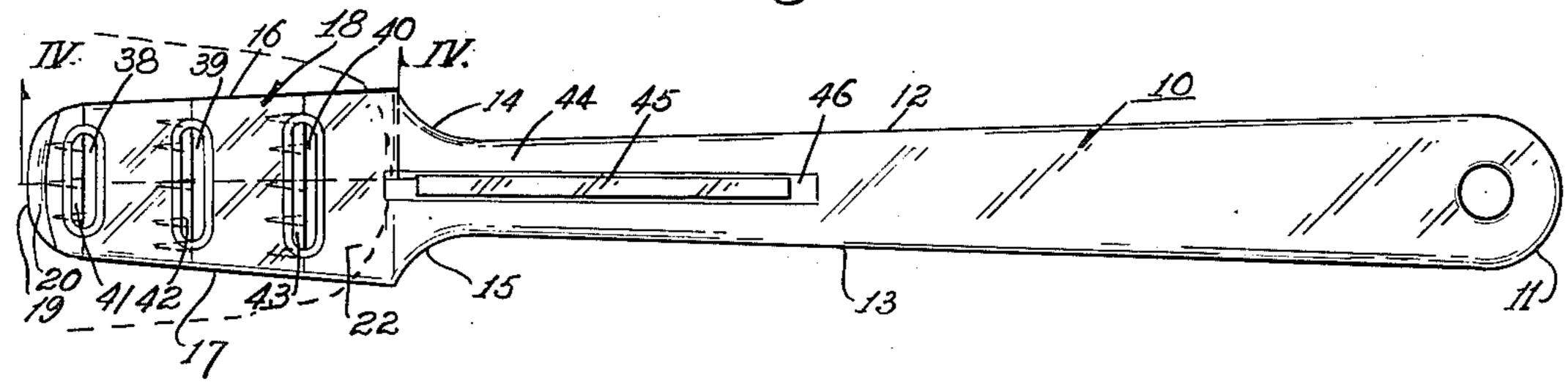
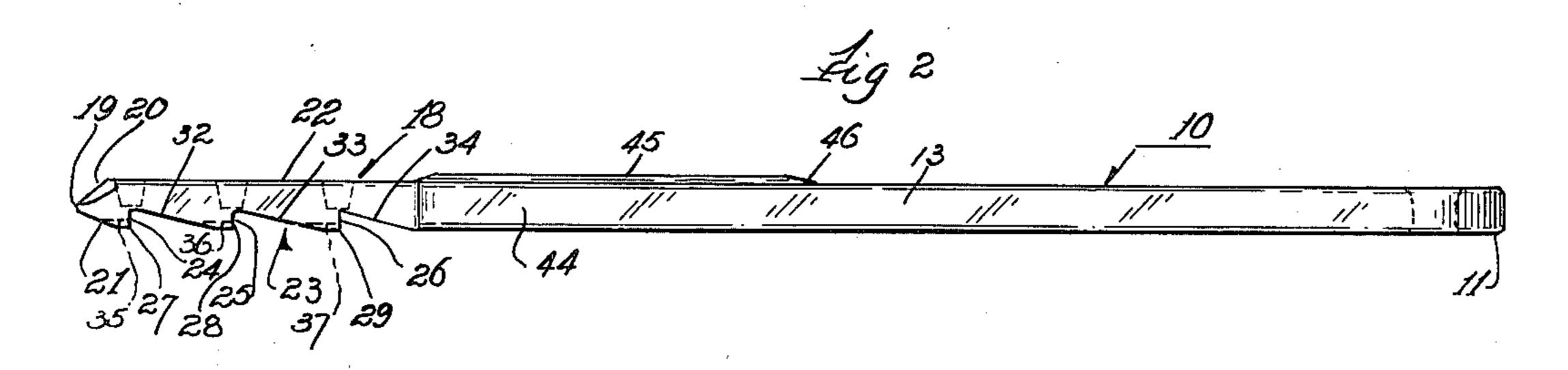
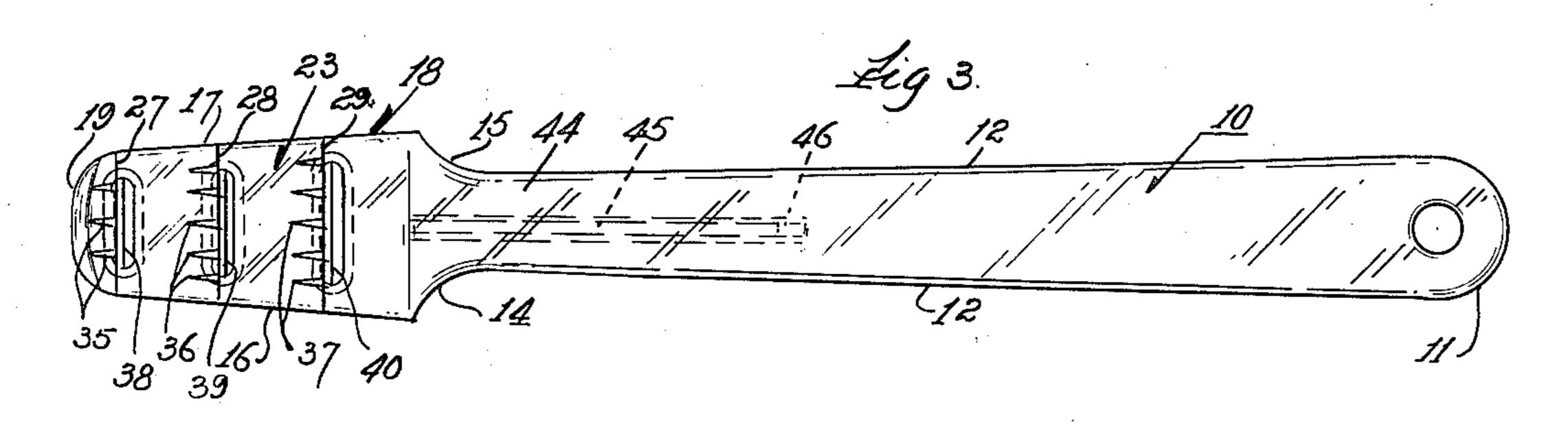
TONGUE CLEANER

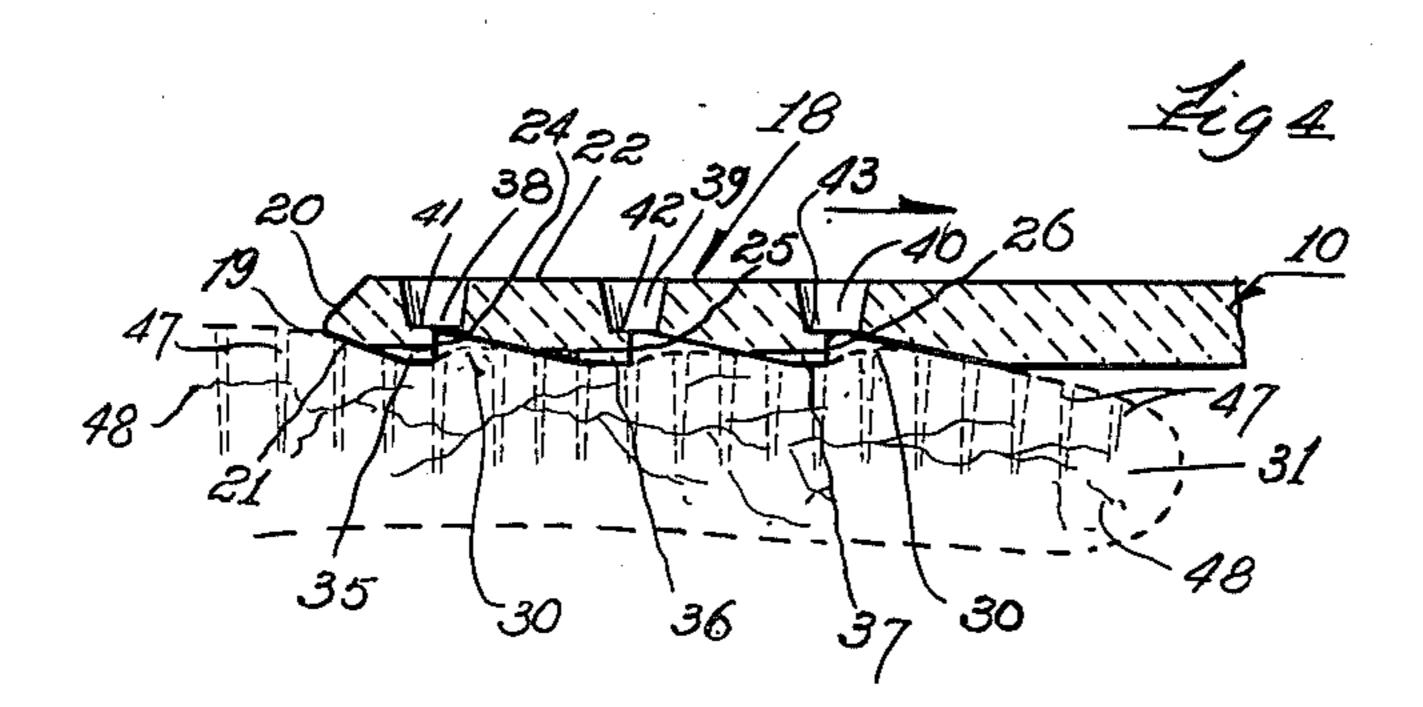
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## UNITED STATES PATENT OFFICE

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This invention relates to tongue cleaners and more particularly to tongue cleaning and massaging devices, although certain features thereof may be employed with equal advantage for other purposes.

It contemplates more especially the provision of an effective tongue scraping and massaging device which will cleanse the tongue pores and remove the film therefrom as well as activate the muscles and functional membranes which 10 permeate the tongue as a taste and speech organ.

It is common medical opinion that the saliva of the mouth which serves as a coating for the tongue, is essential to the well-being of the human so that there is little purpose in removing 15 healthy saliva from the normal mouth. It is true, however, that many individuals possess thick deposits serving as more or less impervious coatings on the tongue so that the saliva of the mouth has little opportunity to do its work in 20 conjunction with the membranes of the tongue. Consequently, the tongues of individuals become coated with a heavy film that has decided odor and taste-destroying characteristics that may be responsible for halitosis and the physical afflic- 20 tions which are unaccountable in some individuals. It is well known and recognized that clean organs are essential to normal circulation of blood and the secretions of the body which perform a decidedly advantageous function, but little or no 30 attention has been directed to unclean tongues which become pitted and frequently lacerated to the extent of being termed in layman's parlance as geographical tongues.

These so-called "scars" of the tongue may be due to concentrated acids and chemicals created in the deposits and the films that adhere to the tongue surface so tenaciously as to preclude removal by ordinary cleansing operations such as wiping and swishing fluids such as liquid anti- 40 septics in the mouth and around the tongue with appreciable turbulence. The removal of such coatings must be by scraping action which is performed daily or at any other regular intervals to freshen the tongue, permit the pores to func- 45 tion and take advantage of the saliva in the mouth and to massage the membranes to the point where they develop the membranes and muscular growth which, in time, eliminates the scars, lacerations, and the concavity of the 50 tongue's surface which is indicative of mal-functioning. Normal tongues should have a wellrounded or convex surface, be free of lacerations and scars, and possess well defined contours. Tongues which have been coated for long periods 55

and soon become inactive from a functional standpoint as to the utilization of the saliva of the mouth to the best advantage, become concave in shape, lose their healthy color, and present deposits which evolve odors that are commonly attributed to halitosis.

With the use of the teaching of the present invention, the inactive film or crust which separates the membranes and pores of the tongue from the saliva, is completely removed on a daily basis in much the same way as the routine of teeth cleaning becomes a necessary and vital part of an individual's cleanliness and well-being. Very little of the beneficial saliva is removed with each scraping operation, but the inactive film which insulates or separates the pores and membranes of the tongue from the saliva, is removed with especially beneficial results, and breath, circulation of blood through the tongue, and the action of the mouth perform the natural functions in conjunction with the tongue, and tongue contour assumes the desirable convexity within a matter of six to eight weeks after the scraping becomes a regular routine.

The practice of removing the offensive tongue coating which is essentially morbid matter that is thought to contribute to rheumatism, arthritis, and similar afflictions, presents a clean and healthy tongue that will keep the gums and teeth in a correspondingly healthy condition. Tongue deposits involve substances which are deleterious to health and to the physical makeup of the tongue which, in turn, will affect the other membranes of the mouth as well as creating a very distasteful and odorous condition. Cleaning the teeth is essential and is considered such, but this is only part of the instruments of the mouth which become coated and soon are subject to deterioration. It becomes clear, therefore, that the tongue, which is equally as necessary as the teeth, should receive the same cleansing treatment that is accorded to the teeth, but such must be devised to meet the conditions of deterioration to which the tongue is subject, and the present invention contemplates the removal of the offensive coating which is morbid matter that precludes the proper functioning thereof.

One object of the present invention is to provide an improved device for cleaning the tongue.

Another object is to provide a tongue scraping device which removes the morbid matter from the tongue surface so that the pores and membranes thereof are free to receive the full effect of the beneficial functions of mouth saliva.

Still another object is to provide an improved

tongue cleaning apparatus which removes film in successive scraping actions to rid the tongue of all impurities and deleterious substances.

A further object is to provide a simple and effective handle member having scraping instrumentalities thereon which are capable of removing tongue coatings without any destructive effect upon the membranes thereof.

A still further object is to provide a tongue cleaner having a series of scraping instrumen- 10 talities in conjunction with receptacles for collecting the deleterious substances that are removed from the surface of the tongue.

A still further object is to provide an improved ing receptacles which serve to free the tongue from offensive coatings and present fresh porous membranes for the beneficial utilization of the saliva of the mouth.

An additional object is to provide an improved tongue cleaning device which develops the muscles and membranes of the tongue close to the surface so as to impart thereto a vigorous contour and condition.

Other objects and advantages will appear from 25 the following description of an illustrative embodiment of the present invention.

In the drawing:

Figure 1 is a top plan view of the device embodying features of the present invention.

Figure 2 is a side view in elevation of the device shown in Figure 1.

Figure 3 is a bottom plan view of the device shown in Figures 1 and 2.

Figure 4 is a fragmentary sectional view in elevation taken substantially along line IV—IV of Figure 1 with a tongue shown in dotted outline to illustrate the application of the device for cleaning purposes.

The structure selected for illustration is not 40 intended to serve as a limitation upon the scope or teachings of the invention, but is merely illustrative thereof. There may be considerable variations and adaptations of all or part of the teachings depending upon the dictates of commercial 45 practice.

The tongue scraper comprises an elongated flat handle member 10 which is molded or otherwise shaped preferably though not essentially from plastic material to impart thereto a shape comfortable to the hand grip. To this end, the handle end is preferably a round end II merging into converging straight sides 12—13. The converging sides 12—13 of the handle member 10 merge into well-rounded diverging fillets 14-15 55 which, in turn, connect with straight converging sides 16—17 of a substantially flat head member 18.--

The sides 16—17 terminate in a rounded extremity 19 which is chamfered as at 20—21 to reduce the edge thickness of the rounded extremity 19.

The top surface 22 of the head member 18 is flat and is disposed substantially between the plane of the top surface of the handle member 65 10 while the bottom surface 23 is provided with a series of transversely disposed vertical shoulders 24, 25, 26, in this instance three, which terminate in sharp transverse scraping edges 27—28—29, respectively, that are directed toward the handle 70 member 10 and will create a wavy contour 30 on the surface of a tongue 3! when applied downwardly thereagainst.

The shoulders 24—25—26 are connected to each other by upwardly inclined surfaces 32-33-34

which provide the necessary clearance for the shoulders 24—25—26 so that the scraping edges 27-28-29, respectively, thereof will be free to engage against the surface 30 of the tongue 31 and remove the coating therefrom in a series of repeated reciprocations in the direction of the arrow illustrated in Figure 4.

In order to create longitudinal irregularities in the surface of the tongue 31 responsive to the application of the head member 13 thereto, a plurality of transversely spaced narrow grooves 35—36—37 are provided in the bottom surface 23 of the head member 13 to communicate with the sharp scraping edges 27-28-29, respectively, combination of serrations and substance collect- 15 and thus increase the scraping reaction on the tongue 31 to more effectively remove the coating and deposits thereon.

As shown, the shoulders 24-25-26 provided in the bottom surface 23 of the head member 18, communicate with elongated openings 38-39-49 which, in this instance, are of elliptical shape to overhang the ledge of the shoulders 24—25—25 for a partial communication therewith to collect the deleterious substances that are scraped or removed from the surface 30 of the tongue 31 responsive to the scraping action of the sharp teeth 27—28—29 thereof. It should be observed that by reason of the bottom ledges 4!—42—43 that are defined in the openings 33-39-40, respectively, by reason of positioning them along the transverse median thereof in relation to the vertical shoulders 24—25—26, there is a supporting surface for the substances that are collected through the partial bottom opening that communicate therewith and the scraping edges 27— 28—29.

This arrangement provides for the effective transference of the removed substances to the openings 38-39-40 which serve as receptacles therefor until cleansed in the usual fashion by directing a stream of water from a faucet therethrough.

Inasmuch as plastic material may be utilized for the molding or production of this type of tongue cleaner into a single unitary piece, it is desirable to reinforce the handle member 10 in the region proximate to the head member !3 where there is minimum stress by reason of the shape and design of the device. To compensate for this weakness and the fact that the greatest stress would be on the handle member 10 near the shank 44, an elongated reinforcing rib 45 is provided along the handle member 10 over the entire length of the shank portion 44 to the head member 18. This reinforcing rib 45 tapers down as at 46 to the handle member 10 and shank 44 to constitute an integral part of the device which is molded preferably though not essentially from clear or colored plastics to accomplish the intended purpose with minimum production costs.

It will be apparent that a very effective tongue cleaner has been provided which will remove the coating that is prevalent on the tongues of many individuals and as a result the natural saliva of the mouth can fully perform its function in conjunction with the pores 47 and membranes 48 of the tongue 31. The repeated removal of this deleterious substance not only will keep the pores 47 and the membranes 48 free from deleterious substances but will avail these organs to the action of the saliva in the mouth. Further, the inactive surface tissue is activated so that there is a new growth which will gradually eliminate all scars and troughs on the tongue surface that give it a geographical appearance with the re5

sult that the tongue will gradually assume its normal convexity and present a vigorous healthy appearance.

While I have illustrated and described a preferred embodiment of this invention, it must be 5 understood that the invention is capable of considerable variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to 10 avail myself of such variations and modifications as come within the scope of the appended claims.

I claim:

1. In a device of the character described, the combination with a handle member, of an elon- 15 gated body member extending from said handle member, and tongue surface abrading means comprising a series of spaced teeth on said body member to remove the film coatings from the tongue surface, there being film transmitting 20 openings in said body member to communicate with spaced teeth abrading means to receive the removed film therefrom, said film transmitting openings being offset from said teeth abrading means for a limited extent to form pockets in 25 said body member for collecting the removed film.

2. In a device of the character described, the combination with a handle member, of an elon-

gated body member extending from said handle member, and tongue surface abrading means comprising a series of spaced teeth disposed transversely of said elongated body member, there being transversely spaced and longitudinally extending grooves on said teeth to remove the film coatings from the tongue surface, there being film transmitting openings in said body member to communicate with spaced teeth abrading means to receive the removed film therefrom, said film transmitting openings being offset from said teeth abrading means for a limited extent to form pockets in said body member for collecting

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