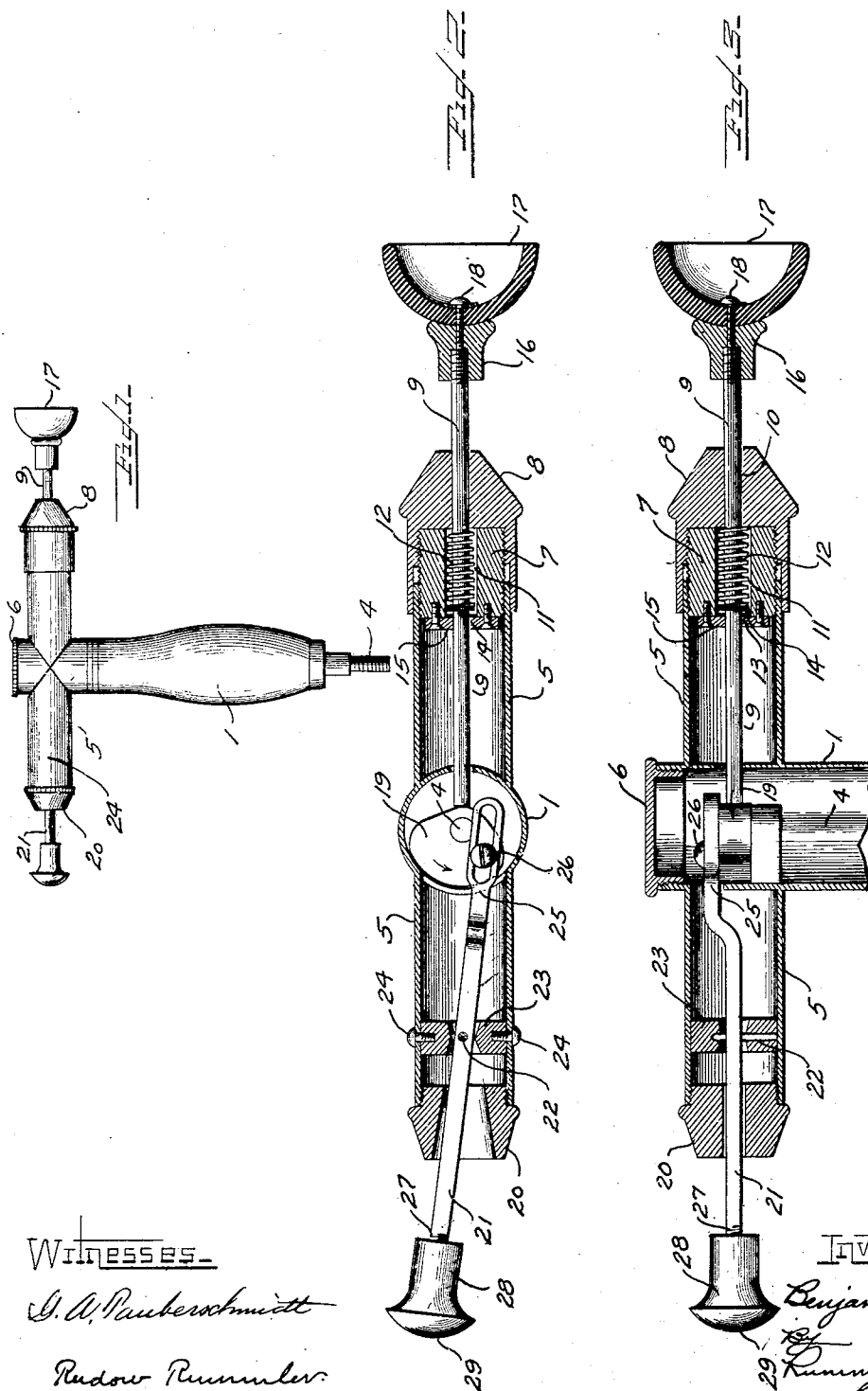


No. 733,398.

PATENTED JULY 14, 1903.

B. E. JOSEPH.
 MASSAGING INSTRUMENT.
 APPLICATION FILED JULY 5, 1902.

NO MODEL.



WITNESSES-
G. A. Pauberschmidt
Rudow Rummel

INVENTOR-
Benjamin E. Joseph
Rummel & Rummel
 his ATTYS-

UNITED STATES PATENT OFFICE.

BENJAMIN E. JOSEPH, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK S. BETZ,
OF CHICAGO, ILLINOIS.

MASSAGING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 733,398, dated July 14, 1903.

Application filed July 5, 1902. Serial No. 114,413. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN E. JOSEPH, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Massaging Instruments, of which the following is a specification.

The main object of my invention is to provide an improved form of power-driven massaging instrument particularly adapted for mechanically performing various operations which are useful in massaging treatments. I accomplish this object by the device shown in the accompanying drawings, in which—

Figure 1 is an elevation of a device constructed according to my invention. Fig. 2 is a transverse section of the same along the line 2 2 of Fig. 1. Fig. 3 is a section showing the same parts as are shown in Fig. 2, said section being taken in a plane at right angles to the plane of Fig. 2.

In the construction shown, 1 is a handle adapted to be grasped by the hand of an operator and having extending longitudinally through same a flexible shaft 4. Rigidly secured to the handle 1 is a hollow shank 5. The end of the handle 1 toward the shank 5 is closed by the cap 6. The handle 1 joins the shank 5 at about the middle of the length of said shank. One end of the shank 5 is closed by means of a plug 7, which is threaded and screwed into said shank. The plug 7 is also threaded into a cap 8. A rod 9 extends axially through the plug 7 and the cap 8 and into the shank 5. The aperture 10 in the cap 8 fits the rod 9 and serves as a guide for same. The aperture 11 in the cap 7 is larger than the rod 9 and contains therein, around the rod 9, a spiral spring 12. The spring 12 bears between the cap 8 and a collar 13. In the construction shown the collar 13 is loose upon the rod 9 and is limited in its movement along said rod by the pin 14. The inner end of the aperture 11 is reduced to fit the rod 9 by means of a collar 15, which is secured to the end of the plug 7. The collar 15 serves as a stop to limit the inward movement of the rod 9 under the action of the spring 12. The outer end of the rod 9 is threaded and adapted to have secured to its end a head suitable

for the operation intended, the form of head shown being a cap 16, to which a cup-shaped rubber member 17 is secured by means of the screw 18. The inner end of the rod 9 engages the face of a cam 19, which is journaled in the handle 1 and lies in the plane of the rod 9. The cam 19 is rigidly secured to the flexible shaft 4 and is mounted eccentrically, as shown in Fig. 2, so that its revolution will gradually force the rod 9 outwardly and against the action of the spring 12. The spring 12 urges the rod 9 inwardly, keeping its inner end always in contact with the cam 19. It will thus be seen that the reciprocating movement of the rod 9 is guided and controlled by the form of the cam 19. The opposite end of the shank 5 is provided with a screw-threaded cap 20, which has an oval slot extending longitudinally through same, through which a second rod 21 is pivoted at 22 to a member 23, which is rigidly secured within the shank 5 by means of the screws 24. The inner end 25 of the rod 21 is slotted and engages a pin 26 on the face of the cam 19. The outer end 27 of the rod 21 is threaded and has secured thereto a head 28, having a rounded end 29. The rotation of the cam 19 causes the rod 21 to rock on the pivot 22, causing the head 28 to reciprocate laterally.

The operation of the device shown is as follows: The flexible shaft 4 is revolved by means of a suitable motor, which is not shown in the drawings. The handle 1 is grasped by the operator, and one of the heads 17 or 28 is applied to the body of the patient. When the head 28 is being used, the rotation of the cam 19 causes a rapid laterally-reciprocating movement of said head while the instrument is being moved about by the operator. When the end of the instrument which carries the rubber cup 17 is applied to the body of the patient, the reciprocation of the rod 9 serves to produce a rapid pounding and suction effect. The cup 17 in being driven against the skin forms a partial vacuum in its cavity and in being withdrawn causes a suction upon the skin of the patient. Other operations may be performed by interchanging the heads upon the rods 9 and 21 or by using heads of various other forms.

It will be seen that numerous details of the

construction shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details, except as hereinafter limited in the claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A massaging instrument, comprising a hollow shank; a rod extending into one end of said shank and slidable longitudinally of same; a spring normally urging said rod into said shank; a cam journaled within said shank and adapted to engage the inner end of said rod, said cam being of suitable form to alternately move said rod gradually outward and suddenly release it; means for rotating said cam; and a head removably secured to the outer end of said rod.

2. A massaging instrument, comprising a hollow shank; a rod extending into one end of said shank and slidable longitudinally of same; a spring normally urging said rod into said shank; a cam journaled within said shank and adapted to engage the inner end of said rod, said cam being of suitable form to alternately move said rod gradually outward and suddenly release it; means for rotating said cam; and a cup-shaped head of resilient material, substantially as and for the purpose specified.

3. A massaging instrument, comprising a hollow shank; a rod extending into one end of said shank, reciprocating longitudinally of same and adapted to have a massaging-head secured thereto; a second rod extending into the other end of said shank, pivoted to same and adapted to reciprocate angularly with respect to the axis of said shank and to have a massaging-head secured thereto; a flexible shaft entering one side of said shank; and suitable means connecting said rods and shaft whereby said rods may be operated by turning said shaft.

4. A massaging instrument, comprising a hollow handle having a hollow shank secured transversely thereof and communicating therewith, a flexible shaft journaled in said handle, a cam secured to said shaft and located within said hollow shank at its junction with said handle, an arm pivoted in said shank having one end extending outwardly of the shank and the other end pivoted to said cam, a rod longitudinally slidable in the opposite end of said shank, said rod having one end extending outwardly of the shank and the other end bearing against the face of said cam, and means normally urging said rod toward the cam.

5. A massaging instrument, comprising a hollow handle having a hollow shank secured transversely thereof and communicating therewith, a flexible shaft journaled in said

handle, a cam secured to said shaft and located within said hollow shank at its junction with said handle, an arm pivoted in said shank having one end extending outwardly of the shank and the other end pivoted to said cam, a rod longitudinally slidable in the opposite end of said shank, said rod having one end extending outwardly of the shank and the other end bearing against the face of said cam, means normally urging said rod toward the cam, and operating-heads secured to the outer ends of said arm and rod, substantially as and for the purpose specified.

6. The combination with a portable handle-casing, of a reciprocating head guided therein, and means to drive the same, and a pitman to which a massage instrument may be attached, guided in the casing and having a cushioned connection with the head.

7. The combination with a casing forming a handle, of a shaft and a cushioned pitman therein, the pitman being adapted to be connected with a massage pad or body, a cam on the shaft giving the outward stroke to the pitman, and a spring in the casing to return it.

8. A massaging instrument comprising a handle; a longitudinally-reciprocating arm guided on said handle and adapted to have a massaging-head secured thereto; a second arm, laterally reciprocating, guided on said handle and adapted to have a massaging-head secured thereto; and means for reciprocating said arms longitudinally and laterally, respectively, substantially as described.

9. A massaging instrument comprising a handle; a longitudinally-reciprocating cushioned arm guided on said handle and adapted to have a massaging-head secured thereto; a second arm, laterally reciprocating, guided on said handle and adapted to have a massaging-head secured thereto; and means for reciprocating said arms longitudinally and laterally, respectively, substantially as described.

10. In a massage-machine, the combination of a handle provided with a longitudinally-extending hole therein, a shaft entered into the hole in the handle, an eccentric in the handle, a cross-head attached to the handle, a vibrating shaft pivoted within one section of the cross-head, and provided at its inner end with a contact for the eccentric, and a reciprocating shaft operating within the opposite end of the cross-head and adapted to contact with the eccentric, substantially as described.

Signed at Chicago this 18th day of June, 1902.

BENJAMIN E. JOSEPH.

Witnesses:

RALPH BOYD,
WM. R. RUMMLER.