July 12, 1927. 1,635,917

F. M. WRIGHT

MASSAGE DEVICE

Filed Sept. 5, 1925 2 Sheets-Sheet 1

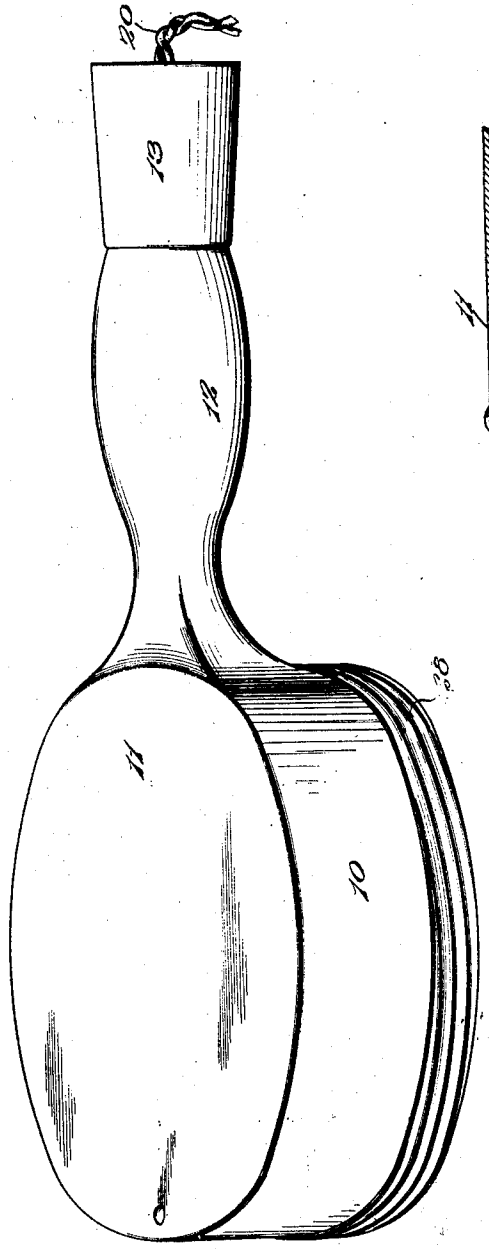


Fig. 1.

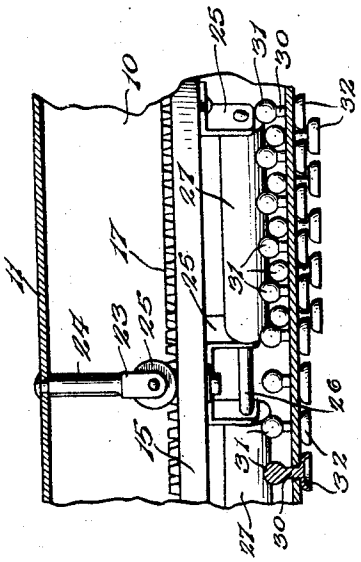


Fig. 4.

Inventor

F. M. Wright

By Lacey & Lacey Attorneys

July 12, 1927. 1,635,917

F. M. WRIGHT

MASSAGE DEVICE

Filed Sept. 5, 1925 2 Sheets-Sheet 2

Fig. 2.

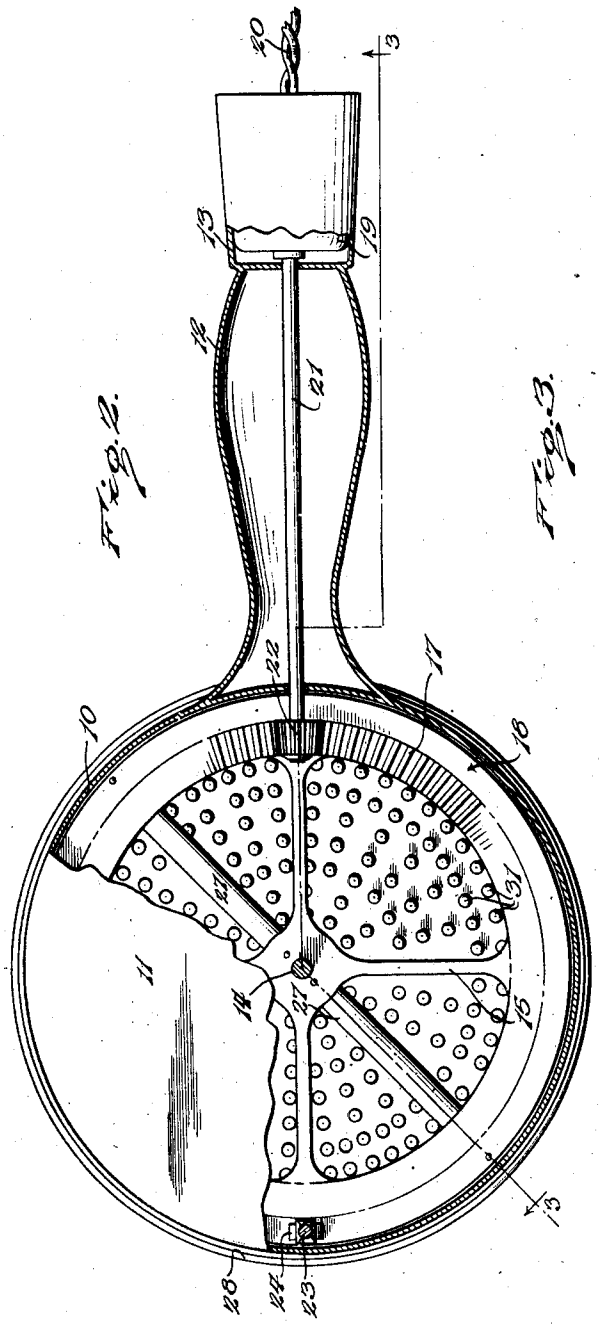
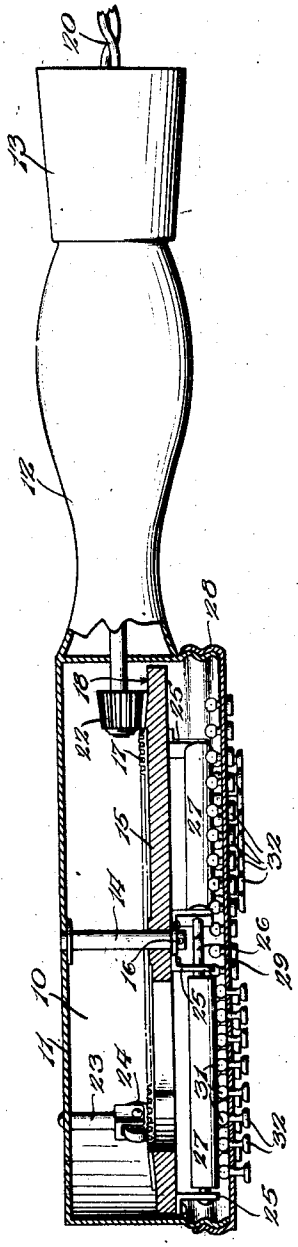


Fig. 3.



Inventor

F. M. Wright

By Lacy & Lacy (Attorneys)

Patented July 12, 1927. 1,635,917

UNITED STATES PATENT OFFICE.

FREDERICK M. WRIGHT, OF ST. LOUIS, MISSOURI.

MASSAGE DEVICE.

Application filed September 5, 1925. Serial No. 54,803.

This invention relates to an improved massage device and seeks, among other objects, to provide a device of this character which will prove efficacious for stimulating the circulation, diffusing congestion, relieving soreness, and alleviating sluggishness as well as reducing the flesh.

The invention seeks, as a further object, to provide a device adapted to percuss the flesh locally at a multiplicity of closely spaced points, and wherein the percussion members employed will be actuated progressively in such a manner as to impart a creeping percussion of the flesh.

And the invention seeks, as a still further object, to provide a device which will be structurally simple, compact, and inexpensive of manufacture.

Other objects of the invention not above specifically mentioned will appear as the description proceeds.

In the accompanying drawings:

Figure 1 is a perspective view of my improved massage device.

Figure 2 is a top plan view of the device, parts being broken away and illustrated in section.

Figure 3 is a sectional view on the line 3—3 of Figure 2, looking in the direction indicated by the arrows.

Figure 4 is a detail sectional view particularly showing the construction and mounting of the percussion members.

In carrying the invention into effect, I employ a cylindrical casing 10 which is preferably of sheet metal and is closed at one end by a top wall 11. Integrally attached to the casing is a radiating hollow handle 12 which is also preferably of sheet metal and terminates in a housing 13. Fixed to the top wall 11 axially of the casing is a stub shaft 14, and journaled on said shaft is a gear wheel 15 retained by a pin 16 which extends through the shaft near the lower end thereof. At its upper side, said wheel is provided with a gear ring 17, and surrounding said gear ring is a smooth annular face 18. Suitably fixed in the housing 13 of the handle 12 is an appropriate electric motor 19 having leads 20 for conducting current to the motor and, as shown in Figure 2, the armature shaft 21 of said motor is journaled through the handle to extend into the casing. Fixed to the inner end of said shaft is a pinion 22 to coact with the gear ring 17 of the wheel 15 and mounted upon the top wall 11 of the casing opposite said pinion is a yoke 23 journaling a roller 24 to contact the face 18 of the gear wheel 15 at a point diametrically opposite the point of engagement of the pinion with the gear ring. Thus, the roller will prevent tilting of the gear wheel and maintain the teeth of the gear ring in proper mesh with the teeth of the pinion.

Fixed to the gear wheel 15 at its lower side are pairs of alined brackets 25, and extending through said brackets is a shaft 26. Journaled upon the shaft between the brackets of said pairs of brackets are rollers 27. Screwed on the lower end of the casing is a closure cap 28 having a flat wall 29 which provides the bottom wall of the casing, and freely mounted upon said wall is a plurality of closely spaced slidable percussion members which are preferably disposed in rows radiating from the axis of the shaft 14 as a center. As best brought out in Figure 4, the percussion members are provided with shanks 30 which extend freely through the wall 29, and formed on the inner ends of said shanks are spherical heads 31 while at their outer ends the shanks are provided with enlarged percussion cups 32. Thus, the percussion members are mounted for limited reciprocation upon the wall 29 of the cap.

As will now be seen in view of the foregoing, when the motor 19 is in operation, the gear wheel 15 will be revolved with the result that the rollers 27 will be caused to travel over the heads 31 of the percussion members. The cups 32 of said members are positioned against the area to be treated so that as the rollers travel over the heads of said members, the members will be caused to vibrate against the flesh at closely spaced points. The flesh will thus be effectually massaged and since the rollers will engage the rows of percussion members successively, a creeping percussion action will be had. The cups 24 at the outer ends of the percussion members will, of course, tend to knead the flesh and draw the blood to the surface for stimulating the circulation.

Having thus described the invention, what I claim is:

1. A massage device including a casing open at one end, a wheel rotatable in said casing, a removable cap closing the open end of said casing, percussion members slidably carried by said cap and removable from the casing with the cap, said percus-

sion members being provided at their outer ends with suction cups and at their inner ends with heads, the heads and suction cups serving to limit sliding of the percussion members through said wheel and prevent displacement of said members when the cap is removed, means for rotating said wheel, and means carried by the wheel to sweep over the heads at the inner ends of said percussion members for depressing the same when the wheel is rotated.

2. A massage device comprising a casing open at one end, a removable closure for the open end of said casing, a gear wheel rotatably supported in said casing, a pinion engaged with said wheel, percussion members slidable through said closure and having rounded heads at their inner ends, bearings depending from said gear and alined diametrically of the gear, a shaft journaled in said bearings, rollers carried by said shaft between said bearings and adapted to move said percussion members outwardly through engagement with the heads at their inner ends as the gear rotates, and a roller supported by the casing and bearing against the wheel at a point diametrically opposite the pinion, means for rotating the pinion, and thus the gear.

In testimony whereof I affix my signature.

FREDERICK M. WRIGHT. [L. S.]