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2,624,348

FOUNTAIN COMB

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Fig. 1

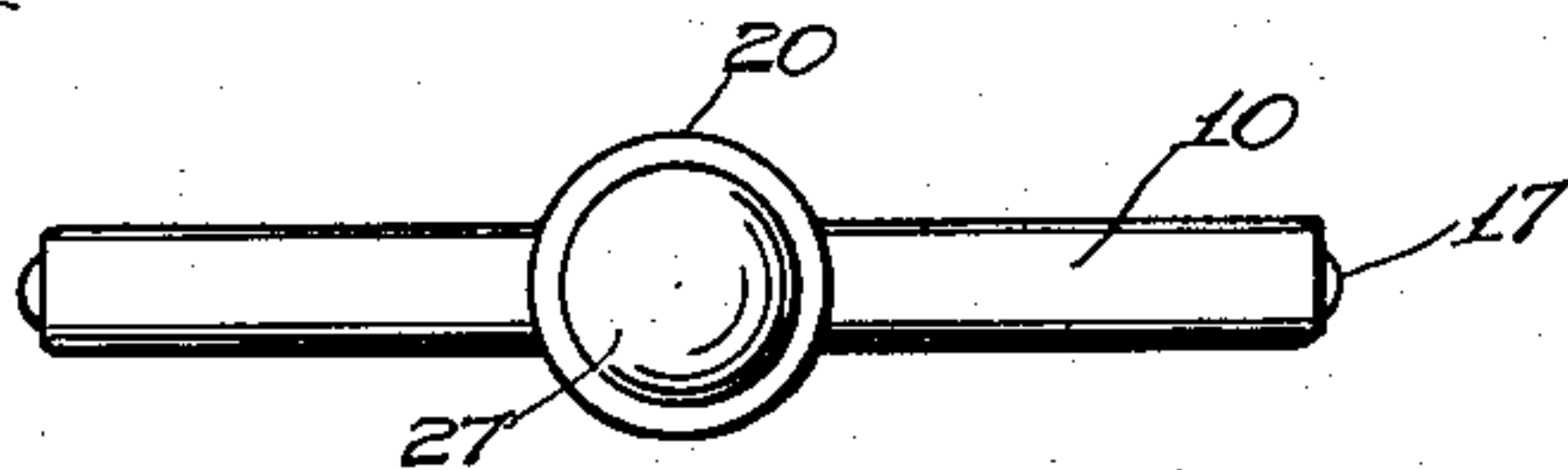


Fig. 2

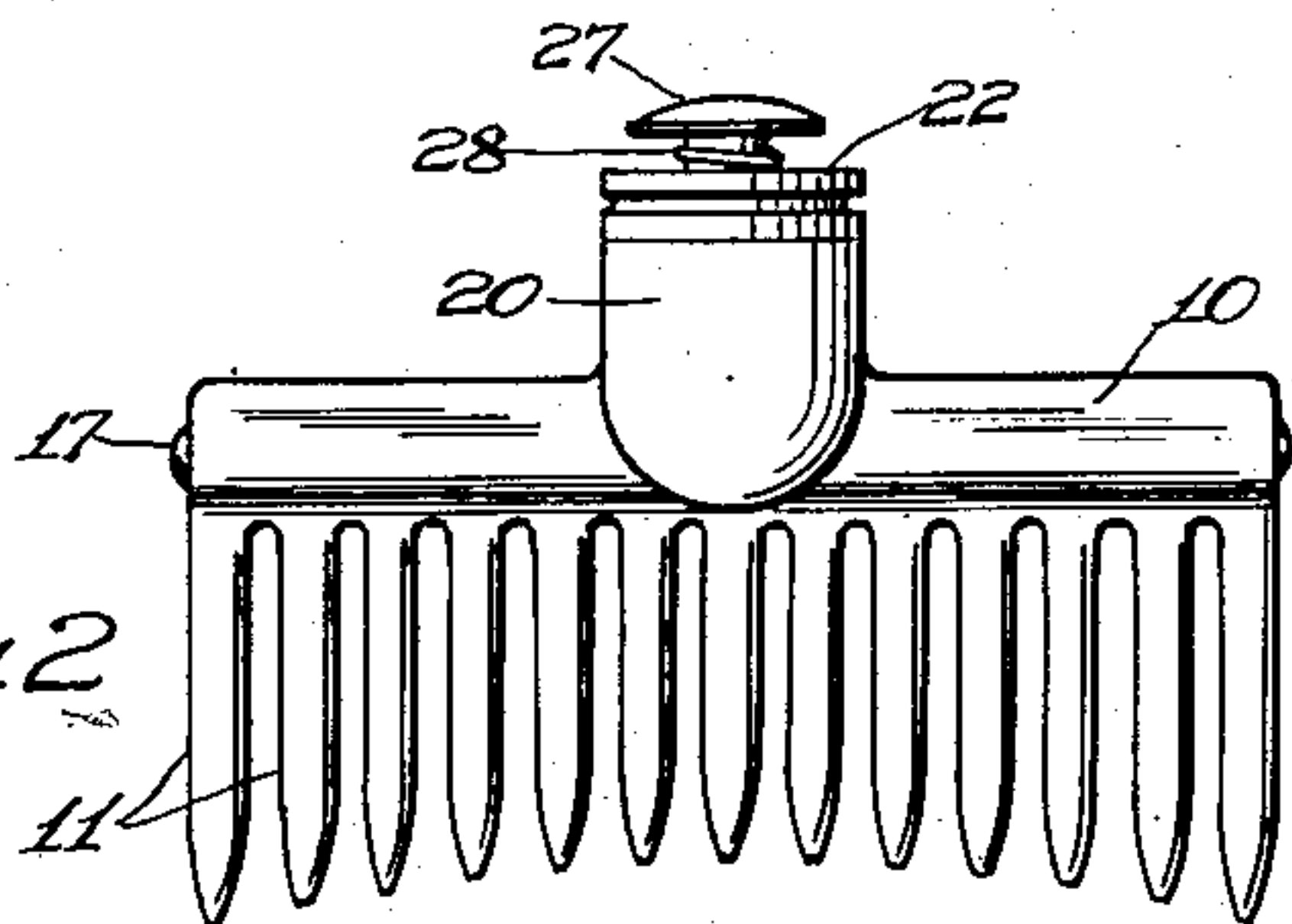


Fig. 3

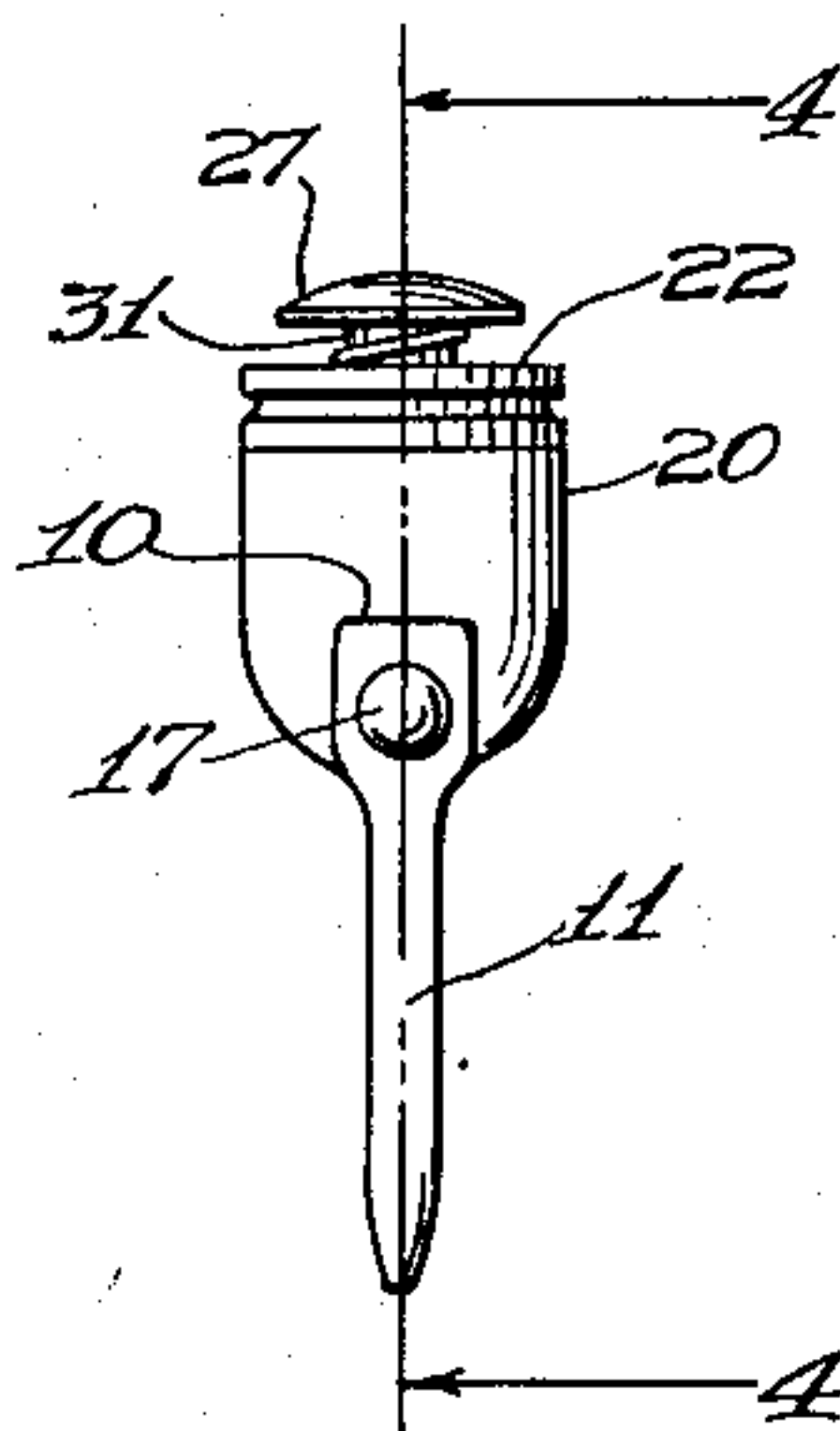


Fig. 4

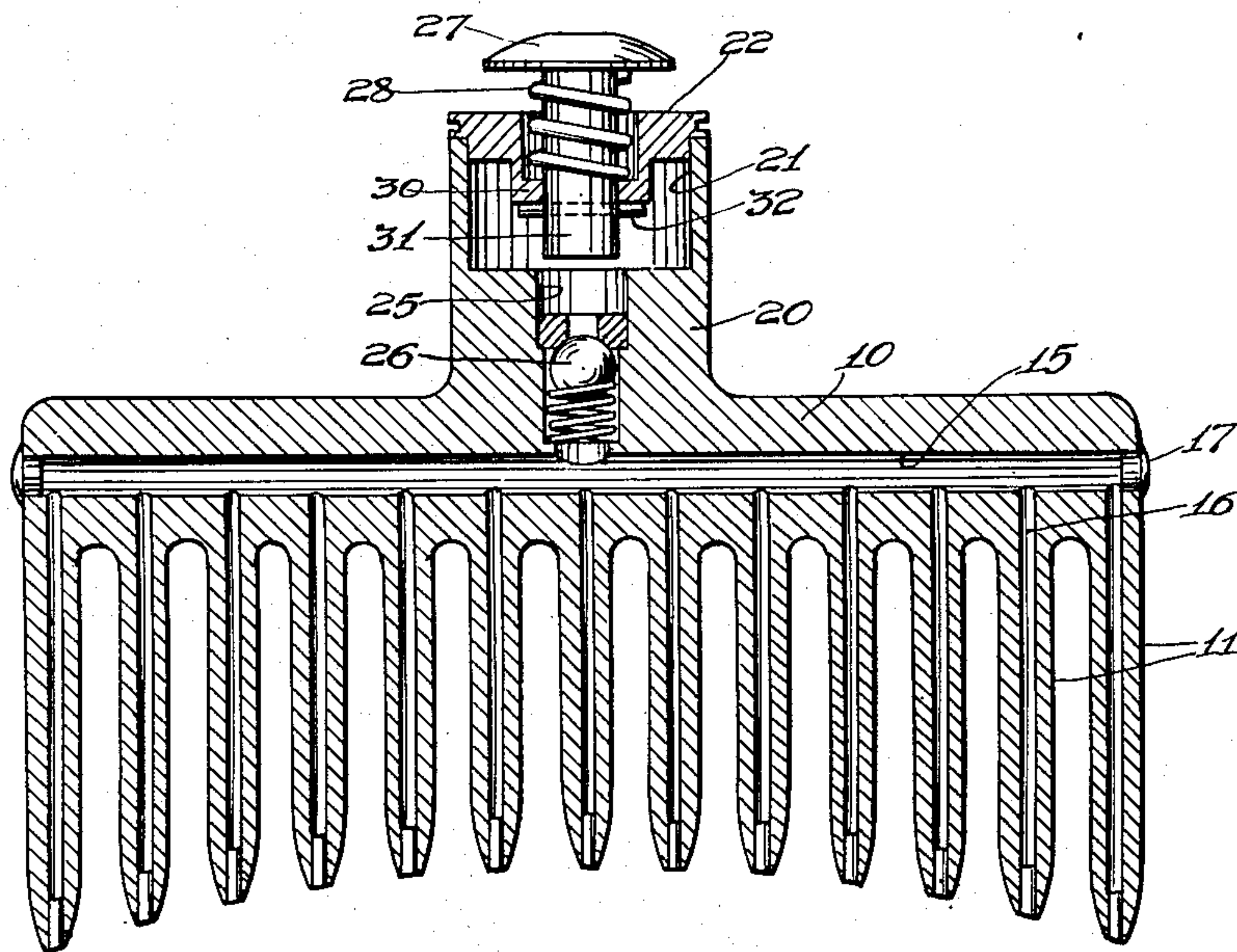
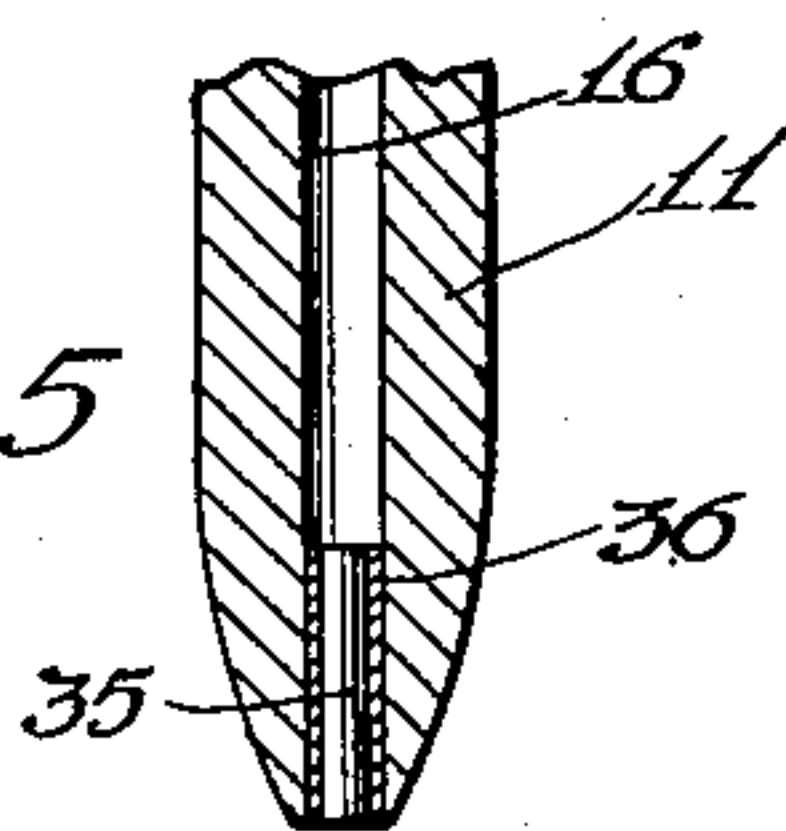


Fig. 5



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FOUNTAIN COMB

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3 Claims. (Cl. 132—13)

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My invention relates to combs designed to contain a liquid preparation or fluid for application to the scalp while the comb is being used, and one object is to provide a comb of this character which limits the zone of application to the tips of the comb teeth, so that the preparation may not coat or settle in the hair.

A further object is to provide a comb of the above character which is formed with a series of passages in its head and tooth portions, in order that a fluid content in the head may be distributed to the teeth of the comb.

Another object is to construct the head of the comb with an extension formed as a reservoir or container for the liquid preparation designed to be used in the comb, such reservoir or container having a controlled passage communicating with a manifold duct in the head of the comb.

An additional object is to provide a dispensing device for the fluid in the reservoir or container of the comb which enables a quantity of the fluid to be projected into the teeth of the comb by the mere pressure of a button.

An important object is to construct the teeth of the comb with an internal element facilitating the production of the comb and the control of the fluid carried therein.

With the above objects in view, and any others which may suggest themselves from the description to follow, a better understanding of the invention may be had by reference to the accompanying drawing, in which—

Fig. 1 is a top plan view of the novel comb;

Fig. 2 is a front elevation;

Fig. 3 is a side view;

Fig. 4 is an enlarged section on the line 4—4 of Fig. 3; and

Fig. 5 is an enlarged duplication of the tip portion of one of the comb teeth illustrated in Fig. 4.

In accordance with the foregoing, it may be said that the novel comb has the general form of a standard comb, and may be made of plastic material, metal or any other suitable substance. The head of the comb is indicated at 10, and the teeth 11 thereof are of standard form and terminate in an arched series in order to adapt the comb to the form of the scalp.

The head 10 of the comb has a longitudinal bore 15; and branch ducts 16 extend from the bore 15 through the individual teeth 11. The ends of the bore 15 are closed by plugs 17.

The head 10 of the comb is extended from the center with a cylindrical enlargement 20, the same projecting in a direction opposite from the

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teeth 11. The enlargement contains a receptacle 21 in its outer end; and a plug or other type of cap 22 is provided at such end to close the receptacle.

The receptacle 21 is reduced in the center to form a passage 25 leading into the bore 15; and a ball-type check valve 26 is installed in the passage 25 in a manner to permit communication of a fluid from the receptacle 21 to the bore 15, but check the passage of the fluid in the reverse direction.

The cap 22 is formed with a sunken medial portion 30 which serves as a bearing for a plunger 31 carried by the cap. The plunger is in line with the passage 25 and has a button type head 27 at its outer end. A coiled compression spring 28 is carried by the plunger between its head and the floor of the sunken portion 30, the influence of the spring being to move the plunger in the outward direction. A cross-pin 32 carried by the plunger beneath the sunken portion 30 forms a stop to the excessive movement of the plunger as influenced by the spring 28.

The fluid intended to be carried by the comb is poured into the receptacle 21 when the assembly of the cap 22 and plunger 31 is removed, so that the receptacle and the passage 25 above the check valve are filled. Now, when the button 27 of the plunger is pressed—preferably by a finger of the hand which holds the comb over the scalp—the plunger 31 will descend into the passage 25 and force the fluid therein to depress the check valve, pass into the bore 15 and spread into the ducts 16 of the comb teeth 11. Ordinarily, such fluid will emerge from the tips of the teeth into direct contact with the scalp, so that the hair will not be coated by the preparation if the same is intended only as a scalp treatment.

It is understood that in a device of the above character the ducts in the teeth 11 must necessarily be of very small diameter in order that the capillary attraction in the ducts may prevent the fluid from leaking out of the teeth in case some has remained in the bore 15 and ducts 16. However, practical methods of manufacture make it difficult to drill long ducts of very small diameter, and I have therefore devised means to control the liquid in the ducts 16 without the necessity of making them of very small diameter. Thus, Fig. 5 shows that a plug 35 is driven into the pointed portions of the teeth 11, such plug being preferably of a spongy or fibrous substance. The plug is made with a hard and smooth coating 36 around the sides, such as

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enamel, the coating rendering the plug sufficiently firm to be driven into the duct 16 of the tooth. Also, a suitable adhesive may be used during this process to cause the plug to become permanently lodged in the end of the tooth. It is now apparent that the plug 35 will check the spontaneous issue or leakage of the fluid from the teeth 11 by way of their tips. However, when such fluid is subjected to the pressure of the plunger 31, the necessary slight amount thereof for the purpose of the scalp treatment will penetrate the substance of the plug and be dispensed from the tips of the teeth.

It will now be apparent that the novel comb has a number of advantageous features. First, it utilizes the practical design of a manifold passage in the head of the comb with branches extending through the teeth thereof. Further, it incorporates a compact and handy reservoir for the fluid to be used in the comb, with simple means for insuring the dispensing thereof from the tips of the teeth by mere finger pressure. Further, the comb contains an automatic check control to hold the flow of the fluid in the head reservoir until the dispensing of the fluid is desired. Further, the tip portions of the teeth contain a simple leakage control. Finally, the novel comb is composed of few parts and presents a neat and compact appearance.

While I have described the invention along specific lines, various minor changes or refinements may be made therein without departing from its principle, and I reserve the right to employ all such changes and refinements as may come within the scope and spirit of the appended claims.

I claim.

1. A fountain comb having a head with a longitudinal bore, teeth with ducts leading from said bore to the tips of the teeth, a reservoir for a fluid carried by said head and having communication with said bore, and control means to feed said fluid from the reservoir into said bore by manual operation, said reservoir comprising a receptacle open at its outer end, a closure cap for said receptacle and formed with a sunken portion having a bore into the receptacle, and said control means including a plunger disposed slidably in the bore of the closure cap and formed with a finger button at its outer end, a compression spring coiled around the plunger between said sunken portion

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and button to influence the plunger in an outward direction, and a stop carried by the inner end portion of the plunger to check said influence.

2. A fountain comb having a head with a longitudinal bore, teeth with ducts leading from said bore to the tips of the teeth, a reservoir for a fluid carried by said head and having communication with said bore, and control means to feed said fluid from the reservoir into said bore by manual operation, said reservoir comprising a receptacle open at its outer end, a closure cap for said receptacle and formed with a sunken portion having a bore into the receptacle, and said control means including a plunger disposed slidably in the bore of the closure cap and formed with a finger button at its outer end, a compression spring coiled around the plunger between said sunken portion and button to influence the plunger in an outward direction, and a cross-pin carried by the plunger inwardly of said sunken portion and serving as a stop relative to the same for checking said influence.

3. A fountain comb having a head with a chamber designed to contain a fluid subject to pressure, teeth with ducts leading from said chamber to the tips of the teeth, and inserts in said ducts of a consistency normally checking leakage of the fluid from said teeth but penetratable by the fluid to feed it through said tips when the fluid is under pressure, said inserts being spongy plugs coated around their sides with a hard material to facilitate driving them into said ducts.

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