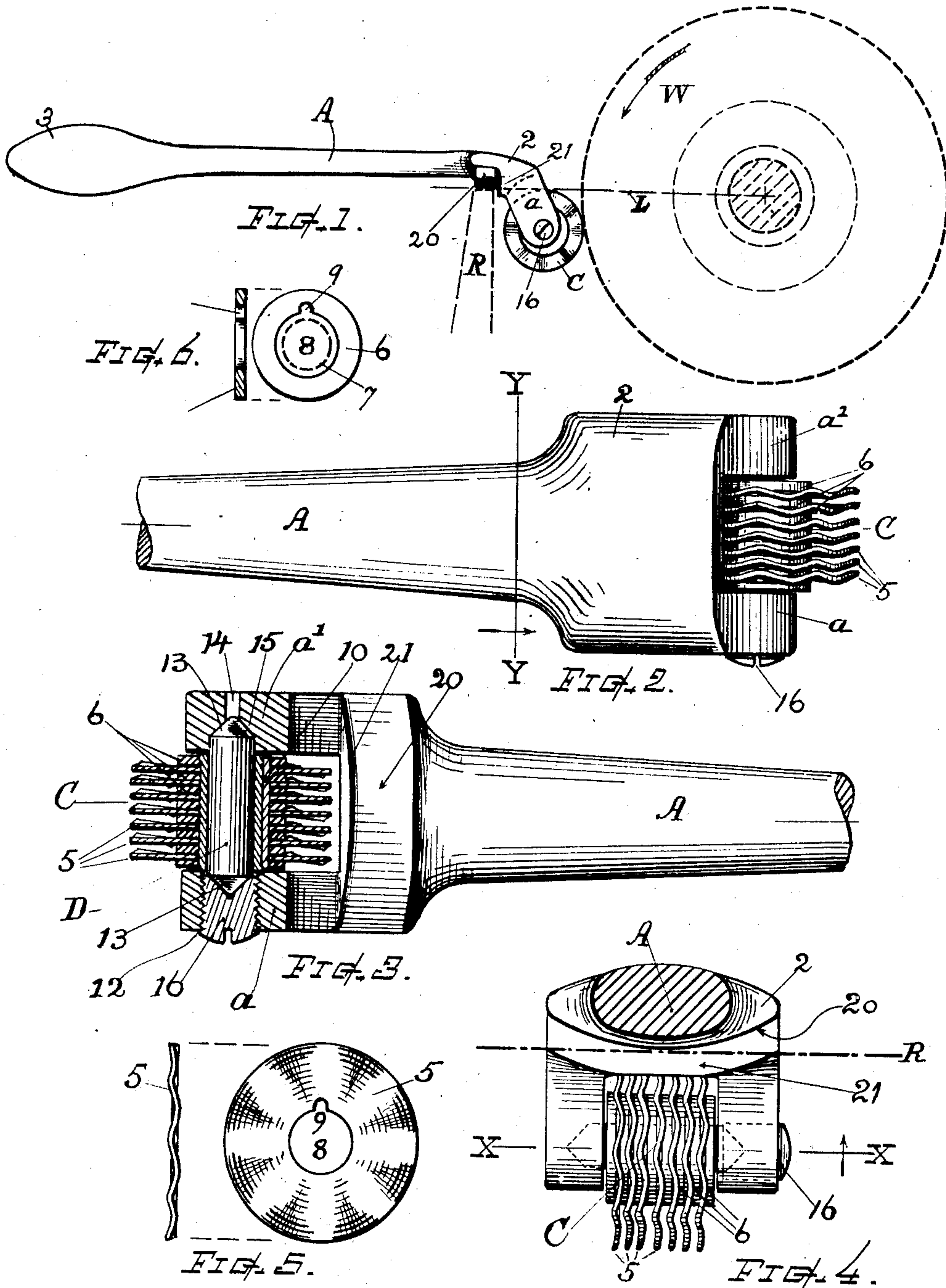


No. 826,817.

PATENTED JULY 24, 1906.

E. WRIGHT.
EMERY WHEEL DRESSING TOOL.
APPLICATION FILED APR. 9, 1906.



Witnesses—

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EDWARD WRIGHT, OF WORCESTER, MASSACHUSETTS.

EMERY-WHEEL-DRESSING TOOL.

No. 826,817.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed April 9, 1906. Serial No. 310,868.

To all whom it may concern:

Be it known that I, EDWARD WRIGHT, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improved Emery-Wheel-Dressing Tool, of which the following is a specification, reference being made therein to the accompanying drawings.

My present invention relates to certain features of construction and to the combination and embodiment of the same in an instrument of the class specified for truing or dressing off emery-wheels and the like, the object being to render the instrument of greater efficiency and more convenient and easy for operation.

The particular features of invention claimed are set forth in the following detailed description and definitely pointed out in the summary.

In the drawings, Figure 1 represents a side view of my improved emery-wheel dresser as applied to use. Fig. 2 is a top view, the end portion of the handle-lever being omitted. Fig. 3 is a bottom view of the same with the roller and its supporting-ears shown in section at the position of line X X on Fig. 4. Fig. 4 is a vertical transverse section at line Y Y on Fig. 2 looking toward the head. Fig. 5 shows a separate side view and edge view of one of the cutter-disks employed in the dressing-roller, and Fig. 6 shows a separate side view and section of one of the washers employed in the dressing-roller.

Referring to the drawings, A indicates the handle-lever or frame, comprising a head portion 2 and a hand-grip portion 3 of suitable shape.

C indicates the dressing-roller, and D its supporting axle or pin.

In accordance with my invention the fork or ears *a* and *a'* for supporting the axis-pin D are arranged in a downwardly-offset relation in respect to the plane of the handle-lever, the space for the roller C being wholly below the level of the head 2. Said ears are parallel with each other at the sides of the roller-space and are best somewhat forwardly inclined at their lower ends, and the roller C runs loose upon the axis-pin D, mounted between the ears near their lower extremities.

The dressing-roller or cutter-roll C is composed of a series of thin spring-steel disks 5, cut from about No. 17 gage sheet-steel, and a series of adjacent washers 6 of less diameter

than the disks, said disks and washers being alternately arranged upon a tubular bushing 7, that extends through their central opening 8 and has its ends riveted slightly for securely confining the parts together. The disks and washers are provided with an eccentrically-disposed recess or opening 9 to accommodate a wire pin 10, whereby the entire series of disks and washers are caused to rotate in unison.

The cutter-disks 5 are corrugated laterally at their outer edges, and being formed of spring-steel of such thin gage and properly tempered they will spring or yield somewhat under the strain and pressure to which they are subjected when in operation. This yielding action increases their effectiveness in disintegrating the material of the wheel to be trued or dressed off.

The axis-pin D consists of a cylindrical body with conical or suitable centering end surfaces 13. One of the ears *a* is provided with a screw-threaded opening 12, through which the axis-pin D can pass, and the other ear *a'* is provided with a cavity or opening 14, having an internal shoulder 15 to match the end of the pin D. The axis-pin is held rigidly in position by means of a screw-plug 16, threaded into the opening 12 and having its inner end formed with a cavity or means that centers and supports the end of the axis-pin. (See section, Fig. 3.) The small opening 14 through the ear *a'* permits of the pin D being driven out with a pin-punch when the screw 16 is removed to facilitate replacement of cutter-rollers when required.

Upon the under side of the head or neck portion of the handle-lever adjacent to the downwardly-offset ears I provide a seating or bearing surface 20 and an approximately upright shoulder 21, extending crosswise of the bar. The surface 20, extending the full width of the head, is rounded or shaped as a transversely-disposed cylindrical segment, thus affording a rockable fulcrum-seat for sustaining the instrument when in use upon the top of the tool-rest R. (See dotted lines, Figs. 1 and 4.) The rounded surface 20 permits lateral rocking of the tool upon the rest as desired. The shoulder 21 is slightly curved horizontally, as best indicated in Fig. 3, to permit a slight swinging of the handle-lever sidewise, right or left, to force one edge of the roller against the wheel-face with more pressure than the other. The shoulder serves to keep the tool from slipping back on the

rest R when crowding the cutters against their work.

By the offset construction of the head or ears the roller and its axis are disposed below the level of the fulcrum-bearing, so that when in use the roller contacts with the periphery of the emery-wheel W, operated upon at a position some distance below a radial line L drawn from the center of the wheel to the fulcrum-point, the offset of the roller-supporting ears being in the direction in which the wheel W is revolved. This construction renders the tool practically self-balancing and also effects an undercut action. Consequently the tool can be much more easily held and manipulated by the operator, while the rounded fulcrum-seat 10 permits the convenient rocking of the tool upon the fulcrum-support or rest and enables the roller to be swung to one side or the other, more or less, to give a diagonal cut or pressure upon the face of the wheel W without liability of the tool being thrown from the hand or displaced, and the springing of the cutter-disks acts to disintegrate and discharge the granules of the emery-wheel surface in a more rapid and efficient manner than would otherwise be effected.

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

1. An emery-wheel-dressing tool, comprising a handle-lever with its head and projecting ear members forming a depending angle-lever extension thereto, a fulcrum-seat forming a transversely-extended rocker-surface on the under side of said lever-head, and a dressing-roller mounted in said ear members with its axis and working face below the level of said fulcrum-seat, substantially as shown and described.

2. A hand-tool for dressing emery-wheels, consisting of a handled bar having upon the under side of its head a rockable fulcrum bearing seat or surface, and provided with downwardly-offset ear members adjacent to said fulcrum bearing-seat, the cutter-roller and cutter-roll axis supported in said ear members and disposed below the plane of the handled bar and its fulcrum bearing-seat for effecting an angle-leveraged undercut contact with the work, substantially as and for the purpose set forth.

3. In an instrument of the character described, the handle-lever having its furcated head formed with downwardly-offset ear members, a transverse convex bearing or fulcrum seat on the under side of and extending

the full-width of the head, and a shoulder adjacent to the offset; in combination with the dressing-roller mounted within the head, its bearing-axle supported in the lower ends of the said offset ear members, and working below a line radial from the wheel-center through the fulcrum bearing-point, substantially as set forth.

4. In an emery-wheel dresser, a cutter-roller composed of a series of corrugated spring-disks and separating-washers of less diameter, in combination with a central tubular bushing connecting the same, a supporting-axle, and means consisting of an eccentrically-disposed wire pin passing through said disks and washers parallel with the axis for confining the spring-disks and washers to rotate in unison on the axle.

5. An emery-wheel dresser, comprising a handle-bar having at the rear end a broadened hand-grip portion, and provided at its head with downwardly-extended ears, the cutter-roller axis carried therein near their lower ends, and a bearing-surface upon the under side of the neck that extends laterally beyond the width of the cutter-roller adjacent to said ears, and positioned above the plane of the roller, for the purpose set forth.

6. In an emery-wheel dresser, the combination with the handle-frame having downwardly-offset ears, and the dressing-roller; of a pointed axis-pin having one end fitted in a conically-ended recess in one ear, and its opposite end supported by an axial bearing-screw having a conical recess fitting the end of the pin, and externally threaded into an opening within the opposite ear.

7. In an emery-wheel dresser, the combination with the handle-lever having the furcated head, and the rotatable dressing-roller, of an axis-support for said roller, consisting of a hardened cylindrical pin having conical end faces, a cavity formed in one member of the furcated head having a beveled interior shoulder fitting the pin, a screw-threaded opening formed in the opposite member of the head, and a screw-plug fitting in said opening and having its inner end cup-shaped for retaining the axis-pin and clamping it endwise against the shoulder by the opposite member.

Witness my hand this 5th day of April, 1906.

EDWARD WRIGHT.

Witnesses:

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