

No. 781,925.

PATENTED FEB. 7, 1905.

C. B. WATTLES.

DRESSING ROLLER FOR FLOOR DRESSING MACHINES.

APPLICATION FILED JULY 20, 1903.

Fig. 1.

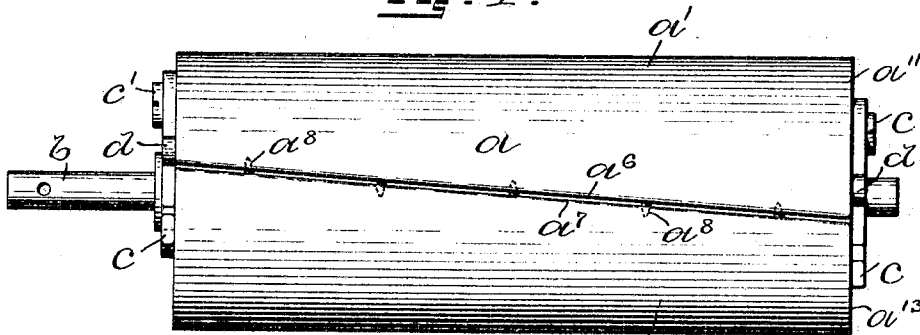


Fig. 2.

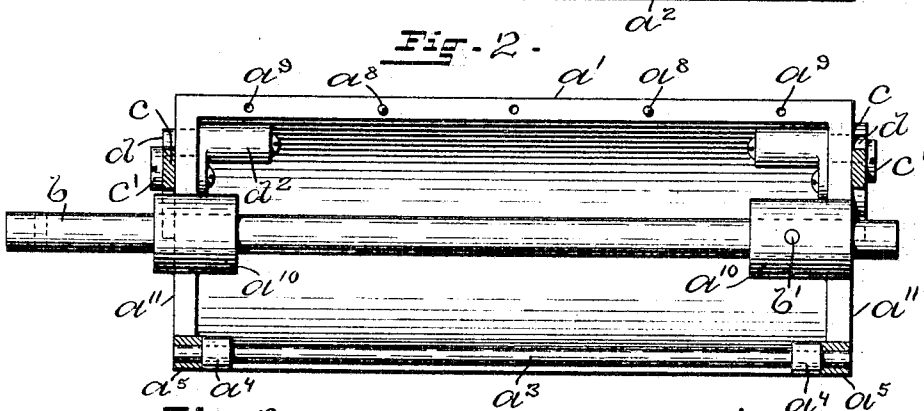


Fig. 3.

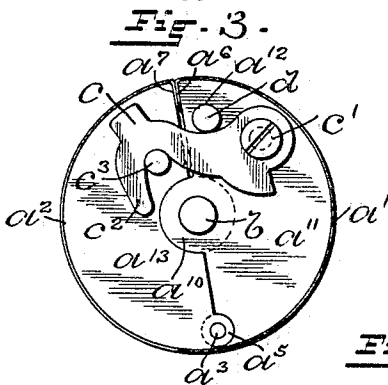


Fig. 4.

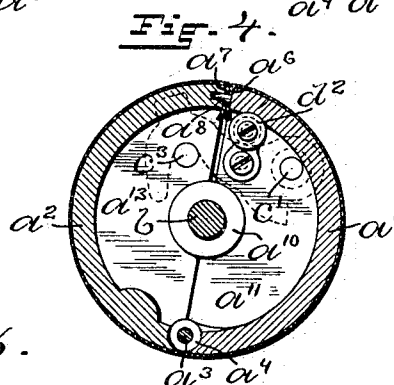
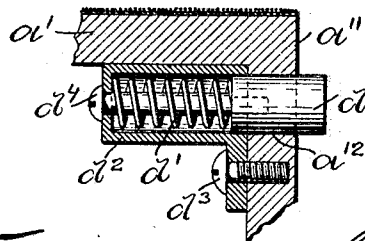


Fig. 5.



WITNESSES:

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CYRA B. WATTLES, OF PROVIDENCE, RHODE ISLAND.

DRESSING-ROLLER FOR FLOOR-DRESSING MACHINES.

SPECIFICATION forming part of Letters Patent No. 781,925, dated February 7, 1905.

Application filed July 20, 1903. Serial No. 166,393.

To all whom it may concern:

Be it known that I, CYRA B. WATTLES, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Dressing-Rollers for Floor-Dressing Machines, of which the following is a specification.

This invention has reference to an improvement in dressing-rollers for floor-dressing machines, whereby a sheet of abrasive or polishing material, such as sand paper or cloth, may be readily and positively secured on the roller.

The dressing-roller forms part of a floor-dressing machine having a frame with bearings for the dressing-roller shaft and a handle for the operator. The dressing-roller is connected to a motor by a flexible shaft, the motor having sufficient power to revolve the roller, covered with abrasive material, at a high rate of speed on the floor. The operator by the handle moves the roller on the floor to be dressed or polished.

The object of my invention is to facilitate the operation of removing and securing a sheet of abrasive or polishing material to the dressing-roller of a floor-dressing machine.

My invention consists in the peculiar and novel construction of a dressing-roller used in floor-dressing machines, said roller consisting of a hollow cylindrical body split lengthwise into halves and hinged together, a shaft secured in one half of the roller, and means for firmly securing a sheet of abrasive or polishing material on the roller by clamping the halves of the roller together, as will be more fully set forth hereinafter.

Figure 1 is a face view of my improved dressing-roller, showing the sheet of abrasive or polishing material removed from the roller. Fig. 2 is a sectional view looking at the interior of one half of the roller, the other half being broken away. Fig. 3 is an end view of the roller in the closed position, showing the clamping-hook, the locking-bolt above the clamping-hook, and the ends of the sheet of abrasive material bent inward and secured between the halves of the roller. Fig. 4 is a transverse sectional view through the roller, showing the interior construction and one of

the pins secured in the edge of one half of the roller, passing through the ends of the sheet of abrasive material and into a hole in the other half of the roller, to assist in securing the sheet of abrasive material on the roller; and Fig. 5 is an enlarged sectional view of one of the spring-pressed locking-bolts for securing the clamping-hook in the closed position.

In the drawings, *a* represents the roller; *b*, the shaft; *c c*, the clamping-hooks, and *d d* the locking-bolts. The roller *a* is constructed in the form of a hollow cylinder closed at the ends and split lengthwise into halves, the line of juncture of the halves being at an angle to the axis of the cylinder, as shown in Fig. 1, preventing vibration of the roller by the break in the abrasive material. The halves *a'* and *a''* are hinged together at one edge by the rod *a'''* passing through the lugs *a¹ a¹* on the half *a'* and the lugs *a² a²* on the half *a''*, and on the faces *a⁶* and *a⁷* of the opposite edges are alternately secured the pins *a⁸ a⁸*, entering the oppositely-disposed coinciding holes *a⁹ a⁹*. The shaft *b* passes through the bosses *a¹⁰ a¹⁰* on the ends *a¹¹ a¹¹* of the half *a'* and is secured by the pin *b'* passing through one of the bosses and the shaft. The clamping-hooks *c c* are pivotally secured to the ends *a¹¹ a¹¹* of the half *a'* by the screws *c' c'* and have the curved ends *c² c²*, acting as cams on the studs *c³ c³*, secured in the ends *a¹³ a¹³* of the half *a''*, to draw the two halves of the roller together and clamp the ends of the sheet of abrasive material between the faces *a⁶* and *a⁷* of the halves of the roller.

The clamping-hooks *c c* are securely held in their closed position by the spring-pressed locking-bolts *d d*, extending over the clamping-hooks, and they are released by pushing the locking-bolts inward against the tension of the springs *d'* in the cylindrical casing *d²*, secured to the inside of the ends *a¹¹ a¹¹* of the half *a'* by the screws *d³ d³*. The locking-bolts extend through the holes *a¹² a¹²* in the ends *a¹¹ a¹¹* and are held in their normal position by the screw *d⁴* in the bolt *d*, having its head abut on the outer end of the casing *d²*, as shown in Fig. 5.

In the operation of covering the roller with a sheet of abrasive material the operator

catches one end of the sheet on the pins $a^8 a^8$ of the half a' and carries the sheet around the open roller and catches the opposite end on the pins of the half a^2 . The roller is now closed and the clamping-hooks $c c$ forced over the studs $c^3 c^3$. The ends $c^2 c^2$, acting as cams on the studs, draw the halves of the roller together and securely clamp the ends of the sheet of abrasive material between the faces a^6 and a^7 of the roller. When the clamping-hooks have reached their closed position, the locking-bolts $d d$ are forced outward by the springs $d' d'$ and over the clamping-hooks, as shown in Fig. 3.

By my improved construction of the dressing-roller the operation of covering the roller with abrasive or polishing material is simplified and the material more securely fastened on the roller than has heretofore been done.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A dressing-roller, consisting of a cylindrical body with closed ends formed in two equal halves, having the line of juncture lengthwise and at an angle to the axis of the roller, a shaft extending lengthwise and secured in bosses on one half of the roller, a hinge connecting the halves of the roller together, clamping-hooks on one half engaging with studs on the other half of the roller, spring-pressed

locking-bolts engaging with the clamping-hooks, and pins alternately secured in the halves of the roller with coinciding holes in the other half, as described.

2. In a dressing-roller, the combination of the halves a' and a^2 forming a hollow cylindrical body in two equal parts, having the line of juncture lengthwise and at an angle to the axis of the roller, with the rod a^3 , the lugs $a^4 a^4$ and $a^5 a^5$ forming a hinge, the faces a^6 and a^7 with the pins $a^8 a^8$, the holes $a^9 a^9$, the bosses $a^{10} a^{10}$, the ends $a^{11} a^{11}$, the holes $a^{12} a^{12}$, the shaft b secured in the boss a^{10} by the pin b' , the clamping-hooks $c c$ pivotally secured to the ends $a^{11} a^{11}$ by the screws $c' c'$ and having the curved ends $c^2 c^2$ acting as cams on the studs $c^3 c^3$ secured in the ends $a^{13} a^{13}$ of the half a^2 , and the locking-bolts $d d$ having the springs $d' d'$ in the casing d^2 secured to the ends $a^{11} a^{11}$ by the screws $d^3 d^3$ and held in their normal position by the screws $d^4 d^4$, all for the purpose as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CYRA B. WATTLES.

Witnesses:

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