

No. 869,544.

PATENTED OCT. 29, 1907.

J. R. BLUM.

REGULATING DEVICE FOR DUST REMOVING PNEUMATIC MACHINES.

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FIG. 1.

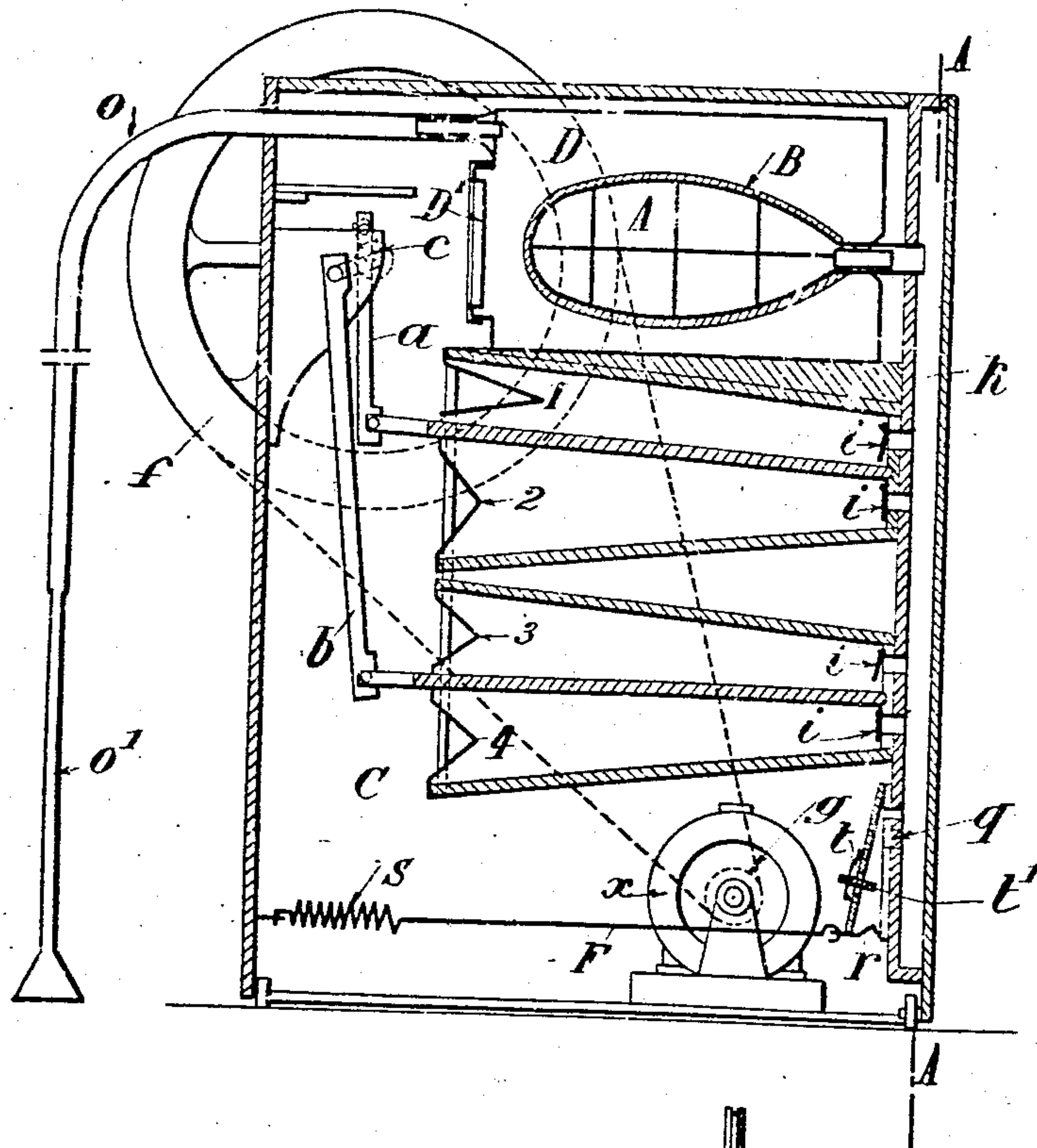
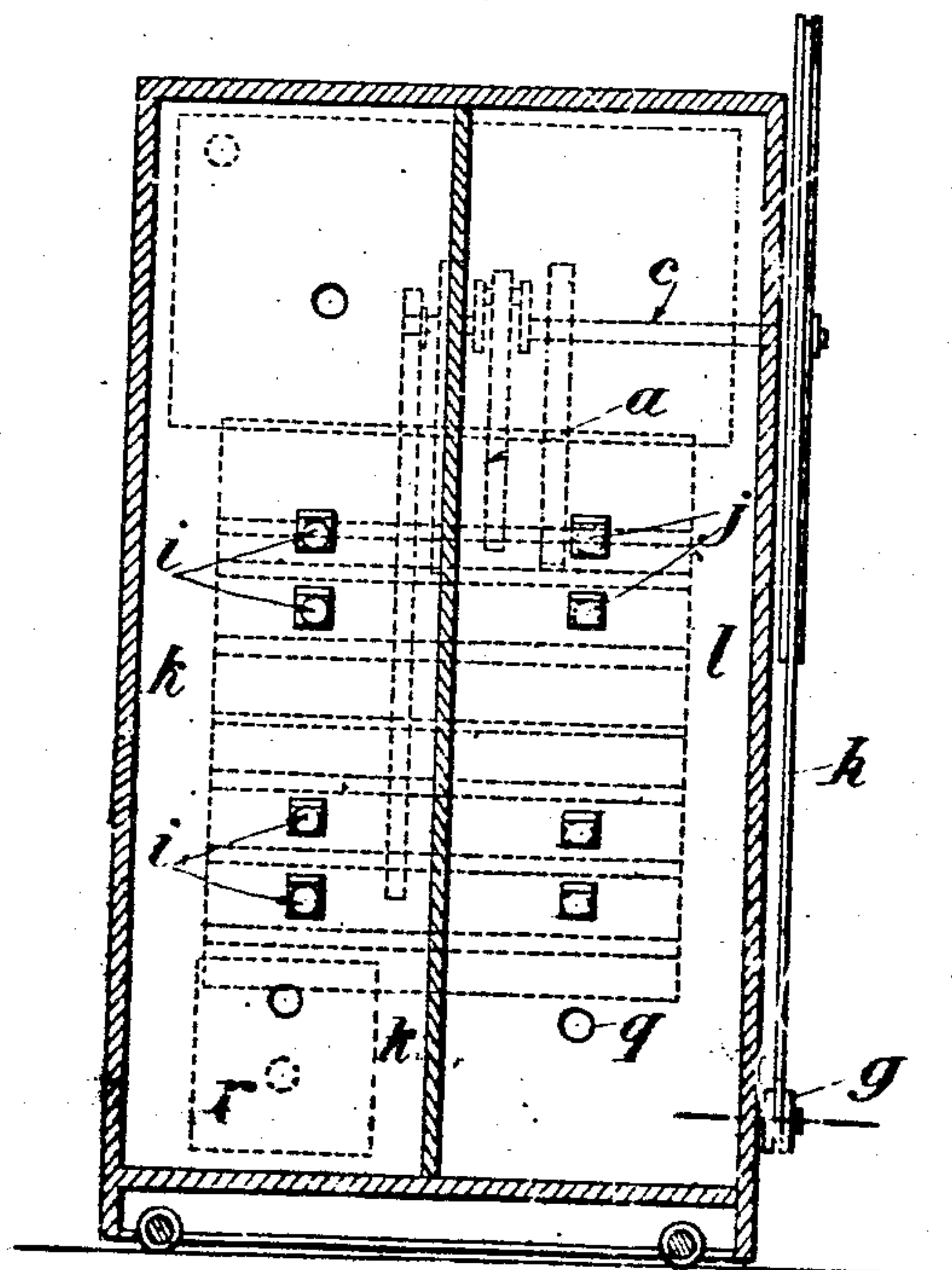


FIG. 2.



WITNESSES

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REGULATING DEVICE FOR DUST-REMOVING PNEUMATIC MACHINES.

NO. 859,544.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Original application filed April 19, 1906, Serial No. 312,672. Divided and this application filed February 20, 1907.
Serial No. 358,450.

To all whom it may concern:

Be it known that I, JULES RENÉ BLUM, civil engineer, a citizen of France, residing at 49 Boulevard Péreire, Paris, France, have invented new and useful Improvements in Regulating Devices for Dust-Removing Pneumatic Machines, of which the following is a specification.

This invention which is a division of the application Serial No. 312,672 filed April 19, 1906, relates to an improved regulating device adapted to be used in connection with machines for removing dust by suction from carpets, furniture, curtains, tapestry and the like.

The device consists essentially in small regulating bellows connected with the suction compartment of the machine and provided with a discharge valve which may be controlled in such a manner that in each particular case the degree maximum of vacuum is regulated in accordance with the delicacy of the fabric being cleaned. By this means, delicate fabrics such as tapestry and the like can be cleaned without getting injured as would be the case where the same powerful vacuum was applied as would for example be requisite for thick carpets.

The invention is illustrated in the accompanying drawing, in which:-

Figure 1 shows a vertical sectional view, and Fig. 2 is a section taken on line A-A of Fig. 1.

The dust removing machine comprises the usual flexible aspiration tube *a* terminated in a metallic suction mouth *a'*, a filtering receptacle *A* the walls of which consist of a frame of metallic hoops inclosed in an envelop or shell *B* adapted to permit the air to pass therethrough and at the same time to filter the same, said receptacle being arranged within a hermetically closed box *D* which is immovably secured upon the stationary flap of the upper bellows *r* and bellows 1, 2, 3, 4. Each bellows has a suction or inlet valve *i* and an expulsion or outlet valve *j*. All the suction valves open towards a single vertical compartment *k* and all the expulsion valves into a vertical compartment *l*.

The bellows 1, 2, 3, 4, are operated by the depending

links *a b* of a crank shaft *c* which is controlled by hand or mechanically.

The improved regulating device consists of small bellows *r* secured upon a wall of the suction compartment *k* and in constant communication with the interior of said compartment, in such a manner that the partial vacuum, or lowering of pressure, produced by the main bellows 1, 2, 3, 4, always has an effect within the bellows *r*. Upon the movable flap of said bellows *r* is arranged a discharge valve *t* which carries an adjustable stop screw *t'*.

The movable flap of the bellows *r* is connected to a spring *S* which tends to keep said bellows open while at normal work. As long as the intensity of the suction is not too great, the spring *S* keeps the bellows open, but when said intensity surpasses the degree maximum which has been fixed beforehand, the spring yields and the bellows collapses. In the yielding movement of the movable flap of the bellows, the stop screw *t'* abuts against the fixed wall of said bellows, and causes the valve *t* to open. The outer air enters then the compartment *k* and reduces immediately the vacuum in the suction tube. It is thus possible, by suitably adjusting the stop screw, to regulate at will the degree of vacuum according to the objects to be cleaned.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

In a machine for removing dust by suction from carpets, furniture, curtains, tapestry and the like, a regulating device comprising in combination small bellows *r* in constant communication with the suction devices of the machine, a discharge valve *t* provided for in the movable flap of the bellows *r*, an adjustable stop screw *t'* carried by the discharge valve *t*, and a spring *S* acting upon the movable flap of the bellows, substantially as described and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JULES RENÉ BLUM.

Witnesses:

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