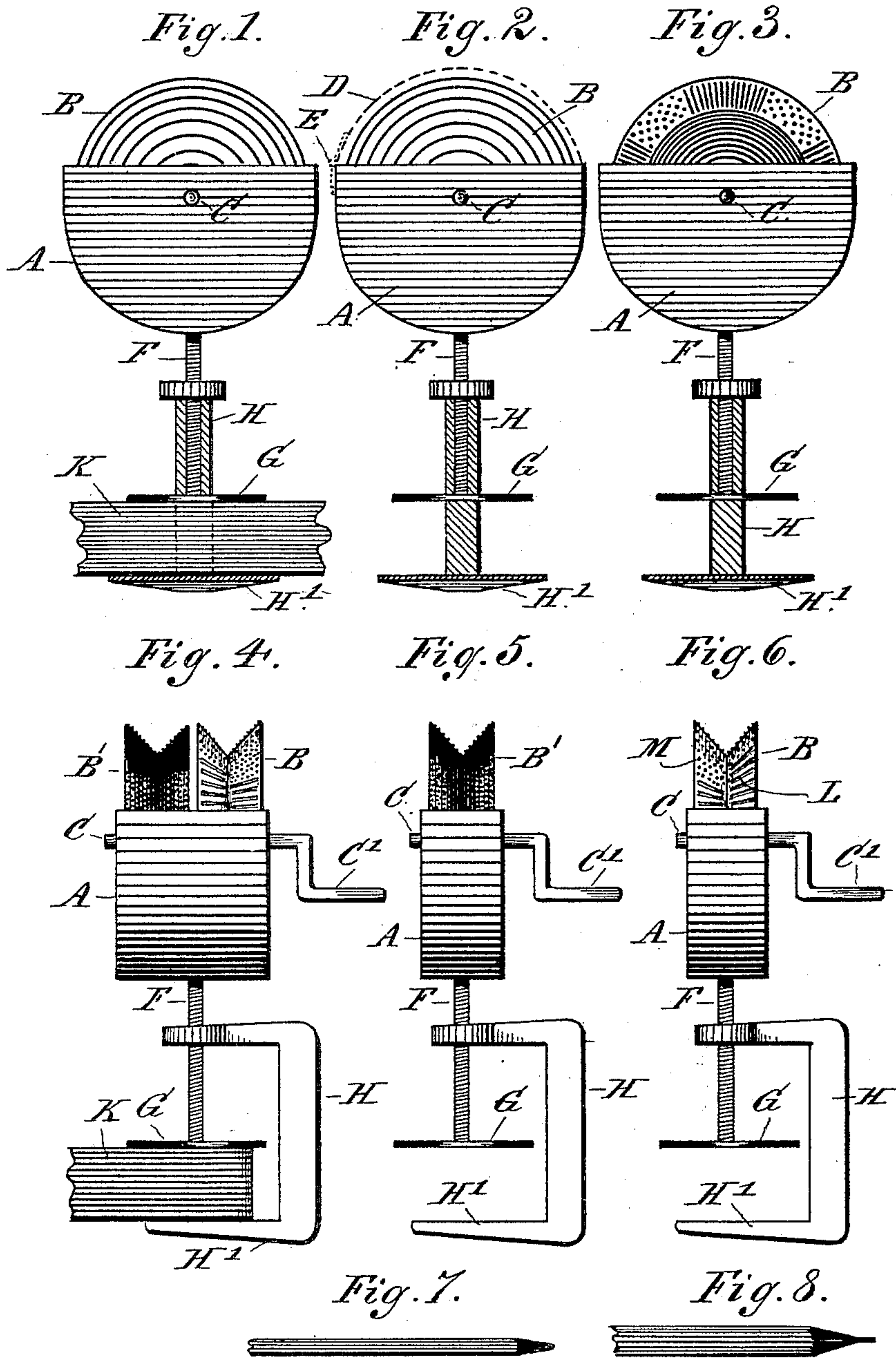


(No Model.)

A. O. TANNENBERG.
DIAMOND GROOVED PENCIL GRINDER.

No. 462,600.

Patented Nov. 3, 1891.



WITNESSES
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AUGUST O. TANNENBERG, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF
ONE-HALF TO WILLIAM H. BOFINGER, OF SAME PLACE.

DIAMOND-GROOVED PENCIL-GRINDER.

SPECIFICATION forming part of Letters Patent No. 462,600, dated November 3, 1891.

Application filed May 18, 1891. Serial No. 393,187. (No model.)

To all whom it may concern:

Be it known that I, AUGUST OTTO TANNENBERG, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in a Diamond-Grooved Pencil-Grinder; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in slate and lead pencil sharpeners; and it consists in the peculiar construction, certain novel combinations, and adaptation of parts hereinafter described, and particularly pointed out in the claims appended.

In the accompanying drawings, Figure 1 is a side elevation of my improved pencil-sharpener. Fig. 2 is a similar view showing a hinged cover in dotted lines. Fig. 3 is an elevation of the trough in which the wheel is mounted, together with a longitudinal vertical section of a wheel especially adapted for sharpening lead-pencils. Fig. 4 is a front elevation disclosing slate-pencil sharpener and a lead-pencil sharpener fixed side by side upon the same shaft. Fig. 5 is a front elevation disclosing a wheel especially adapted for sharpening slate-pencils. Fig. 6 is a similar view disclosing a wheel especially adapted for sharpening lead-pencils. Fig. 7 is a view of a slate-pencil as sharpened by my improved device, and Fig. 8 is a view of a lead-pencil sharpened by my improved device.

Referring by letter to said drawings, A indicates the trough in which the shaft C of my improved sharpening-wheel is journaled. This trough A, which is preferably of a semi-circular form, as illustrated, and of a width sufficient to allow a free movement of the sharpening-wheel, is fixedly mounted upon a vertical screw-thread shaft F, which takes through a threaded eye in one branch of a clamping-iron H and is provided at its lower end with a clamping-plate G, which serves, in conjunction with the lower branch H' of the said clamping-iron, to attach my improved device to a table, desk, or the like. Fixed upon the shaft C, which is provided with a crank-han-

dle C', is a sharpening-wheel B, which may be formed of iron or other suitable material. This wheel B, as better illustrated in Fig. 5 of the drawings, is provided with a grooved periphery of approximately V form in cross-section, the sides of which are provided alternately with series of knives or cutting-blades, as L, and file or toothed portions, as M, whereby it will be readily perceived that the wood of the lead-pencil will be cut and smoothed and the lead thereof will be ground to a point.

By the provision of the grooved periphery of V form in cross-section it will be readily perceived that the sharpening of the pencil is facilitated, inasmuch as said groove conforms in shape to the tapering point to be formed, and two of its sides will act upon the pencil at the same time.

In Fig. 5 of the drawings I have illustrated a wheel B', especially adapted for sharpening slate-pencils, which wheel is similar to the wheel B, with the exception that, instead of its peripheral groove being provided with cutting-blades and file-surfaces, it is provided entirely with a file or grinding surface, which is best adapted for sharpening slate-pencils.

In Fig. 4 of the drawings I have illustrated the slate-pencil and lead-pencil sharpening wheels as mounted upon the same shaft and turning in the same trough.

In Fig. 2 of the drawings I have illustrated by dotted lines a cover D, connected to the trough A by a hinge E; but inasmuch as said cover is not essential I do not desire to be confined to the use of same.

In operation the end of the pencil to be sharpened is held within the peripheral groove of the sharpening-wheel and the latter is rotated until the point desired is attained.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A rotatory wheel for sharpening pencils, having a grooved periphery of approximately V form in cross-section, series of knives or cutting-blades, and the file or toothed portions arranged alternately on the sides of said groove, substantially as and for the purpose set forth.

2. In a device for sharpening pencils, the combination, with the trough and the shaft journaled therein, of a sharpening-wheel mounted on said shaft and having a grooved 5 periphery of approximately V form in cross-section, substantially as and for the purpose set forth.

3. In a device for sharpening pencils, the combination of a sharpening-wheel fixed on 10 a shaft journaled in suitable bearings and the threaded rod connected to the bearings of the wheel-shaft and provided at its free

end with a clamping-plate, in combination with the clamping-iron having the clamping branch and the branch provided with a 15 threaded eye to receive the threaded rod, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST O. TANNENBERG.

Witnesses:

HELMUTH HOLTZ,
PERCY D. PARKS.