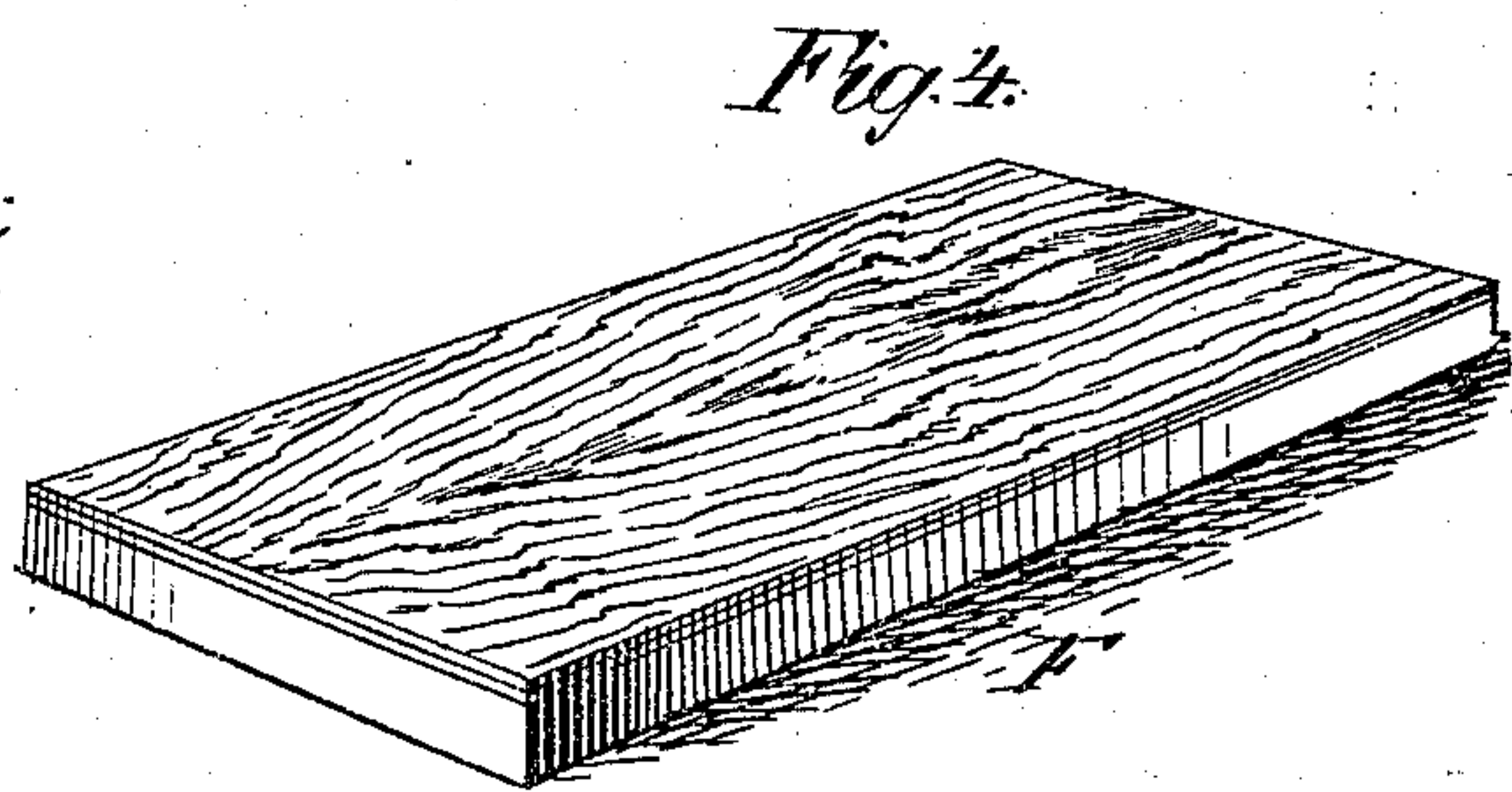
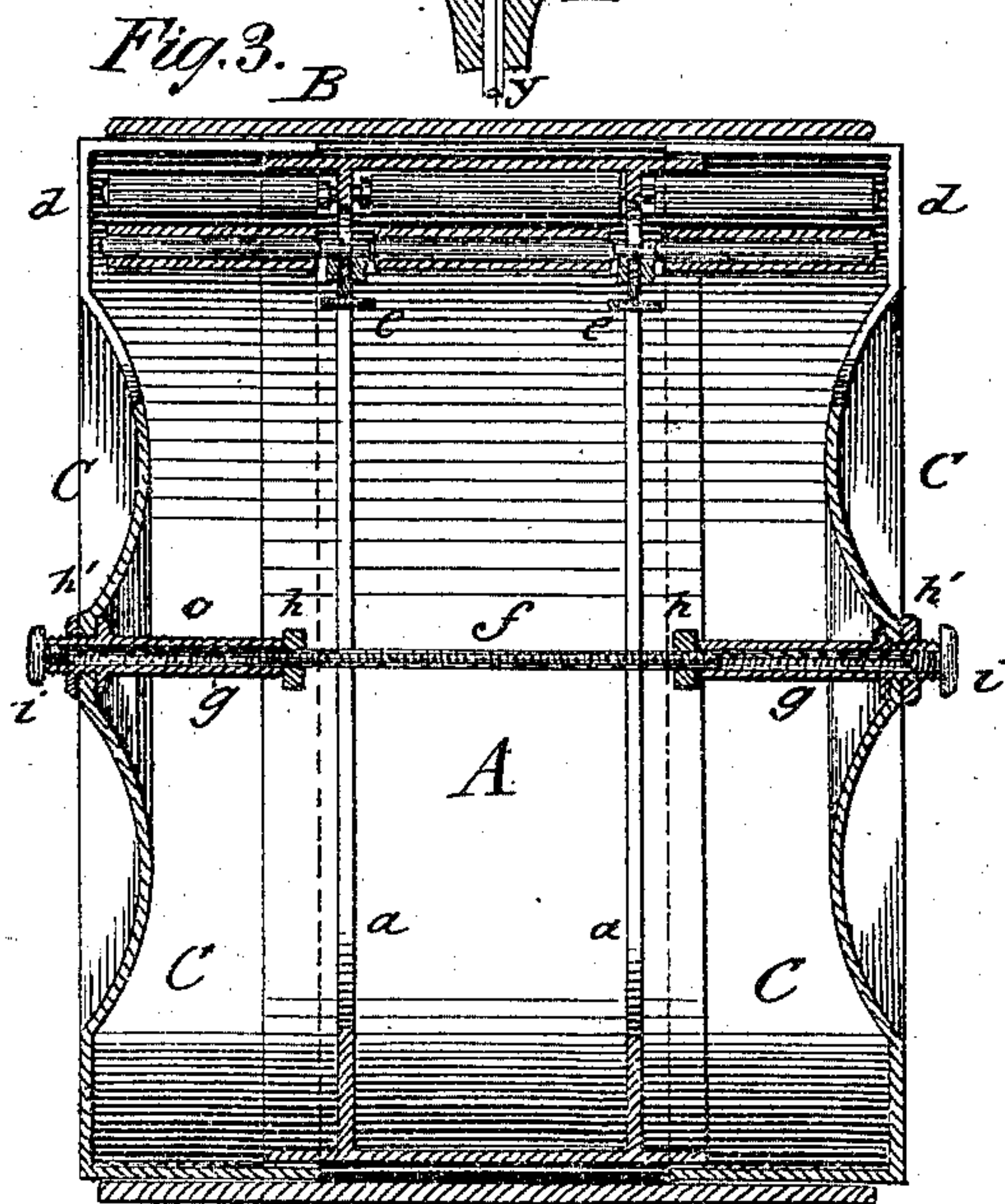
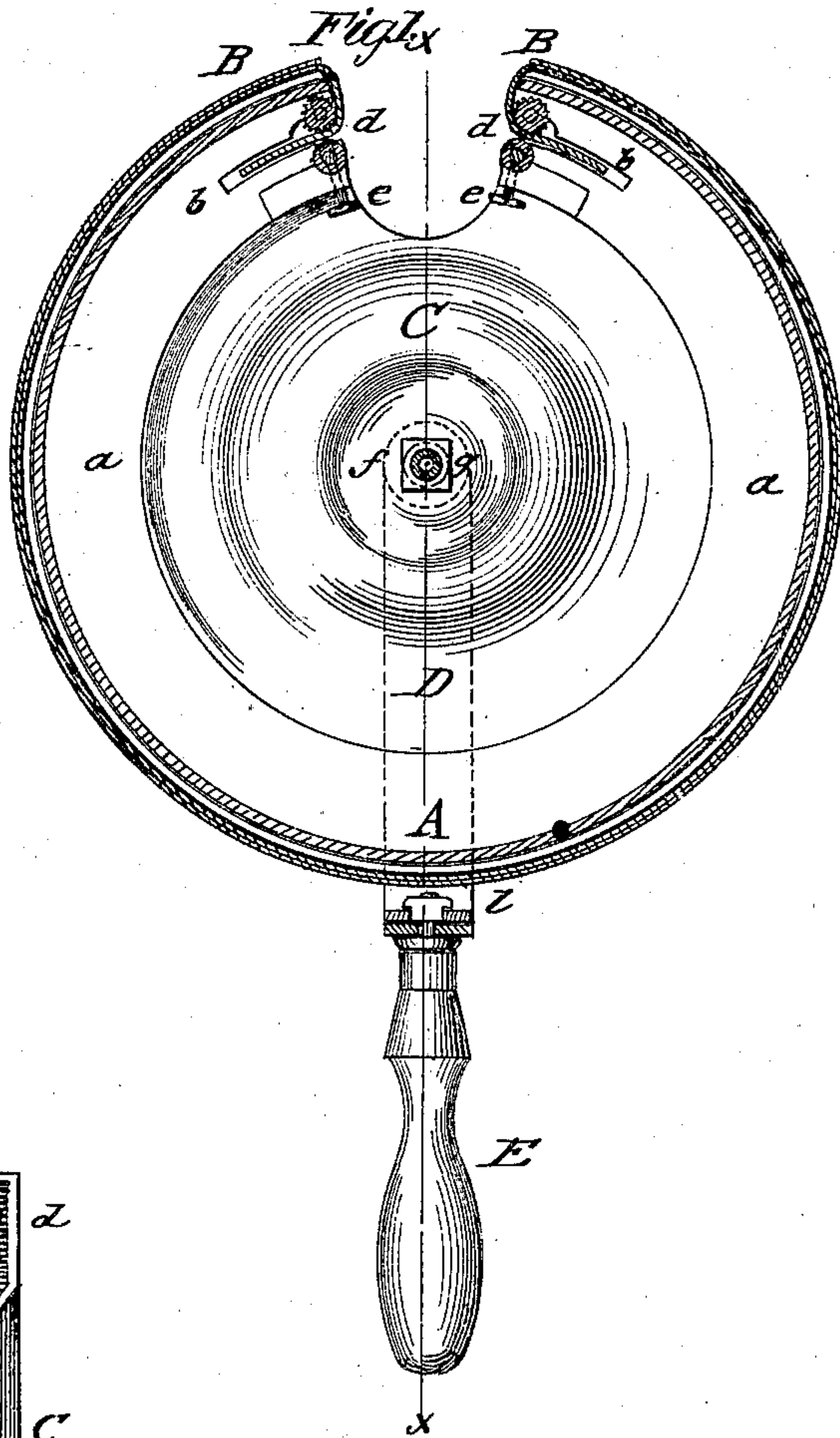
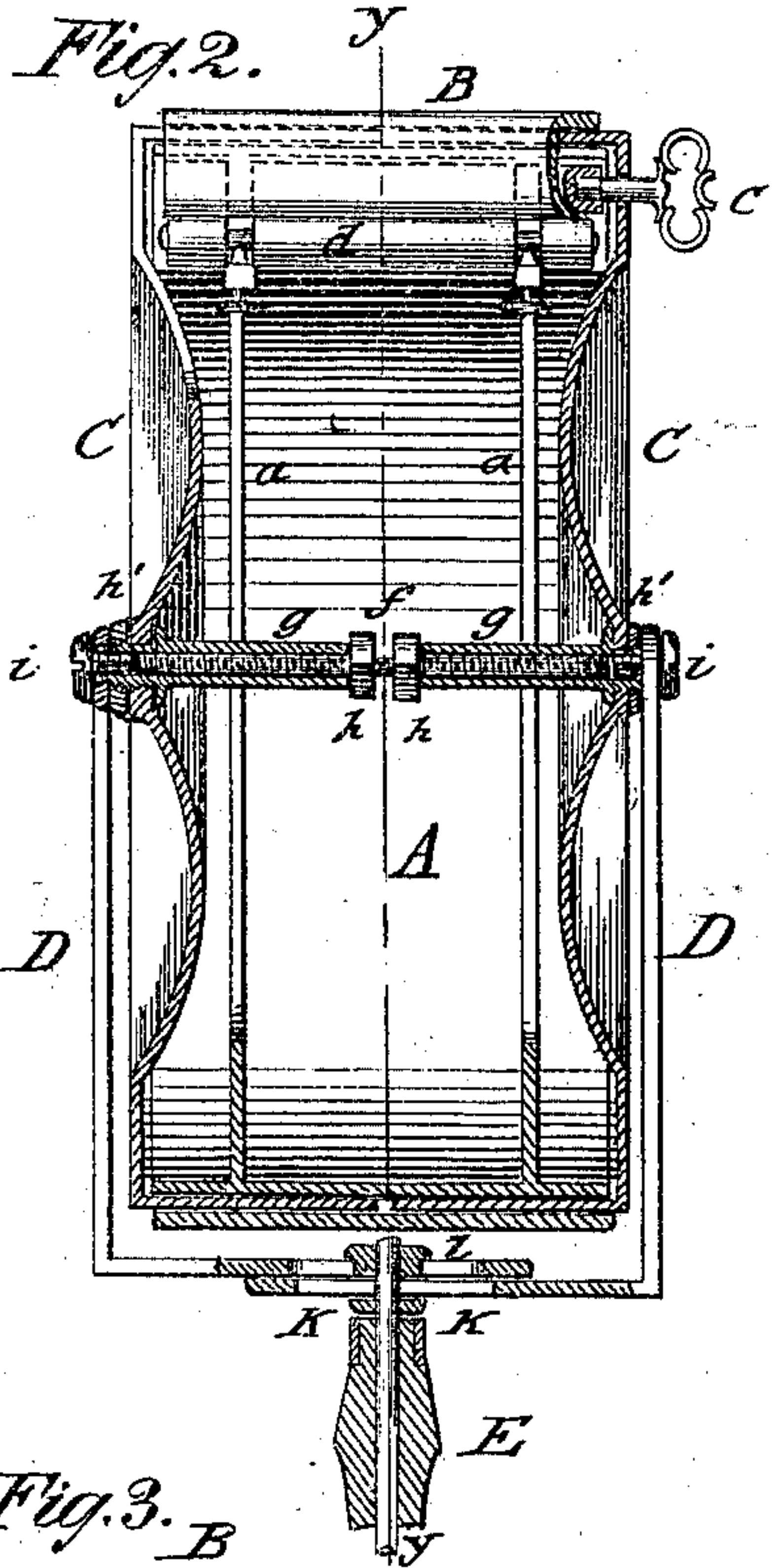


C. FALKE.

Apparatus for Graining Wood.

No. 143,444.

Patented Oct. 7, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES FALKE, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR GRAINING WOOD, &c.

Specification forming part of Letters Patent No. 143,444, dated October 7, 1873; application filed January 25, 1873.

To all whom it may concern:

Be it known that I, CHARLES FALKE, of the city, county, and State of New York, have invented a new and Improved Extension-Roller for Graining Wood, &c., of which the following is a specification:

Figure 1 is a vertical section of my invention on the line *y y*, Fig. 2. Fig. 2 is a vertical transverse section of the same on line *x x*, Fig. 1, showing a part broken off to show arrangement of key of the band-rollers. Fig. 3 is also a vertical transverse section, showing the roller extended to its full width; and Fig. 4 is a perspective view of a color-board for transferring the imitation grains.

Similar letters of reference indicate corresponding parts.

The object of my invention is, principally, to overcome the difficulties which have been hitherto experienced in the mechanical imitation of wood-graining, and to furnish to painters a machine which will accomplish this result, by turning out work equal in every respect to that of skilled labor, and capable of transferring the grains of every variety of wood. By the use of my invention, a great obstacle to the use of elastic rollers in transferring the grains of wood will be overcome, as the same can be used for graining panels and recesses of every size, which could not be grained by the old process. The expeditious way in which my machine can be applied to all the requirements of the art allows its use by every workman, saving time and dispensing with skilled labor. My invention consists in a roller, which may be laterally extended and adjusted to any desired width. The elastic surface readily transfers either the natural grain of wood, or artificially-prepared imitations, to any surface, whether small or large in extent.

In the drawing, *a* represents the interior body or frame of the roller, of cylindrical shape, made of brass, cast-iron, or other suitable material. A part of the surface is cut out for the admission of the hand to the interior of the roller. Strong ribs *a*, correspondingly cut, are placed on the inner side of the cylinder *A* for the purpose of strengthening the same. They are supplied with slots or recesses *b*, at their ends near the opening, with circular extensions above and below the slots,

which admit the insertion of two sets of small friction-rollers, *d*, connecting the ribs *a*. These rollers may be made either with india-rubber surfaces, or, preferably, one with india-rubber surface, the other of metal with longitudinal flutings, Figs. 1 and 3. A recess at one side, in the shaft of these latter rollers, provides for the insertion of a key, *c*, which imparts a rotary motion to the rollers, and takes hold of band *B*, stretching it tightly around the outer surface of the roller. Band *B* is made of flexible rubber placed on strong muslin or any other elastic material. The muslin ends are squeezed between the rollers, fitting into the slots *b*. Set-screws *e*, or other suitable means, press the rollers and muslin ends firmly together, securing an equal adhesion of band *B*. A series of bands, *B*, of different widths, corresponding to a similar series of sets of rollers, *d*, are provided and inserted according to the width of grain required to be transferred. Two drum-like covers or shells, *C*, inclose the frame *A*, and are movable thereon. Openings are cut into them similar to those of frame *A*, and for the same purpose. These shells *C* are connected and made laterally adjustable by a screw-bolt, *f*, and female screws *g g*. Nuts *h* on the inside and washers *h'* on the outside secure the rigid position of shells *C*. A metallic frame, *D*, is connected by set-screws *i* into the female screws *g* and shells *C*. One or two handles, *E*, are applied to the connecting-bars of frame *D*, which, by means of slots *K* and bolt and screw *l*, may also be laterally adjusted to the roller. In practice, I employ a board, *F*, upon which are placed several layers of paper, felt, or other elastic material, faced by water-proof parchment paper, into which are grooved, by a style or hard pencil, imitations of the grains of natural wood. Several boards may be prepared in this manner of the different varieties of wood used for graining. As knots or other defects of natural boards can be avoided by this method, a more perfect grain is obtained.

In using my extension-roller, the requisite width is taken; the shells are then adjusted by loosening the handle-frame, setting the female screws and shells to the desired width, fastening the handle-frame again, inserting the band-rollers and flexible band fitting that

width, pressing the roller over the color-board, and transferring then the grain-marks to the surfaces to be grained.

Having thus described by invention, I claim as new and desire to secure by Letters Patent—

1. In combination with frame A, the adjustable shells C, screw-bolt *f*, female screws *g*, nuts *h*, and washers *h'*, for the purpose described.

2. In combination with frame A and shells C, the adjustable bands B, band-rollers *d*, set-

screws *e*, and recessed slots *b*, as and for the purpose set forth.

3. In combination with the subject-matter of the foregoing clauses, the handle-frame D, set-screws *i*, slots K, bolt and screw *l*, as described.

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Witnesses:

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