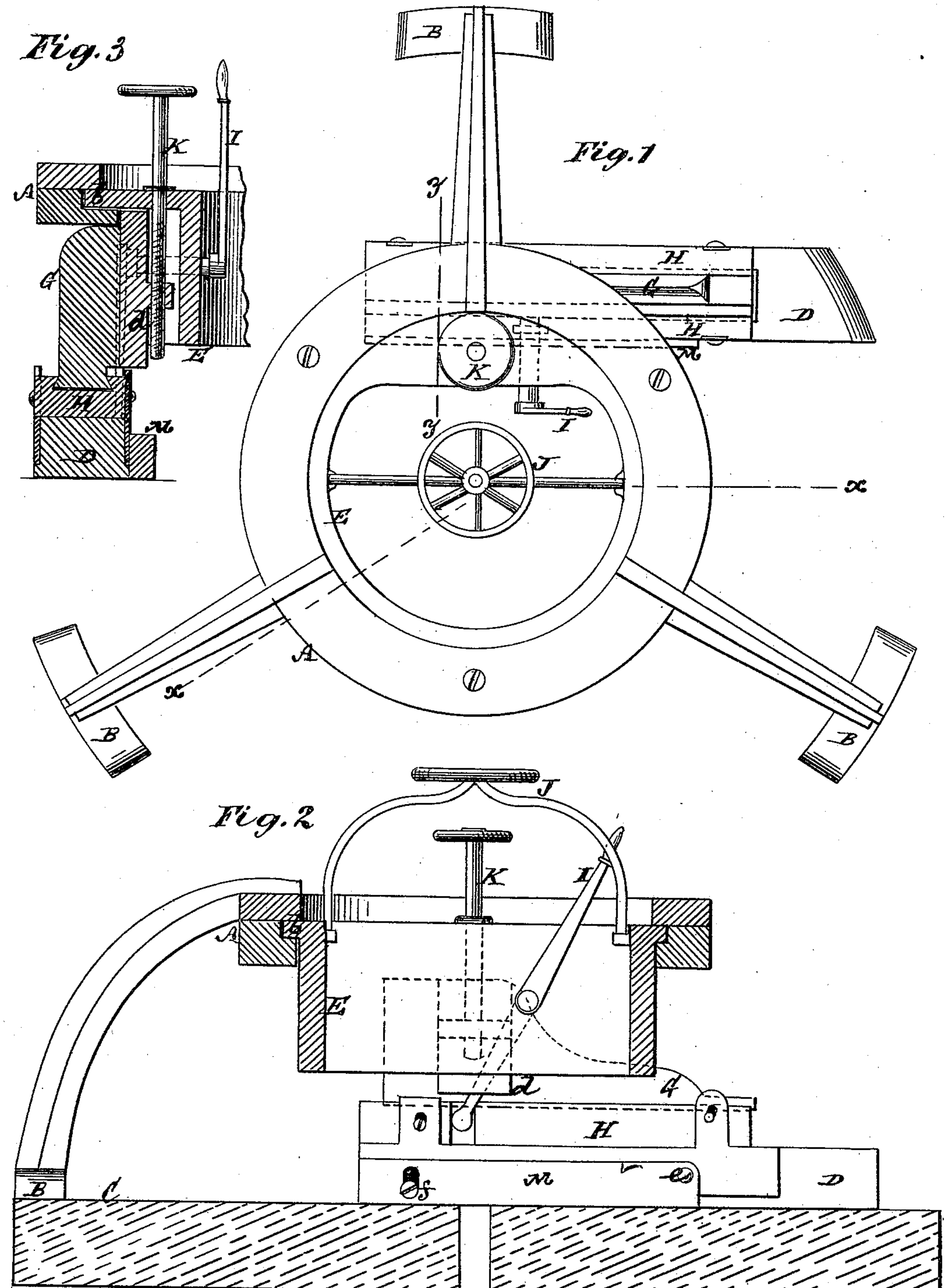
D. SEWELL & W. O. CORWIN.

APPARATUS FOR STAFFING AND DRESSING MILL-STONE.

No. 180,378. Patented July 25, 1876.



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UNITED STATES PATENT OFFICE.

DELOS SEWELL AND WILLIAM O. CORWIN, OF HILLSDALE, MICHIGAN.

IMPROVEMENT IN APPARATUS FOR STAFFING AND DRESSING MILLSTONES.

Specification forming part of Letters Patent No. **180,378**, dated July 25, 1876; application filed June 6, 1876.

To all whom it may concern:

Be it known that we, DELOS SEWELL and WILLIAM O. CORWIN, both of Hillsdale, in the county of Hillsdale and State of Michigan, have invented certain new and useful Improvements in Apparatus for Staffing and Dressing Mill Burrs or Stones; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

The object of this invention is to produce an apparatus for giving a perfectly true face to mill-burrs, which shall be both simple and efficient, and which shall take less time to adjust and tram them to the burr than other machines for the same purpose, without resorting to the red staff or straight-edge to prove its correctness.

Our invention consists in a tram chair or stool, which is set on the verge or skirt of the burr, and which is provided with a central rotating cylinder or spindle constructed or provided with means for carrying the staff, or for attachment to it, if desired, of a dressing-tool, or machine for dressing or surfacing and leveling the mill-burr, the means which carry the staff or dressing-tool being set true with the feet of the stool, chair, or stand. The invention also consists in a peculiar attachment of the rotating cylinder in the tram chair or stool, and in certain means for raising and lowering the staff or dressing-tool, and for setting it in or out to admit of its sweep over the stone free from interference by the feet of the stool; also, in a supplementary adjustable staff for dressing down the eye of the burr to any desired angle. By means of the chair or stool resting by its feet on the verge or skirt of the burr, and carrying the staff or dressing-tool, which is made capable of sweeping over the stone, the turning or dressing of the stone may be done much more perfectly than when making the mill-spindle the working center or support for the staff or dressing-tool.

Figure 1 represents a plan of a mill-burr staffing apparatus constructed in accordance with our improvement, and as applied to a mill burr or stone. Fig. 2 is a vertical section of the same on the line *x x;* and Fig. 3, a further vertical section, in part, on the line *y y.*

A is the body of the tram chair, stool, or stand, having two or more, but preferably three, legs branching out and down from it, terminating in feet B, which are on the same level, or true with each other on their under surfaces, and which, when the apparatus is in use, rest on the verge or skirt of the stone C. The body A serves to carry the means by which the staff D is supported and made capable of rotation around the central vertical axis of the chair in a like plane, or parallel therewith, as the soles of the feet B of the stand. Thus the body A is of an annular construction, being composed of an upper and lower ring constructed to receive within them a flange, *b*, of a rotating cylinder, E, the vertical axis of which is coincident with that of the spindle of the stone. This rotating cylinder projects down within or through the body A of the chair, and has fitted to it on its one side, so as to be capable of sliding up and down within it, by means of a dovetailed slide, *d*, an arm, G, which occupies a tangential relation with the cylinder E. This arm is constructed to support the staff D in true parallel relation with the feet B of the chair by means of a sliding box or stock, H, to which the staff D beneath is adjustably secured. The sliding box H with its attached staff D is made capable of being slid in or out along the arm G by means of a lever, I, pivoted to the cylinder E and passing up through the latter, whereby provision is made for drawing the staff inward when it is necessary to clear the feet B during the rotative adjustment of the cylinder E. A wheel or handle, J, mounted or attached in an upwardly-projecting manner to the cylinder E, forms a convenient means for rotating the staff over the stone, and the flanged cylinder E working within the annular body A, as a circular track, serves to give a steady and true travel to the arm G and staff D carried by it. A screw, K, is applied to the cylinder E and slide *d* of the arm G, for the purpose of raising and lowering said arm and the staff D, to bring down the latter on the burr or adjust it to the face thereof, as required.

To operate the apparatus, the tram chair or stool is set with its feet B resting on the verge or skirt of the staff C, which is adjusted so as

to be true with said feet, and consequently with the face of the burr C. The staff D is then rotated by the handle J over the face of the stone, and is lowered by the screw K until it rubs the high points of the burr. By applying coloring matter or wet paint to the staff, the latter marks the protruding places to be dressed.

Pivoted, as at *e*, to the one side of the staff D, is a supplementary smaller staff, M, adjustable by means of a set-screw and slot, *f*, to give it more or less dip at its one end, to facilitate the dressing down of the eye of the burr to any desired angle.

We claim—

1. In an apparatus for staffing and dressing mill burrs or stones, a supporting tram chair or stool provided with feet arranged to rest on the verge or skirt of the burr, in combination with a central rotating cylinder or spindle carried by said chair, and constructed or provided with means for carrying the staff or dressing-tool in true relation with the feet of said chair, substantially as specified.

2. The rotating cylinder E, which carries the staff or dressing-tool, constructed with a flange, *b*, in combination with the annular track-body A of the tram chair or stool, essentially as described.

3. The arm G of the cylinder E, which carries the staff or dressing-tool, provided with a slide, *d*, and means for adjusting said arm up or down, in combination with the rotating cylinder E and tram chair or stool, substantially as specified.

4. The staff D, fitted to slide in or out along the arm C by means of a lever, I, in combination with the rotating cylinder E and tram chair or stool, essentially as described.

5. The combination of the supplementary and angularly-adjustable staff M, with the main staff D arranged to rotate over the stone, substantially as specified.

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