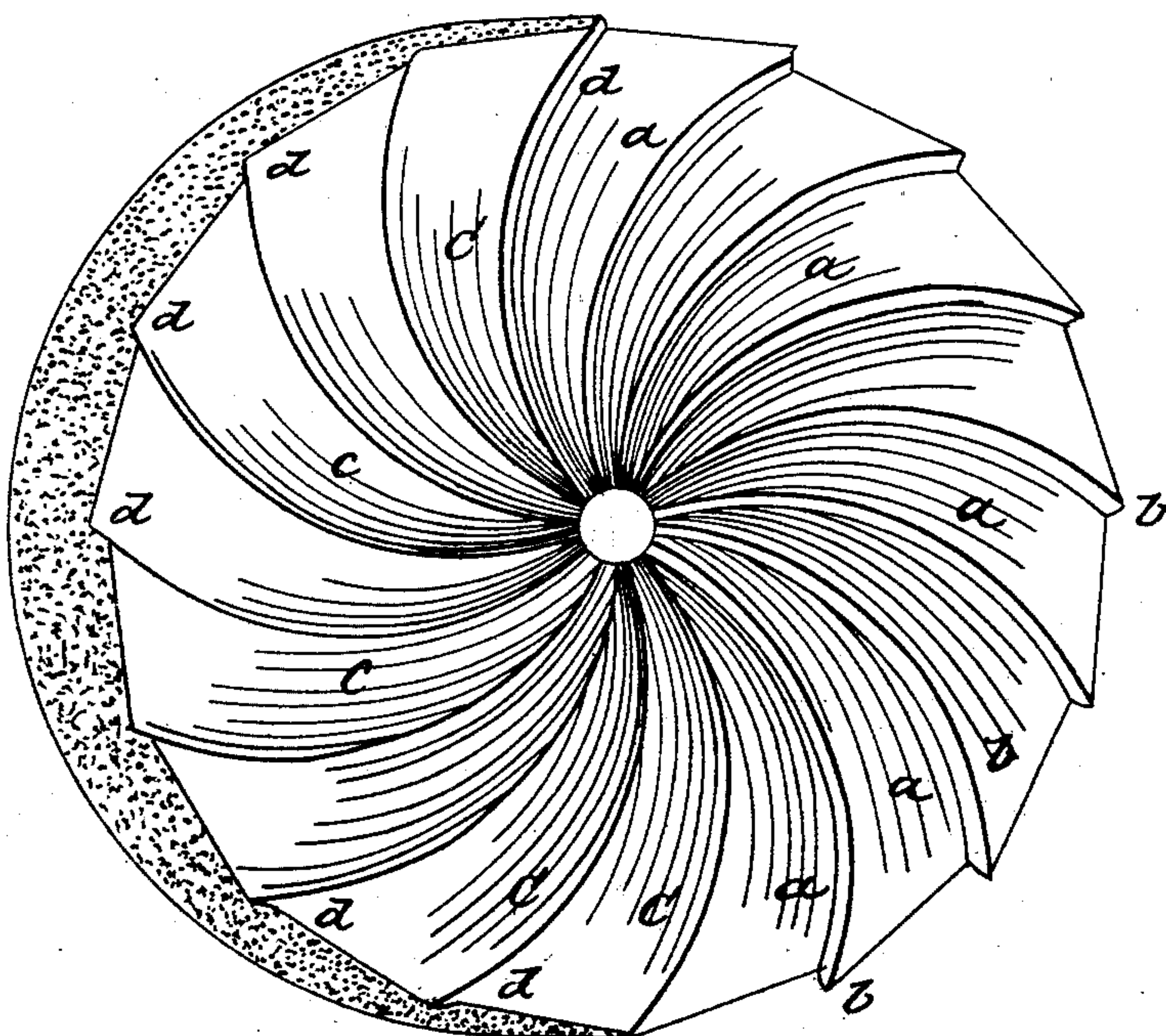
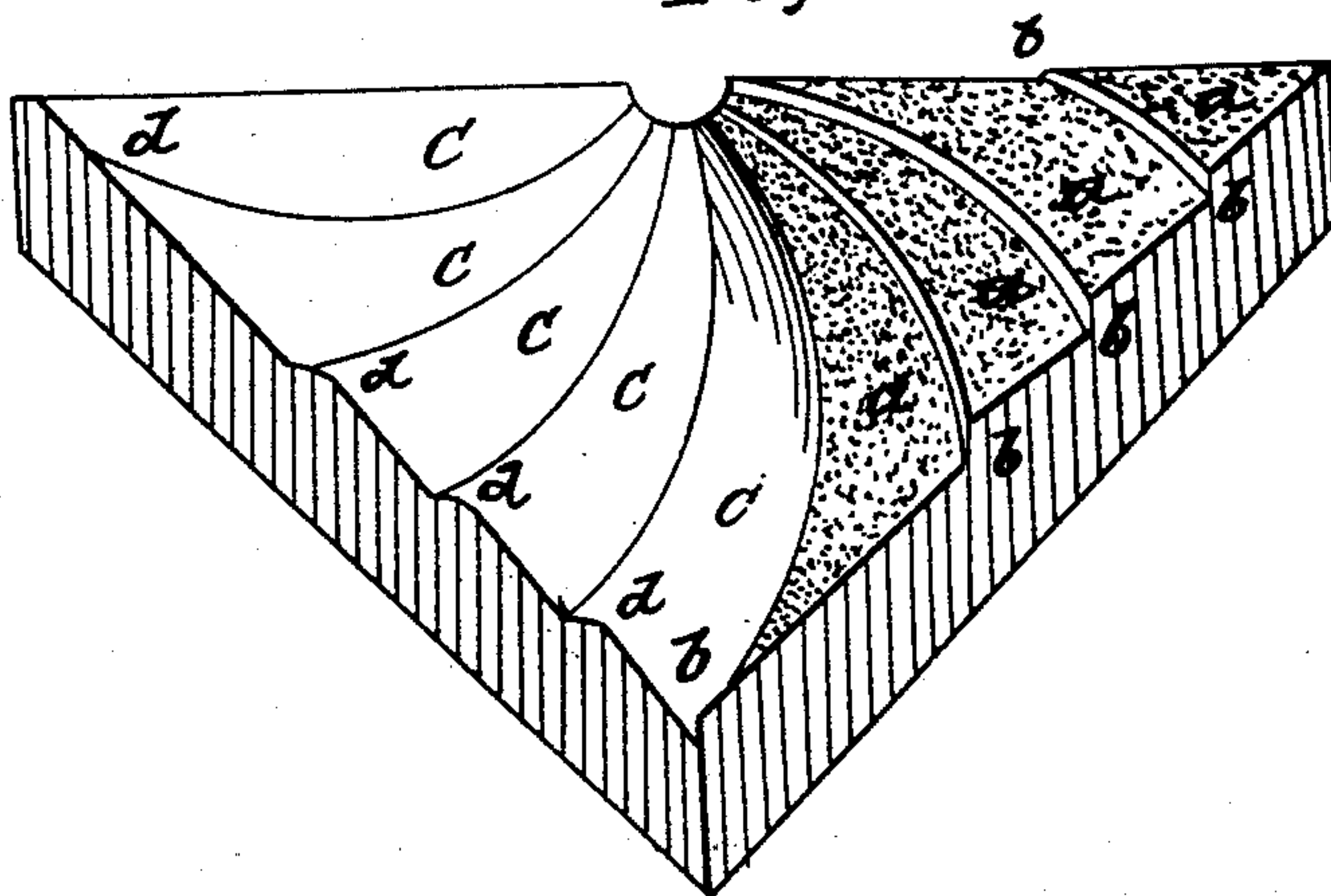


Fig. 2



UNITED STATES PATENT OFFICE.

THOMAS W. TRUSSELL, OF WINCHESTER, VIRGINIA.

DRESSING MILLSTONES.

Specification of Letters Patent No. 11,978, dated November 21, 1854.

To all whom it may concern:

Be it known that I, THOMAS W. TRUSSELL, of Winchester, in the county of Frederick and State of Virginia, have invented
5 and made certain new and useful Improvements on the Method of Dressing Millstones; and I do hereby declare that the following is a full, clear, and exact description of the method of construction and mode
10 of operating the same, reference being had to the accompanying drawings, and making a part of this specification, in which—

Figure 1, is a view, showing part of an ordinary mill dress with burred or rough-
15 ened surface, *a, a, a, a, a*, and the sharp cutting feather edges *b, b, b, b, b*, together with the improved manner of polished surface *c, c, c, c, c*, and blunted or polished, or rounded furrow *d, d, d, d, d*. Fig. 2, is a
20 diagram of a sectional view of the old mode of mill dress *a, a, a, a—b, b, b, b, b*, and a sectional view of the improved, polished or non-cutting mill dress, as of my invention, as seen at *c, c, c, c, c—d, d, d, d*.

25 To enable others to be skilled in the use and application of my invention and improvements, I will proceed to describe the construction and operation thereof, the nature and principles of which, consist in producing mill stones having a surface without
30 the usual, granulated, picked, burred, or rough appearance; and in divesting also, the ordinary mill stone, of the sharp furrow, or feather cutting edge as it is termed,
35 by rounding off the edge and rendering it blunt, and forming a smooth polished surface, on the face of the stone. The producing this surface, is done by aid of the pick, or any other suitable means, and in
40 addition thereto, by aid, or application of the bur block, flint stone, or other hard substances with water, and friction, or attrition, by any other means; whereby I am enabled, to form a new dress to the face of
45 mill stones, which new dress, enhances greatly, the quality; increases the quantity of meal or flour; expedites the operation; affords a perfectly free escape, or discharge of the pulverized, particles of meal, without
50 chopping up the hull, and intermingling the same with the meal or flour; which result, is owing to the absence of any rough, indentations, or sharp cutting edges, and the free escape, of the pulverized particles, in-
55 duced by the absence also of the acute fur-

row angles, which the ordinary bur mill stone possesses.

By my mode or manner or kind of polished non-cutting mill stone dress, surface, I acquire the following advantages, and new
60 results, viz, the wearing away of the surface or substance of the stone is greatly lessened; the labor of forming, and renewing the granulated surface, and furrows, and ridges done away with. Besides, in the
75 use of my improved mill dress, the usual unavoidable, and injurious friction, and resistance of the ordinary mill stones are entirely overcome, or at least not encountered. Again, mill stones, formed with my pol-
80 ished, non-cutting, surface, can be driven with less power; because of there being no abrasion produced, on the pulverizing surfaces. Again there is no danger of choking, or clogging, from close grinding. Be-
85 sides too, a great desideratum is attained, by not requiring more than one bolting, in the production of flour, and dispensing with the producing of "shorts," "midlings," or "ship stuff." And, because of destroying
90 or overcoming the friction accompanying the ordinary mode of producing flour; the meal, or pulverized mass, is not heated, by the action of the polished surfaces of my mill dress, and consequently there is no
95 danger of souring or fermentation in the packing of flour, made with mill stones having my polished, smooth surface dress. By comparison, I will show the other very
100 marked, and important advantages, of my mill dress over all other mill stones, and by an actual experiment, with one of the highly celebrated and approved Gaines mill dress, I was enabled to ascertain the following
105 extraordinary results. With the Gaines mill dress, an experimentalist, and practical miller, ground 200 bushels of wheat, which yielded $25\frac{1}{2}$ barrels of extra superfine, flour over the usual toll. I ground
110 the same quantity and quality of 200 bushels of wheat, with my polished mill dress, and used the same power, and produced the increased quantity of 40 barrels, of family flour, over the usual toll. Thus it will be
seen, that through the means of my mill
dress, I was enabled to exceed the result of the Gaines mill dress, by $14\frac{1}{2}$ barrels; gaining 2 pounds of flour, to each bushel of wheat, besides increasing the value
50 cts. per barrel, in profit.

Through my polished surface mill dress; grain can be pulverized or reduced much closer without destroying, or impairing, (or detracting from) the substance, and nutritive property of the meal or flour.

It will be seen, that the action of the surfaces of my mill dress; does not chop, or cut the meal, or the husk, or hull; but instead, thereof, the grain or kernel, is mashed, or reduced, simply by pressure and the grain or kernel being hulled, the bran, or outward film; is not intermixed, or incorporated with the flour part and hence but one bolting, or separating of flour from the bran is required.

Having described in a plain and concise manner, the mode of producing my mill dress, and having set forth its many advantages, together with giving the decided,

new and important results attained thereby and established by actual test, and practical experiment for the past twelve months or more, and being a practical miller, of many years' experience, and having tested the most approved systems of mill dress

What I claim as new and original with myself, and desire to secure by Letters Patent of the United States, is—

Rounding off, and polishing the feather edge, or sharp cutting ridge lines of mill stones, and reducing all the intervening bur, or graduated face, to a smooth surface in the manner, and for the purpose herein set forth.

THOMAS W. TRUSSELL. [L. s.]

Witnesses:

S. T. MOORE,
JNO. H. FORD.