May 18, 1954 J. E. M. THOMSON 2,678,684

SURGEON'S OPERATING STOOL

Filed Oct. 12, 1951

2 Sheets-Sheet 1

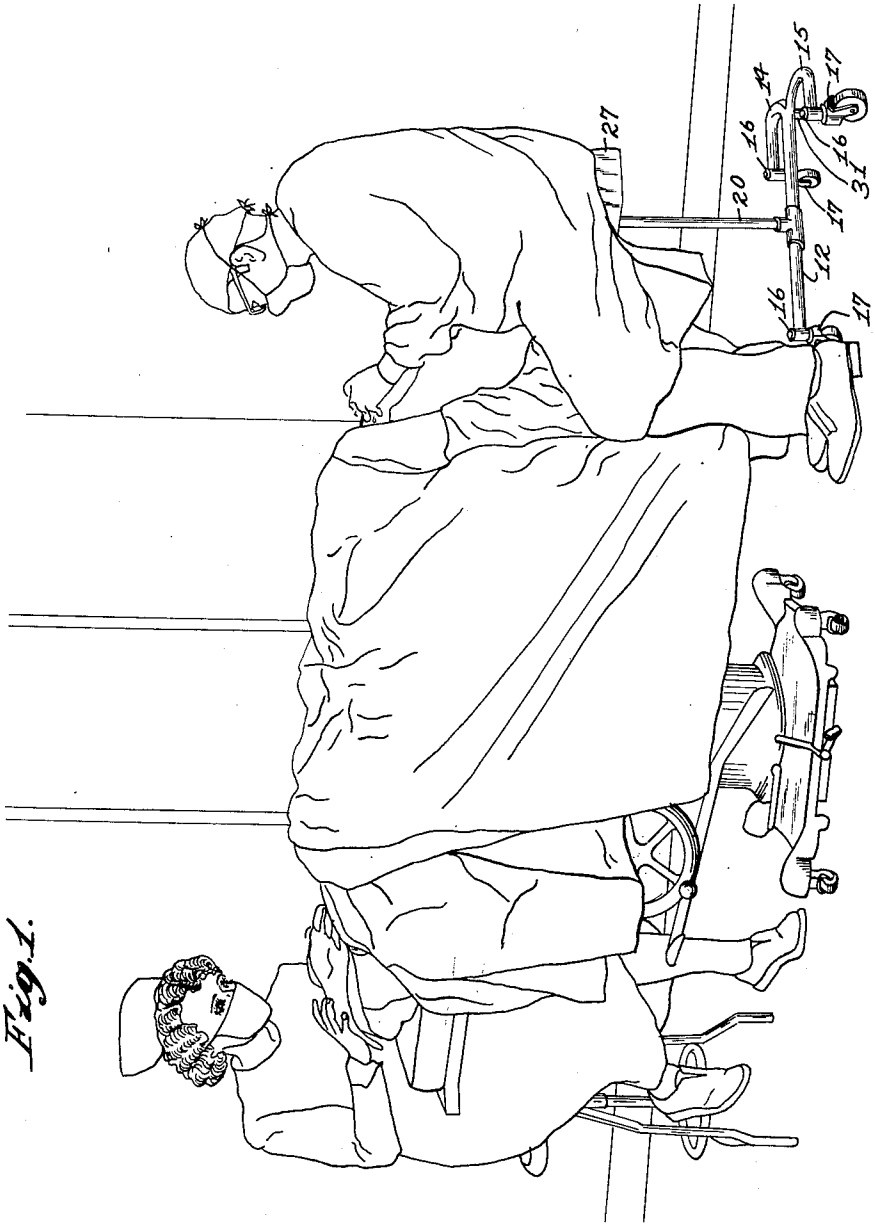


Fig. 1.

INVENTOR

JAMES E. M. THOMSON

BY Thomas J. MacGovern

ATTORNEY

May 18, 1954 J. E. M. THOMSON 2,678,684

SURGEON'S OPERATING STOOL

Filed Oct. 12, 1951 2 Sheets-Sheet 2

Fig. 2.

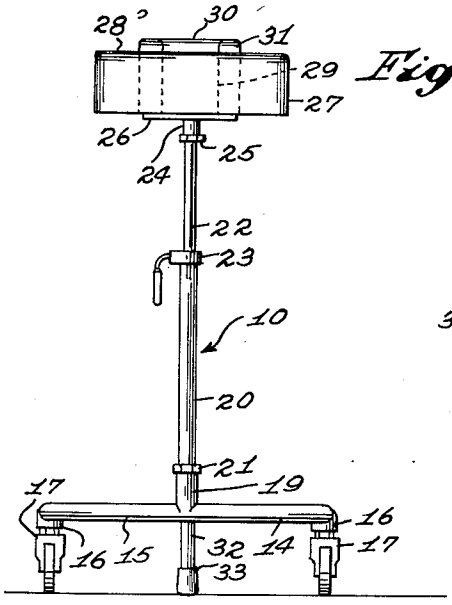


Fig. 4.

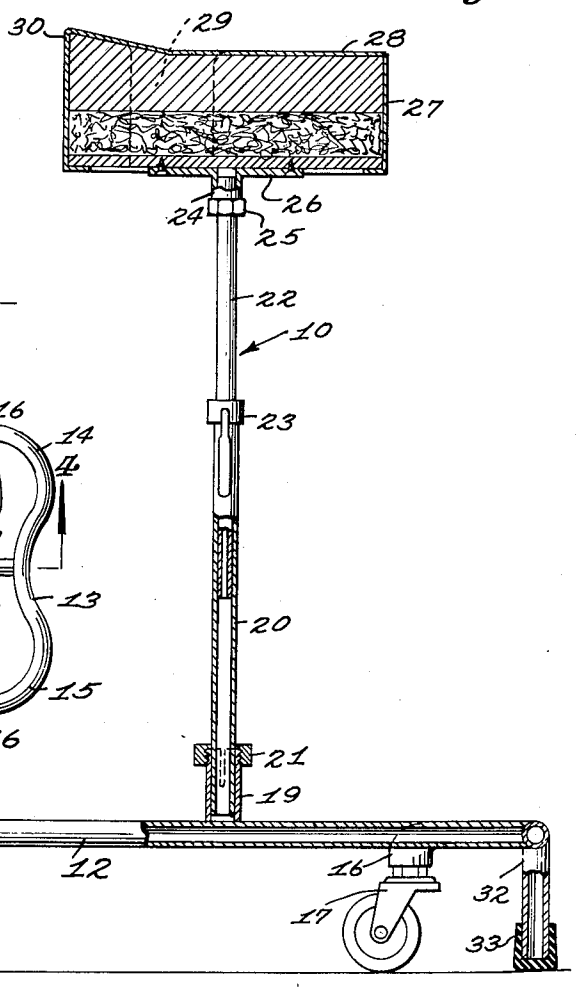
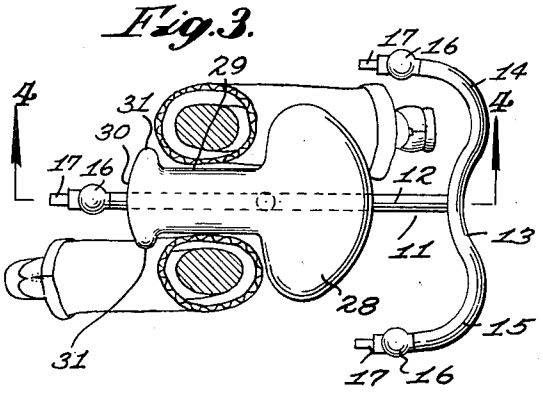


Fig. 3.



INVENTOR

JAMES E. M. THOMSON

BY Thomas J. MacAvoy

ATTORNEY

Patented May 18, 1954

2,678,684

UNITED STATES PATENT OFFICE

2,678,684

SURGEON'S OPERATING STOOL

James E. M. Thomson, Lincoln, Nebr., assignor to Orthopaedic Devices, Incorporated, Lincoln, Nebr.

Application October 12, 1951, Serial No. 250,967

4 Claims. (Cl. 155—134)

1

This invention relates to improvements in a stool upon which an orthopaedic surgeon may sit rested and relaxed while performing delicate operations requiring a high degree of skill and delicacy of touch, and upon which stool he may move about, close to the operating table, without having to touch the stool with his hands or gloves so that they may remain sterile.

Orthopaedic surgeons may have to spend as much as four or five hours in performing delicate operations, and this, quite naturally, induces fatigue and extreme nervous tension. The stool of the present invention is adapted to relieve the operator of much of this fatigue in that he may sit in a comfortable position on it while performing an operation, and in that he may move about the operating table while seated with almost no effort, and while feeling confident in the safety of the device.

It is an important object of this invention to provide a surgeon's operating stool that is stable as it is moved about by the surgeon, and is provided with a saddle which fits into the crotch of the rider, and with the saddle provided with an anterior knob which prevents the rider losing the saddle unless he removes his limbs from the axis of the saddle and steps away from it.

It is also an important object of this invention to provide an operating stool in the use of which the rider may stand with the saddle elevated in the crotch of the rider so that he may remain in a standing position while he rests his weight on the ischial portion of the pelvis against the back of the saddle.

It is also an important object of this invention to provide a surgeon's operating stool in the use of which the rider may remain in a standing position and walk about the operating room without having to touch the stool with his hands so that his hands may remain sterile.

Other important objects and advantages of this invention will be more apparent from the following detailed description.

In the accompanying drawings:

Figure 1 is a perspective view of the surgeon's operating stool in use;

Figure 2 is a rear view of the stool in elevation;

Figure 3 is a top plan view also showing the legs of the rider on the stool in walking position; and

Figure 4 is a sectional view of the stool on line 4—4 of Figure 3, with parts in section.

In the drawings, the numerals 10, indicate generally a surgeon's operating stool, comprising a substantially T-shaped base portion 11, having

2

a forwardly extending tubular arm 12, and a head 13, which is formed of a pair of similar and reversely curved and transversely extending arms 14 and 15. The free ends of the arms 12, 14 and 15, are each provided with socket-defining means 16, which receive free-rolling and swivelling casters 17.

The forwardly extending arm 12, of the base, also forms the head of a T-shaped assembly comprising the arm 12, and a vertically extending tubular portion.

The vertically extending portion is made up of a short and integrally connected tube 19, of the arm 12, and into this tube 19, a tube 20 is entered and is removably secured therein by conventional securing means 21, so that the parts may be separated for convenience in packing for shipping. Another tube 22 is slidably entered in the tube 20 for adjusted positioning therein, and conventional locking and clamping means 23 hold the tubes 22 and 20 in locked relation to each other.

A seat supporting plate 26 is provided with a short tubular socket 24 into which the upper end of the tube 22 is entered, and is held in secured relation thereto by conventional compression ring and nut means 25.

An upholstered cushion or saddle 27 is suitably mounted on and secured to the plate 26. This cushion is formed to define a seat portion 28, extending forwardly into a narrow "horn" portion 29, and then forwardly and sloping upwardly to define a deeper and wider "knob" portion 30, having transversely extending wings 31.

As is shown in Figure 1, the surgeon may stand erect at the operating table while carrying some of his weight on the ischial portion of the pelvis against the back of the saddle. And, as best shown in Figure 3, he may walk substantially erect from the operating table to the point in the operating room where he washes and sterilizes his hands and gloves without having to touch any part of the stool with his hands or gloves. He simply pushes with his body against the knob portion 30; and whether he is standing or sitting at the operating table, or walking across the room, his hands are free at all times as he moves the stool to a desired position.

When seated at the operating table he may adjust his position relative to the patient with practically no effort, and he can pay full attention to the operation for he knows that the knob 30 is a positive stop means that removes the possibility of the stool sliding from under him.

It will be readily apparent from a consideration

of Figure 1, that the tripod construction of the stool makes it well adapted for getting close to the conventional operating table, while assuring stability of the stool because of the manner in which the weight of the rider is placed on the caster. Because of the curved arms 14 and 15, the rear bearing points are thrown forward of the end of the arm 12. The curved arms also admit of a short base while leaving ample room for walking without the heels of the rider coming in contact with the arms.

The curved arms 14 and 15 also provide curved bumper and deflecting means should the surgeon bring the rear end of the stool too close to the wall of the room, or to another object in the room, and, conversely, they provide deflecting guards or bumpers in the event of an object being moved against the stool.

It will be evident that the stool of this invention is also adapted for use as a convalescent aid to the locomotion of patients who have not been able to walk due to injury to the extremities or to disease conditions, such as paralysis or hemiplegia. The tripod support of the casters gives the rider stability through the crotch or ischial weight bearing feature of the device and gains the confidence of the patient. The patient may also gain added support by placing his hands on the knob.

The stool is, of course, very easy to move about because of its light weight and the free-rolling and swivelling casters, and should one step inadvertently on the rear arms of the stool while it is not in use it would be like stepping on ice. In this inadvertent stepping on one of the curved rear arms one would expect the stool to tilt and to move forward, and to guard against possible injury to the person so stepping, a depending arm 32 is provided at the rear end of the arm 12, and is tipped by a crutch tip 33. The tip clears the floor by about on-quarter inch or slightly less, so that it forms an effective brake when the device is tilted slightly by being stepped on.

I claim:

1. A surgeon's operating stool comprising a T-shaped base formed of a central and forwardly extending horizontal arm and a horizontal arm connected to the rear end of said central arm and defining a pair of oppositely directed side arms, revolvable means mounted on and supporting said base at the three ends thereof, an upwardly extending arm mounted on said central arm and intermediate the ends of said central arm, and a saddle mounted on the upper end of said upwardly extending arm, said saddle being formed to define a posterior portion to be sat on, an anterior stop means portion having oppositely directed side wings, and a relatively narrow connecting portion connecting said posterior and anterior portions.

2. A surgeon's operating stool comprising a base portion revolvable means mounted on and supporting said base portion, a saddle, means on said base portion arranged for supporting said saddle in elevated spaced relation to said base portion, said saddle being formed to define a posterior portion to be sat on by a rider on said stool, and to define anterior stop means having side wings adapted to engage the body of the user of the stool so that he may move the stool about while walking erect and without having to touch any part of the stool with his hands.

3. A surgeon's operating stool comprising a T-shaped base formed of a central and forwardly extending horizontal arm and a horizontal cross arm connected to the rear end of said central arm, a vertical arm mounted on said central arm and halfway between the ends of said central arm, a saddle mounted on said vertical arm, said horizontal cross arm being disposed rearwardly of said vertical arm and defining a pair of oppositely directed and reversely curved side arms having free ends directed towards said vertical arm, and casters mounted on and supporting said base at the three free ends thereof.

4. A surgeon's operating stool comprising a substantially T-shaped base formed of a centrally and forwardly extending horizontal arm and a cross arm connected to the rear end of said centrally extending arm, a vertical arm on said centrally extending arm and intermediate the ends of said centrally extending arm, a saddle mounted on said vertical arm, said cross arm being disposed rearwardly of said vertical arm and being shaped to define a pair of oppositely directed and curved side arms with their free ends directly towards said vertical arm and terminating forwardly of the rear end of said centrally extending arm and also terminating rearwardly of said vertical arm, and casters mounted on and supporting said base.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
289,272	Kirkpatrick	Nov. 27, 1883
1,044,523	Hedman	Nov. 19, 1912
2,508,932	Turner	May 23, 1950

FOREIGN PATENTS

Number	Country	Date
248,174	Switzerland	Feb. 2, 1948
370,958	France	Jan. 8, 1907