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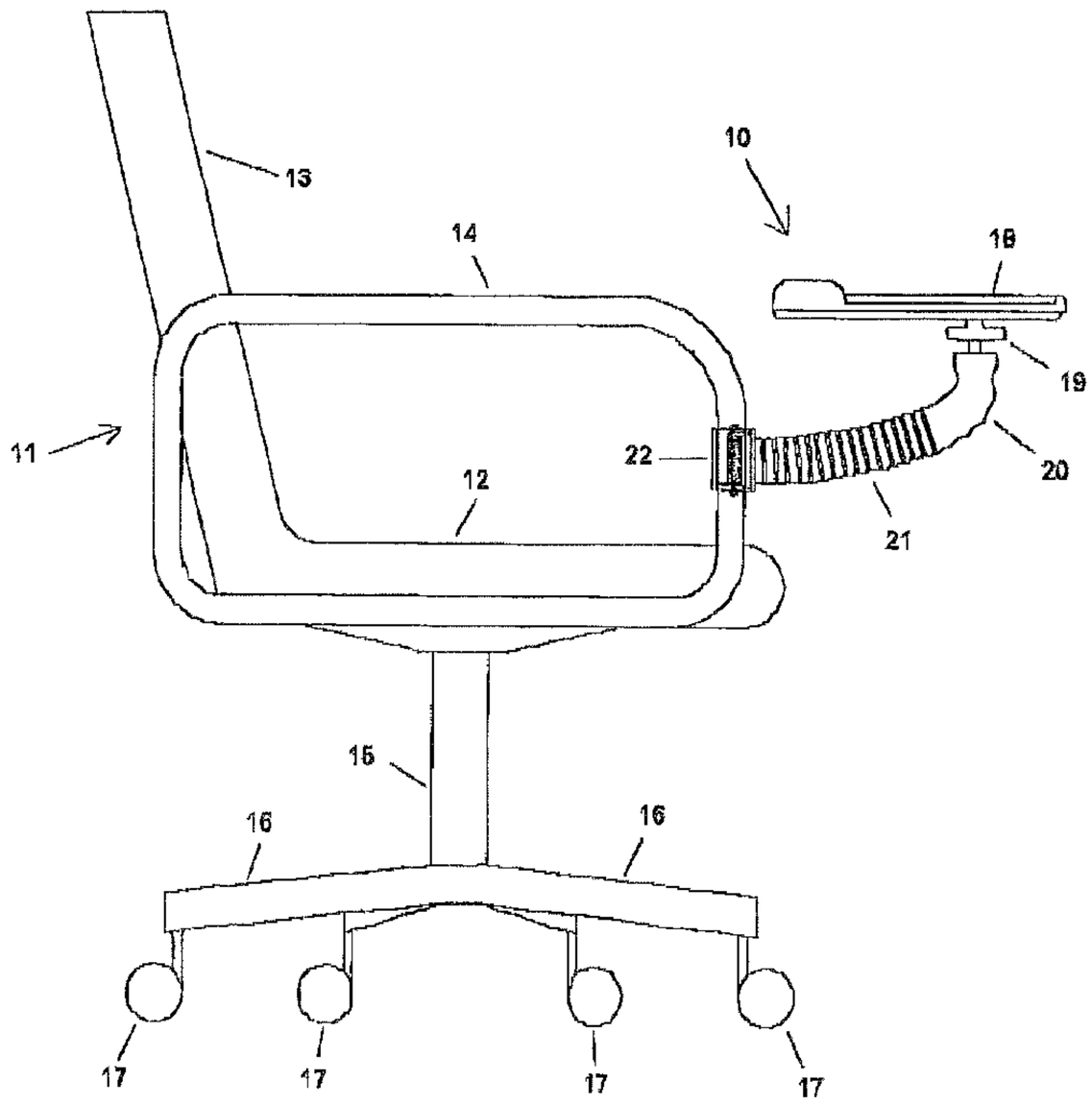
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(71) Demandeur/Applicant:
ROZIERE, PHILIP, CA

(72) Inventeur/Inventor:
ROZIERE, PHILIP, CA

(74) Agent: AIKINS PATENT COMPANY

(54) Titre : ENSEMBLE DE PLATE-FORME AVEC CHAISE
(54) Title: CHAIR MOUNTED PLATFORM ASSEMBLY



(57) Abrégé/Abstract:
A platform assembly to support computer peripheral device that attaches to a chair. The assembly includes a platform, a flexible support arm, a first coupling, and a second coupling. The flexible support arm allows excellent adjustability of the platform that supports the computer peripheral device. The second coupling, a spring-loaded clamp, provides an effective means for coupling the assembly to the chair.

ABSTRACT

A platform assembly to support computer peripheral device that attaches to a chair. The assembly includes a platform, a flexible support arm, a first coupling, and a second coupling. The flexible support arm allows excellent adjustability of the platform that supports the computer peripheral device. The second coupling, a spring-loaded clamp, provides an effective means for coupling the assembly to the chair.

CHAIR MOUNTED PLATFORM ASSEMBLY

FIELD OF THE INVENTION

This invention relates to an accessory for computer peripheral devices. More particularly, it relates to a platform assembly mountable to a chair for use in operating a peripheral device, for example, a computer mouse.

BACKGROUND

The use of personal computers has dramatically increased over the past two decades. With increased usage comes an increase in personal injuries due to incorrect or awkward seating positions assumed by a computer user at a computer workstation. Prolonged computer use in an awkward position can lead to back, neck, shoulder and arm strain.

Typically, a workstation consists of a desk where a computer and its peripheral devices reside and a desk chair providing seating for a computer user. One approach for solving incorrect seating positions is to relocate the peripheral devices essential to the operation of the computer to the desk chair from the desktop. This allows a computer user to assume a more correct posture in their chair rather than leaning over a desk.

Several platforms have been developed throughout the years with this solution in mind. For example, Kelly, US Patent 6,123,387 describes a chair with both keyboard and mouse platforms. However, these platforms are bolted to the chair making their removal impractical when needed. Also, the mouse pad does not appear to be adjustable.

Adkins United States patent 6,027,165 describes a table attachment for armchairs. This table is somewhat cumbersome in the manner that it is also bolted to the chair rendering attachment and removal somewhat time consuming. In addition, there appears to be limited adjustability of the table itself.

Bourassa United States patent 5,848,773 describes a mouse pad support pedestal consisting of a clamp device for attaching the apparatus to a chair. The clamp is secured to the arm of a chair by tightening a wing nut on a threaded bolt until secure. The support pedestal sits in a groove in the upper portion of the clamp and can only be moved along one axis.

Nauth Canadian patent application 2,279,333 describes an articulating mouse pad that uses an arm with ball and socket joints for adjustability. This design allows for greater adjustability but requires the loosening of an adjusting screw to allow free movement of the ball and socket joints.

The present invention is concerned with a chair mounted platform assembly that easily attaches to a chair while allowing for maximum adjustability of the platform while employing a minimum number of parts and user adjustment elements.

SUMMARY

According to the present invention there is provided a platform assembly for attachment to a chair comprising:

a platform to support a computer peripheral device;

a flexible support arm;

a first coupling connecting the platform to one end of the flexible support arm; and

a second coupling for connecting the other end of the flexible support arm to a chair.

Preferably, the flexible support arm includes a flexible metal conduit allowing infinite adjustment of the assembly within a range of positions. The use of such a metal conduit provides an inexpensive and simple method of overcoming the adjustability problems of the prior art. Preferably, the second coupling is a spring

loaded clamp. Such a clamp allows for quick attachment of the platform to the chair and quick release of the platform from the chair when not needed.

In preferred embodiments, the platform assembly further comprises a moulded handgrip for ergonomic adjustment of the platform.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings, which illustrate an exemplary embodiment of the present invention:

Figure 1 depicts a platform assembly attached to the armrest of an office chair;

Figure 2 is an enlargement of the first coupling connecting the platform to the support arm;

Figure 3 is a bottom view of the platform;

Figure 4 is a top view of the platform assembly;

Figure 5 is a top view of the second coupling; and

Figure 6 is a side view of the second coupling.

DETAILED DESCRIPTION

Referring to the accompanying drawings, there is illustrated a chair mounted platform assembly 10 attached to a commercially available office chair 11. The office chair 11 includes a seat 12, a backrest 13, armrests 14, a pedestal 15 and radiating legs 16 supported by castors 17. The mouse pad 10 consists of a platform 18, a first coupling 19 connecting the platform to a handgrip 20, a flexible support arm 21 and a second coupling 22 connecting the flexible support arm to one of the armrests 14 of the office chair.

The first coupling 19 is comprised of a fastening knob 31 and a threaded bolt 32. The threaded bolt 32 is secured to the handgrip 20 by screwing into a bore in the handgrip. The fastening knob has a similar bore that allows it to be threaded onto

the threaded bolt. The head of the threaded bolt sits in a channel created by two parallel rails 33 that are fastened to the underside of the platform 18 with screws 34. The fastening knob 31 is turned until the knob and the head of the bolt pinch the railings creating enough tension to immobilize the platform 18. Loosening and tightening the fastening knob allows rotation of the platform around the threaded bolt and movement along the rails 33.

The handgrip 20, as shown in Figure 1, is shaped to conform to the user's hand, extending through an angle from the support arm to the first coupling, with ridges to define finger grips so that the whole can be used as a pistol grip for orienting and positioning the platform as desired.

The flexible support arm 21 includes a section of a commercially available flexible metal conduit of the type formed from a helically wound continuous metal strip. The support arm is shapable allowing infinite adjustment of the platform assembly within a range limited by the bending radius of the arm. The arm is also rigid enough that once adjusted the platform will remain in position under the applied loads until readjusting is desired. One end of the arm 21 fits into a hollow in the handgrip 20. The other end of the flexible shaft is attached to the second coupling 22.

The second coupling 22 is a spring loaded clamp. The clamp consists of two clamp arms 51, a pivot pin 52, a torsion spring 53, and two resilient pads 54. Referring to Figure 5, the two clamp arms are held together by the pivot pin. The torsion spring ends 55 bear on the clamp arms providing the necessary force for the operation of the clamp. The resilient pads 54 prevent marring the finish of the chair's armrest 14. The spring clamp provides for easy attachment and release of the platform assembly to and from the chair.

In Figure 4, there is a top-down view of the platform 18. The surface 41 is recessed to accommodate a textured surface for operation of the computer

peripheral device. In addition, the platform includes a wrist-supporting pad 40 in an effort to maintain ergonomic functionality.

While one embodiment of the present invention has been described in the foregoing, it is to be understood that other embodiments are possible within the scope of the invention. Thus, for example, the platform assembly could comprise a flexible support arm of the type described in US Patents 5,517,392 and 5,521,803. Instead of the armchair used in the exemplary embodiment, the platform assembly could be mounted to an armchair having an armrest with center support post. The rails 33 allow the platform 18 to be moved forward when the second coupling 22 is attached to the center post. The invention is to be considered limited solely by the scope of the appended claims.

EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A platform assembly for attachment to a chair comprising:

a platform to support a computer peripheral device;

a flexible support arm;

a first coupling for connecting the platform to one end of the flexible support arm; and

a second coupling for connecting the other end of the flexible support arm to a chair.

2. The platform assembly according to Claim 1 wherein the flexible support arm includes a flexible metal conduit.

3. The platform assembly according to Claim 1 wherein the flexible support arm allows infinite adjustment of the assembly within a range of positions.

4. The platform assembly according to Claim 1 wherein the second coupling is a spring loaded clamp.

5. The platform assembly according to any one of Claims 1 to 4, further comprising a moulded handgrip for ergonomic adjustment of the platform.

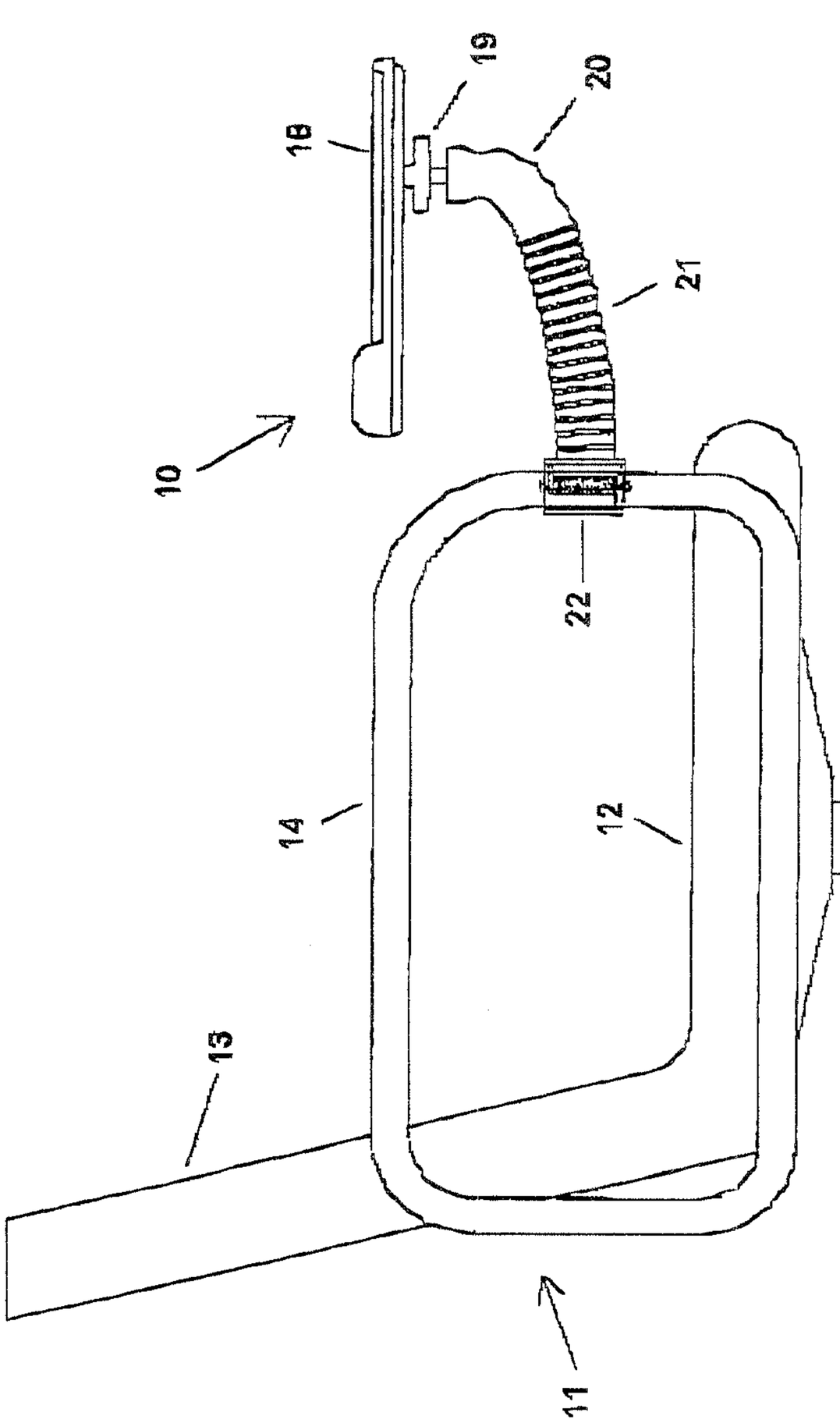


Figure 1

INVENTOR: PHILIP ROZIERE
By: AIKINS, MACAULAY & THORVALDSON

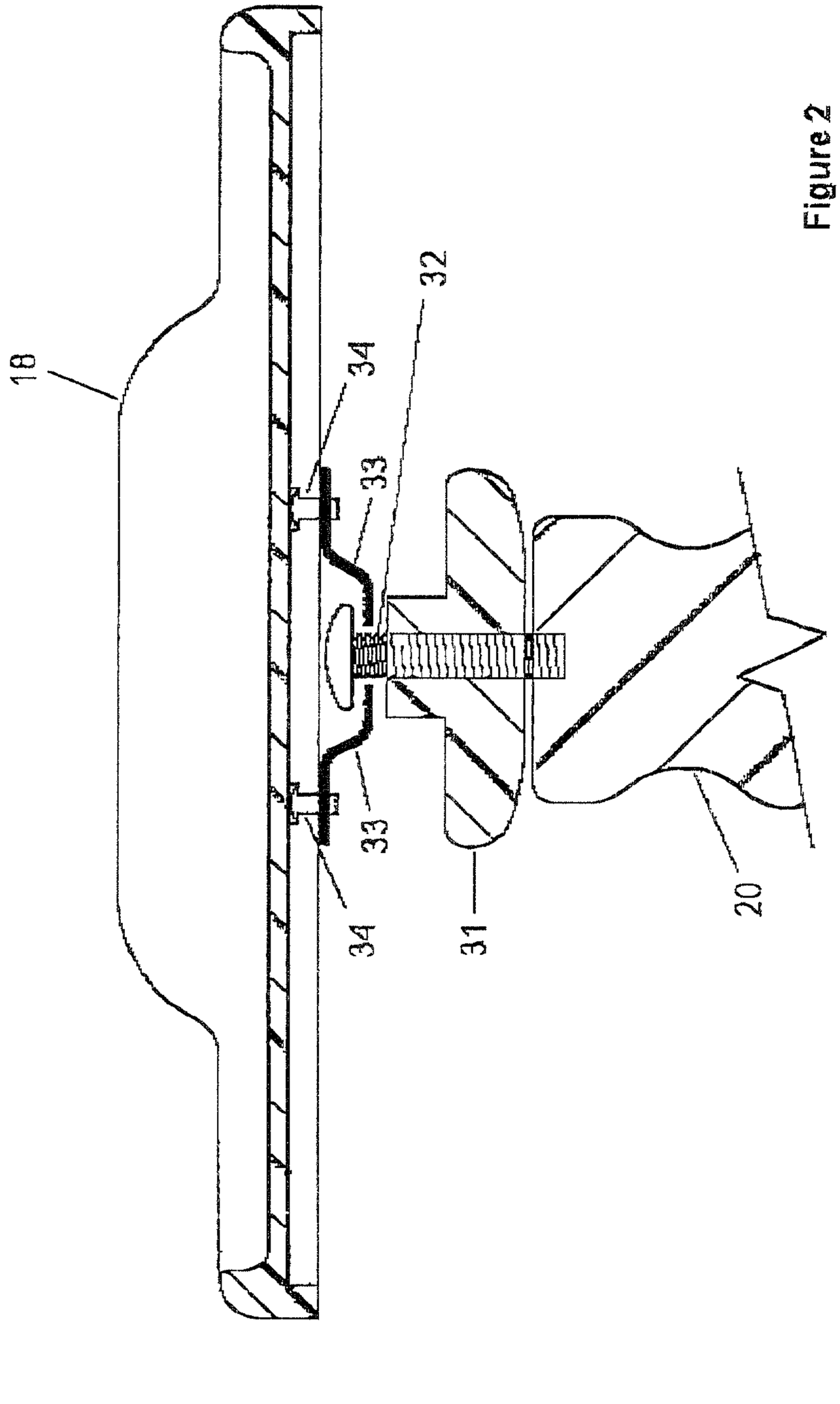


Figure 2

INVENTOR: PHILIP ROZIERE
By: *AIKINS, MACAULAY & THORVALDSON*

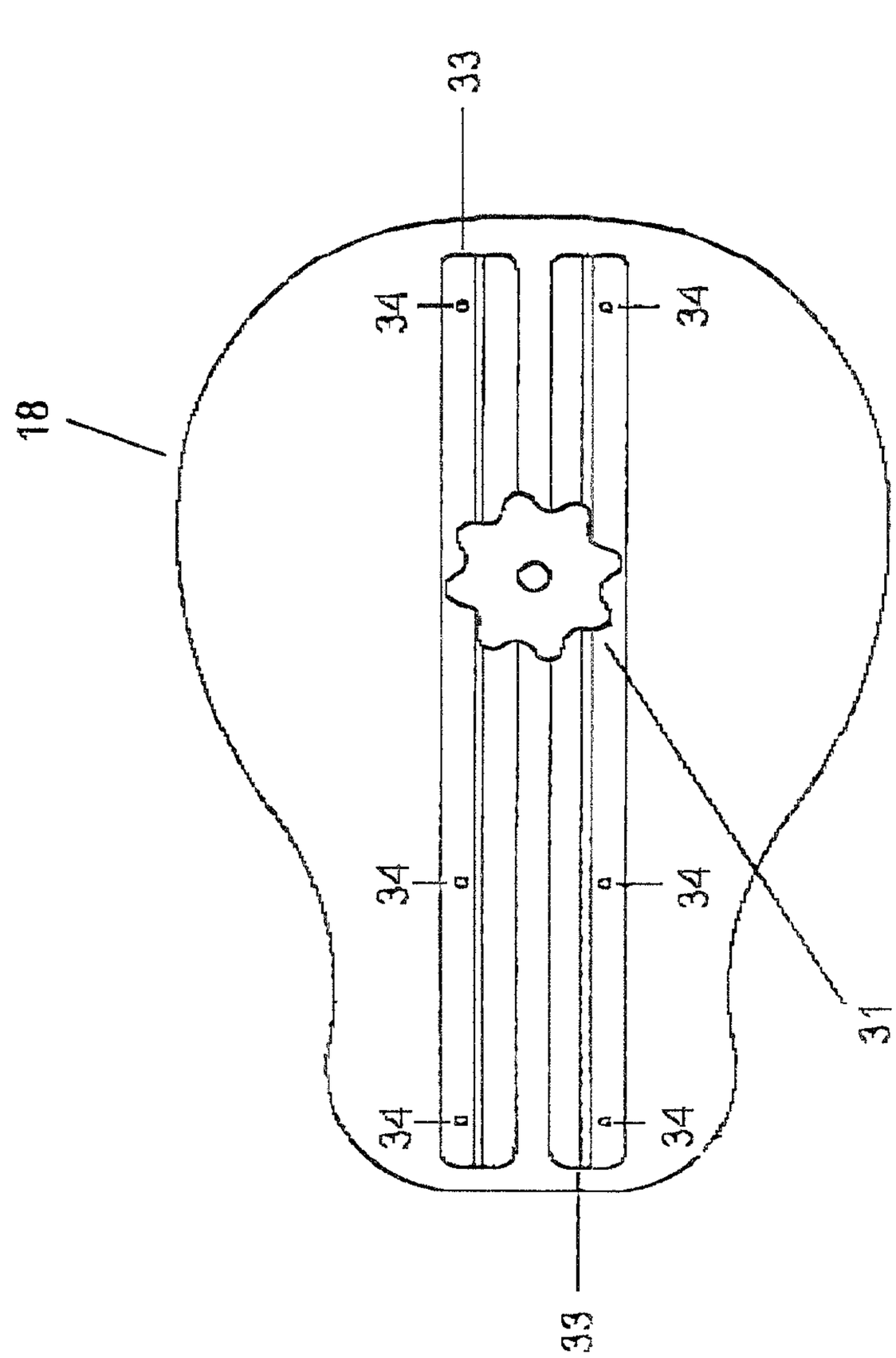


Figure 3

INVENTOR: PHILIP ROZIERE
By: AIKINS, MACAULAY & THORVALDSON

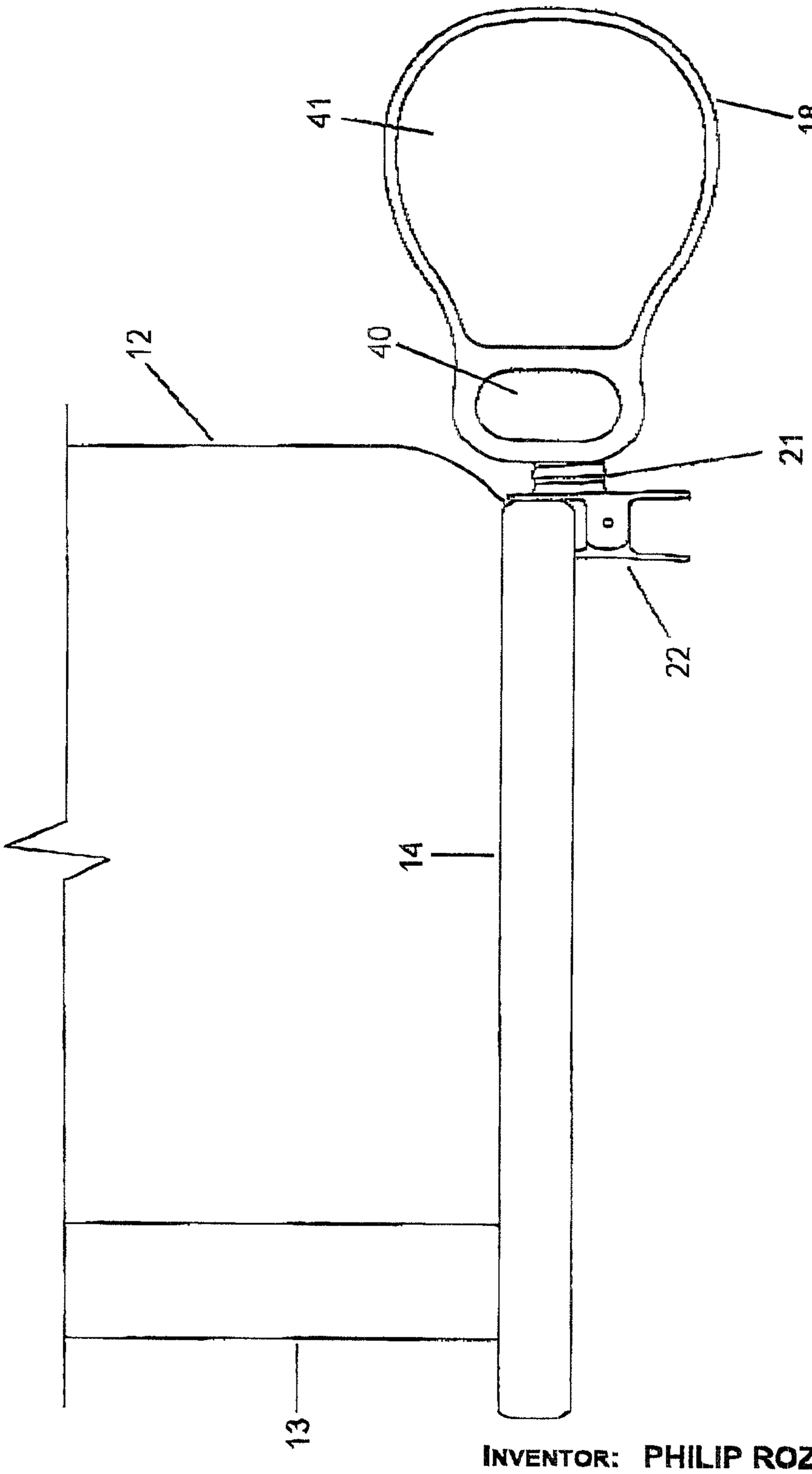


Figure 4

INVENTOR: PHILIP ROZIERE

By: AIKINS, MACAULAY & THORVALDSON

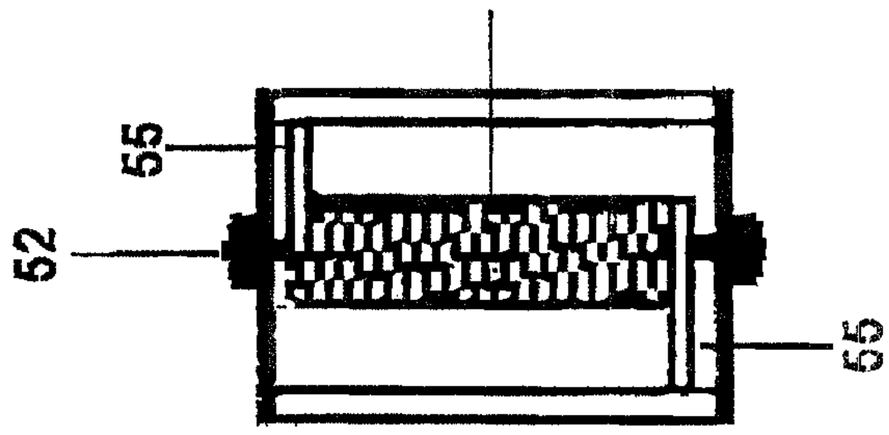


Figure 6

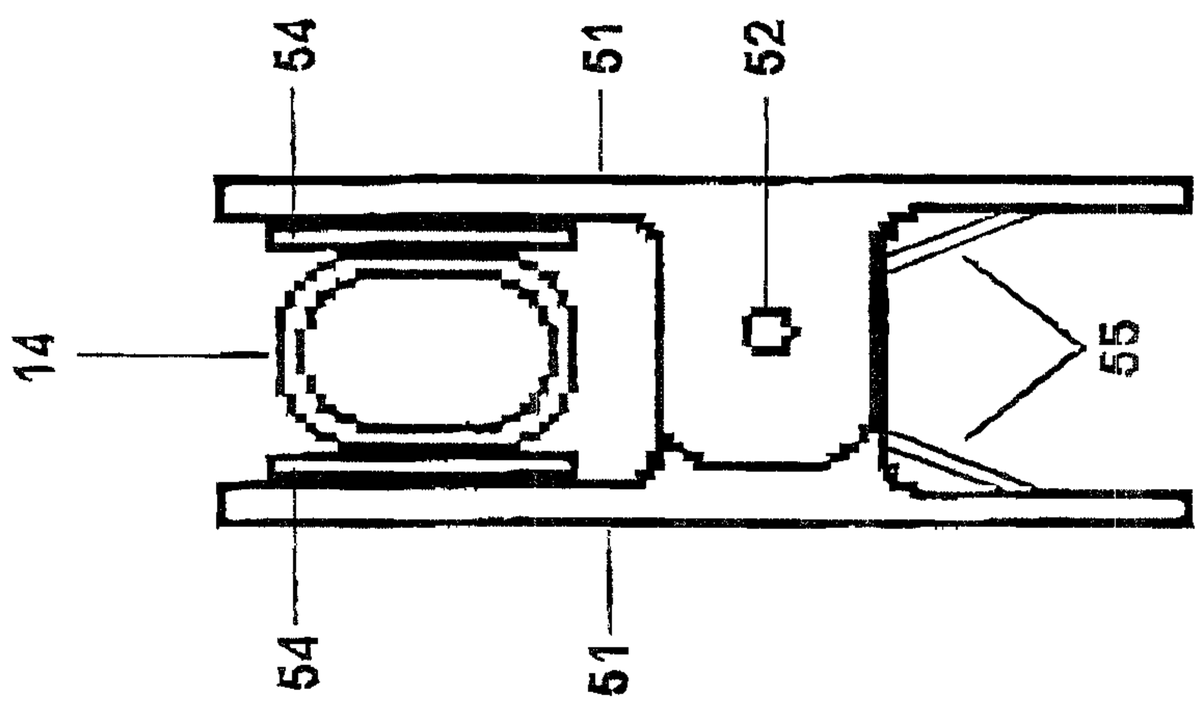
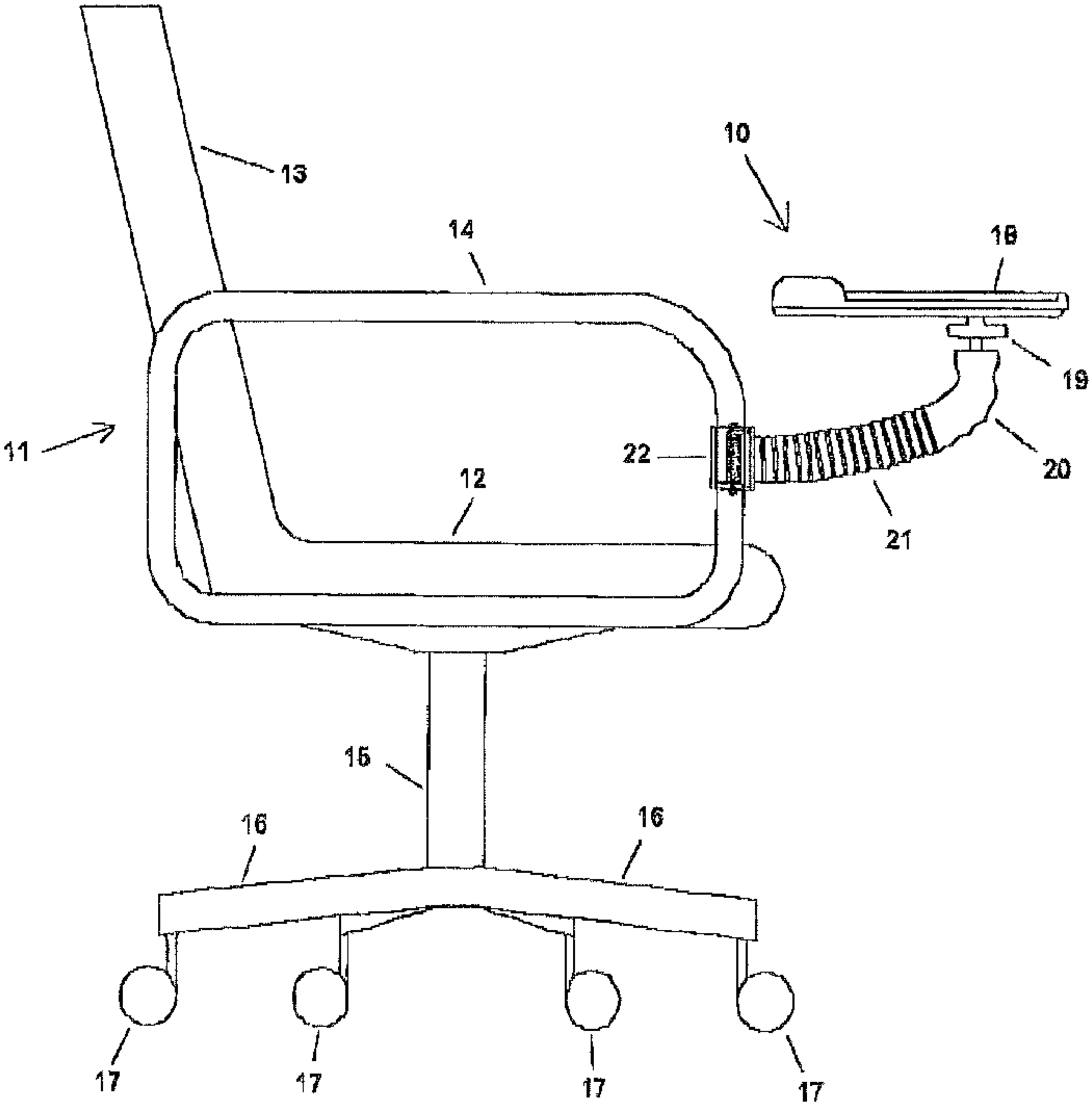


Figure 5

INVENTOR: PHILIP ROZIERE
By: AIKINS, MACAULAY & THORVALDSON


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