M. GODLEWSKI.

BURNISHING MACHINE.

APPLICATION FILED JUNE 9, 1908.

914,943.

Patented Mar. 9, 1909.

Fig. 1.

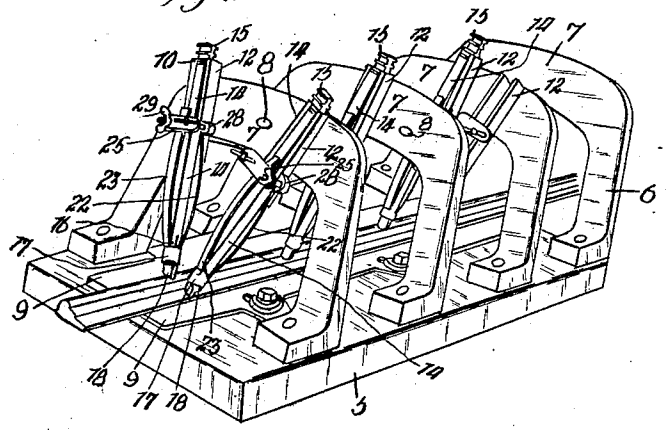


Fig. 3.

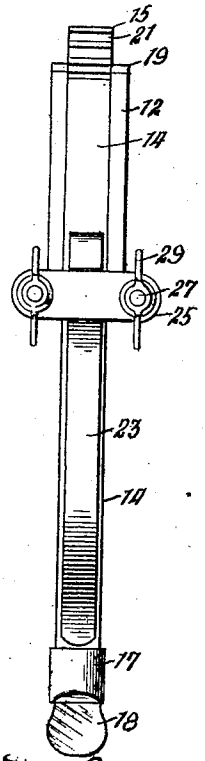


Fig. 4.

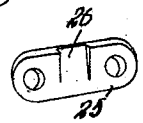
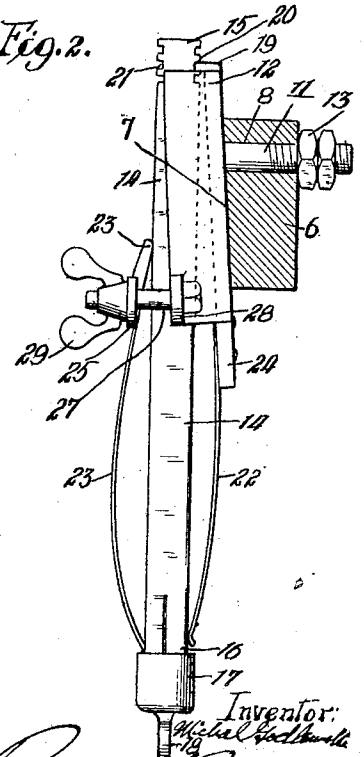


Fig. 2.



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BURNISHING-MACHINE.

No. 914,943. Specification of Letters Patent. Patented March 9, 1909.

Application filed June 9, 1908. Serial No. 437,540.

To all whom it may concern:

Be it known that I, MICHAL GODLEWSKI, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Burnishing-Machines, of which the following is a specification.

This invention is intended more especially for the purpose of mechanically burnishing moldings or other material which at present are usually finished by hand.

The object of the invention is to provide frames for holding the burnishing tools in suitable position to contact every portion of the molding desired to be burnished and to perfect the adjustment of said tools to meet with any desired conditions.

A further object of the invention is to cheapen the cost of finishing this class of goods without impairing the quality of the goods as compared with the goods finished by hand.

Further objects of the device will appear from the detailed description of the invention, which consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the machine, adjusted to burnish a piece of molding; Fig. 2 a side view of one of the burnishing tools; Fig. 3 a front view of the same; and Fig. 4 a perspective view of the retaining clamp used on the front of each tool.

The machine, as a whole, consists of a bed plate 5 upon which is mounted a plurality of arched supporting frames 6 having flat attaching faces 7 which lie in oblique planes with respect to the bed plate and are provided with holes 8 adapted to provide attaching points for the burnishing tools. Beneath the arched frames, and extending longitudinally of the bed plate, are a pair of adjustable gages 9 which furnish a guideway through which the material to be burnished is fed. The oblique attaching faces of the arched supporting frames have secured thereto a plurality of burnishing tools 10 which are clamped to the frames by means of bolts 11 passing from the inside of a channeled casing 12, which bolts are entered through the frame and properly secured by lock nuts 13. Each of the tools is in the form of a rod or shank 14, with a ratched upper end 15 and a split lower end 16, having thereon a clamping collar or sleeve 17 for retaining and clamping a burnishing tip 18 which is formed of a material or composition, preferably stone, sufficiently hard, smooth and free from grit to burnish without scratching the molding passed thereunder. The upper end of the shank 14 is entered into and inclosed on three sides by the channeled casing, by means of which it is held against the frame and in an oblique position with respect to the bed plate and the molding positioned between the gages. In the upper end of the channeled casing is a plate 19 which furnishes a tooth 20 overlying the channel and adapted to engage one of the recesses 21 of the ratched end of the shank, as desired, for vertical adjustment of the shank.

The shank is freely suspended within the channeled casing from the tooth 20 and is kept under tension by means of flat bow springs 22 and 23, which are provided for the purpose of securing an even pressure against all irregular surfaces of the molding as it passes under the tool, and securing a firm pressure of the burnishing tip against the work intended to be burnished. The flat bow spring 22, which bears against the rear side of the shank, is fastened, at its upper end, to a lug 24 depending from the wall of the channeled casing, the lower end of the bow spring being held in resilient contact with the shank near the clamping sleeve or collar. The flat bow spring 23 engages the front side of the shank and acts in a similar manner, and is held in place against the shank, at its upper end, by means of a retaining clamp 25 in the form of a flat bar having on its inner surface a beveled recess 26, as shown in Fig. 4, which recessed portion overlies the flat surface of the spring near its upper end. The retaining clamp 25 is held in position by bolts 27 which are entered through lugs 28 on the sides of the casing, and is adjusted by means of thumb nuts 29 to such tension as is needed. The lower end of the flat spring 23 contacts the lower end of the shank and acts in opposition to the spring on the rear side thereof.

The operation will be understood, in general, from the foregoing description, but briefly is as follows: The gages of the machine are adjusted to the size of the molding to be burnished; the strip of molding is then inserted and the burnishing tools are adjusted in such position as to conform to the surface of the molding in so far as it is

to be finished by the machine. This adjustment can be effected by varying the points of attachment of the tools to the frames and by adjusting their angularity with respect thereto. By providing a plurality of frames and securing thereto a sufficient number of tools great variations, as regards points of contact, can be made. In like manner the tools can be individually adjusted, as regards vertical elevation, by suspending the shank from any one of the series of notches in its ratched end. Furthermore, the shape and contour of the burnishing tips can be varied, and tips of such size and shape employed as to best meet the requirements of each particular case. The molding is fed through the machine by pushing, pulling, or in any other manner, after it has received its finishing coat. The pressure on the ends of the burnishing tips is maintained uniform and constant by the bow springs on the front and back of each tool, which springs hold the tool in firm position regardless of irregularities in the surface sought to be burnished. The results obtained are more satisfactory than those produced by hand, in that the pressure maintained is uniform, so that all portions of the molding will be burnished to the same degree.

What I regard as new and desire to secure by Letters Patent is:

1. In a burnishing machine, the combination of a casing, a shank suspended within the casing and adapted to swing with respect thereto, two springs engaging the shank and acting in opposition to each other, and a burnishing tip carried by the shank, substantially as described.

2. In a burnishing machine, the combination of a casing, a shank ratched at its upper end to provide a plurality of teeth, a member on the casing adapted to engage a selected one of the teeth for permitting adjustment, a flat spring secured to the casing and contacting one side of the shank, a bow spring having its ends in contact with the other side of the shank, a clamp connected with the casing and engaging the bow spring, and a burnishing tip carried by the shank, substantially as described.

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