

UNITED STATES PATENT OFFICE.

HENRY C. BRAINERD, OF CLEVELAND, OHIO.

PROCESS OF PREPARING RUBBER PLATES OR SHEETS FOR GRAINING.

SPECIFICATION forming part of Letters Patent No. 287,617, dated October 30, 1883.

Application filed September 25, 1883. (No specimens.)

To all whom it may concern:

Be it known that I, HENRY C. BRAINERD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in a Process of Preparing Sheets for Graining; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to graining; and it consists in a process of preparing flexible vulcanized rubber plates or sheets, whereby a facsimile of the grains or veins of wood may be printed on any desired surface.

Artistic graining consists in accurately representing properly-selected wood upon the surface that it is desired to decorate. The selected blocks of wood are prepared by dressing the surface to a plane and tracing accurately thereon the veins or grains and peculiarities of the wood. Next, the surface of the wood is engraved or carved according to the said tracing, but much deeper than the ordinary wood-engraving. Good taste and judgment may be exercised in causing the plane of the surface to cross the grain of the wood in such a manner as to exhibit the grains or veins to the best advantage. The surface of this engraving is next coated with plumbago and a copper electrotype made directly from the surface of the said engraving. This electrotype is backed with metal to the required thickness for strength and stiffness, and is nickel-plated, in order to avoid the injurious chemical action that would be had by vulcanizing rubber direct on the copper. Next, the plated electrotype is inclosed in a metal frame, the edges of which extend above the face of the said plate a distance corresponding to the required thickness of the rubber sheet. This sheet is made by vulcanizing rubber of superior quality direct upon the face of the plated electrotype matrix.

The vulcanized rubber sheets thus prepared will be sufficiently flexible, that they may be readily applied to uneven or curved surfaces, such as moldings, &c. The desired graining or coloring material may be applied to the face of the rubber sheet either by a roller or a pad, after which, by applying the face of the said sheet to the desired surface to be grained, an exact copy of the wood-engraving will be reproduced.

These sheets of rubber are very durable, and the graining may be done rapidly, and requires but ordinary skill in the operator.

The accuracy with which the veins and peculiarities of the wood can be reproduced in graining by rubber sheets prepared by this process is equaled only by the slow and costly labor of a skilled artist.

What I claim is—

The process of preparing vulcanized rubber plates for graining, and consisting of the following steps, to wit: first, selecting blocks of wood and preparing a plane surface that shall cross the grains of the wood and exhibit them in the desired manner; second, tracing accurately upon the surface of the wood the outlines of the grains or veins; third, deeply engraving the wood according to the said tracing; fourth, coating the engraved surface with plumbago and forming thereon a copper electrotype; fifth, backing the electrotype with metal and nickel-plating the same; sixth, setting the nickel-plated electrotype in a metal frame with a raised rim, and vulcanizing a rubber sheet on the face of the said electrotype, substantially as described.

In testimony whereof I sign this specification, in the presence of two witnesses, this 21st day of September, 1883.

HENRY C. BRAINERD.

Witnesses:

JNO. CROWELL,
CHAS. H. DORER.