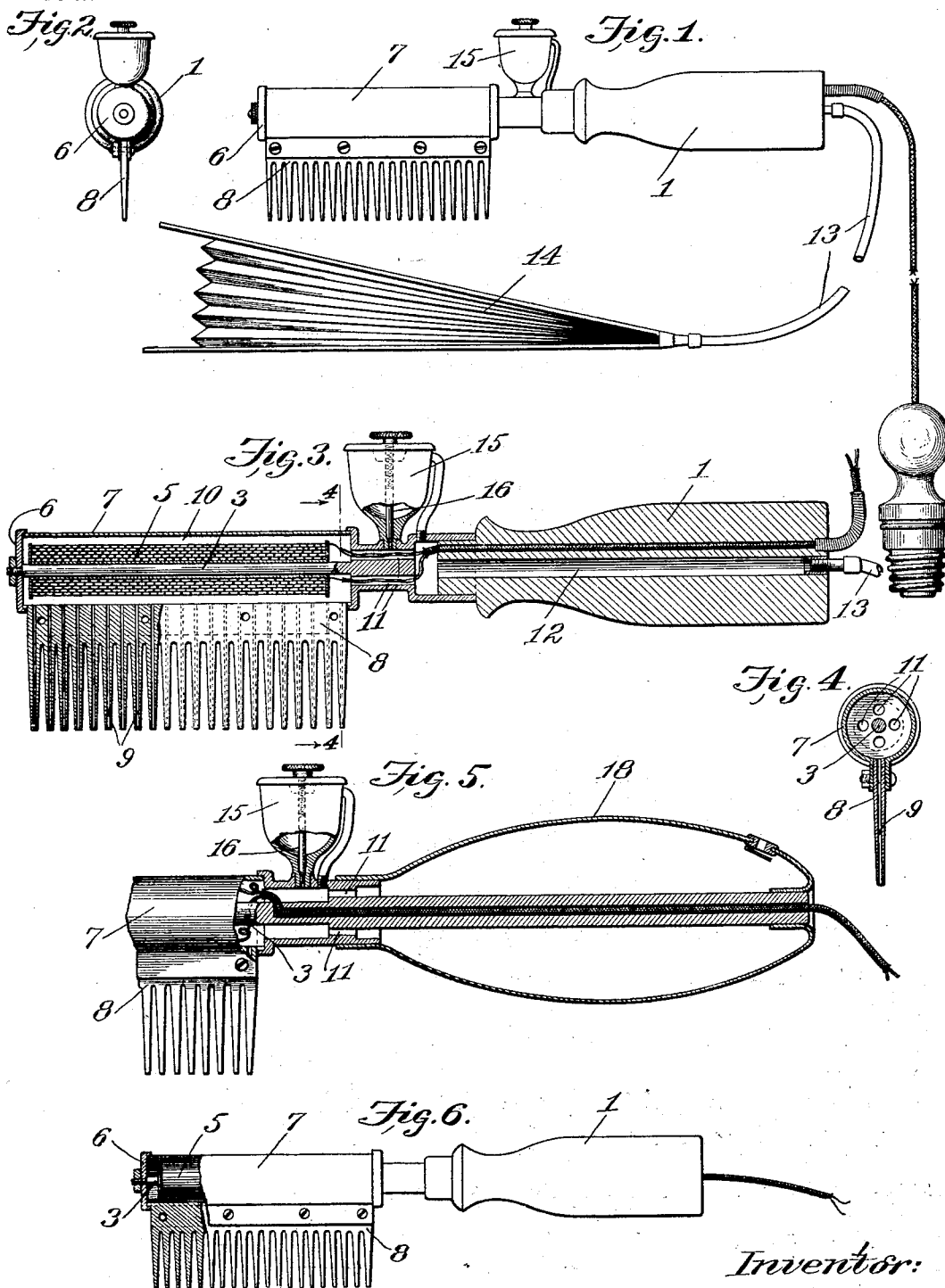


J. E. HEAD.  
COMB.

APPLICATION FILED JAN. 13, 1902.

NO MODEL.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JAMES E. HEAD, OF ST. LOUIS, MISSOURI.

## COMB.

SPECIFICATION forming part of Letters Patent No. 718,054, dated January 6, 1903.

Application filed January 13, 1902. Serial No. 89,505. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES EWART HEAD, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Combs, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view of my improved comb. Fig. 2 is an end elevational view of the same. Fig. 3 is an enlarged longitudinal sectional view of the comb. Fig. 4 is a sectional view on line 4 4, Fig. 3. Fig. 5 is a longitudinal sectional view of a modified form of comb; and Fig. 6 is a side elevational view showing one end of the comb in longitudinal section, said view illustrating another modified form of my invention.

This invention relates to a new and useful improvement in combs, the object being to provide means in the back of the comb for heating same, the radiated heat raising the temperature of the teeth of the comb, whereby wet hair may be quickly dried.

Another object of my invention is to provide means for generating a blast of air, said blast emanating from the comb-teeth and carrying off moisture from the hair to be dried. In my preferred construction each comb-tooth is formed with a duct or passage, so that the blast of air is directed outwardly from the point of the tooth, and in this manner the scalp and the roots of the hair may be quickly dried.

Another object of my invention is to provide a receptacle on the comb, said receptacle being designed to contain perfume or a medicinal fluid, which is carried by the blast of air and directed into and through the hair or onto the scalp. By the presence of a heat-generating medium in the distributing air-chamber the air forced into and through the hair may be heated or, if desired, the heat-generating medium may be rendered inoperative and the air employed at normal atmospheric temperature.

In the drawings, 1 indicates a handle, which is preferably formed with an opening there-through for receiving supply and return wires

of an electric circuit. This handle carries a hollow ferrule on one end, whose shank portion is perforated for the passage of the electric wires.

3 indicates a stem or core extending outwardly from the ferrule, from which stem is arranged a heating-coil 5 in the circuit. This heating-coil may be of usual construction.

6 indicates a cap on the end of the stem, which cap engages and holds in position a housing in the form of a cylinder 7, the edges of said cylinder being bent outwardly in parallel lines and clamping between them the tooth-plate 8. Each tooth (or as many teeth as may be desired) is formed with a duct or passage 9 extending longitudinally there-through and opening into the chamber formed by the housing 7. This chamber, which will be designated as 10, communicates with the passages 11 through the ferrule and with a bore 12 in the handle, to which bore is connected a flexible pipe 13, leading to a bellows 14 or some other suitable source of compressed-air supply.

15 indicates a receptacle having an opening communicating with one of the passages 11, said opening being controlled, preferably, by a needle-valve 16. This receptacle is designed to contain liquid of desirable character, and in order to insure its discharge into the passage 11 a pipe communicating at some point with a pressure-chamber leads to the upper end of the receptacle 15 in order that the pressure may be exerted above the level of the liquid. By regulating a needle-valve the amount of liquid admitted to the air-passage may be controlled.

In operation the wires from the heating-coil preferably terminate in a lamp-socket which when in position in the proper circuit will energize said heating-coil, raising the temperature of said heating-coil to a desired degree. I have found that 125° Fahrenheit is sufficient; but the temperature of the heating-coil may be increased or diminished according to circumstances and to special requirements in well-known ways. In drying the hair the comb is manipulated as usual, and if it is desired to utilize the blast of air to facilitate the evaporation and carrying off of the moisture in the hair the bellows or other medium of compressed-air supply may be operated so

that the air will be emitted in the form of blasts from the ends of the comb-teeth. When the heating-coil is in operation, it is obvious that the air becomes heated, and in this heated condition contacts with the hair to be dried. Where it is desired to use the liquid in the receptacle, the needle-valve is regulated to permit the liquid to flow into the air-passage with which the receptacle is in communication, said liquid being caught up by the moving air and carried to and through the comb-teeth. The handle of the comb is preferably made of non-heat-conducting material for obvious reasons.

In Fig. 5 I have shown a construction wherein a rubber bulb 18 is employed upon the core which forms the handle. By this construction the bellows and flexible tubing therefrom to the handle is dispensed with and the air-pressure developed locally with respect to the comb.

In Fig. 6 I have shown a construction wherein the comb-teeth are solid. In this form no air-blasts are intended to be used, no provision being made therefor.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A comb having a hollow back, the combination with an electric heater arranged therein but not entirely filling the space in said hollow back, of a supply-pipe for air under pressure which communicates with said space in the back of the comb, a handle on said supply-pipe and also provided with a passage for compressed air, and wires carried by said handle, said wires leading to and from the heating medium in the back of the comb; substantially as described.

2. A comb having a hollow back, in combination with an electric heating-coil arranged therein but not entirely filling the space in

said hollow back, a supply-pipe for air under pressure which communicates with said space in the back of the comb, teeth formed with ducts or passages which also communicate with the space in the back of the comb, a handle formed with a passage for compressed air, said handle also supporting the wires which lead to and from the heating-coil; substantially as described.

3. A comb having a hollow back and whose teeth are formed with ducts or passages communicating with the space in the back of the comb, in combination with a handle, and a duct through the handle for supplying the space in the back of the comb with air under pressure; substantially as described.

4. The herein-described comb comprising a handle, a cylinder arranged on said handle, said cylinder being provided with separated outwardly-extending parallel flanges, a tooth-plate arranged between said flanges and screw-bolts for clamping the flanges on the tooth-plate; substantially as described.

5. The herein-described comb comprising a handle, a ferrule on the handle, a core or stem extending from said ferrule, an electric heating-coil arranged on said stem, a cylinder for housing said coil, said cylinder being formed with an elongated opening in one side, and a comb-plate fitted in said opening; substantially as described.

6. The herein-described comb, the same consisting of a handle, a stem mounted upon said handle, an electric heating-coil arranged on said stem, a cylinder embracing said coil, and provided with flanges at its edges, a comb-plate clamped between said flanges, the teeth in said comb-plate being bored longitudinally, and a cap-plate on the end of the stem for supporting the outer end of the cylinder; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 8th day of October, 1901.

JAMES E. HEAD.

Witnesses:

GEORGE BAKEWELL,  
G. A. PENNINGTON.