

(No Model.)

3 Sheets—Sheet 1.

P. H. SMITH.
TRUNK.

No. 604,430.

Patented May 24, 1898.

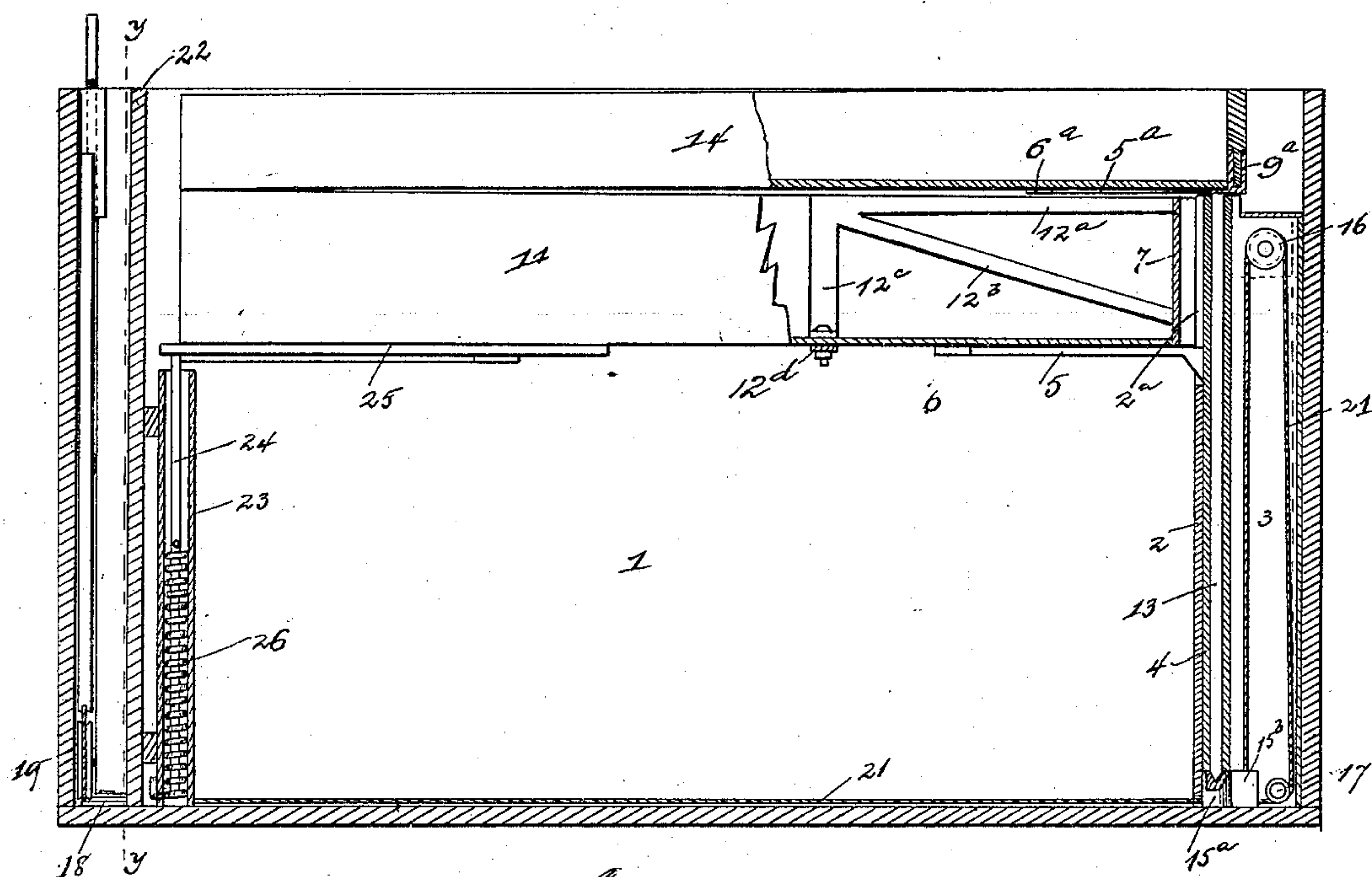


Fig. 1

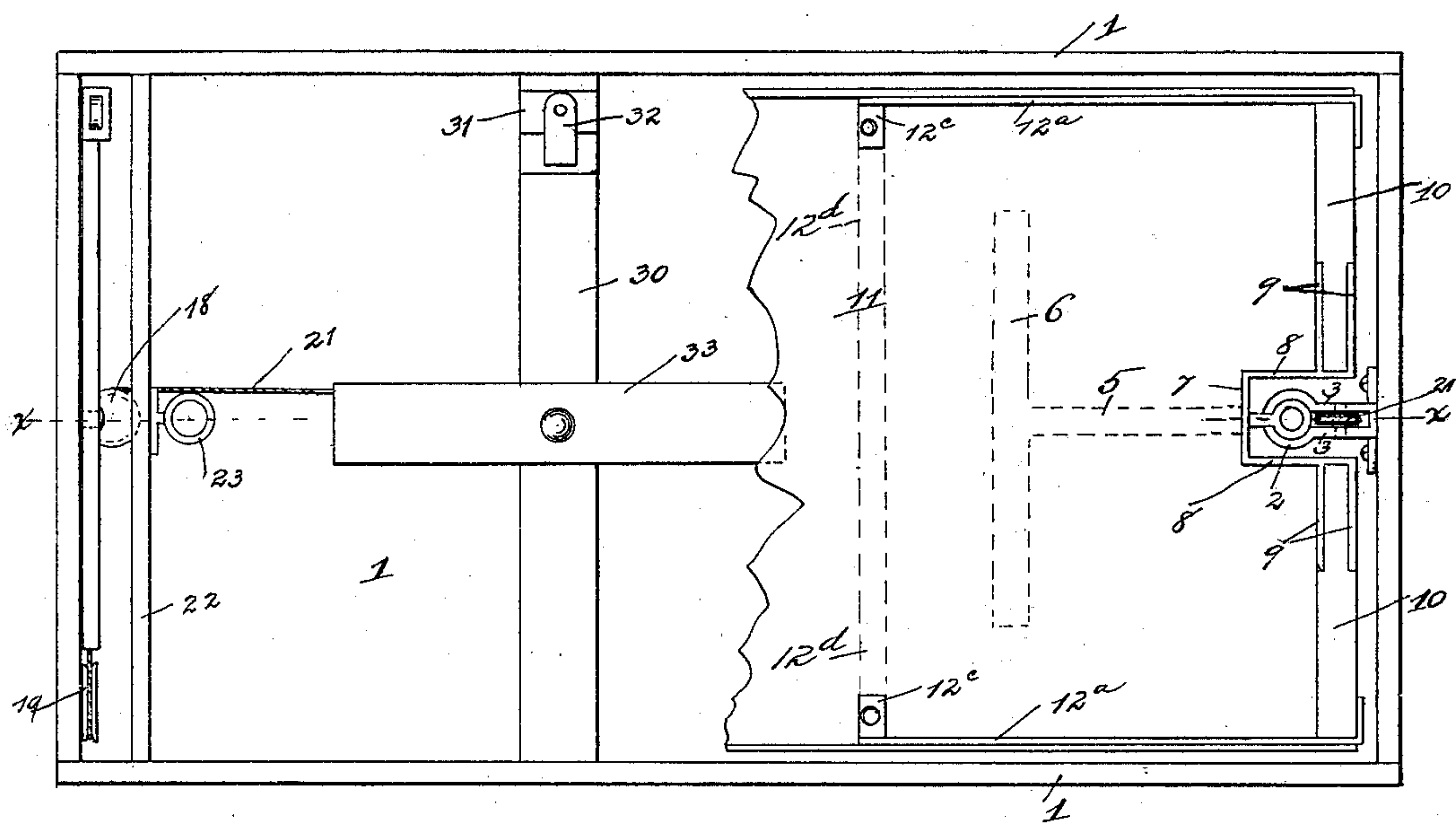


Fig. 2

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Finchel & Finchel.

(No Model.)

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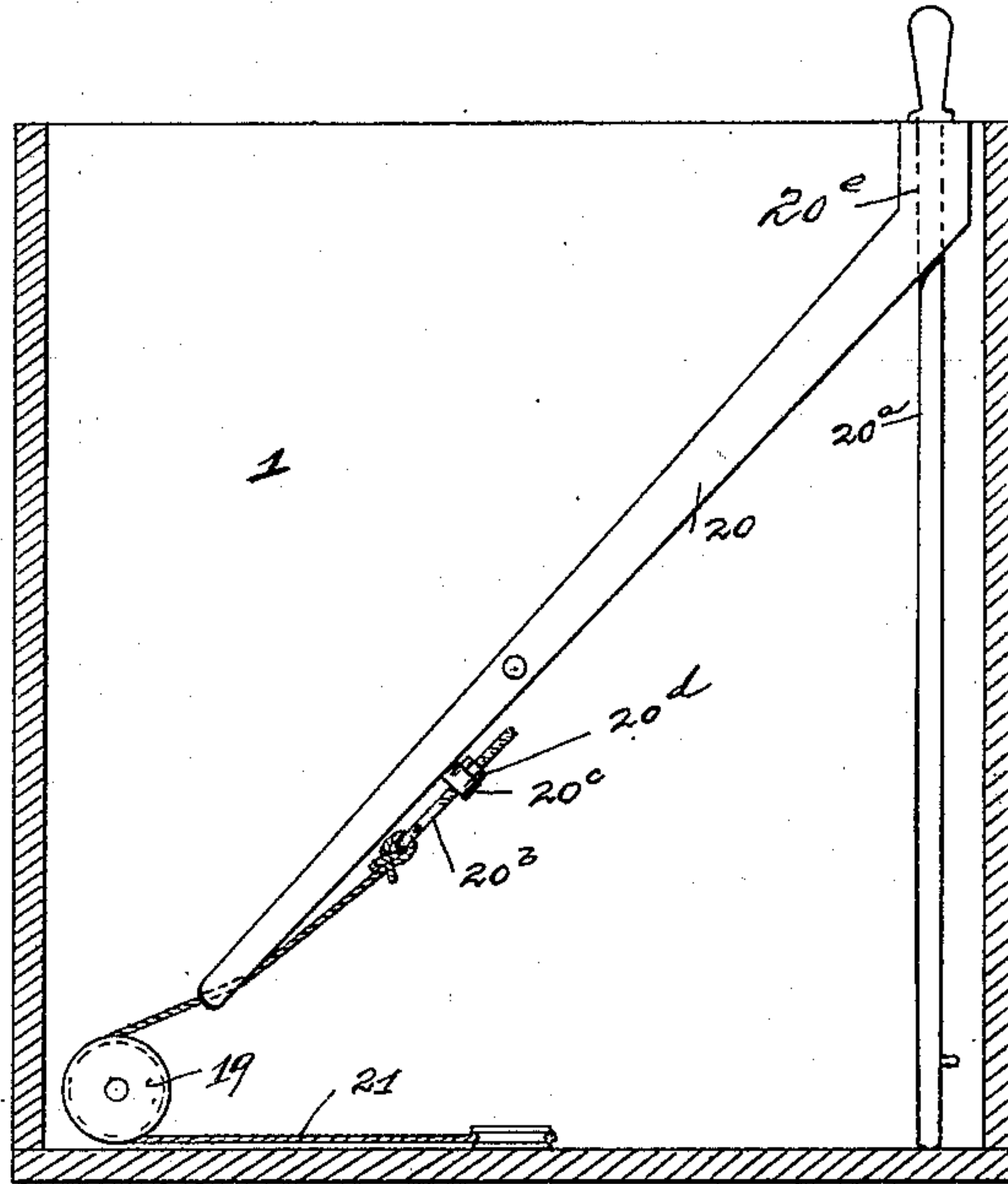


Fig. 3.

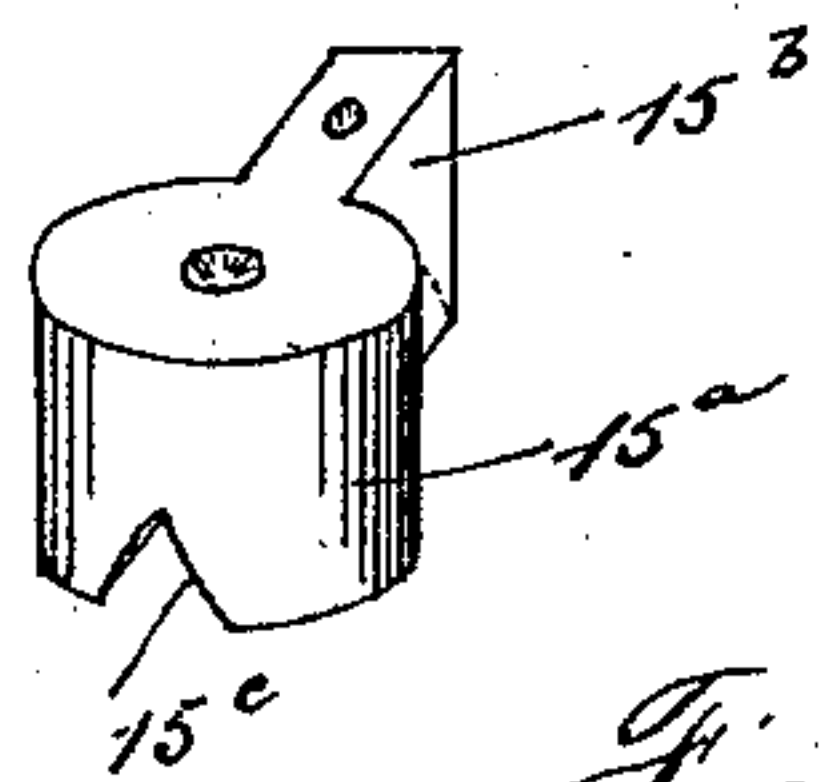


Fig. 5.

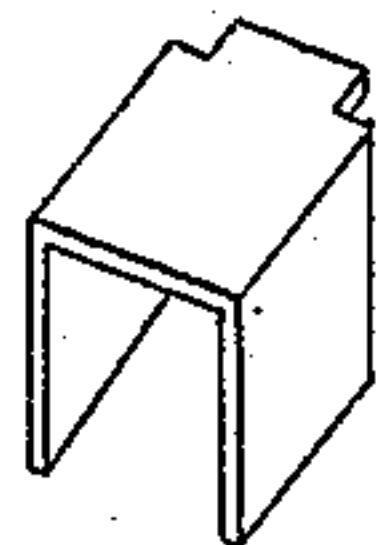


Fig. 6.

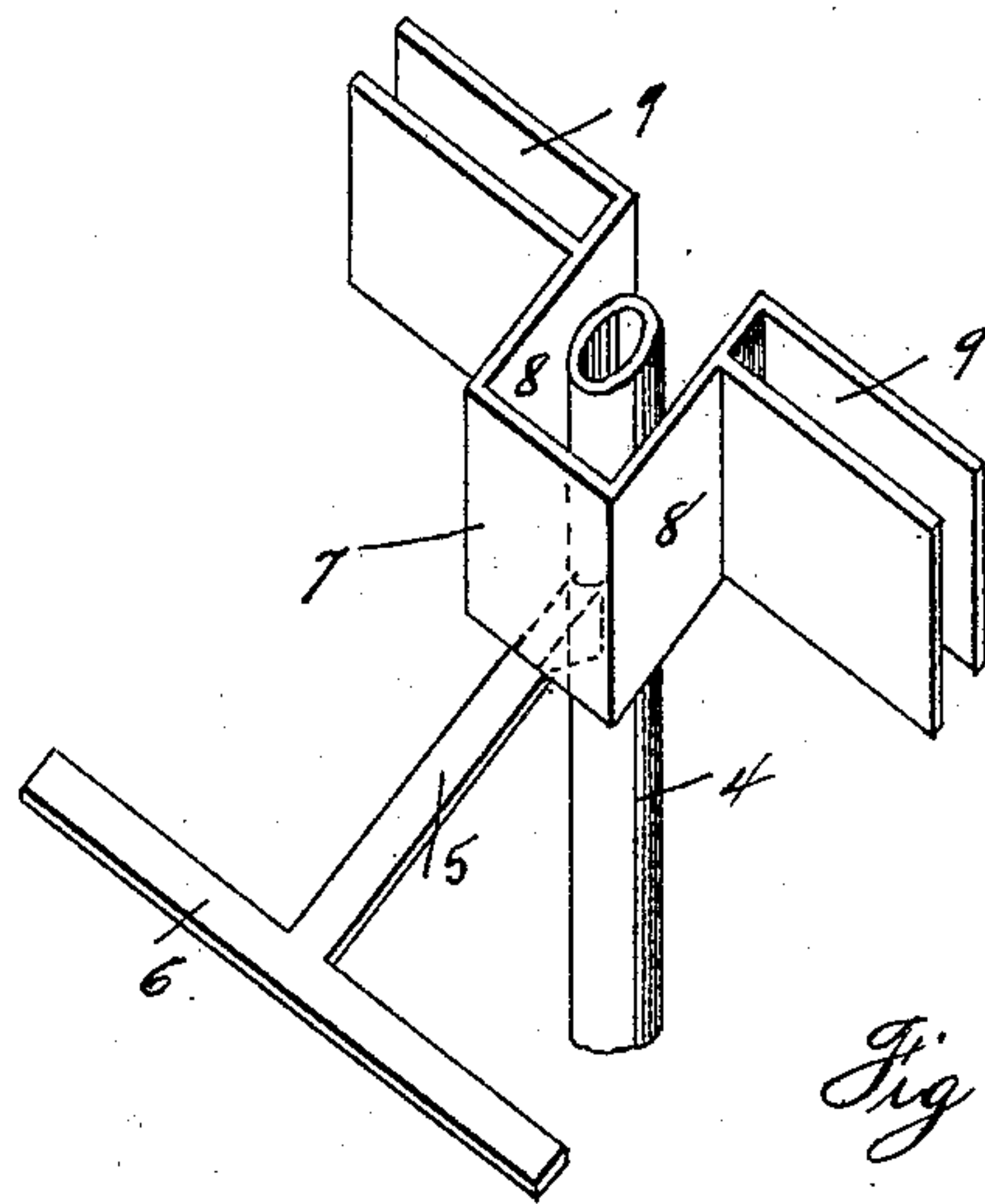


Fig. 4.

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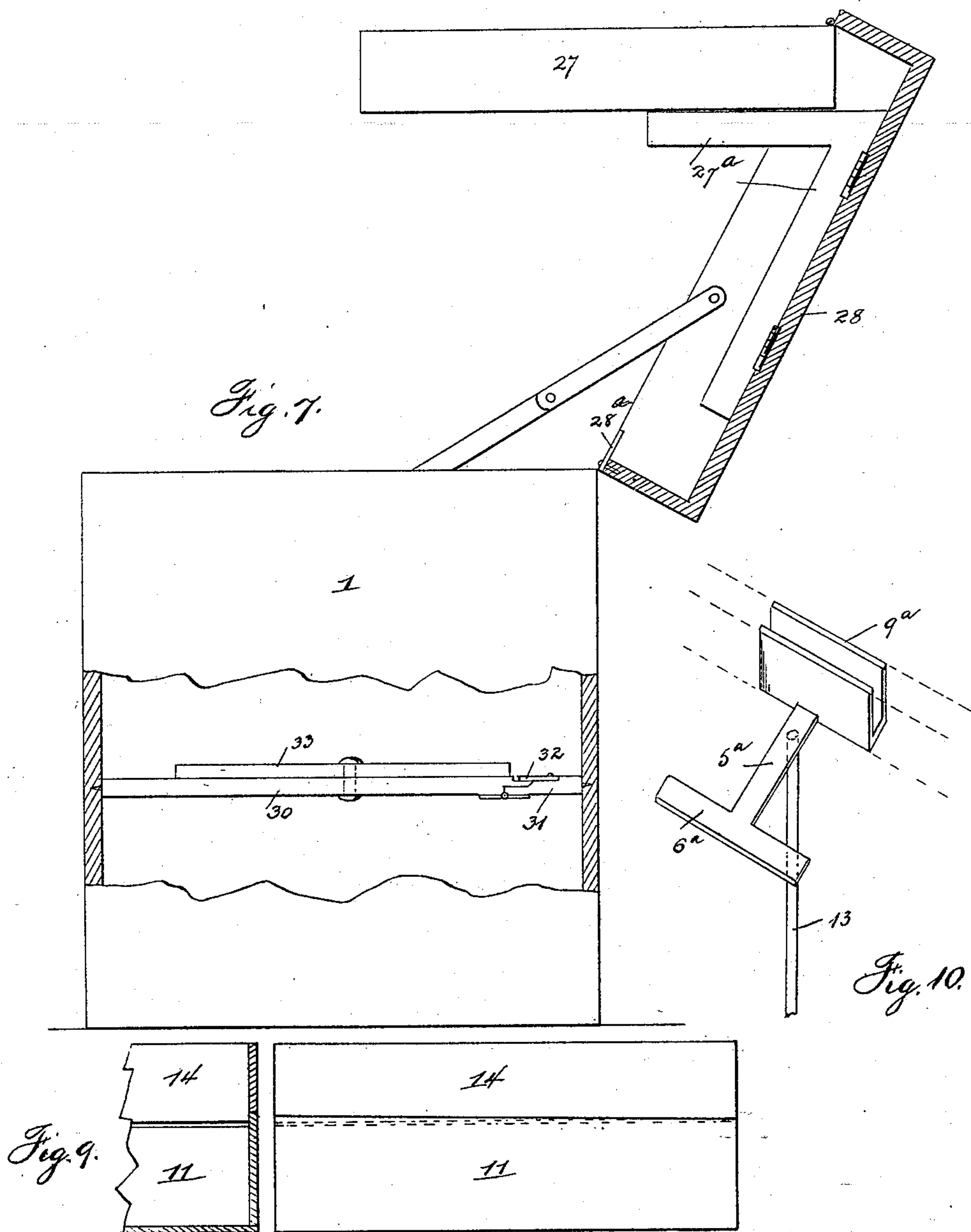
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3 Sheets—Sheet 3.

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Fig. 8.

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UNITED STATES PATENT OFFICE.

PAUL H. SMITH, OF COLUMBUS, OHIO.

TRUNK.

SPECIFICATION forming part of Letters Patent No. 604,430, dated May 24, 1898.

Application filed April 2, 1897. Serial No. 630,400. (No model.)

To all whom it may concern:

Be it known that I, PAUL H. SMITH, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Trunks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to make improvements upon the construction of trunks shown and described in my former patents, No. 580,193, dated April 6, 1897, and No. 563,624, dated July 7, 1896.

My invention consists in the various features of construction and combinations of parts hereinafter set forth and claimed; but I do not wish it understood that I confine myself to the precise form and arrangements of parts shown, as they are susceptible of variation without departing from the scope of my invention.

Figure 1 is a partly-sectional view taken centrally and longitudinally on the vertical plane indicated by the lines *x x*, Fig. 2. Fig. 2 is a top plan view, the upper tray and the table being removed and the lower tray being broken away at the left-hand end. This view also illustrates in plan view my improved packer in position in the trunk. Fig. 3 is a transverse sectional view taken on a plane indicated by the line *y y* of Fig. 1, illustrating the lever for elevating the trays. Fig. 4 is a detail perspective illustrating the construction at the upper end of the tube that supports the lower tray. Fig. 5 is a detail perspective view illustrating the block that supports the spindle of the upper tray. Fig. 6 is a detail perspective view showing the cap that covers the opening at the back of the main tray-supporting tube. Fig. 7 is an end elevation, partially in section, illustrating my improved mode of sustaining in horizontal position the tray that is hinged in the lid of the trunk and also a side elevation of my improved packer in position in the trunk. Figs. 8 and 9 are end elevation and sectional views, respectively, showing the construction of the left-hand ends of the trays; and Fig. 10 is a detail perspective illustrating the construc-

tion of the head of the spindle or rod that supports the upper tray.

1 designates the body of the trunk, which is of substantially the usual form. At the middle of one end of the trunk, preferably the right-hand end, as shown, I secure vertically the main tray-supporting tube 2. This tube is longitudinally open at its front and back and is formed as a box or case, with walls 3 3 extending parallel on the tube on either side of the opening at the back. The walls 3 are provided with laterally-projecting ears by which the device is fastened to the end of the trunk. Within the main tube 2, and when sufficiently elevated turning freely therein, is another tube 4, that has extending horizontally from its upper part an arm 5, at the end of which is a cross-piece 6, upon which the tray rests. Extending perpendicularly upward from the arm 5 is a metallic frame consisting of the wall 7 and the rearwardly-extending walls 8 8, from which extend laterally in opposite directions the forks 9 9.

The wooden pieces 10 10, constituting the right-hand end wall of the lower tray 11, are tenoned to fit and be secured in these forks, as clearly shown in Fig. 2. The tray construction is further strengthened by metallic braces, each consisting of a horizontally-extending portion 12^a, diagonally-extending portion 12^b, and vertically-extending portion 12^c. The vertical portion of this brace has its lower end bent inward and fastened to the upper side of the bottom of the tray, in connection with a strip 12^d across the under side thereof, and the horizontal portion is bent around the edge of and fastened to the end board, while the diagonal portion extends down to the corner of the tray, all substantially as indicated in the drawings. The horizontal arm 5 passes through an opening or slot 2^a in the upper part of the tube 2.

Within the tube 4 and turning freely therein is a rod or spindle 13, that supports at its upper end a second tray 14, arranged above the tray 11. Both the trays 11 and 14 are about the length of the trunk. The rod or spindle 13 has at its upper end the horizontal bar 5^a, at the inner end of which is a cross-piece 6^a, that supports the bottom of the upper tray, and at the other end the vertically-standing

fork 9^a, the parts of which fit in tenons on opposite sides of the end piece of said tray, as indicated in Fig. 10.

The lower ends of the tube 4 and spindle 13 rest upon a block of substantially the form shown in Fig. 5—that is, having a cylindrical part 15^a, that fits in the tube 2, and a shank or plane sided part 15^b, that passes through the opening at the back of the tube 2. The upper part of the cylindrical part of the block constitutes a bearing to receive the lower end of the tube 4 and a socket-bearing to receive the conical point of the lower end of the rod or spindle 13, and the under side of the block is made with a V or other shaped opening 15^c, adapted for the passage of a cord, as hereinafter explained.

Between the sides of the walls 3 3 are journaled two pulleys 16 and 17, one being in the upper part and one in the lower. A suitable cord 21 (preferably a small wire rope) is attached to part 15^b of the block, passed upward over the pulley 16, down around and under the pulley 17, and thence through the opening at the under side of the block 15 and across the bottom of the trunk to the opposite or left-hand end of the trunk. At this end of the trunk the cord or rope is passed around a horizontally-arranged pulley 18, and thence around a vertically-arranged pulley or pulleys 19 to the lever 20. This lever 20, which is clearly shown in Fig. 3, is pivoted to the end piece of the trunk and has at its upper end a socket 20^c, through which is passed a handled bar 20^a, that may be raised to form an extension of the lever 20 to give greater length and therefore power to the lever and at the same time permit the part 20^a to be placed within the trunk without disconnecting it from the lever. The cord 21 may be attached either directly to the lever or to a "tension device" consisting of an adjustable screw-eye 20^b, passed through an ear 20^c on the lever and held by a nut 20^d. By this means the desired tautness of the rope may be precisely obtained.

The left-hand end of the trunk is furnished with a vertical partition 22 to prevent interference with the operation of the lever and pulleys and cords by things contained in the trunk proper. Upon the right hand or inner side of this partition I secure a tube 23 to receive the spindle or rod 24, that supports at its upper end a table 25. A coil-spring 26, encircling the spindle or rod 24, has its lower end fastened in the tube and its upper end to the rod or spindle, so that normally said spring shall lift said table up beyond the upper edge of the trunk and turn the same outward beyond the end of the trunk. In other words, when the table is turned inward and pressed down into the trunk the spring is placed under lateral tension and compressed, and therefore, when the table is free, tends to lift the same and turn it outward.

The left-hand ends of the trays 11 and 14

are made with inclined edges or are provided with inclined lips, as indicated in Figs. 8 and 9, so that the upper tray may be easily turned off the lower, and so that when the upper one is turned upon the lower one the latter shall afford a support for the former.

In Fig. 7 I have shown my improved mode of supporting a tray in the lid of the trunk. As in my former patent, the tray (designated herein as 27) is hinged to the front edge of the lid 28, and upon the lid itself I hinge one or more angle-brackets 27^a, that when turned out support the tray in horizontal position and when turned down flat against the under side of the lid permit the tray to be folded into the lid. When this tray has been folded into the lid, it may be held there by a small turn-button 28.

My improved packer consists of a main bar or stick that is divided near its end into two parts 30 and 31, hinged together, substantially as shown, with a turn-button 32 to hold the parts in line when straightened out and a piece or bar 33, pivoted upon the longer part, so as to be capable of being turned to stand crosswise of the hinged part. The main bar has pins projecting at its ends. The packer is put in place by bending the main bar at its hinged end and pressing it down, so that the pins penetrate the sides of the trunk, when it may be locked by turning the button 32 over the joint, as indicated in Fig. 2.

By pulling the lever 20 toward the front of the trunk the block 15^a and 15^b is raised and with it the tube 4 and spindle 13, thus elevating the two trays 11 and 14, and when the trays are raised above the upper edge of the trunk these trays may be swung freely out to one side, in which position easy access may be had not only to the trays themselves, but also to the interior of the trunk. When the trays are thus raised, the table 25 rises automatically, and when the trays are turned off the table the latter swings automatically out to one side.

From the foregoing description it will be obvious that I have produced a trunk that, considering the convenience and capacity it affords, is simple and economical in construction.

What I claim, and desire to secure by Letters Patent, is—

1. In a trunk of the kind described, a tube for containing a tray-holding tube or spindle having a longitudinal opening at its inner side and a longitudinal opening at its outer side, webs or walls projecting from each side of said opening at the outer side, pulleys journaled between said walls, and a cord for raising said tube or spindle passed around said pulleys, substantially as set forth.

2. In a trunk of the kind described, a tube for containing a tray-holding tube or spindle having a longitudinal opening at one side, pulleys journaled in said tube, a block comprising the parts 15^a and 15^b supporting the

tray-holding tube or spindle, a cord attached to said block and passing over said pulleys, substantially as described.

3. In a trunk of the kind described, a tube
5 containing a tray-supporting spindle, a cord and pulleys for elevating said spindle, a lever 20 for operating said cord having one arm connected with the cord and the other arm having a socket 20^e extending through the arm, and a handle-bar movable in said socket so
10 as to form an extension to the lever and to be contained within the trunk without disconnecting said lever and handle, substantially as shown and described.

15 4. In a trunk, the combination with a vertical tube or spindle having a horizontal bar 5^a at its upper end and a fork 9^a, the parts of which fork are adapted to engage the opposite sides of the end board of a tray, substantially as described.
20

5. The combination with a vertical tube or

spindle having a horizontal bar at its upper end, of a frame consisting of a wall 7, rearwardly-extending walls 8, and laterally-extending forks 9, substantially as described. 25

6. In a trunk, a tray having metallic side braces consisting of a horizontal portion 12^a extending from the opposite corners of the end of said tray along the upper edges thereof, a portion 12^b extending diagonally downward toward the lower corners of the tray, vertical portions 12^c extending to the bottom of the tray, and a transverse bar 12^d across the bottom of the tray connecting the lower ends of portions 12^c, substantially as described. 30

In witness whereof I have hereunto affixed my name in the presence of two witnesses. 35

PAUL H. SMITH.

Witnesses:

GEO. M. FINCKEL,
GEO. J. GUNN.