Oct. 12, 1971 J. R. BRANDELL 3,611,807

EXERCISING GRIPS

Filed April 27, 1970 2 Sheets-Sheet 1

Fig 1

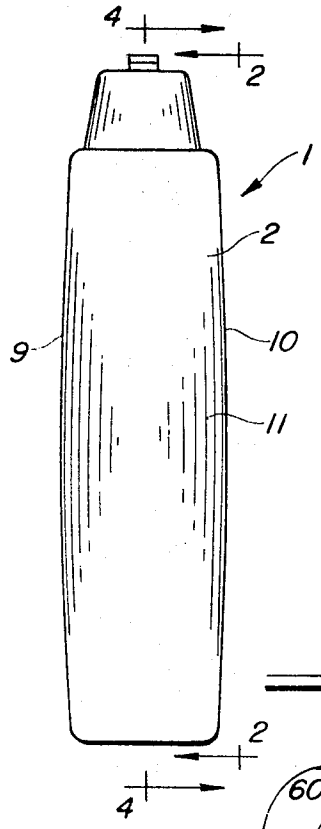


Fig 2

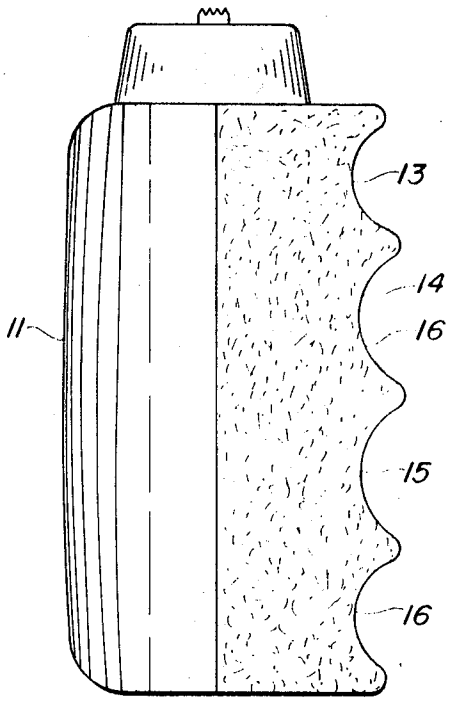


Fig 3

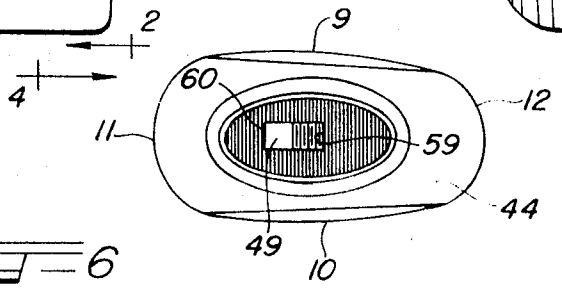


Fig 6

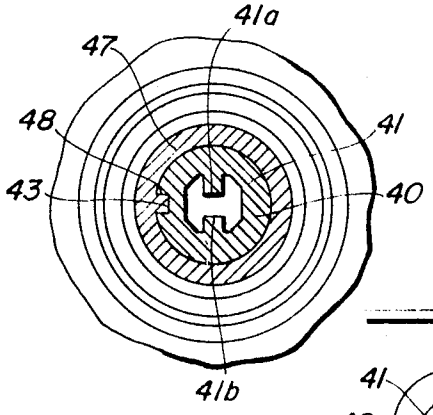


Fig 8

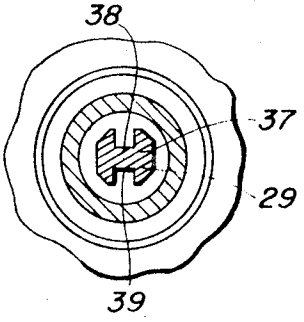
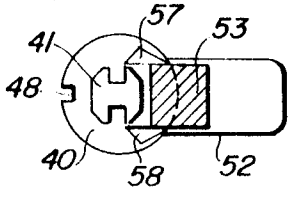


Fig 7



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EXERCISING GRIPS

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FIG 5

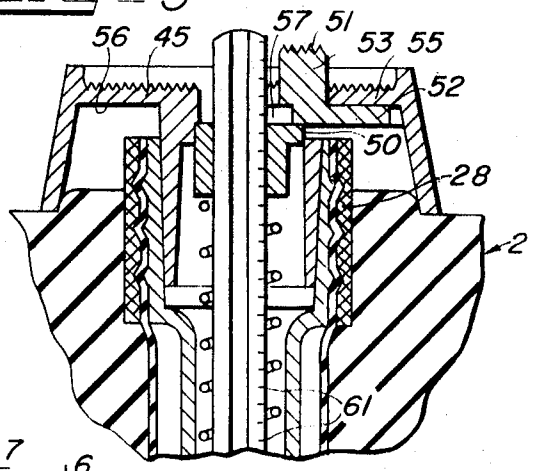
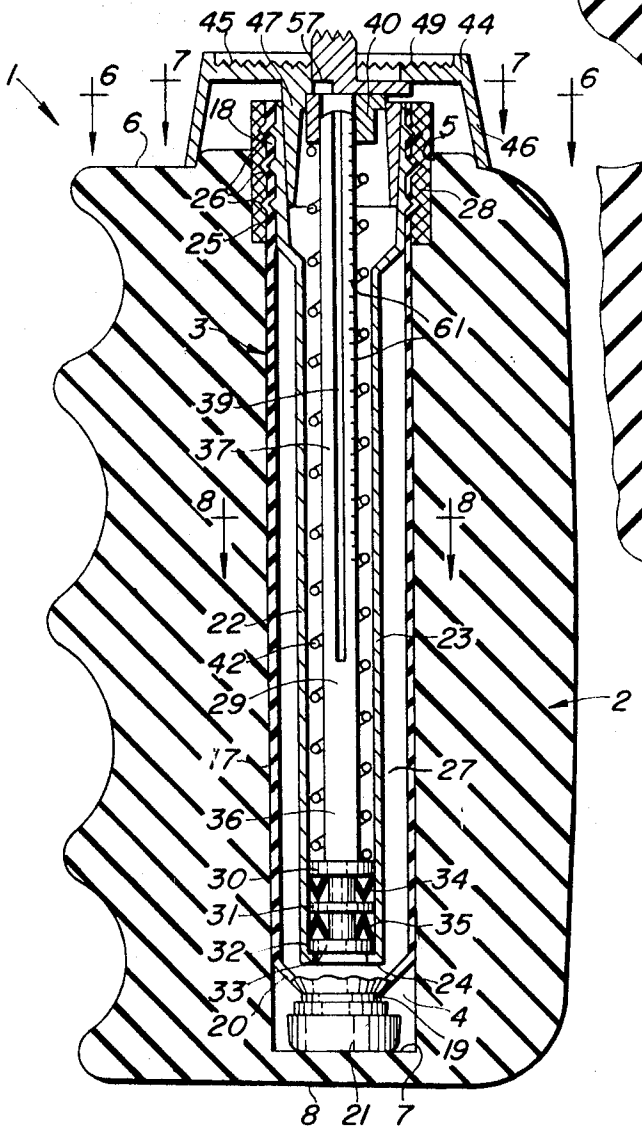
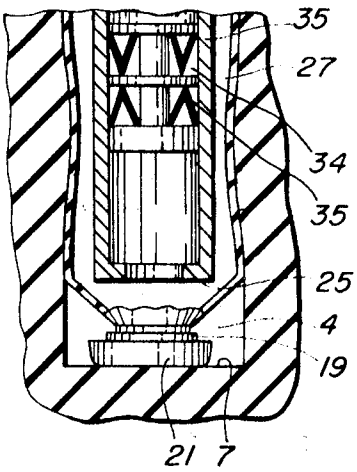


FIG 4





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EXERCISING GRIPS

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Int. Cl. G01l 5/02; A63b 21/30
U.S. Cl. 73—379 10 Claims

ABSTRACT OF THE DISCLOSURE

An exercising grip having a resilient compressible body member having working fluid therein, and with an indicating piston slidably mounted in the body member for movement outwardly thereof by the working fluid upon manual gripping of the body member and movement thereinto upon release of such gripping thereof, the grip also including a latch for selectively holding the piston against movement out of the body member.

BACKGROUND OF THE INVENTION

The present invention relates to exercising grips, and, more particularly, to exercising grips which are particularly well adapted for measuring the force with which the unit is gripped.

A primary object of the present invention is to afford a novel exercising grip.

Another object is to afford a novel exercising grip embodying an indicator for indicating the force with which the unit is gripped.

Exercising grips have been heretofore known in the art. However, such exercising grips as have been heretofore known in the art have commonly had several inherent disadvantages such as, for example, not embodying an indicator for indicating the force with which the unit is gripped; embodying gripping force indicators which were not reliable and accurate in operation; embodying gripping force indicators whch were readily damaged and accidentally rendered inoperative; embodying mechanical exercising portions which were subject to being rendered inoperative; being large and cumbersome in size; being complicated in construction and operation; or being difficult and expensive to produce commercially, and the like. It is an important object of the present invention to overcome such disadvantages.

Another object of the present invention is to afford a novel exercising grip which is relatively small and compact in size, and which may be readily carried in a clothing pocket, or the like.

Another object is to afford a novel exercising grip which embodies a novel indicator mechanism constituted and arranged in a novel and expeditious manner.

Yet another object of the present invention is to enable a novel exercising grip to be afforded which may embody a resilient, one-piece body portion which may be squeezed in one hand for the purpose of exercising and strengthening the hand and with a novel indicating mechanism mounted in the body portion in a novel and expeditious manner.

An object ancillary to the foregoing is to afford a novel exercising grip embodying such a body portion, and with the indicator mechanism including a piston mounted in the body portion in a novel and expeditious manner and reciprocable into and out of the body portion in a manner to accurately indicate the force with which the exercising grip is being gripped.

A further object of the present invention is to afford a novel exercising grip embodying a resilient, compressible body portion, with a novel gripping force indicating mechanism mounted therein which is of such construction that it may be readily inserted into and removed from the body portion as a single unit.

An object ancillary to the foregoing is to afford a novel exercising grip of the aforementioned type wherein the indicator mechanism embodies a piston reciprocably mounted in a cylinder, with the cylinder operatively mounted in a compressible tube.

Another object of the present invention is to afford a novel exercising grip embodying a piston movable into and out of a compressible body portion for indicating the force with which the body portion is being gripped, and with a novel latch constituted and arranged in the body portion in a novel and expeditious manner and effective to selectively restrain the piston from such movement and to release it for such movement.

A further object is to afford a novel exercising grip of the aforementioned type which is practical and efficient in operation and which may be readily and economically produced commercially.

Other and further objects of the present invention will be apparent from the following description and claims and are illustrated in the accompanying drawings which, by way of illustration, show a preferred embodiment of the present invention and the principles thereof and what I now consider to be the best mode in which I have contemplated applying these principles. Other embodiments of the invention embodying the same or equivalent principles may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention and the purview of the appended claims.

SUMMARY OF THE INVENTION

The present invention affords an exercising grip embodying an elongated, compressible body portion having a recess therein, with a piston reciprocably mounted in the recess for movement outwardly through one end of the recess by the force of working fluid contained in the recess upon compression of the body portion by a hand disposed in gripping relation thereto, to thereby indicate the force with which the body portion is thus gripped, and with a latch mounted on the body portion and effective to selectively hold the piston from such outward movement and to release it for such outward movement.

DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a side elevational view of an exercising grip embodying the principles of the present invention;

FIG. 2 is an other side elevational view of the exercising grip shown in FIG. 1, looking in the direction of the arrows 2—2 in FIG. 1;

FIG. 3 is a top plan view of the exercising grip shown in FIG. 1;

FIG. 4 is an enlarged, longitudinal sectional view taken substantially along the line 4—4 in FIG. 1;

FIG. 5 is an enlarged, fragmentary sectional view similar to FIG. 4, but showing parts disposed in different operative positions;

FIG. 6 is a fragmentary, detail sectional view taken substantially along the line 6—6 in FIG. 4;

FIG. 7 is a fragmentary, detail sectional view taken substantially along the line 7—7 in FIG. 4; and

FIG. 8 is a fragmentary, detail sectional view taken substantially along the line 8—8 in FIG. 4.

DESCRIPTION OF THE EMBODIMENT SHOWN HEREIN

An exercising grip 1, embodying the principles of the present invention, is shown in the drawings to illustrate the presently preferred embodiment of the present invention.

The exercising grip 1 embodies, in general, an elongated body portion 2 of such size and shape that it may be readily grasped in a hand, and an indicator mech-

anism 3 mounted in the body portion 2 for indicating the force with which the body portion 2 is being gripped.

The body portion 2 is constructed of resilient, compressible material, and, preferably, is of one-piece construction. It may be made of any suitable resilient material such as, for example, rubber, sponge rubber or a suitable synthetic rubber material such as, for example, neoprene. The body portion 2 embodies an elongated recess or chamber 4 extending along the longitudinal center line thereof, FIGS. 4 and 5. The recess 4 is open at one end 5 thereof, opening outwardly through the top 6 of the body portion 4, and is closed at the other end 7 thereof, preferably terminating at the latter end in upwardly spaced relation to the bottom end 8 of the body portion 2.

The body portion 2 embodies two oppositely disposed, longitudinally extending faces 9 and 10, and two other oppositely disposed, longitudinally extending faces 11 and 12 disposed substantially perpendicular to the faces 9and 10, FIGS. 1 and 2. Preferably, the faces 9 and 10 are substantially smooth and parallel to each other and are of substantially greater width than the faces 11 and 12, preferably having a width in the nature of two and one-half to three inches. The face 11, likewise, preferably is relatively smooth, but the face 12 preferably is corrugated, FIG. 2, having four indentations 13–16 spaced therealong between the ends 6 and 8 of the body member 2 for the reception of the fingers of a hand, as will be discussed in greater detail presently. The faces 11 and 12 preferably have a width of approximately one to one and one-quarter inches, and the length of the body member 2 is preferably in the nature of four to four and one-half inches.

With the body portion 2 constructed in the aforementioned manner, it may be readily gripped in the palm of the average adult's hand with the face 11 disposed in abutting engagement with the heel portion of such a palm, and with the index finger, middle finger, fourth finger and little finger of the hand extending around the face 12 and being disposed in the indentations 13–16, respectively. With a hand thus disposed around the body portion 2, the latter may be compressed transversely to the length thereof by closing the hand, the body portion automatically expanding outwardly from its compressed position to its normal at rest position, shown in FIGS. 2 and 4, upon opening of the hand, the resilience of the body portion 2 being operable to effect such expansion thereof.

The indicator mechanism 3 embodies a tube 17 which is of the squeeze-tube type readily available on the market, and which is resilient in nature so that when it is compressed and subsequently released it will automatically return to its normal at rest position. It may be made of any suitable material such as, polyethylene. The tube 17 has an open upper end 18 and an outwardly threaded neck 19 mounted on the lower end 20 thereof, A cap 21 is threaded onto the neck 19 to thereby afford a removable closure for the lower end 20 of the tube 17.

A cylinder 22, which may be made of any suitable, relatively hard, substantially rigid and infrangible material, such as, for example, molded nylon, is mounted in the tube 17 in position to extend along the longitudinal center line thereof, FIG. 4. The main body portion 23 of the cylinder 22, which extends from the lower end 24 thereof throughout the major portion of the length of the cylinder 22 is preferably of circular, transverse cross sectional shape and of uniform diameter throughout its length. The upper end 25 of the cylinder 22 flares outwardly from the body portion 23 into an enlarged portion which is circular in transverse cross section and which has outwardly projecting annular ribs 26 on the outer peripheral face thereof. The upper end portion 25 of the cylinder 22 preferably is of such diameter that the outer peripheral surface thereof, at the base of the ribs 26 is of such size that it will fit into the tube 17, when the latter is in its normal, unexpanded condition, with a snug but freely slidable fit.

In the assembled indicator mechanism 3, the cylinder 22 is disposed in the tube 17 with the upper end portion 25 of the cylinder 22 disposed in the upper end portion 18 of the tube 17, and with the lower end portion 24 of the cylinder 22 disposed in upwardly spaced relation to the lower end 20 of the tube 17. The body portion 23 of the cylinder 22 is of such transverse cross sectional size that when the cylinder 22 is disposed in the aforementioned operative position in the tube 17, a chamber 27 is afforded between the body portion 23 and the tube 17, the chamber 27 terminating at one end at the lower end 20 of the tube 17 and at its other end at the lower face of the upper end 25 of the cylinder 22.

A sealing band in the form of a shrink-sleeve 28, which is made of suitable material, such as, for example, a suitable vinyl material, such as polyvinyl chloride, is mounted on the outer face of the end portion 18 of the tube 17 in the assembled indicator mechanism 3. The sealing band 28 is of such cross sectional size that when it is mounted on the assembled tube 17 and cylinder 22, it is effective to tightly, radially compress the upper end portion 18 of the tube 17 against the outer peripheral face of the end portion 25 of the cylinder 22 with sufficient force that the ribs 26 are embedded in the tube 17, as illustrated in FIG. 4. Sealing bands of the aforementioned type are readily available on the market, and when made of material such as the aforementioned polyvinyl chloride, they may be suitably caused to expand prior to mounting them on the tubes 17, such as, for example, by soaking them in alcohol, and the band 28, in this condition, may be slipped on to the assembled tube 17 and cylinder 22 and then permitted to dry and thus shrink to its normal size and effect the aforementioned sealing engagement of the end portions 18 and 25 of the tube 17 and cylinder 22, respectively.

A piston or indicator stem 29, which may be made of any suitable material such as, for example, mild steel, is slidably mounted in the cylinder 22 for reciprocation longitudinally thereof. Three lands 30, 31 and 32 are disposed in spaced relation to each other at the lower end 33 of the piston 29 in position to define two grooves for the reception of seals 34 and 35 therein. The lower end portion 33 of the piston 29 and the lands 30–32 are circular in transverse cross section and the lands 30–32 are of such size that they fit in the cylinder 22 with a snug, but freely slidable fit.

The portion 36 of the piston 29, which is disposed immediately above the upper land 30, and which extends upwardly therefrom for only a minor portion of the length of the piston 29, is substantially circular in transverse cross section. The remainder 37 of the piston 29, which extends upwardly from the portion 36, and which comprises the major portion of the length of the piston 29, FIG. 4, is substantially H-shaped in transverse cross section, embodying two oppositely disposed, longitudinally extending, substantially parallel slots or grooves 38 and 39, FIG. 8. A sleeve 40, FIGS. 4 and 6, having substantially H-shaped opening 41 extending therethrough, which is complementary in size and shape to the transverse cross sectional size and shape of the portion 37 of the piston 29 is mounted on the portion 37 in surrounding relation thereto, and with two ribs 41*a* and 41*b* disposed in the slots 38 and 39, respectively. The sleeve 40 rests on top of a compression coil spring 42, the lower end of which rests on the upper face of the land 30 on the piston 29. The sleeve 40 is substantially circular in transverse cross section, except that it has a longitudinally extending groove or slot 43 formed in one side thereof, FIG. 6.

In the assembled actuator mechanism 3, the upper end portions of the tube 17, cylinder 22 and sleeve 28 terminate at their upper ends in uniplanar relation to each other, FIGS. 4 and 5. A downwardly concave cap or

cover 44, having a top wall 45, a peripheral side wall portion 46 projecting downwardly from the top wall 45 and a downwardly projecting, substantially centrally disposed annular boss or sleeve 47, is mounted on the assembled tube 17, cylinder 22 and sleeve 28, with the boss 47 disposed in the cylinder 22 in surrounding relation to the sleeve 40. In this assembly, the top wall 45 of the cover 44 is disposed in upwardly spaced relation to the tube 17, cylinder 22 and sleeve 28.

The boss 47 on the cover 44 has a longitudinally extending rib 48 which is complementary in size and shape to the slot 43 in the sleeve 40, and the rib 48 is disposed in the slot 43 to hold the sleeve 40 against rotation relative to the cylinder 22. The sleeve 40 is disposed in the boss 47 with a relatively snug, but freely slidable fit, and is yieldingly urged upwardly by the spring 42. The cover 44 may be made of any suitable material, such as, for example, high impact polystyrene, and, in the assembled indicator mechanism 3, the boss portion 47 thereof preferably is adhesively secured to the cylinder 22.

The cover 44 has an elongated opening 49 extending through the central portion thereof, FIGS. 3 and 4, and the boss 47 has an opening 50 extending through the side wall portion thereof disposed directly opposite the rib 48, FIGS. 4 and 5. A slide or latch 51, having an elongated, substantially rectangular shaped body portion 52 and a head or button 53 projecting upwardly from one end portion of the body portion 52 is slidably mounted in the cover 44 between the top wall 45 and the upper ends of the sleeve 47, the cylinder 22 and the tube 17, FIGS. 4 and 5. In the assembled indicator mechanism 3, the latch 51 is disposed in the cover 44 with the upper face 55 of the body portion 52 disposed in abutting engagement with the lower face 56 of the top wall 45, and with the button 53 projecting outwardly through the opening 49.

The button 53 preferably is of such width that it fits in the opening 49 with a snug, but freely slidable fit, and the body portion 52 preferably is of slightly greater width than that of the button 53, FIG. 7, so that when the latch 51 is disposed in assembled relation relative to the cover 44 the body portion 52 is disposed in underlying relation to the top wall 45 outwardly of both longitudinal edges of the opening 49. When the boss 47 is formed as an integral part of the cover 44, the latch 51 preferably is of such size that by turning it slightly around the longitudinal axis of the body portion 52 thereof, it may be inserted downwardly through the opening 49 and the opening 50 into underlying relation relative to the top wall 45 of the cover 44, and then turned into position wherein the upper face 55 of the body portion 52 and the lower face 56 of the top wall 45 are disposed in parallel juxtaposition to each other.

In the preferred form of the latch 51 shown in the drawings, two ears 57 and 58 project outwardly from the button 53 on the opposite side thereof from the body portion 52 and in uniplanar relation to the latter. The latch 51 is of such size that when the button 53 thereof is disposed in the end portion 59, FIG. 3, of the opening 49, as shown in FIGS. 3 and 4, the button 53 and the body portion 52 thereof are disposed in vertically overlying relation to the sleeve 40 and the opening 41 extending therethrough, to thereby overly the upper end of the piston 29 in position to prevent upward movement of the latter outwardly through the sleeve 40; and when the button 53 is disposed in the end portion 60 of the opening 49, FIG. 3, as shown in FIG. 5, the button 53 and the body portion 52 are disposed radially outwardly from overlying relation to the opening 41 in the sleeve 40 to thereby free the piston 29 for movement upwardly and outwardly through the sleeve 40 and the opening 49, the opening 49 being disposed vertically above the opening 41 and of sufficient cross sectional size as to permit such outward movement of the piston 29 relative to the body portion 2 and the cover 44.

It will be remembered that the latch 51 embodies two ears 57 and 58. In the exercising grip 1, the ears 57 and 58 are spaced a sufficient distance apart, and are so disposed relative to the button 53 and the body portion 52 that when the latch 51 is disposed in the last mentioned position, they are disposed in overlying relation to the sleeve 40 in outwardly spaced relation to respective opposite sides of the opening 41 therethrough, FIG. 7, so as to hold the sleeve 40 against upward movement out of the cylinder 22. The frictional engagement of the body portion 52 of the latch 51 with the lower face 56 of the top wall 45 of the cover 44 and the upper face of the sleeve 40, afforded by the upward urging of the spring 42 against the sleeve 40, may be relied upon to hold the latch 51 in the closed position shown in FIG. 4 and in the open position shown in FIG. 5 between manual adjustments of the position thereof, which may be effected by pressing downwardly on the button 53 and then sliding the latter longitudinally of the opening 49. However, as will be appreciated by those skilled in the art, if desired, a suitable detent, not shown, may be afforded on the latch 51, which is engageable with the sleeve 40 to afford a more positive physical holding of the latch 51 in adjusted position.

In the assembled exercising grip 1, the tube 17, together with the cylinder 22 and the piston 29 is disposed in the recess 4 in the body portion 2, with the lower edge of the peripheral side wall 46 of the cover 44 resting on the upper end 6 of the body portion 2 and preferably adhesively secured thereto. It will be seen from the foregoing that in assembling the exercising grip 1, the indicator mechanism 3 thereof may first be assembled as a unit, and, thereafter, may be inserted into operative position in the body portion 2.

In the assembling of the indicator mechanism 3, with the piston 29 latched in the full downward position shown in FIG. 4, the tube 17, outwardly of the lower end portion 23 of the cylinder 22 is completely filled with a suitable working fluid in the form of a liquid, such as, for example, mineral oil. The mineral oil may be inserted into the tube 17 after the indicator mechanism 3 has been completely assembled, by removing the cap 21 from the lower end 20 of the tube 17 and pouring the mineral oil in through the neck 19, with the indicator mechanism 3 disposed in inverted position. Thereafter, the cap 21 may again be screwed onto the neck 19 to thereby close the bottom 20 of the tube 17.

The seals 34 and 35 on the piston 29 may be of any suitable form, such as, for example, sealing rings made of suitable material such as neoprene and preferably engage the inner face of the cylinder 22 in such a manner as to insure against leakage of working fluid upwardly past the seals 34 and 35 in the cylinder 22. Similarly, the seal effected between the upper end portion 25 of the cylinder 22 and the upper end portion 18 of the tube 17 is sufficiently tight as to insure against leakage of working fluid outwardly between the upper end portions of the tube 17 and the cylinder 22. Also, of course, the cap 21 is of such size and construction that the fit between it and the neck 19 is such as to insure against leakage of working fluid from the bottom 20 of the tube 17.

Thus, with the aforementioned construction, when the indicator mechanism 3 is in fully assembled position, with the working fluid disposed in the tube 17, a fluid-tight seal is afforded, which is effective to insure against leakage of working fluid from the indicator mechanism 3.

In the operation or actuation of the exercising grip 1, if desired the latch 51 may be disposed in closed position, as shown in FIG. 4, wherein it is disposed in overlying relation to the piston 29 effective to prevent movement of the latter outwardly of the body portion 2. With the parts of the exercising grip 1 disposed in such position, the body portion 2 may be gripped in the palm of the hand with the face 11 disposed in abutting engagement with the wall portion of the palm and with the index, middle, fourth and little fingers of the hand extending around the face 12 and disposed in the indentations 13-

16, respectively. With the hand thus disposed around the body portion 2, the hand may be exercised by alternately closing and opening it to thereby alternately squeeze and release the body portion 2. With the latch 51 disposed in the aforementioned closed position, such gripping of the body portion 2 is ineffective to move the piston 29 outwardly from the latter. In fact, because of the working fluid in the tube 17, such gripping of the body portion 2 is ineffective to compress the tube 17 to any substantial extent, if any.

However, if desired, during such exercising of the hand, the latch 51 may be disposed in the open position shown in FIG. 5 to thereby free the piston 29 for outward movement relative to the body portion 22. With the latch 51 disposed in the last mentioned position, when the body portion 2 is squeezed, and thereby compressed, during such an exercising operation, it is effective to similarly laterally compress the tube 17, below the upper end portion 25 of the cylinder 22, as shown in FIG. 5. Such compression of the tube 17 is effective to force working fluid from between the tube 17 and the portion 23 of the cylinder 22 upwardly through the bottom 24 of the cylinder 22 and thereby raise the piston 29 in the cylinder 22 against the urging of the spring 42, as illustrated in FIG. 5. The distance that the spring 29 moves upwardly out of the body portion 2 will depend upon the gripping force applied to the body portion 2, and, therefore, the amount of lateral compression effected on the body portion 2 and the tube 17 disposed there. Preferably, indicia, such as the indicia 61, FIGS. 4 and 5, may be disposed on the piston 29 in position wherein it is visible to the person using the exercising grip 1 to serve as an indication of the amount of gripping force exerted during each such squeeze of the hand.

It will be remembered that the slots 38 and 39 in the piston 29 terminate at their lower ends in upwardly relation to the upper land 30, FIG. 4. With this construction, and with the opening 41 being of complementary shape to the shape of the portion 37 of the piston 29, the lower ends of the ribs 41*a* and 41*b* in the sleeve 40 will abuttingly engage the bottom ends of the slots 38 and 39, when the piston 29 is projected outwardly from the body portion 2 to the maximum permissible distance. Such construction insures against accidental removal of the piston 29 from the body portion 2. In addition, it will be seen that such construction protects the spring 42 from excessive compression thereof being caused by excessive upward movement of the piston 29 in the cylinder 22.

With the exercising grip 1 constructed in the aforementioned manner, it will be seen that a relatively compact exercising grip may be afforded which is readily transportable in a clothing pocket, or the like.

Also, it will be seen that with this construction, when it is desired to transport or store the exercising grip 1, the latch 51 may be disposed in the closed position, shown in FIG. 4, to thereby insure retention of the piston 29 in unextended position relative to the body portion 2. Also, if it is desired to merely use the exercising grip 1 for exercising purposes, without endeavoring to determine the gripping force being applied during such exercising, the latch 51 may be permitted to remain in the aforementioned closed position during such exercising.

However, it will also be observed that with the exercising grip 1 constructed in the aforementioned manner, if it is desired to determine the amount of gripping force being applied thereto during such an exercising operation, the latch 51 may be disposed in the open position shown in FIG. 5, and the actuation of the piston 29, with the indicia 61 thereon, affords an effective indicator of the gripping forces being applied during such exercising, the piston 29 being projected outwardly by the working fluid contained in the tube 17, during each such application of gripping force, and being returned into the body portion 2 by the spring 42 upon each release of such gripping force.

Also it will be seen that the present invention affords a novel exercising grip, which is practical and efficient in operation and which may be readily and economically produced commercially.

Thus, while I have illustrated and described the preferred embodiment of my invention, it is to be understood that this is capable of variation and modification, and I therefore do not wish to be limited to the precise details set forth, but desire to avail myself of such changes and alterations as fall within the purview of the following claims.

I claim:

1. An exercising grip comprising:
(a) an elongated compressible body portion adapted to fit in the palm of one hand with the fingers of the hand extending therearound in gripping relation thereto transversely to the length of said body portion,
(b) said body portion having a longitudinally extending recess therein,
(c) said recess:
(1) being open at one end of said body portion,
(2) being closed at the other end of said body portion, and
(3) being adapted to hold a supply of working fluid therein,
(d) a piston mounted in said recess in position to
(1) be moved outwardly through said one end by said working fluid upon compression of said body portion by a hand disposed in such gripping relation thereto, and
(2) move inwardly through said one end upon release of said body portion from such compression by such a hand.

2. An exercising grip as defined in claim 1, and which includes:
(a) means mounted on said one end of body portion and movable into and out of overlying relation to said piston wherein it is effective to restrain said piston against such outward movement.

3. An exercising grip as defined in claim 1, and which includes:
(a) a latch slidably mounted in said one end of said body portion for reciprocation therein transversely to the length of said recess between
(1) one position wherein said latch is disposed in overlying relation to the path of movement of said piston into and out of said body effective to prevent such outward movement of said piston, and
(2) another position wherein said latch is disposed outwardly of said path of movement to thereby free said piston for such outward movement.

4. An exercising grip as defined in claim 1, and
(a) which includes an elongated cylinder mounted in said recess,
(b) said cylinder
(1) being open at both ends, and
(2) having
(a') one end disposed in axially inwardly spaced relation to said closed end of said recess, and
(b') another end disposed in said open end of said recess and sealed to said body portion in position to prevent the leakage of working fluid from said recess around said other end of said cylinder, and
(c) said piston being slidably mounted in said cylinder for reciprocation longitudinally thereof.

5. An exercising grip comprising:
(a) an elongated resilient body member having such width, thickness and length that it is of such size as to fit in the palm of one hand with the heel portion of such a palm disposed in abutting engagement with

one longitudinally extending face of said body member which is disposed transversely to said width, and with the fingers of such a hand extending around the face of said body member disposed directly opposite to said first mentioned face in position whereby said hand may be alternately closed and opened to thereby compress and permit said body member to expand, respectively, transversely to the length of said body member,

(b) an elongated compressible tube mounted in said body member and extending longitudinally thereof in position to be contracted and expanded transversely to the length of said tube upon such compression and expansion, respectively, of said body member,

(c) said tube having

(1) a supply of working fluid therein,

(2) a closed end, and

(3) an oppositely disposed open end,

(d) said open end opening outwardly through one end of said body member,

(e) an elongated piston movably mounted in said tube in position

(1) to be moved outwardly through said one end of said body member by said working fluid when said tube is so contracted, and

(2) to move inwardly through said one end of said body member from outwardly projecting relation thereto, after having so been moved outwardly, upon such expansion of said tube, and

(f) means disposed between said tube and said piston for sealing said working fluid in said tube.

6. An exercising grip as defined in claim **5**, and in which:

(a) said tube is closed at said one end by a cap removably mounted thereon.

7. An exercising grip as defined in claim **5**, and in which:

(a) said means comprises a cylinder disposed in said tube in surrounding relation to said piston.

8. An exercising grip as defined in claim **5**, and in which:

(a) said means includes a cylinder disposed in said tube and having one end so sealed to said open end of the latter as to prevent the passage of said working fluid from said tube outwardly between said one end and said open end.

9. An exercising grip as defined in claim **5**, and in which:

(a) said means includes a cylinder disposed in said tube in surrounding relation to said piston

(b) said cyinder has

(1) an elongated body portion disposed in said

tube in radially inwardly spaced relation thereto, and

(2) an enlarged end portion on one end of said body portion and disposed in said open end of said tube in fluid-tight sealed relation thereto,

(c) said body portion of said cylinder terminates at the end thereof remote from said one end portion of said cylinder in axially inwardly spaced relation to said closed end of said tube,

(d) said piston is movably mounted in said cylinder for reciprocation longitudinally thereof, and

(e) a sealing member is mounted on and carried by said piston and engaged with said cylinder for sealing against the flow of said working fluid past said piston within said cylinder.

10. An exercising grip as defined in claim **9**, and in which:

(a) a cover member is mounted on said one end of said body member in covering relation to said open end of said tube and to said one end of said cylinder,

(b) said cover has an opening therethrough disposed in axial alignment with said tube and said cylinder in position for said piston to move therethrough during said outward and inward movement of said piston relative to said one end of said body member, and

(c) a slide is slidably mounted between said cover and said cylinder for reciprocation therebetween between

(1) one position wherein it is disposed in outwardly covering relation to said tube and said cylinder in position to prevent such movement of said piston outwardly through said one end of said body member, and

(2) another position disposed outwardly of said one position and effective to free said piston for such movement outwardly through said one end of said body member,

(d) said slide having a portion extending outwardly through said cover in position to be manually engaged for moving said slide between said one position and said other position.

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