

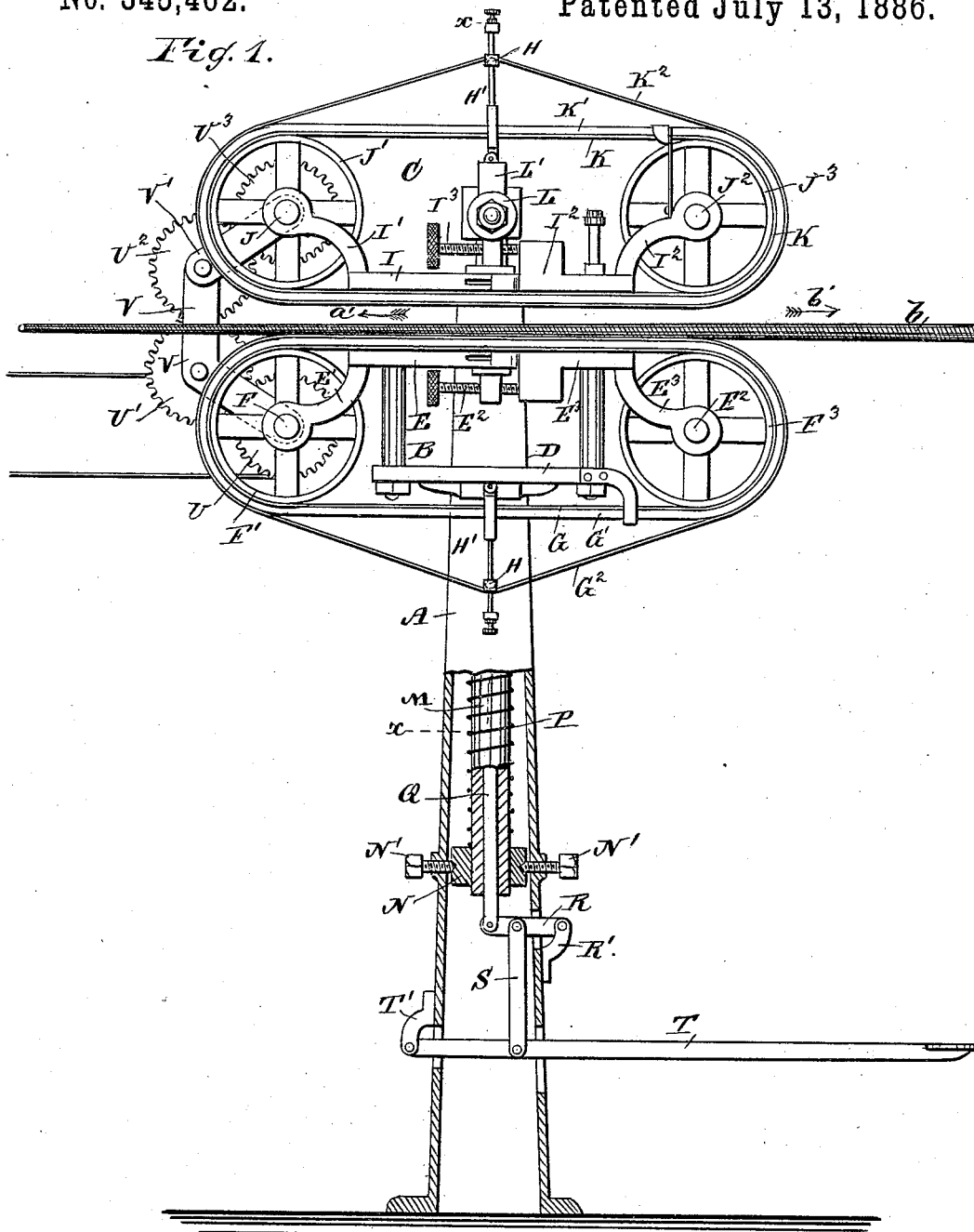
C. R. VAN DEUSEN.

RUBBING MACHINE.

No. 345,462.

Patented July 13, 1886.

Fig. 1.



WITNESSES:

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 ATTORNEYS.

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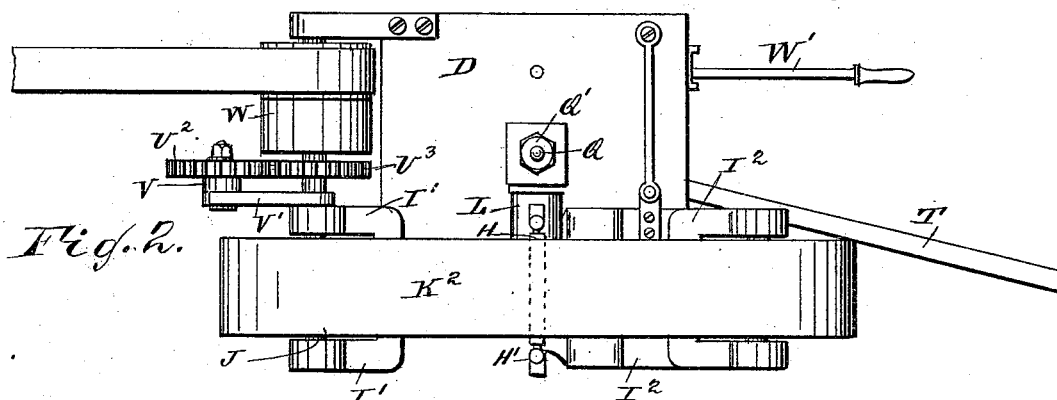
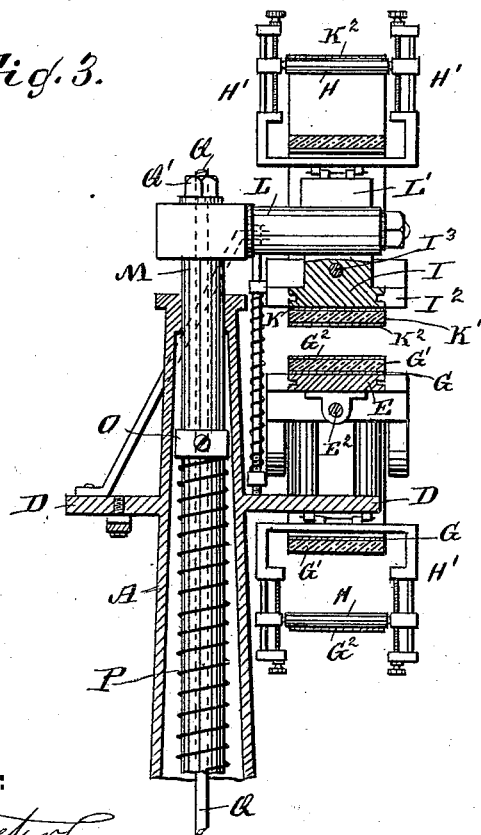


Fig. 3.



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CLARENCE R. VAN DEUSEN, OF PASSAIC, NEW JERSEY.

RUBBING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 345,462, dated July 13, 1886.

Application filed March 24, 1886. Serial No. 196,376. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE R. VAN DEUSEN, of Passaic, in the county of Passaic, and State of New Jersey, have invented a new and Improved Rubbing-Machine, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved machine for rubbing a paint mixture or other substance into the surface of whips, canes, or similar articles, so as to give a polished finish to the article.

The invention consists of a stationary frame provided with two pulleys over which passes an endless belt and an endless adjustable belt, of a vertically-sliding frame provided with similar pulleys and belts, of a device for sliding the movable frame vertically, and of a device for imparting rotary motion to the pulleys and endless belts.

The invention also consists of various parts and details, and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a side elevation, partly in section, of my improvement. Fig. 2 is a plan view of the same. Fig. 3 is a vertical cross-section on the line *x x*, Fig. 1.

In the manufacture of whips and other articles provided with a thread covering or having an even surface it is necessary to rub a paint mixture or other substance into the surface, so as to give the article a glossy finish. Heretofore this rubbing of the paint mixture into the thread covering or the even surface was done by hand, and the special object of my invention is to provide a machine which will supersede this hand-rubbing and will produce better results.

To a column, A, is attached a stationary frame, B, and a similar frame, C, is mounted to slide vertically on the column A. The stationary frame B is provided with a plate, D, cast on the column A, and forming a support for the plate E, provided on one end with the bearing E', in which is mounted to rotate the shaft F, carrying the pulley F'. On the plate E is also mounted to slide, by means of the screw E², the bearing E³, in which is mounted

the shaft F², carrying the pulley F³. Over the pulleys F' and F³ and the upper side of the plate E passes an endless belt, G, which is covered with felt or other similar soft material, G', over part of which passes an endless piece of canvas, G², held tightly stretched on the felt G' by passing over a roller, H, adjustable up and down in the frame H', pivoted to the under side of the plate D.

The frame C is similar in construction to the frame B, being provided with the plate I, having the bearing I', in which is mounted the shaft J, carrying the pulley J'. The bearing I² is adapted to slide on the plate I by the turning of the screw I³. In the bearing I² is mounted the shaft J², carrying the pulley J³. Over the pulleys J' and J³ and the under side of the plate I passes an endless belt, K, covered with felt or other soft material, K', and the canvas belt K², held tightly stretched over a roller, H, held vertically adjustable in the frame H', pivoted to the top of the lug L', cast on the arm L, which supports the plate I, and is attached to the hollow shaft M, mounted to slide vertically in the hollow column A. The upper part of the shaft M has its bearing in the column A, and the lower part in a ring, N, held in place by set-screws N', passing through the shell of the column A. A collar, O, is adjustably held on the shaft M, and between it and the ring N a spring, P, is coiled on the shaft M. Through the shaft M passes a rod, Q, held on the top of the arm L by the nut Q', and pivotally attached on its lower end to the short lever R, having its fulcrum on the bracket R', attached to the column A. A link, S, connects the short lever R with the treadle T, fulcrumed on the bracket T', secured to the column A.

The shaft F, on which the pulley F' is secured, is provided with a cog-wheel, U, which meshes with a cog-wheel, U', mounted on a stud fastened to the bent arm V, fulcrumed on the shaft F. The cog-wheel U' meshes into the cog-wheel U², also mounted on a stud on the bent arm V, and meshing into a cog-wheel, U³, attached to the shaft J, carrying the pulley J'. To the upper end of the bent arm V is pivoted an arm, V', fulcrumed on the shaft J. The shaft F is also provided with the driving-pulleys W. The

lever W' is for shifting the belt on the driving-pulleys W.

The operation is as follows: Motion in the direction of the arrow *a'* is imparted to the 5 belts K and G from the driving-pulleys W by means of the pulleys F' and F³ and the pulleys J' and J³, of which the pulley J' is rotated by the cog-wheels U, U', U², and U³. The canvas belts G² and K² are tightened by sliding the 10 rollers H up and down in their respective frames H'. A whip or other similar thread-covered or plain article, *b*, prepared with a paint mixture or other substance which is to be rubbed into the surface, is placed between 15 the endless canvas belts G² and K², as shown in Fig. 1, and the operator, now pressing on the treadle T, causes the frame C to slide downward vertically by the action of the link S on the short arm R, acting on the rod Q, provided 20 with the nut Q', on top of the arm L, supporting the frame C. The shaft M guides the frame C in its vertical movement. The article will be embraced between the endless moving belts, the soft material G' and K' on the belts 25 G and K inclosing the article completely, and as the latter is turned and pulled in the direction of the arrow *b'* by hand or by device the paint mixture or other substance is rubbed thoroughly into the surface of the 30 article, thereby giving the same a polished appearance. The canvas belt is for the special purpose of preventing the mixture on the article from coming in direct contact with the soft material on the moving belts 35 G' and K'. The paint mixture is varied in color according to requirements, and thereby necessitates the changing of the canvas belts, according to the different colors employed. The canvas belt is easily removed by turning 40 the frames H to one side, so as to be enabled to slip the canvas belt off. The pulleys F³ and J³ are laterally adjustable by means of the screws E² and I², so as to stretch the belts according to requirements. As soon as the operator releases his pressure on the treadle T, 45 the spring P, coiled on the shaft M, will force the sliding frame C upward to its former position, as shown in Figs. 1 and 3. It will be seen that in the downward movement of the 50 sliding frame the gear-wheels U, U', U², and U³ will remain in gear on account of the bent arm V, fulcrumed on the shaft F, and the arm V', fulcrumed on the shaft J, and pivotally at-

ached to the bent arm V on the axis of the gear-wheel U².

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

1. In a rubbing-machine, the combination of a stationary frame and endless belts with a 60 vertically-sliding frame and endless belts, substantially as herein shown and described.

2. In a rubbing-machine, the combination of a stationary frame provided with pulleys, an endless belt passing over the said pulleys and 65 covered with a soft material, and an endless adjustable canvas belt with a vertically-sliding frame provided with two pulleys, a belt covered with a soft material, and an adjustable canvas belt, substantially as herein shown and 70 described.

3. In a rubbing-machine, the stationary frame B, provided with endless belts G, G', and G², in combination with the vertically-sliding frame C, the shaft M, the spring P, 75 and the rod Q, attached to the lever R, linked to the treadle T, substantially as herein shown and described.

4. In a rubbing-machine, the stationary frame B, the shafts F and F², provided with 80 the pulleys F' and F³, and the gear-wheel U, in combination with the gear-wheels U', U², and U³, the shafts J and J², carrying the pulleys J' and J³, the arm V', and the bent arm V, substantially as herein shown and described. 85

5. In a rubbing-machine, the combination of the stationary frame B, provided with the plate E and the adjustable bearing E², with the pulleys F' and F², the frame H', provided with the adjustable roller H, and the belts G, G', and G², 90 substantially as herein shown and described.

6. In a rubbing-machine, the frame C, provided with the pulleys J' and J³, the shafts J and J², the plate I, and the adjustable bearing I², the belts K, K', and K², and the roller H, adjustable on the pivoted frame H', in combination with the shaft M, the spring P, the collar O, the ring N, and the rod Q, provided with the nut Q', and operated by the treadle T, by means of the link S and the lever R, substan- 100 tially as herein shown and described.

CLARENCE R. VAN DEUSEN.

Witnesses:

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