

Dec. 8, 1953

J. SICZKIEWICZ, JR., ET AL
SUPPORT FOR IRONING TABLES

2,661,554

Filed June 24, 1950

2 Sheets-Sheet 1

FIG. 1

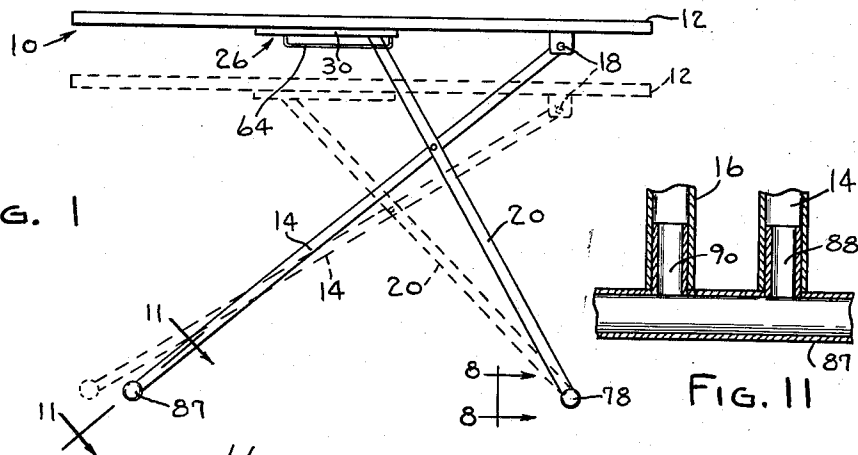


FIG. 2

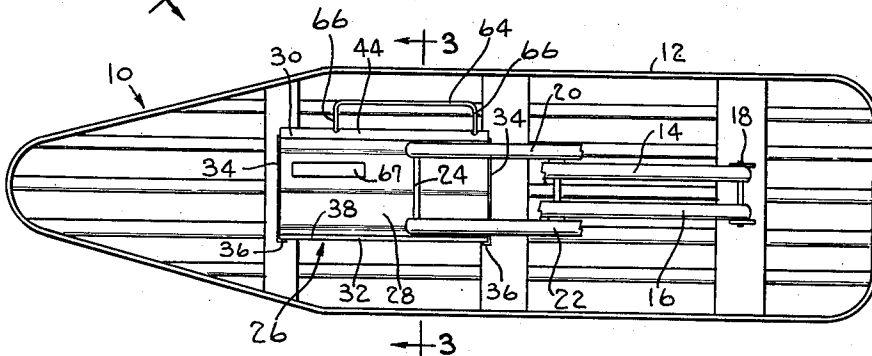


FIG. 3

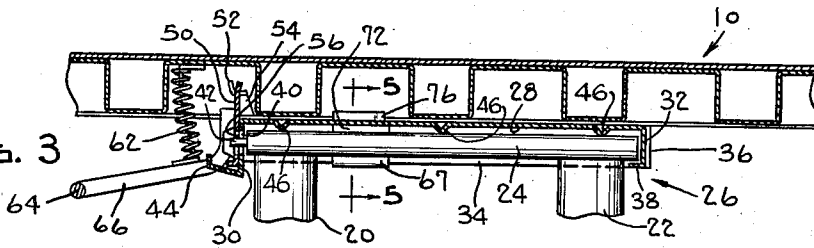


FIG. 8

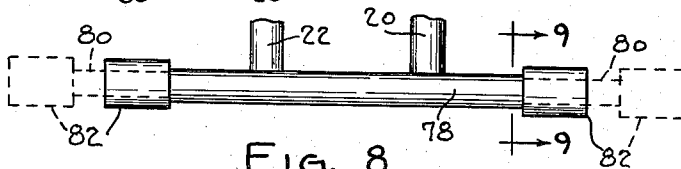
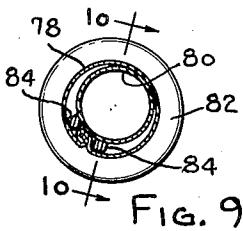


FIG. 9

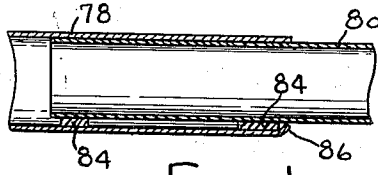


FIG. 10

INVENTORS
JOSEPH SICZKIEWICZ, JR.
BY HERBERT L. VOIGT

John W. Michael
ATTORNEY

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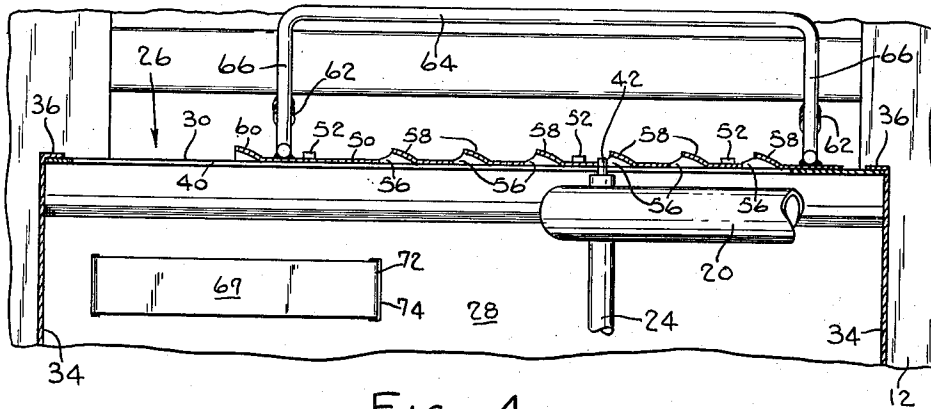


FIG. 4

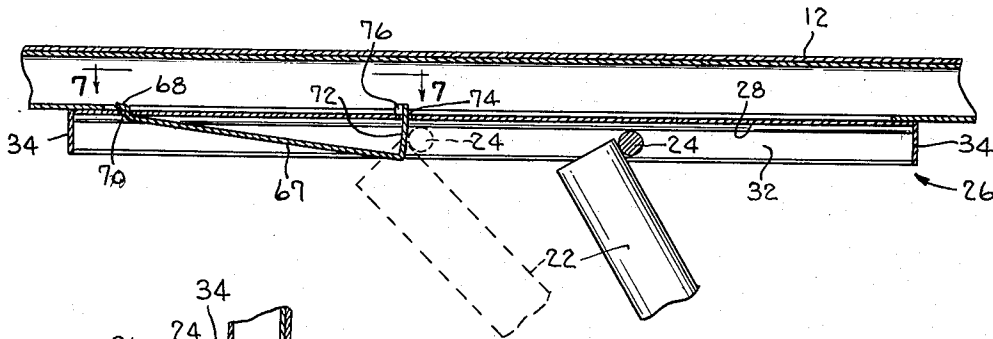


FIG. 5

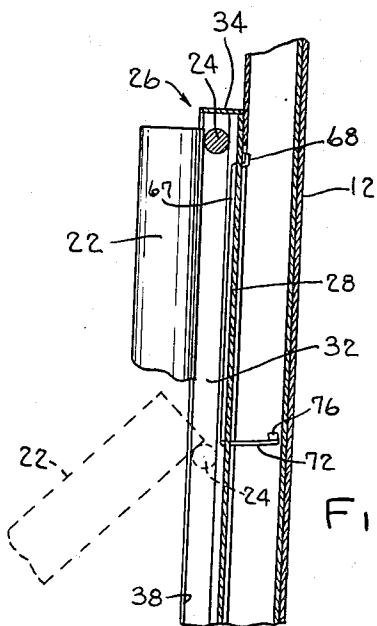


FIG. 6

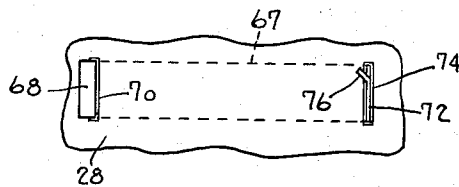


FIG. 7

INVENTORS
JOSEPH SICZKIEWICZ, JR.
BY HERBERT L. VOIGT

John W. Michael
ATTORNEY

UNITED STATES PATENT OFFICE

2,661,554

SUPPORT FOR IRONING TABLES

Joseph Siczekiewicz, Jr., and Herbert L. Voigt,
Milwaukee, Wis., assignors to Geuder, Paeschke
& Frey Co., Milwaukee, Wis., a corporation of
Wisconsin

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9 Claims. (Cl. 38—121)

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This invention relates to improvements in ironing tables or the like having crossed supports, the upper end of one of the supports being slidably adjustable longitudinally of the table to effectuate an adjustment of the height thereof, and particularly to a mechanism for locking such upper end in adjusted position.

It is desirable that the ironing table be adjustable in height so that it may be varied to suit the heights of individual users or be used by one in a seated position. Heretofore ironing tables embodying these characteristics have been unduly heavy and the supporting and adjusting mechanism complicated to use and expensive to manufacture.

An object of this invention, therefore, is to provide such an ironing table which is relatively light in weight and is simple and safe to operate and adjust.

A still further object of the invention is to provide an ironing table of such type which will not collapse below a minimum height position during normal adjustment of the board and thus will prevent injury to the user in making adjustments.

A further object of the invention is to provide such an ironing table which may be inexpensively manufactured and yet be of rigid and strong construction.

Another object of the invention is to provide an ironing table of the type described, the supports of which may be easily folded and retracted so that the board may be readily stored and shipped in a relatively small container.

The first three of these objects may be obtained by providing a guide plate to hold the sliding end of the crossed supports, mounting a latch bar along one side of said guide plate so that it pivots on an axis longitudinal of said plate, and providing a lateral projection on such sliding end which normally engages the latch bar to hold such end in a selected position. The latch bar has pin-engaging notches and is spring-biased toward such projection. It is provided with a handle which extends toward the side of the table where it may be easily grasped to operate the bar or to carry the table. A gravity-biased stop member is loosely mounted on the table so that when the table is inclined from the vertical with its ironing surface upward the stop of the member will pivot into the path of travel of the sliding end. Hence, whenever the board is being adjusted to the desired height the stop member will fix the minimum height position and thus prevent the supports from com-

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pletely collapsing with possible injury to the person making the adjustment. However, such stop member will swing out of the way when the table is in vertical position or inclined slightly therebeyond with its ironing surface downward; this is the position in which the table is normally placed while the legs are being folded. The stop member thus automatically acts as a safety device. The simple construction of the locking mechanism and stop member combines to provide an adjustable table which is easily operated, sturdy, inexpensively made, and relatively light.

To obtain the last of these objects, the rear support terminates in a transverse foot which has telescoping extensions on each end whereby its length may be increased to make the table more steady. When it is desired to fold the supports and stow the table, the extensions may be retracted so that the length of the foot will not be greater than the width of the table and thus an over-size container is not needed to hold the table. The front support also has a transverse foot attached to the support in such way that the foot may have limited rotation with respect to the support to let the foot adjust to the surface condition of a floor or other support upon which the table is positioned.

The novel features, which are considered characteristic of the invention, are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawing, in which:

Fig. 1 is a view in side elevation of an ironing table embodying the present invention, a lower position of the table being shown in broken lines;

Fig. 2 is a bottom plan view of the table of Fig. 1 with the supports broken away for sake of clarity in illustration;

Fig. 3 is an enlarged sectional view taken on line 3—3 of Fig. 2;

Fig. 4 is an enlarged fragmentary view of the guide plate and latch bar, part being shown in plan and part in section for clarity of illustration;

Fig. 5 is a fragmentary enlarged sectional view taken on line 5—5 of Fig. 3 showing the position of the safety stop member when the table is horizontal;

Fig. 6 is an enlarged sectional view showing

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the position of the safety stop member when the table is in substantial vertical position;

Fig. 7 is a fragmentary sectional view taken on line 7—7 of Fig. 5;

Fig. 8 is an enlarged fragmentary view in elevation of the extensible foot taken from the line 8—8 of Fig. 1, the extension of the foot being shown in broken lines;

Fig. 9 is an enlarged sectional view taken on line 9—9 of Fig. 8;

Fig. 10 is an enlarged fragmentary sectional view taken on line 10—10 of Fig. 9; and

Fig. 11 is an enlarged sectional view taken on the line 11—11 of Fig. 1.

Referring to the drawings by reference numerals, the ironing table 10 embodying the invention is provided with a top 12 of usual design. This top 12 is mounted on crossed supports pivoted intermediate their ends. The front support consists of a pair of spaced tubes 14 and 16 the upper ends of which are pivoted at 18 to the underside of top 12. The rear support consists of a pair of spaced tubes 20 and 22, the upper ends of which are secured to a transverse bar 24 slidable in a guide plate 26 in the manner hereinafter set forth. As the sliding end of the rear support is moved forwardly of the table (to the left as viewed in Figs. 1, 2, and 5) both supports will swing toward the top 12 and the table will be lowered. Continuance of such sliding causes the supports to be completely collapsed and lie flat against the under surface of the top. With the table in substantially vertical position (see Fig. 6) the front support may be swung away from the top and the sliding end will move rearwardly of the table (to the right as viewed in Figs. 1, 2, and 5) to bring the legs into supporting position.

The guide plate 26 has a bottom 28 and side walls 30 and 32 and is secured to top 12 by being spot-welded or otherwise fastened thereto. If desired the side walls may be strengthened by end walls 34 on the guide plate 26 which overlap and are secured to the side walls as indicated at 36. The side wall 32 has an intumed edge 38 which cooperates with the bottom to form a guide for the end of the transverse bar 24. The side wall 30 has a longitudinally extending slot 40 which slidably accommodates a pin or projection 42 extending outwardly from the bar 24 to form a guide for the other end of such bar. The ends of the transverse bar 24 slidably engage the side walls 30 and 32 to prevent longitudinal displacement of the bar and the top of rear support. Thus the sliding end of the crossed supports is guided during the adjustment and complete collapsing of such supports. While not necessary the side wall 30 may have an outturned flange 44 which forms a stop and a partial cover or protection for the latch bar. Also desirable but not required is the decreasing of friction and resistance to sliding by providing the bottom 28 with ridges upon which the transverse bar 24 rests.

The locking of the sliding end in selected positions is accomplished by a latch bar 50 which extends longitudinally along and adjacent to the slot 40. The bar 50 is hinged or pivoted on hooks 52 projecting from brackets 54 (only one shown) carried by the guide plate 26. These hooks project through slots in the bar 50 so that the hinge thus formed has an axis extending longitudinally of slide 30. The latch bar 50 may thus be swung toward and away from the pin 42. The bar 50 has a plurality of spaced openings 56 in juxtaposition with the slot 40 so as to be in line with the

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path of travel of the pin 42. Each opening 56 has an edge pressed out of the plane of the bar 50 to provide an inclined or sloping portion 58 adapted to be engaged by the end of the pin 42 to cam the bar 50 outwardly as such pin is moved rearwardly. A similar sloping portion 60 is also formed on the front end of bar 50 to also contact the pin 42 and swing the bar outwardly when such pin first comes into juxtaposition with such bar. The bar 50 is normally urged toward the side wall 30 by a pair of springs 62 so that as the pin 42 comes into alignment with an opening 56 the bar 50 will swing inwardly and the pin 42 will enter the opening. If the pin is moving rearwardly (toward right as viewed) its end will engage the sloping portion and cam the latch bar outwardly to let the pin move to the next opening. However, if the pin 42 is moving toward the front of the table it will engage with the flat edge 20 of the first opening with which it comes into alignment and its travel will be stopped. Thereafter to permit the pin 42 to again move forwardly, the latch bar 50 must be manually swung outwardly so that it is clear of the end of the pin 42. This is accomplished by a handle 64 which has two legs 66 secured to the bar 50. The springs 62 extend between such legs and the top 12 being centered and held by lugs in a well-known manner. The handle 64 extends longitudinally of the table adjacent its side where it may be easily grasped by the fingers while the palm is resting on the top and side of the table. Thus the table may be held and the handle also operated to swing the latch bar outwardly and free the pin 42. The table may then be lowered as the sliding end of the rear support may move forward in the guide plate 26 without interference from the latch bar 50.

One of the essential features of this invention is the provision of an automatic safety stop to limit downward movement of the top and prevent the supports from collapsing even when the locking bar is not in locking position. If the table is allowed to completely drop without such stop it will strike the knees, shins, or insteps of the person who is operating the latch or catch his hands in the supports with possible injury. The safety stop consists of a strap-like member 67 having an offset lip 68 inserted in a slot 70 in the bottom 28 to pivot such member to the guide plate. The member 67 has a projecting leg 72 slidable in another slot 74 in the bottom 28. This leg may swing into the path of the bar 24 and arrest its forward movement. A tab 76 bent out of the plane of the leg 72 after such leg is inserted in the slot 74 limits the downward swinging of the member 67. When the bar 24 is travelling toward the rear (right as viewed) it will cam the member 67 upwardly without interference with such travel. However, when the bar 24 is moving toward the front, such movement will be arrested by the leg 72 so long as the table is in horizontal position. However, if the table is swung to a substantially vertical position (such as is the case when the user is ready to completely fold the supports), the safety stop will be swung by the force of gravity sufficiently close to the bottom 28 to permit the transverse bar 24 to pass and the supports to completely fold. In such vertical position the weight of the table is substantially inactive and there is no element of surprise or sudden release of force which might cause injury.

In this construction the legs 20 and 22 of the rear support have a fixed relationship with re-

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spect to each other and do not spread as they are lowered into table-supporting position. It is necessary, therefore, to provide a transverse foot 78 to which the ends of such legs are secured. This foot is of seamed tubular construction and has extensions 80 telescoped in each end thereof. The extensions 80 have rubber pads 82 for engaging the floor. In this construction the outer limit to which the extensions 80 may be drawn is determined by the abutment of the outer ones of lugs 84 on such extensions against an intumed portion 86 on the transverse foot 78. The lugs 84 may be spaced on opposite sides of the rolled seam of the foot 78 and thus prevent the extensions 80 from rotating. When fully contracted the transverse foot has a length which is not greater than the width of the table. However, when extended the rubber pads 82 project considerably beyond the width of the table and thus greater stability is provided. The front support also is provided with a transverse foot 87. This foot is secured to the tubular legs 14 and 16 by members 88 and 90 which rotatably frictionally fit within the ends of such legs. Such relative rotation permits the axis of the transverse foot 87 to be shifted slightly with respect to the horizontal when the table is in working position to accommodate unevenness of the floor or other support upon which the feet are resting. When the foot 87 is so twisted there is some tendency for the legs 14 and 16 to be moved out of parallelism. However, such relative adjustment between these legs is accommodated by the inherent spring therein. The front foot also has rubber pads. While it is not necessary, the front foot 87 may also be provided with extensions as in the case of the rear transverse foot 78.

Starting with the ironing table in completely collapsed position, the method for setting it up and adjusting it will now be described. The table is placed in a vertical position with the rear foot 78 resting on the floor and the weight being carried by the rear support and that portion of the front support extending from the pivot to the rear support and the pivot 18. As so held the front support tends to be continually urged toward the top 12. By grasping the top 12 in one hand and the front support in the other hand and moving the front support away from the top 12, both supports swing away from the top 12 into supporting position. As this takes place the pin 42 moves into engagement with the latch bar 50 and an audible click is heard as such pin comes into alignment with the first notch or opening 56. The table may then be placed in horizontal position resting on the supports. It will then be in its minimum low working position. To adjust the table to a higher position the top 12 is grasped at the sides and lifted vertically. The pin 42 then automatically slides rearwardly from opening to opening as the supports swing downwardly. When the desired height is reached the vertical lift is ceased and the table will remain in such position if the pin 42 is then in a notch or opening 56. If the pin 42 is not in a notch or opening 56 the table will lower slightly until the pin 42 moves into the notch or opening immediately to the front thereof. In order to move the top to a lower adjustment, the edges of the board and also the handle 64 are grasped and the handle pressed toward the top releasing the latch bar 50 from the pin 42. The table may then be lowered as desired until the bar 24 finally reaches the safety or temporary stop 67. Thereafter, 75

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to complete the folding of the supports, the table must be tilted to a substantially vertical position to release the safety stop as heretofore described.

Although only one embodiment of the invention is shown and described herein, it will be understood that this application is intended to cover such changes or modifications as come within the spirit of the invention or scope of the following claims.

We claim:

1. In an ironing table or the like having a top supported upon crossed supports, means supporting an upper end of one of said supports for movement longitudinally of said top in a predetermined path, a longitudinally extending guide secured to said top for guiding said upper end in said path, a pin carried by said upper end and extending laterally of said guide, a longitudinally extending bar pivotally mounted with respect to said top on an axis parallel with and adjacent said path, said bar having a plurality of longitudinally spaced notches adapted to engage said pin when said bar is pivoted toward said guide, and spring means normally urging said bar toward said guide.

2. An ironing table as claimed in claim 1 in which a handle extends from said bar to a place adjacent the edge of said table, said handle and bar being swingable to move said notches out of the path of said pin.

3. An ironing table as claimed in claim 1 in which a handle secured to said bar has a portion extending longitudinally along and adjacent to the edge of said board, and movable with said bar to bring said notches out of the path of said pin.

4. In an ironing table or the like having a top supported upon crossed supports, an upper end of one of said supports for movement longitudinally of said top, a transverse bar on said upper end, said means including a plate secured to the under side of said top and having sides providing a lateral guide for the ends of said bar, one of said sides having an intumed flange overlying one end of said bar, a pin extending from the other end of said bar, a slot in the other of said sides through which said pin extends, and locking means carried by said plate and engageable with said pin to hold said bar in selected position.

5. An ironing table as claimed in claim 4 in which said locking means comprises an elongated member pivoted to said plate adjacent to and swingable toward and away from said other side, said member having a plurality of spaced openings for engaging said pin, said member being protected by an outturned flange on said other side.

6. In an ironing table or the like having a top carried by crossed legs pivoted together intermediate their ends, the upper end of one of said legs being slidably guided in a predetermined path along said top, means for controlling the position of said upper end comprising a projection carried by said upper end and extending laterally of said top, a latch bar having a surface facing the end of said projection, said bar being hinged and biased so that said surface is normally urged into contact with said projection, and a plurality of spaced openings in said surface for receiving and engaging said projection when said projection is in alignment therewith.

7. An ironing table as claimed in claim 6 in which said surface has sloping portions engage-

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able with the end of said projection to swing said latch bar outwardly as said projection is moved relatively longitudinally thereof.

8. In an adjustable and collapsible ironing table, a table top, a pair of pivotally interconnected crossed legs providing an adjustable and collapsible support structure for said top, a fixed transverse pivot pin connection between said top and the upper end of one of said legs, a sliding transverse pivot pin connected to the upper end of the other leg, retaining guide means on said top slidably supporting the last-mentioned pivot pin, manually controllable latch means for retaining the sliding pivot pin in different positions to provide different height adjustments of the table, and means carried by said guide means above said sliding pivot pin for limiting the movement of the slidable pivot pin in the direction away from said fixed pivot pin to prevent collapse of the table while in use, said limiting means comprising a strap-like member having an offset lip at the end thereof remote from said fixed transverse pivot pin and a projecting leg at the other end thereof, said guide means being provided with slots for accommodating said lip and said leg, said lip being pivotally mounted in one of said slots to permit said strap-like member to swing away from said guide means and move said leg to an operative position in the path of movement of said sliding pivot when said strap-like member gravitates as the table is set up for use, said leg being slidable in the other of said slots to maintain said strap-like member with said lip so pivotally mounted and to permit said leg to move to an inoperative position out of the path of movement of said sliding pivot when said strap-like member gravitates as the table is tilted upwardly.

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9. In an ironing table having a top supported upon crossed supports, a longitudinally extending guide plate on said top, the upper end of one of said supports being guided for longitudinal movement in a predetermined path by said guide plate, a temporary stop intermediate the ends of said path comprising a strap-like member having an offset lip at one end and a projecting leg at the other end, said guide plate having a pair of spaced slots, said lip being pivotally mounted in one of said slots and said projecting leg being slidable in the other of said slots, and projecting through said guide plate beyond the side thereof remote from said strap-like member and an abutment on that part of said projecting leg beyond said guide plate and engageable with said guide plate to limit the outward movement of said leg with respect to said plate.

JOSEPH SICZKIEWICZ, JR.
HERBERT L. VOIGT.

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