

Potter & Arnold,
Graining Tool,
N^o 39,953. Patented Sep. 15, 1863.

Fig. 2

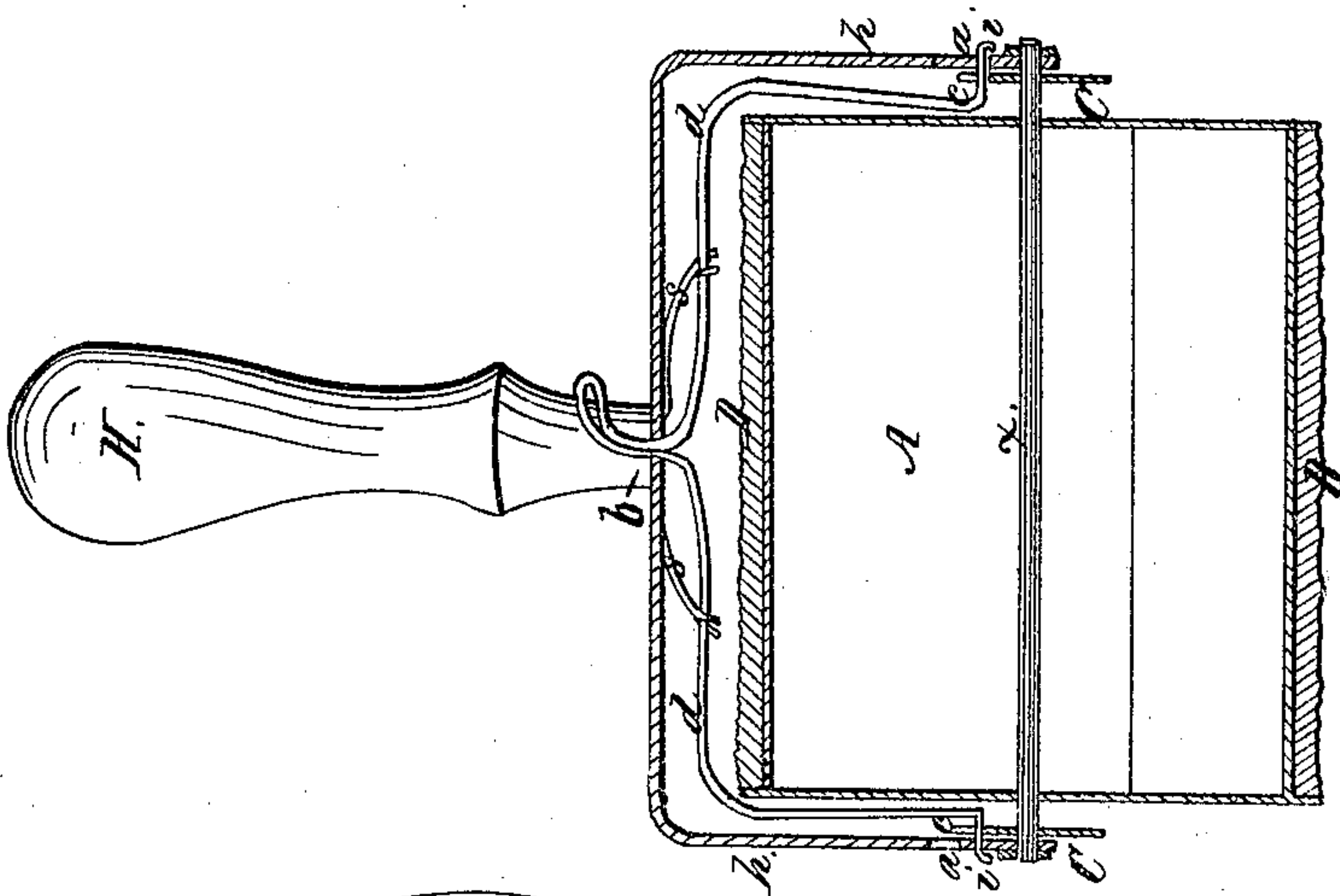
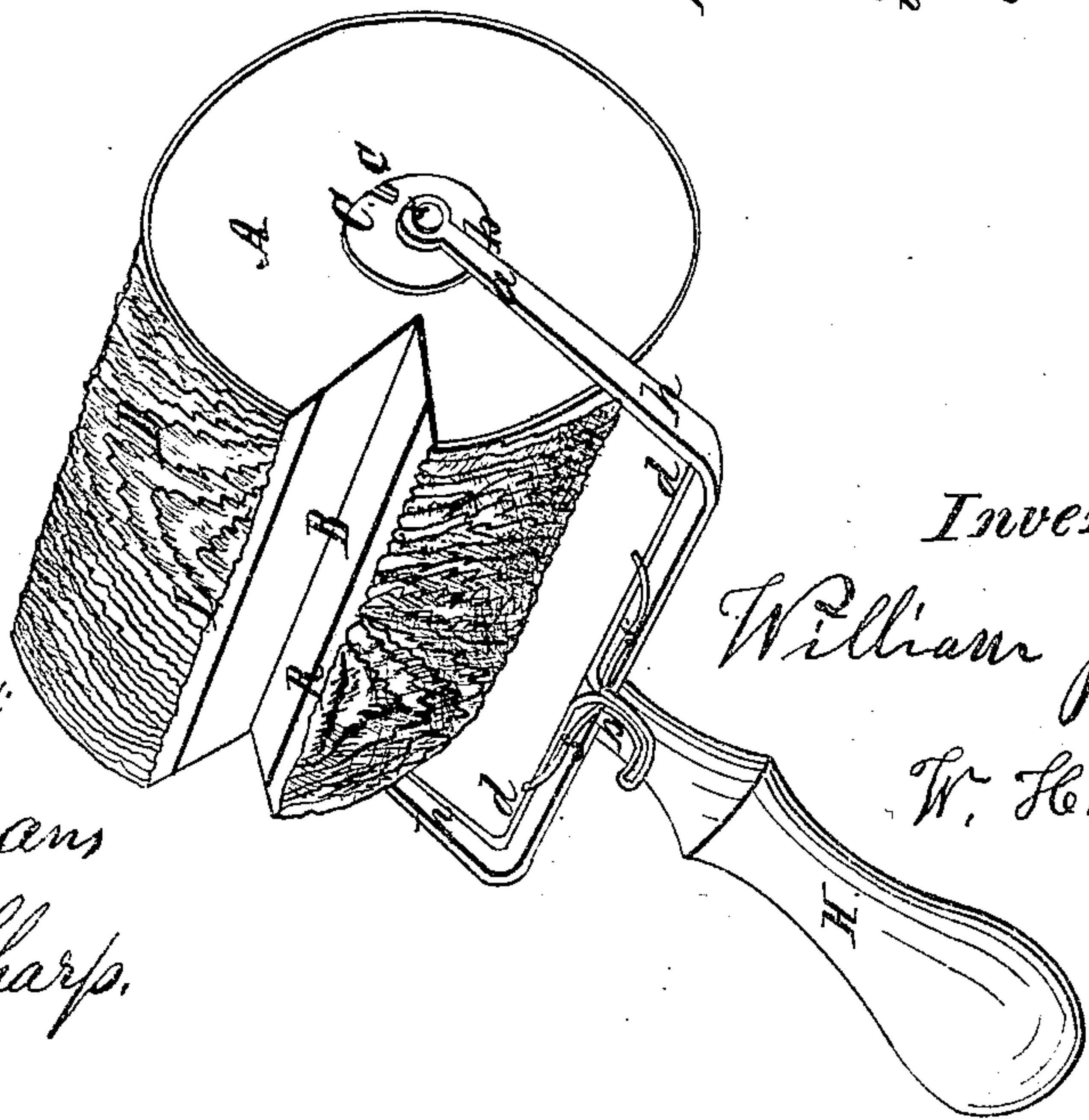


Fig. 1.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM J. POTTER AND WILLIAM H. ARNOLD, OF CHICAGO, ILLINOIS.

GRAINING-TOOL.

Specification forming part of Letters Patent No. 39,953, dated September 15, 1863.

To all whom it may concern:

Be it known that we, WILLIAM J. POTTER and WILLIAM H. ARNOLD, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Implements for Graining, Fresco, and other Kinds of Ornamental Painting; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

In the said drawings, which are hereunto annexed, Figure 1 represents a perspective view of our invention, and Fig. 2 a sectional view thereof through the center.

Similar letters of reference in the different figures in the drawings denote corresponding parts of our invention.

Our invention consists in constructing a graining-roller—namely, a cylinder or roller whose convex surface is composed and consists of some elastic material impressed with the design to be grained or painted in relief—with a wedge shaped channel or groove in said convex surface, which extends longitudinally across said roller, forming two jaws or lips at the lines where the sides of said groove intersect said convex surface, thereby enabling the operator to grain or paint the extreme end of a door-panel or other depressed surface by adjusting one of said jaws or lips thereto, which cannot be effected with a roller unprovided with such groove.

It further consists in a novel arrangement whereby, by the operation of a spring, the revolution of the roller is suddenly checked and prevented when it has revolved around far enough to bring the lip or jaw opposite the one first adjusted in contact with the panel or surface being grained or ornamented.

It further consists in arranging the ornamental designs upon different rollers in such a manner that the right jaw of one roller will exactly match with the left jaw of another, while at the same time the general features of the designs upon each roller are different, thereby enabling panels or surfaces of any length to be readily grained with said rollers or sets of rollers without the frequent repetition of the same design, which would be the effect of using a single roller, or a roller unprovided with said groove and stop, as afore-

said, unless such rollers were of such vast size as to be impracticable and unwieldy for actual use.

To enable those skilled in the art to understand how to construct and use our invention, we will now describe the same with particularity.

We first construct a hollow cylinder or roller, of tin or some other suitable material, so as to render it as light and convenient as possible. This hollow cylinder (marked A in the drawings) is provided with suitable heads at each end thereof, and also with the wedge-shaped groove or notch aforesaid, which is marked B. The said groove may be wedge-shaped, as shown, or it may be of any other shape, the width thereof being about two inches. Through the center of said roller there passes a fixed shaft or axle, *x*, revolving with said roller and turning in bearings in the arms *h h* of the handle H.

C C represent two circular plates, of brass or other suitable metal, which are fixed upon the said axle or shaft passing through the roller, as aforesaid, and are provided upon the circumference thereof with the slots *c c*, there being one of said slots in each of said circular plates.

In the arms *h h* are cut the longitudinal slots *a a*, through which the pins or catches *i i* pass, said pins being fixed upon the bent rods *d d*, which pass through the slot *b* and slide back and forth therein, and are adjusted and kept pressed down toward the central shaft by the operation of the springs *s s*.

The convex surface of the roller hereinbefore described is covered over with a coating or slab of rubber, or some other suitable elastic material, (marked D,) upon which the design to be painted or imitated is impressed or molded in relief, so that by applying paint to said implement and moving the same over the surface to be grained the ornamental design or figures are stamped or painted thereon.

Several rollers of the same construction may be so arranged that while the ornamental design upon each may differ from the designs upon the others the right jaw of each (marked R in the drawings) shall exactly match in the design with the left jaw of another, (marked L in the drawings.) The said rollers may be arranged in sets of two or more, and numbered 1, 2, and so on, according to the number in

each set. By this arrangement, when long panels or surfaces are to be grained or ornamented, the operator commences with roller No. 1, and moves it along until the entire convex surface has come in contact with the panel and the jaw L rests upon the same, when roller No. 1 is laid down and roller No. 2 is taken up, and its right jaw adjusted carefully at the line where the other roller left off, and the operation continued as before until the work is finished, which shows one complete design without repetition or any break therein. To effect this arrangement, the elastic material upon which the design is impressed is prepared of the requisite length and width, and one end of said slab or piece is fastened to the jaw R of roller No. 1, and enough cut off to reach around said roller to the jaw L, when the remnant is again applied to the jaw R of roller No. 2, until the whole design is mounted.

To describe the mode of operation of our invention, suppose the slots *c c* in the circular plates C C to be brought around so that the springs *s s* will force the pins *i i* into said slots, and the roller be thus prevented from rolling. The paint is then applied, or may have previously been applied to said roller, and the jaw R carefully adjusted at the end of the panel. To allow the roller to revolve upon the panel, the operator, with his thumb, draws back the rods *d d*, thereby removing the pins *i i* from the slots *c c*, and permitting the roller to revolve. When the slots *c c* have passed by the slots *a a* in *h h*, the pressure may be

removed from *d d*, and the springs *s s* press the pins *i i* against the circumference of the plates C C. The roller continues to revolve until the jaw L is brought down upon the panel, when the slots *c c* have returned to the slots *a a*, and the pins *i i* snap into the said slots *c c* and stop the revolution of the roller, when another, No. 2, may be taken up, and the same process repeated until the entire panel is grained or the entire design is represented and imitated thereon.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. Constructing a roller, for graining and other ornamental painting, with the two jaws L and R, substantially as and for the purposes herein shown and described.

2. The combination and arrangement of the circular plate C, the rod *d*, provided with the pin *i*, the spring *s*, and the slots *a* and *c*, constructed and operating substantially as and for the purposes herein shown and specified.

3. Arranging said rollers in sets and the ornamental designs thereon in such a manner that one complete and perfect design may be grained or imitated by the employment of said rollers in sets, in the manner herein specified and described.

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