

Aug. 14, 1928.

1,680,989

O. HIBNER

MASSAGING APPARATUS

Filed May 22, 1926

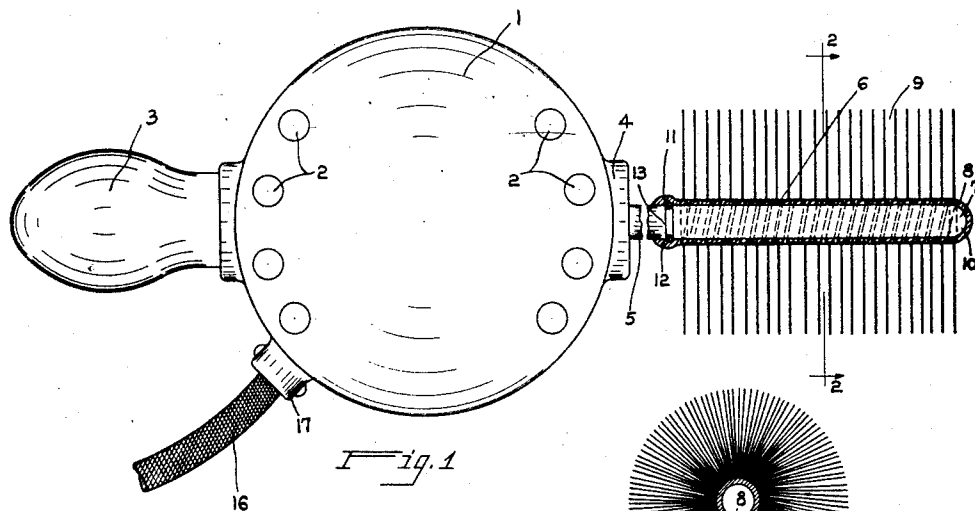


Fig. 1

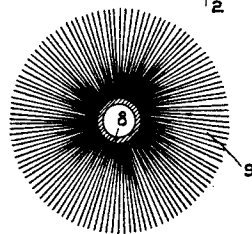


Fig. 2

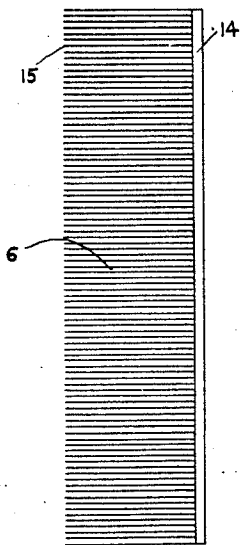


Fig. 3

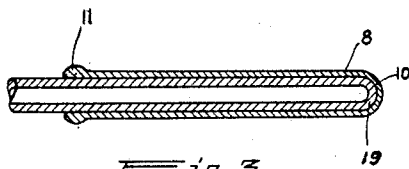


Fig. 4

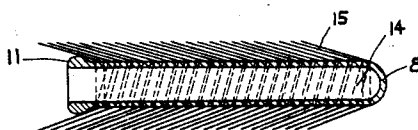


Fig. 5

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OLE HIBNER, OF CLEVELAND, OHIO.

MASSAGING APPARATUS.

Application filed May 22, 1926. Serial No. 110,834.

My invention relates to a new and improved massaging apparatus and relates more particularly to a portable massaging apparatus.

5 An object of my invention is to provide for accomplishing a massaging operation by producing an effect similar to the "patting" of a hand massaging operation but which will be more efficacious in its effects.

10 Another object of my invention is to provide as an article of manufacture a massaging element adapted to be easily attached and detached from the mandrel of the massaging mechanism.

15 Another object of my invention is to provide a new and novel method for the manufacture of such a massaging element.

Other objects of my invention and the invention itself will become readily apparent from the following description of an embodiment of my invention and the method of manufacturing such an embodiment, and the following description of a novel method involving its use.

25 In this description reference will be had to drawings of the said embodiment and in which drawings, wherein

Fig. 1 shows a plan view of my improved massaging apparatus;

30 Fig. 2 shows a transverse section through the massaging element, taken on the line 2-2 of Fig. 1, looking in the direction of the arrows;

Fig. 3 shows a longitudinal section view of one embodiment of the method and a portion of the apparatus for assembling my massaging element before the brush portion is applied;

Fig. 4 shows a transverse sectional view of the massaging element having the brush elements applied thereto; and

Fig. 5 shows the brush element in blank before the same is wrapped about its core.

Referring now more particularly to the drawings wherein like reference characters designate like parts throughout the specification and drawings, 1 designates a casing for supporting a motor means for my massaging apparatus, preferably an electric motor, or the like. The casing 1 is provided with suitable ventilating openings 2 to prevent overheating of the motor. Access to the interior of the casing 1 may be had when desired in any known manner. Carried by and projecting from one side of the casing 1, I have provided a handle 3 of any con-

ventional type which is grasped by the operator to support the massaging apparatus when in use. Much of the apparatus is preferably composed of light metal such as aluminum or the like.

60 Journalled in the opposite end of the casing 1, from the handle 3, at 4, is a motor shaft 5, which projects laterally to form a mandrel to receive my improved massaging element or brush 6. The shaft or mandrel 5 is preferably rounded at its end 7.

65 My improved massaging element 6 is preferably formed as an integral structure, of pliable material; this is preferably done by forming a unitary massaging element of a massaging apparatus by placing a tubular core of rubber material over a vulcanizing mandrel, in spirally wrapping upon the said core a relatively thin band of rubber material having a multiplicity of laterally extending strings, in applying a vulcanizing cement to the core and the band, exclusive of the strings, and in heating said mandrel by introducing a heating fluid to the interior thereof to vulcanize the band and the core into a unitary structure. The massaging element 6 comprises a tubular core preferably closed at its outer end 10 to cover the outer end of the mandrel or shaft 5. The inner end of the tubular core terminates in headed portion 11, adapted to fit snugly in frictional engagement on the mandrel 5. The inner end of the mandrel 5, adjacent its bearing, is preferably provided with a circumferential groove 13, said groove receiving and retaining a wire ring 12 over which the bead 11 is forced, to retain the massaging element in position on the mandrel.

75 The massaging apparatus is contacted with the face or body of the person to be massaged while the mandrel is rapidly rotated by the motor. The mode of constructing the massaging element of Fig. 4 will be understood by referring to Fig. 3 wherein, at 19, I show a hollow vulcanizing support upon which the tubular core 8 of rubber material is applied and retained. A strip of pliable material 14, is cut to form a series of normally limp strings 15 extending from the base 14, as best shown in Fig. 5. The blank 14 is spirally wrapped about the tubular core 8, the strings 15 overlapping each other as shown in Fig. 4, and suitable vulcanizing cement is applied to the blank base strip 14 and the tubular core 8. A heating fluid such as steam is now sup-

plied to the interior of the vulcanizing core 19 from any suitable source, to heat the same and vulcanize the blank base strip 14 to the tubular core 8. Other means of securing the blank base 14 to the tubular core 8, may be employed, however, the vulcanizing method of assembling my massaging element herein described is preferred.

Suitable electric current conductors 16 are provided and are adapted to enter the casing 1 in any convenient manner, preferably at 17, to conduct energizing current to the motor. A suitable electric switch, not shown, may be interposed between the massaging device and source of electric power when an electric motor is employed to drive the massaging apparatus.

When power is applied to the motor, the shaft 5 is rotated, and the strings 15 of the massaging element 6 will be thrown outwardly relative to the shaft 5 and the core 8, as best shown in Figs. 1 and 2 of the drawings, due to the effect of centrifugal force set up by the rapid rotation of the massaging element 6.

The strings at the same time tend to assume substantially parallel spaced relation with each other. Accordingly the strings 15 whip against the face or body portion of the patient, or user so that a much more efficient massaging operation results. The whipping by the strings against the face or body of the patient is similar in effect to hand "patting" massaging but which does not have the desired degree of effect, which results from the rapid successive and continuous contact of the strings 15 against the

face or body portion of the patient or user.

Having thus described an embodiment of my invention, and methods employed in connection therewith, I am aware that numerous and extensive departures may be made therefrom but without departing from the spirit of my invention.

What I claim is:—

1. In a massaging apparatus of the class described, the combination of a handle, and a rotatable mandrel, said mandrel adapted to carry a massaging member on its outer surface, said member comprising a continuous core and a plurality of limp massaging strings extending therefrom, said strings adapted to be thrown outwardly by centrifugal force when the mandrel is rapidly rotated.

2. An article of manufacture comprising a continuous tubular core having a multiplicity of limp strings of pliable material outwardly projecting therefrom in spaced relation to each other, said strings and tubular core forming a unitary structure of a rotary massaging element.

3. An article of manufacture comprising a tubular core, a relatively thin band of rubber material wrapped upon said core, and a plurality of limp slender massaging strings of pliable material carried by said band and projecting laterally of the core, said strings and tubular core forming a unitary structure of a rotary massaging element.

In testimony whereof I hereunto affix my signature this 4th day of May, 1926.

OLE HIBNER.