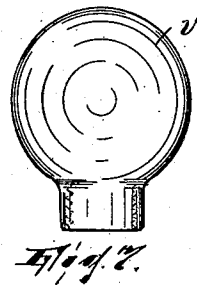
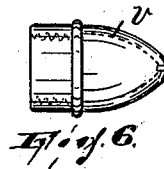
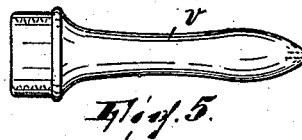
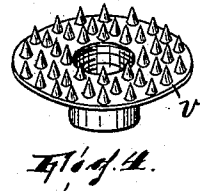
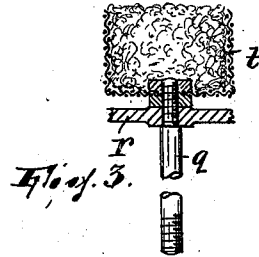
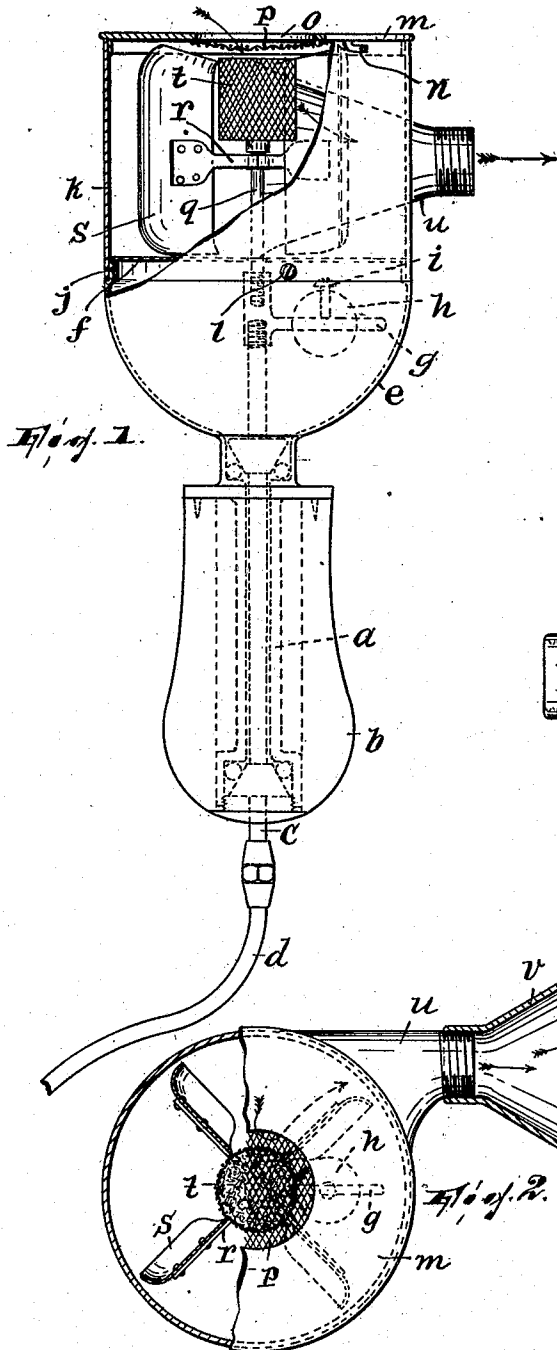


H. BEHM & C. REMPT.  
 APPARATUS FOR DERMAL TREATMENT.  
 APPLICATION FILED AUG. 9, 1907.

920,814.

Patented May 4, 1909.



WITNESSES

*W. D. Zell.*  
*Elsie Kaufmann.*

INVENTORS,

*Henry Behm*  
*and Carl Rempt.*  
 BY  
*Arthur J. Leonard.*  
 ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HENRY BEHM, OF BROOKLYN, NEW YORK, AND CARL REMPT, OF PATERSON, NEW JERSEY.

## APPARATUS FOR DERMAL TREATMENT.

No. 920,814.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed August 9, 1907. Serial No. 387,780.

*To all whom it may concern:*

Be it known that we, HENRY BEHM and CARL REMPT, a subject of the Emperor of Germany and a citizen of the United States, respectively, residing in Brooklyn, Brooklyn borough, New York, and Paterson, Passaic county, New Jersey, respectively, have invented an Apparatus for Dermal Treatment; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to massage appliances of the class commonly known as "vibrators" and it has for its object to provide in an apparatus of this nature means, operatively connected with and adapted to be driven from the moving part of the vibrator, for creating a fluid stream, the several parts being relatively so arranged and constructed as to preserve compactness and simplicity in the apparatus, enhance the efficacy of the fluid stream and make it possible to charge the fluid stream, in a practical and thorough manner, with a suitable emollient or the like.

Referring to the accompanying drawing, Figure 1 shows our apparatus partly in side elevation and partly in section; Fig. 2 is a top plan view, partly in section; Fig. 3 illustrates a detail; Figs. 4, 5, 6 and 7 present, by way of illustration, several types of nozzles or the like.

Any suitable type of vibrator may be employed, that shown in the drawing being illustrated merely because it conveniently serves to illustrate the invention.

*a* designates a suitable sleeve (shown in dotted outline in Fig. 1), on which is a handle *b* and which affords bearings for a rotary shaft or mandrel *c*, one end of the shaft being adapted to be connected with a flexible shaft *d* and the other projecting up into a semi-spherical casing *e* having a flat diaphragm *f* at the top. The upper end of shaft *c* has screwed onto it an arm *g* which carries a ball or other weight *h* adjustable thereon by virtue of a set-screw *i*. So much is old and illustrates the essential elements of any ordinary vibrator.

The casing *e* may be reduced, as at *j*, and onto it is slipped the lower end of a cylindrical casing *k* which fits around the reduced portion of casing *e* and may be secured thereto by screws *l*. The casing *k* may have a flat cover *m* removably attached by means of the bayonet joint *n*; said cover has an opening *o* centrally disposed therein and protected by a wire gauze or other foraminous body *p*.

Into the arm *g* in alinement with shaft *c* is screwed an extension shaft *q*, the screw threading being preferably reverse to the direction of rotation of shaft *c* so that when shaft *c* is rotating shaft *q* will not unscrew and become detached. Said shaft *q* carries a series of radial arms *r* upon which are attached the blades *s* each formed substantially as shown in the drawing. That is, each one extends from a point near the diaphragm *f* to a point near the cover *m* and it has its top and bottom and outer edge portions bent off in the same direction so as to give the blade the form of a scoop.

On the upper end of shaft *q* is screwed a wire gauze or other foraminous shell or holder *t* containing cotton or other absorbent material which may be charged with the emollient. The screw threading between shaft *q* and shell *t* is also reverse to the direction of said shaft for the same reason as that already given in connection with the screw thread connection between shaft *q* and arm *g*.

The casing *k* is formed with a conical nozzle *u* disposed tangentially thereof and having its end threaded to receive the massage attachments *v*, some of which are shown in Figs. 4 to 7.

In operation, shaft *c* being rotated, the vibrator is placed with one of the attachments *v* against the face or other part to be treated. As the vibratory action caused by the rotating eccentrically arranged ball *h* stimulates the circulation, the blades *s*, acting as a fan, draw in air through the opening *o* and force it out of casing *k* through the nozzle *n*. In some cases the treatment by air alone is beneficial; in others it will be found desirable to also use an emollient or the like, in which case, the foraminous shell *t*, containing the absorbent material charged with the emollient, is attached to the end of shaft *q*, and as said shaft rotates, centrifugal action will cause the liquid contained in the absorbent material to be thrown off and thereupon taken up by the stream of air, which is thus charged with it, and

cause it to be projected against the skin of the patient. The purpose of the wire gauze *p* is to prevent, for instance, the hair of the patient from being drawn into the apparatus where the same is used in treating the hair.

The nozzle *v* shown in Fig. 2, as well as the nozzles shown in Figs. 5 and 6, performs the service of confining the impelled fluid so that the process of impregnation into the skin is very materially augmented and the beneficial results thus greatly increased.

It will be understood that the apparatus herein set forth is useful in various adaptations, as by physicians, dermatologists, masseurs, barbers, and others whose office it is to externally treat the human body.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:

1. The combination, with a vibrator and a suitable casing assembled therewith and having an intake and an outlet, of means, operatively connected with a moving part of the vibrator and inclosed in said casing, for

creating a fluid stream therethrough, substantially as described.

2. The combination, with a vibrator and a suitable casing assembled therewith and having an intake and an outlet, of a fan located in the casing and means for transmitting rotary action from the vibrator to the fan, substantially as described.

3. The combination, with a vibrator having a rotary part and a suitable casing assembled therewith and having an intake and an outlet, of means for creating a fluid stream through the casing and a centrifugally acting holder carried by and rotative with said rotary part and discharging into said fluid stream, substantially as described.

In testimony, that we claim the foregoing, we have hereunto set our hands this 7th day of August, 1907.

HENRY BEHM.  
CARL REMPT.

Witnesses:

JOHN W. STEWARD.  
WM. D. BELL.