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J. B. ACKERMANN.

SWEEPING ATTACHMENT FOR FLOOR SCRAPERS.

APPLICATION FILED AUG. 31, 1907.

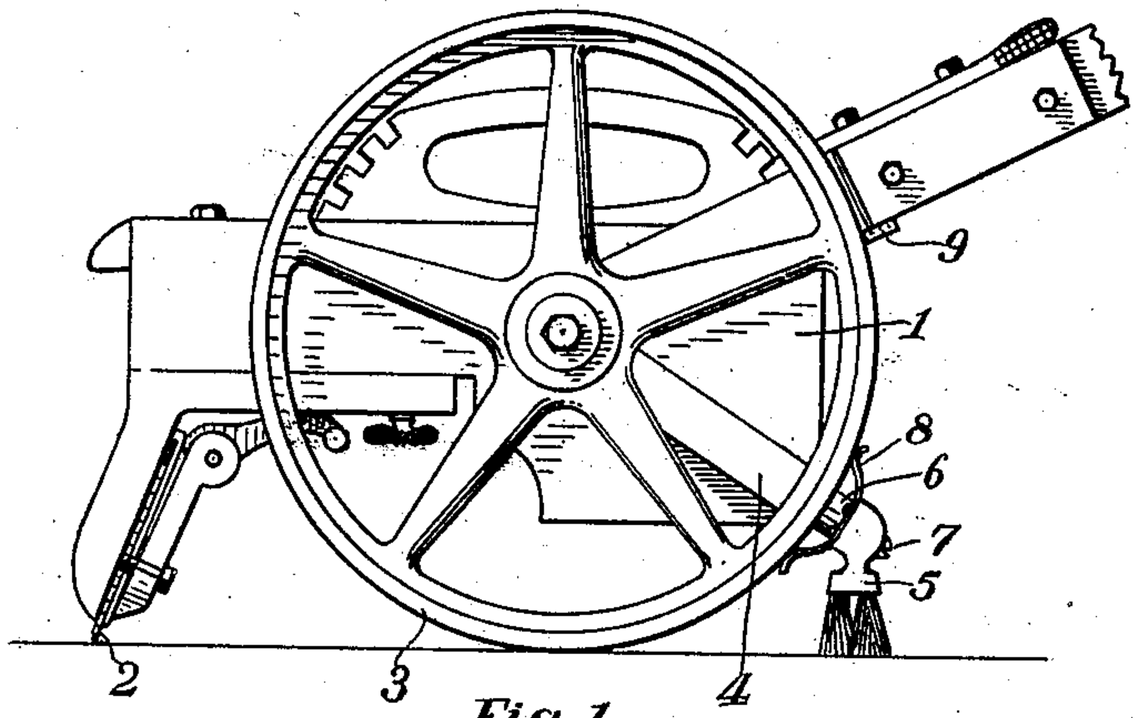

Fig. 1.

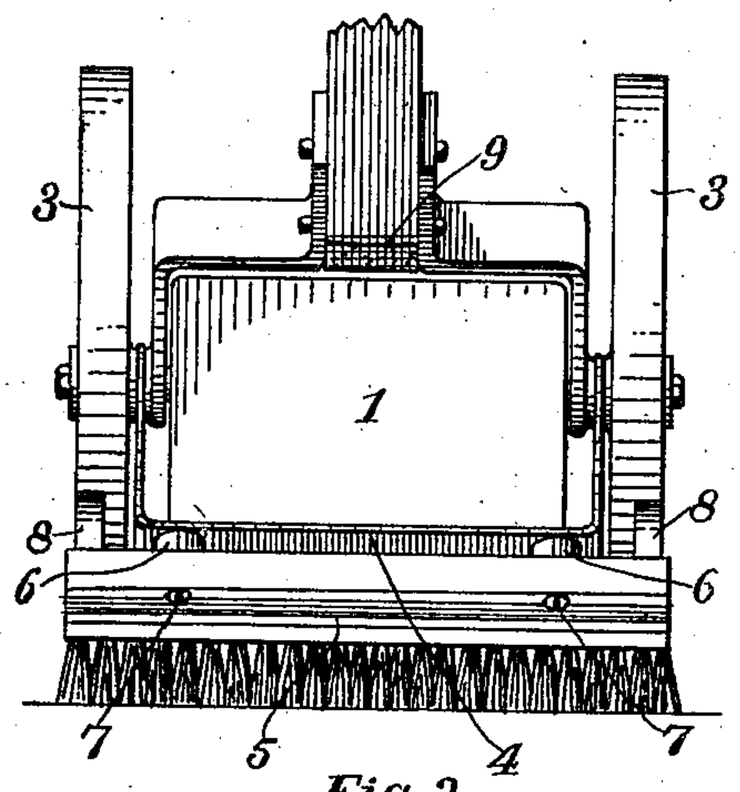

Fig. 2.

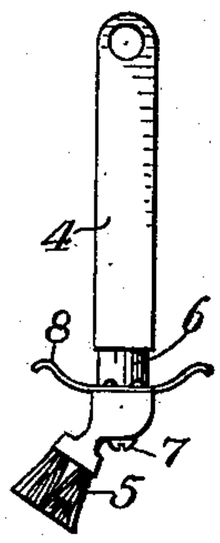

Fig. 4.

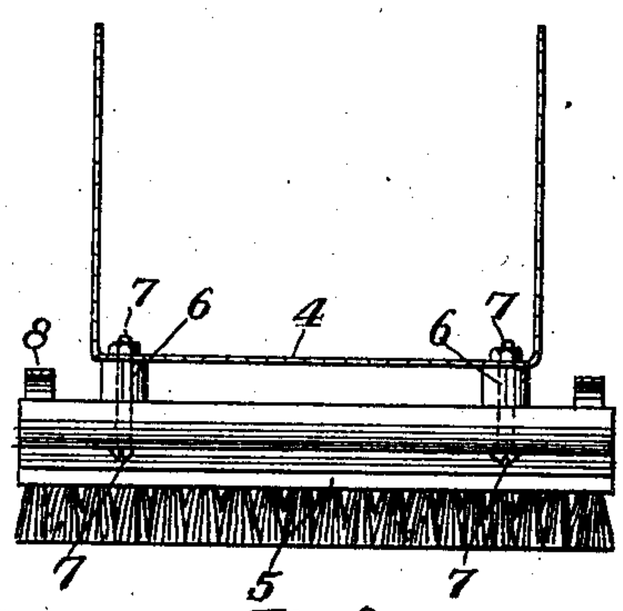

Fig. 3.

Fig. 5.

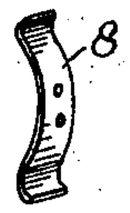

Fig. 6.

Witnesses
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SWEEPING ATTACHMENT FOR FLOOR-SCRAPERS.

No. 889,496. Specification of Letters Patent. Patented June 2, 1908.

Application filed August 31, 1907. Serial No. 390,851.

To all whom it may concern:

Be it known that I, JOHN B. ACKERMANN, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Sweeping Attachments for Floor-Scrapers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in sweeping attachments for floor scrapers (and more particularly to an attachment for the style of floor scraper disclosed in my pending application, Serial Number 367,513, filed April 11, 1907,) whereby the shavings, grit and dust on the floor are prevented from interfering with the proper operation of the device. Heretofore the shavings removed by the cutting blade, the grit, dust and other obstructions have been permitted to remain upon the floor and by getting under the wheels and cutting blade of the device to materially interfere with the operation of the same and to dull the cutter.

The object of my invention is to prevent these undesirable results and I accomplish this object by providing the device with an automatically operated brush or sweeper, which engages the floor during the cutting stroke of the machine and sweeps away the shavings, dust, grit and other obstructions, and thus leaves the floor clean and free from anything to interfere with the proper operation of the device, or to dull the cutting blade, as will more fully appear by reference to the accompanying drawings, in which:

Figure 1. is a side elevation of a floor scraper with my device attached. Fig. 2. a rear elevation of the same; Fig. 3. a plan view of my device detached from the machine; Fig. 4. an end elevation of the same; Fig. 5. a detail of one of the elastic washers; and Fig. 6. a detail of one of the friction shoes.

Like numbers refer to like parts in all of the figures.

1 represents the body of the machine, 2 the cutting blade of the same; 3 the supporting wheels at the axis of which is pivotally supported a yoke 4 having its respective arms extending between the body 1 and the supporting wheels 3 and rotative about the axis of the said wheels. The middle portion of this yoke extends transversely of the machine and between the rims of the wheels. To this yoke is attached a brush 5 adapted to engage the floor when lowered, and on each end of the brush is a shoe or friction member 8 adapted to engage the rim of the respective wheel 3 to raise and lower the brush by frictional contact with the wheel.

To limit the upward movement of the brush, stops 9 are inserted in the body 1, which stops engage the arms of the yoke 4 as they rise, and to adjust the frictional contact of the shoes with the wheels 3, the brush 5 is spaced apart from the yoke 4 and attached thereto by bolts 7 surrounding which bolts and between the brush and yoke are elastic washers 6. By tightening the bolts, the washers will be compressed and the shoes 8 brought into more intimate contact with the wheels 3. These shoes are also flexible so that they yieldingly engage the wheels, whereby they slide smoothly thereon. In operation, upon the forward or cutting stroke, the lower portions of the wheels turn toward the cutter 2 and downward at the side toward the brush. The brush is thus carried down in contact with the floor by frictional engagement of the shoes 8 with the wheels 3 and held in contact therewith with more or less pressure according to the adjustment of the bolts 7. This brush also extends in front of the wheels as well as the cutter, and thus sweeps away all shavings, sand or other obstructions from before the machine. On the return or backward stroke of the machine, the wheels 3 revolve oppositely and upward where engaged by the shoes and thus carry the brush up away from the floor with the yoke in contact with the stops 9. The brush will thus pass over any obstruction on the floor instead of carrying the same along under the machine. The brush is thus automatically operated to sweep anything away from before the machine, when said machine is operated.

What I claim is:

1. In combination with a floor scraper, a brush movably attached thereto, and means for automatically raising and lowering the brush.

2. In combination with a floor scraper, a brush pivotally connected thereto and adapted to engage the floor when lowered, and means for alternately raising and lowering the brush as the scraper is reciprocated.

3. In combination with a floor scraper

having supporting wheels and a cutter, a brush movably mounted on the scraper, means for limiting the upward movement of the brush, and shoes connected to the brush and frictionally engaging the wheels to vertically adjust the brush.

4. In combination with a floor scraper having supporting wheels and provided with a cutter, a yoke pivoted at the axis of the wheels, a brush attached to the yoke, means for adjusting the brush toward and from the wheels, shoes connected to the brush and frictionally engaging the wheels, and means for limiting the upward movement of the yoke.

5. In combination with a floor scraper having supporting wheels and a cutter, a yoke pivoted at the axis of the wheels, a brush, bolts connecting the brush and yoke, elastic washers between the brush and yoke, shoes attached to the brush and frictionally engaging the wheels, and stops to engage the yoke and limit its upward movement.

6. In combination with a floor scraper having supporting wheels and a cutter, a brush engaging the floor in advance of the wheels and cutter, a yoke pivoted at the axis of the wheels and supporting the brush, stops to engage the yoke and limit its upward movement, means for adjustably attaching the brush to the yoke, and flexible shoes attached to the brush and frictionally engaging the wheels.

7. In combination with a floor scraper having supporting wheels and a cutter to engage and traverse a floor, a brush adapted to engage the floor in advance of the wheels and cutter, a yoke pivoted at the axis of the wheels, a stop to limit the upward movement of the yoke, bolts connecting the brush and yoke, elastic washers between the yoke and brush, and flexible shoes attached to the brush and frictionally engaging the wheels.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. ACKERMANN.

Witnesses:
GEORGIANA CHACE,
LUTHER V. MOULTON.