

(No Model.)

G. G. CROWELL.
TOOL FOR DRESSING ABRASIVE SURFACES.

No. 426,490.

Patented Apr. 29, 1890.

Fig. 1

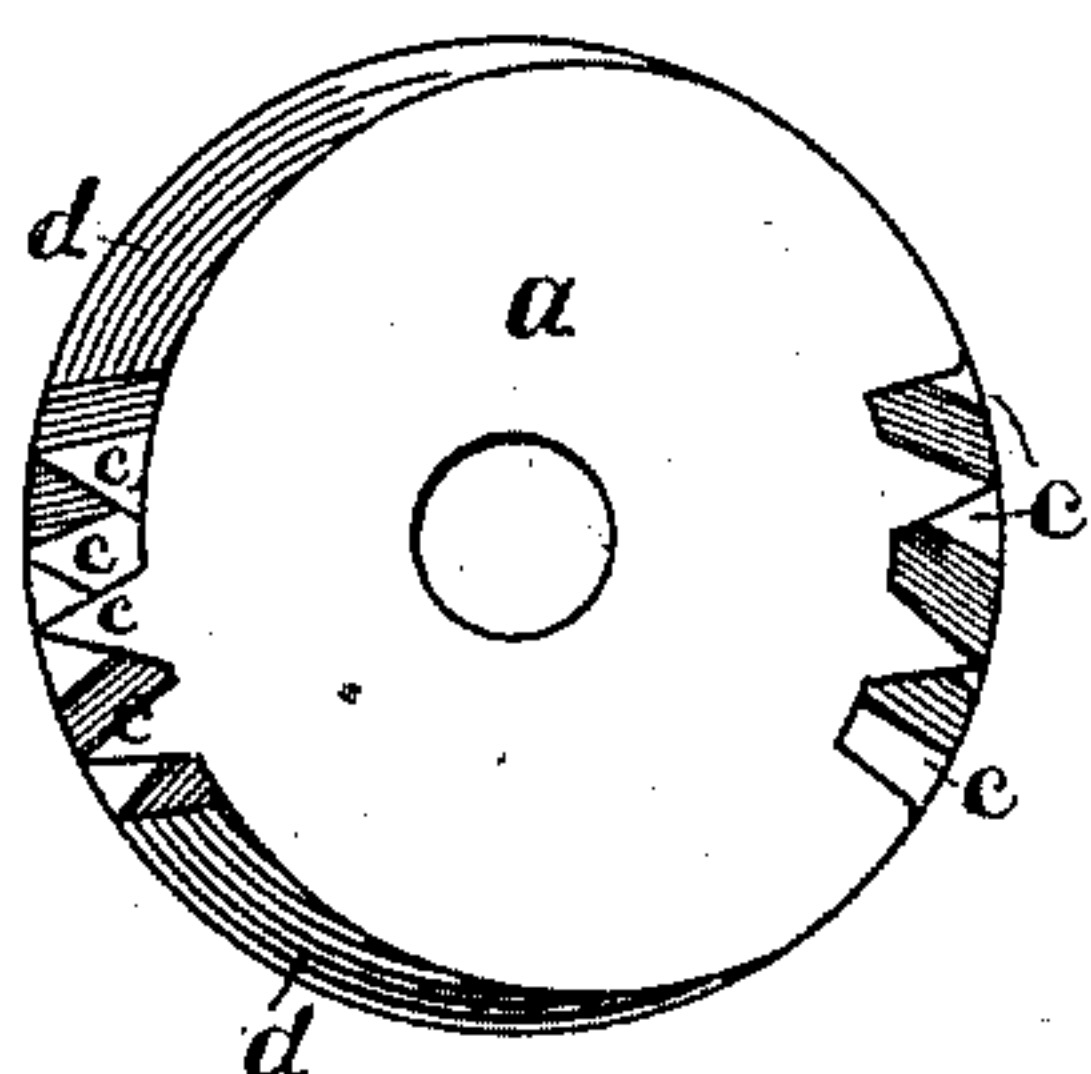


Fig. 2

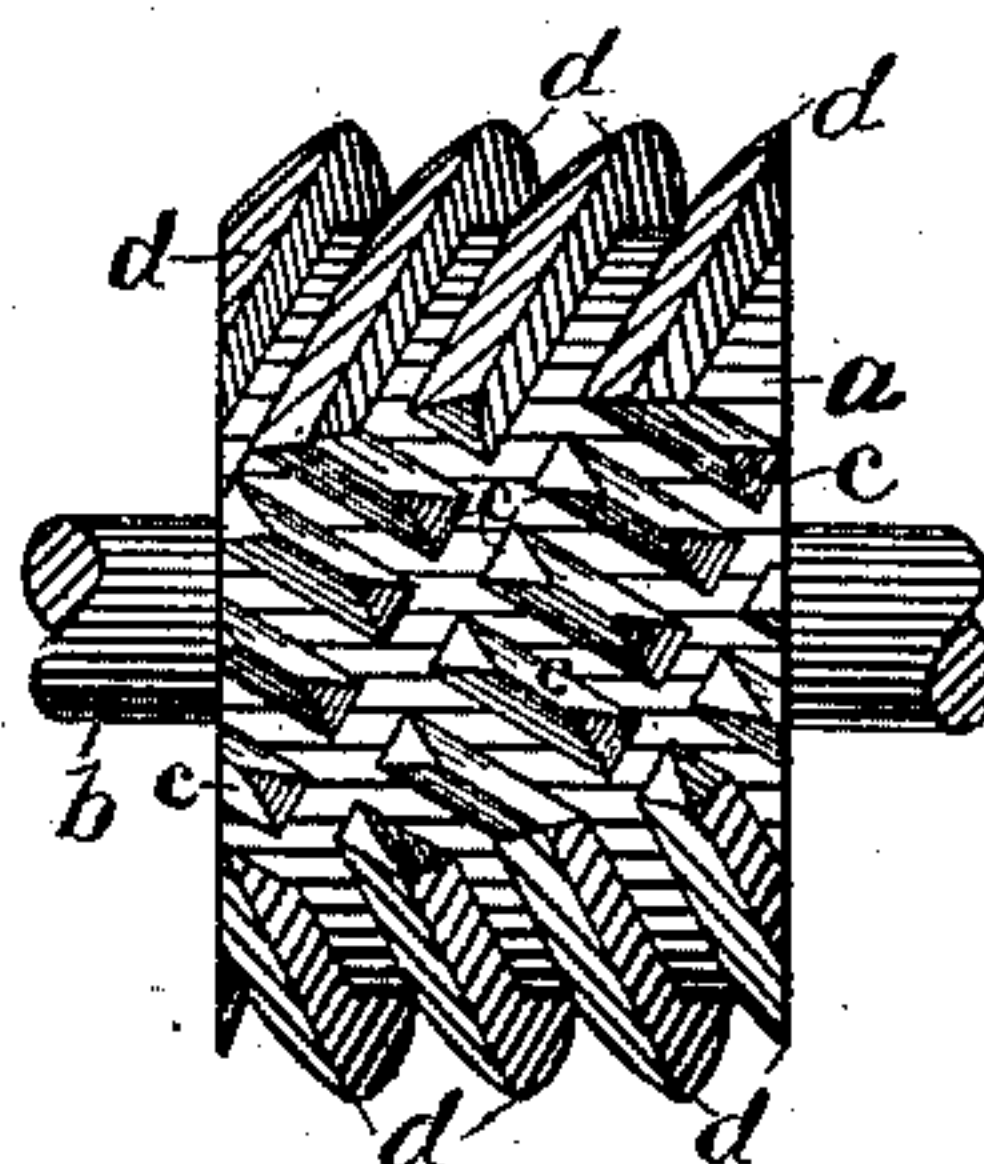
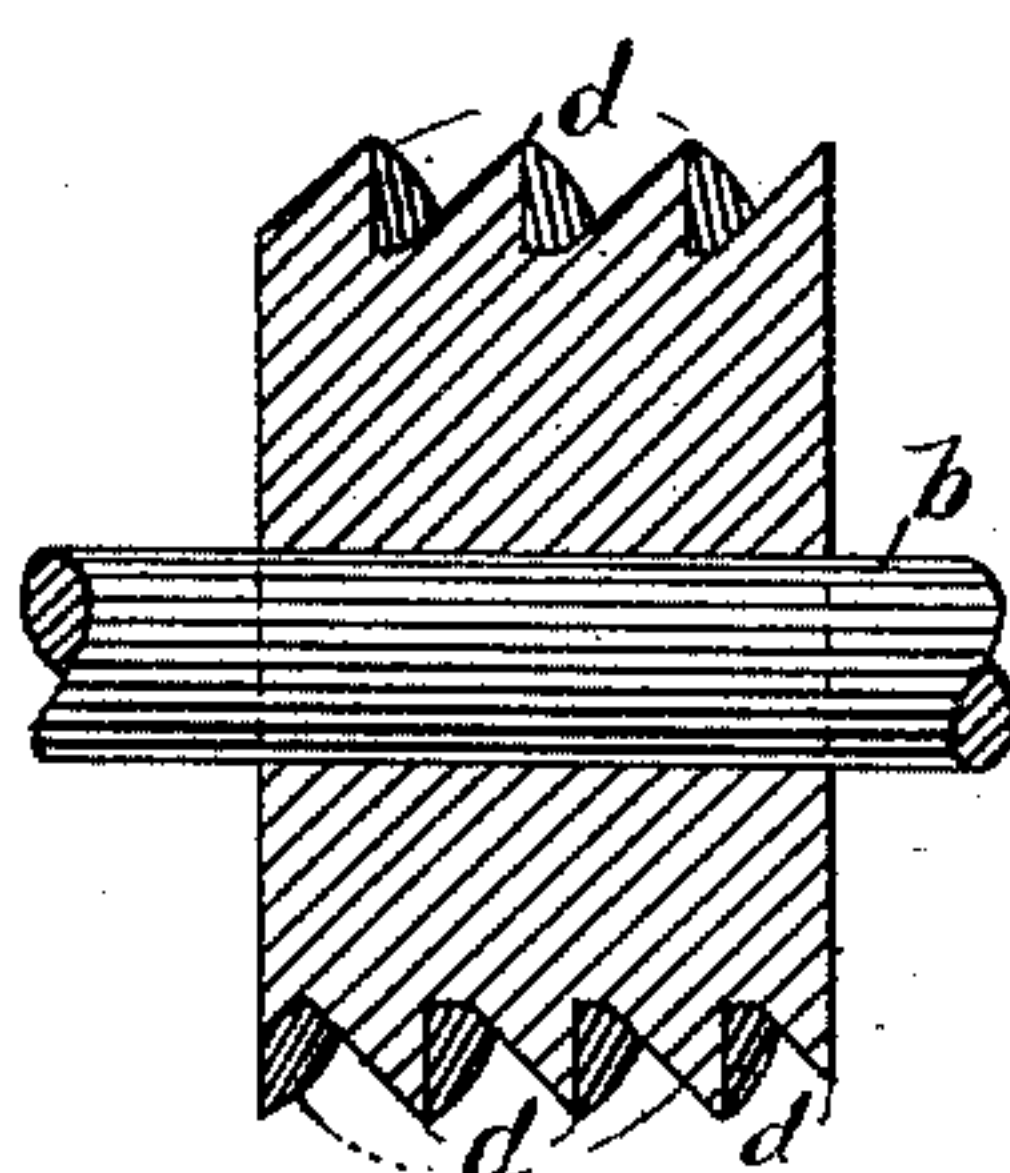


Fig. 3



WITNESSES:

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TOOL FOR DRESSING ABRASIVE SURFACES.

SPECIFICATION forming part of Letters Patent No. 426,490, dated April 29, 1890.

Application filed January 2, 1890. Serial No. 335,624. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. CROWELL, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Tools for Dressing Abrasive Surfaces, of which the following is a specification.

My invention relates to the improvement of tools for dressing abrasive surfaces, and has particular relation to the improvement of the dressing-wheel therefor.

The objects of my invention are to provide a dressing-wheel of this class with a peculiar and superior dressing-surface, by means of which the grinding-surfaces of emery-wheels or grindstones may be properly dressed and a superior abrasive surface produced, and to construct the same in a durable and neat form. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is an end view of my improved dressing-wheel. Fig. 2 is a plan view of the same, and Fig. 3 is a central vertical section of the dressing-wheel.

Similar letters refer to similar parts throughout the several views.

a represents the body of my improved wheel, which is adapted to be mounted centrally, in the usual manner, upon a short shaft *b*, which may be pivotally supported in a handle such as is shown and described in my former patent, No. 410,581, of September 10, A. D. 1889, or in any well-known form of support.

As shown in the drawings, the dressing-surface of periphery of my wheel is divided into four spaces, each space presenting a different form of cutting or dressing surface from that which adjoins it. It is obvious that said periphery may be divided into any desired number of such spaces or surfaces. I will, however, describe the wheel as having but four spaces, as shown. Two oppositely-located spaces, each of which forms approximately one-fourth of the circumference of the wheel, are each provided with a cutting or dressing

surface produced by the formation thereon, respectively, of right and left hand threads *d*. The two oppositely-located spaces which are between these threaded spaces are each provided with diagonal rows of oblong teeth *c*. The teeth *c* of one of these spaces are formed by the continuation of the left-hand screw-threads of the adjoining space and a series of parallel grooves which cross said left-hand screw-thread continuations, these latter grooves being independent of and distinct from the right-hand threads. The teeth of the opposite toothed space are formed by the continuation of the right-hand threads and by the crossing thereof of a series of parallel grooves, which are independent of and distinct from the left-hand threads.

From the herein-described alternate arrangement of the teeth and threads, and from their relative position on the body, it will be seen that the wheel revolving in the usual manner against the surface to be dressed will produce indentations, cuttings, &c., at such varying angles as to greatly facilitate the process of attrition or abrasion and insure a uniform dressing.

The use and results of teeth formed by the intersecting right and left hand threads is described in the application for my said former patent; but as shown herein the character of teeth formed differ from those mentioned and are used in combination with comparatively long single threads running at an angle therewith.

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

In a tool for dressing abrasive surfaces, the wheel *a*, having its periphery divided into spaces from which project, as described, alternately-parallel rows of teeth *c* and screw-threads *d*, the latter running at an angle from the former, substantially as described.

GEORGE G. CROWELL.

In presence of—

C. C. SHEPHERD,
BARTON GRIFFITH.