W. O. DAY.

GRAINING-MACHINES.

No. 194,997. Patented Sept. 11, 1877.

Fig. 1.

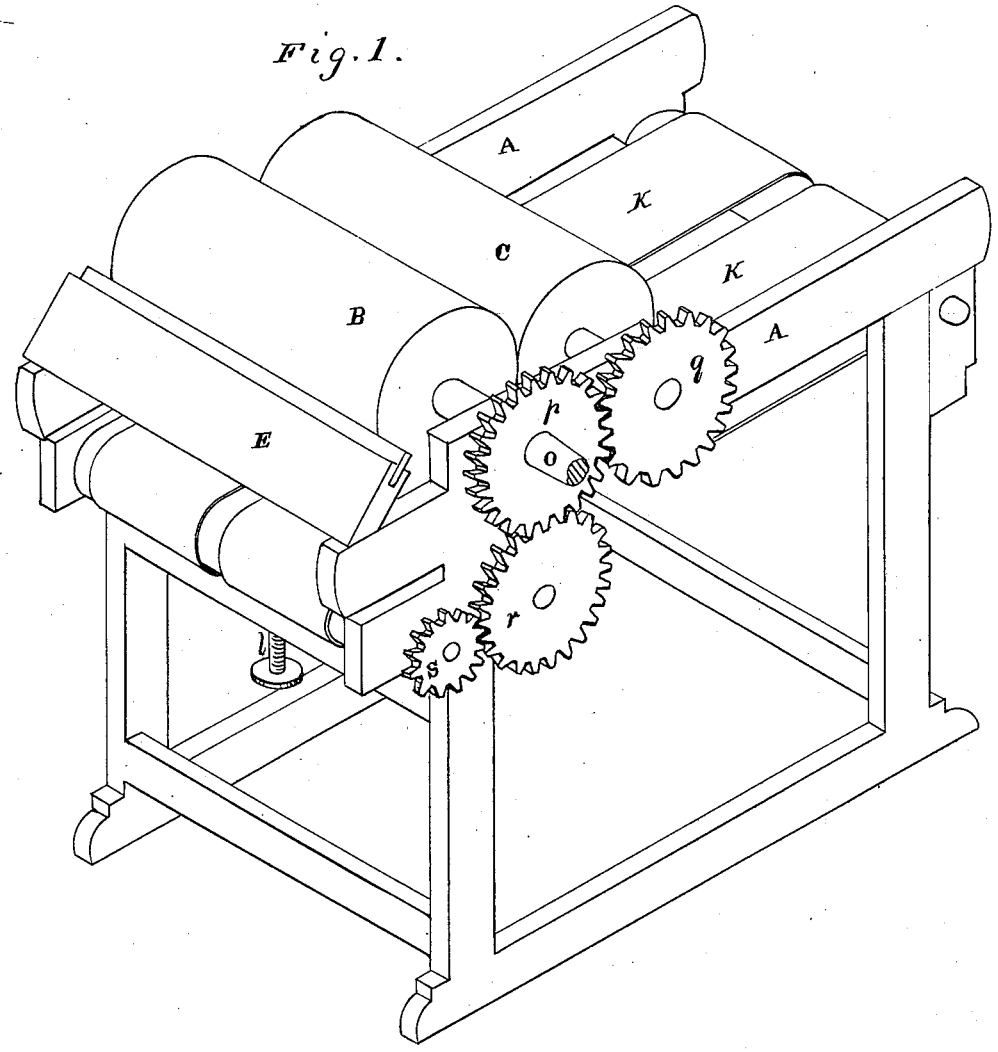
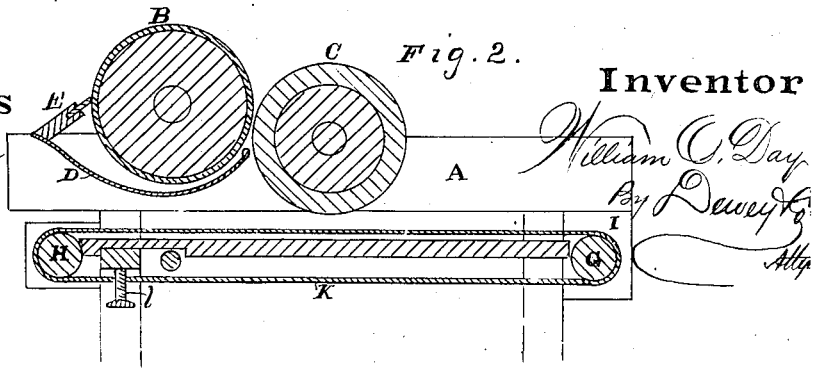


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM O. DAY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN GRAINING-MACHINES.

Specification forming part of Letters Patent No. **194,997**, dated September 11, 1877; application filed June 18, 1877.

To all whom it may concern:

Be it known that I, WILLIAM O. DAY, of the city and county of San Francisco, and State of California, have invented an Improved Graining-Machine; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to an improved machine for graining boards which have been planed and painted or otherwise prepared for graining.

Referring to the accompanying drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal section of the same.

Let A represent a suitable frame, upon which is mounted a graining-roller, B, and impression-roller C, side by side. The graining-roller is made of any suitable substance or material, (metal being preferred,) upon which the desired graining-pattern is engraved or otherwise delineated, while the impression-roller is made of a composition similar to that used in the manufacture of printers' rollers, so that it possesses a soft, spongy, or elastic surface. These rollers are mounted horizontally across the frame A, so that their faces are pressed slightly together, the impression-roller being so mounted that its under side projects somewhat below the under side of the graining-roller.

The lower part of the graining-roller B rotates in a pan or tray, D, in which the paint is contained, so that it continually supplies itself with paint.

E is a flexible scraper, which is mounted at an angle to the outside face of the graining-roller, so as to press against it. As the inked surface leaves the tray it is scraped by this scraper, so as to wipe off the surplus paint and allow it to run back into the tray, leaving the engraved impression or pattern filled. It then rolls in contact with the soft yielding surface of the impression-roller, which takes the paint from the graining-roller and imprints it upon the board, which is passed under it in contact with its lower side.

Across the front end of the frame A I mount a stationary roller, G, the upper edge of which is below the lower edge of the impression-roller, and at the opposite end of the frame I mount a similar roller, H, in an adjustable frame, I. An endless belt, K, passes around these rollers, upon which the boards are placed and passed beneath the rollers B C.

The frame I is adjusted up or down by a screw, *l*, according to the thickness of the board to be grained.

If preferred, both of the rollers G H around which the endless belt passes could be made adjustable, but usually one will be sufficient.

The machine is driven by power applied to a crank, O, which is attached to the extended journal of the graining-roller. A spur-wheel, *p*, on this journal engages with another spur-wheel, *q*, on the journal of the impression-roller, and also with a spur-wheel, *r*, below it. This latter wheel engages with a toothed wheel, *s*, on the journal of the adjustable roller so that the entire machine is driven from one crank.

By means of this machine I am able to grain boards with great celerity, as it is only necessary to run them beneath the rollers while the machine is in operation.

A number of rollers with different graining-patterns engraved on them can be kept on hand, so that a variety of work can be done.

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

A graining-machine consisting of the engraved graining-roller B, paint-tray D, flexible scraper E, composition impression-roller C, and the endless belt K, one or both ends of which are adjustable vertically, said parts being combined and arranged as described, and operated by crank O and gears *p q r s*, substantially as above specified.

In witness whereof I have hereunto set my hand and seal.

WILLIAM O. DAY. [L. S.]

Witnesses:

OLWYN T. STACY,

FRANK A. BROOKS.