F. J. NILES.

MASSAGE APPARATUS.

APPLICATION FILED NOV. 13, 1915.

1,291,612. Patented Jan. 14, 1919.

FIG. 1.

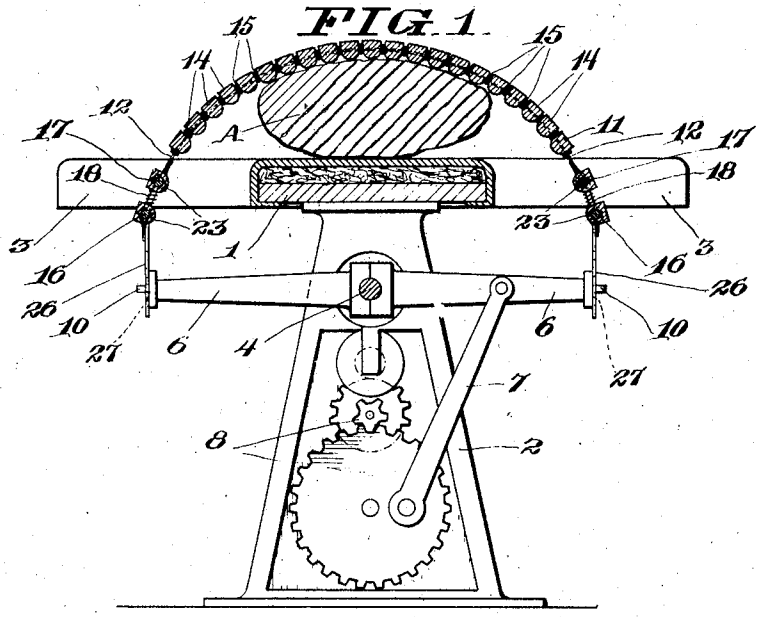



FIG. 2.

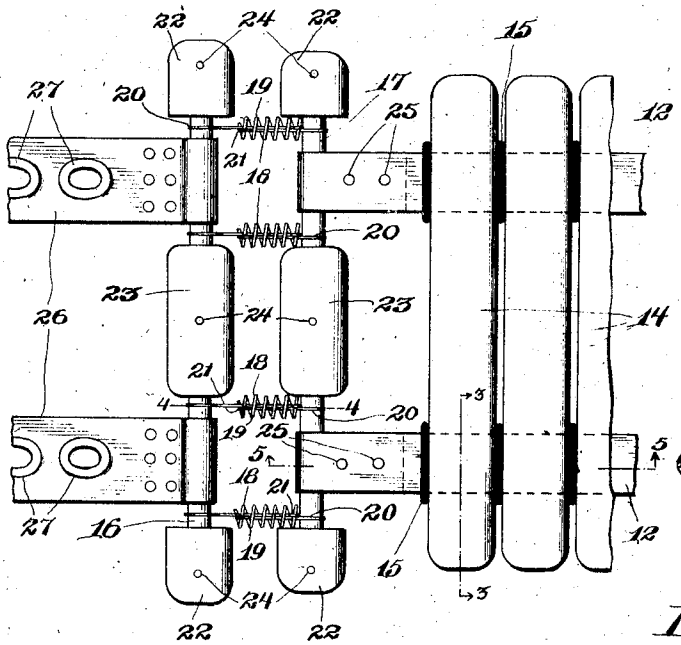



FIG. 3.

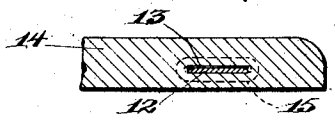



FIG. 4.

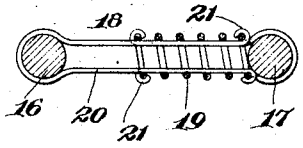
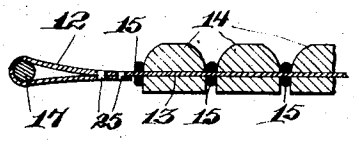



FIG. 5.




Witnesses

Wm. Lemmon

C. R. Ziegler.

Inventor

Fannie J. Niles,

By Joshua R. H. Potts.

HER Attorney

# UNITED STATES PATENT OFFICE.

FANNIE JANE NILES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE NILES NORMALIZING MACHINE CO., INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## MASSAGE APPARATUS.

1,291,612. Specification of Letters Patent. Patented Jan. 14, 1919.

Application filed November 13, 1915. Serial No. 61,200.

*To all whom it may concern:*

Be it known that I, FANNIE J. NILES, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Massage Apparatus, of which the following is a specification.

My invention relates to improvements in massage apparatus, the object of the invention being to provide an improved construction of body engaging member which imparts a soothing reciprocating action upon the body to reduce flesh and to operate as a remedy for many diseases or disorders due to obesity.

A further object is to improve upon the construction illustrated in my pending application for patent on massage machines, filed September 11, 1915, and given Serial No. 50,149.

A further object is to provide a massage apparatus comprising a series of parallel bars connected to flexible members and spaced apart by gaskets which operate to prevent noise, and to cushion the bars in their operation.

A further object is to provide improved elastic means at the ends of the body engaging member so as to exert a certain amount of elastic pressure and to cushion the operation.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings:

Figure 1 is a view in transverse section through my improved massaging machine forming the subject matter of my application above referred to and illustrating in connection therewith my improved body engaging member which forms the subject matter of my present application.

Fig. 2 is an enlarged detail view showing a fragment of one end of the body engaging member.

Fig. 3 is a fragmentary view in section on the line 3—3 of Fig. 2.

Fig. 4 is an enlarged view in section on the line 4—4 of Fig. 2, and

Fig. 5 is a view in section on the line 5—5 of Fig. 2.

The machine illustrated in Fig. 1 is like the machine illustrated in my application above referred to and comprises an operating table 1 supported at one end on a hollow standard 2, and having lateral extensions 3 at one end which afford a rest for the arms during various positions of the body indicated at "A" on the operating table.

A longitudinal shaft 4 is positioned below the table 1, and a rectangular frame 6 is secured to the shaft 4, and is connected by a link 7 with a train of gearing 8 located in the standard 2. This train of gearing is operated in any approved manner to impart an oscillating movement to the frame 6, and the latter at its sides is provided with turn buttons 10 to connect my improved body engaging member 11 to the frame.

My improved body engaging member 11 comprises two flexible straps 12 which are projected through slots 13 in bars 14. The slots 13 are located adjacent the ends of the bars 14, and the latter are spaced apart by rubber gaskets 15 located around the straps 12 and operating to hold the bars apart to prevent noise and also to cushion the movement of the bars.

The bars 14 have smooth surfaces which may be of any shape desired, and are adapted to exert a rubbing action on the part of the body to which they come in contact, but they are held against any turning or rotary movement.

The body engaging member 11 is precisely alike at both ends, and hence the description hereinafter of one end will apply alike to both.

Parallel rods 16 and 17 are spaced and connected by spring members 18. Each spring member comprises a coiled spring 19, and a pair of approximately U-shaped members 20, the latter having their intermediate portions around the rods 16 and 17 respectively, and their ends projected through the coiled springs 19, and at their extreme ends having hooks 21 engaging over the end convolutions of the coiled spring 19. As I have provided four of these spring members 18, a strong elastic cushion is had between the rods 16 and 17, and any tendency to separate the rods operates to compress the springs as will be understood.

On the ends of the rods 16 and 17, I locate knobs 22, and on the rods intermediate

their ends, I locate spacing blocks 23. The knobs 22 and spacing blocks 23 are preferably of the same shape in cross section as the bars 14, although of course I do not limit myself to the precise shape of these parts, and while I may secure the knobs 22 and spacing blocks 23 to the rods in any approved manner, I have illustrated ordinary pins 24 for the purpose.

The ends of the straps 12 are secured to rod 17 by lapping the ends of the straps around the rod, and then connecting the same by rivets 25 or by any other desired form of fastening means.

On the rod 16, I secure two connecting straps 26 which are preferably of leather or other suitable material, and are provided with eyes 27 to receive the turn buttons of frame 6. These eyes 27 in the straps 26 permit of the necessary amount of adjustment for the body engaging member to answer all purposes.

The straps 12 above referred to may of course be made of any material, but I preferably employ a woven inelastic material having the necessary strength, and yet sufficiently flexible to perform the functions for which they are intended.

I would also have it understood that I do not limit myself to any precise number of bars or to any particular shape, but desire to cover broadly the idea of bars having a fixed relationship to a flexible connecting member or members, so that they exert a rubbing action as distinguished from a rolling action.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An apparatus of the character described, comprising a pair of straps, a plurality of bars supported on the straps, spacing devices between the bars, pairs of rods spaced apart and located at the ends of the straps, said straps secured to one of each pair of said rods, spring members connecting the rods, and attaching straps secured to the outer of said pairs of rods and having eyes therein, substantially as described.

2. An apparatus of the character described, comprising a pair of straps, a plurality of bars supported on the straps, spacing devices between the bars, pairs of rods spaced apart and located at the ends of the straps, said straps secured to one of each pair of said rods, spring members connecting the rods, attaching straps secured to the outer of said pairs of rods and having eyes therein, blocks secured on the outer ends of the rods and on the intermediate portions of the rods, substantially as described.

3. In a device of the class described, the combination with a body supporting table, of a flexible body engaging member adapted to be passed over a body on the table, said flexible member disposed to rest in frictional engagement with the body and acting to hold the body to the table and means for passing the member across the body, the body engaging surface of said flexible member being fixed relative to said member whereby the body is treated to a rubbing action as distinguished from a rolling action.

4. In a device of the class described, the combination with a body supporting table, of a flexible strap including a series of body engaging members supported by a body on the table and means for holding the members against rotary movement as they are passed across the body and means for moving the strap bodily across the body.

5. A device of the class described, including a table for supporting a body in substantially horizontal position, of a flexible strap adapted to be passed over the supported body, said strap having an inner side resting in frictional engagement with the body, said inner side being fixed against movement independent of the movement of the strap as a whole.

6. A device of the class described, including a body supporting table, a flexible massaging strap for engaging a portion of a person resting on the table, said strap including a plurality of bars for engaging said portion, said bars fixed in the strap against movement independent of the movement of the strap whereby the portion is engaged frictionally and means engaging the strap for moving said bars across said portion.

7. A device of the class described, including a body supporting table, a flexible massaging strap for engaging a portion of a person resting on the table, said strap including a plurality of bars for engaging said portion, said bars fixed in the strap against movement independent of the movement of the strap whereby the portion is engaged frictionally, means engaging the strap for moving said bars across said portion, and spacing means disposed between the bars thereby to space the bars and form a grating effect for engaging said portion.

8. A device of the class described, including a table, adapted to support a portion of a person being treated, a flexible strap extending across the table, means for moving the strap in the direction of its length, said strap including a plurality of body engaging members disposed transversely of the length of the strap and each member having an inner body engaging surface and side sur-

faces extending outwardly from said body engaging surface thereby to form spaces between the adjacent body engaging surfaces to contain projecting portions of the flesh of the person being treated.

9. A device of the class described, including a table, adapted to support a portion of a person being treated, a flexible strap extending across the table, means for moving the strap in the direction of its length, said strap including a plurality of body engaging members disposed transversely of the length of the strap and each member having an inner body engaging surface and side surfaces extending outwardly from said body engaging surface thereby to form spaces between the adjacent body engaging surfaces to contain projecting portions of the flesh of the person being treated, said body engaging surfaces being flat and disposed continuously in alinement.

10. In a device of the class described, a massaging strap including a carrying member and a plurality of body engaging members spaced apart to provide openings through the strap and having a fixed relationship to the carrying member, elastic gaskets supported by said carrying member and disposed between certain adjacent pairs of said members thereby to prevent noise and to cushion the relative movement of said pairs of members, said carrying member provided with means for connecting the same to a strap actuating machine.

11. In a device of the class described, a massaging strap including a carrying member and a plurality of body engaging members of greater length than the width of the carrying member, said body engaging members being spaced apart longitudinally of the carrying member and having a fixed relationship to the carrying member, said carrying member provided with means for connecting the same to a strap actuating machine, said means including a resilient connection between the machine and body engaging members and including means for placing said resilient connection under tension.

12. In a device of the class described, the combination of a supporting member for holding one side of a portion of a person's body in reclining position, a flexible friction creating device for engaging and roughly conforming to the configuration of the side of the body opposite the side engaged by the supporting member and means for moving said friction creating device.

13. A massaging apparatus comprising a supporting table, a massaging strap passing over said table for frictionally engaging a portion of a person resting on the table, and means for moving said strap in operative engagement with said engaged portion.

14. In a body treatment machine, the combination with means for supporting the patient in reclining position, of a pair of belts arranged side by side, a plurality of horizontally arranged massage devices having curved engaging faces carried by said belts and adapted to engage with the body of the reclining person, the portions of said belts carrying the devices in active engagement with the body being arranged to travel in substantially horizontal paths, but adapted to conform to the outline of the body, and means for actuating said belts to cause the devices to move while in contact with the body.

15. In a massage or body treatment machine, the combination with means for supporting the patient in reclining position, of flexible supports, a plurality of elongated non-yielding horizontally arranged massage devices carried by said supports, the portions of said supports carrying the devices in active engagement being arranged to travel in substantially horizontal paths, whereby the devices may engage with the body of the reclining person when in substantially horizontal position, and means for actuating said supports to move the devices while in engagement with the body.

16. In a body treatment machine, the combination of belts, a series of horizontally arranged non-yielding and non-rotating massage devices carried by said belts, said belts being arranged in parallel relation and adapted to yield, whereby they will rest on and conform to the outline of the body, so that a plurality of the devices will engage with the body of a person when in horizontal position, and a motor for actuating said belts.

17. In a body treatment machine, the combination of a pair of belts, a plurality of elongated massage devices having curved faces for engagement with the covering on a person taking a treatment in the machine, and means for supporting said belts so that the engaging portions of the belts may curve in vertical planes, so that a plurality of said massage devices may engage a person lying in a horizontal position, and means for actuating said belts.

18. In a massage machine, the combination with means for supporting the person to be treated in a horizontal position of a series of non-yielding massage devices having curved engaging faces, a belt or belts for carrying said devices, and means engaging with said belts for actuating the same, whereby the belts with the massage devices thereon will conform to the outline of the person when in horizontal position, and the devices will be moved horizontally while in engagement with the body.

19. In a massage machine, the combination with means for supporting the person to be treated in a horizontal position, of a pair of

belts, a plurality of non-yielding elongated massage devices carried by said belts, a motor and connections between the motor and the belts for driving the belts with the massage devices thereon back and forth across the person while in horizontal position.

20. In a massage machine, the combination of a pair of horizontally arranged belts, means for supporting said belts, means for reciprocating said belts, and a plurality of horizontally arranged non-yielding massage devices spaced at short distances apart and carried by said belts.

21. In a frictional massage machine, the combination of a fixed table for supporting a body in a non-yielding and substantially horizontal position and a frictional massage device actuating mechanism disposed below the top of the table, said mechanism provided with means for engaging a massaging device and adapted to operate said massage device in engagement with the supported body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FANNIE JANE NILES.

Witnesses:
C. R. ZIEGLER,
S. W. FOSTER.