No. 782,620. PATENTED FEB. 14, 1905.

J. J. McGRATH.

CARPET BEATING AND BRUSHING MACHINE.

APPLICATION FILED JAN. 20, 1903.

3 SHEETS—SHEET 1.

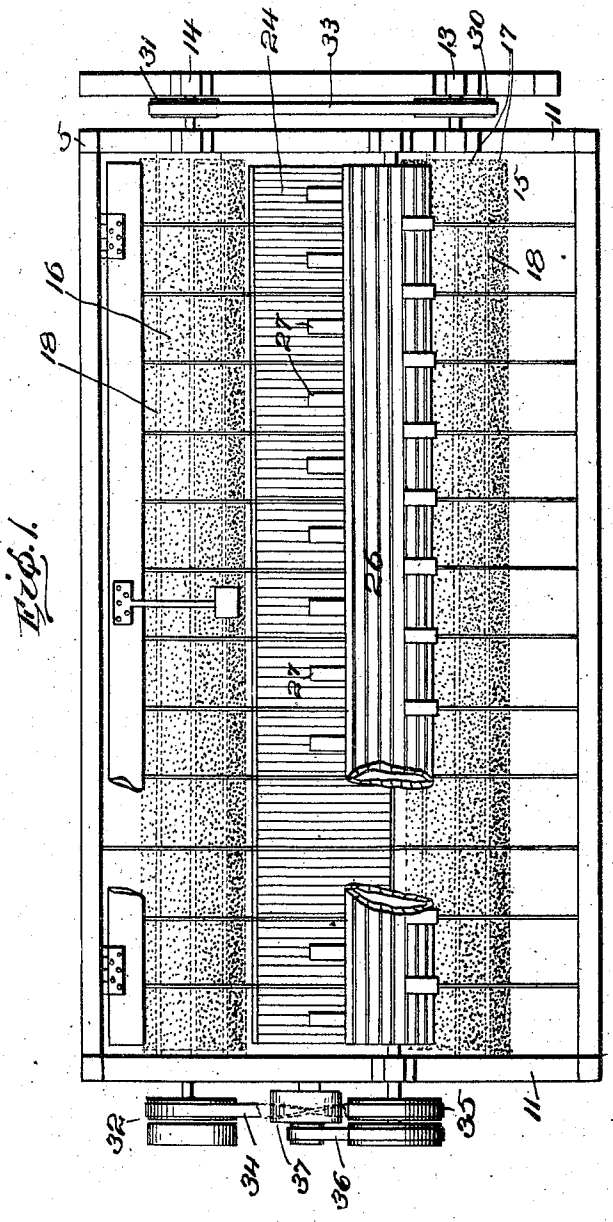


Fig. 1.

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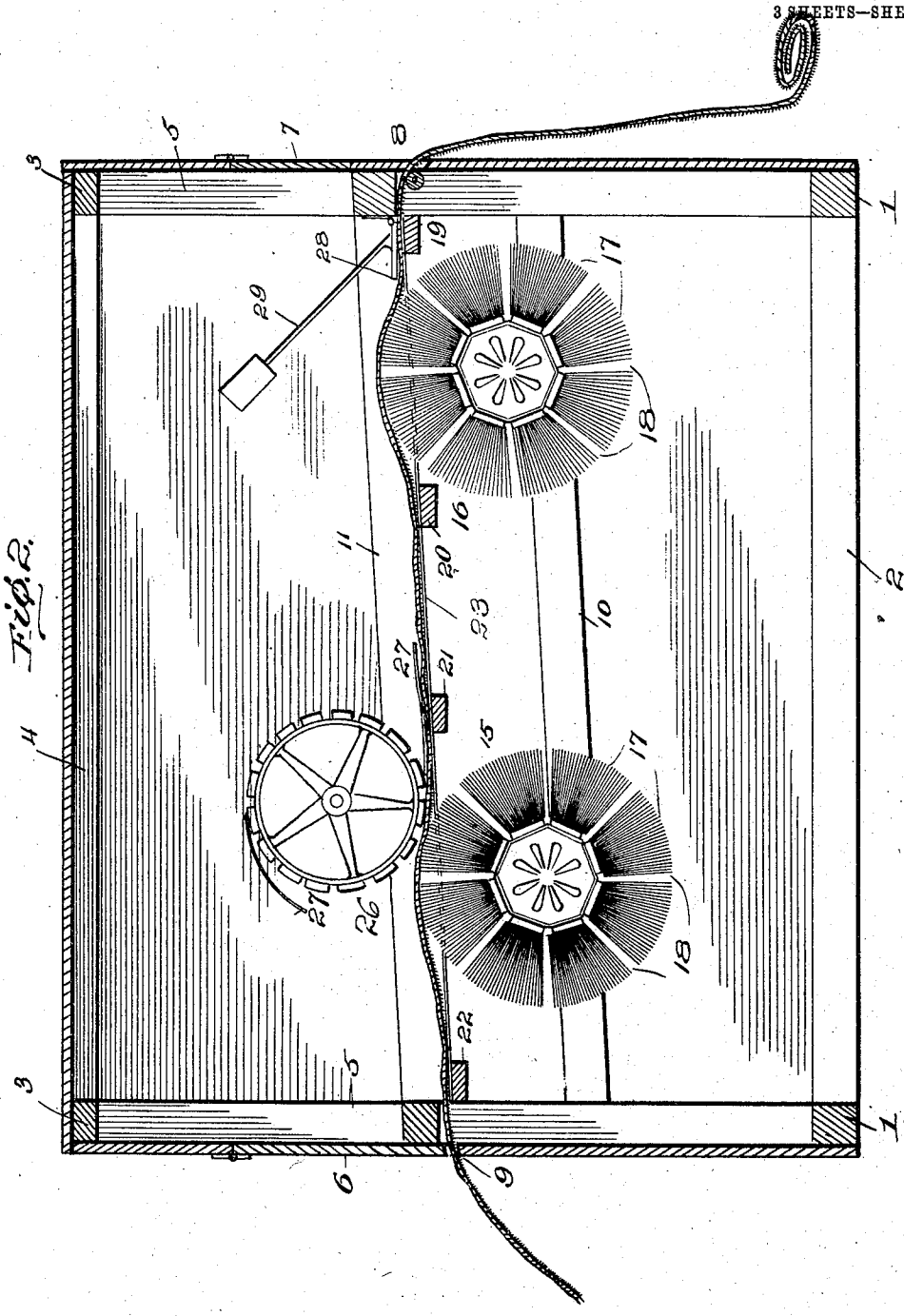


Fig. 2.

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3 SHEETS—SHEET 3.

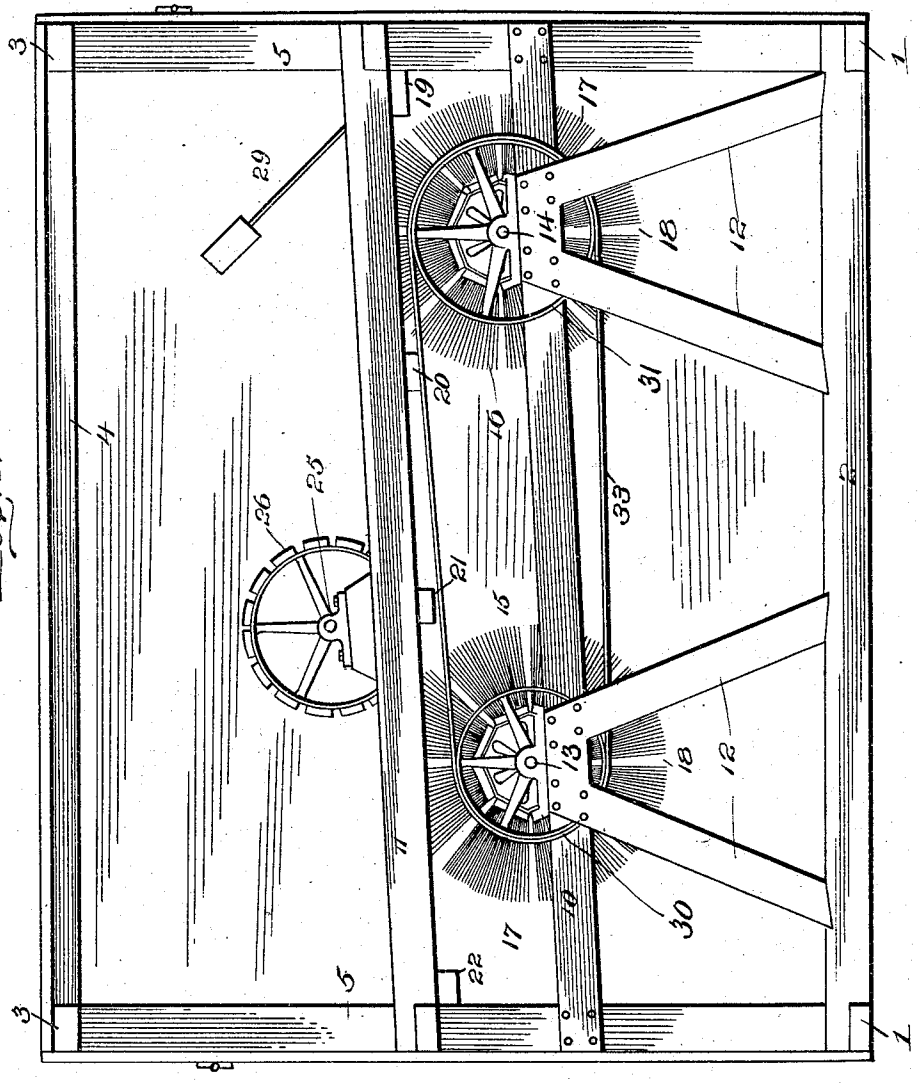


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN J. McGRATH, OF NEW YORK, N. Y., ASSIGNOR TO JOHN M. WOOD, OF NEW YORK, N. Y.

CARPET BEATING AND BRUSHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 782,620, dated February 14, 1905.

Application filed January 20, 1903. Serial No. 139,828.

To all whom it may concern:

Be it known that I, JOHN J. McGRATH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Carpet Beating and Brushing Machines, of which the following is a specification.

This invention relates to a carpet-cleaning machine, and more particularly to a machine for beating and brushing a carpet at one and the same time.

The object of the invention is to provide a machine for beating and brushing carpets and to so construct the same that when the machine is once started and a carpet placed therein the operation is automatic. In other words, after the edge of the carpet has been inserted and the machine set in motion the carpet is automatically fed thereto by the revolving brushes and beater.

Another object of this invention is to provide a carpet beating and brushing machine with two rotary brushes which are so constructed that the rotary motion will free them from all dust and dirt collected from the carpet and a rotary slat-drum having a series of straps attached thereto adapted to beat against a steel-wire bed over which the carpet passes, the slat-drum and wire bed being intermediate the brushes in an elevated position.

With these objects in view and such others as may hereinafter appear my invention consists in the particular construction of the various parts and in the novel manner of combination and arrangement of said parts, all of which will be fully described, and specifically pointed out in the appended claim, which is intended to accord with the terms, spirit, and meaning of the prior state of the art and the existing law.

In the drawings forming a part of this specification, Figure 1 is a top plan view with casing removed. Fig. 2 is a transverse sectional view. Fig. 3 is an end elevation.

Referring by numerals to the drawings, 1 represents the lower side beam; 2, the lower end beam connecting the side beams; 3, the upper side beams; 4, the upper end beams connecting the upper side beams, and 5 the perpendicular corner-beams connecting the upper and lower end and side beams, thus providing a frame which is entirely covered, as plainly shown in the drawings, and provided with oppositely-disposed elongated doors 6 and 7, below which are elongated slots 8 and 9, the object of which will be hereinafter explained. Secured to the frame at each end thereof are oppositely-disposed slanting parallel beams 10 and 11, the lower beams being suitably braced, as clearly shown at 12. Mounted in journals 13 and 14 upon the opposite beams 10 are rotary brushes 15 and 16, the body of the brushes consisting of an octagonal or a many-sided drum, upon which the brushes proper are mounted in rows 17, leaving between each row a space 18, thus providing means whereby the brush will clean itself, owing to the centrifugal force caused by the rotary motion throwing the dust and lint through the spaces 18.

Secured to the opposite beams 11 are longitudinal beams 19, 20, 21, and 22. Secured to the beams 19 and 22 are a series of transverse steel wires 23, which pass through the periphery of the brushes and over the longitudinal beams 20 and 21, the beams 20 and 21 being connected by a series of steel wires which are sufficiently close together to form a bed 24, the object of which will be fully described. Mounted in journals 25 upon the opposite sections 11 is a slatted drum 26, provided with a series of straps 27, attached at one end in two oppositely-disposed rows. The periphery of this drum is in juxtaposition to the wire bed 24 and is slatted in order that it will facilitate in feeding the carpet to the last brush and yet not cause the carpet to adhere thereto, as is the case with solid drums.

Hinged to the frame above the elongated slot 8 is a frictional contact 28, governed by a weighted arm 29, which contact regulates the amount of carpet fed to the machine and keeps the said carpet pressed down upon the first brush.

Mounted upon the ends of the brushes are pulleys 30 31, and a double pulley 32 is mounted on one end of brush 16, and the pulleys 30 and 31 being connected by a belt 33, and the double pulley 32 connected by a belt 34 to a double pulley 35 upon one end of the slat-drum. The double pulley 35 is also connected by a belt 36 to the suction fan or blower 37, the power being applied to the double pulley 32.

Mode of operation: The carpet or rug is introduced or inserted in the elongated slot 8 beneath the frictional contact 28, which presses it down upon the first brush, the rotary motion of which carries it forward upon the guide-wires 23 to the wire bed 24, at which point it is brought in contact with the beating-straps 27 and by the action of the slatted drum 26 it is passed over the guide-wires 23 to the second or last brush, the rotary motion of which passes it out through the elongated slot 9.

It will thus be seen that I provide a carpet brushing and beating machine which will efficiently perform all of its intended functions.

Having thus described the various features of my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a carpet brushing and beating machine, a casing, two parallel rotary brushes mounted within the casing, a steel-wire bed intermediate the brushes, longitudinal slots in the sides of the casing, transverse guide-wires extending from one slot to the other, a rotary slat-drum mounted within the casing in juxtaposition to the said wire bed, a series of straps attached by one end to the said drum, a frictional contact adapted to engage the carpet, a suction-blower attached to the casing, and means for imparting motion to the said brushes, drum and blower, substantially as specified.

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