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A. B. LANDIS.

EMERY WHEEL TRUER FOR GRINDING MACHINES.

(Application filed Sept. 9, 1899.)

(No Model.)

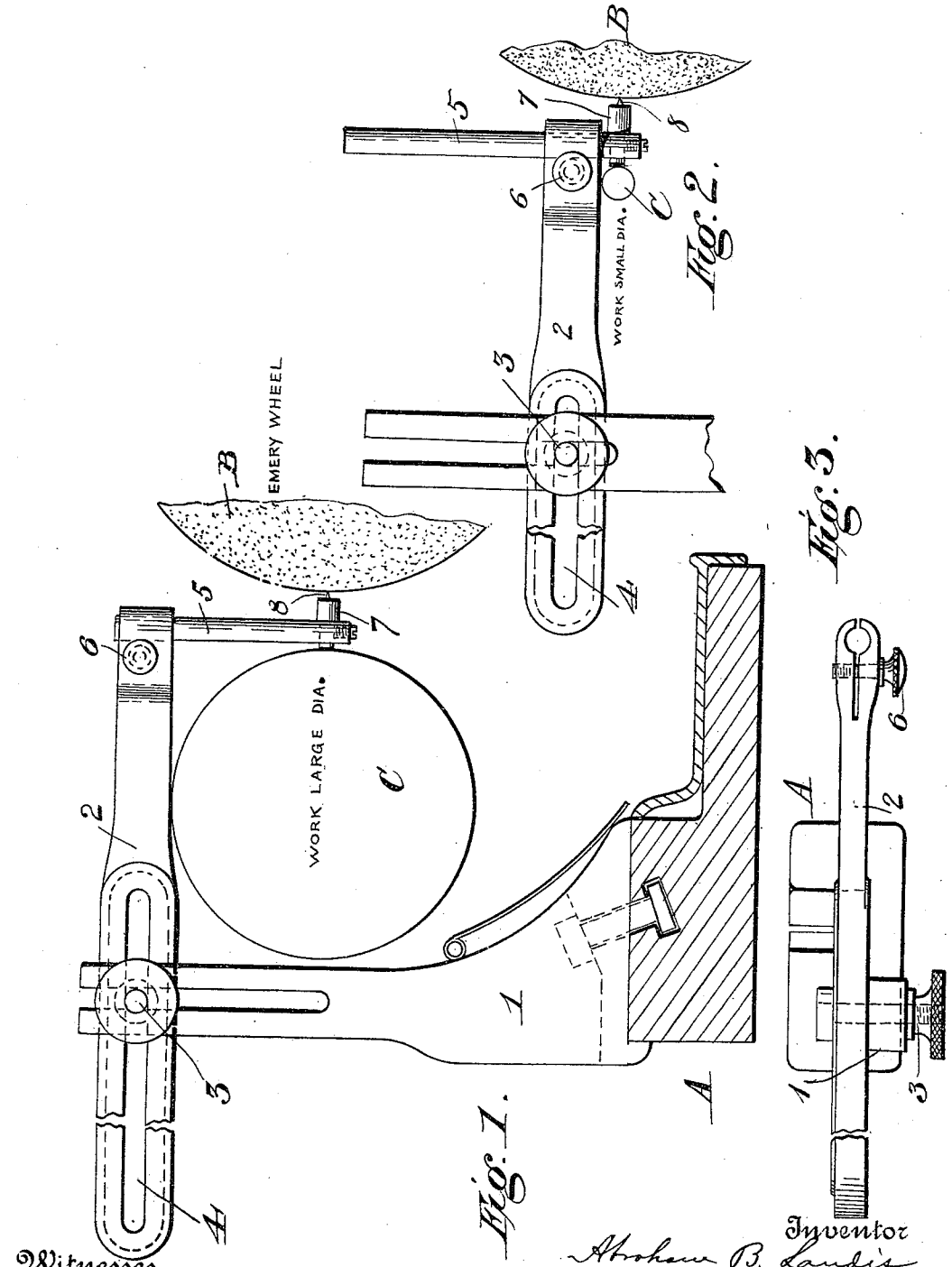


Fig. 2.

Fig. 3.

Fig. 1.

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ABRAHAM B. LANDIS, OF WAYNESBOROUGH, PENNSYLVANIA.

EMERY-WHEEL TRUER FOR GRINDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 639,901, dated December 26, 1899.

Application filed September 9, 1899. Serial No. 729,938. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM B. LANDIS, a citizen of the United States, residing at Waynesborough, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Emery-Wheel Truers for Grinding-Machines, of which the following is a specification.

In the use of grinding-machines in order to secure the best results it often becomes necessary to "dress" or true up the emery-wheel, so as to keep it perfectly true and free-cutting at all times. To remove either the wheel or the work for this purpose requires time, disturbs the adjustment of parts, and is therefore very undesirable.

The object of my said invention is to provide a device for truing or dressing the wheel which may be mounted on the bed-plate permanently and which may be used without removing either the wheel or the work, and one which is always ready for use, whereby the best results can always be secured from the wheel with the least trouble, expense, and delay, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters and numerals of reference indicate similar parts, Figure 1 is a view of one of my improved truing devices in side elevation mounted on the bed-plate of a grinding-machine, which is shown in cross-section, a portion of an emery-wheel being shown and the device in the position occupied by its various parts when in use for truing up the wheel over work of large diameter. Fig. 2 is a detail view showing the position of the parts when in use for truing up the wheel over work of small diameter, and Fig. 3 is a top or plan view of the device.

In said drawings the portions marked A represent the bed-plate of the machine, B the emery-wheel, and C the work being ground, all of which are shown simply to illustrate the position and use of the truing device, and may be of any appropriate form or construction.

The truing device consists of a standard 1, which is preferably clamped in a longitudinal T-groove in the bed-plate in the manner in which the head and foot stocks are secured to the same groove, as is well understood. It is formed with a bifurcated or slotted upper end, to which is secured a cross-bar 2 by means of a clamping-screw 3 of common form. Said cross-bar is also formed with a slot 4 at the end which is secured to said standard, the connection thus permitting it to be adjusted vertically on said standard and horizontally across said standard, the set or clamping screw 3 permitting it to be secured at any adjustment vertically or transversely to suit the size of the work over which it is to be used. In a vertical perforation in the outer end of said cross-bar is mounted a vertical stem 5, secured by a clamping-screw 6 in any position desired, and on its lower end it carries the carbon-holder 7. Said carbon-holder extends out horizontally therefrom and has the carbon 8 (usually a diamond) on its point. Said carbon-holder consists of a shank mounted in a transverse perforation in the stem 5, being secured therein by a set-screw 9. By loosening said set-screw said holder can be turned to bring any angle or corner of the diamond which is best adapted for the work into position to do the cutting.

In operation the carriage carrying the emery-wheel is backed away from the work sufficiently to permit the tool to be inserted between them. The cross-bar 2 is then adjusted to that point where its lower edge will be in the same plane as the top surface of the work and the stem or carbon-holder will rest with its back against the front side of the work, said stem being adjusted so that the carbon point will come opposite the center of the emery-wheel. Said wheel being then put in motion and adjusted to bear slightly against the carbon point and being mounted longitudinally on its carriage, or the carbon being moved across the face of said wheel, its surface will be cut perfectly true, straight, and parallel to the work, and any portions of its surface that may have become glazed or have particles of metal embedded therein will be cleaned and rendered in the best condition for effective grinding. When not in use, the cross-bar 2 can be turned back out of the way and secured by the set-screw 3 or it can be removed by lifting out of the bifurcated top of standard 1, if preferred.

Having thus fully described my said inven-

tion, what I claim as new, and desire to secure by Letters Patent, is—

1. A device for truing emery-wheels which consists of a carbon point carried on a vertically and horizontally adjustable part mounted to be supported by the work being operated upon by the emery-wheel, whereby it may be used over work of different diameters without removing said work, substantially as set forth.

2. A device for truing emery-wheels comprising a standard having a vertical slot, a cross-bar having a longitudinal slot mounted on said standard by adjusting means, a stem adjustably secured to said cross-bar, and a carbon point carried by said stem, substantially as set forth.

3. In a device for truing and dressing emery-wheels, the combination of the holding devices arranged to be adjusted vertically and horizontally, whereby said holding devices are adapted to embrace work of different sizes, and be supported thereby, of a carbon-holder carrying the carbon point, mounted to be rotated in its seat, substantially as described and for the purpose specified.

4. In a device for truing and dressing emery-wheels, the combination, of the vertical standard having a bifurcated top, the horizontal bar 2 formed with a slot 3, mounted thereon by means of a clamping-screw, the vertical stem 5 adjustably secured to the outer end of said cross-bar, and the carbon-holder with the carbon point carried on the lower end of said stem, all substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Waynesborough, Pennsylvania, this 31st day of August, A. D. 1899.

ABRAHAM B. LANDIS. [L. S.]

Witnesses:

H. S. STAUFFER,

D. M. RUSSELL.