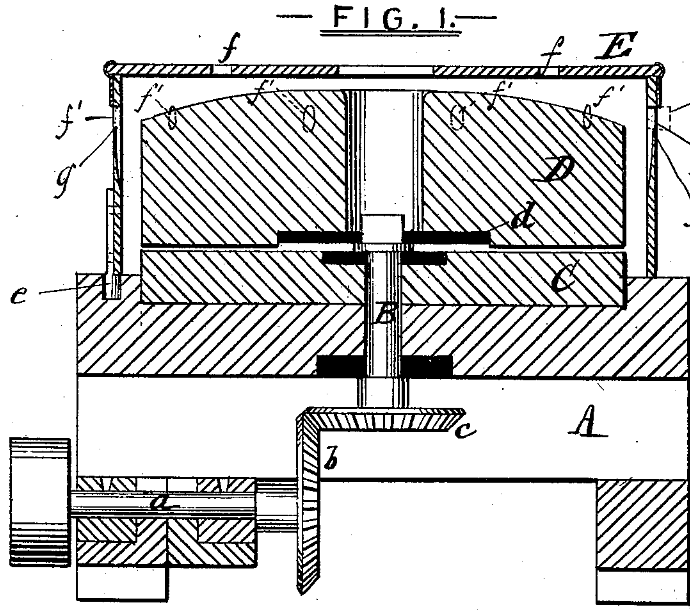
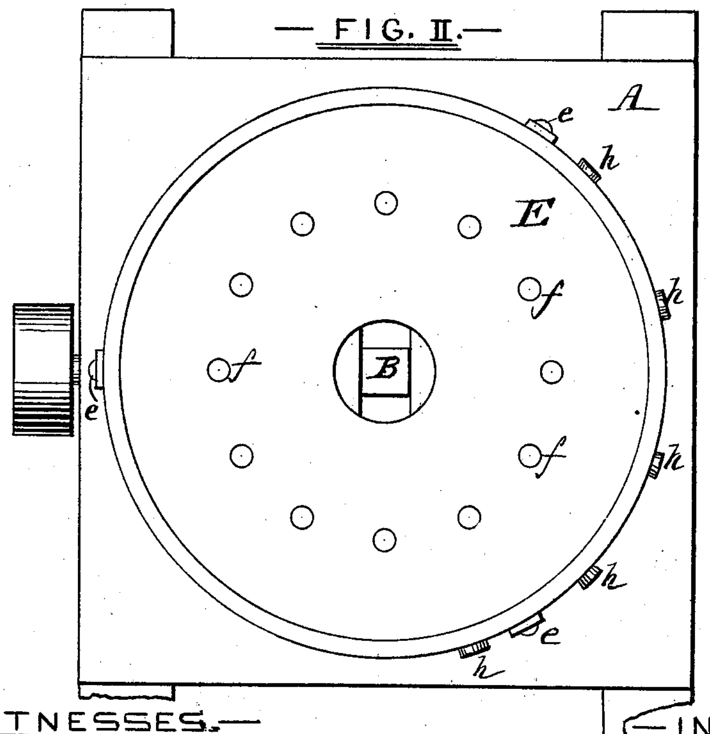
J. S. DETWILER.
Curb or Hoop for Millstones

No. 212,361. Patented Feb. 18, 1879.

— FIG. I. —



— FIG. II. —



— WITNESSES —

John A. Tauberschmidt
J. Buckingham

— INVENTOR —

John S. Detwiler,
by C. H. & W. T. Howard
Attys.

UNITED STATES PATENT OFFICE.

JOHN S. DETWILER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CURBS OR HOOPS FOR MILLSTONES.

Specification forming part of Letters Patent No. **212,361**, dated February 18, 1879; application filed March 9, 1878.

To all whom it may concern:

Be it known that I, JOHN S. DETWILER, of the city and county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Flour-Mills, of which the following is a full, clear, and exact description.

This invention relates to a mill-hoop, which serves as a natural and perfect ventilator to the stone, and obviates the necessity of using any means for exhausting heated air from the hoop other than the motion of the stone itself.

In the accompanying drawings, forming a part of this specification, Figure 1 is a vertical section of a flour-mill having my improved hoop applied thereto. Fig. 2 is a plan or top view of the hoop.

Similar letters of reference indicate similar parts in both views.

A is the husk or frame-work of the mill. B is the spindle, driven by the shaft *a* through the medium of the gears *b* and *c*. The bed-stone is represented by C, and the runner by D. The driver is shown by *d*.

E is the mill-hoop, which is close, except at the center, above the eye of the runner, and as hereinafter specified.

The hoop is provided with pins *e*, secured to its sides, which pins serve to hold it to the husk or frame, as shown.

In order to cause the hoop to be self-ventilating, or without any means of producing a draft or current of air other than the momentum of the runner, the hoop is provided with openings *f* in its top, and similar openings, *f'*, in its rim or sides, which openings, respectively, serve as the inlets and the outlets for the current induced by the revolutions of the running stone. The openings in the rim are chamfered at their lower sides, to prevent the seating of flour in the holes and the choking of the same. This construction is shown in Fig. 1 by *g*.

Certain of the openings *f'* in the rim of the hoop are or may be closed by stoppers or corks *h*, the draft being thereby regulated, concentrated at any point, or allowed to escape uniformly.

By the means of ventilation herein described, the heated air is displaced and the flour kept cool by a constant supply of fresh cold air, thereby preventing the formation of "sweat" and a tenacious dough, common where the ventilation is imperfect. This formation is removed with difficulty, and the causes which produce it are detrimental to the flour. By the use of a close hoop the escape of flour and consequent waste are avoided.

I do not claim, broadly, ventilating a run of stones by a current induced by the motion of the running stone; but,

Having described my improvements, I claim as my invention—

A close mill-hoop provided with side or rim openings, having their lower sides chamfered, as described, whereby said openings are kept free from an accumulation of flour.

In testimony that I claim the foregoing as my invention I hereto subscribe my name this 25th day of February, A. D. 1878.

JOHN S. DETWILER.

Witnesses:

GEO. R. R. BEAN,

CHAS. E. PANCOAST.