

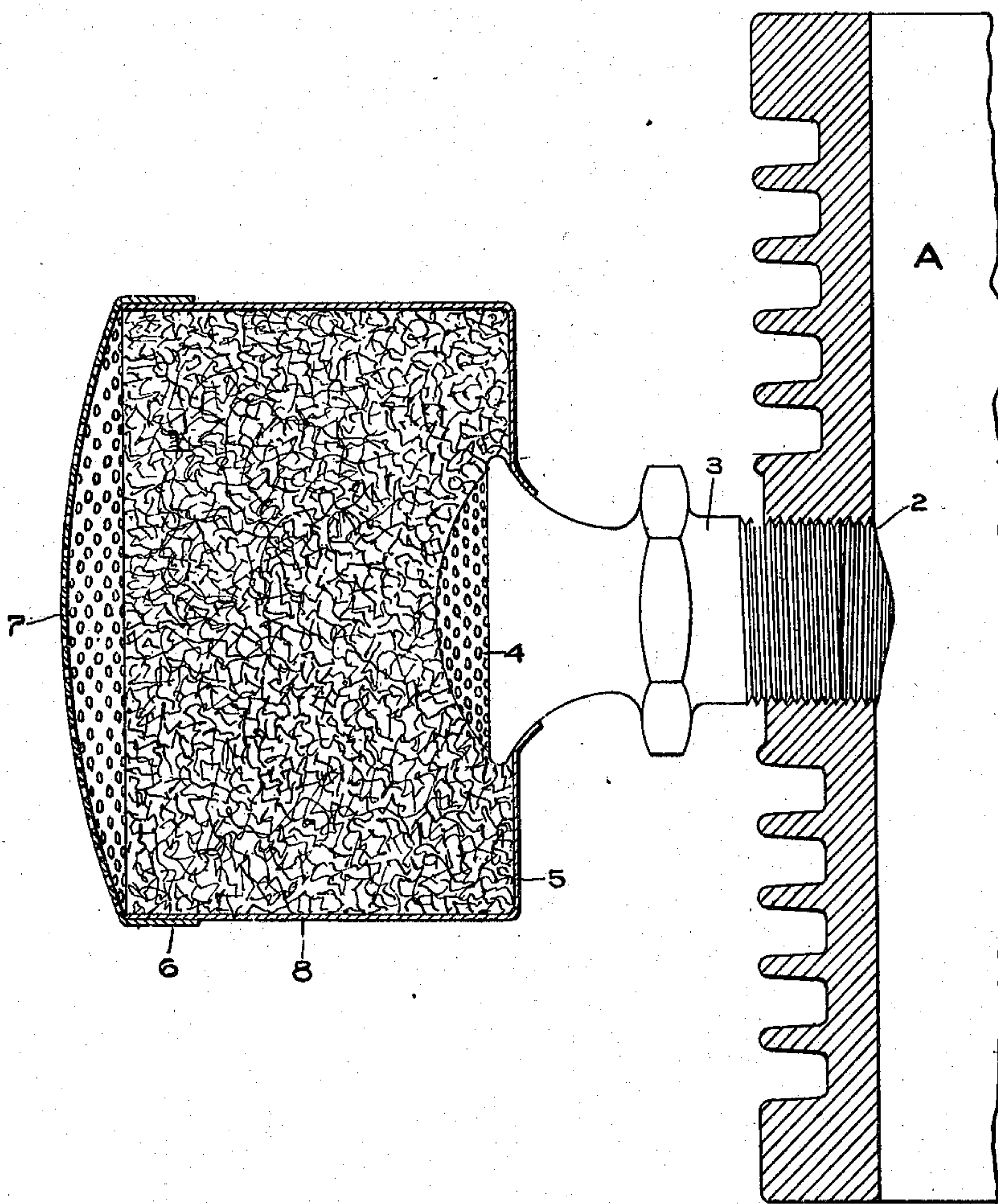
No. 840,530.

PATENTED JAN. 8, 1907.

I. F. WALLACE & W. L. KELLOGG.

AIR FILTER.

APPLICATION FILED OCT. 11, 1901.



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# UNITED STATES PATENT OFFICE.

IRA F. WALLACE, OF MINNEAPOLIS, MINNESOTA, AND WILLIAM LESTER  
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## AIR-FILTER.

No. 840,530.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed October 11, 1901. Serial No. 78,288.

*To all whom it may concern:*

Be it known that we, IRA F. WALLACE, residing at Minneapolis, in the county of Hennepin and State of Minnesota, and WILLIAM LESTER KELLOGG, residing at Sioux City, in the county of Woodbury and State of Iowa, citizens of the United States, have invented certain new and useful Improvements in Air-Filters, of which the following is a specification.

Our invention relates to improvements in attachments for air-pumps or other air mechanisms where air is used for freeing the inflowing air from dust and other impurities.

To this end our invention consists in the features of construction and combination hereinafter particularly described and claimed.

In the accompanying drawing, forming part of this specification, the figure illustrates a sectional view of our invention shown applied to the air-inlet port of the air-pump.

In the drawing, A represents the wall of the air-pump formed with an air-inlet port 2, in which is threaded a nozzle 3, having a perforated outer end 4. Inclosing the outer end of the nozzle 3 is a receptacle 5, preferably of sheet metal. The receptacle 5 is provided with a suitable cover 6, said cover being formed with perforations 7.

Within the receptacle is an open-work filling, such as hair 5, which has first been coated with a material, such as oil, which will shed moisture, but to which dust and other impurities will adhere. In use as the air passes to the air-pump through the receptacle 5 all the dust or other impurities contained in the air will adhere to the coating upon the open-work filling, while at the same time the filling, being non-absorbent, will shed the moisture, thus causing the air to enter the air-chamber purified and dry. The open-work filling can be used indefinitely by removing it from the receptacle and removing the coating. It can then be recoated and replaced in the receptacle. While I have shown a hair filling, it will be evident that screening or other open-work filling can be coated with material which will collect dust and shed moisture and used in lieu of the hair.

We claim—

1. The combination with an air-pump, of a body of open-work material arranged over the inlet thereof, said material being non-absorbent of water or oil and having an oily

coating capable of being removed by washing, said coating serving to shed the water of the air but collect the dust and other impurities to prevent the same entering the pump.

2. The combination with the strainer-inlet of an air-pump, of a receptacle carried thereby, a body of open-work material arranged within said receptacle and covering said strainer-inlet, said material being non-absorbent of water or oil and having an oily coating capable of being removed by washing, said coating serving to shed the water of the air but collect the dust and other impurities to prevent the same entering the pump, and a perforated cover carried by said receptacle for retaining the open-work material within the latter.

3. An air-filtering attachment for air-pumps, comprising a receptacle designed to be applied to the air-inlet thereof, a body of open-work material arranged within said receptacle to cover said inlet, said material being non-absorbent of water or oil and having an oily coating capable of being removed by washing, said coating serving to shed the water of the air but collect the dust and other impurities to prevent the same entering the pump, and a perforated cover carried by said receptacle for retaining the open-work material within the latter.

4. An air-filtering attachment for air-pumps, comprising a receptacle designed to be applied to the air-inlet thereof, a body of open-work material arranged within said receptacle to cover said inlet, said material being non-absorbent of water or oil and having an oily coating capable of being removed by washing, said coating serving to shed the water of the air but collect the dust and other impurities to prevent the same entering the pump, and a perforated cover carried by said receptacle for retaining the open-work material within the latter, said cover having a detachable connection with the receptacle to permit the open-work material being removed therefrom for cleansing and recoating.

In testimony whereof we affix our signatures in presence of two witnesses.

IRA F. WALLACE.

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