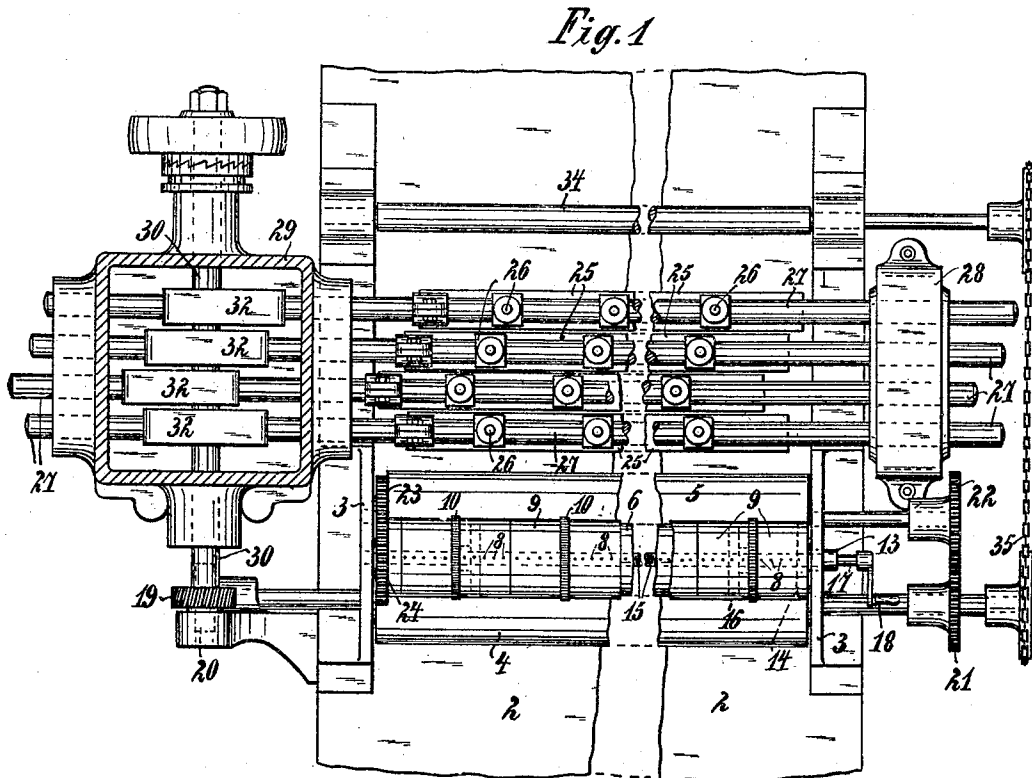
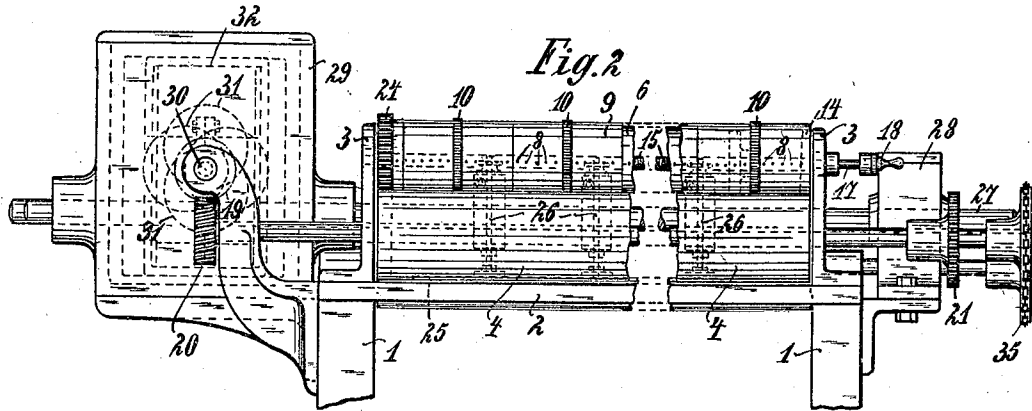


No. 820,721.

PATENTED MAY 15, 1906.

C. KOHLBACH.
BRONZING APPARATUS.
APPLICATION FILED MAY 3, 1904.

2 SHEETS—SHEET 1.



Witnesses:

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Inventor:

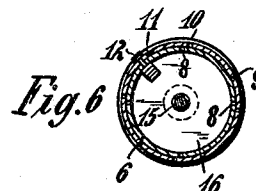
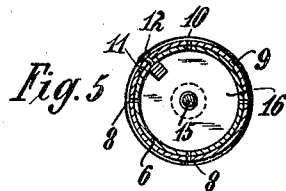
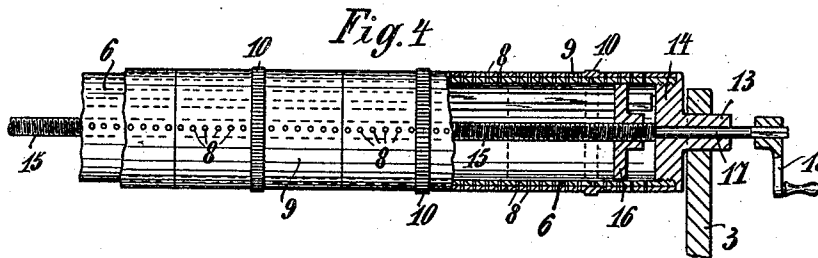
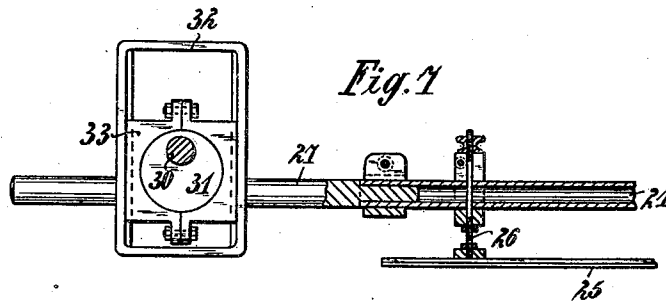
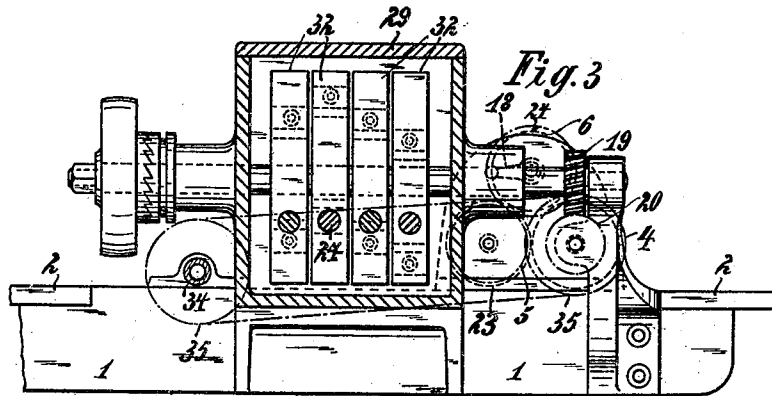
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CURT KOHLBACH, OF LEIPSIC, GERMANY.

BRONZING APPARATUS.

No. 820,721.

Specification of Letters Patent.

Patented May 15, 1906.

Application filed May 3, 1904. Serial No. 206,218.

To all whom it may concern:

Be it known that I, CURT KOHLBACH, a citizen of the German Empire, and a resident of Leipsic-Reudnitz, Saxony, German Empire, have invented a new and Improved Bronzing Apparatus, of which the following is a description.

The present invention relates to apparatus for bronzing flat surfaces; and it consists of the details of construction hereinafter set forth, and particularly pointed out in the claims.

In order to render the present specification easily intelligible, reference is had to the accompanying drawings, in which similar numerals of reference denote similar parts throughout the several views.

Figure 1 is a plan view of the apparatus, showing the left-hand housing cut away. Fig. 2 is a front view; Fig. 3, a side elevation, also partly in section. Fig. 4 is a detail elevation, partly in longitudinal section, of the drum for containing and distributing the bronze-dust. Figs. 5 and 6 are detail cross-sections showing the means for varying or cutting off the distribution of the bronze-dust in two different positions. Fig. 7 is a detail elevation, partly in section, of the rubber and operating device for the same; and Fig. 8 is an end elevation of Fig. 7.

The table 2, supported on the standards 1, is provided with two bearing-plates 3, in which the two lower rolls 4 and 5 are mounted to rotate. These rolls are advantageously covered with plush or the like and contact at their under surface with the top of the table. Above these rolls, at the upper part of the bearing-plates 3, is mounted the hollow cylinder 6, containing the bronze-powder and the means for distributing the same onto the lower rolls. This cylinder consists of the inner cylinder, having longitudinal rows of distributing-holes 8 and a series of sleeve-sections 9, mounted on the same and having similar rows of holes. The sections 9 are rotatable on the inner cylinder, whereby to bring the holes in said sections into partial or complete registration with the holes in the inner cylinder or move the holes in said sections entirely out of registry with the holes in the inner cylinder, and thus regulate or control the feed of the dust from the inner cylinder. Each sleeve 9 is provided with a milled ring 10, by means of which the same may be conveniently adjusted on the inner cylinder. Each sleeve is furthermore slotted, as at 11,

Figs. 5 and 6, and a set-screw 12 is arranged to screw into the inner cylinder through the slot, so that the sleeves may be clamped in any position as regards the inner cylinder after adjustment, as will be readily understood. The ends of the inner cylinder are closed by means of end plates 14, having hollow trunnions 13, said ends being screw-threaded into the ends of the cylinder 6. Through the hollow trunnions of the end plates or pieces extend the spindles 17 of a right and left handed screw-spindle 15, on the opposite threads of which are mounted two partition plates or disks 16, so that when the said screw-spindle is turned, by means of the handle 18, in one or the other direction the partition-plates will be moved toward or from each other, and the dust contained in the cylinder will be limited to one or more sleeve-sections, as far as its out-passage through the holes or perforations of the cylinder is concerned.

The plush rolls 4 and 5 distribute the dust coming from the cylinder 6 onto the surface lying beneath them, and the powder is then rubbed in by means of a series of horizontally-reciprocated rubbers 25, having fur or plush on their lower surfaces, as hereinafter described.

The roll 4 is driven by means of a worm-gear 19 20 from the main driving-shaft 30, and motion is communicated to roll 5 by means of the gears 21 and 22 and from 5 to the distributing-cylinder 6 by means of the gears 23 and 24 at the opposite end of the rolls. The rubbers 25 are attached, by means of vertically-adjustable screws 26, to the tubular ends of the rods 27 and are worked backward and forward from the main driving-shaft 30 by means of the eccentrics 31, working in blocks 33, which slide in frames 32, to which the rods 27 are attached, Fig. 7. The frames or straps 32, with their eccentrics, are mounted in a housing 29 at one end of the apparatus, and the opposite ends of the said rods are guided in a bearing 28, Fig. 1. At the farther side of the rods a roll 34 is mounted, covered with feathers or fur, and this roll is driven by means of chain-gearing 35. This roll serves to finish and clean off the sheet or surface after the bronze has been applied to the same and is arranged at the outlet end of the apparatus.

From the above description it will be evident that the outlet-orifices for the bronze-powder may be varied in size or entirely

closed or opened by means of the rotary and adjustable sleeves 9, while the length of the distributing-cylinder may be varied by adjusting the position of the partition-plates 16 on the screw-spindle 15.

I claim as my invention—

1. In a bronzing apparatus of the kind specified, the combination of a bronze-powder - distributing cylinder having orifices therein, with a series of sleeves having corresponding orifices, means for adjusting the said sleeves on the said cylinder to open or close the said orifices, disks movable in the interior of the cylinder to vary the interior length thereof, and means for actuating said disks, substantially as described.

2. In a bronzing apparatus of the class specified, the combination of a bronze-distributing cylinder having orifices therein and means for closing or opening the said orifices along any desired sections of the length of the cylinder substantially as described.

3. In a bronzing apparatus the combination of a bronze-distributing cylinder having orifices therein, means for opening or closing the same along sections of the length and means for varying the interior length of the cylinder substantially as described.

4. In a bronzing apparatus of the class specified, the combination of a bronze containing and distributing cylinder, a series of adjustable sleeves thereon and means in connection therewith for opening or closing the

bronze-powder outlets in the interior cylinder, a screw-spindle having right and left hand threads, extending through the cylinder and partition-plates mounted on the said spindle and adapted to be moved toward and apart from each other when the spindle is turned substantially as described.

5. In a bronzing apparatus of the class specified, the combination of a series of horizontally - reciprocatory rubbers or pads, means for adjustably attaching the same to a series of carrier-rods, and carrier-rods having frames thereon, slide-blocks in said frames and eccentrics working in said blocks in the manner and for the purpose substantially as described.

6. In a bronzing apparatus of the class specified, the combination with a series of horizontally-reciprocatory rubbers or pads, carrier-rods, means for adjustably attaching the rubbers or pads to the carrier-rods, and driving means for said rubbers or pads, of a finishing-roll having a covering, a gearing connecting the roll to the driving means of the rubbers or pads whereby to operate the finishing-roll in unison with the said rubbers or pads.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CURT KOHLBACH.

Witnesses:

MORITZ SPREER,
RUDOLPH FRICKE.