

DESCRIPTION

Title of Invention: CHAIR-TYPE MASSAGER

Technical Field

[0001] The present invention relates to a chair-type massager having armrest-mounted massage units for hand and arm massage.

Background Art

[0002] Conventional chair-type massagers include those comprising a seat, and armrests disposed one at each side of the seat. Some of such chair-type massagers have armrest-mounted arm massage units configured to massage user's arms. As in Patent Literature 1, some of such arm massage units are configured as insertion recess parts that retract into massager's armrest. Patent Literature 1 discloses a chair-type massager provided at each of its armrests with an arm massage unit configured to perform massage operation on user's arm which is received, while being oriented to have an arm end forward, within the armrest. The arm massage unit is movable between a retracted position and a massage position in a vertical direction.

Prior Art Reference

Citation List

[0003]

Patent Literature 1: Japanese Unexamined Patent

Publication JP-A 2011-234783

Summary of Invention

Technical Problem

[0004]

The chair-type massager disclosed in Patent Literature 1 includes arm massage units with which users are able to have effective arm massage treatment. Moreover, each arm massage unit, formed as an insertion recess part, can be housed within the armrest when not in use. This imparts enhanced appearance to the massager.

However, the recently increasing variety of user requests for massage treatment include: requests for a chair-type massager operative to make users feel as if they enjoy professional massage to each of the fingers, the entire hand, the forearm, and more in a relaxed state of mind in a massage treatment salon; and requests for a chair-type massager operative to give, in addition to massage to the shoulder, the back, the waist, the buttocks, the thigh, etc., massage to each of the fingers, the entire hand, the forearm, etc. with full-body relaxation effect to users sitting in the chair-type massager.

[0005] In view of the circumstances as discussed supra, an object of the present invention is to provide a chair-type massager which includes armrest-mounted hand massage units, thereby performs elaborate massage operation on the fingers and the hand of a user received in each hand massage unit, and allows

smooth and easy insertion and removal of the fingers and the hand in and out of the hand massage unit.

Solution to Problem

[0006] In order to fulfill the above object, the present invention adopts the following technical means.

A chair-type massager embodying the present invention comprises: a seat; a backrest; and a pair of armrests disposed one at each side of the seat in a horizontal direction so as to extend in a front-rear direction. In the chair-type massager, the armrests each includes a tubular insertion recess part to cover and hold at least a hand of a user. The insertion recess part extends in the front-rear direction. The insertion recess part is provided at its front portion with separated finger sacks to receive individual fingers of the hand. The finger sacks are mounted for rotational motion about a horizontal axis at a front portion of the armrest.

[0007] In the present invention, it is preferable that the insertion recess part is internally provided with a hand massage unit to apply massage to the hand received in the insertion recess part, that the hand massage unit includes the finger sacks, and is provided at its rear portion with an insertion slot to admit the hand, and that the insertion recess part is configured for flipping-up movement about the horizontal axis with respect to the front portion of the armrest.

[0008] In the present invention, it is preferable that the

hand massage unit has, in an upper area of its intermediate portion in the front-rear direction, a cut-out opening formed so as to extend in the front-rear direction and to open substantially upward, and that the cut-out opening extends rearward from a location corresponding to rear ends of the finger sacks, and provides communication between an interior of the hand massage unit and an exterior thereof.

In the present invention, it is preferable that the hand massage unit includes inflatable and deflatable air bags to perform massage operation on the hand, and that the finger sacks each include an inflatable and deflatable tubular air bag to perform massage operation on corresponding one of the fingers, the tubular air bag being formed so as to extend around the corresponding finger.

Advantageous Effects of Invention

[0009] The chair-type massager embodying the present invention includes armrest-mounted hand massage units, thereby performs elaborate massage operation on the fingers and the hand of a user received in each of the hand massage unit, and allows smooth and easy insertion and removal of the fingers and the hand in and out of the hand massage unit.

Brief Description of Drawings

[0010]

[FIG. 1] An upper figure in FIG. 1 is a front perspective view showing a chair-type massager embodying the present

invention, with its arm massage unit set in a retracted position, and a lower figure in FIG. 1 is a front perspective view showing the chair-type massager, with its arm massage unit set in a massage position.

[FIG. 2] FIG. 2 is a front perspective view showing the general structural features of an insertion recess part and an arm massage unit disposed in an armrest of the chair-type massager embodying the present invention.

[FIG. 3] FIG. 3 is a rear perspective view showing the general structural features of the insertion recess part and the arm massage unit of the chair-type massager embodying the present invention.

[FIG. 4] FIG. 4 is an exploded front perspective view showing the front portion of the arm massage unit disposed in the insertion recess part.

[FIG. 5] An upper figure in FIG. 5 is a view illustrating a state where user's hand and forearm are not yet inserted into the arm massage unit, a middle figure in FIG. 5 is a view illustrating a state where the hand and the forearm are received in the arm massage unit, and a lower figure in FIG. 5 is a view illustrating a state where the hand and the forearm have been taken out of the arm massage unit.

Description of Embodiments

[0011] A massager 1 in chair form embodying the present invention, being simply called a chair-type massager 1, will

now be described with reference to the drawings.

The following embodiment is given by way of example of carrying out the present invention in practice, and is therefore not intended to be limiting of the structural features of the present invention. Moreover, some constituent components may be omitted from the drawings for clarity of illustration.

Directions with respect to the chair-type massager 1, namely a front-rear direction, a right-left, or horizontal direction, and a top-bottom, or vertical direction are as shown in the drawings. These directions coincide with those as viewed from a user sitting in a seat 2 of the chair-type massager 1. The directions indicated in the drawings, etc. are used as the reference for the following description of the chair-type massager 1 embodying the present invention.

[0012] For areas of user's body to be massaged, the wrist-to-elbow range of an area known as "arm" is referred to as "forearm A", and the area beyond the wrist is referred to as "hand H" and "fingers F".

As shown in FIG. 1, the chair-type massager 1 comprises: a seat 2 for user seating; a backrest 3 against which a user leans back; and armrests 4, on each of which the forearm A, the hand H, and more of the user can be placed.

[0013] The seat 2 is a horizontally oriented structural component which is rectangular in plan configuration, is provided at its upper seat surface with a cushion member, and is internally

provided with a frame member 6 configured to support the seat 2 at a location spaced above and away from a floor surface. Inside the frame member 6, or specifically under the seat 2, a space is left for the storage of a foot massage unit, not shown, etc. The backrest 3 is disposed in upstanding condition at the rear of the seat 2. The backrest 3 is supported for rocking motion about a horizontal axis directed in the right-left direction on the rear of a support frame 5, i.e. on the rear of the seat 2. That is, the backrest 3 is reclinable in the front-rear direction.

[0014] The armrests 4 are disposed one at each side of the seat 2, that is; spacedly arranged adjacent each other, in the right-left direction. Each of the armrests 4 is a plate-shaped member elongated in the front-rear direction, which is mounted so as to stand upright with respect to the floor surface. The armrest 4 has a top surface which is wide enough for the user to comfortably rest and stretch out the forearm A and the hand H thereon. The top surface gently slopes in a forward direction.

The armrest 4 is internally provided with a support frame 5a configured to support the armrest 4. The support frame 5a is a vertically upstanding member fixedly coupled orthogonally to the frame member 6 of the seat 2.

[0015] The armrests 4 include a left-hand armrest 4L located to the left of the seat 2, and a right-hand armrest 4R located to the right of the seat 2. The left-hand armrest 4L is configured

in mirror image fashion to the right-hand armrest 4R in the right-left direction. The left-hand armrest 4L and the right-hand armrest 4R are disposed on the left side and the right side, respectively, of the seat 2. That is, the left-hand armrest 4L and the right-hand armrest 4R are spaced apart so as to have sandwiched therebetween the seat 2 in the right-left direction.

[0016] Each of the armrests 4 is provided at its upper portion with an insertion recess part 6, which serves as a holding section, configured to receive the hand H and the forearm A.

The insertion recess parts 6, which are each constituent component elongated in the front-rear direction, include a left-hand insertion recess part 6L disposed in the upper portion of the left-hand armrest 4L, and a right-hand insertion recess part 6R disposed in the upper portion of the right-hand armrest 4R. The left-hand insertion recess part 6L is configured in mirror image fashion to the right-hand insertion recess part 6R in the right-left direction. The following description will therefore focus on the structural features of the right-hand insertion recess part 6R.

[0017] The right-hand insertion recess part 6R includes a space for receiving user's right hand H, namely right hand H and user's right forearm A, namely right forearm A. The right-hand insertion recess part 6R is open at the rear end to define an opening which serves as a rear opening 7. The rear opening 7 allows the right hand H and the right forearm A to

be inserted into the right-hand insertion recess part 6R from the rear to the front. The rear opening 7 may be substituted for an insertion slot 19 which will hereafter be described.

[0018] The right-hand insertion recess part 6R has a side opening 8 formed so as to extend from an intermediate portion in the front-rear direction to the rear of the right-hand insertion recess part 6R. The side opening 8 is an elongated opening facing toward the seat 2, and permits insertion and removal of the right hand H and/or the right forearm A. The side opening 8 and the rear opening 7 are communicated with each other.

All the adjoining areas of the right-hand insertion recess part 6R except for the rear end forming the rear opening 7 and the inward side forming the side opening 8 in a width direction, namely the upper face, the lower face, the front face, and the widthwise outward side of the right-hand insertion recess part 6R, are each formed as a wall surface. The inserted right hand H and right forearm A are enclosed with these wall surfaces constituting the right-hand insertion recess part 6R.

[0019] The right-hand insertion recess part 6R is internally provided with a "hand massage unit". The hand massage unit is configured to perform massage in the range from the fingers F through the hand H, including the palm and the back of the hand H, to the wrist-to-elbow area, namely the forearm A. That is, the hand massage unit may also be referred to as a "hand

and arm massage unit".

For the following description, the "hand massage unit" of this embodiment will be illustrated as comprising two separate parts, namely a hand-finger massager 10 to permit massage to the finger F-to-hand H (including the palm and the back of the hand H) range, and an arm massager 11 to permit massage to the wrist-to-elbow range, namely the forearm A.

[0020] As shown in FIGs. 1 to 5, etc., the right-hand insertion recess part 6R is mounted for rotational motion, i.e. rocking motion about a horizontal axis L at the front portion of the right-hand armrest 4R. That is, the right-hand insertion recess part 6R and the left-hand insertion recess part 6L can be changed in position between a retracted position (refer to the upper figure in FIG. 1) and a massage position (refer to the lower figure in FIG. 1).

Specifically, the right-hand insertion recess part 6R is rotatably and pivotally supported at its forward end portion on the right-hand armrest 4R via a support shaft 9. The support shaft 9 is mounted with its axis L directed in the horizontal direction, i.e. the width direction. The right-hand insertion recess part 6R is capable of flipping-up movement about the horizontally directed axis L of the support shaft 9 with respect to the front portion of the armrest 4. In other words, the right-hand insertion recess part 6R is constructed so that the rear portion, or specifically the rear opening 7 side thereof,

is rockable in the vertical direction relative to the forward (front) end portion pivotally supported on the armrest 4.

[0021] With the left-hand and right-hand insertion recess parts 6L and 6R set in their retracted positions, the side opening 8 of the left-hand insertion recess part 6L is blocked with a side plate 10, which serves as a blocking plate, disposed on the widthwise inward side of the left-hand armrest 4L, and the side opening 8 of the right-hand insertion recess part 6R is blocked with a side plate 10 disposed on the widthwise inward side of the right-hand armrest 4R. Each of the side plates 10 may be provided with an air-bag assembly configured to apply pressing massage to user's thigh.

When the left-hand and right-hand insertion recess parts 6L and 6R assume the retracted position, each of the side openings 8 does not necessarily have to be fully blocked, and may be partly blocked instead. Moreover, when the left-hand and right-hand insertion recess parts 6L and 6R assume the massage position, each of the side openings 8 rises away from the side plate 10 serving as a blocking plate into an uncovered state. That is, the left-hand and right-hand insertion recess parts 6L and 6R are each configured to move between the retracted position and the massage position by exploiting the vertical rocking motion of the rear portion relative to the front end portion.

[0022] In this embodiment, the right-hand insertion recess part 6R is provided at its front portion with a right hand-finger

massager 11R configured to massage the right hand H of the user without fail, and is also provided at its rear portion with a right arm massager 12R configured to massage the right forearm A of the user without fail. At the retracted position, the right-hand insertion recess part 6R is housed within the upper portion of the right-hand armrest 4R. Thus, the right-hand insertion recess part 6R, including the right hand-finger massager 11R and the right arm massager 12R, is out of the way of placing the forearm A and the hand H on the upper surface of the right-hand armrest 4R.

[0023] The left-hand insertion recess part 6L is similar in configuration to the right-hand insertion recess part 6R, and will therefore not be described herein.

As shown in FIGs. 2 to 4, etc., each insertion recess part 6 is provided at its front portion with the hand-finger massager 11 configured to apply pressing massage to the hand H received in the insertion recess part 6.

The hand-finger massagers 11 includes a left hand-finger massager 11L disposed in the front portion of the left-hand insertion recess part 6L, and a right hand-finger massager 11R disposed in the front portion of the right-hand insertion recess part 6R. The left hand-finger massager 11L is configured in mirror image fashion to the right hand-finger massager 11R. The following description will therefore focus on the structural features of the right hand-finger massager 11R.

[0024] The right hand-finger massager 11R includes an inflatable and deflatable air-bag assembly configured to perform massage operation on the right hand H, and thereby massages the right hand H, including the palm and the back of the hand H and the fingers F, received in the right-hand insertion recess part 6R.

The right hand-finger massager 11R comprises: a first air bag 13 disposed on the outward inner wall of the front portion of the right-hand insertion recess part 6R in the width direction; a second air bag 14 opposed to the first air bag 13; and a bracket member 15 configured to laterally support the first air bag 13 and the second air bag 14.

[0025] The right hand-finger massager 11R performs massage operation on the right hand H of the user, with the first air bag 13 pressing the back of the hand H received within the right-hand insertion recess part 6R, and with the second air bag 14 pressing the palm of the hand H received within the right-hand insertion recess part 6R.

The first air bag 13 is mounted in upstanding condition along the widthwise outward inner wall of the right-hand insertion recess part 6R. The first air bag 13 is a flexible, inflatable and deflatable bag member having surfaces of substantially identical size to the back of the hand H, i.e. the hand H.

[0026] The second air bag 14 is disposed on the widthwise inward side of the front end portion of the right-hand armrest

4R. The second air bag 14 is mounted in upstanding condition so as to be spaced away from the first air bag 13 by a predetermined distance, or specifically a distance substantially equal to the thickness of the hand H. The second air bag 14 is an inflatable and deflatable bag member having surfaces of substantially identical size to the palm of the hand H, i.e. the hand H. Moreover, the second air bag 14 is a flexible member accommodated in a cover body 16 which covers the palm of the hand H. That is, the second air bag 14 is positioned so as to face the palm of the hand H.

[0027] The bracket member 15 is open at the top and at the opposite ends in the front-rear direction, and has a closed bottom. That is, the bracket member 15 is U-shaped as viewed from the front. The bracket member 15 serves as a retainer to retain in a sandwiching manner the first air bag 13 and the second air bag 14 spaced apart by a predetermined distance. The bracket member 15 is attached to the widthwise outward inner wall of the right-hand insertion recess part 6R. The bracket member 15 is preferably made of a hard material such as a metal material.

[0028] The bracket member 15 supports the first air bag 13 and the second air bag 14 arranged facing each other, ensuring that the first air bag 13 and the second air bag 14 apply effective pressing massage to the hand H, including the palm and the back of the hand H, placed between the first air bag 13 and the second air bag 14.

The left hand-finger massager 11L is similar in configuration to the right hand-finger massager 11R, and will therefore not be described herein.

[0029] The right-hand insertion recess part 6R is provided at its front portion, or specifically front end portion, with a sack member 17 comprising separated or divided finger sacks 17 configured to separately receive the individual fingers F of the right hand H.

The finger sacks 17 are each a tubular member formed so as to extend around corresponding one of the fingers F, or specifically the base end (base)-to-tip (fingertip) area of the finger F. The size of each finger sack 17 is determined with consideration given to the thickness of the corresponding finger F to permit easy insertion of the finger F. For example, the finger sacks 17 range in diameter from about 2.5 cm to 3.0 cm in conformity with their respective fingers F. Moreover, the length of each finger sack 17 is determined with consideration given to the length of the corresponding finger F. For example, the finger sacks 17 range in length from about 6.0 cm to 9.0 cm. That is, the finger sacks 17 may be subjected to size adjustment as required.

[0030] As shown in FIGs. 1 to 5, etc., the finger sacks 17 are mounted for rotational motion, i.e. rocking motion about the horizontal axis L at the front portion of the right-hand armrest 4R. That is, the finger sacks 17 can be changed in

position between the retracted position (refer to the upper figure in FIG. 1) and the massage position (refer to the lower figure in FIG. 1).

Specifically, the finger sacks 17 are configured for rotational motion relative to the right-hand armrest 4R via the support shaft 9. That is, the finger sacks 17 are capable of flipping-up movement about the horizontally directed axis L of the support shaft 9 with respect to the front portion of the right-hand armrest 4R. In other words, each finger sack 17 is constructed so that the rear portion thereof, which faces the base of the finger F, rotationally moves about the axis L of the support shaft 9 to a larger extent than the front portion thereof which faces the tip of the finger F.

[0031] The finger sacks 17 each include an inflatable and deflatable tubular air bag 18 for finger, being simply called a finger air bag 18, to perform massage operation on the finger F. The finger air bag 18 is formed so as to extend around the corresponding finger F. That is, the finger sacks 17, comprising the finger air bags 18, are disposed in the hand massage unit, or specifically in the hand-finger massager 10.

The finger air bags 18 are each a tubular member formed so as to extend around the corresponding finger F, or specifically the base end (base)-to-tip (fingertip) area of the finger F. The dimensions of the finger air bag 18 are determined with consideration given to the thickness and the length of the

corresponding finger F to permit easy insertion of the finger F. That is, the finger air bag 18 may be subjected to size adjustment as required.

[0032] That is, the right hand-finger massager 11R is a flexible glove-shaped bag body configured to apply pressing massage to the hand H and the fingers F of the user wearing the glove-like hand-finger massager 11R, with the fingers F respectively received in the finger sacks 17 (i.e. the finger air bags 18), with the back of the hand H aligned on the first air bag 13, and with the palm of the hand H aligned on the second air bag 14.

The finger sack 17, with the finger air bag 18 provided in it, ensures effective pressing massage by the finger air bag 18 to the finger F received in the finger sack 17. Moreover, the finger F-pressing massage by the finger air bag 18 in synergy with the hand H (the palm and the back of the hand H)-pressing massage by the first air bag 13 and the second air bag 14 provides enhanced massage effect.

[0033] In this embodiment, the sack member 17 comprises four separated finger sacks 17, i.e. four separated finger air bags 18 adapted to, of all the fingers F of the hand H, the index finger, the middle finger, the ring finger, and the little finger, respectively. Alternatively, the sack member 17 may comprise five separated finger sacks 17, i.e. five separated finger air bags 18 adapted to the aforementioned fingers with the thumb added.

In another alternative, for example, the sack member 17 may comprise three separated finger sacks 17, i.e. three separated finger air bags 18, of which the first one is adapted to both the ring finger and the little finger, the second one is adapted to the middle finger, and the third one is adapted to the index finger.

[0034] The fingersacks 17 of the left-hand insertion recess part 6L are similar in configuration to the finger sacks 17 of the right-hand insertion recess part 6R, and will therefore not be described herein.

As shown in FIGs. 1 to 5, etc., the cover body 16 for covering the hand H is located toward the widthwise inward sides, i.e. the seat 2-facing sides of the finger sacks 17. That is, the cover body 16 is disposed on the widthwise inward side of the front end portion of the right-hand insertion recess part 6R. The cover body 16 is positioned so as to face the hand H, such as the palm and the fingers F of the right hand H received in the right-hand insertion recess part 6R.

[0035] The cover body 16 is a flexible flat member having surfaces that are substantially equal to or slightly greater in size than the hand H for covering the entire palm side of the hand H. The cover body 16 is provided at its rear end with an insertion slot 19 formed so as to open toward the rear within the right-hand insertion recess part 6R. That is, the hand massage unit, or specifically the hand-finger massager 10, may

be provided at its rear portion with the insertion slot 19 to admit the hand H. The insertion slot 19 is dimensioned to be large enough for the insertion of the hand H from the rear to the front.

[0036] The cover body 16 is disposed at the front portion of the insertion recess part 6 serving as a holding section so as to lie along the side plate 10 and to stand upright relative to the seat 2. The cover body 16 is preferably formed of a flexible and stretchable member, such as synthetic leather, cloth, or synthetic fiber.

The cover body 16 has the second air bag 14 that presses the palm of the hand H. More specifically, the second air bag 14 is disposed at the rear portion of the cover body 16 so as to face the palm of the hand H. The cover body 16 is provided at its front portion with the sack member 17 configured to receive the fingers F. The sack member 17 is covered with the cover body 16. The cover body 16 expands and contracts in response to the inflation and deflation of the second air bag 14.

[0037] The hand massage unit, or specifically the hand-finger massager 10 has, in an upper area of its intermediate portion in the front-rear direction, a cut-out opening 20 formed so as to extend in the front-rear direction and to open substantially upward. The cut-out opening 19 extends rearward from a location corresponding to the rear ends of the finger sacks 17 to the insertion slot 19, and provides communication

between the interior of the hand massage unit, or specifically the hand-finger massager 10, and the exterior thereof.

As shown in FIGs. 1 to 5, etc., the cut-out opening 20 is located in an upper area of the rear portion of the cover body 16 in the retracted position. The cut-out opening 20 is obtained by cutting the area extending from the location corresponding to the rear ends of the finger sacks 17, i.e. the location which faces the bases of the fingers F inserted in the sack member to the rear end of the insertion slot 19.

[0038] The cut-out opening 20 has substantially a rectilinear shape, and forms an opening to allow the right hand H received in the hand-finger massager 10, i.e. the right-hand insertion recess part 6R to move away therefrom toward the seat. That is, the cut-out opening 20 permits easy release of the right hand H from within the hand-finger massager 10, i.e. the right-hand insertion recess part 6R toward the seat 2, that is; easy release of the right hand H out of the cover body 16.

The cut-out opening 20 may be made in the form of an easily openable and closable portion configured to open only when subjected to a force resulting from the release of the hand H, and close right after the release.

[0039] The cover body 16 and the cut-out opening 20 of the left-hand insertion recess part 6L are similar in configuration to the cover body 16 and the cut-out opening 20, respectively, of the right-hand insertion recess part 6R, and will therefore

not be described herein.

Moreover, each of the insertion recess parts 6 is provided at its rear portion with the arm massager 12 configured to apply pressing massge to the forearmA received in the insertion recess part 6.

The arm massagers 12 includes a left arm massager 12L and a right arm massager 12R, each in the form of a member elongated in the front-rear direction. The left arm massager 12L is disposed in the rear portion of the left-hand insertion recess part 6L, and the right arm massager 12R is disposed in the rear portion of the right-hand insertion recess part 6R. The left arm massager 12L is configured in mirror image fashion to the right arm massager 12R. The following description will therefore focus on the structural features of the right arm massager 12R.

[0040] The right arm massager 12R includes an inflatable and deflatable air-bag assembly to perform massage operation on the forearmA, and thereby massages the right forearmA received in the right-hand insertion recess part 6R.

The right arm massager 12R comprises: a third air bag 21 disposed on the upper inner wall of the rear portion of the right-hand insertion recess part 6R; and a fourth air bag 22 disposed in face-to-face relation to the third air bag 21 on the lower inner wall of the rear portion of the right-hand insertion recess part 6R.

[0041] The right arm massager 12R performs massage operation on the right forearm A of the user, with the third air bag 21 pressing the upper area of the right forearm A received within the right-hand insertion recess part 6R, and the fourth air bag 22 pressing the lower area of the right forearm A received within the right-hand insertion recess part 6R.

 The third air bag 21 is mounted along the upper inner wall of the right-hand insertion recess part 6R. The fourth air bag 22 is mounted in face-to-face relation to the third air bag 21 along the lower inner wall of the right-hand insertion recess part 6R. The third air bag 21 and the fourth air bag 22 are each a flexible, inflatable and deflatable bag member having surfaces dimensioned to be large enough to cover the right forearm A. The third air bag 21 and the fourth air bag 22 are spaced apart by a predetermined distance, or specifically a distance substantially equal to the width of the forearm A.

[0042] The right arm massager 12R, with the third air bag 21 and the fourth air bag 22 provided in it, ensures effective pressing massage by the third air bag 21 and the fourth air bag 22 to the right forearm A received in the right-hand insertion recess part 6R.

 Moreover, the synergy among the finger F-pressing massage by the finger air bag 18, the hand H (the palm and the back of the hand H)-pressing massage by the first air bag 13 and the second air bag 14, and the forearm A-pressing massage by the

third air bag 21 and the fourth air bag 22 provides enhanced massage effect.

[0043] The left arm massager 12L is similar in configuration to the right arm massager 12R, and will therefore not be described herein.

The right-hand armrest 4R has a cut-out portion 23 formed in that portion thereof located behind and opposed to the rear opening 7 of the right arm massager 12R in the retracted position. The cut-out portion 23 is defined by a certain space to allow the right hand H and the right forearm A to be smoothly taken out of the right-hand insertion recess part 6R.

[Operation Mode]

The following describes how the hand H and the forearm A of the user are to be inserted into and taken out of the right hand-finger massager 11R, the right arm massager 12R, etc. of the right-hand insertion recess part 6R.

[0044] In FIG. 5, the upper figure is a view illustrating a state where the hand H and the forearm A are not yet inserted into the right hand-finger massager 11R, the right arm massager 12R, etc. of the right-hand insertion recess part 6R. The middle figure is a view illustrating a state where the right hand H and the right forearm A are received in the right-hand insertion recess part 6R, with the fingers F, namely the index finger, the middle finger, the ring finger, and the little finger received in their respective finger sacks 17. The lower figure is a view

illustrating a state where the right hand H and the right forearm A have been taken out of the right-hand insertion recess part 6R through the cut-out opening 20.

[0045] As shown in the upper figure of FIG. 5, after the right-hand insertion recess part 6R is rotationally moved about the axis L of the support shaft 9 into the massage position, the cut-out opening 20, the insertion slot 19, the side opening 8, and the rear opening 7 are communicated with one another.

As shown in the middle figure of FIG. 5, with the right-hand insertion recess part 6R set in the massage position, the user inserts the right hand H into the right hand-finger massager 11R through the insertion slot 19, and inserts the right forearm A into the right arm massager 12R through the side opening 8 and the rear opening 7. The user also inserts the fingers F into the sack member 17.

[0046] The fingers F are held and enclosed with the sack member 17, and, the right hand H and the right forearm A are held and covered with the right-hand insertion recess part 6R. In this condition, the finger air bags 18 respectively apply pressing massage to the individual fingers F, the first air bag 13 applies pressing massage to the palm of the right hand H, the second air bag 14 applies pressing massage to the back of the right hand H, and the third air bag 21 and the fourth air bag 22 apply pressing massage to the right forearm A.

[0047] As shown in the lower figure of FIG. 5, in order

for the right hand H and the right forearm A received in the right-hand insertion recess part 6R, and the fingers F received in the sack member 17 to be taken out in an obliquely upward direction toward the seat 2, the user pulls the fingers F out of the sack member 17, and then takes the fingers F out through the cut-out opening 20, and also takes the right hand H and the right forearm A out through the side opening 8, etc.

[0048] As described heretofore, the chair-type massager 1 embodying the present invention includes the sack member 17 with the finger air bags 18 in it for the fingers F, and thereby performs elaborate massage operation on the fingers F in addition to the hand H and the forearm A after the fingers F, the hand H, and the forearm A are inserted in the hand massage unit disposed within the insertion recess part 6. Moreover, the sack member 17 is configured for rotational motion about the horizontally directed axis L. This facilitates smooth insertion and removal of the fingers F, the hand H, and the forearm A in and out of the hand massage unit, namely the right hand-finger massager 11R and the right arm massager 12R, disposed within the insertion recess part 6R at the time of starting and completing the massage operation.

[0049] Thus, for example, the chair-type massager 1 embodying the present invention is operative to make users feel as if they enjoy professional massage not only to the shoulder, the back, the waist, etc. but also to the fingers F, the entire

hand H, the forearm A, etc. in a relaxed state of mind in a massage treatment salon.

It should be understood that the embodiment as disclosed herein is considered in all respects as illustrative only and not restrictive.

[0050] In particular, for such matters as not explicitly specified in the disclosure of the embodiment, e.g. working conditions, operating conditions, and the dimensions, weights, etc. of the structural components, those that do not depart from the practical range to be normally complied with by persons skilled in the art and that conform to matters of common knowledge among the skilled persons are adopted herein.

For example, the air-bag assembly may be controlled in a manner such that the first air bag 13 for pressing the back of the hand H, the finger air bags 17 for pressing the fingers F, the third air bag 21 for pressing the upper area of the forearm A, and the fourth air bag 22 for pressing the lower area of the forearm A are inflated and deflated in operatively associated relation, i.e. cooperative relation to one another, whereas the second air bag 14 for pressing the palm of the hand H is inflated and deflated independently of the aforementioned air bags. The air-bag assembly may also be controlled in a manner such that the individual air bags are inflated and deflated independently.

[0051] Moreover, for example, the dimensions, including the length, of the insertion recess part 6, the extent of

rotational motion of the insertion recess part 6 relative to the axis L, the number of the finger sacks 17, the positioning of the air bags 13 and 14 and the finger sacks 17, the method of control of inflation and deflation of the air-bag assembly, etc. may be suitably adjusted as required in accordance with the range of massage treatment.

Reference Signs List

[0052]

- 1 Chair-type massager
- 2 Seat
- 3 Backrest
- 4 Armrest
- 4L Left-hand armrest
- 4R Right-hand armrest
- 5 Support frame
- 6 Insertion recess part (Holding section)
- 6L Left-hand insertion recess part
- 6R Right-hand insertion recess part
- 7 Rear opening
- 8 Side opening
- 9 Support shaft
- 10 Side plate
- 11 Hand-finger massager (Hand massage unit)
- 11L Left hand-finger massager
- 11R Right hand-finger massager

12	Arm massager (Hand massage unit)
12L	Left arm massager
12R	Right arm massager
13	First air bag
14	Second air bag
15	Bracket member
16	Cover body
17	Finger sack
18	Finger air bag
19	Insertion slot
20	Cut-out opening
21	Third air bag
22	Fourth air bag
23	Cut-out portion
A	Forearm
H	Hand
F	Finger

CLAIMS

1. A chair-type massager, comprising:
 - a seat;
 - a backrest; and
 - a pair of armrests disposed one at each side of the seat in a horizontal direction so as to extend in a front-rear direction,
 - the armrests each including a tubular insertion recess part to cover and hold at least a hand of a user, the insertion recess part extending in the front-rear direction,
 - the insertion recess part being provided at its front portion with separated finger sacks to receive individual fingers of the hand,
 - the finger sacks being mounted for rotational motion about a horizontal axis at a front portion of the armrest.
2. The chair-type massager according to claim 1, wherein
 - the insertion recess part is internally provided with a hand massage unit to apply massage to the hand received in the insertion recess part, and
 - the hand massage unit includes the finger sacks, and is provided at its rear portion with an insertion slot to admit the hand, and wherein

the insertion recess part is configured for flipping-up movement about the horizontal axis with respect to the front portion of the armrest.

3. The chair-type massager according to claim 2, wherein the hand massage unit has, in an upper area of its intermediate portion in the front-rear direction, a cut-out opening formed so as to extend in the front-rear direction and to open substantially upward, and

the cut-out opening extends rearward from a location corresponding to rear ends of the finger sacks, and provides communication between an interior of the hand massage unit and an exterior thereof.

4. The chair-type massager according to claim 2 or claim 3, wherein

the hand massage unit includes inflatable and deflatable air bags to perform massage operation on the hand, and

the finger sacks each include an inflatable and deflatable tubular air bag to perform massage operation on corresponding one of the fingers, the tubular air bag being formed so as to extend around the corresponding finger.