

J. H. GRAY.
Tools for Turning Emery-Wheels.

No. 154,668.

Patented Sept. 1, 1874.

Fig 1.

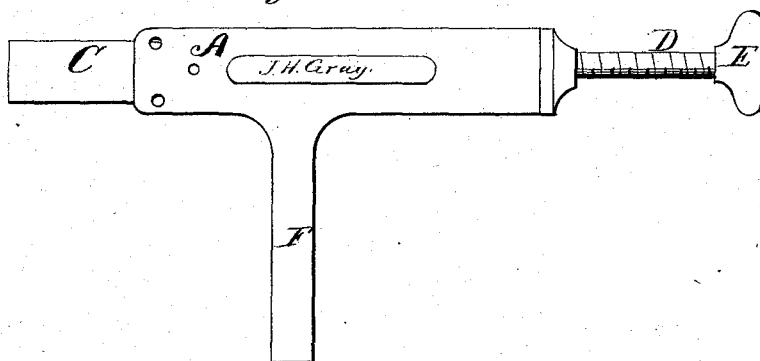
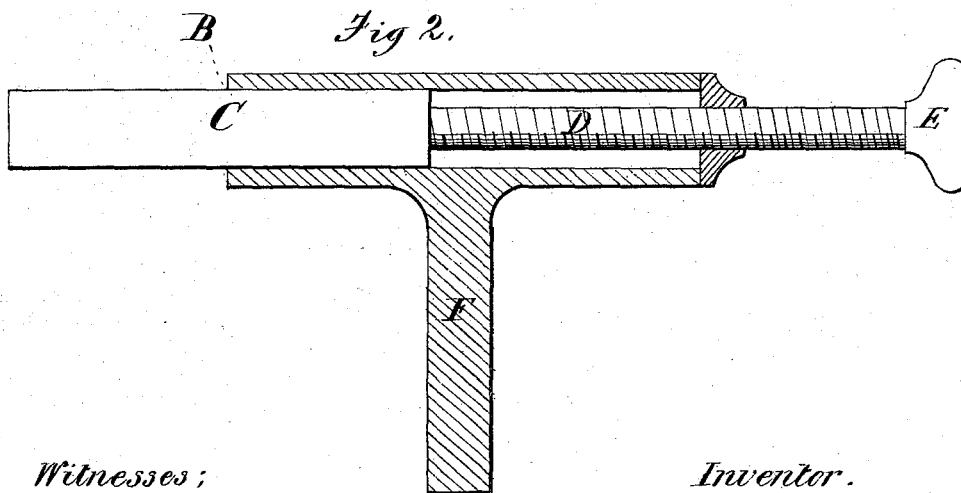


Fig 2.



Witnesses;
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN TOOLS FOR TURNING EMERY-WHEELS.

Specification forming part of Letters Patent No. 154,668, dated September 1, 1874; application filed August 6, 1874.

To all whom it may concern:

Be it known that I, JAMES H. GRAY, of the city and county of Worcester and State of Massachusetts, have invented a new and Improved Tool for Turning Emery-Wheels; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 represents a side elevation of my invention, and Fig. 2 a longitudinal vertical section of the same.

Similar letters of reference in the accompanying drawings denote the same parts.

My invention relates to improvements in tools for facing or truing emery-wheels; and consists in the employment of a thin strip of iron, steel, or other equivalent metal held in an opening in a suitable socket or holder and adjusted by a screw or other equivalent mechanism, and adapted to be applied to the tool-posts of turning-lathes in common use, affording a simple and efficient device for the above-named purpose.

In the accompanying drawing, A is the socket-piece of my improved tool-holder, provided with an aperture, B, for the reception of a thin strip, C, of iron, steel, or other equivalent metal. The central portion of the socket-piece A is provided with a screw-threaded orifice extending from its rear end to the aperture B, in which operates a screw-threaded bolt, D, provided with a handle, E. By this construction it will be seen that by operating the screw-threaded bolt the metal plate C can be adjusted horizontally farther from or nearer to the emery-wheel it is desired to true. F is the vertical arm of the tool-holder, adapted to be applied to the tool-posts of turning-lathes in common use.

The operation of my invention is as follows: The vertical arm F is secured in the tool-post of a turning engine, the thin strip of metal being inserted in the aperture, and by the well-known means the end of the metal strip is brought in contact with the emery-wheel to be operated upon and moved across the face or side, removing all projecting inequalities rapidly, the cutting-edge of said tool being presented to the emery-wheel parallel to the plane of its rotation instead of at right

angles thereto, as is usually the case in dressing grindstones. In practice I find that the strip should project slightly from the aperture to prevent wear of the tool-holder, the strip being retained and adjusted in position by the screw. As the cutting-edge wears away the strip is moved forward by the screw, and as the wheel is turned smaller or thinner its relative position with the aperture is maintained by the devices ordinarily employed on turning-engines. The cutting device having a uniform thickness, and the emery-wheel continually grinding the edge of the cutter sharp, the process of turning is expedited by the means which retard the process by the usual devices employed, making the operation, in comparison with the tedious process now in vogue, brief.

As the diamond held in a tool made for the purpose, requiring careful handling, slow speed, and very light pressure, is the only method now in use for truing emery-wheels, the advantages of the means presented are readily seen.

I am aware that strips of metal capable of vertical adjustment in their socket or holder have heretofore been employed in mill-picks; and I am also aware that metallic disks situated in an adjustable frame have been employed in facing or truing grindstones; and I therefore lay no claim to such devices, neither of which could be applied to the tool-post of a truing-engine to face emery-wheels.

I claim as my invention—

1. A tool for truing emery-wheels, consisting of a thin strip of metal, C, constructed to be applied to the emery-wheel, substantially as described.
2. A thin strip of metal, supported and adjusted in a tool-holder, secured to the tool-post of a turning engine, for the purpose of turning emery-wheels, substantially as described.
3. The combination of the tool-holder A F, provided with the aperture B and screw D, and strip of metal C, substantially as described, and for the purpose set forth.

JAMES H. GRAY.

Witnesses:

MOSES HOBART,
JOSEPH WHITAKER.