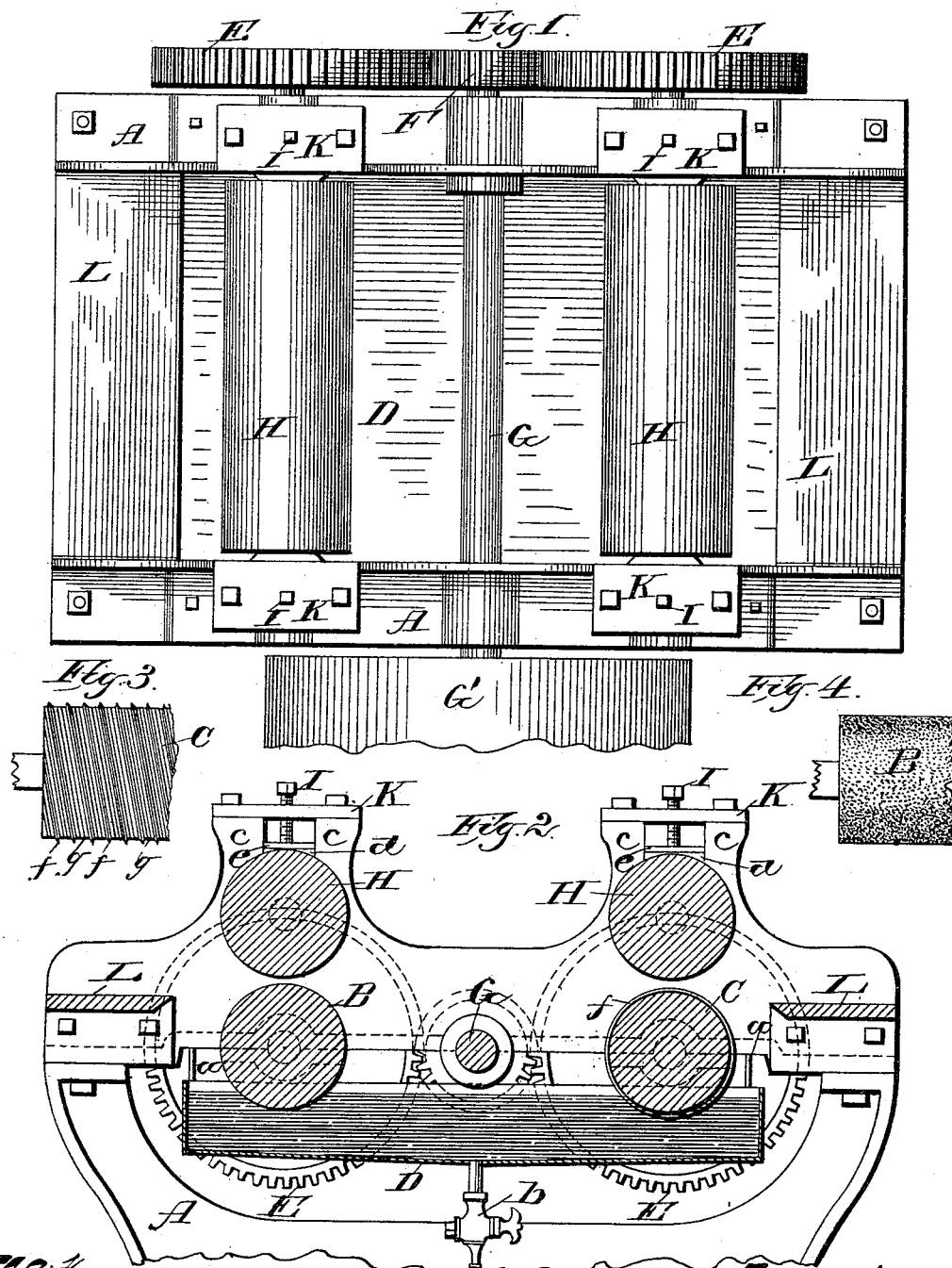


(No Model.)

C. BECHLY.
STAINING MACHINE.

No. 348,375.

Patented Aug. 31, 1886.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES BECHLY, OF SHEBOYGAN, WISCONSIN.

STAINING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 348,375, dated August 31, 1886.

Application filed June 1, 1886. Serial No. 203,717. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BECHLY, of Sheboygan, in the county of Sheboygan, and in the State of Wisconsin, have invented certain new and useful Improvements in Machines for Staining Cigar-Box Lumber; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to machines for staining cigar-box lumber; and it consists in certain peculiarities of construction, as will be hereinafter described with reference to the accompanying drawings, in which—

Figure 1 represents a top plan view of my invention; Fig. 2, a longitudinal vertical section; Fig. 3, a detail view of the indenting-roller, and Fig. 4 a similar view of a roughened roller.

Referring by letter to the drawings, A represents the main frame of my machine, provided with suitable bearings for the journals of staining-rollers B C, these latter parts being arranged to depend into a pan, D, that is secured to said frame by hangers *a* or other suitable means, and serves to contain staining-liquid, that is poured in from the top, and this pan has its bottom provided with a faucet, *b*, through which the liquid may be drawn off.

Each of the staining-rollers B C has keyed to one of its journals a gear-wheel, E, and motion is communicated to these gear-wheels by a pinion, F, on a power-shaft, G, having its bearings in the frame A, and keyed at one end to a fly-wheel, G'.

Journalled in bearings in the frame A, immediately above and parallel to the staining-rollers B C, are pressure-rollers H H, that revolve only by frictional contact with the lumber, the journal-boxes of these rollers having a vertical play in guides *c* of said frame, this play being limited by elastic cushions *d* and followers *e*, operative between the guides, and adjusted by means of set-screws I, that have their bearings in plates K, bolted to said guides.

Bolted to the inner sides at each end of the frame are transverse plates L, that support and guide the lumber on its passage between the staining and pressure rollers.

The staining-roller C (shown in detail, Fig. 3) is constructed with spiral beads *f* and grooves *g*, that obliquely indent the lumber

passed through the machine to leave slight furrows, into which the staining-liquid collects.

In the operation of my invention the lumber is fed to the rollers from either end of the machine, the pressure-rollers being given sufficient vertical play according to the thickness of said lumber. The rollers B C carry up the staining-liquid from the pan D and deposit it on the lumber, and the pressure of the rollers H forces the stain into the pores and causes an even distribution on the face of said lumber. As a greater amount of staining material will collect in the furrows caused by the beads and grooves on the staining-roller C than on other parts of the lumber, a darker color will be obtained along the line of these indentations, thus giving said lumber the streaked appearance desirable in cigar-box material made from bass or other white wood stained to resemble cedar, the latter being the preferable color and the one most generally employed. As before stated, the lumber is fed to the machine from either end, and, having been acted upon by one set of the rollers, passes on to the next to receive a second coat of the stain; and, if found desirable, the respective sets of straining and pressure rollers may be multiplied to increase the number of coats of the liquid material upon said lumber, and thereby give the latter a darker color; or but one set may be employed for light staining, and in this instance the staining-roller would be preferably beaded and grooved for the purpose above described. When two or more sets of the rollers are employed, the ones that carry up the stain from the pan other than the indenting-roller are preferably roughened on their faces, as shown by Fig. 4, to facilitate the operation, said stain being better collected on a roller of such construction.

By the construction above described I provide a machine that will rapidly stain the lumber in large quantities at a saving in labor and time, as a single operative can feed to and control the work of two or more machines.

Another advantage of a machine similar to the one described lies in the fact that none of the stain is wasted, but is carried directly to and laid on the lumber, the excess of said stain falling back into the pan.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. A machine for staining cigar-box lumber, that comprises one or a series of staining-rollers journaled in a suitable frame and revolved within a receptacle containing liquid stain, and one or a series of pressure-rollers, also journaled in the frame immediately above and parallel to the first-named roller or series of rollers, as set forth.

2. A machine for staining cigar-box lumber, that comprises one or a series of staining-rollers journaled in a suitable frame and revolved within a receptacle containing liquid stain, and one or a series of vertically-yielding pressure-rollers, also journaled in the frame immediately above and parallel to the first-named roller or series of rollers, as set forth.

3. A machine for staining cigar-box lumber, that comprises one or a series of staining-rollers journaled in a suitable frame and revolved within a receptacle containing liquid stain, any one of these staining-rollers provided with spiral beads and grooves, and one or a series of pressure-rollers, also journaled in the frame immediately above and parallel to the first-named roller or series of rollers, as set forth.

4. A machine for staining cigar-box lumber, that comprises two staining-rollers journaled

in a suitable frame parallel to each other on a horizontal plane, each of these rollers having keyed to one of its journals a gear-wheel that meshes with an interposed pinion on a power-shaft, also journaled in the frame, and one of said rollers provided with spiral beads and grooves, two vertically-yielding pressure-rollers, also journaled in the frame parallel to each other on a horizontal plane and immediately above the staining-rollers, and a receptacle for liquid stain suspended below the last-named rollers, and provided with a discharge-faucet, as set forth.

5. A machine for staining cigar-box lumber, that comprises one or a series of rough-faced staining-rollers journaled in a suitable frame and revolved within a receptacle containing liquid stain, and one or a series of pressure-rollers, also journaled in the frame immediately above and parallel to the first-named roller or series of rollers, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHARLES BECHLY.

Witnesses:

H. G. UNDERWOOD,
MAURICE F. FREAR.