

No. 873,275.

PATENTED DEC. 10, 1907.

J. F. SPALDING.

CATHETER USER'S PORTABLE MECHANICAL ASSISTANT.

APPLICATION FILED MAR. 29, 1907.

4 SHEETS—SHEET 1.

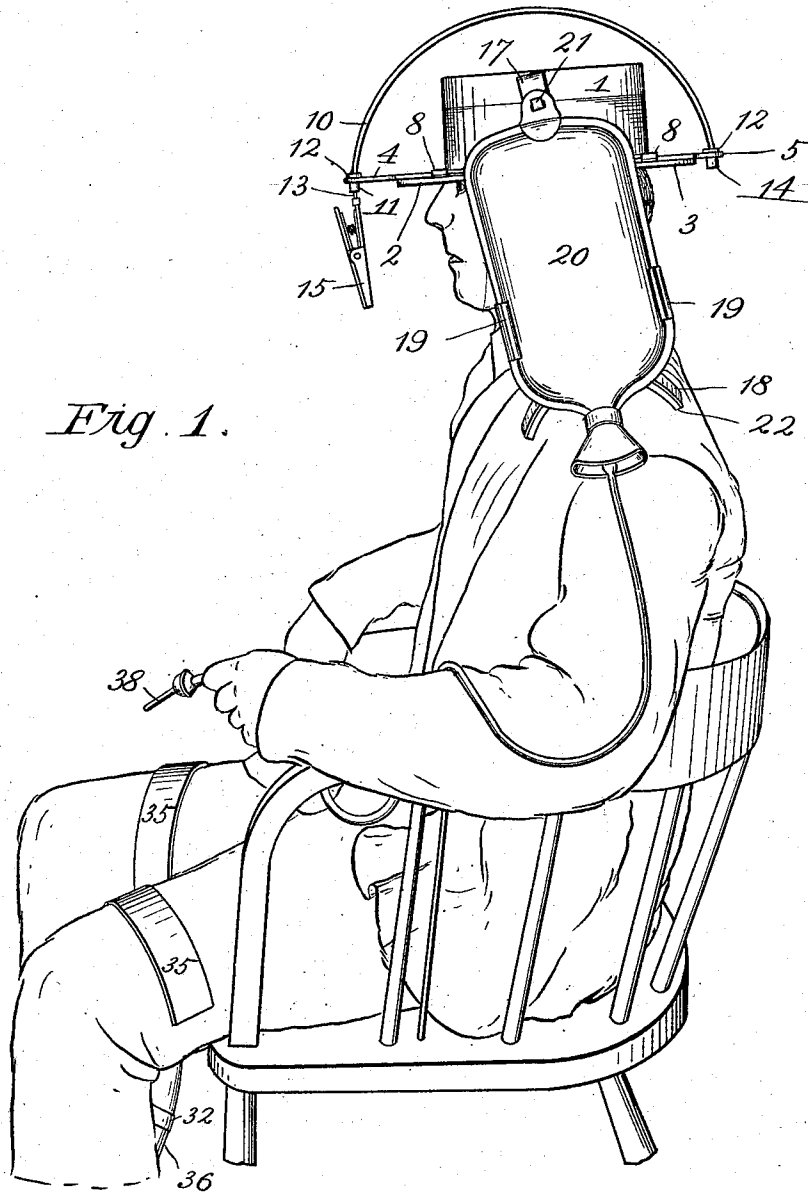


Fig. 1.

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E. C. Cahill.

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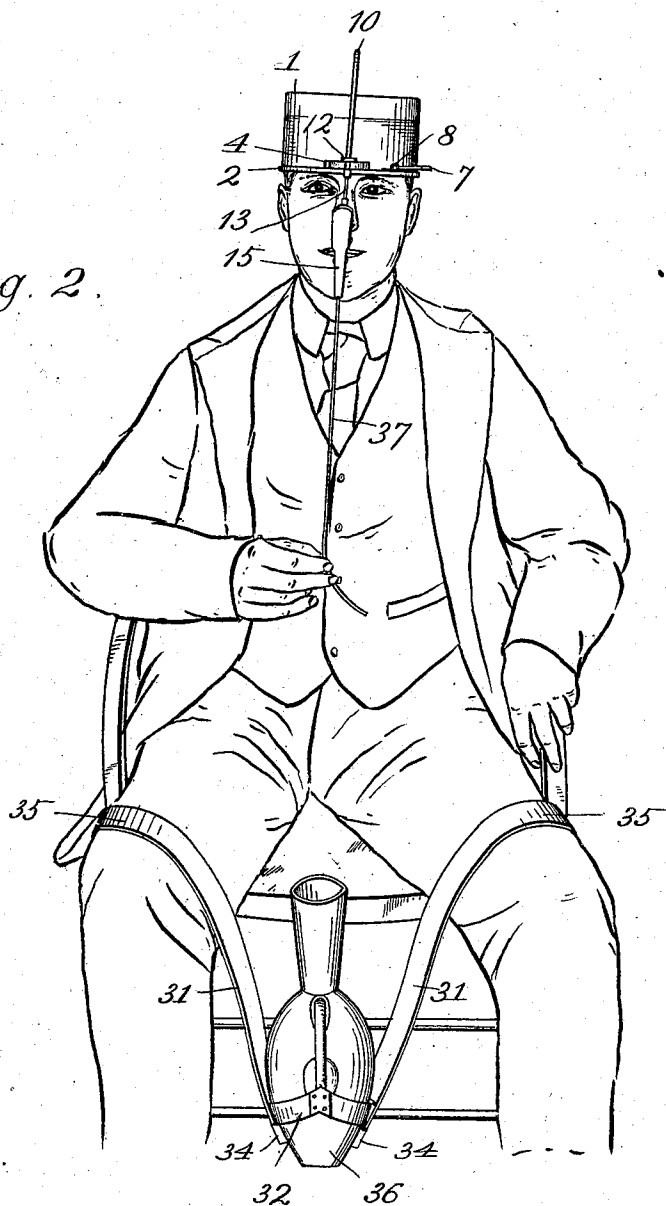
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4 SHEETS—SHEET 2.

Fig. 2.



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4 SHEETS—SHEET 3.

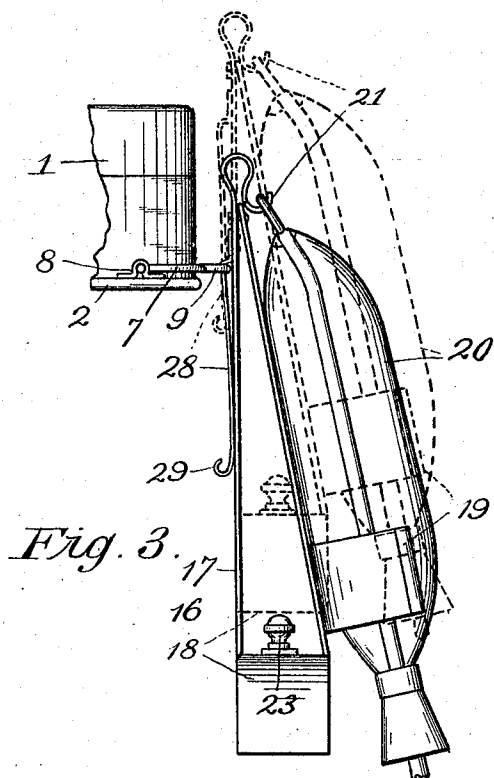


Fig. 3.

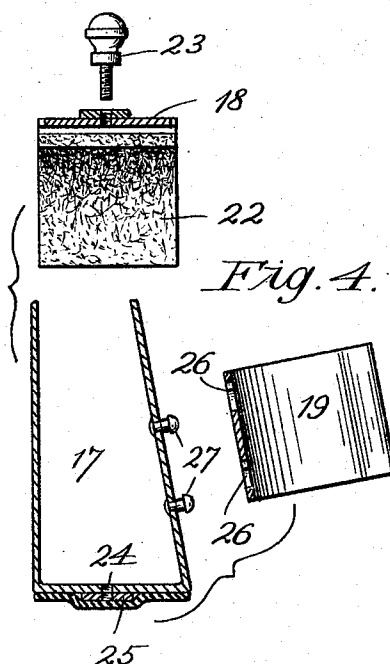


Fig. 4.

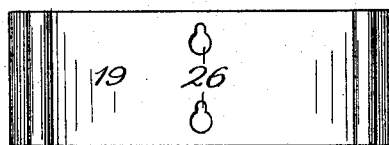


Fig. 5.

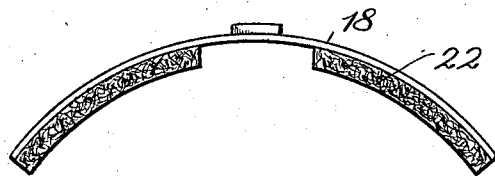


Fig. 6.

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4 SHEETS—SHEET 4.

Fig. 7

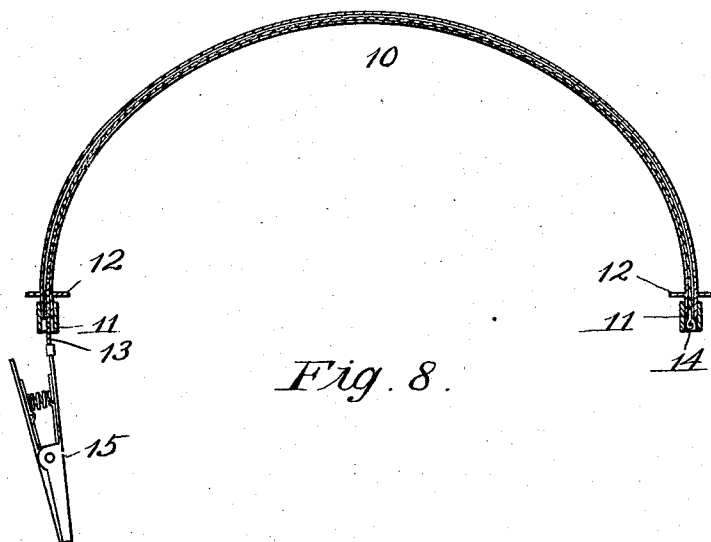
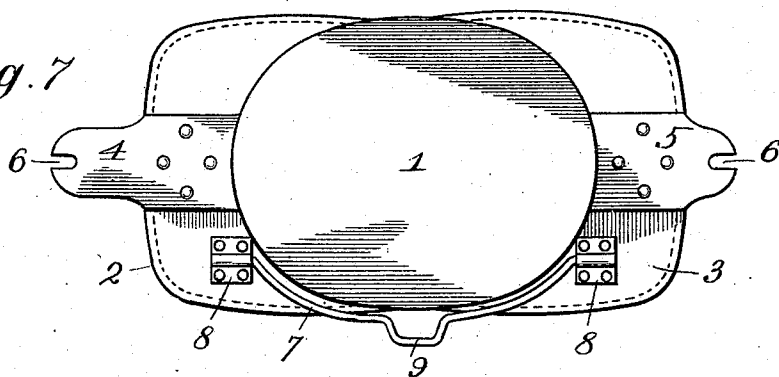
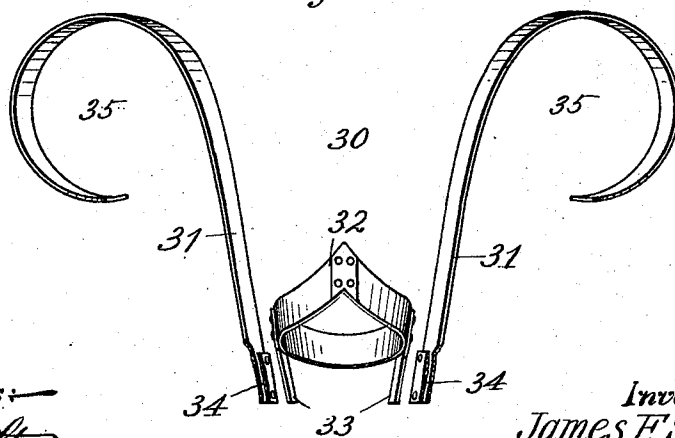


Fig. 8.

Fig. 9.



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UNITED STATES PATENT OFFICE.

JAMES F. SPALDING, OF KANSAS CITY, MISSOURI.

CATHETER-USER'S PORTABLE MECHANICAL ASSISTANT.

No. 873,275.

Specification of Letters Patent.

Patented Dec. 10, 1907.

Application filed March 29, 1907. Serial No. 365,425.

To all whom it may concern:

Be it known that I, JAMES F. SPALDING, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Catheter-User's Portable Mechanical Assistants, of which the following is a specification.

My invention relates to a mechanical assistant for catheter users; and my object is to provide a portable apparatus whereby persons afflicted with certain bladder diseases can conveniently treat themselves while *en route* or at home or in a hospital, without the aid of a personal assistant.

The apparatus includes a number of elements which cooperate when assembled for use, but may be readily taken apart and packed within a small case that can conveniently be carried by hand, hence is especially desirable for users who frequently have occasion to travel from place to place, or for physicians who have a number of patients afflicted with bladder disease.

For convenience in describing the invention, reference will now be made to the accompanying drawings, in which:—

Figure 1 represents a side elevation of the apparatus in position for use. Fig. 2 represents a front elevation of the same with a syringe support, forming part of the invention, removed. Fig. 3 represents a broken front elevation of a head-piece, forming part of the invention, with the syringe support attached thereto. Figs. 4, 5, and 6 represent detached parts of the syringe support. Fig. 7 is a plan view of the head-piece. Fig. 8 is a central vertical section of a curved tube with an elastic cord extending therethrough and a catheter clasp to which one end of the cord is attached. Fig. 9 is a perspective view of a yoke, forming part of the invention, with the several parts thereof detached.

In carrying out the invention, I employ a head-piece consisting, preferably, of a cap 1, having front and rear vizors 2 and 3, provided with extensions or arms 4 and 5, respectively, having notches 6 for the reception of the ends of a curved tube hereinafter described.

7 designates a bail arranged at one side of the cap and mounted in bearings 8, secured upon the vizors 2 and 3. Said bail has an outturned U-shaped portion 9 for a purpose hereinafter described.

10 designates the curved tube, above referred to, which is provided at its ends with enlarged extensions 11 and a pair of disks 12, which latter are arranged a short distance above the former, as shown in Fig. 8.

13 designates an elastic cord extending through the tube which acts as a guide therefor. One end of the cord is tied in a knot 14 to prevent it from pulling through the tube, while its opposite end is attached to a clasp 15, so that the latter will be adjustably suspended from the head-piece.

Tube 10 is slightly resilient so that when placed in position upon the cap its retractive force will draw it tightly into engagement with the inner edges of notches 6, while extensions 11 and disks 12 will engage the lower and upper surfaces of arms 4 and 5 and thus lock the tube from vertical or lateral movement. To remove the tube it is only necessary to disengage its ends from notches 6. Arm 4 is, preferably, longer than arm 5 so that when tube 10 is in an operative position the clasp 15 will be held well in advance of the user's face.

16 designates a syringe support consisting of a triangular member 17, a saddle 18 adapted to rest upon the user's shoulder, and a clamp 19, which embraces the back and sides of the syringe-bag 20, which rests against the inclined portion of member 17 and is suspended from a hook 21 at the upper end of said member. The various parts of the syringe support are detachable so that when taken apart they may be packed away in a very small space.

Saddle 18 has a heavy padding 22 at its under side so that the user will experience no discomfort while wearing the syringe-support. Said saddle is detachably secured in place by a thumb-screw 23, which extends therethrough and engages the internal threads of an opening 24, extending through the horizontal portion of member 17 and a reinforcing plate 25 secured to the under side thereof.

Clamp 19 is detachably secured to member 17 by a pair of key-hole slots 26 extending through the central portion of the clamp and adapted to engage a pair of headed-studs which project from member 17.

The syringe support is held in an upright position or substantially so, when resting upon the user's shoulder, by a flat spring 28 secured at its upper end to the upper portion

of member 17 and adapted to engage the U-shaped portion 9 of bail 7, so that it will be held from sliding forward or backward upon said bail. Said spring, however, is free to slide upward or downward upon the U-shaped portion 9, which together with the swinging movement of the bail will permit support 16 to adjust itself as shown by dotted lines, Fig. 3, to accommodate different sized users. For instance if the user be tall, the bail will engage the upper portion of spring 28, and if the user be short, said bail will engage the spring lower down. The lower terminal 29 of the spring is curved so that it may be readily applied to the bail.

30 designates a yoke consisting of a pair of hangers 31 and a loop 32, which latter is detachably secured to the former by a pair of arms 33, adapted to engage a pair of pockets 34 at the lower ends of the hangers. The upper ends 35 of the hangers are curved so they will firmly clasp the limbs of the user and thus reliably support the yoke and a urinal 36 removably arranged in loop 32.

In practice the user seats himself with the apparatus in position as shown in Fig. 1. He then proceeds to suspend a catheter 37 from clasp 15 so that he will have both hands free to lubricate said catheter and insert one end thereof into the bladder through the urethral passage. The outer end of the catheter is next released from the clasp which is drawn upward out the user's way by the elastic cord. The free end of the catheter is now inserted in the urinal into which the contents of the bladder are then discharged. The free end of the catheter is next removed from the urinal and inserted in the nozzle 38 of the syringe so that the medicated contents of same may be conducted to the bladder. After the bladder has been thoroughly washed and its contents discharged into the urinal the catheter is removed and the operation of relieving and washing the bladder is completed.

Support 16 also forms convenient means for suspending a syringe while administering an ordinary injection.

Having thus described my invention, what I claim is:—

1. In an apparatus of the character described, a head-piece, front and rear extensions thereon, a guide secured to said extensions, an elastic cord carried by the guide, and means carried by said cord for supporting a catheter.

2. In an apparatus of the character described, a suitable head-piece, a tube carried thereby, an elastic cord carried by said tube, and means attached to said elastic cord for supporting a catheter.

3. In an apparatus of the character described, a suitable head-piece, front and rear arms secured thereto, a guide carried by said arms, a resilient device carried by said guide, and means carried by said resilient device for supporting a catheter.

4. In an apparatus of the character described, a suitable head-piece, a curved guide detachably secured to the front and rear thereof, resilient means carried by said guide, and a device for supporting a catheter secured to said resilient means.

5. In an apparatus of the character described, a syringe support adapted to rest upon the user's shoulder, and a head-piece adapted to hold the upper end of said support.

6. In an apparatus of the character described, a head-piece, a bail carried thereby, and a syringe support adapted to rest upon the user's shoulder and engage the bail.

7. In an apparatus of the character described, a head-piece, a bail adjustably secured thereto, a syringe support, and means carried thereby for adjustably engaging the bail.

8. In an apparatus of the character described, a syringe support consisting of a saddle, and a member provided with a hook for engaging the syringe.

9. In an apparatus of the character described, a syringe support consisting of a saddle, a member with a hook for engaging the syringe, and a clamp on said member for engaging the syringe-bag.

10. In an apparatus of the character described, a syringe support consisting of a member provided with means for engaging the syringe-bag, and a saddle detachably secured to said member.

11. In an apparatus of the character described, a syringe support consisting of a member adapted to engage the syringe-bag, and a detachable clamp for also engaging said bag.

12. In an apparatus of the character described, a yoke consisting of a pair of hangers adapted to engage the user's limbs, and a urinal support carried by said hangers.

13. In an apparatus of the character described, a yoke consisting of a pair of hangers adapted to engage the user's limbs, and urinal support detachably secured to said hangers.

In testimony whereof I affix my signature, in the presence of two witnesses.

JAMES F. SPALDING.

Witnesses:

F. G. FISCHER,
M. COX.