

April 3, 1945.

S. C. HOLSTON

2,372,951

DRAWER SLIDE AND LATCH CONSTRUCTION

Filed March 10, 1943

2 Sheets-Sheet 1

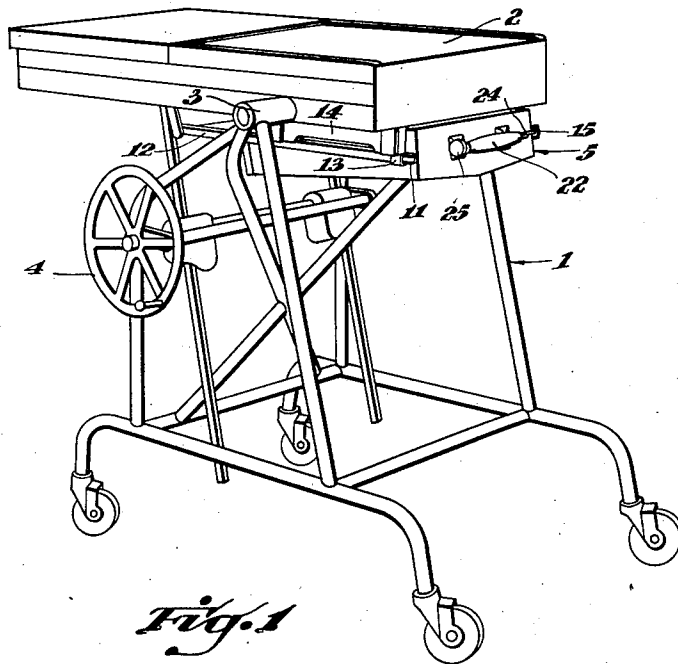


Fig. 1

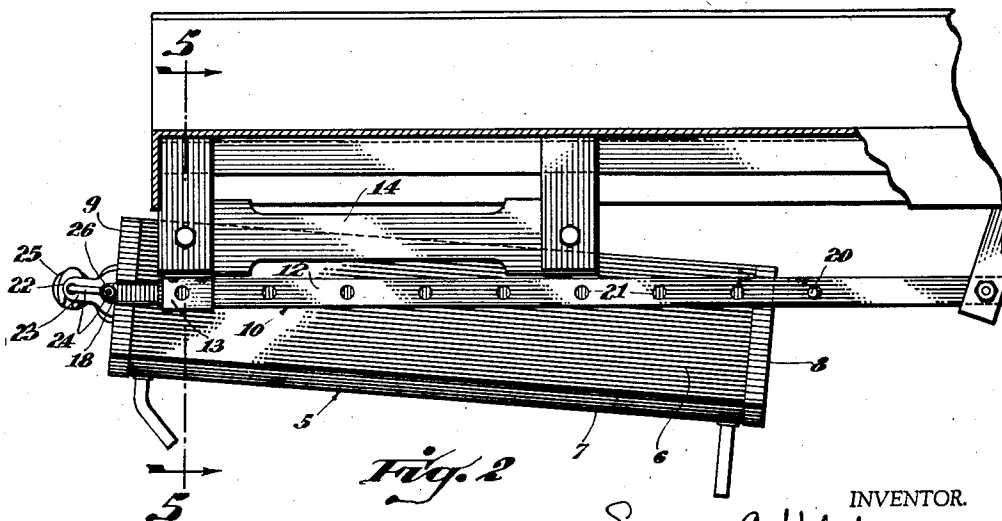


Fig. 2

INVENTOR.

Samuel C. Holston
BY Wood Avery Herron & Evans
his Attys.

April 3, 1945.

S. C. HOLSTON

2,372,951

DRAWER SLIDE AND LATCH CONSTRUCTION

Filed March 10, 1943

2 Sheets-Sheet 2

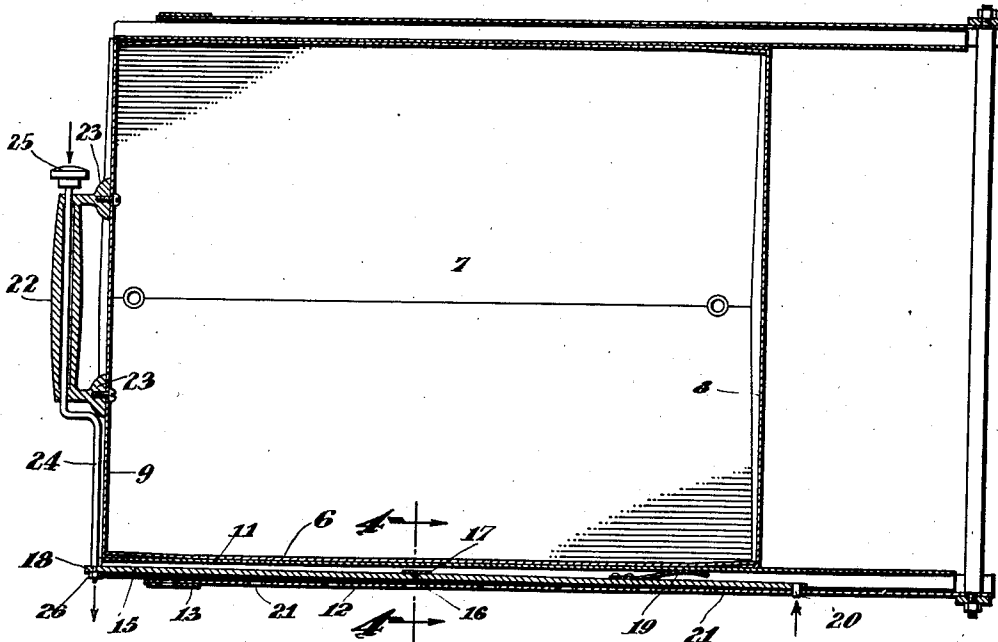


Fig. 3

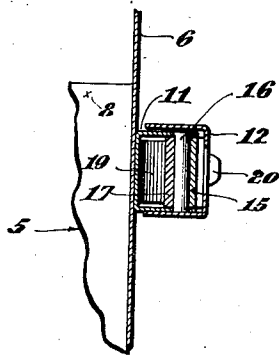


Fig. 4

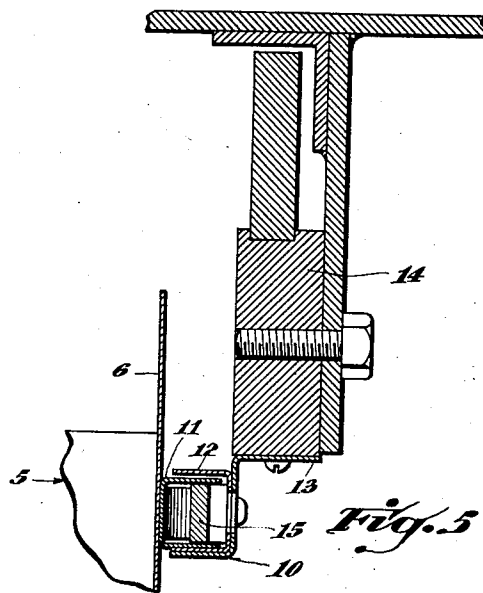


Fig. 5

Samuel C. Holston INVENTOR.

BY Wood Gray Herron & Evans
his Attys

UNITED STATES PATENT OFFICE

2,372,951

DRAWER SLIDE AND LATCH
CONSTRUCTION

Samuel C. Holston, Cincinnati, Ohio, assignor to
The Liebel-Flarsheim Company, Cincinnati,
Ohio, a corporation of Ohio

Application March 10, 1943, Serial No. 478,676

4 Claims. (Cl. 45—94)

This invention relates to drawer constructions which, although they may be used for a variety of purposes, are especially suitable as catch basins in operating or surgical tables. The invention is directed particularly to a releasable catch device by means of which the drawer is withheld against movement in a given position in which it may be set, and the invention further is directed to a simple catch releasing structure that the doctor or attendant may operate with one hand in a convenient manner.

The invention is disclosed in relation to a surgical table in which the drawer is located at the forward end beneath the table for extension toward the doctor when required. It has been a principal objective to provide a reliable catching and releasing mechanism for the drawer by means of which the doctor may open the drawer conveniently with one hand or the other during an operation, or close it when it interferes with him.

A preferred embodiment of the invention comprises a drawer which is slidably mounted in a stationary way or channel. The drawer has a rod extending longitudinally along a side of it, pivotally mounted for movement of one end of the rod toward and from a portion of the stationary way when the other end of the rod is caused to move in opposite directions. At one end, the rod carries a catch or friction member arranged to engage apertures, notches or surfaces in or on the stationary way, whereby the drawer is held or restrained against movement or released and, at the face of the drawer, a handle is provided through which an operating lever passes for moving the rod to operate the catch.

The handle preferably is of U-shape construction with the operating lever passing longitudinally through it across the drawer face and carrying a push button at its one end adjacent a leg of the handle in such a position that the push button is accessible to a person's thumb when the person's fingers grasp the handle.

Other details and features of the invention are disclosed in the drawings forming part hereof in which the invention is illustrated in relation to a surgical table of the kind used for genitourinary purposes.

In the drawings:

Figure 1 is a perspective view of the table having a drawer and the holding and releasing mechanism therefor built into it.

Figure 2 is a fragmentary side elevation of the drawer and holding and releasing structure.

Figure 3 is a sectional plan view.

Figure 4 is a sectional elevation illustrating the pivotal mounting of the operating rod taken on the line 4—4 of Figure 3.

Figure 5 is a fragmentary sectional elevation taken on the line 5—5 of Figure 2 and illustrates the suspension of the drawer in a stationary way provided for it.

The table illustrated in Figure 1 comprises a standard or base of the usual type, indicated generally at 1, and a table 2 which, being pivotally hung through bearings 3, may be tilted in the usual manner as by operation of the hand wheel 4.

The drawer to which the present invention is addressed is designated 5. It may be seen that it is necessary to hold the drawer positively from sliding in its ways especially when the table is in a tilted position. It is sometimes necessary that the drawer be part way open to serve as a catch basin during operations; at such times the drawer must be held positively lest it slide open to interfere with the surgeon; sometimes the drawer is closed at the start of an operation and must be opened as the operation progresses. For these reasons it is desirable that the holding mechanism may be released in a convenient manner by the surgeon.

For this purpose the drawer 5, which is a conventional box-shaped unit having side walls 6, a bottom wall 7, inner end wall 8, and a drawer front 9, is suspended from the table upon stationary supports designated generally at 10. In the preferred construction, runner members 11 extend outwardly from the respective side walls 6 of the drawer in parallel relationship to ride within stationary ways 12. These in turn are fastened to and supported by Z bar elements 13, one for each side of the drawer, and the latter are carried by rail members 14 depending from the table 2. In the preferred construction just described, the stationary ways 12 are channel members facing the drawer while runners 11 face and fit within the channels 12 to form a cavity therewith in which a catch rod 15 is located. As shown best in Figure 2, the runners 11 are located on the drawer sides at an incline such that the drawer bottom is inclined for drainage purposes when the table is in a horizontal position.

As shown in Figures 3 and 4, catch rod 15 is a lever extending longitudinally of the drawer within channel 11, with its lower surface resting on the inside face of the bottom portion of the runner channel. The lever is pivotally mounted on the pivot 16 as, for instance, intermediate the upper and the lower members of the channel 11. If desirable, a plate 17 may be fastened to a face

of the catch lever at the area adjacent the pivot point to prevent undue weakening of the lever through passage of the pivot bore and to re-enforce the rod against bending.

The lever 15, through the pivotal mounting just described, is movable in unison with the drawer and is also movable on its own pivotal axis. The forward portion of the lever extends slightly beyond the drawer front as at 18 and, at the opposite side of the pivotal axis, a leaf spring 19 is fastened to the lever with its free end pressing against a face thereof, thereby providing a yieldable urge upon the lever. The rearward portion of the catch lever is provided with a catch pin 20 which is arranged to engage any one of a number of notches or apertures 21 provided in the stationary way 12 such that when the catch pin enters a given aperture or notch the drawer is withheld against all sliding movement. In place of employing notches or apertures to constitute the positive restraining elements a friction grip or clutch may be employed.

At the face of the drawer a handle 22 is located. This handle preferably is of U-shape and is held in spaced relationship from the drawer front through legs 23. The handle 22 has a bore extending longitudinally through it and a releasing rod 24 passes through the bore with its one end being fastened to the catch lever 15 at the projecting portion 18 of it, while the opposite end carries a press button 25 adjacent a leg 23. The press button preferably is located at the left-hand side of the handle so that a doctor placing the fingers of his left hand under the handle from the underside has his thumb positioned for engagement with the button 25 or, conversely, placing the fingers of his right hand up over the handle has his right hand thumb positioned for engagement with the button.

The releasing rod emerging from the end of the handle 22 is bent down along the adjacent leg 23 and then bent again to lie along the drawer front 9; it is connected to the catch lever through a threaded counterturned portion in a conventional manner, a shoulder formed at the counterturned portion embracing one face of the operating lever while a nut 26 is carried by the rod at the other side of the lever to clamp the lever to the rod.

Leaf spring 19 urges catch pin 20 toward the surface in which the apertures 21 are located; in other words, it tends to move the catch lever toward a position in which the drawer will be caught as soon as the pin 20 is aligned with an aperture. To release the drawer the operator presses button 25 in a direction longitudinally of the handle and thereby pivotally shifts the catch rod to withdraw pin 20 from an aperture in which it may be engaged to free the drawer. It is to be observed that a momentary pressing of the button

coupled with a simultaneously partial outward or inward movement of the drawer withdraws and displaces pin 20 from a holding position and the forward face of the pin may then ride upon the stationary way until it finds another aperture or notch within which to seat itself.

Having described my invention, I claim:

1. The combination with a drawer having a front face, of a lever extending longitudinally of the drawer and pivotally mounted thereon at a point intermediate the ends of the drawer, a handle mounted on said drawer front, an operating rod for actuating said lever passing through said handle into side connection with said lever at one side of the pivotal axis thereof, and catch means for said drawer mounted on the lever at the other side of said pivotal axis.

2. The combination with a drawer having side walls and a bottom and front end of a runner extending longitudinally of the drawer, a lever extending longitudinally of said runner and pivotally mounted thereon at a point intermediate the ends of the drawer, a handle mounted on the front end of the drawer, an operating rod extending across the front of the drawer from said lever through said handle at one side of said pivot, means accessible from the handle for operating said rod, and means carried by said lever at the opposite side of said pivot constituting a catch for engaging a stationary drawer guide.

3. The combination with a drawer having a front end and a side wall, of a runner extending longitudinally along the side wall for supporting said drawer from a stationary way, a lever pivotally mounted intermediate its ends upon said runner, a handle mounted on said drawer front, an operating rod extending across said drawer through said handle into engagement with said lever for pivotally operating it, the said lever at a point on the other side of its pivotal axis having means constituting a catch for cooperating with a stationary way on which said runner is supported.

4. The combination, with a drawer having side walls and a front end, of runners extending longitudinally of said drawer on said side walls, one of said runners constituting a channel member, a lever pivotally mounted on said channel member at a point intermediate the ends of said drawer, means for biasing said lever toward one position, a handle on said drawer front, an operating rod extending across said drawer front and through said handle, said rod being connected with said lever for moving it against said biasing means, and catch means carried by said lever at the side of its pivot point which is opposite said operating rod for engaging a stationary way to constitute therewith a drawer catch.

SAMUEL C. HOLSTON.