G. CLEMENTS.

NOZZLE AND SQUEEGEE FOR VACUUM CLEANERS.

APPLICATION FILED JUNE 24, 1912.

1,088,880. Patented Mar. 3, 1914.

Fig. 1

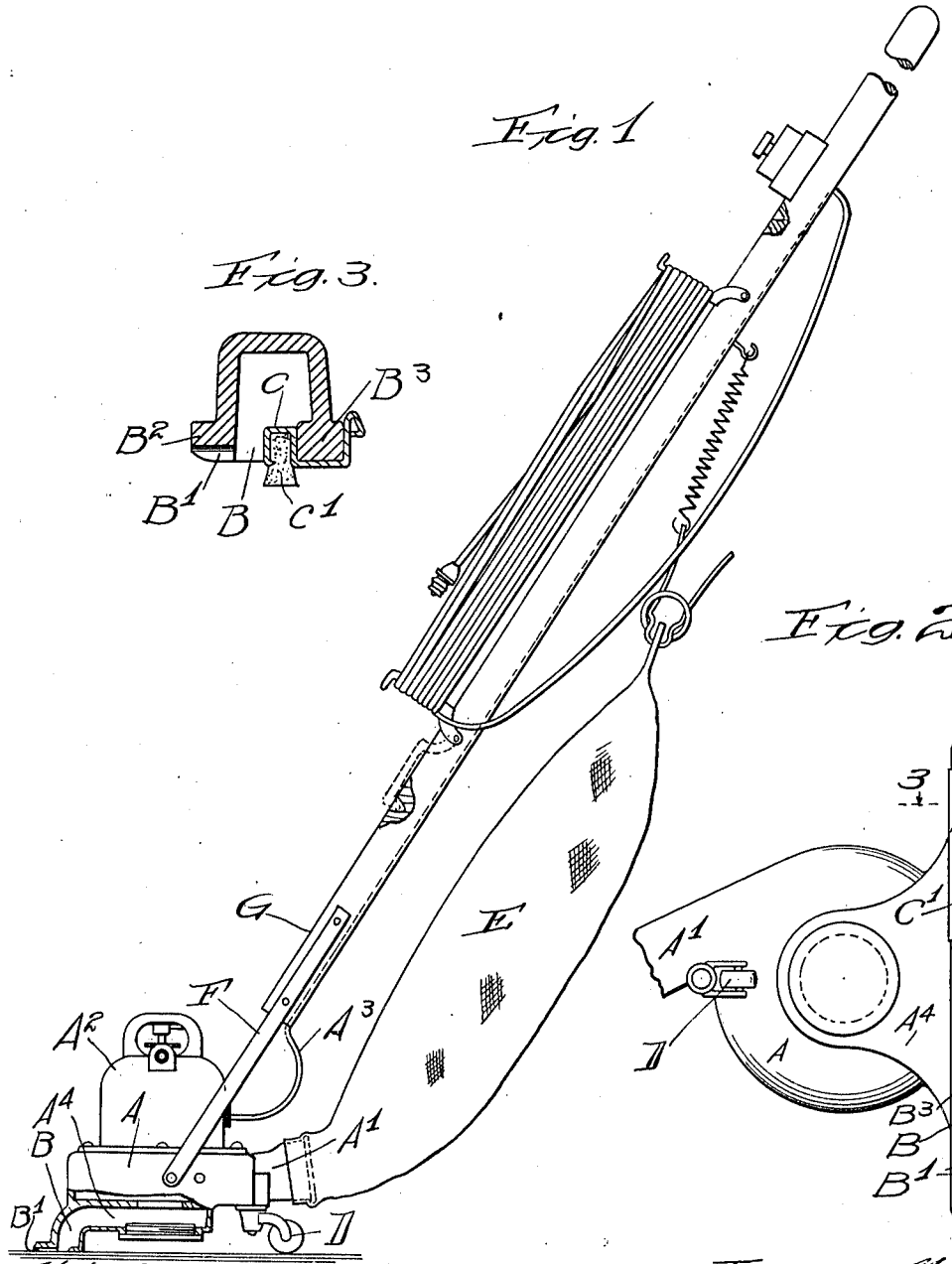


Fig. 3.

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE CLEMENTS, OF CHICAGO, ILLINOIS, ASSIGNOR TO CLEMENTS MFG. CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

NOZZLE AND SQUEEGEE FOR VACUUM-CLEANERS.

1,088,880. Specification of Letters Patent. Patented Mar. 3, 1914.

Original application filed June 14, 1911, Serial No. 633,011. Divided and this application filed June 24, 1912. Serial No. 705,399.

To all whom it may concern:

Be it known that I, GEORGE CLEMENTS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Nozzles and Squeegees for Vacuum-Cleaners, of which the following is a specification.

My invention relates to a nozzle and nozzle attachment or squeegee for vacuum cleaners.

It is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of a vacuum cleaner with the parts broken away and other parts shown in section; Fig. 2 is a bottom view of the same with a portion of the squeegee in place; Fig. 3 an enlarged cross-section on the line 3—3 of Fig. 2.

Like parts are indicated by the same letters in all the figures.

A is a flat cylindrical casing, the interior of which I call the pumping chamber and in it rotates the fan or pumping device. A^1 is the outlet therefrom in this case tangentially arranged. The motor casing A^2 is mounted on the fan casing and leads the conductors A^3 whereby the current which drives the motor which in turn drives the fan is supplied. A^4 is the suction chamber downwardly projecting from the fan casing A and provided with a nozzle which comprises the opening B and the slots B^1, B^1 on the forward lip B^2 of the opening B. Removably attached to the rear lip B^3 is the squeegee holder C with oppositely faced grooves to receive the rear lip B^3 and to hold the squeegee C^1. D is a caster on which the rear of the vacuum cleaner is mounted. E is a dust collecting bag connected with the discharge and F is the bail of the handle G. It will be obvious that the precise form, structure and arrangement of these several parts is not indispensable and that some of the features may be dispensed with and others substituted without departing from the spirit of my invention.

The use and operation of my invention are as follows: The vacuum cleaner, of any desired form, size and shape but provided with a proper nozzle as indicated, is, of course, provided with a motor and fan or pump, means for driving the motor or connections from the motor to such means, means for collecting the dust and an operating handle. The forward lip of the nozzle is provided with obliquely placed grooves. They are preferably arranged alternately inclined in opposite directions as indicated in Fig. 2. These grooves serve, as the cleaner is moved back and forth over the floor covering, to disturb the surface thereof or the nap and thus to open up the surface to make it more easy for surface currents of air to pass through such projecting parts of the floor covering, pick up the dust therefrom and carry it into the interior of the cleaner. These grooves may be arranged at any desired inclination. In the preferred form of my device, I incline these grooves in opposite directions.

The squeegee holder is preferably made of spring metal and is applied when desired, though, of course, it will not always be necessary, to the rear lip of the nozzle. It can be attached or removed without difficulty, being held in place by the frictional engagement and the slide spring clamping effect of the holder on the rear lip. The lower edge of the front groove is inwardly pressed to hold the yielding substance of the squeegee.

The subject matter shown in this case, but also shown, described and claimed in my co-pending applications Nos. 633,011, 705,398 and 705,400, is not claimed herein.

I claim:

1. In a vacuum cleaner a nozzle comprising an elongated end with an elongated opening and a squeegee consisting of a holder with oppositely opening grooves, a yielding material clamped in one of said grooves, and the other adapted to receive and frictionally engage the rear lip of the nozzle.

2. In a vacuum cleaner a nozzle comprising an elongated end with an elongated opening and a squeegee consisting of a holder, a yielding strip secured to said holder and said holder provided with means for yieldingly engaging one lip of the nozzle.

3. In a vacuum cleaner, a nozzle compris-

ing an elongated end with an elongated opening and a squeegee comprising a rigid member removably secured in the elongated opening between the lips, to one of the lips and provided with a downwardly projecting yielding strip.

In testimony whereof, I affix my signature in the presence of two witnesses this 21st day of June 1912.

GEORGE CLEMENTS.

Witnesses:
GENEVA HIRTH,
DENIE A. WALTERS.