United States Patent

Nakayama

[15] 3,645,257

[45] Feb. 29, 1972

[54] MASSAGE TOOL

[72] Inventor: Takeo Nakayama, 11-19, 5-chome, Minami-Senji, Arakawa-ku, Tokyo, Japan

[22] Filed: Aug. 24, 1970

[21] Appl. No.: 66,308

[30] Foreign Application Priority Data

Apr. 28, 1970 Japan 45-41641

[52] U.S. Cl. 128/60

[51] Int. Cl. A61h 7/00

[58] Field of Search 128/60, 61, 62, 67, 57

[56] References Cited

UNITED STATES PATENTS

2,836,175 5/1958 Nakayama 128/60

FOREIGN PATENTS OR APPLICATIONS

334,840 3/1921 Germany 128/60

Primary Examiner—L. W. Trapp

Attorney—Zalkind, Horne and Shuster

[57] ABSTRACT

A message tool is constructed entirely of molded plastic so as to be more economical, lighter in weight and more easily used than prior art devices. The construction provides a simple two-piece plastic housing which holds pivotal message members of plastic which protrude from the housing for bodily contact with a patient, the housing being manipulatable to effect a massaging action of the message members. The construction provides concentric molded collars and skirts on the housing members which effect support sockets for the message members and rigidifying means for the housing.

8 Claims, 2 Drawing Figures

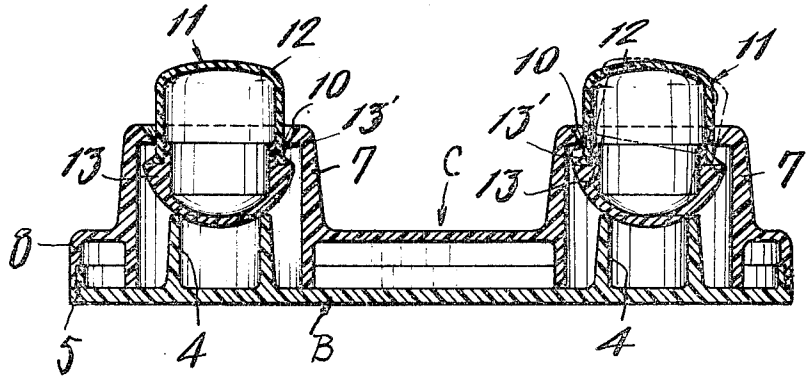


FIG. 1

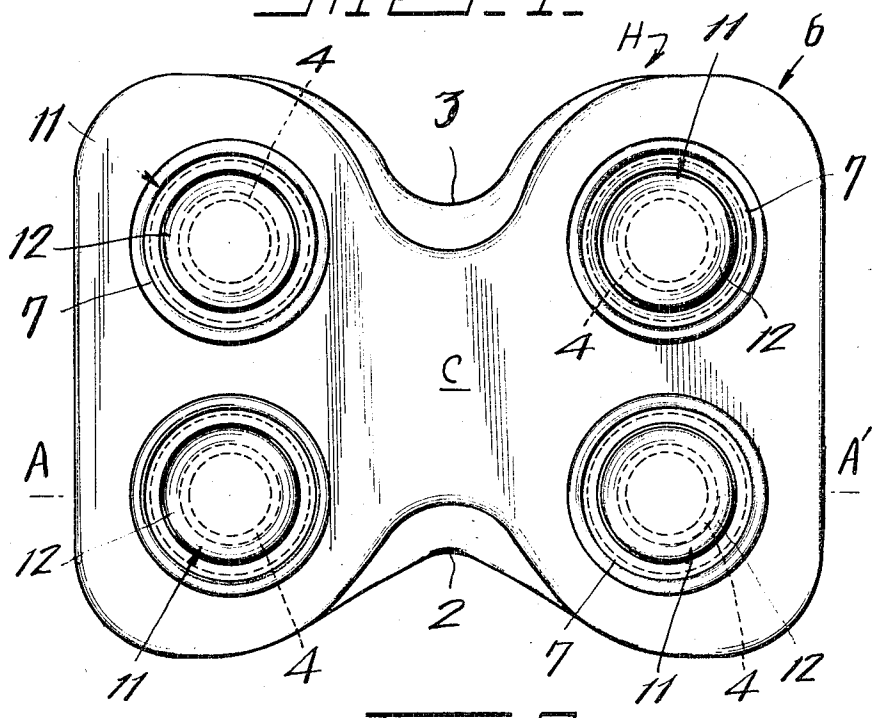
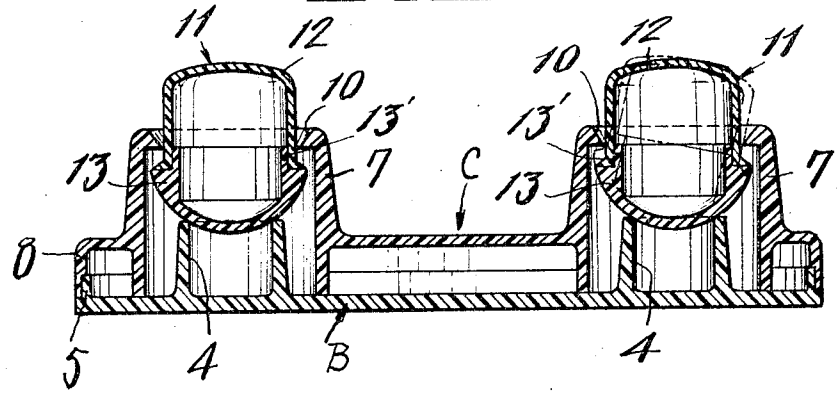


FIG. 2



INVENTOR
TAKEO NAKAYAMA
BY Zalkind, Horne & Shuster
ATTORNEYS

MASSAGE TOOL

The present invention constitutes an improvement over the construction of my previous U.S. Pat. No. 2,836,175 issued May 27, 1958. In the prior construction there is shown a massage tool intended to be hand manipulated over portions of the body of a patient and which tool has pivotal, i.e., rockable massage members or fingers which rub, thrust, press and knead the area over which the tool is moved by an operator, or used by a patient all as described in the patent. Thus, any desired degree of pressure may be brought to bear in order to vigorously or gently effect a massaging action by rocking of the massage members.

It has been found that such a device has various beneficial effects on the body such as easing muscular fatigue, increasing blood circulation, or reducing blood congestion which causes inflammation in local areas.

Such massage tools have heretofore been known of a general type shown in my previous patent having a construction in which a base member has a plurality of sockets secured thereto which support massage members that are retained in various ways. However, the overall construction of such prior art massage tools has been relatively complex, requiring a large number of various elements, generally manufactured of wood and expensive to assemble. Accordingly, the cost of such tools has been relatively high.

The present invention not only overcomes the high cost of manufacture of massage tools of the type shown in my patent by reducing the number of parts and reducing assembly labor but also furnishes a device which is longer lasting due to the use of suitable plastic which requires no surface finishing such as sanding, painting and the like. Thus, prior art devices will ultimately become roughened with use and of course a paint finish on members which are subject to friction soon wears away, peels, cracks, or blisters.

The general construction of my new and improved massage tool provides a molded plastic base having collars molded thereon extending therefrom and being opened ended to form seats or sockets for the support of arcuately shaped ends of respective massage members. Thus, the massage members can rock or pivot as the tool is used with pivotal support merely on the open ends of the collars molded on the base. The massage members themselves are also of molded plastic and are simple hollow bodies made of two cup-shaped members provided with flanges which are cemented together and form an exterior ring or enlarged periphery around the respective massage member. Such massage members are retained in a housing each protruding through an aperture and retained by the aforementioned enlarged peripheral ring.

The housing consists of the aforementioned base and a cover member likewise of molded plastic with molded sleeves each of which extends outwardly of the housing, being open ended and formed with an inturned radial lip thereby providing an aperture smaller than the diameter of the enlarged peripheral ring portion of the respective massage member so that each massage member is thus retained in a respective sleeve. Further, such sleeves extend into the housing concentric with respective support collars and abut the base so that when the cover member and the base are secured together to form the housing a very strong and rigid structure is effected. Preferably the base and cover member are congruous and provided with coacting flanges cemented together whereby an integral unit is provided.

A detailed description of the invention now follows in conjunction with the accompanying drawings in which:

FIG. 1 is a plan view of the invention, and

FIG. 2 is a section through A—A' of FIG. 1.

The massage tool generally comprises housing H having a molded plastic base B of substantially the same contour in plan as shown in FIG. 3 of my previous patent, being of generally rectangular shape. Two parallel side edges of the base are recessed substantially at the center thereof as shown with molded recesses 2 and 3.

Recesses 2 and 3 are adapted to be gripped by an operator's finger tips or to accommodate the neck of a patient being given massage treatment when the massage tool is manipulated for massage operation. The recesses 2 and 3 have smooth sloping transition to respective molded convexities of a plastic cover member C as illustrated in FIG. 1 so that the housing may be comfortably gripped or applied to the neck of a patient. Either recess can be eliminated if desired without departing the scope of the present invention.

Cover member C along with base B effect the housing H and are congruous, being adhesively secured at coacting peripheral flanges as later described.

The plastic base B is provided with four integrally molded identical collars 4 rectangularly spaced and open at their free ends as shown in FIG. 2. The base is further provided with a molded peripheral flange 5 around its periphery normal to the plane of the base. It will thus be noted that the base has been formed by molding plastic material as a unit having collars 4 and peripheral flange 5.

Closure member C has a contour which substantially corresponds to that of the base to complete the housing and is provided with four molded open-ended sleeves 7, open at both ends, and concentric with respective collars 4.

It will be noted that the inwardly extending ends of sleeves 7 abut the inner surface of base B whereby a very rigid construction for the plastic housing H is effected. The housing is assembled by providing a peripheral flange 8 to the cover member normal to the general plane of the cover member and which engages flange 5 of the base member. The flanges 5 and 8 are suitably rabbetted as shown in FIG. 2 to form a secure interlocking adhesive juncture around the periphery of the housing which juncture is smooth and has no protruding edges or lips.

The sleeves 7 thus extend inwardly to engage the base for rigidifying the housing and also extend outwardly of the housing, each being provided at its outer open end with a radially inturned lip or flange to form an aperture 10 having a sloped or flared edge widening outwardly as shown in FIG. 2.

From the above, it will be apparent that the cover member C can be readily molded as a single integral unit which comprises sleeves 7 and their outer flanged apertures together with the peripheral juncture flange 8.

Each of the collars 4 at its open free end provides a seat or socket for a massage member 11. Each massage member is comprised of a hollow body effected by a pair of plastic cup shaped elements 12 and 13 cemented at the flanged juncture 13' wherein the component 13 is substantially spherically shaped to be pivotally supported on the open end of a respective collar 4 and the mating component 12 extends outwardly of the housing through respective aperture 10 and has a smoothly curved outer end for contact with a patient. The slanting or flaring of apertures 10 permit rocking of massage members as the device is applied and moved on the body of the patient as will be apparent from the phantom outline of the massage member shown in FIG. 2.

The juncture 13' affords a peripheral enlargement of the respective massage member, being of a diameter larger than the inner diameter of the respective flared aperture 10 so that each massage member is retained in the housing. The diameter of the components 12 is, of course, slightly less than the inner diameter of respective apertures 10 to allow suitably free pivotal play, and the peripheral enlargement at the juncture 13' is suitably spaced from the radially inturned lip of aperture 10 in each instance so as not to interfere with the rocking motion of the massage member.

The massage members are plastic molded components adhesively secured at the flanges effecting peripheral juncture 13' and are preferably hollow although they may be filled with any desired material, e.g., rubber. It will be noted that component 12 has an outwardly extending radial flange engaging a coacting radial flange of component 13 which latter flange is effected by a rabbet so that a portion of the open end of component 13 can extend into the open end of component 12 for structural rigidity and secure adhesion.

In operation, an operator inserts his finger tips into both the side edge recesses 2 and 3, or either one of the recesses, and grips the whole massage tool. The operator then applies the outer ends of the massage members 11 against an affected area or areas on the body of a patient to be subjected to massage treatment, using finger pressure. With the massage tool pressed against the affected area of the patient body under manual finger pressure, the operator moves the tool with any variety of motions so that the members 11 are rolled or rocked by the engagement. The rocking action of the massage members on the patient is similar in effect to that in which finger-kneading massage is performed. However, the massage tool makes it possible to impart a stronger stimulation than that obtainable by means of finger tips for any type of massage action.

Furthermore, when a patient desires to give massage treatment to an affected area by himself, he places the massage tool on a bed with the members 11 directly upwardly and places his body on them. The patient can then move his body in contact with the massage members in desired directions with the affected area maintained in frictional contact causing the massage members to rock to effect massage treatment.

Other modes of use are generally described in my aforementioned patent.

I claim:

1. A massage tool comprising a plastic base having a bottom wall molded with a plurality of collars extending therefrom having open ends effecting support sockets;

a massage member having an arcuate base pivotally supported by each socket;

a plastic closure body secured to said base to form a housing and having respective apertures for said massage members, said massage members protruding through respective apertures and having outer ends engageable with a patient;

said apertures and massage members being dimensioned to permit relative pivotal movement therebetween and means on said massage members disposed to prevent emergence of said massage members through said apertures.

2. A massage tool as set forth in claim 1, said closure body having molded skirts encompassing respective apertures and extending into rigidifying engagement with said bottom wall.

3. A massage tool as set forth in claim 1, said base and said closure body being congruous and having peripheral flanges engaging each other to form a closed housing.

4. A massage tool as set forth in claim 1, said closure body having open-ended molded skirts effecting said apertures and said skirts extending into said housing and being in rigidifying engagement with said bottom wall, said base and said closure body being congruous and having peripheral flanges engaging each other to form a closed housing.

5. A massage tool as set forth in claim 1, said closure body having open-ended molded skirts each effecting one of said apertures and extending into rigidifying engagement with said bottom wall, and said skirts concentrically encompassing respective collars.

6. A massage tool as set forth in claim 1, said closure body having open-ended molded skirts effecting respective apertures and extending into rigidifying engagement with said bottom wall, said base and said closure body being congruous and having peripheral flanges engaging each other to form a closed housing; and said skirts concentrically encompassing respective collars.

7. A massage tool comprising a plastic housing having a base and a cover member, a plurality of sockets molded on said base member and a plurality of collars molded in said cover member, each collar having an end opening aligned with a respective socket and each collar extending outwardly of said cover member and also inwardly into said housing and abutting said base to rigidify said housing; a massage member in each collar and supported for pivotal movement by a respective socket and extending outwardly of the respective collar through a respective collar opening and having pivotal play in said opening; and retaining means for retaining said massage members in respective collars.

8. A massage tool as set forth in claim 7, each said massage member being comprised of a pair of plastic cups having molded peripheral flanges in engagement with each other to form a hollow member, said retaining means comprising said flanges wherein said flanges effect a peripherally enlarged portion of said massage member within the respective collar, and said retaining means also comprising a radially molded lip at the opening of each collar engageable with the enlarged portion of the respective massage member for retention in respective collars.

* * * * *