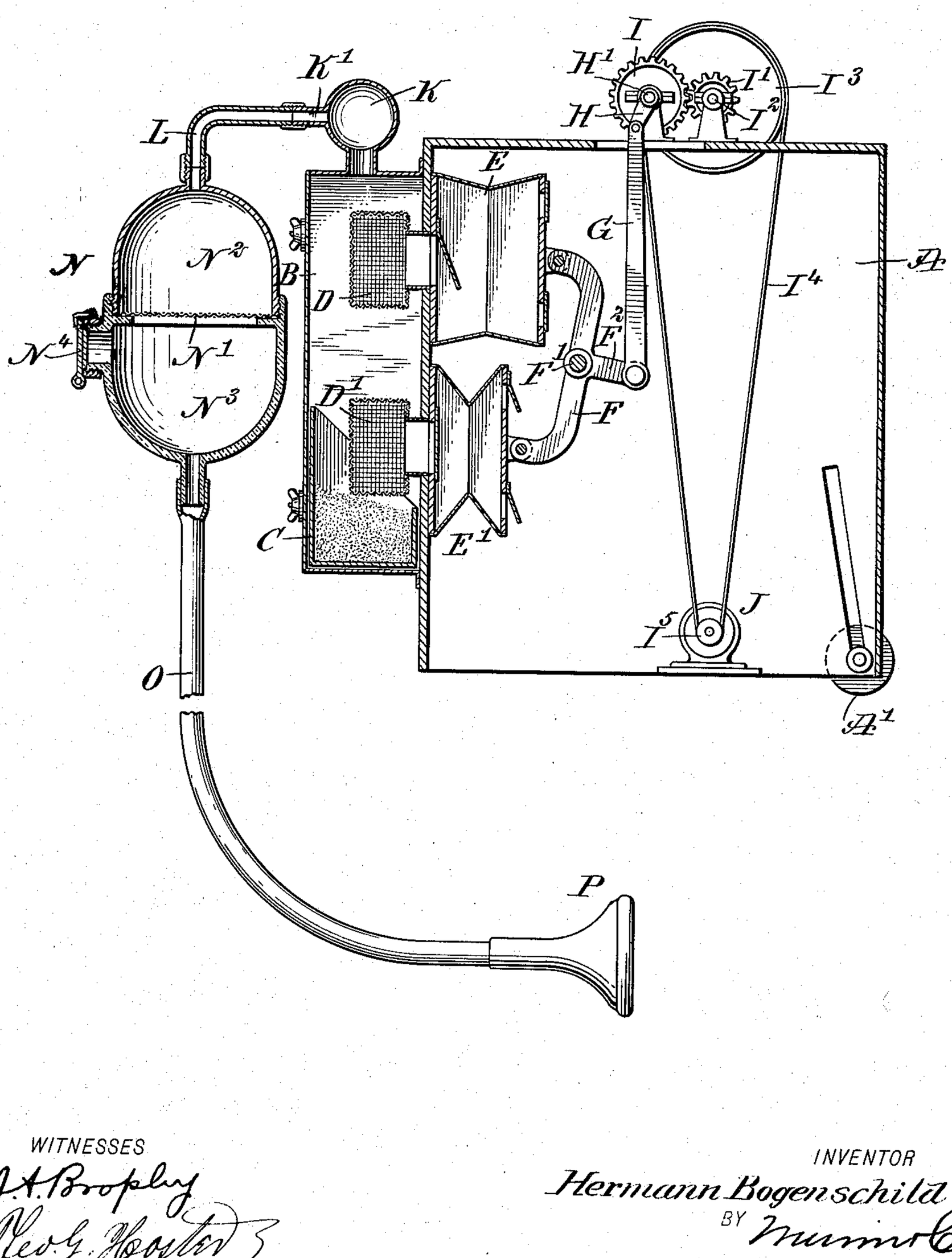
No. 867,006. PATENTED SEPT. 24, 1907.

H. BOGENSCHILD.

DUST REMOVING APPARATUS.

APPLICATION FILED OCT. 31, 1906.



WITNESSES

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HERMANN BOGENSCHILD, OF BERLIN, GERMANY.

DUST-REMOVING APPARATUS.

No. 867,006. Specification of Letters Patent. Patented Sept. 24, 1907.

Application filed October 31, 1906. Serial No. 341,468.

To all whom it may concern:

Be it known that I, HERMANN BOGENSCHILD, a subject of the German Emperor, and a resident of Berlin, Germany, have invented a new and Improved Dust-Removing Apparatus, of which the following is a full, clear, and exact description.

The invention relates to brushing and scrubbing, and its object is to provide a new and improved dust removing apparatus for domestic and industrial purposes, such as cleaning carpets, upholstered furniture, tapestries, hangings, curtains, walls, wall papers, printing types and fonts, etc.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawing, forming a part of this specification, in which the figure is a sectional side elevation of the improvement.

The improved apparatus is preferably mounted on a suitably constructed frame A having wheels A′ for conveniently moving the apparatus about, and on the same frame A is secured an air and dust separating chamber B containing in its lower portion a removable dust receiving receptacle C. Within the chamber B are arranged filters D, D′ connected with the suction valves of a pair of bellows E, E′ secured to the frame A, and adapted to be alternately opened and closed either by power or by hand. As shown in the drawing the movable members of the suction bellows E, E′ are pivotally connected with a lever F fulcrumed at its middle at F′ within the frame A, and the said lever F is provided at its fulcrum with an angular arm F^2 pivotally connected by a link G with a crank arm H held on a crank shaft H′ loosely mounted upon the frame A. On the crank shaft H′ is secured a gear wheel I in mesh with a pinion I′ secured on the driven shaft I^2 journaled on the frame A, and carrying a pulley I^3 connected by a belt I^4 with a pulley I^5 attached to the shaft of a motor J mounted on the frame A. Now when the motor J is running a rotary motion is transmitted to the shafts I^2 H′, so that a swinging motion is given to the lever F to alternately open and close the bellows E and E′, with a view to suck the air out of the chamber B by way of the filters D, D′ and the suction valves of the bellows E, E′. By the arrangement described the dust-laden air passing into the chamber B is filtered through the filters D and D′, so that only pure air passes into the bellows E, E′, while the dust is separated from the air and stays in the receptacle C, removed from time to time for the emptying of its contents.

The top of the chamber B is connected with a hollow ball K having a nipple K′ for connection with a flexible tube carrying suitable suction mouthpieces adapted to be passed over the article to be cleaned, so as to draw the dust from the articles to the chamber B through the suction action of the bellows E and E′, it being understood that the dust is separated within the chamber B, as above explained.

As illustrated in the drawing, the apparatus is more especially designed for cleaning printing types and type fonts, and for this purpose the nipple K′ is connected by a tube L with a separator N having a transverse perforated partition N′ dividing the separator N into compartments N^2 and N^3, of which the compartment N^2 is connected with the tube L, and from the compartment N^3 leads a flexible tube O carrying a head P having an opening corresponding to the size of the type to be cleaned. Now when the motor J is running and the suction is produced in the chamber B and the head P is placed over the type, then the suction causes the type to pass through the tube O into the compartment N^3 of the separator N, and at the same time the dust is drawn off the type and passes with the air through the meshes of the partition N′ into a chamber N^2, to finally pass into the chamber B in which the air and dust are separated by the action of the filters D, D′ and the suction bellows E, E′. The cleaned type in the compartment N^3 can be removed from time to time through a suitable door connected with the said compartment.

From the foregoing it will be seen that the separator N allows the printing types to accumulate and the dust sucked off the type to pass on through the partition N′ to the chamber B as above explained, the cleaned type being removed from time to time, to be returned to the case in a clean condition.

The dust removing apparatus shown and described is very simple and durable in construction, and is not liable to easily get out of order.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A dust removing apparatus, comprising an air and dust separating chamber, a separator for separating the dust from the article to be cleaned and connected with the said air and dust separating chamber, the said dust and article separating chamber being provided with means for sucking up the article to be cleaned and delivering it to the separator, and means for producing suction in the said air and dust separating chamber.

2. A dust removing apparatus, comprising an air and dust separating chamber, air pumping means connected with the said chamber for producing a continuous suction therein, and a separator having a perforate partition for dividing the said separator into two compartments, of which one is connected with the said air and dust separating chamber, and the other is provided with a suction device for sucking up an article and delivering it to the said compartment.

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

HERMANN BOGENSCHILD.

Witnesses:

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