

G. Z. Hockenbury,

Dressing Millstones.

N^o 29,275.

Patented July 24, 1860.

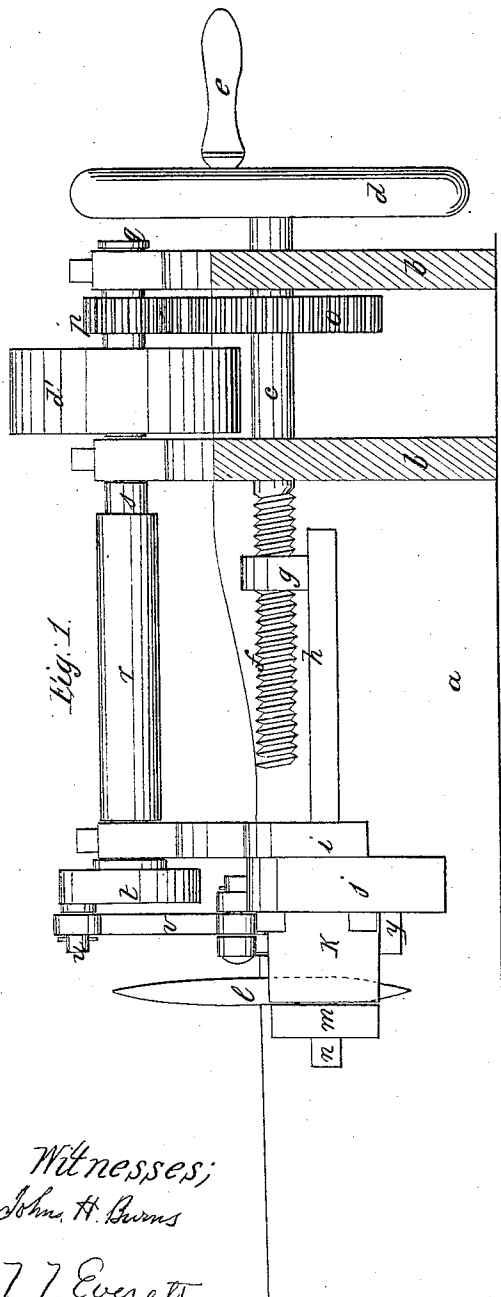
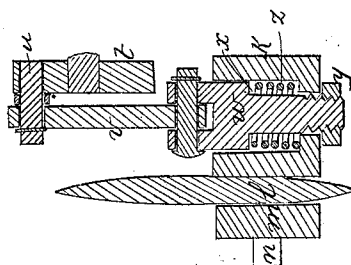


Fig. 2.



Witnesses;
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UNITED STATES PATENT OFFICE.

GEORGE Z. HOCKENBURY, OF PITTSBURG, PENNSYLVANIA.

MACHINE FOR DRESSING MILLSTONES.

Specification of Letters Patent No. 29,275, dated July 24, 1860.

To all whom it may concern:

Be it known that I, GEORGE Z. HOCKENBURY, of the city of Pittsburg, in the State of Pennsylvania, have invented certain new and useful Improvements in Machines for Dressing Millstones; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters and marks thereon.

My improvement is designed to take the place of the ordinary hand pick in the dressing of mill stones; and it will readily be seen that by a portable machine, such as will here be described, a set of stones can be dressed much more expeditiously and that the dressing will be perfect, and regular, and uniform, which can not be the case when hand tools are used. Although specially intended for the dressing of mill stones, as is the case with many machines constructed and adapted to operate upon a particular material of which many articles or objects may be formed, this machine may be used advantageously for dressing other stones, particularly where a portable dresser is required.

The drawings forming part of this specification represent by Figure 1, my machine, one of the side plates of it having been removed to show the interior structure, and by Fig. 2 the tool holder, the view being that of a vertical section so as to show the manner of attaching the holder to the connecting rod of the power shaft.

In each of these figures where like parts are marked like letters are used to designate the parts.

The side plates or pieces of the frame of the machine are marked (*a*) and the lateral or cross pieces (*b*). Through the cross pieces passes the main or power shaft (*c*) having a fly-wheel (*d*) on its outer end with a crank or handle (*e*). A considerable part of the inner portion of the main shaft is a male screw (*f*) which fits into a female screw of nut (*g*) attached to a traveling table (*h*). This table (*h*) is supported by guide grooves or strips a part of or affixed to the side pieces (*a*). To this table is also affixed a standard or vertical plate (*i*), which has guide bars (*j*) for the pick-holder (*k*). In the front part of the holder is a recess for the pick or tool (*l*), which is clamped therein by the plate (*m*) and binding screws and nuts (*n*).

A wheel (*o*) on the main shaft (*c*) gears into a pinion (*p*) on the intermediate shaft

(*q*). The crank shaft (*r*) surrounds the intermediate shaft (*q*), travels longitudinally upon it and is rotated by it by a stud or feather projecting from its inner surface into the groove (*s*) of the shaft (*q*). Shaft (*r*) has its bearing in the vertical plate (*i*) and shaft (*q*) its bearings in cross pieces (*b*). On the end of shaft (*r*) is a disk (*t*) having a crank-pin (*u*), to which pin is attached the upper end of the pitman or connecting rod (*v*), the lower end of the rod being attached to the bolt (*w*), as is clearly shown by Fig. 2. It will be noticed that this bolt passes through the bottom of the tool holder and by a nut (*y*) fitting a screw thread on its end is adjusted in the holder. A helical spring (*z*) surrounds a part of the bolt having its upper bearing against a shoulder (*x*) of the bolt and its lower bearing upon the bottom of the recess in the holder, which spring gives an elastic support to the tool holder, yielding on the pick, striking the stone; and by the greater or less compression of the spring, by turning the nut (*y*), the degree of elasticity can be regulated and the force of the blow varied.

The pick or tool can be adjusted in its recess by the clamping plates and screws and nuts. The rotation of the crank shaft may be produced by a band passing over or around the pulley (*d'*) and in connection with any motive power in the mill.

It will readily be seen how by the rotation of the shafts (*c*) and (*q*) the vertical movements are given to the pick or tool, and how through the screw (*f*) and table the tool holder is advanced or returned, thus traversing backward and forward over the dress surface of the mill stone in any line or direction in which the machine be placed, following the line of its periphery, or any radial or oblique or curved line of its dress, the machine being susceptible of being used upon every character of dress of mill stones.

What I claim as my invention and desire to secure by Letters Patent is—

The main or power shaft (*c*), having the screw (*f*), the intermediate shaft (*q*), and tubular crank shaft (*r*), with the tool holder (*k*), and table (*h*), as they are arranged and operated for giving the tool the vertical and feeding motions as set forth.

This specification signed this 2d day of June, 1860.

GEO. Z. HOCKENBURY.

Witnesses:

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