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A. BROSTE

2,429,866

MECHANICAL FINGER

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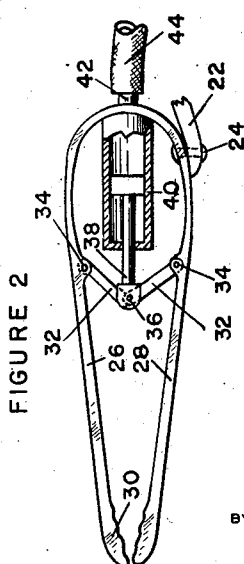
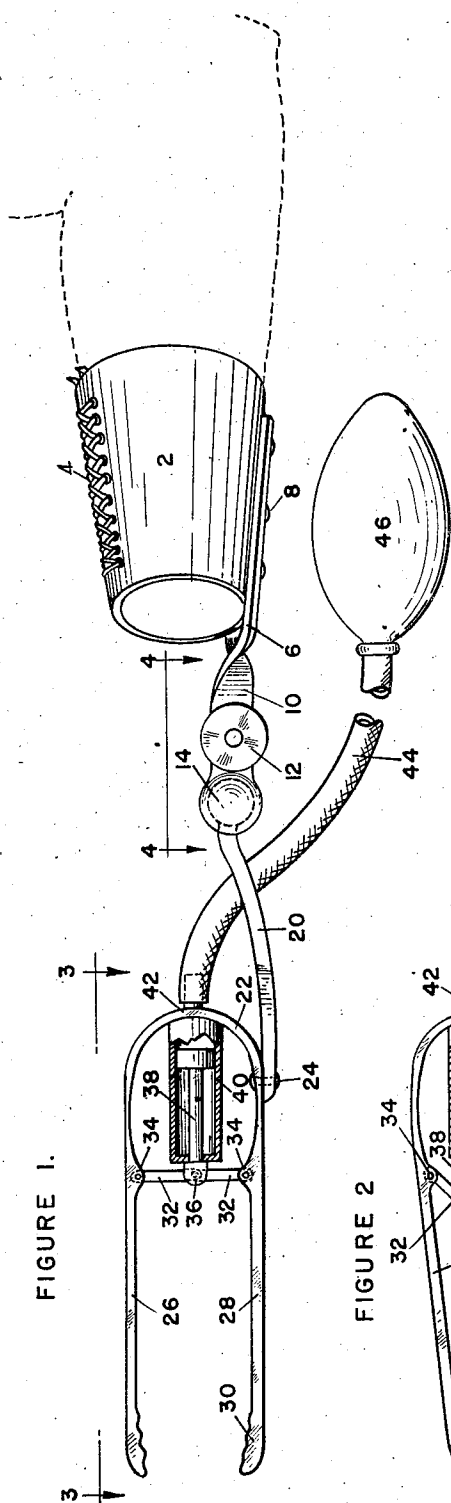


FIGURE 4

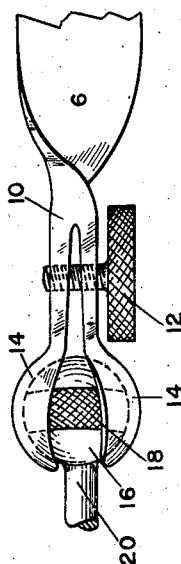
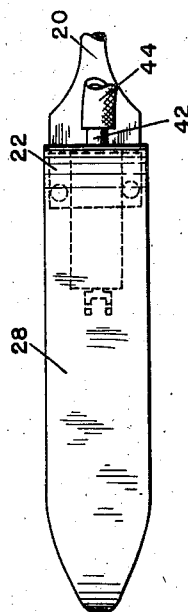


FIGURE 3



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2,429,866

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4 Claims. (Cl. 3—12)

1

My present invention relates to an improved prosthetic appliance and more particularly to a prosthetic appliance adapted for use as a substitute for an amputated hand or arm, and includes a flexible yoke the arms of which may be squeezed together so that the ends thereof will pick up and retain objects according to the desire of the user.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention according to the best mode I have thus far devised but it will be understood that various changes and alterations may be made in the exemplified structure within the scope of the appended claims.

In the drawings:

Figure 1 is a side elevational view of the prosthetic appliance of my invention shown as secured upon the arm of the person using the same.

Figure 2 is a side elevational view of the flexible jaws shown in contracted position.

Figure 3 is a bottom plan view thereof.

Figure 4 is an enlarged detail view of the ball and socket joint permitting adjustment in the operating angle of the appliance.

Referring now to the drawings in detail wherein like characters indicate like parts I have illustrated the appliance of my invention as embodying a soft boot 2 preferably of leather or other suitable material laced as at 4 to provide tight contact upon the arm of the person using the appliance.

A link 6 is riveted as at 8 to the boot and this link terminates in a split fork 10 in which there is provided an adjustment screw 12. The ends of the forks are cupped as at 14 to receive and retain therebetween the ball 16 which is knurled at 18 to insure a non-rotating grip by the forks on the ball.

An arm 20 extends forwardly from the ball 16 and this arm is secured to a flexible frame 22 by rivets 24 and this frame is formed with jaws 26 and 28, the ends of which are notched or serrated as at 30 to facilitate the retention of objects therein.

Between the flexible jaws 26 and 28 I utilize the links 32 pivoted to the jaws at 34 and pivoted at 36 to each other and to the piston 38, at 36. This piston is designed to reciprocate within the

2

cylinder 40 under pressure of air through the nipple 42 and the hose 44 from the pressure bulb 46.

The hose should be of substantial length so that the user thereof may squeeze the bulb by hand, or by pressure of a foot, or if the person is sitting, by pressure of the thigh with the bulb located thereunder.

By the use of the prosthetic appliance of my invention a handicapped person may become skilled in the use of the device and the appliance may be used for working by handling objects through the pressure on the flexible jaws, and the device may well be employed for personal service as when eating.

Through the use of the ball and socket joint and the adjustment screw therefor, the link and arm may be set in any desired position to increase the efficiency of any operation in which the appliance is to be used.

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

1. In a prosthetic appliance the combination with a body member attaching boot and a link rigid therewith, an arm having a pair of flexible jaws, of a ball and socket joint between the link and the arm, and fluid pressure means for contracting the flexible jaws.

2. In a prosthetic appliance the combination with a body attaching member and a link rigid therewith, and an arm having a pair of flexible jaws, of a ball and socket joint between the link and the arm, pivotal links between the jaws, and fluid pressure means for moving the links to contract the jaws.

3. In a prosthetic appliance the combination with a body attaching boot, a link rigid therewith, and an arm having a pair of flexible jaws, of pivotal means for securing the link and jaw, a pair of links pivotally secured to the jaws at the outer ends of the links and the inner ends being pivotally secured to a piston reciprocable in a cylinder, and fluid pressure means connected with the cylinder for reciprocating the piston.

4. In a prosthetic appliance the combination with a body attaching boot, a link rigid therewith, and an arm having a pair of flexible jaws, of a ball and socket connection between the link

2,429,866

3

and the arm, a pair of links pivotally secured to the jaws at the outer ends of the links and the inner ends being pivotally secured to a piston reciprocable in a cylinder, and a manually pressed bulb connected with the cylinder for reciprocating the piston.

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