Sept. 14, 1926. 1,599,713

S. PERLMAN

COMBINED SCRAPING AND BRUSHING MACHINE

Filed Oct. 16, 1924

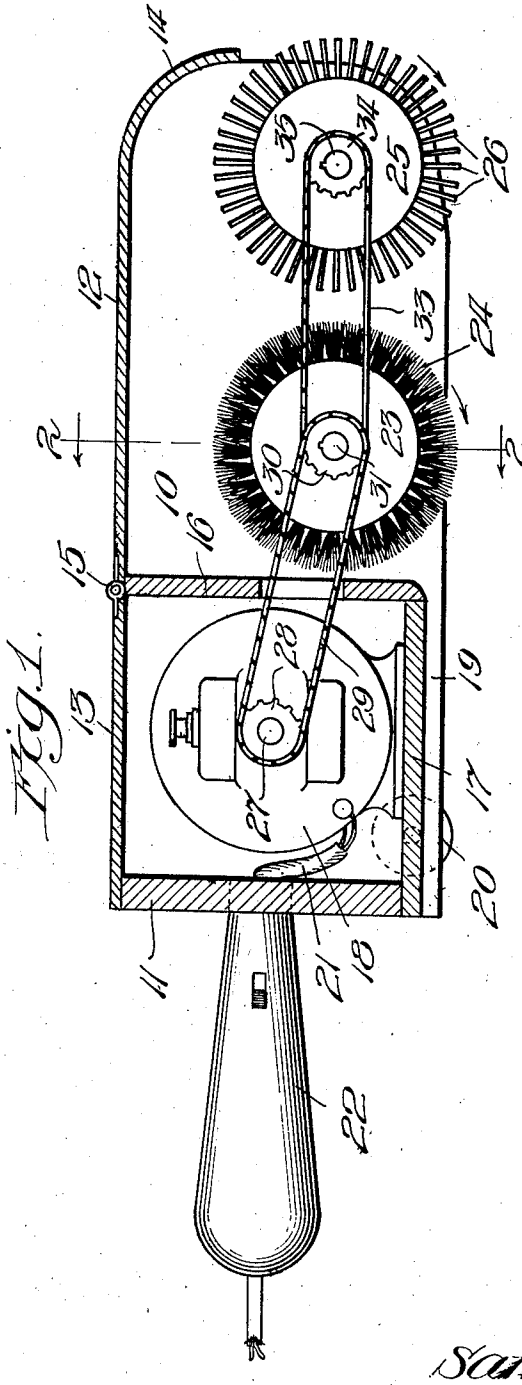


Fig. 1.

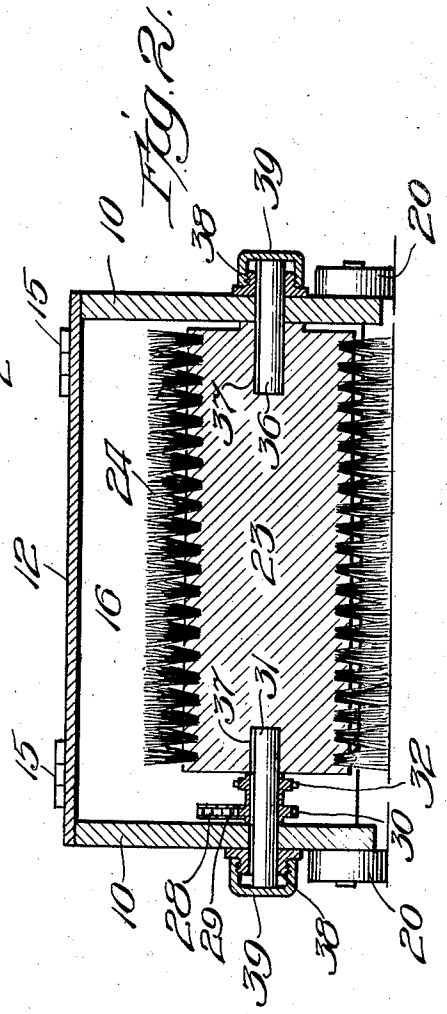


Fig. 2.

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Patented Sept. 14, 1926. 1,599,713

UNITED STATES PATENT OFFICE.

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COMBINED SCRAPING AND BRUSHING MACHINE.

Application filed October 16, 1924. Serial No. 743,901.

This invention is designed primarily for use in the scraping and brushing of butchers' blocks, although it may be used for the cleaning of bakers' tables or for other purposes for which a combined scraper and brush is deemed desirable.

The object of the invention is to so mount the scraping and brushing wheels that the weight of the device as a whole will aid in holding the scraper and brush in firm and effective contact with the block or other surface to which the machine is applied, and at the same time permit a ready manipulation of the same to increase or diminish the effective contact of the rotating elements at will and to permit the device to be moved from place to place.

Further objects and details will appear from the detailed description and accompanying drawings.

In the drawings:—

Figure 1 is a sectional elevation of the machine as a whole showing the motor and rotating elements in elevation; and

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1, looking in the direction of the arrows.

The device as a whole comprises a casing having side walls 10, a rear wall 11, a forward top wall 12, and a rear top wall 13. The top wall is down curved at its forward end 14 and the front and rear sections of the top wall are hinged by hinges 15 with the upper edge of a vertical partition wall 16 which co-acts with a floor section 17 in providing a chamber for the housing of a motor 18. It will be noted that the floor section 17 is elevated above the lower edges of the side walls to afford a space or passageway 19 beneath the floor section for the expulsion of dust and scrapings.

Near the rear end of the casing on each side is mounted a roller 20 which serves to elevate the casing slightly above the base level at the rear end.

The motor 18 receives current through a cable 21 which extends through a handle 22 centrally disposed in the rear wall 11. In front of the partition wall 16 is located a brush drum 23 provided with bristles 25 and in the extreme front end of the device is located a scraper drum 25 preferably provided with stiff steel spines 26. It will be noted that the weight of the forward end of the machine is supported upon the scraper spines which rest directly against the table or other surface under treatment.

The motor is provided with a shaft 27 which carries a sprocket wheel 28 engaging a sprocket chain 29 which in turn is carried around an outer sprocket 30 on the end of a brush stub shaft 31 which also carries an inner sprocket 32 co-operating with a sprocket chain 33 carried around a sprocket 34 on a scraper stub shaft 35. The arrangement is such that the rotation of the motor shaft 28 will cause the rotation in unison of the scraper drum and brush drum in a clockwise direction which will cause the scrapings and dust to be swept under the machine as it is advanced over the surface under treatment.

It is desirable to provide for the easy removal and replacement of the scraper and brush drums, and the shaft housings are designed with that end in view. The shaft 31 is aligned with a like shaft 36 at the opposite end of the drum 23, and each shaft is provided with a fin 37 which when entered into the end of the drum will rigidly mount the drum on the shaft section. Each shaft section is entered through a journal bushing 38 which is screw threaded to receive a cap 39 which also serves as a thrust bearing. By unscrewing the caps, the shaft sections may be drawn out sufficiently to release the drum which may then be taken out and another substituted if so desired. The shaft sections 35 and mountings therefor are identical with those just described, so that further description thereof is deemed unnecessary. Other methods of removably mounting the drums might be employed, however, without departing from the spirit of the invention.

In use, the current cable is attached to a suitable source of current and the machine is then rested upon the surface of the butcher's block, table or the like undergoing treatment. Upon starting the motor the scraper and brush will rotate in unison and the pressure to be applied on these rotating elements can be easily varied by tilting the device more or less upon the rear rollers 20 which provide fulcrum points for this manipulation. By tilting down on the forward end of the machine a heavy degree of pressure can be imparted to the scraper spines, and a backward tilt will,

of course, lighten the pressure and reduce the vigor of the scraping action.

The weight of the motor itself, which is disposed in close proximity to the fulcrum point, assists in affording an effective application of weight to the rotating elements, and the device being substantially closed, save at the forward end, can be moved over the surface under treatment without occasioning dust or dispersal of scrapings which are rearwardly passed to the rear end and ejected from the machine as it advances. The method of hinging the top sections permits of ready access to the interior as occasion may require.

I claim:—

In a machine of the class described, the combination of a casing of horizontally elongated generally rectangular formation, comprising side walls, a rear wall and a top wall, the lower edges of the side walls being straight from the rear to a point adjacent to the front, a handle rigid with the casing, a motor within the rear portion of the casing, a rotary scraper journalled near the forward end of the casing and provided with scraping elements extending below the lower edges of the casing, a rotary brush journalled between the motor and the scraper, provided with brushing elements projecting below the lower edge of the casing, and transmission elements leading from the motor to the scraper and brush respectively, substantially as described.

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