

No. 868,434.

PATENTED OCT. 15, 1907.

S. A. HARRISON.

- SORTING DESK.

APPLICATION FILED JULY 3, 1906.

2 SHEETS-SHEET 1.

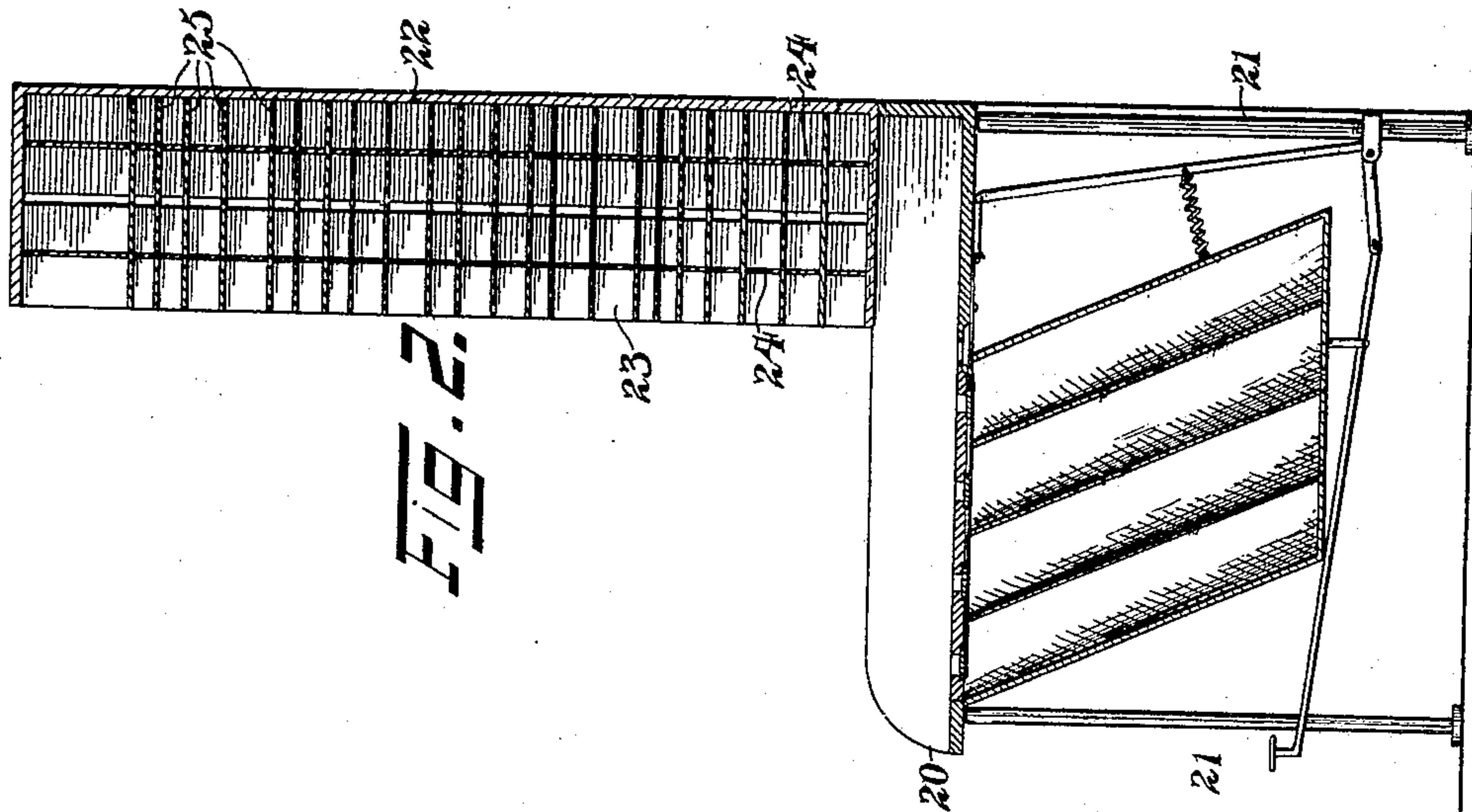


FIG. 2.

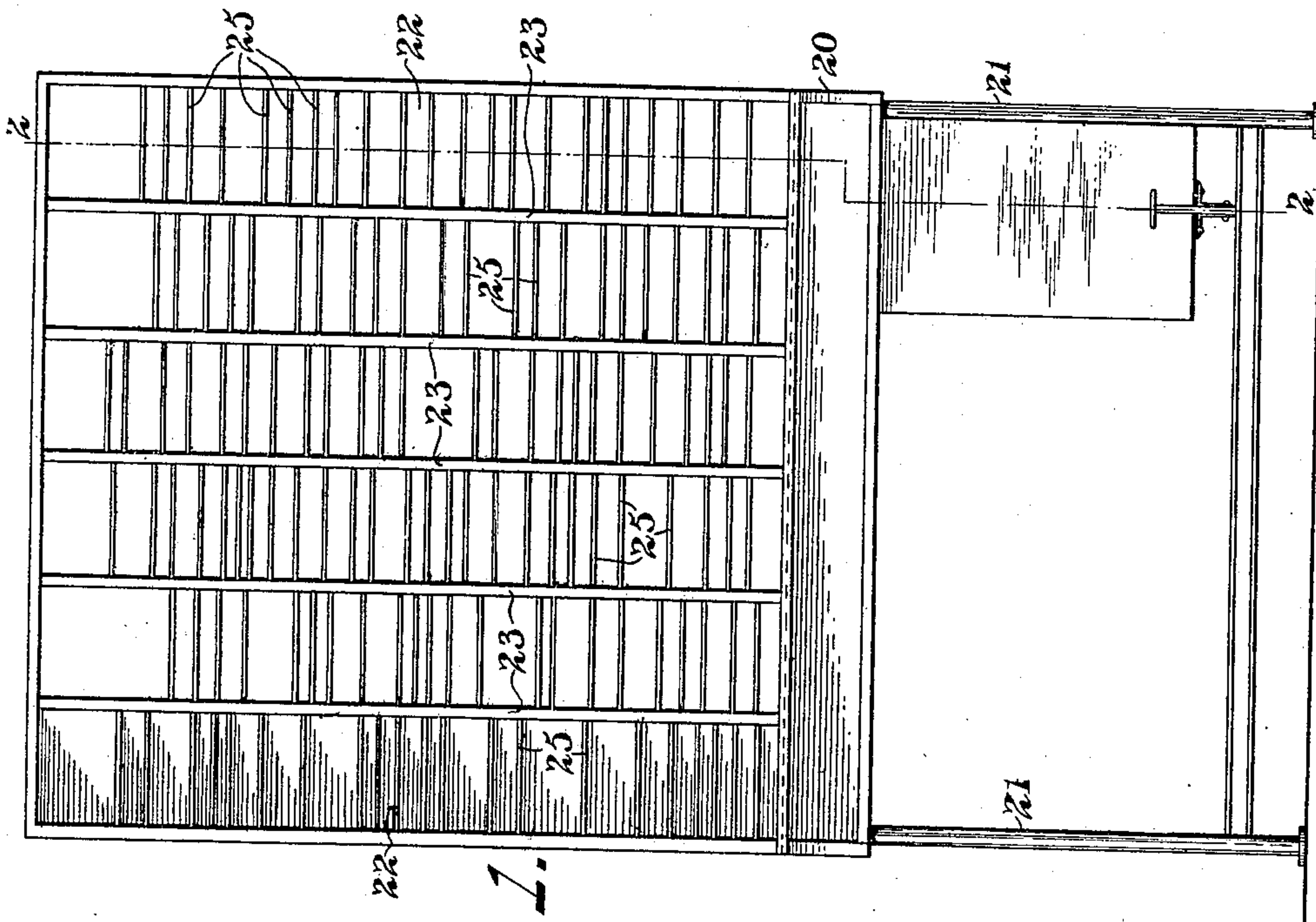


FIG. 1.

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2 SHEETS—SHEET 2.

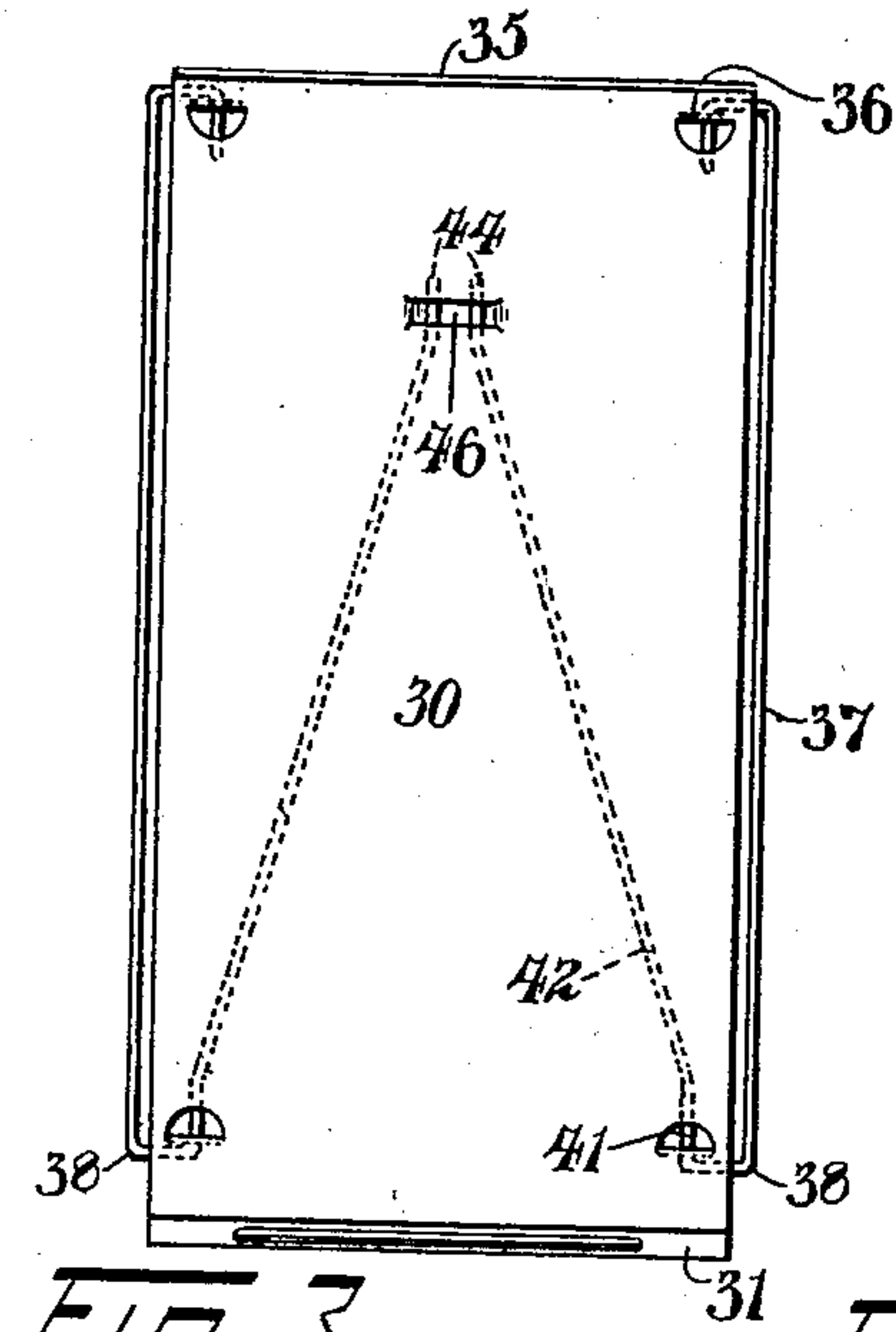


FIG. 3.

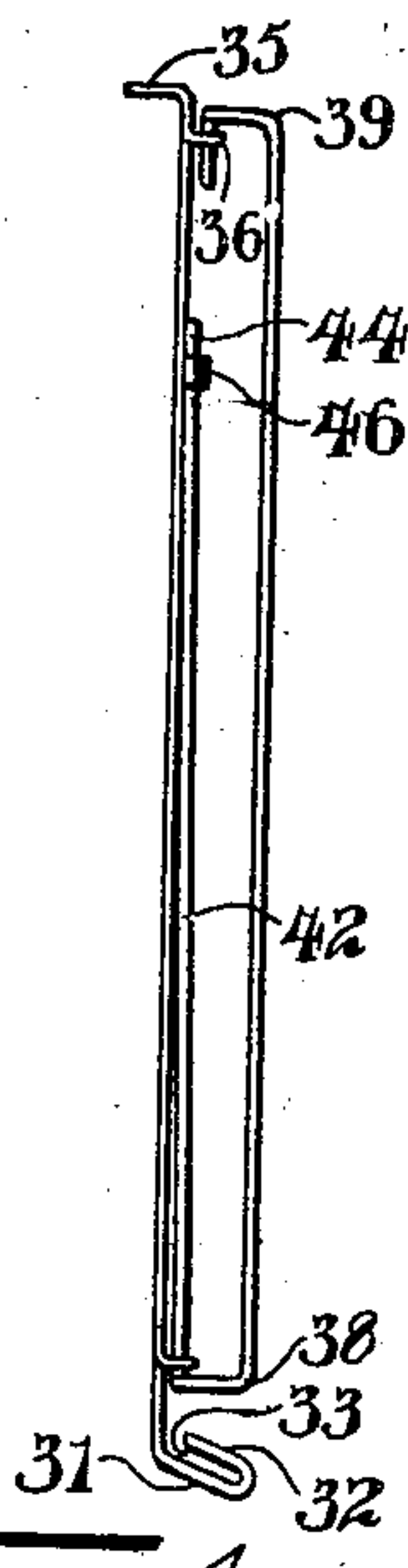


FIG. 4.

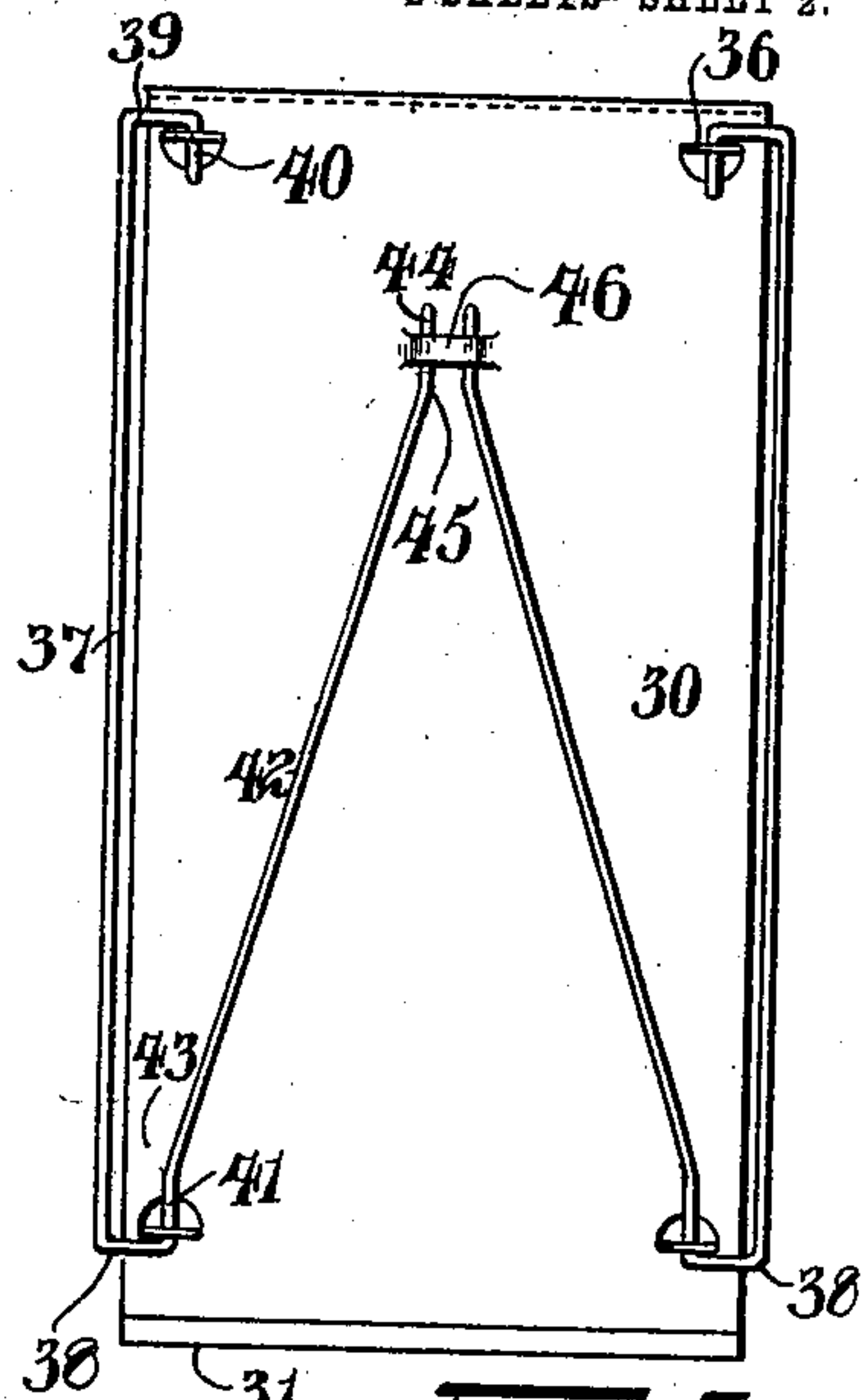


FIG. 5.

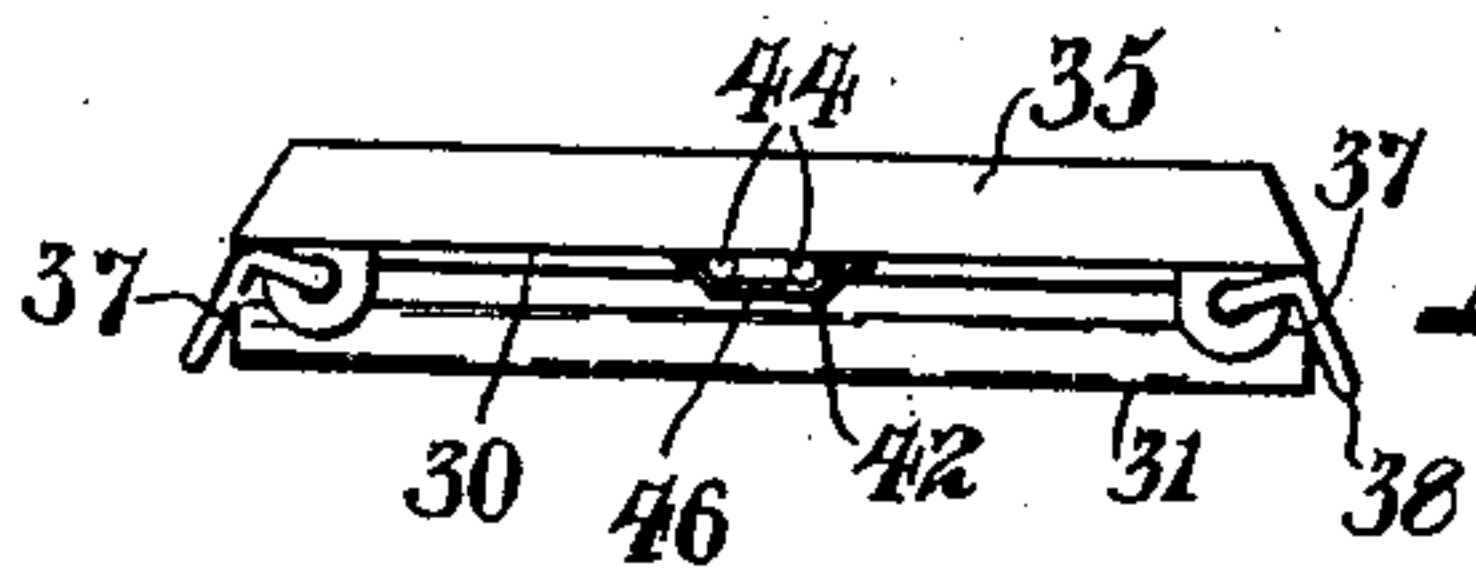


FIG. 6.

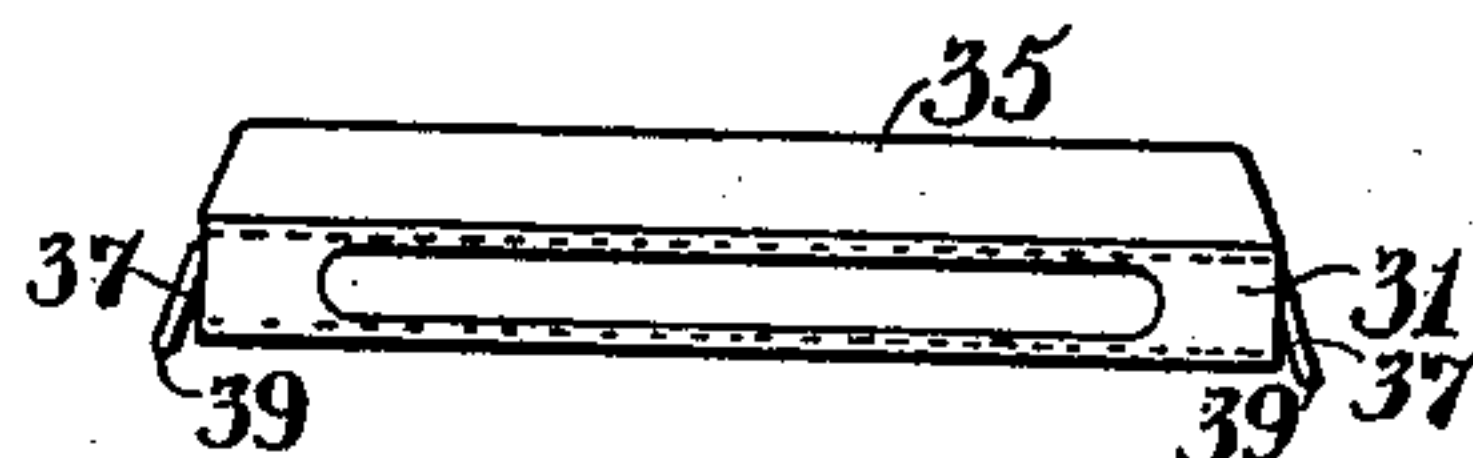


FIG. 7.

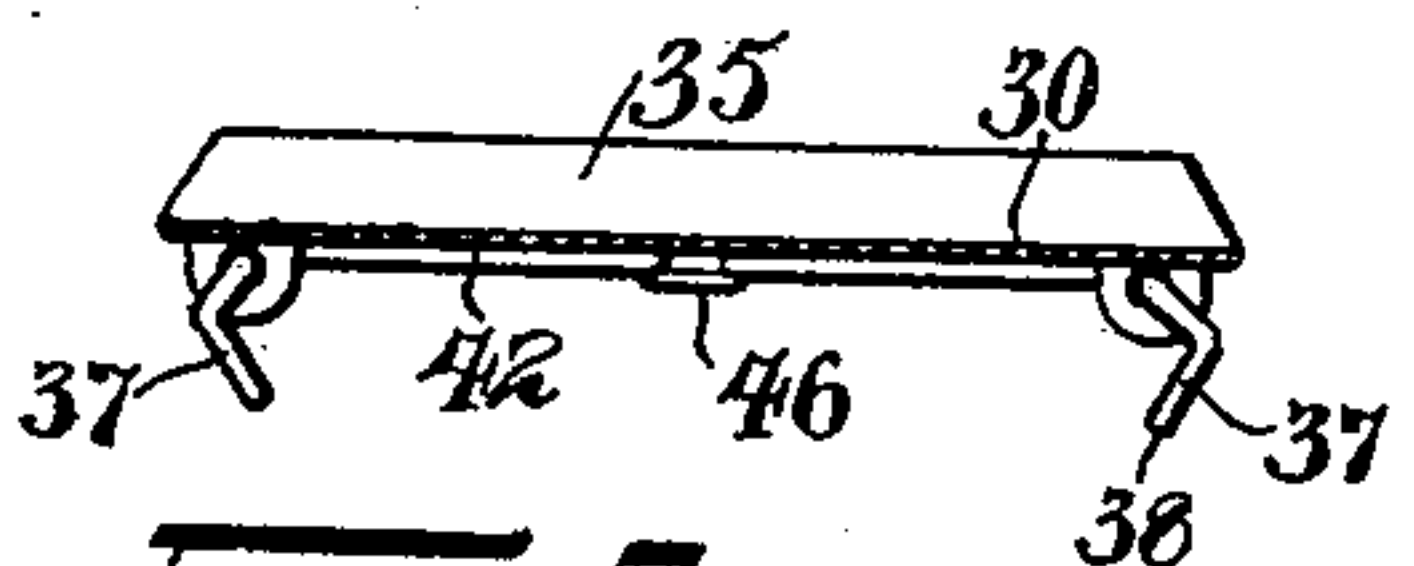


FIG. 8.

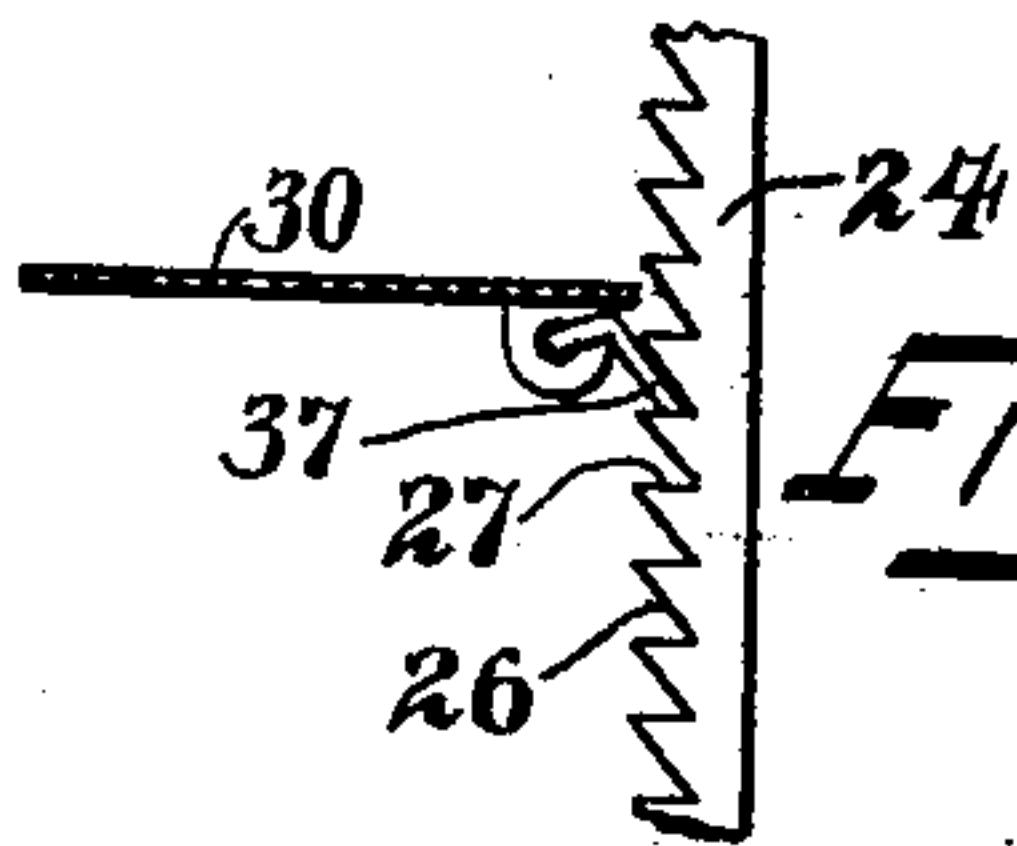


FIG. 10.

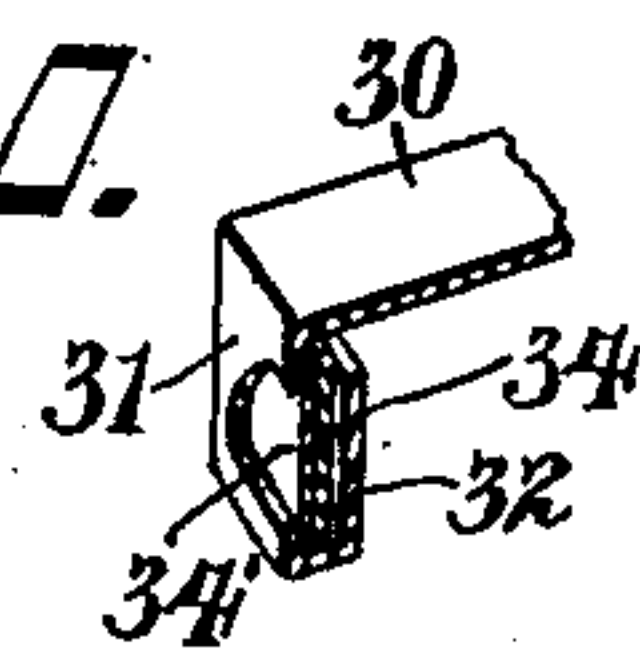


FIG. 11.

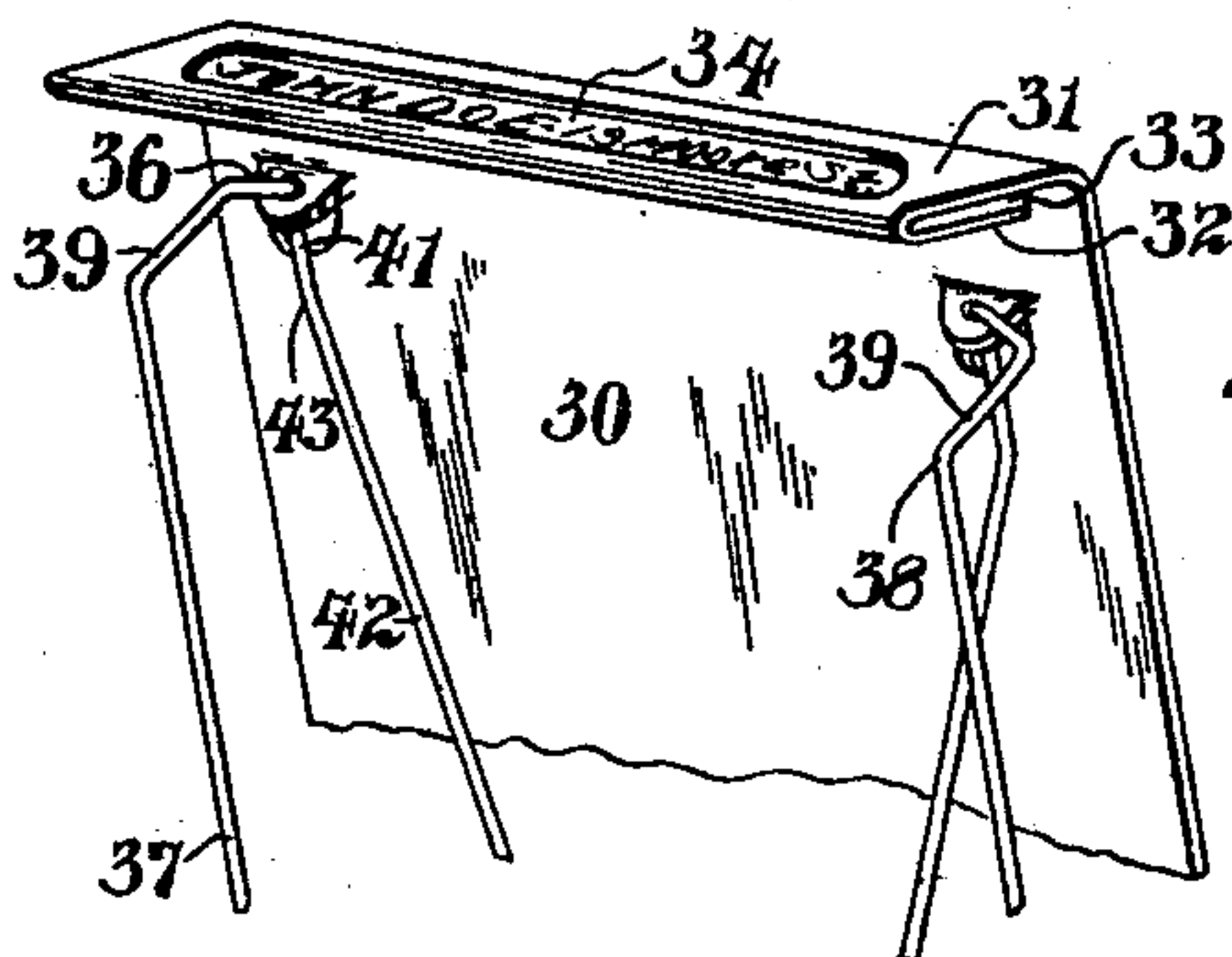


FIG. 9.

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# UNITED STATES PATENT OFFICE.

SAMUEL A. HARRISON, OF NEW YORK, N. Y.

## SORTING-DESK.

No. 868,434.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed July 3, 1906. Serial No. 324,562.

*To all whom it may concern:*

Be it known that I, SAMUEL A. HARRISON, a citizen of the United States, residing in the borough of Brooklyn, city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Sorting-Desks, of which the following is a specification.

This invention relates to appliances for use in sorting mail matter and other articles, and has for its object to provide improvements in shelves for use in sorting tables, more particularly such as are described in my United States Patent No. 684,232, dated October 8, 1901.

The shelf embodies means whereby it may be securely held in any position of adjustment and whereby it may be easily raised and also may be withdrawn from the cabinet.

It also embodies certain improved holding devices for engaging the sides of the cabinet for preventing the shelf descending in the cabinet, but permitting its ready raising or withdrawal as occasion may demand. The shelf may also be provided with means for holding a name card and also with means for causing the mail or other matter resting upon the shelf to come forward as the shelf is drawn forward.

In the drawings accompanying and forming a part of this specification Figure 1 is a front elevation of a post office desk embodying a form of my invention. Fig. 2 is a sectional elevation thereof on the line 2—2 of Fig. 1. Fig. 3 is a top view of one of my improved trays. Fig. 4 is a side view thereof. Fig. 5 is a bottom view. Fig. 6 is an end view looking at the tray from the rear end, namely from the top of the device as seen in Fig. 3. Fig. 7 is an end view looking at the tray from the front end. Fig. 8 is a view looking at the tray from the front end with the dependent name plate carrying portion removed and showing the rack engaging members drawn inwardly beyond the edges of the tray for permitting insertion into the cabinet. Fig. 9 is a perspective view of the front portion of the tray showing the engaging members in about the position these occupy in Fig. 8. Fig. 10 is a detail showing the engaging members in engagement with a rack bar; and Fig. 11 is a perspective view of a broken away portion of the front end of the tray showing a name card in position in the receptacle provided at the front end of the tray.

The principal feature of my desk is the metal adjustable sliding shelves, the manipulation of which results in pigeon holes which vary in size to accommodate the mail of individuals or firms. The advantages may be stated as follows—

First: A time saver; from thirty minutes to one hour may be saved in the morning eliminating what is known as "setting up". Under the present system one pigeon hole serves for several individuals or firms

of a whole block or office floor. Setting up is a method of separating the letters of individuals and arranging them in consecutive order of delivery. In the improved sorting desk each individual or firm has its own pigeon hole, as before explained, the size of which is regulated according to the requirement. When the carrier is through boxing the mail it is already set up. The danger of mis-boxing is reduced to a minimum as close attention is required on account of the close proximity of the pigeon holes to one another. Thus it will be seen that in a station where for instance there are twenty four routes of three men each, some having four men, an average of thirty minutes saved in the first morning delivery would mean thirty-six hours saved to the department on the first delivery, and enabling the man to leave the office on or before schedule time.

Second: Space economizer; as the setting up is done away with for obvious reasons only two desks would be required, one for letters and one for papers. While the third man's end would be set up, he could report fifteen minutes before the time for leaving on his route. While three old desks occupy nine feet front, two new improved desks would occupy only eight feet front, thus on twenty-four routes twenty-four feet front would be saved for other purposes.

Third: Systemizing of sorting; at present there is no system whatever in this important matter. On one route the start may be at one end of the case and on another the start may be at the other end of the case and so on, so that it is impossible to tell where the start and finish of a route may be as the pigeon holes are generally insufficiently and improperly labeled. When a substitute is now put on he is generally confused and can do nothing until the arrival of one of the regular men, whereas should a substitute be put at one of my desks he would find—

Fourth: A directory of the route; as he could readily find the names and addresses of individuals or firms by merely glancing over the case as readily as he would find a number in a street.

Fifth: A chart of the route; the start of the route would begin at the lower left hand corner of the case and following upwardly through the several compartments finish at the upper right hand corner of the case. As to the system, it is so easy that a child can manage it.

Sixth: Capacity of the desk; the capacity of my improved desk is much greater than that of the present one. This is an important item especially in a business district where there is a large amount of mail handled. The old desk used in some branches has eight rows of pigeon holes by five in height. Could all the pigeon holes be made use of to their fullest capacity there would be a stack of mail fifteen feet long; while in my improved case there is a total capacity of



a stack of letters fifty-three feet long, thirty-five in the case and eighteen in the pockets reserved for the large firms, the pockets being situated underneath the desk. In the old desk this pocket space is entirely  
 5 wasted. I believe that my desk could accommodate the heaviest route. There are other advantages of minor importance which would become apparent in the use of my desk.

The desk illustrated in Figs. 1 and 2 comprises a  
 10 table 20 carried by suitable supports, in the present instance legs 21, and a cabinet or stack of shelves at the rear of the table. This cabinet has a rear wall 22 and a series of parallel vertical walls or projections 23 forming columns or divisions for the shelves 25. Each  
 15 of the walls 22 is provided with a pair of vertically disposed rack bars 24, the slanting faces 26 of which project downwardly and the stop or engaging faces 27 project upwardly; these are for the purpose of engaging the detent members carried by the shelves for  
 20 permitting their elevation by merely pushing them up, such organization being useful, since when the person sorting the mail or other articles puts his hand to a compartment for the purpose of inserting more mail matter in that compartment and finds that there  
 25 is not room he merely has to raise the shelf above that particular compartment, thereby making room enough for the material which he then has in hand. If the compartment immediately above that which he is supplying should be filled to its limit the shelf above  
 30 that compartment will then be carried upwardly and so on until a point is reached where there is a compartment having less mail matter within it than is required to fill it.

My improved trays in the present instance are illus-  
 35 trated to represent sheet metal shelf portions 30, which will be of sufficient width to properly fill the spaces between the vertical walls or to fill it sufficiently for the purposes for which the shelves are to be used. Each of these shelves is shown as having upon the front a  
 40 downwardly projecting portion or apron 31, which is a continuation of the metal of the shelf and which bends back upon itself as at 32 thereby forming a receptacle or pocket 33 in which a name card or plate 34 may be inserted, over which celluloid or mica 34' may be  
 45 placed. This apron not only constitutes a convenient receptacle for a name card, which will be made in such a manner and protected in such a way that handling will not efface it; but it will also constitute a conven-  
 50 ient handle by which the person using the cabinet may withdraw the shelf to withdraw its contents, it being provided at its rear end with an upwardly projecting flange or back 35 which will draw the matter upon the shelf out as the shelf is drawn out. The tray also has  
 55 in the present illustration struck up from it a series of lugs 36, which lugs in the present instance are located at the respective corners of the tray and which have their flat faces directed toward the front and back of the tray respectively. These lugs are for the purpose of carrying the detent device, which in the present in-  
 60 stance is shown as made of wire and each of which comprises a side member 37 for engaging with the rack bar 24. The side member 37 acts somewhat in the nature of a pawl since it will slide over the faces 26 of the rack bar when the shelf is moved upwardly and will slide  
 65 across the faces 27 when given an in-and-out sliding

movement. The wire is shown as bent transversely front and rear, 38—39 and at the rear again bent at 40 for passing through an opening in one of the lugs 36 for forming a pintle. For the purpose of giving greater strength and security the transverse portion, 38 or 39, 70 of the wire will pass between the lug 36 and the adjacent end of the tray and then the pintle portions 40 and 41 will project inwardly; by this means the wire will be prevented from disengagement with the lugs upon being bent and greater strength and stability will be 75 thereby provided. The wire which is bent at the forward end at 41 for forming a pintle at that end is then continued in a portion 42 which is offset slightly at 43 from the pintle portion 41. This portion 42 constitutes a torsion spring, it having an end 44 which is offset as at 80 45 from the main portion 42. In the present instance a strap 46 is struck up from the tray 30 and engages the portions 44 of the springs; the ends of the springs nearly approach each other at the center of the rear portion of the tray and the spring portions 42 are shown as at an 85 angle to the detent portions 37. When the springs are in their engaging position they will be substantially as seen in Fig. 6; but when it is desired to draw out the tray, or more particularly when it is desired to reinsert a tray in the cabinet which has been withdrawn, the 90 forward end of the tray will be taken hold of by the hand and the portions of the wires 37 adjacent to the bends 38 will be bent inwardly torsioning the springs 42 and bringing the wires in about the positions illustrated in Figs. 8 and 9. It will be seen that by having 95 the torsion springs 42 connected with the front pintles that the engagement by the hand for operating these will bend the entire portion 37 of the wire inwardly with greater ease than if the wires were engaged at the back end. The strap 46 holds the ends 44 of the spring 100 against the lower face of the tray and upon the turning of the pintle portion 41 which is substantially parallel with the portion 37 the spring will be torsioned and the offset 45 will engage the lower face of the tray, not only 105 torsioning the spring but also flexing the same and adding to the resistance and tendency to return to its normal condition.

Having described my invention I claim:

1. In a sorting desk, the combination with a number of vertically disposed rack bars having downwardly directed 110 oblique faces and upwardly directed stop faces, shelves between said rack bars, wires comprising detents and slides carried by said shelves beyond the sides thereof for engaging said rack bars, and passing over the oblique faces in an upward movement and across the stop faces 115 in an in-and-out sliding movement, and torsion springs for holding said wires extended beyond the sides of the shelves and in engagement with said rack bars.
2. The improved tray comprising a body portion, lugs struck up from the corners thereof and provided with 120 bearing openings, and spring retaining means on the said body portion, wires having transverse bends and pintles bent from such transverse bends and entering said bearing openings and each wire continued from one pintle engaging said spring retaining means and forming a spring for 125 pressing said wire outwardly.
3. The improved tray comprising a flat sheet metal body portion, lugs struck up from the corners of said body portion and having their flat faces facing toward the respective ends thereof, said lugs being provided with bear- 130 ing holes, wires each having a portion parallel with the side of the tray and having transversely bent portions and pintle ends bent therefrom and traversing said holes, each pintle at the forward end continuing into a torsion spring offset from said pintle and extending toward the 13



center and rear of the tray and having an offset near the end, and a strap engaging the ends beyond said offset.

5 4. A tray comprising a sheet metal body portion, lugs struck up from the corners thereof and having their flat faces directed toward the respective ends of the tray and provided with openings, wire detents each comprising a wire portion extending parallel with the adjacent edge of the tray and extending beyond said lugs and bent transversely and also having pintle portions bent from such

transverse portions and entering the holes in said lugs, the transverse portion at each end passing between the lug and the adjacent end of the tray and the pintle at the forward end extended into a torsion spring, and means for holding the end of the torsion spring. 10

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Witnesses:

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