J. G. BAKER.

SAD-IRON GRINDING MACHINE.

No. 182,882. Patented Oct. 3, 1876.

Fig 1.

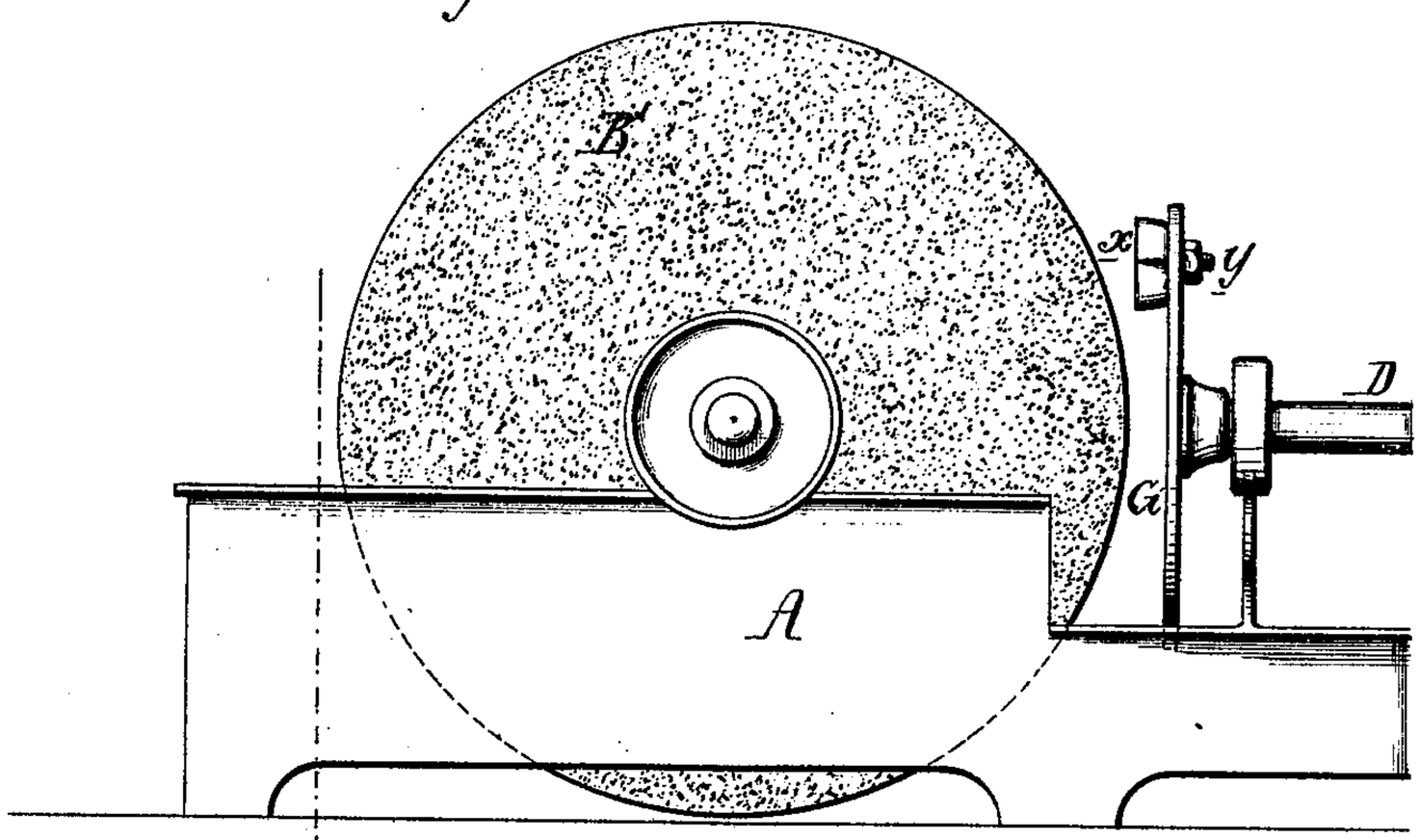

Fig 2.

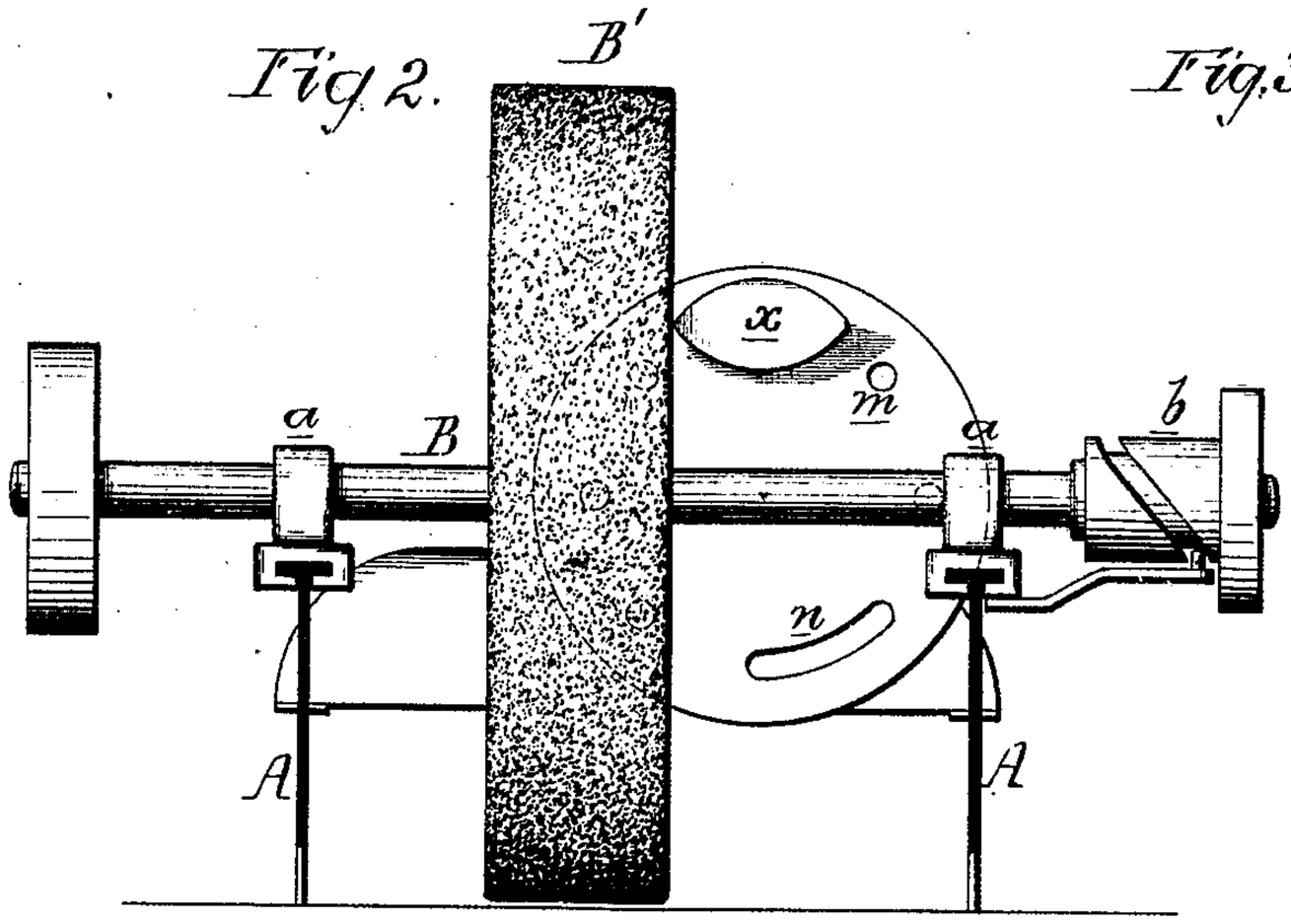

Fig 3.

Witnesses
Hermann Moessner
Harry Smith

John G. Baker
by his Attorneys
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UNITED STATES PATENT OFFICE.

JOHN G. BAKER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE ENTERPRISE MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN SAD-IRON-GRINDING MACHINES.

Specification forming part of Letters Patent No. **182,882**, dated October 3, 1876; application filed September 12, 1876.

To all whom it may concern:

Be it known that I, JOHN G. BAKER, of Philadelphia, Pennsylvania, have invented certain Improvements in Sad-Iron-Grinding Machines, of which the following is a specification:

The object of my invention is to construct a machine for rapidly and accurately grinding the faces of sad-irons, and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a side view of sufficient of a grinding-machine to illustrate my invention; Fig. 2, a transverse section on the line 1 2, and Fig. 3 a detached sectional view of part of the face-plate.

To bearings *a a* on the frame A of the machine is adapted a spindle, B, carrying the grindstone B′, to which a combined rotating and reciprocating motion is imparted, the latter movement being in the present instance communicated to the spindle and stone by a scroll-cam, *b*, in a manner too readily understood to need description. A shaft, D, is arranged at right angles to the shaft B, and is adapted to suitable bearings on the frame A, and this shaft carries a face-plate, G, to which the sad-irons to be ground are secured.

The manner of securing the sad-irons will depend in a great measure upon their character. The iron *x*, for instance, has its body separate from the handle, and is secured by a bolt, *y*, passing through a hole, *m*, in the face-plate, the body of the sad-iron being suitably prepared to receive the head of the bolt, for which, however, may be substituted a set-screw.

If the sad-iron be of the ordinary construction—that is, with the handle cast to the body—there should be elongated openings *n* in the face-plate, to receive the handles, which may be secured by different appliances.

A number of the sad-irons are secured to the face-plate, which is caused to revolve slowly while the desired surface is quickly imparted to them by the rapidly revolving and reciprocating stone.

The bearings *a a* of the shaft B are adapted to guides on the frame, so that the grindstone may be moved toward or from the face-plate by suitable appliances.

I have found, in practice, that if the face-plate be made of cast-iron, or of any other comparatively soft metal, its face is soon destroyed by indentations made by the sad-irons, these indentations being, it is believed, attributable partly to the tremor of the irons on the plate during the process of grinding, and partly to the corrosive action of the water at the point of contact of the irons with the face-plate.

To obviate this difficulty, I chill the face-plate during the process of casting the same, or that portion of the face-plate to which the irons are secured; or I rivet or otherwise attach a plate of hardened steel or other metal or alloy to the face-plate, as shown in Fig. 3.

I claim as my invention—

1. A sad-iron-grinding machine in which a revolving and reciprocating grindstone is combined with a revolving face-plate, and with devices for securing the sad-irons to the said plate, all substantially as set forth.

2. The combination, with the grindstone, of the revolving face-plate, having a hardened surface, and with devices for securing the irons to the said hardened surface.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN G. BAKER.

Witnesses:

HERMANN MOESSNER,

HARRY SMITH.