

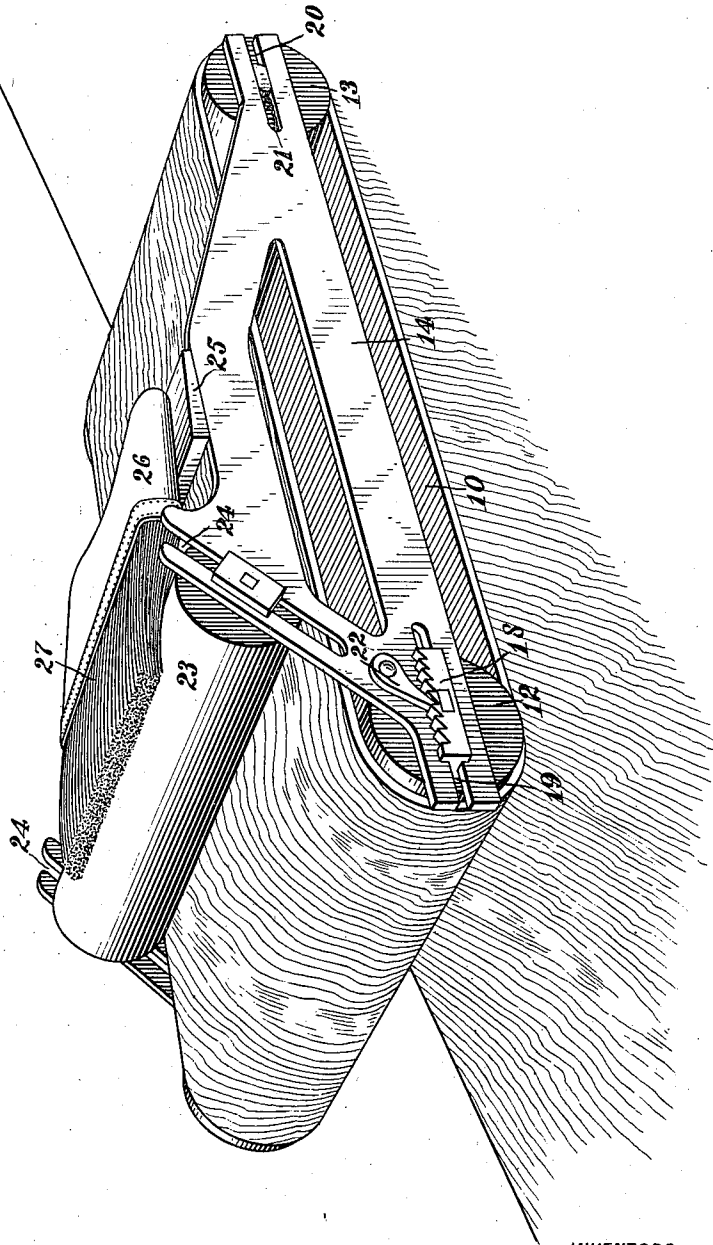
J. E. CURRENT & W. J. WESLEY.
 APPARATUS FOR PRINTING WOOD GRAINING AND THE LIKE.
 APPLICATION FILED MAY 13, 1909.

950,277.

Patented Feb. 22, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

[Signature]

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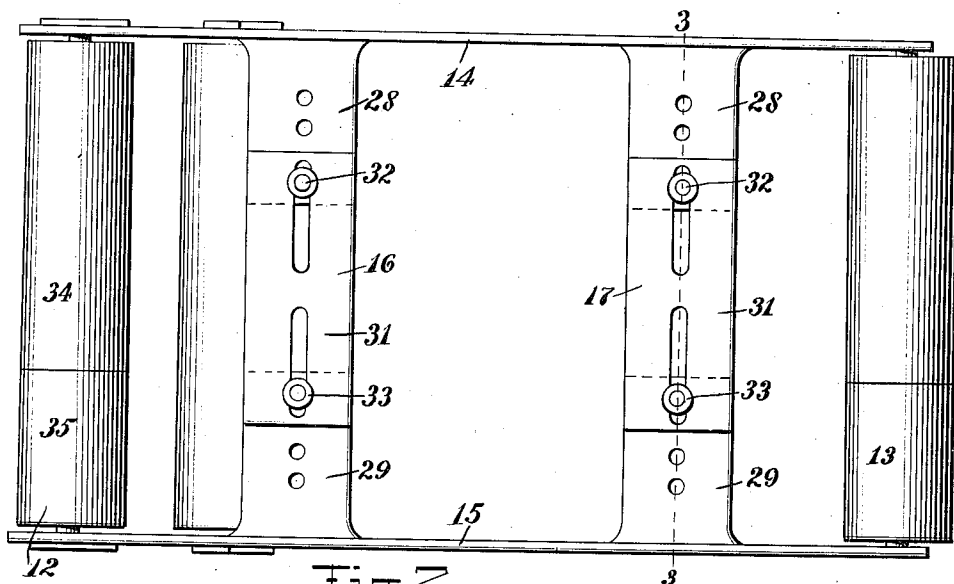


Fig. 2.

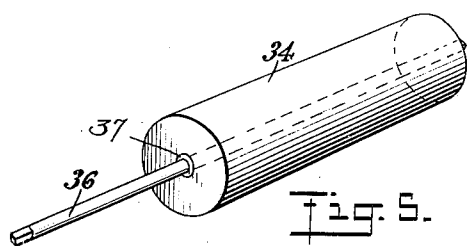


Fig. 5.

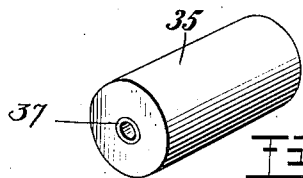


Fig. 6.

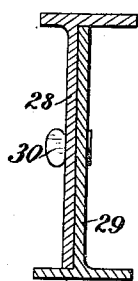


Fig. 4.

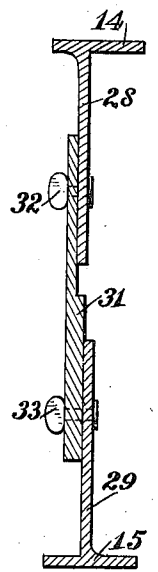


Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES EDWIN CURRENT AND WILLIAM JOHN WESLEY, OF ERIE, PENNSYLVANIA.

APPARATUS FOR PRINTING WOOD-GRAINING AND THE LIKE.

950,277.

Specification of Letters Patent.

Patented Feb. 22, 1910.

Application filed May 13, 1909. Serial No. 495,622.

To all whom it may concern:

Be it known that we, JAMES EDWIN CURRENT and WILLIAM JOHN WESLEY, both citizens of the United States, and residents of Erie, in the county of Erie and State of Pennsylvania, have invented a new and Improved Apparatus for Printing Wood-Graining and the Like, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in the production of artificial wood graining, and more particularly to a device adapted to be moved over a surface and print or produce thereon the semblance of wood graining.

The main object of our invention is to so construct the apparatus that it may be used in producing a graining or printing on any stationary wall irrespective of its shape or position.

Our improved device is portable and operates continuously as it moves along the surface.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a perspective view of an apparatus constructed in accordance with our invention; Fig. 2 is an inverted plan view of the same, parts being omitted; Fig. 3 is a transverse section on the line 3—3 of Fig. 2; Fig. 4 is a section similar to Fig. 3, but showing the frame in its collapsed position; and Figs. 5 and 6 are perspective views of the sections going to make up one of the extended rollers.

Our improved apparatus includes as an essential feature, a movable member having a printing surface adapted to contact with the surface to be printed upon and remain in contact therewith for a short interval as the apparatus moves along. In the specific form illustrated this movable printing member is in the form of an endless belt 10, supported upon two spaced rollers 12 and 13. The belt may be made of any suitable substantially non-elastic material, as, for instance, canvas, and its surface is provided with a coating or covering of gelatin. The two rollers are mounted in a frame which includes side members 14 and 15 spaced apart and held rigid in respect to each other by cross braces 16 and 17. The ends of the

axle of the roller 12 are secured to slides 18 movable in slots 19 in one end of the frame, while the ends of the axle of the other roller 13 are movable in slots 20 in the opposite end of the frame. For maintaining the rollers spaced apart and thus holding the endless belt substantially taut, a coil spring 21 may be employed in each of the slots 20, for forcing the roller 13 away from the roller 12, and the slides 18 may be provided with teeth or notches for engagement with pivoted dogs or pawls 22 to limit the movement of the roller 12 toward the roller 13. Thus, the tension of the spring may be increased or decreased as desired, by the movement of the slides 18, and the endless belt may be held under the desired tension.

In preparing the belt, we first take a wooden cylinder having the desired graining and accentuate this graining by deepening the same. The gelatin is then cast on the wooden cylinder, so that when it is removed there is formed the endless belt with the imprint of the pores of the wood in relief on the belt. The belt is then placed in position about the rollers, and as the apparatus is moved along over the surface upon which it is desired to produce the artificial graining, the rollers rotate and the belt is pressed into engagement with the surface.

In using the device the frame is preferably held at an angle to the surface over which it is traveling, so that the belt engages with said surface only as it passes over one roller and is spaced a considerable distance above the surface as it passes over the other roller.

The graining may be in any color desired, and is preferably applied to the belt by means of a distributing roller 23, mounted with its ends extending through slots 24 in the upper portion of the side members of the frame. The roller may be raised and lowered and serves not only to distribute the ink upon the endless belt, but also serves as a belt tightener. Carried by the two side members of the frame at one side of the roller 23, is a transverse bar 25 carrying a container 26 for the ink or other coloring material. Extending outwardly from this container is a brush 27 resting upon the upper surface of the roller 23, so that as said roller rotates by its frictional engagement with the belt, the ink is withdrawn from the brush and transferred to the belt. The ink is drawn from the container 26 into the

brush by capillary attraction, and there is insured a slow and uniform delivery.

The belt may be made of any desired width, but preferably we provide a plurality of belts of different widths and so construct the frame that it may be used with any desired belt. The cross braces 16 and 17 are of variable length, so that the side members 14 and 15 of the frame may be held rigid and at any desired distance apart. As shown, the side members 14 and 15 are provided with inwardly-directed arms 28 and 29, lying in parallel planes and adapted to be secured together by a set screw 30, as indicated in Fig. 4, or adapted to be spaced apart and secured rigid in respect to each other by an intermediate connecting piece 31 and two fasteners 32 and 33, as indicated in Fig. 3. Each of the rollers 12 and 13 may, if desired, be made up of a plurality of separate sections, any one of which may be removed when the side members of the frame are brought toward each other and a narrower belt is employed. As shown, each of the two rollers is formed of two sections 34 and 35, which may be mounted on the same axle 36, so that the section 35 may be removed and a shorter axle be provided in place of the axle 36. Each section 34 and 35 is preferably formed of composition cast upon a hollow metal tube 37 encircling the axle. The tube acts as a bearing sleeve for the axle and prevents the composition from being worn by contact with the axle.

It is, of course, evident that the outer surface of the endless belt may be provided with any design, printing or ornamentation, which it is desired to print upon the surface of any article or structure. The specific form illustrated is especially designed for producing a graining effect upon wood, metal or other suitable material, but the use of the device is in no way limited to wood graining.

Having thus described our invention, we

claim as new and desire to secure by Letters Patent:

1. An apparatus of the class described, comprising a portable frame including side members, each having inwardly-directed arms, the arms of one side member having sliding engagement with the arms of the other member and detachably secured thereto, rollers intermediate said side members and having their ends journaled in said side members adjacent the ends of the latter, an endless belt encircling said rollers and presenting an outer printing surface, a combined belt tightener and ink-distributing roller carried by said side members and having sliding engagement therewith and resting upon said belt, a transverse member connecting said side members in the rear of said last-mentioned roller and above said belt, and an ink container mounted on said transverse member and having a delivering and distributing brush resting upon said last-mentioned roller.

2. An apparatus of the class described, comprising a portable frame including side members, adjustably secured together, rollers intermediate said side members and having their ends journaled in said side members, an endless belt encircling said rollers and presenting an outer printing surface, an ink-distributing roller carried by said side members, a transverse member connecting said side members in the rear of said last-mentioned roller and above said belt, and an ink container mounted on said transverse member and having a delivering and distributing brush resting upon said last-mentioned roller.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES EDWIN CURRENT.
WILLIAM JOHN WESLEY.

Witnesses:

WILLIAM ALBERT BOLES,
EDWARD HAYES.