

No. 607,539.

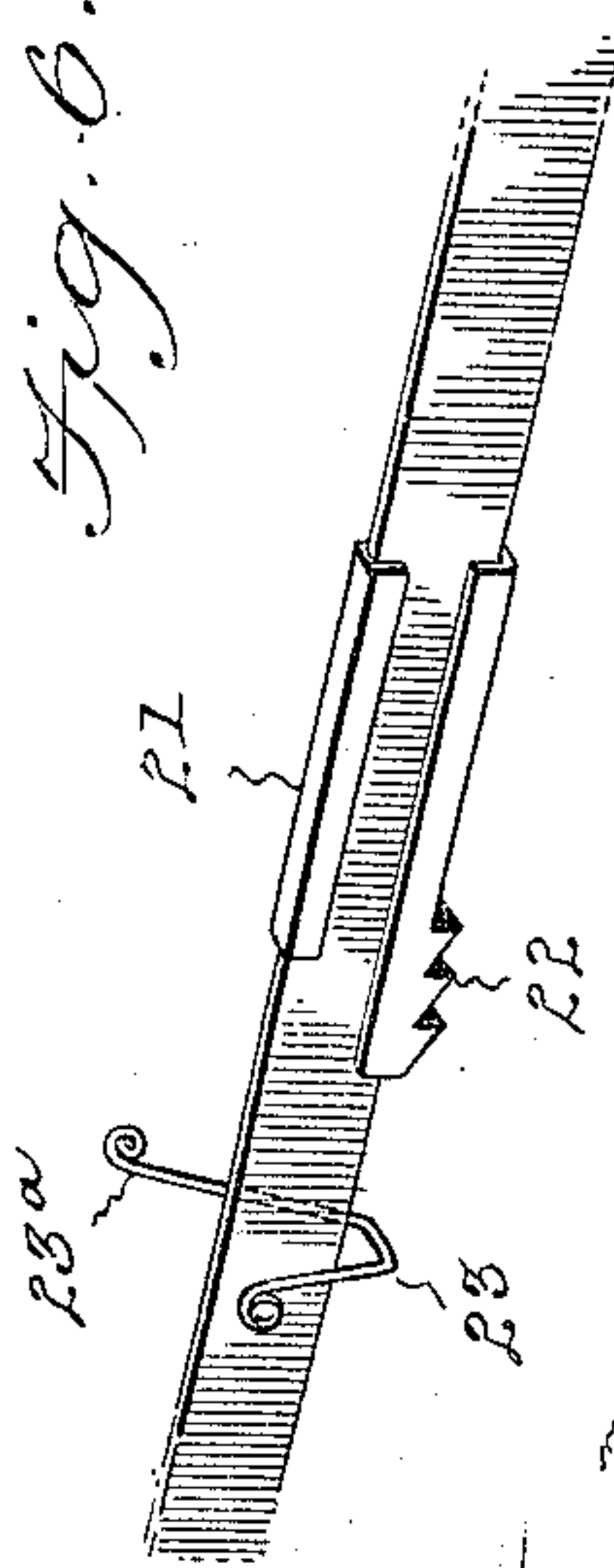
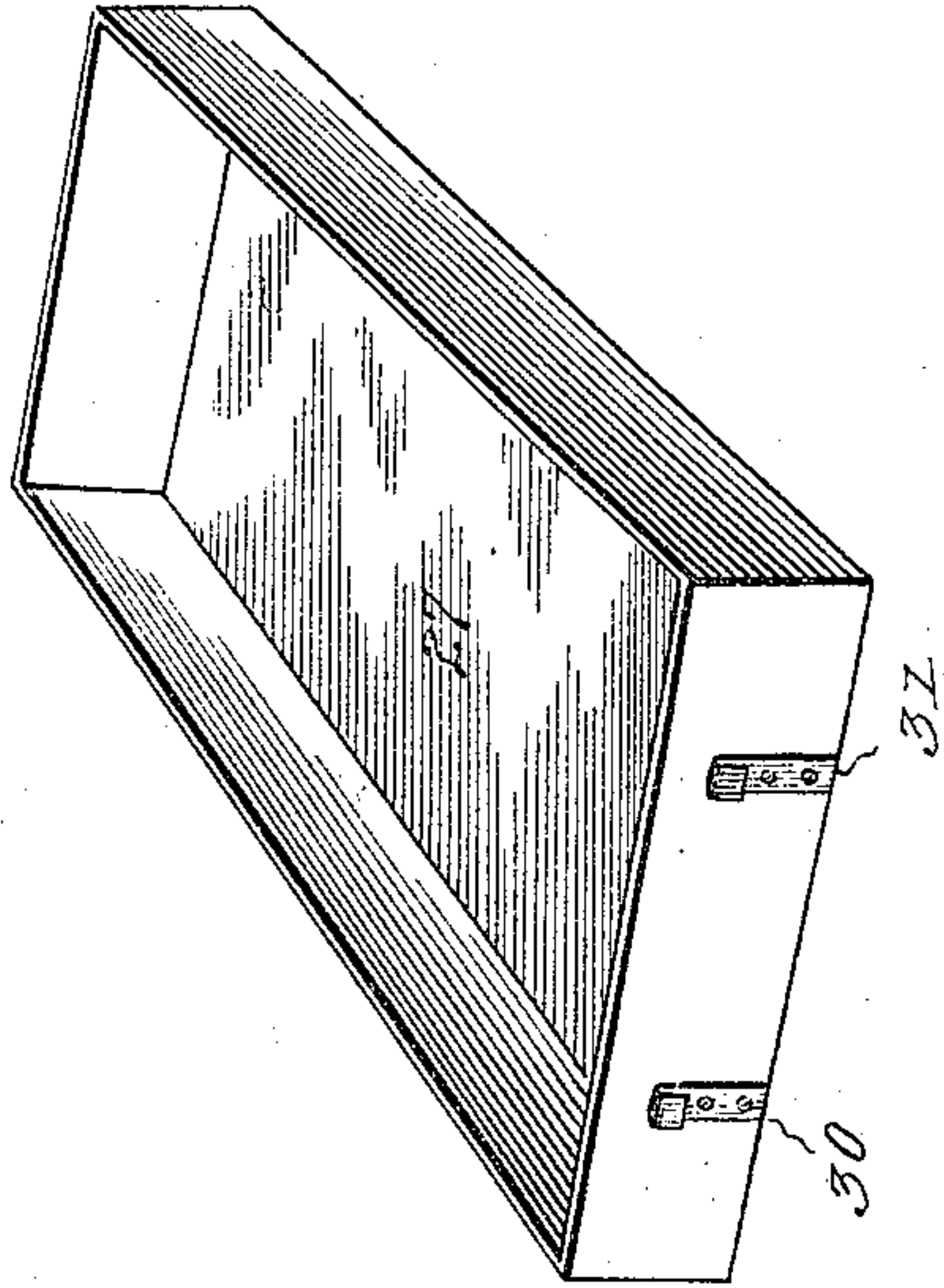
Patented July 19, 1898.

P. R. CAMP.  
TRUNK, SAMPLE CASE, &c.  
(Application filed Dec. 13, 1897.)

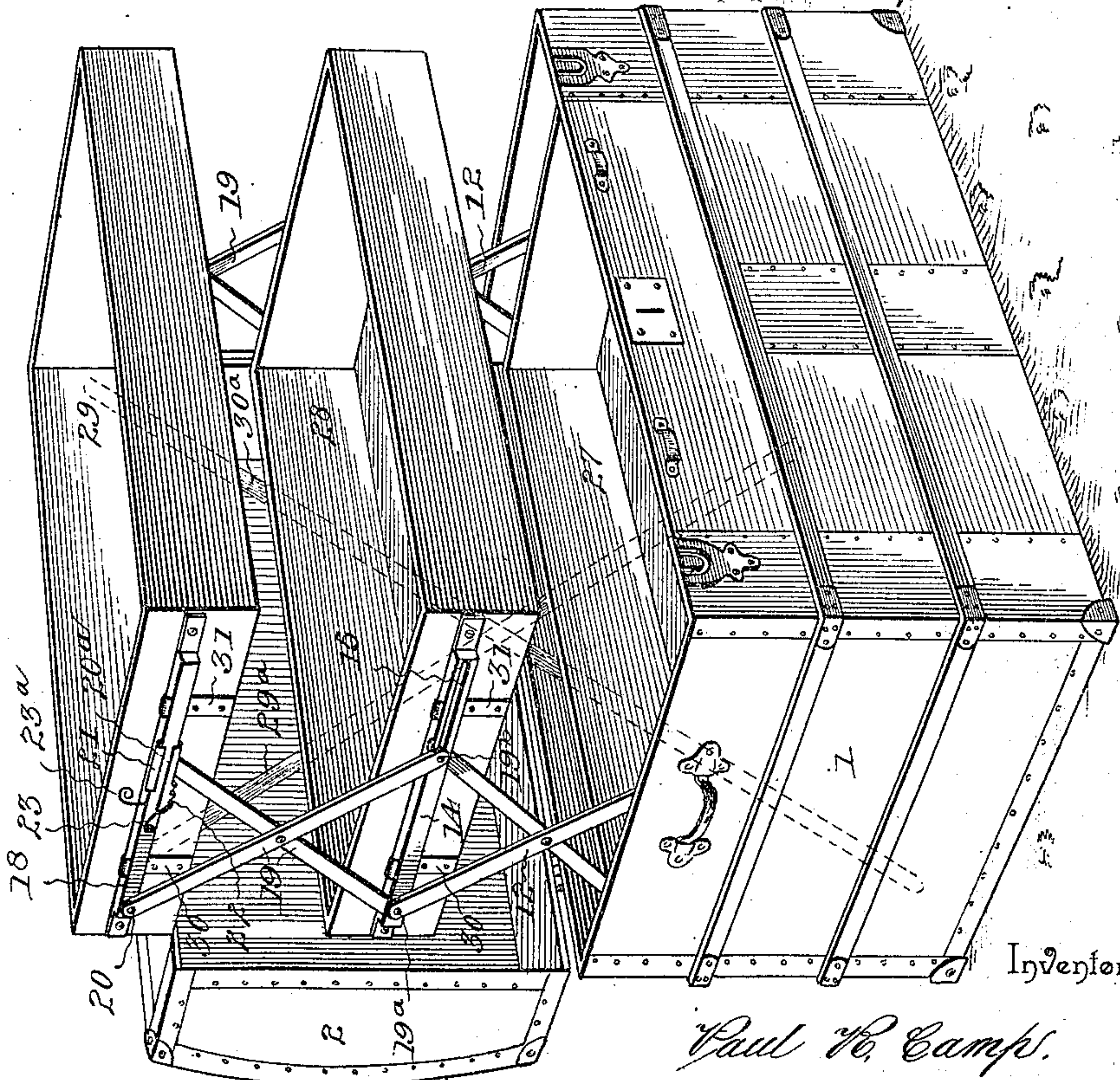
(No Model.)

2 Sheets—Sheet 1.

*Fig. 4.*



*Fig. 1.*



Witnesses

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2 Sheets—Sheet 2.

Fig. 2.

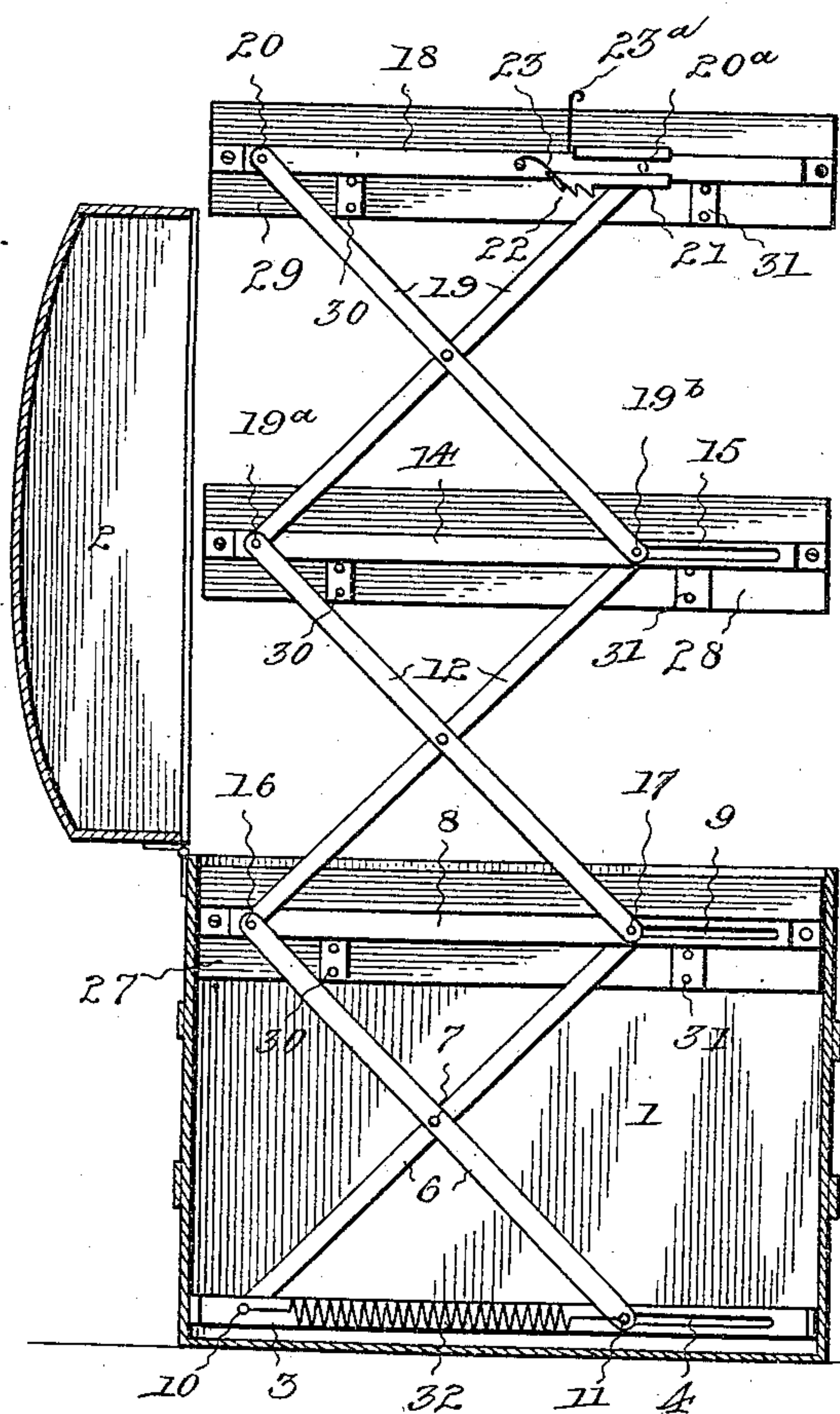


Fig. 5.

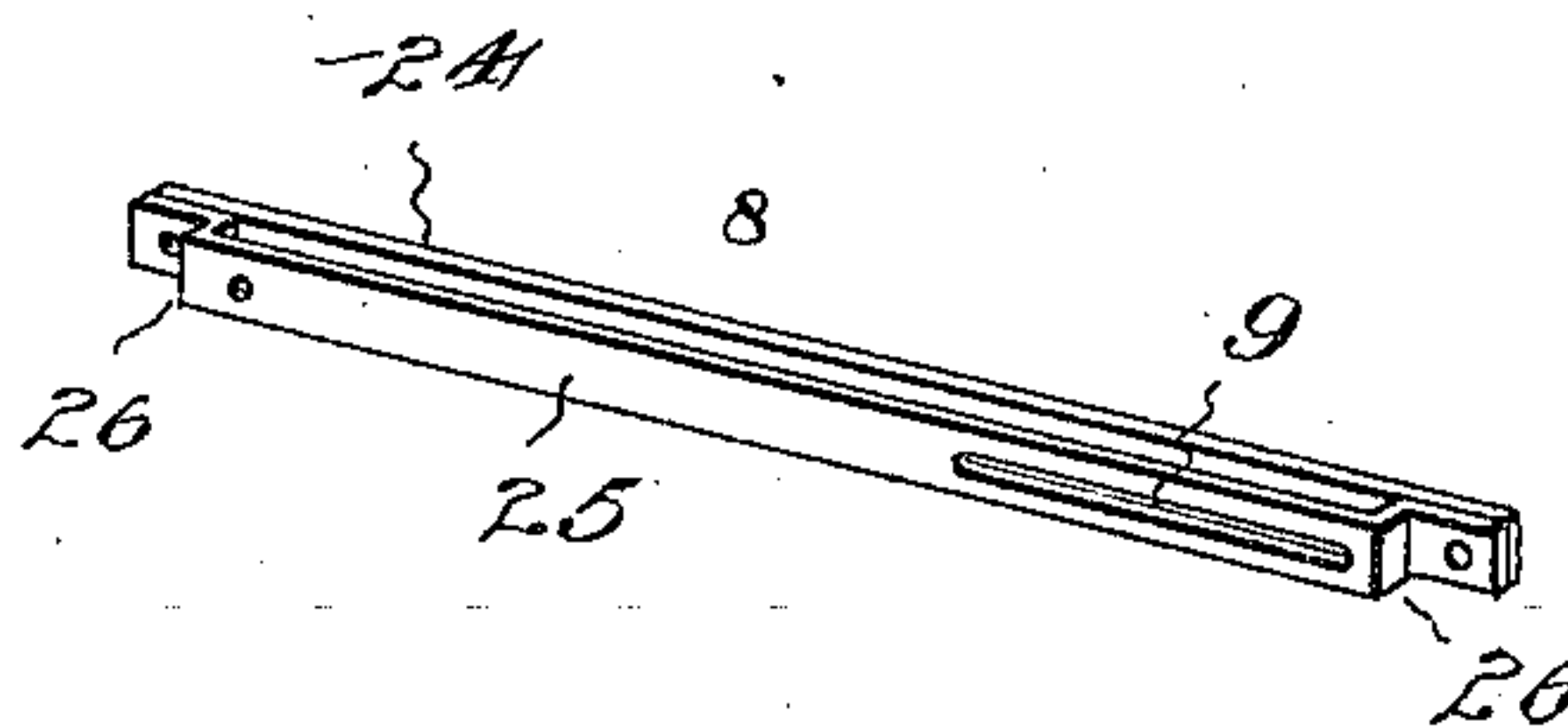
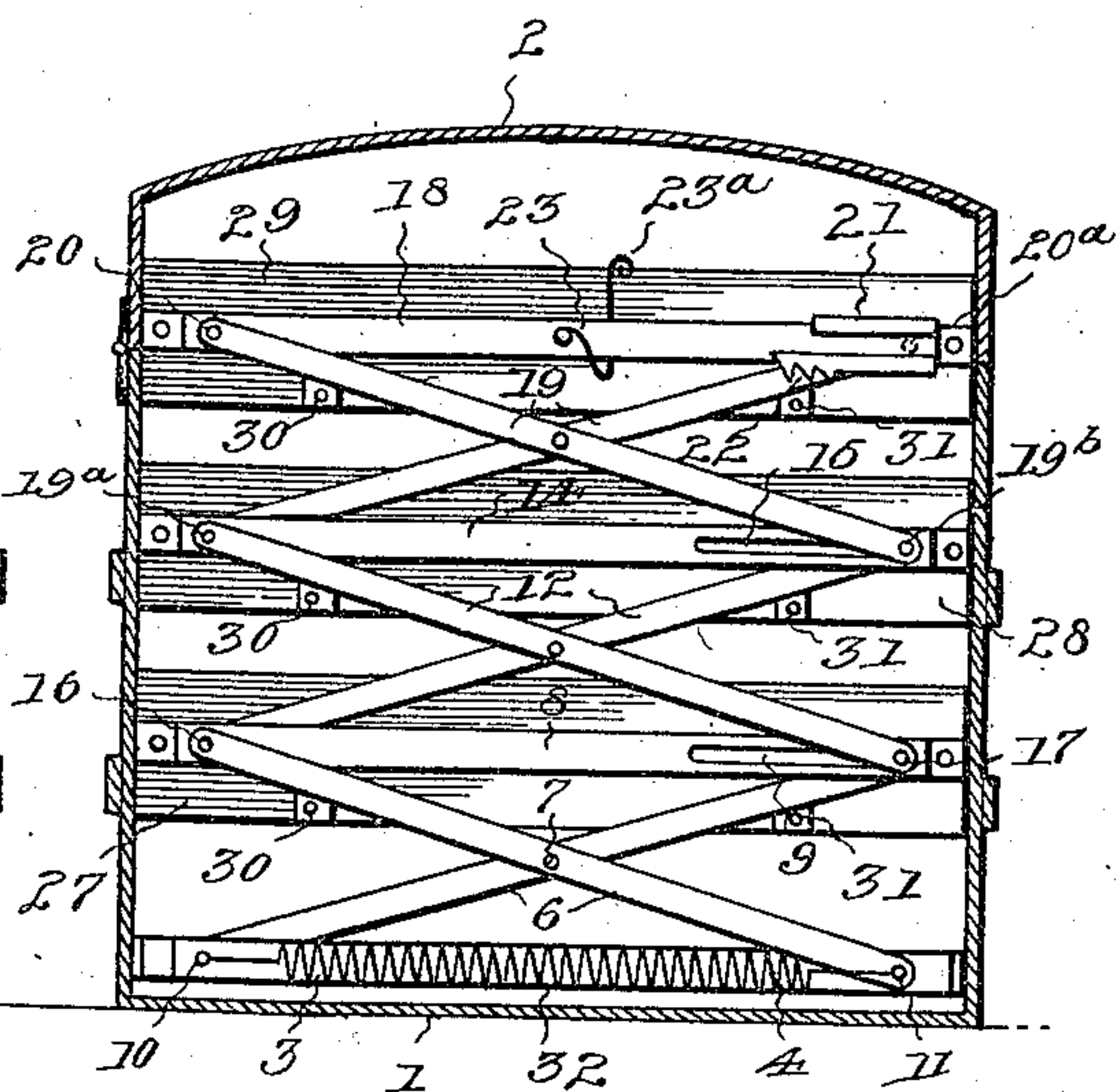


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

PAUL RAGSDALE CAMP, OF MARIETTA, GEORGIA.

## TRUNK, SAMPLE-CASE, &c.

SPECIFICATION forming part of Letters Patent No. 607,539, dated July 19, 1898.

Application filed December 13, 1897. Serial No. 661,633. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL RAGSDALE CAMP, a citizen of the United States, residing at Marietta, in the county of Cobb and State of Georgia, have invented a new and useful Trunk, Sample-Case, &c., of which the following is a specification.

This invention relates to improvements in trunks, sample-cases, or analogous structures for the safe storage and transportation of clothing, goods, and merchandise generally; and the primary object that I have in view is to provide a simple, cheap, and compact construction whereby a series of trays may be folded compactly within a trunk or case and readily lifted therefrom to expose to view the contents of the individual trays. Such lifting of the trays is effected by a slight effort on the part of the operator, and when lifted to their raised positions the trays are spaced apart at suitable distances and may be readily drawn out horizontally to enable access to be obtained to their contents.

Further objects of my invention are to provide means for supporting the trays which may be applied to a trunk or case or constructed or embodied in the construction of new trunks, sample-cases, &c., which will take up a small amount of space in the trunk; to arrange and dispose the parts to the end that all the trays will be adjusted simultaneously with one movement, and that such adjustment shall be limited to a movement in a vertical direction, that the lowermost tray of the series shall be raised to a position substantially even or flush with the top edge of the trunk-body; to provide means to assist in lifting the trays and enable the same to be quickly and easily lowered within the trunk; to provide for the horizontal adjustment of either of the trays independently of every other tray, and also for the ready removal of either tray from the extensible tray-support, and to provide for the secure locking of the trays in their raised positions.

With these ends in view my invention consists in the novel combination of elements and in the construction and arrangement of parts, which will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the same in the accom-

panying drawings, forming part of this specification, and in which—

Figure 1 is a perspective view of a trunk with my improved tray-supporting device applied thereto and illustrating the trays in their raised or extended positions. Fig. 2 is a vertical sectional elevation through the trunk and the trays in the position shown by Fig. 1. Fig. 3 is a vertical sectional elevation through the trunk with the trays and the tray-support collapsed or lowered within the limits of the trunk, showing the compact arrangement of the series of trays housed entirely within the body of the trunk. Fig. 4 is a detail perspective view of one of the trays. Fig. 5 is a detail perspective view of one of the tray-carrying bars removed from the lazy-tongs. Fig. 6 is a detail view of the locking-slide and the spring-catch adapted to coact with said slide for holding the lazy-tongs support and the trays in their raised positions.

Like numerals of reference designate like and corresponding parts in each of the several figures of the drawings.

1 designates a trunk, sample-case, or other structure provided with a hinged lid 2, adapted to close upon the body thereof. This structure 1 may be of any suitable character employed for the purpose of packing and transporting goods and merchandise, as well as clothing, and as no novelty for the structure is claimed herein I have not deemed it necessary to particularly illustrate or describe the construction thereof, as I am aware that my invention can be embodied in connection with trunks, sample-cases, and the like used generally for storage or transportation of merchandise.

At the ends of the trunk or other structure 1 I employ a pair of fixed horizontal bars 3, one of which is situated adjacent to each end wall of the trunk and close to the bottom thereof. Each end bar 3 is preferably offset near its ends to provide short arms or lugs which may be applied directly against the front and back walls of the trunk and fastened rigidly thereto in a suitable way—as, for instance, by screws or nails—and each end bar is further provided with a longitudinal slot 4.

At each end of the trunk or other structure



I employ two pairs of lower links 6, which are pivotally connected together, as at 7, and with these lower links are combined a pair of carrying-bars 8 for the lower tray, each of said carrying-bars having a longitudinal slot 9. The members 6 of each pair of lower links are attached by the fulcrums 10 11 to the fixed bar 3, adjacent thereto, and one link 6 is connected by a fixed fulcrum 10 to said fixed bar 3, while the other fulcrum 11 constitutes a sliding fulcrum for the other link 6, such sliding fulcrum operating in connection with the longitudinal slot 4 of the fixed bar. It will thus be seen that the lower pair of links are pivoted, respectively, by fixed and sliding fulcrums to the lower fixed bar 3 within the trunk.

In connection with the carrying-bar 8 for the lower tray and the lower pair of links 6 I employ the fixed and sliding fulcrums 16 17, and said fulcrums 16 17 for the lower pair of links are common to the intermediate pair of links 12, which sustain the carrying-bar 14 for the middle tray, each carrying-bar 14 having a longitudinal slot 15. The fixed fulcrum 16 unites the links 6 and 12 to the lower carrying-bar 8, while the sliding fulcrum 17 connects the lower and intermediate links to said carrying-bar 8 in a manner to slide or travel in the slot 9 thereof.

18 designates the carrying-bar for the upper tray, which is sustained in operative relation to the carrying-bars 8 14 for the lower and intermediate trays by the employment of an upper pair of links 19. These links 19 have their lower ends pivoted in connection with the upper ends of the links 12 and the carrying-bar 14 of the intermediate tray by the fixed and sliding fulcrums 19<sup>a</sup> 19<sup>b</sup>. The fixed fulcrum 19<sup>a</sup> unites two of the links 12 19 to one end of the intermediate-tray-carrying bar 14, while the sliding fulcrum 19<sup>b</sup> unites the adjacent ends of the other links 12 19 to the slotted part 15 of said carrying-bar 14 for the intermediate tray, the fulcrum 19<sup>b</sup> being adapted to slide or travel in said slot 15. The upper links 19 for the carrying-bar 18 of the upper tray are united by fixed and slidable fulcrums 20 20<sup>a</sup> to said carrying-bar 18, the fixed fulcrum 20 being attached directly to one of the links 19 and said carrying-bar 18, while the slidable fulcrum 20<sup>a</sup> is mounted on the slide 21, which is adapted to play in a horizontal direction back and forth on the carrying-bar 18 of the upper tray.

From the foregoing description it will be apparent that I have provided three pairs of links at each end of the trunk-body and the series of trays, and of these links one pair has one member pivoted to the fixed bar 3 on the trunk-body and to a carrying-bar for the tray; while the other member of each pair is slidably fitted to the fixed bar 3 and the series of tray-supporting bars. These several pairs of links are duplicated at each end of the trunk, and the series of trays and the links of each pair are of equal length, so as to main-

tain the bars 3, 8, 14, and 18 in parallel relation to each other without reference to the position of the trays with relation to the trunk-body. The described construction of the several pairs of links constitutes a lazy-tongs support for the series of trays, and by mounting each pair of links to have a sliding movement on the fixed tray-carrying bars I am able to expand or contract the lazy-tongs support in a vertical direction, such movement of the lazy-tongs support being essentially and necessarily restricted to a vertical direction only, for the purpose of having all of the bars for supporting the trays parallel to each other, so that the trays will not tilt or be upset in the raising or lowering movement of the lazy-tongs support.

The horizontally-movable slide 21 is constructed in the form of a clasp to embrace the upper carrying-bar 18 for the upper tray, and this clasp-shaped slide is provided on its lower edge with a series of ratchet-teeth 22, with which is adapted to engage a spring-catch 23. As shown, I prefer to make this spring-catch of a single piece of wire having one end fastened rigidly to the carrying-bar 18 for the upper tray, and this spring-wire catch is bent around said carrying-bar 18 to have its looped end lie in the path of the ratchet-teeth 22 of said slide 21, the free end 23<sup>a</sup> of the catch forming a handle or finger-piece, which projects above the carrying-bar 18, so as to be readily accessible to the operator when it is desired to depress the catch from engagement with the slide.

In the practical construction of the tray-carrying bars 8 and 14 I prefer to make the same in two pieces of metal, as shown by Fig. 5, one member or part of each bar consisting of a solid flat continuous piece of metal 24 and the other member, 25, comprising a bar offset at 26 and united at its ends rigidly to the solid flat member 24, the offset member 25 being provided with the longitudinal slot for the reception of the slidable fulcrum.

The described construction of the tray-carrying bars provides for the reception of the adjacent ends of the two pairs of links forming in part the lazy-tongs extensible structure, and such construction of the carrying-bars provides an exceedingly simple and durable device adapted to sustain the weight of the tray and its load.

In the drawings I have shown my improvement as equipped with a series of three trays 27, 28, and 29, indicating, respectively, the lower, intermediate, and top trays; but it will be understood that I do not restrict myself to the number of trays which may be used in connection with the lazy-tongs support, because it is evident that the number of trays employed may be varied in accordance with the desired capacity of the trunk or other structure.

One of the important features of my invention consists in mounting each tray on its pair of carrying-bars in a manner to permit



of the ready removal of the tray from the lazy-tongs support and enable the tray to be dumped of its contents when it is desired to quickly empty the same, and another feature  
 5 of my improvement is the provision for adjusting each tray in a horizontal direction on the extensible support independently of every other tray of the series, so that access may be readily obtained to the tray without disturbing the position of the other trays on the  
 10 extensible support. To attain these ends, I provide each tray with pairs of slidable keepers 30 31, one pair of keepers being arranged at each end of the tray. The keepers consist simply of hook-shaped metallic pieces  
 15 having one of their vertical members fastened rigidly to an end wall of the tray, and said keepers at each end of the tray are in alinement with each other and open at their lower sides to permit of the application of  
 20 the keepers to the upper edge of the carrying-bar. The keepers embrace the carrying-bar in a manner to suspend the tray between two adjacent carrying-bars and to permit the  
 25 tray to have a limited sliding movement on said carrying-bars.

In connection with my extensible lazy-tongs support for the series of trays I employ a spring 32, adapted to draw the lower pair  
 30 of links 6 toward each other and assist in raising the series of trays to their elevated positions, whereby the extensible support and the loaded trays may be raised by a slight effort on the part of the operator.

The spiral spring 32 is arranged in a horizontal position and in compact relation to the end wall and bottom of the trunk or other structure, and one end of this spiral spring is fastened to the fixed fulcrum 10 for the  
 40 lower pair of links 6, while the other end of said spring is attached to the sliding fulcrum 11 for said lower pair of links. It will be understood that one of these spiral springs may be employed in connection with the lazy-tongs at each end of the trunk and the tendency of this spring is to normally draw the  
 45 members of the lower pair of links toward each other, so as to project the intermediate and upper pairs of links with their trays in an upward direction. This tendency of the spiral springs to extend the lazy-tongs structure is overcome by the employment of the toothed slide and the spring-catch, and when  
 50 the structure and trays are extended to the desired elevation the catch engages with one of the teeth of the slide 21 to limit the movement of the slide on the carrying-bar 18 and thereby hold the parts firmly in their adjusted positions. It is evident that the slide  
 60 may be made longer or shorter according to the distance it is desired to have the lazy-tongs structure and the trays extend above the trunk, and, as shown by the drawings, I have constructed this slide to have the spring-catch engage therewith when the trays are  
 65 extended above the trunk far enough for the

lowermost tray 27 to be flush with or slightly above the upper edge of the trunk-body.

Any suitable devices may be provided on the trunk-body to hold the trays in their lowered position against the tension of the spiral  
 70 spring.

This being the construction of my improved tray-support for trunks and sample-cases the operation may be described briefly as follows:  
 75 Under normal conditions the extensible lazy-tongs support and the trays are folded in compact relation to each other within the body of the trunk, so as to have the upper tray substantially flush with the upper edge of the  
 80 trunk-body, the sliding fulcrum being moved toward the outer ends of the slots in the series of bars and the spiral spring being extended substantially as shown by Fig. 3. When the trunk-lid is opened and the catch  
 85 released, the operator by a slight effort may withdraw the series of trays from the trunk-body and the upward movement of the series of trays and the extensible support is facilitated by the recoil action of the spiral  
 90 spring drawing toward each other the lower extremities of the lower pair of links 6. During the extension of the lazy-tongs support and the elevation of the series of trays the several sliding fulcrum 11, 17, 19<sup>b</sup>, and 20<sup>a</sup>  
 95 move horizontally on the series of bars 3, 8, 14, and 18, thus maintaining said bars and the trays supported thereon in their horizontal positions. The trays are supported in parallel relation to each other, with the  
 100 lower tray 27 substantially flush or slightly raised above the upper edge of the trunk-body, and said trays are arranged equidistant from one another, so that ready access may be had to their contents. If desired to obtain  
 105 access to the rear part of either tray adjacent to the hinged cover, the operator may move the tray horizontally on its pair of carrying-bars for a limited distance to have the front edge of said tray project beyond the  
 110 edges of the adjacent trays, and said horizontal adjustment of the tray may be effected without disturbing either of the other trays or the extensible lazy-tongs support. It is also evident that either of the trays may be  
 115 removed bodily from the carrying-bars, forming a part of the lazy-tongs support, by simply lifting the tray sufficiently for the keepers 30 31 to clear the pair of carrying-bars devoted to said tray, and thus the tray may be  
 120 removed from the extensible support to dump its contents.

My attachment provides for access to the contents of any tray without disturbing the contents of either of the other trays above or  
 125 below it. Thus either of the trays may be packed or unpacked without inconvenience.

A further advantage of my improved attachment is that the owner of the trunk is not required to scatter the contents of the  
 130 trunk about on the floor when it is desired to obtain access to an article in the bottom of



the trunk, and the contents may thus be kept more orderly than in ordinary trunks, sample-cases, &c.

To prevent edgewise movement of the trays when raised with the lazy-tongs support, I provide the pliable stop tapes or bands 29<sup>a</sup> 30<sup>a</sup>, as shown by Fig. 1, which cross each other diagonally at the rear part of the trunk. The upper ends of these stop tapes or bands are attached to the upper pair of tray-carrying bars, while their lower ends are fastened within the trunk. These bands or tapes fold and unfold with the lazy-tongs support as it is raised or lowered, and they prevent edgewise play or movement of said trays with its extensible support.

The improvement is exceedingly simple in construction, and it is not liable to get out of order. The entire device may be arranged compactly in the trunk without sacrificing any space therein.

As before indicated, the tray-support may be applied to ordinary trunks, sample-cases, &c., already in existence, or the attachment may be embodied in the construction of new trunks and sample-cases.

It will be understood that I do not restrict myself to the style or form of the trays used in my trunk, and in some cases I may prefer to employ for the top tray an ordinary hat-tray which is employed in most trunks.

While I prefer to make the spring-catch 23 of wire, I do not restrict myself to the particular form of catch, because the type of catch is not material and may be changed at pleasure.

In the practical service of my tray attachment to trunks and sample-cases when the loaded trays are shoved down into the trunk the spring at bottom of lazy-tongs support is so near on a center line with the fixed and sliding fulcrum-pins 10 11 that no catch will be required to hold the trays in place when folded; but of course this is an immaterial feature, because I may employ a catch or not, as may be preferred.

I am aware that changes in the form and proportion of parts and in the details of construction may be made without departing from the spirit or sacrificing the advantages of the invention, and I therefore reserve the right to make such changes and alterations as properly fall within the scope of the invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a trunk or analogous structure, of two series of horizontal tray-carrying bars arranged near opposite ends of said trunk, the lazy-tongs support having the lower members thereof attached by fixed and slidable fulcra to said trunk and each pair of links of said lazy-tongs support connected by fixed and slidable fulcra to one of the tray-carrying bars, and trays arranged within the lazy-tongs support and attached to the carrying-bars, whereby the support and horizontal

bars may be moved perpendicularly in relation to the trunk and the bars and trays sustained at all times in horizontal positions, substantially as described.

2. The combination with a trunk, or analogous structure, of a series of tray-carrying bars, a lazy-tongs support having its pairs of links connected with said bars by fixed and slidable fulcra, and a series of trays each supported on a pair of said bars to provide for the ready removal of either tray therefrom, substantially as and for the purposes described.

3. The combination with a trunk or analogous structure, of a series of parallel tray-supporting bars, a lazy-tongs support operatively connected with said trunk and said tray-carrying bars, by fixed and slidable fulcra, and a series of trays each slidably supported on a pair of said tray-carrying bars, substantially as and for the purposes described.

4. The combination with a trunk or analogous structure, of two series of horizontal tray-carrying bars arranged near opposite ends of said trunk and each bar provided with a longitudinally-slotted offset portion, the lazy-tongs support each pair of the links of which are connected by fixed and slidable fulcra to one of said bars and the slotted offset portion thereof, and a series of trays each of which is fitted to two of the tray-carrying bars within the offset portion thereof and the slidable fulcra to avoid interference with the latter, substantially as described.

5. The combination with a trunk or analogous structure, of a series of tray-carrying bars, a lazy-tongs support operatively connected with said trunk and said carrying-bars, a series of trays mounted on said bars, and a spring operatively connected with the lower members of said lazy-tongs support, and tending to normally draw said members toward each other and project the support and the devices carried thereby, substantially as and for the purposes described.

6. The combination with a trunk or analogous structure, of a lazy-tongs support, a series of trays mounted thereon, a spring connected with said lazy-tongs support and operating to normally project the latter and the trays beyond the trunk, a shiftable detent device movable with a slidable fulcrum of one lazy-tongs member on one carrying-bar, and a catch in the path of said shiftable detent for engaging therewith and restraining the upward tendency of the lazy-tongs support, substantially as and for the purposes described.

7. The combination with a trunk or analogous structure, of a series of tray-carrying bars, a lazy-tongs support connected with said trunk and said carrying-bars, a toothed slide mounted on one of said tray-carrying bars and having one of the upper links of the lazy-tongs support connected therewith, a spring-catch mounted on the upper-tray-carrying bar in the path of said toothed slide,



and a series of trays carried by said bars, substantially as and for the purposes described.

8. The combination with a trunk or analogous structure, of a series of tray-carrying  
5 bars, a fixed bar within the trunk or structure, a lazy-tong support having its members connected by fixed and slidable fulcra with said fixed and carrying bars, and a series of  
10 trays each having keepers which embrace the carrying-bars, whereby the trays are re-

movably and slidably supported on a pair of carrying-bars, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in  
15 the presence of two witnesses.

PAUL RAGSDALE CAMP.

Witnesses:

C. N. BARRETT,

W. R. MONTGOMERY.