

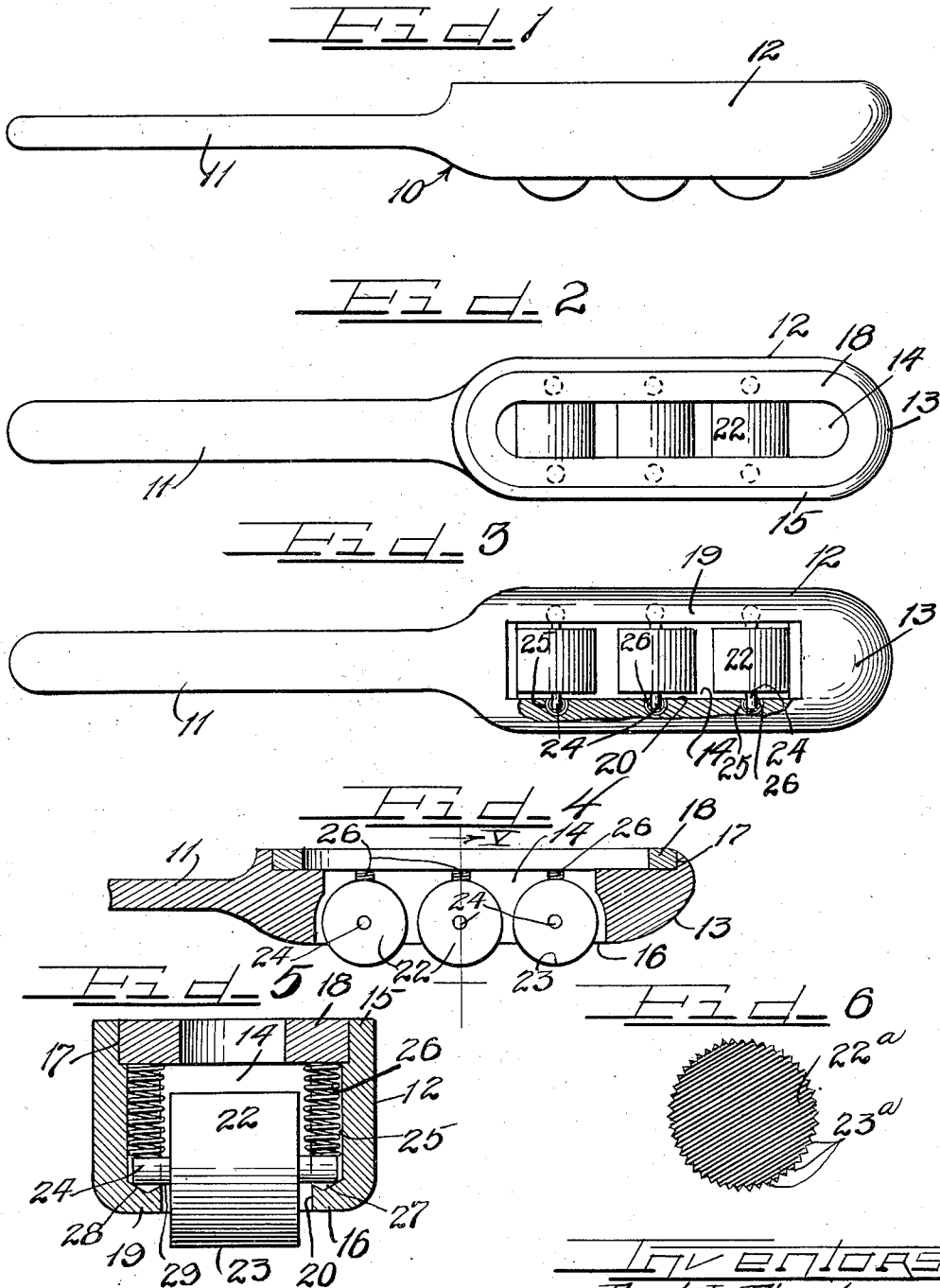
March 12, 1940.

F. L. FLANDERS ET AL

2,193,249

GUM MASSAGING DEVICE

Filed Nov. 3, 1937



INVENTORS
Fred. L. Flanders
James J. Mc. Gerry.
Charles W. Hill ATTY.

UNITED STATES PATENT OFFICE

2,193,249

GUM MASSAGING DEVICE

Fred L. Flanders, Muskegon, and James J. McGerry, East Grand Rapids, Mich., assignors to Hygienic Arts Corporation, Muskegon, Mich., a corporation of Michigan

Application November 3, 1937, Serial No. 172,504

2 Claims. (Cl. 128-57)

This invention relates to a massaging device, and more particularly to a massaging device of the roller type for treating the gums of the oral cavity.

It is an important object of this invention to provide a relatively simple and inexpensive device for massaging the gums of the oral cavity.

It is a further important object of this invention to provide a massaging device of the roller type, wherein rollers of resilient material, such as rubber, are individually spring mounted to permit a limited individual freedom of movement for each of the roller ends.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawing.

This invention (in a preferred form) is illustrated in the drawing and hereinafter more fully described.

On the drawing:

Figure 1 is a side elevational view of a massaging device embodying the principles of our invention.

Figure 2 is a top plan view of the same.

Figure 3 is a bottom plan view of the same with parts broken away and in section to show the construction.

Figure 4 is a fragmentary longitudinal sectional view.

Figure 5 is an enlarged sectional view taken substantially along the line V—V of Fig. 4 with parts in elevation.

Figure 6 is a cross sectional view of a modified form of roller for use in my device.

As shown on the drawing:

The reference numeral 10 indicates generally a massaging device of our invention, comprising a handle 11 and an integral body portion 12 extending axially thereof. Said handle and body portion may suitably be formed of a plastic, a hard rubber composition, or the like, by a molding or die forming process.

The body portion 12, which is relatively narrow and long and provided with smoothly rounded outer surfaces 13, has an opening 14 extending from the top side 15 to the lower side 16 (Fig. 5). The entrance 17 to said opening 14 is provided with a shouldered recess into which is fitted an apertured cover plate 18. Said cover plate 18 may suitably be force fitted into the shouldered recess 17 to be retained therein.

On the side 16 of the opening 14, the lower part 19 of the body portion 12 defines a rectangular entrance 20. A plurality of rollers 22 are

positioned within said opening 14 with a portion of their peripheries, such as the portions 23 normally projecting beyond the bottom side 16 through the entrance 20. Each of said rollers 22 is provided with a shaft 24.

In order to provide adjustable mountings for the rollers 22, the inner wall of the body portion 12 is formed with bores 25, which may be of circular cross section, and which extend from the shouldered recess 17 almost to the lower side 16. The ends of said shafts 24 normally lie in the bottoms of said bores 25 and are urged against said bottoms by coiled springs 26 positioned in said bores and held under compression against the inside of the cover plate 18. To facilitate freedom of movement of the ends of said shaft 24, the bottoms of said bores 25 are V-shaped as at 27, so that said shaft ends rest upon bearing edges 28 and 29 (Fig. 5).

It is thus apparent that as the rollers are moved over the gums, each one is free, at either or both ends, to move into or outwardly from the pocket 14 in which the rollers are mounted. The ends of rollers can also move slightly at the bottoms of the bores 25 to change their relative angular positions. There is thus sufficient individual freedom of movement of the rollers to compensate for the irregularities of the oral cavity and enable the gums to be thoroughly massaged over all of their surfaces.

In Fig. 6 there is shown a serrated type of rubber roller 22a in which the serrations 23a extend parallel to the axis of the roller. Various types of serrations or corrugations may be employed to increase the stimulating effect of the massaging device on the gums. Rubber or rubber compositions of suitable hardness is preferably used in the rollers 22 and 22a.

We claim as our invention:

1. A gum massaging device comprising an integral handle and body member, the body portion thereof having an opening therethrough from side to side, the lateral walls of said body portion having spaced bores on the inside thereof and defining an entrance to said opening on one side, a plurality of cylindrical rollers partly within said opening having shafts extending into said bores, an apertured cover secured in the entrance to said opening on the other side, and a coiled spring in each of said bores bearing at one end against said cover and at the other end against one of said shafts to afford individual freedom of movement for each shaft.

2. A gum massaging device comprising an elongated casing having spaced opposed side

walls defining an elongated bottom opening for said casing, a plurality of longitudinally spaced rollers in said casing with each of said rollers having a portion thereof extending outwardly 5 of said casing and through said opening, each of said rollers being provided with shaft means having ends extending from opposite ends of the roller and seated on said side walls, means yieldingly pressing said shafts into seated relation on

said side walls, said rollers and their shafts respectively being arranged having lengths with respect to the width of said opening and of the width between opposing side wall surfaces, respectively, whereby said rollers are transversely 5 movable and tiltable in said opening while said device is in use in massaging gums.

FRED L. FLANDERS.
JAMES J. McGERRY.