July 17, 1923. 1,462,071

P. RIEMAN

VACUUM CLEANER

Filed July 18, 1921

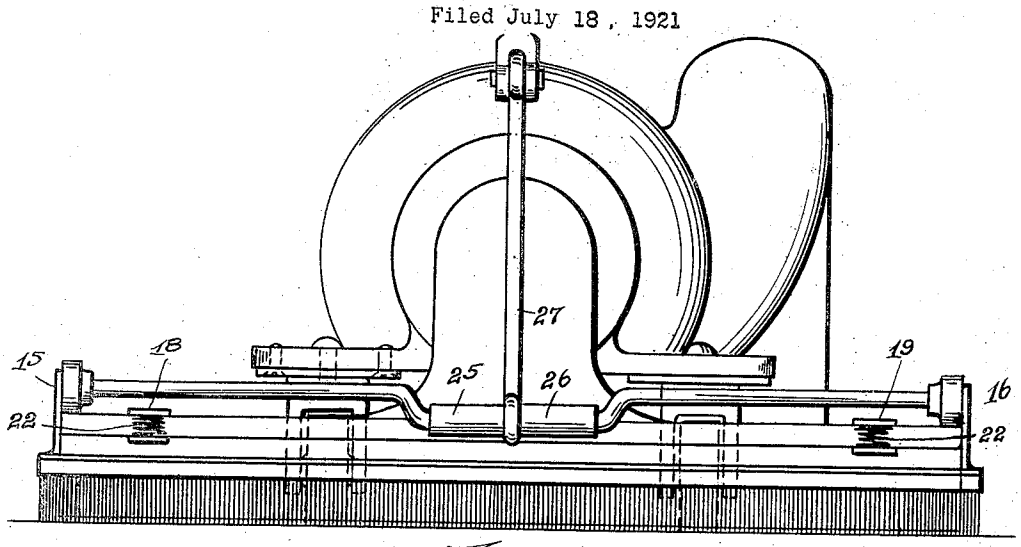


Fig. 1.

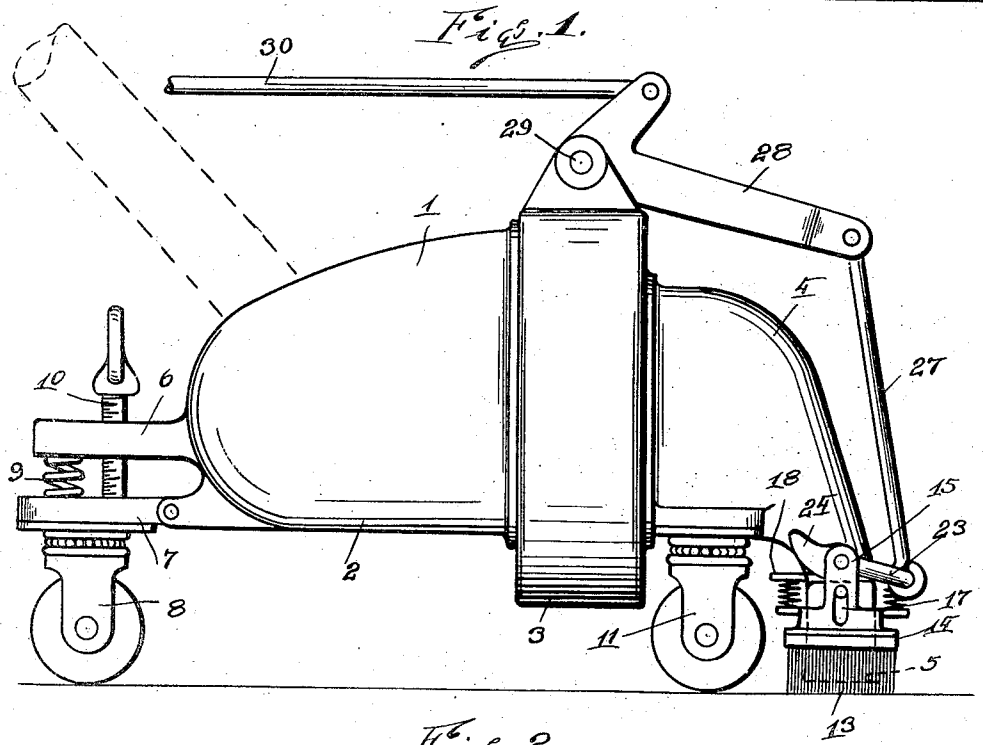


Fig. 2.

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UNITED STATES PATENT OFFICE.

PAUL RIEMAN, OF ROCHESTER, NEW YORK.

VACUUM CLEANER.

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To all whom it may concern:

Be it known that PAUL RIEMAN, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, has invented certain new and useful Improvements in Vacuum Cleaners, of which the following is a specification.

The object of this invention is to provide a new and improved form of portable vacuum cleaner.

This and other objects of this invention will be fully illustrated in the drawings, described in the specification and pointed out in the claims at the end thereof.

In the drawings:

Figure 1 is a front end elevation of the cleaner.

Figure 2 is a side elevation of the cleaner.

In the drawings, like reference numerals indicate like parts.

In the drawings, reference numeral 1 indicates the casing of the machine having a motor casing 2 at one end thereof, a fan casing 3 at the intermediate part and the intake manifold 4 at the other end thereof, at the lower end of which is provided a nozzle 5. On the end of the motor casing is provided a lug which is integral therewith and below the lug is provided a bracket 7 which is hinged on the casing. The bracket 7 is supported by a ball bearing caster 8. The spring 9 is interposed between the lug 6 and the hinge bracket 7. An adjusting screw 10 is mounted in the lug 6 the free end of which bears against the hinge bracket 7 and spreads the two apart or permits them to come together. The forward end of the casing is supported on the ball bearing casters 11 and 12 and on the three casters the casing is easily swiveled and turned.

Surrounding the nozzle 5 is provided a brush 13 which is carried on a sleeve 14 that is mounted to slide up and down on the nozzle. At each end of the sleeve is provided the ears 15 and 16 which ears are slotted as shown in 17 and engage with pins carried on the nozzle by which the up and down movement is limited The lugs 18 and 19 are provided on the casing and lugs 20 and 21 are provided on the sleeve and between these lugs are provided the springs 22 which normally hold the brush in its lowest position in contact with the floor, as shown in Figure 2 but permit it to lift. The screw 10 can be turned at one end of the machine to raise or lower the brush at the other end of the machine and in this way adjustment is provided that will secure the correct setting of the brush. The brush may be lifted manually by means of a crank shaft 23 which is mounted to turn on the lugs 15 and 16 and at its outer ends is provided with the cams 24 which make contact with the shoulders provided on the casing 4. The crank is located at the middle of the shaft. Collars 25 and 26 are provided on the crank between which collars is connected a link 27 to which in turn is connected a bell crank lever 28, pivoted at 29 on the casing and operated by the link or handle 30. By the movement of the link 30 the brush may be raised and lowered to suit the wishes of the operator.

I claim:

1. A vacuum cleaner, comprising a casing, casters supporting the rear and sides of said casing, a nozzle at the front of said casing, a brush surrounding the perimeter of said nozzle and means adapted to raise and lower said brush surrounding said nozzle.

2. A vacuum cleaner, comprising a casing, a nozzle at the front of said casing, a brush surrounding the perimeter of said nozzle, a pair of cams provided on said brush and means adapted to rock said cams to raise or lower said brush on said nozzle.

3. A vacuum cleaner, comprising a casing, wheels supporting said casing, a nozzle at the front of said casing, a brush surrounding said nozzle, a shoulder formed on said nozzle, a cam provided on said brush said cam being adapted to engage with said shoulder, and means adapted to rock said cam to raise or lower said brush on said nozzle.

4. A vacuum cleaner, comprising a casing, a nozzle at the front of said casing, a sleeve surrounding said nozzle and adapted to slide up and down on said nozzle, a brush mounted on the lower end of said sleeve, guides on said sleeve to guide said sleeve in a vertical path on said nozzle, cams provided at the top of said sleeve, a crank mounted in front of said nozzle, said crank being adapted to operate said cams to either raise or lower said sleeve and said brush on said nozzle.

In testimony whereof I affix my signature.

PAUL RIEMAN.