

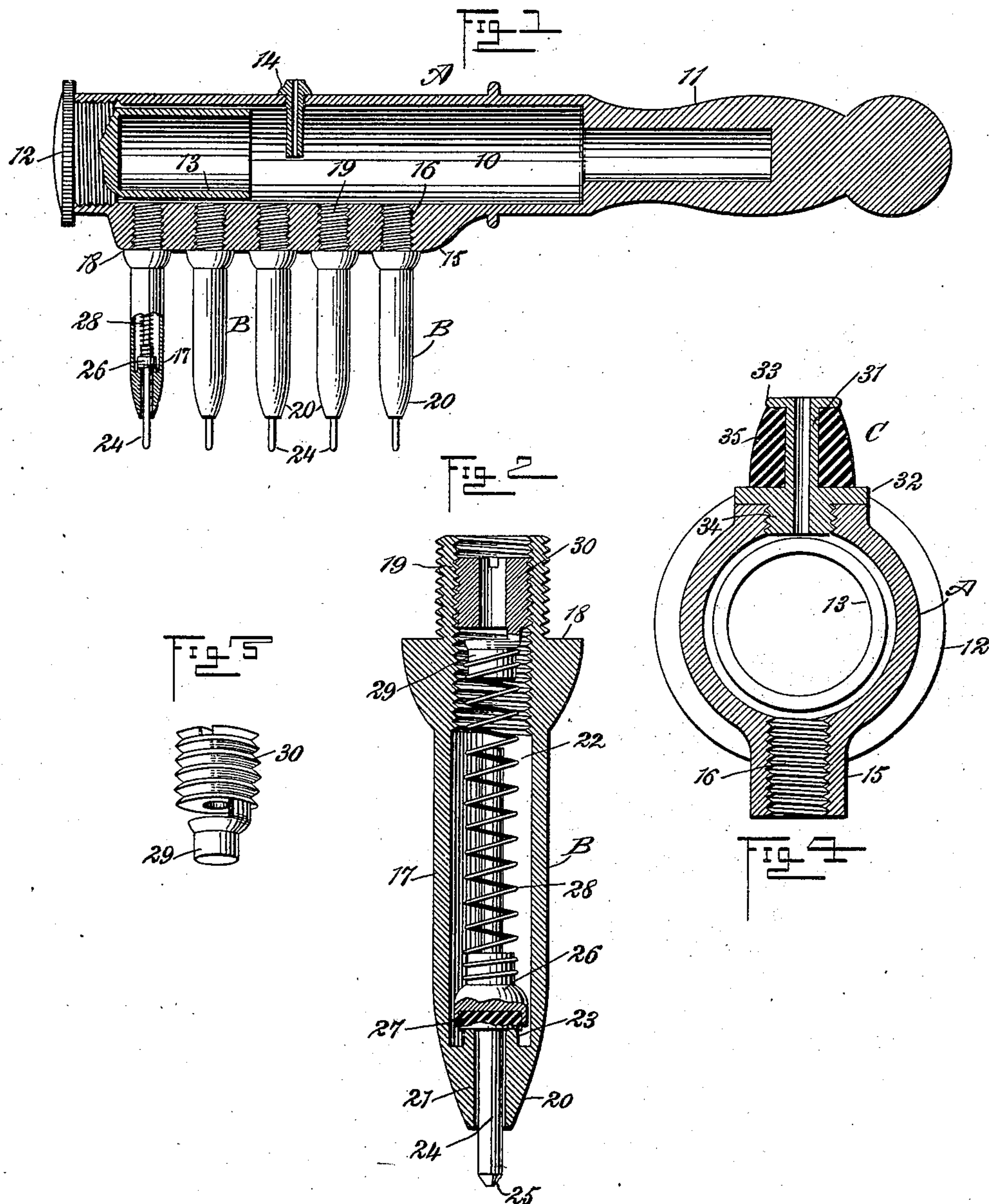
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J. R. HARRISON.  
FOUNTAIN COMB.

(Application filed Mar. 10, 1902.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## FOUNTAIN-COMB.

SPECIFICATION forming part of Letters Patent No. 710,269, dated September 30, 1902.

Application filed March 10, 1902. Serial No. 97,471. (No model.)

*To all whom it may concern:*

Be it known that I, JULIAN R. HARRISON, a citizen of the United States, and a resident of Barnwell, in the county of Barnwell and State of South Carolina, have invented a new and Improved Fountain-Comb, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide an antiseptic fountain-comb especially adapted for the hygienic treatment of the scalp and hair and for washing the scalp and removing the dandruff while combing the hair.

Another purpose of the invention is to so construct a fountain-comb that when the teeth are brought in contact with the scalp any hygienic fluid carried by the body of the comb will be automatically discharged at the tips of the comb-teeth and brought in direct contact with the scalp and directed to the roots of the hair.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal central section through the improved comb. Fig. 2 is an enlarged longitudinal section through a tooth of the comb. Fig. 3 is a perspective view of an upper plug-cap for a tooth of the comb, and Fig. 4 is an enlarged transverse section through the body portion of the comb and through a syringe-coupling applied to the said body.

The body A of the comb is provided with a chamber 10, which may extend into the handle 11 and does extend to and through the outer end of the body, as is shown in Fig. 1. The wall of the chamber 10 at the outer end of the body is provided with a thread to receive a threaded cap 12, which cap has an integral or attached hollow cylinder 13 at its inner end, and the inner end of the cylinder is open. Thus the cylinder 13 constitutes a measuring-cup, so that the amount of material to be placed in the chamber 10 may be

accurately determined, and the diameter of the measuring-cup is less than the diameter of the chamber 10, into which it extends.

A longitudinal extension 15 is formed at the bottom of the body, the edges whereof are preferably rounded off, and in this extension 15 a number of threaded apertures 16 are produced, extending from the bottom of the extension 15 into the body-chamber 10. These threaded apertures are adapted to receive the upper ends of teeth B, as is shown in Fig. 1, and one of said teeth is shown in the enlarged sectional view, Fig. 2. A threaded aperture is made in the upper portion of the body to receive a vent-plug 14, which extends into the body-chamber for the purpose of supplying air thereto.

Each tooth consists of a shell or casing 17, having an annular shoulder 18 near its upper end, and the section 19 above the shoulder is exteriorly and interiorly threaded. The section 19 enters a threaded aperture 16 in the extension of the body A. Preferably the interior thread is longer than the exterior one.

The lower end 20 of the shell or casing is tapering or conical and is provided with a bore 21 of less diameter than the diameter of the main chamber 22 of the shell or casing. A valve-seat 23 is formed around the upper end of the bore 21, extending upward within the chamber 22, being adapted to receive the cushioned or yielding surface 27 of a valve 26, attached to or integral with a stem 24, which stem extends within the chamber 22 and through the bore 21 beyond the bottom of the shell or casing 17, and at the lower end of the stem 24 a tip 25 is formed more or less pointed.

The valve 26 is normally held seated by means of a spring 28, which bears thereon and is loosely coiled around the stem 24, extending above the stem to an engagement with a plug 29, suspended from the tubular screw-cap 30, which is screwed into the outer section 19 of the shell or casing.

In operation the chamber 10 having been charged with liquid, the liquid cannot escape through the teeth while the valves 26 remain seated, and these valves are unseated only when the valve-stems 24 are pressed upward or



the shells 17 move downward. Therefore when the tips 25 of the teeth engage with the scalp in combing the hair the weight of the body of the comb will carry the shells 17 downward, opening the valves 26, and the liquid will flow out through the teeth directly upon the scalp, thus reaching the roots of the hair. The tips of the teeth being of metal, hard rubber, or the like, the scalp will be placed under excitement while the hair is combed, and the dandruff will be loosened and removed during the cleaning or irrigating process.

When it is desired to wash the scalp or the hair, a fountain or ordinary syringe is used in connection with the comb, and at this time the vent-plug 14 is removed and a coupling-plug C is substituted. This coupling-plug is shown in Fig. 4 and consists of a tubular body 31, having a disk 32 at its bottom and a smaller disk 33 at its top and an exteriorly-threaded sleeve 34, which is a continuation of the lower disk 32, the bore in the threaded sleeve coinciding with the bore in the body. Thus it will be observed that an opening extends through the coupling from its top to its bottom.

A plug 35, of soft rubber or like material, is fitted around the body between the upper and lower disks, and the said plug 35 is more or less conical. When a syringe is to be connected with the body of the comb, one end of the syringe is pressed over the upper portion of the coupling C until it engages with the soft-rubber plug 35, preferably throughout the length of said plug, and the frictional contact thus obtained will insure the tube of the syringe remaining under ordinary circumstances in coupling engagement with the body of the comb.

By reference to Fig. 2 of the drawings it will be noted that the hollow teeth B normally have communication at their upper ends with the chamber of the back or handle, while the valve-seats and the valves are provided inside of said teeth near the lower ends thereof, whereby a supply of liquid is maintained in the teeth for immediate application to the scalp on the opening of the valves in the manner heretofore described.

The plug 30 in the upper portion of each hollow tooth is screwed adjustably into said tooth, so that it may be raised or lowered, and said plug is provided with a depending contracted portion 29, that forms a seat for engagement with the upper extremity of the coiled spring 28, the latter serving to normally hold the valve to its seat. This depending portion 29 of the plug is arranged, as shown by Fig. 3, to permit of the unobstructed passage of the liquid through the plug from the chamber 10 and into the cham-

ber of the hollow tooth. The engagement of the upper end of the spring with the depending portion 29 of the plug retains said spring in proper position within the tooth, and said plug 30 may be adjusted within the tooth for the purpose of compressing the spring in order to increase the tension thereof should the spring become weak, thus maintaining the spring in a serviceable condition and insuring the prompt seating of the valve.

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

1. A fountain-comb, comprising a chambered body, a normally open vent in communication with the chamber of said body, a number of hollow teeth communicating with said chamber of the body and each provided near its lower end with an internal valve-seat, hollow plugs secured in the upper part of the teeth and allowing liquid to pass freely from said chamber of the body to the teeth, valves arranged in the lower parts of the hollow teeth to fit said seats therein and having stems extending through said seats and beyond the ends of the teeth, and springs seated against the plugs and the valves.

2. A fountain-comb, comprising a chambered body, a normally open vent in communication with the chamber of said body, a number of hollow teeth extending therefrom, hollow plugs screwed adjustably in said teeth and each having a solid contracted portion depending below the hollow body of the plug, springs fitted to said contracted portions of the plugs and held in place thereby without interrupting the flow of liquid from the chambered body to the teeth, and valves normally held to their seats by the springs and provided with projecting pins or stems.

3. A fountain-comb, comprising a chambered body having on its under side a rib formed with threaded apertures, a normally open vent in communication with the chamber of said body, a number of hollow teeth each having an interiorly and exteriorly threaded nipple which is screwed into one of the apertures of said rib, valve-seats near the lower ends of the teeth, hollow plugs screwed adjustably into the nipples of the teeth and located at the upper ends thereof, valves having stems and adapted to said seats, and springs arranged between and engaging with the valves and the plugs.

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

JULIAN R. HARRISON.

Witnesses:

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