No. 874,065. PATENTED DEC. 17, 1907.

R. GRAPE.

HAIR DRYING APPARATUS.

APPLICATION FILED MAY 6, 1907.

2 SHEETS—SHEET 1.

Fig: 1.

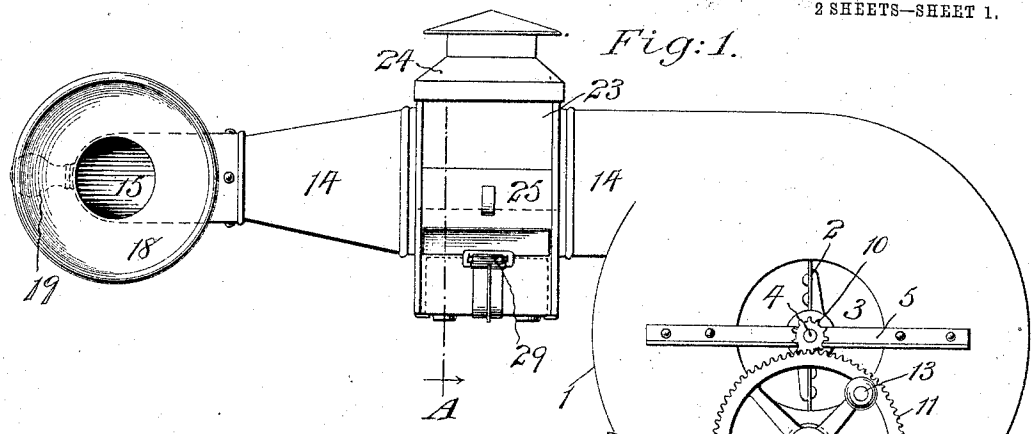


Fig: 2.

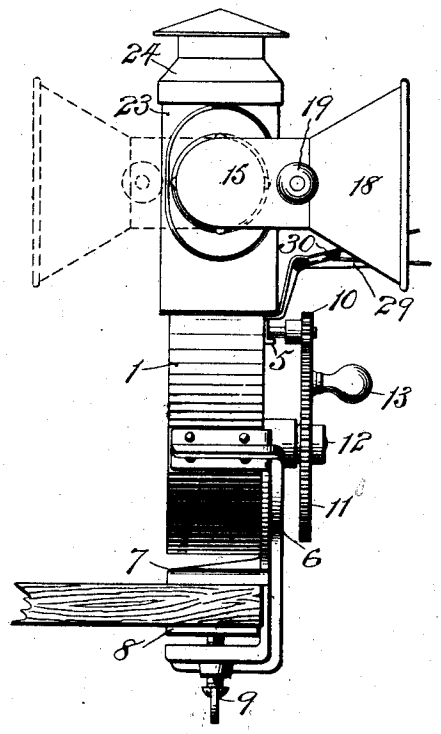
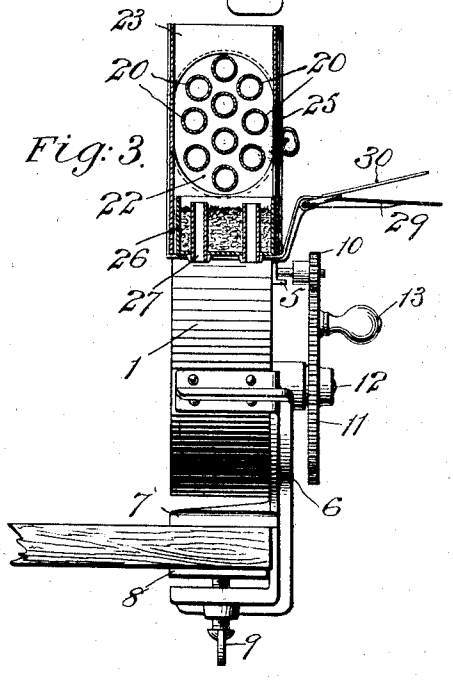


Fig: 3.



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2 SHEETS—SHEET 2.

Fig: 4.

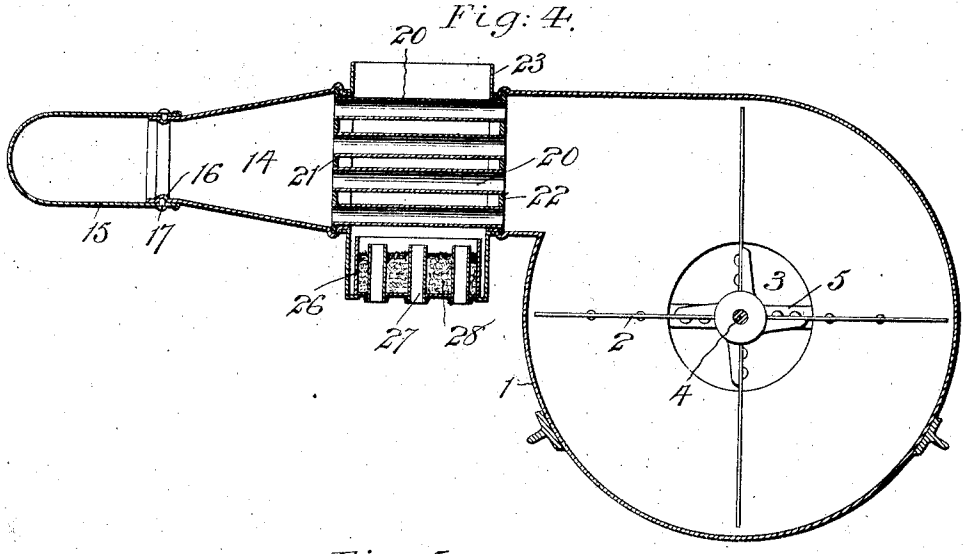


Fig: 5.

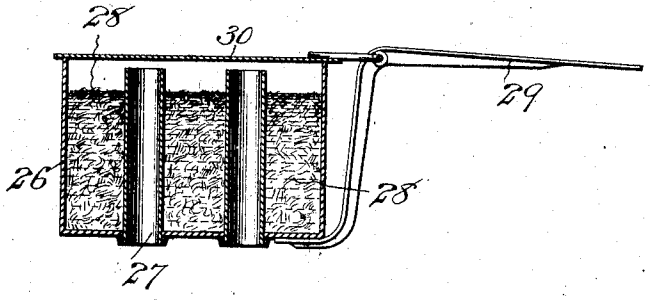
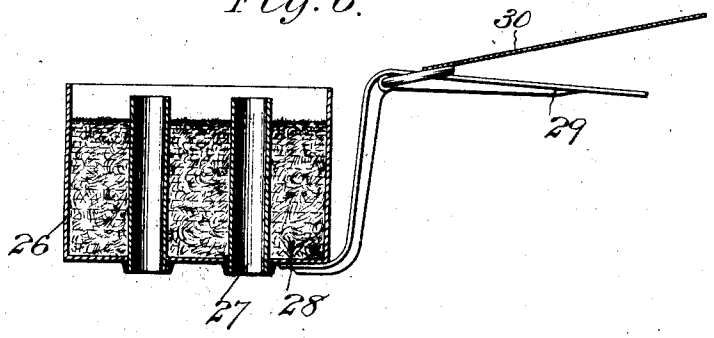


Fig: 6.



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UNITED STATES PATENT OFFICE.

RICHARD GRAPE, OF NEW YORK, N. Y.

HAIR-DRYING APPARATUS.

No. 874,065. Specification of Letters Patent. Patented Dec. 17, 1907.

Application filed May 6, 1907. Serial No. 371,979.

To all whom it may concern:

Be it known that I, RICHARD GRAPE, a citizen of the United States, and resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Improvement in Hair-Drying Apparatus, of which the following is a specification.

The object of this invention is to provide a very simple, complete and effective hair drying apparatus, which may be operated by the person using the apparatus and in which improvements are made in the construction, form and arrangement of the several parts.

A further object is to provide an apparatus in which the air as it comes from the blower is subdivided and passed through a series of heated tubes thus obviating the necessity of the air being heated by direct application of the flame.

A practical embodiment of my invention is represented in the accompanying drawings, in which

Figure 1 represents the apparatus in side elevation, Fig. 2 is a view of the same in end elevation, the mouth of the apparatus being shown in full lines in one of its rotary adjustments and in dotted lines in another of its rotary adjustments, Fig. 3 is a vertical section taken in the plane of the line A of Fig. 1 looking in the direction of the arrow, Fig. 4 is a longitudinal vertical section through the apparatus, Fig. 5 is an enlarged detail section of a burner which may be utilized for heating the air, the cover of the burner being shown closed, and Fig. 6 is a similar view showing the cover open.

The cylindrical portion 1 of the blower casing within which the rotary fan 2 is located is provided with centrally arranged air inlet openings 3 in its sides.

Suitable means for rotatably supporting the shaft 4 of the rotary fan are provided, which means, in the present instance, are two side bars 5 extending diametrically across the sides of the cylindrical portion 1 of the casing.

The bracket for supporting the casing is denoted by 6 and it is provided with a stationary jaw 7 and an adjustable clamping jaw 8 controlled by a clamp screw 9 for use in attaching the apparatus to a table or other suitable support.

The manually operated means which I have shown for rotating the fan comprise a pinion 10 fixed to the shaft 4 and a gear wheel 11 mounted on a stud shaft 12 carried by the bracket 6. This gear wheel, 11, is provided with a handle 13.

The air is led from the blower through a passage formed by a hollow extension 14 of the cylindrical portion 1 of the blower casing.

The mouth 15 is rotatably adjustable on the extension 14 and will be held by friction in any desired rotary position. In the present instance, I have shown this adjustment as being provided for by forming a circumferential groove 16 in the extension 14 of the casing and providing the mouth 15 with a plurality of studs 17 extended into the said groove 16. This mouth is preferably provided with a funnel portion 18 and with a handle 19 for use in adjusting the mouth to any desired position.

The means which I have shown for heating the air as it leaves the rotary fan of the blower is constructed and arranged as follows:—A plurality of air tubes 20 are located in the extension 14 of the casing, which tubes are spaced apart and are provided with end plates 21, 22, so that the space surrounding the tubes is entirely separated from the interior of the casing. The housing 23 of an alcohol lamp surrounds the tubes 20, which housing may be provided with a suitable cap 24. One side of the housing 23 is provided with a slide door 25 which may be raised to permit the insertion of the body 26 of an alcohol lamp. This body 26 is preferably provided with vertical tubes 27 for feeding oxygen to the flame and may have a filling 28 of asbestos or other absorbent material for holding the alcohol. This body 26 of the lamp is provided with a handle 29 to which is hinged a cover 30. When the lamp is inserted into its housing, the cover is in its open position and when it is desired to put out the lamp as it is removed from the housing, the cover may be closed over the top of the body of the lamp. After the lamp has been inserted into the housing, the slide 25 may be lowered for thoroughly inclosing the body of the lamp within the housing.

It is evident that other means may be used for heating the air tubes 20 through which the air passes from the blower to the mouth of the apparatus.

It is also evident that other means than that herein shown may be provided for rotating the fan.

It will be seen that by the use of the principles employed in the construction of the ap-

paratus herein shown and described, the air may be very quickly heated because of the subdivision of the same as it passes from the blower and the application of heat to the air in its subdivided state.

It will also be seen that all danger of the hair becoming ignited by direct application of the flame to the air is obviated.

The apparatus is very simple and inexpensive and may thus be brought within reach of the individual users.

What I claim is:—

1. In a hair drying apparatus, a blower casing comprising a cylindrical portion and a hollow extension, a rotary fan within the cylindrical portion, a mouth adjustable on the outer end of the hollow extension, horizontally arranged tubes in the hollow extension, through which tubes the air is caused to pass on its way from the rotary fan to the mouth of the apparatus, and a lamp carried by the hollow extension in position to heat the said tubes and thereby the air as it passes through them.

2. In a hair drying apparatus, a blower casing, comprising a cylindrical portion and a hollow extension, a rotary fan within the cylindrical portion, a mouth adjustable on the outer end of the hollow extension, horizontally arranged tubes in the hollow extension, through which tubes the air is caused to pass on its way from the rotary fan to the mouth, end plates for separating the space around the tubes from the interior of the casing and a lamp carried by the extension in position to cause the products of combustion to pass through said space and around said tubes for heating the tubes and thereby the air as it passes through them.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this 4th day of May 1907.

RICHARD GRAPE.

Witnesses:
F. GEORGE BARRY,
HENRY THIEME.