J. PARKER.

Grinding Mill.

No. 95,131. Patented Sept. 21, 1869.

Fig. 1

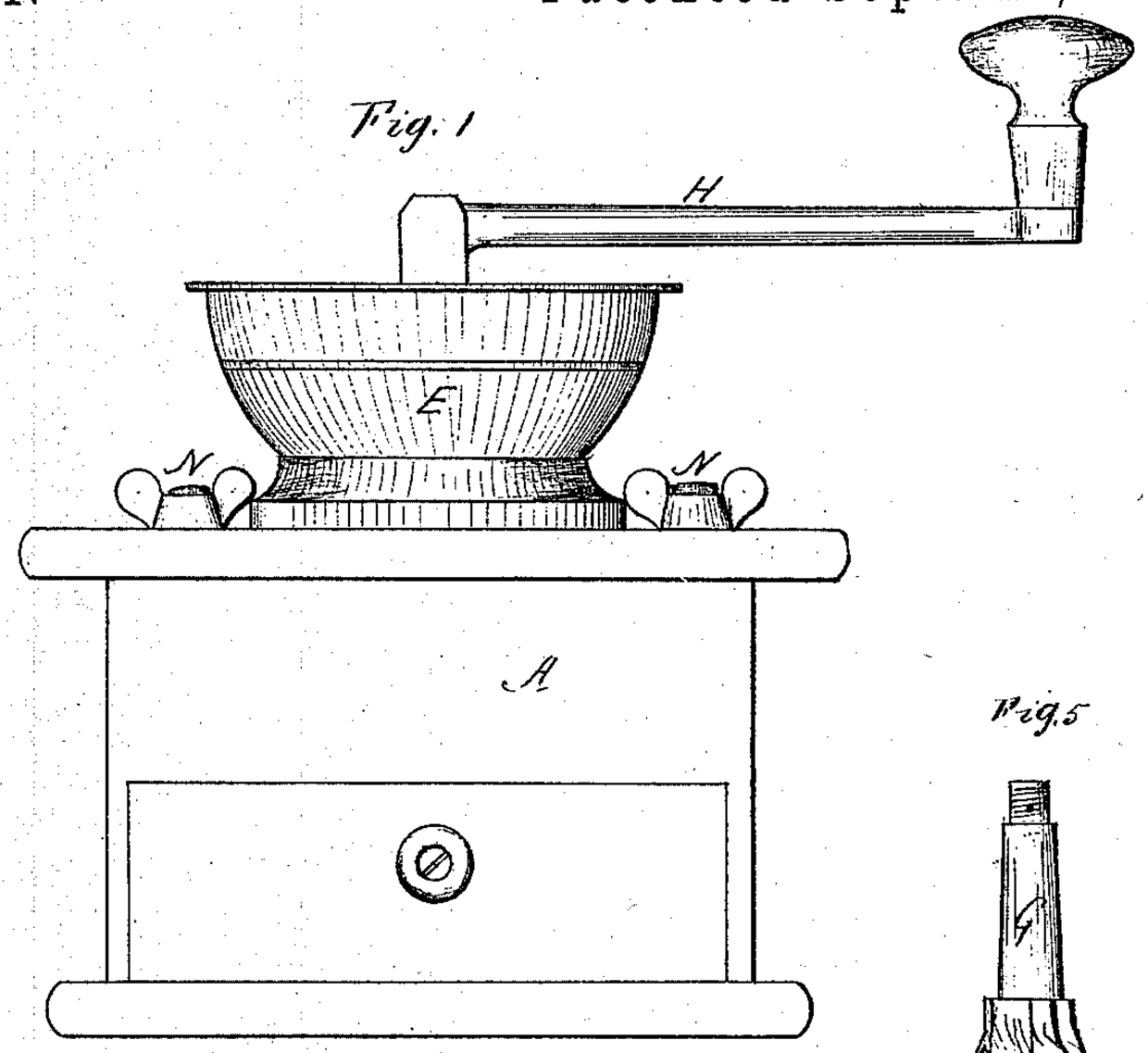


Fig. 2

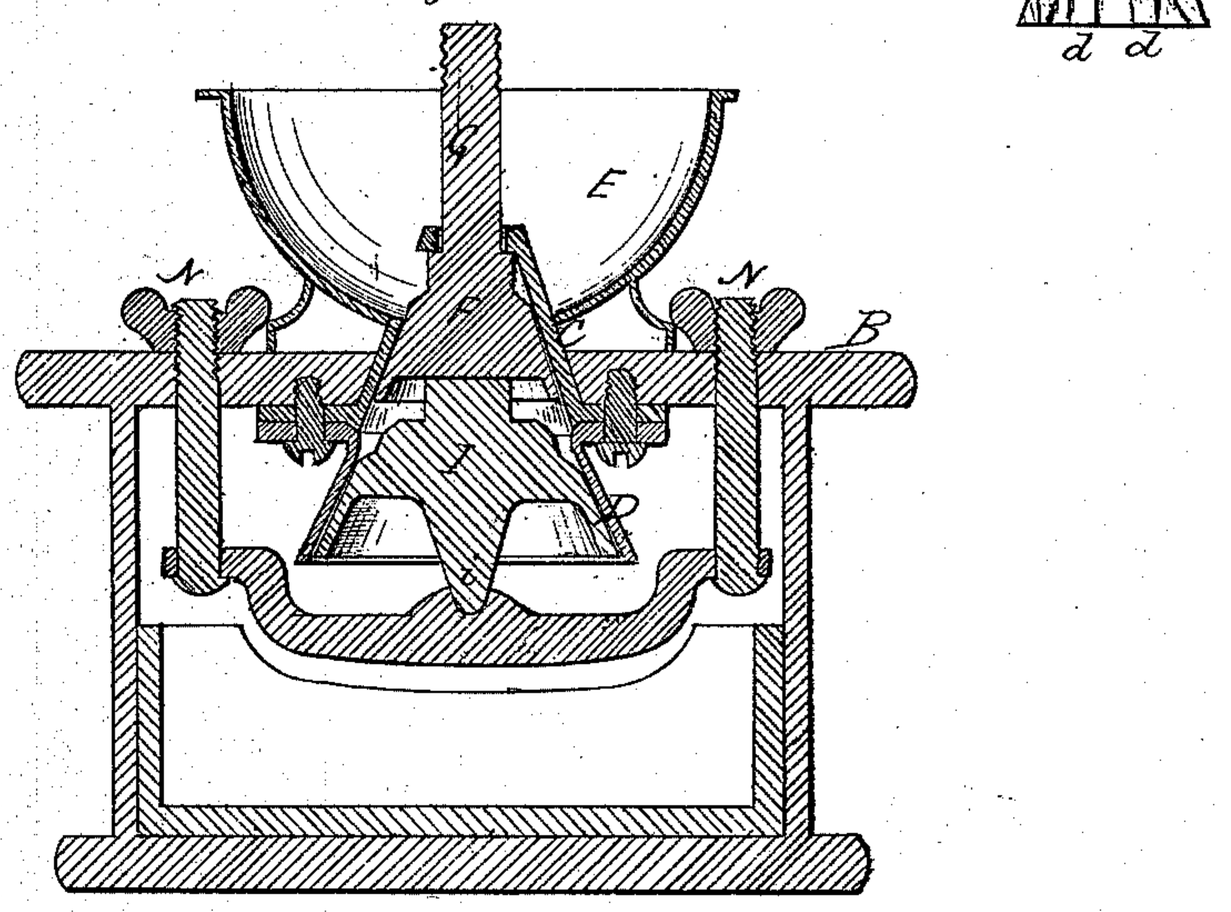


Fig. 5

Witnesses,

D. H. Shumway

A. L. Tibbits

Fig. 6

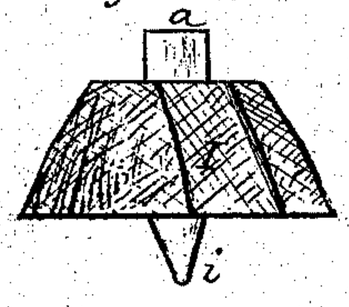


Fig. 3.

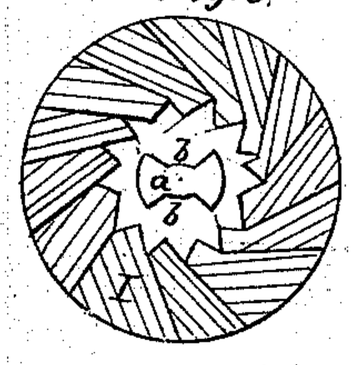
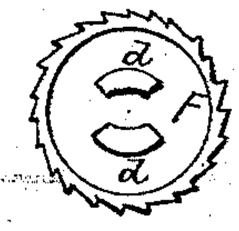


Fig. 4



Charles Parker

Inventor by his Atty

J. L. Ewart

United States Patent Office.

CHARLES PARKER, OF MERIDEN, CONNECTICUT.

Letters Patent No. 95,131, *dated September* 21, 1869.

IMPROVED CRACKER AND GRINDING-MILL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES PARKER, of Meriden, in the county of New Haven, and State of Connecticut, have invented an Improvement in Box-Mills; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view;
Figure 2, a vertical central section;
Figure 3, a top view of the lower runner;
Figure 4, an under view of the upper runner;
Figure 5, a side view of the upper runner; and in
Figure 6, a side view of the lower runner.

This invention relates to an improvement in that class of grinding-mills known to the trade as box-mills, and in which two runners are employed, one above the other, the upper acting as a cracker and the lower as the grinder.

Heretofore the lower runner has been made to bear against a flange upon the edge of the case, to prevent its being raised up so far that the surface of the runner would strike the surface of its case. This creates no inconsiderable amount of friction, and makes a constant wear upon the metal, both of which are objections or difficulties which are fully overcome by my improvements, which consist in constructing the upper end of the lower runner and the lower end of the upper runner, so that while the lower is turned by the upper, the lower will take its bearing and be held in position by the upper.

To enable others skilled in the art to construct and use my invention, I will proceed to describe the same, as illustrated in the accompanying drawings.

A is the box, or case, upon the top B of which the upper runner-case C and lower runner-case D are fixed, extending up and into the hopper E.

F, the upper runner, takes its bearing in the upper end of its case C, the spindle G extending up, so that a crank, H, is applied thereto.

I is the lower runner, with a pivot, *i*, resting in a step on the bridge L.

The upper end of the lower runner has a stud, *a*, formed thereon, as seen in figs. 3 and 6, the said stud having recesses *b* formed upon opposite sides, and the lower end of the upper runner F has projections *d*, as seen in figs. 4 and 5, corresponding to the recesses in the sides of the stud *a*, so that when the two are placed together, as in fig. 2, the projections on the one will set into the recesses of the other, the upper holding and guiding the lower.

The stud *a* takes its bearing upon the under surface of the upper runner, and is of such length, that when the upper runner is forced against the shoulder, in its case, the surface of the lower runner will just clear the surface of its case D, which is in a position to grind the finest.

The mill is adjusted by raising or lowering the bridge L, by means of screws N, the bridge always holding the step of the lower runner central. Thus, the two runners bearing together at their meeting-points, and by their construction held together, there is no friction in consequence of their united action, and the rubbing or grinding of the metal, as in the construction heretofore, is entirely avoided.

Having fully described my invention,

What I claim as new and useful, and desire to secure by Letters Patent, is—

In a box-mill, in which the runners F and I are set the one above the other, forming the stud *a* upon one and projections *d d* upon the other, so that while the lower is driven by the turning of the upper, the upper forms the bearing for and holds the lower in its central position, substantially as set forth.

CHAS. PARKER.

Witnesses:
JOHN W. MILES,
CHAS. L. TAYLOR.