July 5, 1932. L. ELL 1,866,154

VACUUM CLEANER

Filed Jan. 7, 1930

Fig. 1.

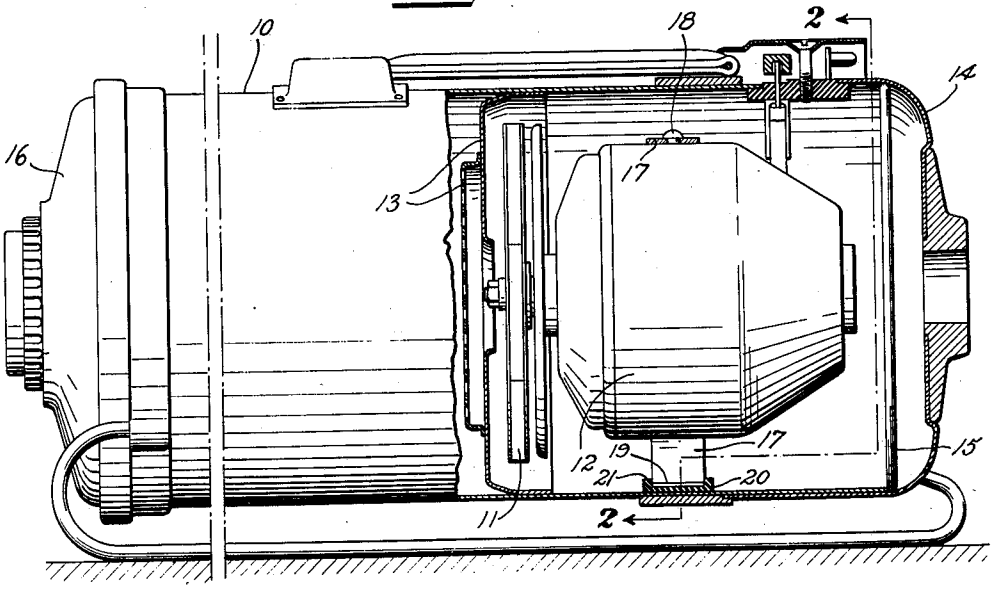
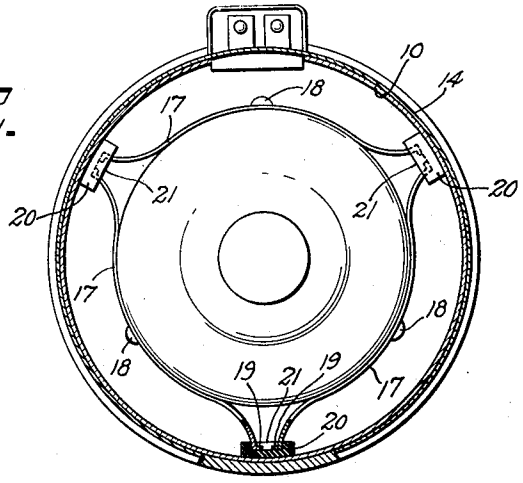


Fig. 2.



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UNITED STATES PATENT OFFICE

LARS ELL, OF STOCKHOLM, SWEDEN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO ELECTROLUX CORPORATION, A CORPORATION OF DELAWARE

VACUUM CLEANER

Application filed January 7, 1930, Serial No. 419,019, and in Germany January 15, 1929.

My invention relates to the vacuum cleaner art and has particular reference to vacuum cleaners of the domestic type. One object of the invention is to provide a vacuum cleaner which during operation causes a minimum of noise and which is cheap to manufacture.

Further objects and the nature and advantages of my invention will become apparent from consideration of the following description taken in conjunction with the accompanying drawing showing a preferred form of the supporting arrangement of the suction cleaner motor.

In the accompanying drawing: Fig. 1 is an elevational view partly in section of a vacuum cleaner, according to the invention, and Fig. 2 is a cross section along the line 2—2 of Fig. 1.

In the figures, reference character 10 designates a casing which, as is common in this kind of vacuum cleaner, includes a dust collector, a fan 11 and a driving motor 12 for said fan. A perforated partition 13 divides casing 10 into a pressure chamber and a vacuum chamber. A removable cap 14 in which an exchangeable filter 15 is arranged forms the rear end of the cleaner. At the front-end of the cleaner, there is a removable cover 16. The motor-aggregate consisting of fan 11 and motor 12 is resiliently supported within casing 10 by means of flat metal springs 17. Springs 17 are triangularly arranged around the housing of motor 12 and fixed to the motor by means of rivets or screws 18. The ends 19 of said springs, as is evident from Fig. 2, are provided with angular bends and slidably supported by shoes 20, said shoes advantageously being manufactured from any electrically insulating material, such as rubber, hard rubber or the like. Shoes 20 are fixed to casing 10 in any suitable manner. If it is not desired to have the ends of springs 17 slidably arranged in said shoes, i. e. if the springs 17 are weak enough to take up the vibrations occuring from the motor aggregate, said ends may be rigidly connected with the shoes in any suitable manner.

The edges of shoes 20 are provided with extending edges 21 which prevent an undesired movement of the aggregate in axial direction relative to casing 10.

In a modified embodiment the flat springs may be rigidly fixed to the casing and the ends of same may slidably abut against the aggregate.

What I claim is:—

1. In a vacuum cleaner, a casing, a motor, and a resilient metal strip support for the motor having seating portions slidably seated adjacent the casing and intermediate portions adjacent to the motor, the parts of the support between the seating portions and the intermediate portions being yieldable.

2. In a vacuum cleaner, a cylindrical casing, shoes spaced peripherally inside said casing, a motor, and a resilient metal strip support for the motor having seating portions seated in said shoes and intermediate portions adjacent to the motor, the parts of the support between the shoes and the motor being yieldable.

3. In a vacuum cleaner, a cylindrical casing, shoes spaced peripherally inside said casing, a motor, and a resilient metal strip support for the motor comprising a number of strips corresponding to the number of shoes, the ends of each strip being seated in different shoes and the intermediate portions of the strips being attached to the motor.

4. In a vacuum cleaner, a cylindrical casing, a cylindrical motor in said casing, and resilient strips triangularly disposed in the casing for supporting the motor therein, intermediate portions of said strips conforming to the contour of the motor, and the ends of said strips being slidable with respect to the casing.

5. In a vacuum cleaner, a cylindrical cas-

ing, shoes spaced peripherally inside said casing, a motor, and a resilient metal strip support for the motor having seating portions slidably seated in said shoes and intermediate portions adjacent to the motor.

6. In a vacuum cleaner, a cylindrical casing, shoes spaced peripherally inside said casing, a motor, and a resilient metal strip support for the motor having seating portions slidably seated in said shoes and intermediate portions adjacent to the motor, the parts of the support between the shoes and the motor being yieldable.

In testimony whereof I have affixed my signature.

LARS ELL.