

July 22, 1952

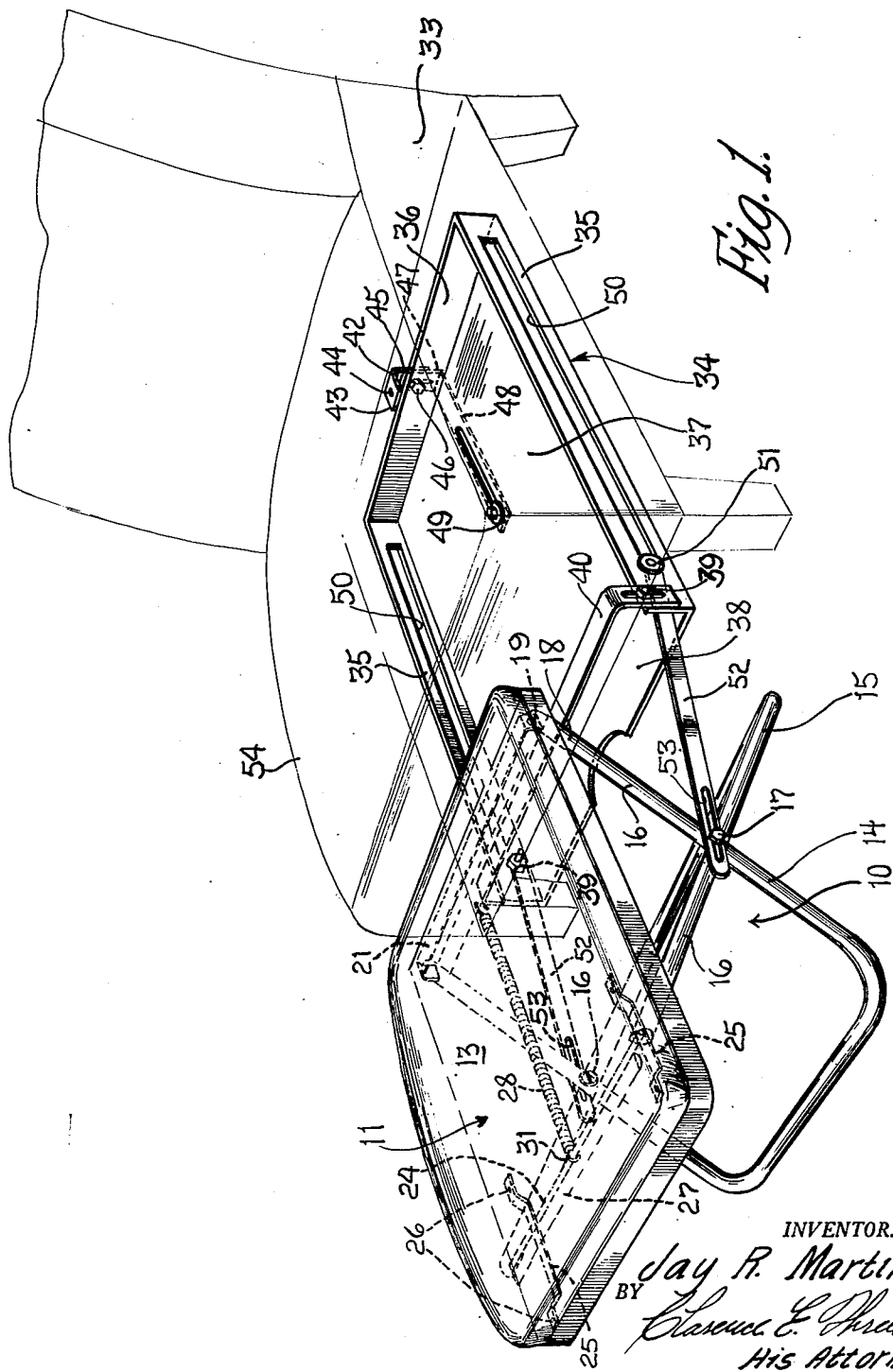
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EXTENSIBLE FOOTREST ATTACHMENT FOR CHAIRS

Filed Sept. 15, 1949

3 Sheets-Sheet 1



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EXTENSIBLE FOOTREST ATTACHMENT FOR CHAIRS

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3 Sheets-Sheet 2

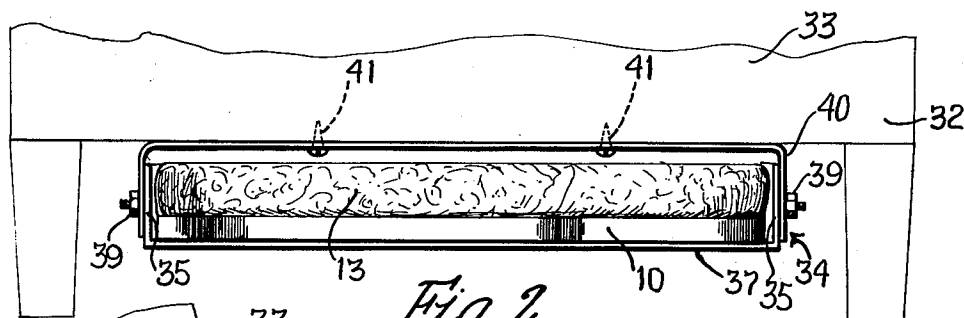


Fig. 2.

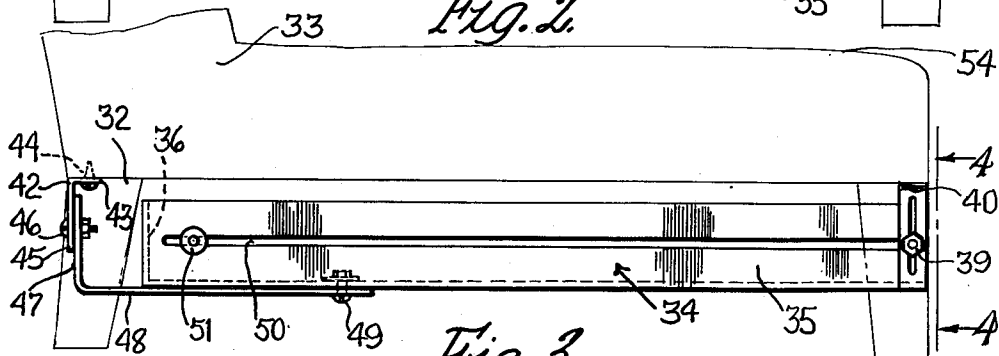


Fig. 3.

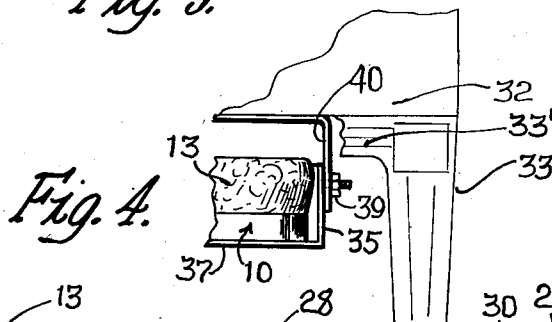


Fig. 4.

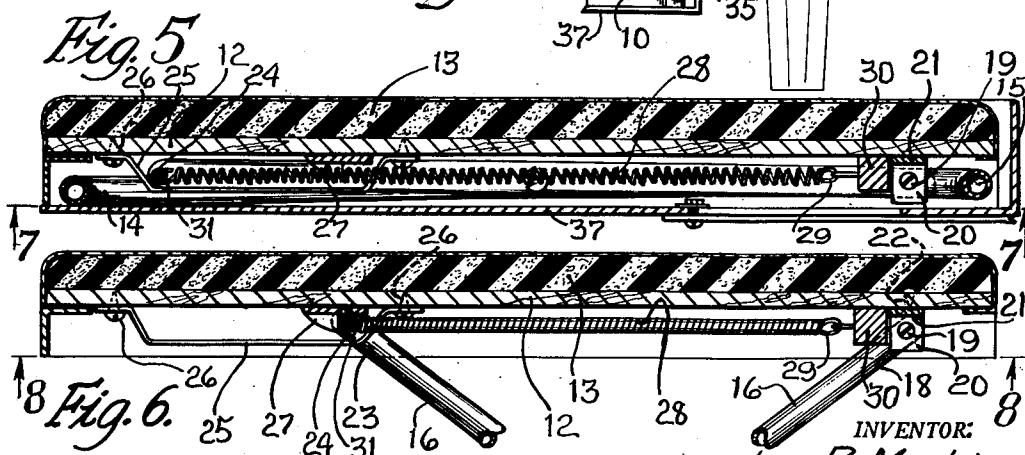


Fig. 5.

Fig. 6.

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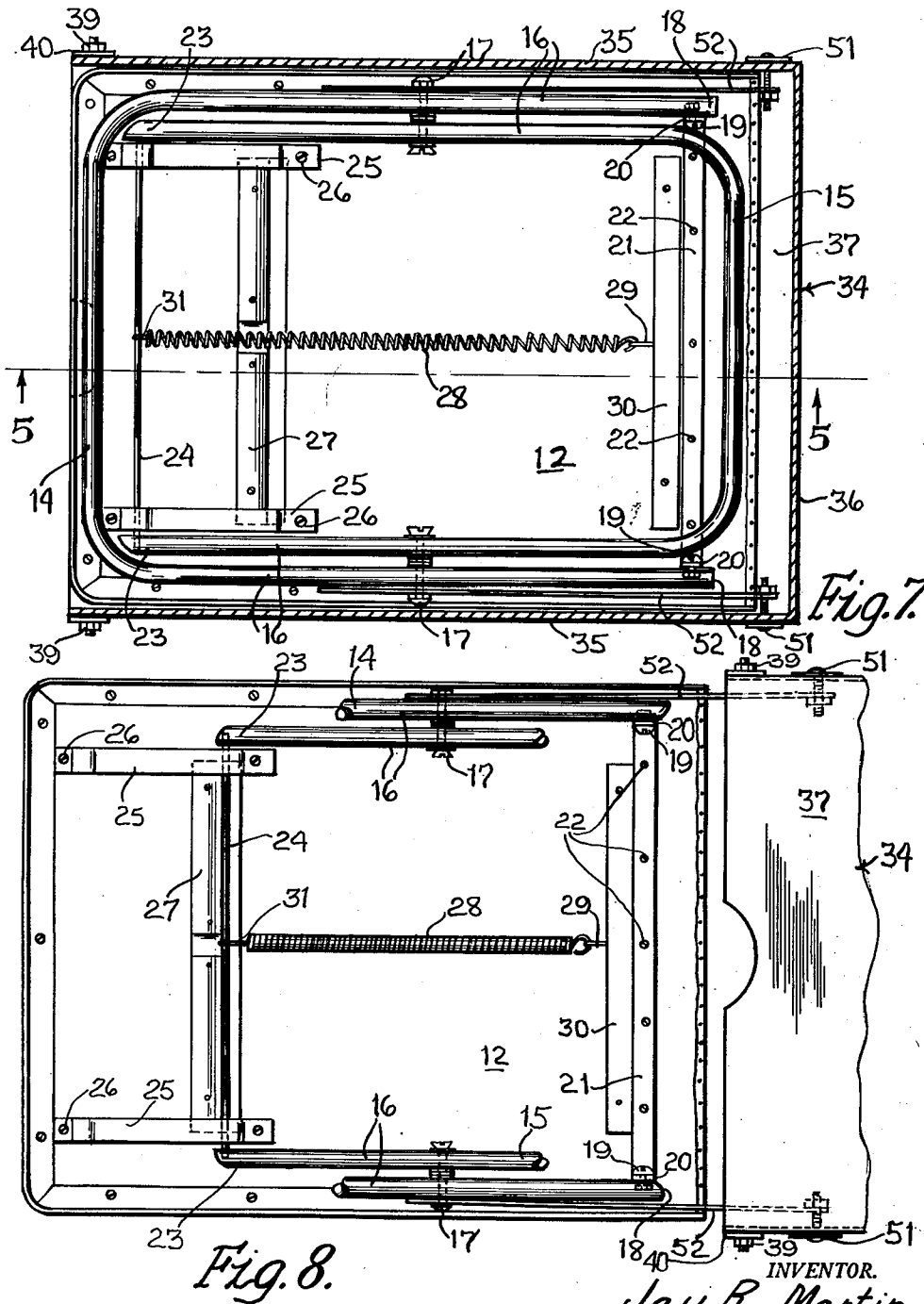
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EXTENSIBLE FOOTREST ATTACHMENT FOR CHAIRS

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3 Sheets-Sheet 3



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EXTENSIBLE FOOTREST ATTACHMENT
FOR CHAIRS

Jay R. Martin, Chicago, Ill.

Application September 15, 1949, Serial No. 115,866

8 Claims. (Cl. 155-170)

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My invention relates to certain new and useful improvements in extensible foot rest attachments for chairs and an object of the invention is to provide a simple inexpensive and efficient foot rest of a construction adapted to be applied to various kinds of chairs to afford a rest for the feet with the legs in extended or bent position and one which is capable of being readily arranged in position for use and capable of being compactly collapsed beneath a chair when not in use.

Another object of the invention is the provision of a foot rest of the character hereinafter described, which may be connected to standard and conventional chairs by a simple operation requiring the minimum degree of effort and which may be secured to the chair by one other than a skilled mechanic.

Another object of the invention is to provide an extensible foot rest which is completely assembled, ready for installation by the purchaser upon the chair with which it is desired to associate the foot rest.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of the invention showing the same in extended condition and in relationship to a chair;

Fig. 2 is a front view of the invention in collapsed condition;

Fig. 3 is a side view of the invention in collapsed condition;

Fig. 4 is a fragmentary detail view of the invention taken substantially on line 4-4 of Fig. 3;

Fig. 5 is a sectional detail view of the invention taken substantially on line 5-5 of Fig. 7, showing the foot rest in collapsed position;

Fig. 6 is a view similar to Fig. 5 showing the foot rest in extended position;

Fig. 7 is a sectional detail view taken substantially on line 7-7 of Fig. 5; and

Fig. 8 is a sectional detail view taken substantially on line 8-8 of Fig. 6.

The several objects of this invention are accomplished by the preferred form of construction shown in the accompanying drawings. Such construction preferably comprises a foot rest generally indicated at 10. This foot rest comprises a foot plate 11 comprising a base plate 12 supporting a cushion 13.

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The foot plate is supported by a pair of legs 14 and 15 preferably formed U-shaped with their limb portions 16 arranged in cross relation with respect to each other and pivoted together in scissors formation by means of bolts 17. The end portion 18 of the limb portions 16 of the leg 14 are pivotally connected as at 19 to depending lugs 20 provided by a cross bar 21 secured in any suitable manner as by means of bolts 22 to the base plate 12 of the foot plate 11.

The end portions 23 of the limbs 16 of the leg 15 are connected together by means of a cross bar 24. This cross bar 24 is supported for parallel movement with respect to and beneath the base plate 12 by spaced guide bars 25 secured as at 26 to such base plate 12.

A keeper or latch bar 27 is secured to the base plate 12 and is adapted to have latched engagement with the cross bar 24 when the legs 14 and 15 are disposed in extended position with respect to each other and with respect to the base plate 12. The cross bar 24 is yieldably disposed to the rear of the latch bar 27 by means of a spring 28 having one end portion secured as at 29 to a reinforcing bar 30 carried by the plate 12 and its opposite end portion secured to the cross bar 24 as at 31.

The structure for connecting the foot rest 10 to a frame element 32 of a chair 33 comprises a tray 34. This tray 34 includes side walls 35, an end wall 36 and a bottom wall 37, there being an open front 38 to the tray. It is within this tray that the foot rest 10 is confined when in collapsed position. The forward end portion of this tray 34 by means of slot and bolt connections 39 is connected to a mounting bar 40 for vertical adjustment with respect to the bar 40. This bar 40 is attached to the frame 32 of the chair 33 by screws 41.

The inner end portion of the tray 34 is adjustably connected to the frame of the chair 33. This is accomplished by providing an angle bar 42, one leg 43 of which is connected to the frame 32 by a screw 44. The other leg 45 of the angle bar 42 by means of a slot and bolt connection 46 is connected to a lateral extension 47 of an arm 48. This arm 48 by means of the slot and bolt connection 49 is adjustably connected to the bottom wall 37 of the tray 34.

The side walls 35 of the tray 34 are provided with elongated slots 50. Slidable in these slots are bolts 51 which connect spaced arms 52 to the tray 34 for longitudinal adjustment with respect to the side walls. The outer end portions of these spaced arms 52 are provided with elon-

gated slots 53 through which the bolts 17 project.

When the foot rest 10 is in a collapsed condition, it is confined within the tray 34 beneath the seat 54 of the chair 33. In this position of the foot rest, the legs 14 and 15 are collapsed against the bottom plate 12 as best shown in Figs. 5 and 7 with the spring 28 placed under tension. To extend the foot rest 10, the outer edge portion of the foot plate 11 is firmly grasped by the hand and pulled outwardly with respect to the tray 34. In this outward movement of the foot rest 10 from the tray 34, it is guided by the spaced arms 52. When the foot rest 10 has reached its extended position with respect to the tray 34 as shown in Fig. 1, the legs 14 and 15 will pivot with the help of the spring 28 to extended position to support the foot plate 11 in foot supporting position with respect to the chair.

When the legs 14 and 15 have pivoted to extended position as shown in Fig. 6, the cross rod 24 will be engaged in latched relation with respect to the keeper bar 27 thus latching the legs 14 and 15 in the aforesaid extended position.

To collapse the foot rest 10, the outer end of the foot plate 11 is pivoted upwardly while the inner end portion is restrained by the hand from movement. This upward movement of the outer end of the foot plate 11 disengages the cross rod 24 from the keeper bar 27 and permits the legs to collapse in position for movement of the foot rest into the tray 34 beneath the chair 33.

By providing an adjustable connection between the bar 40 and the tray 34 and between the angle arm 42 this tray may be adjusted laterally with respect to the bottom of the chair to avoid interference with any of the bottom structure of the chair or the ornamental parts thereof such as is indicated at 33', which would otherwise interfere with movement of the foot rest into the tray 34 beneath the chair.

By providing the adjustable connection between the arm 48 and the tray 34, the angle arm 42 may be adjusted relatively to the tray to compensate for differences in location of the frame structure of the chair to which the angle arm 42 is to be attached.

From the foregoing description, it is clear that to attach my extensible foot rest to a chair, it requires but a simple operation, that of employing but three screws for that purpose. By reason thereof, the foot rest may be attached to a chair of a conventional construction by one, other than a skilled mechanic.

It is also apparent that by a simple operation requiring a minimum effort upon the part of the user, the foot rest may be moved from and into foot supporting position.

The tray and foot rest being assembled at the factory as a unit, permits the same to be sold and shipped in a compact parcel and as the foot rest is compactly positioned in the tray, the installation of the tray on the chair is by reason thereof greatly facilitated.

The several parts of this invention may be formed of such material as will best serve the purpose.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. An extensible foot rest for a chair comprising a tray adapted to be connected to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, and means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray.

2. An extensible foot rest for a chair comprising a tray adapted to be connected to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, means for releasably latching said other leg to said plate when said legs are in extended position with respect to said plate, and means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray.

3. An extensible foot rest for a chair comprising a tray adapted to be connected to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray, and spring means connected to said plate and said legs for urging said legs in extended position with respect to said tray.

4. An extensible foot rest for a chair comprising a tray adapted to be connected to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, means for releasably latching said other leg to said plate when said legs are in extended position with respect to said plate, means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray, and spring means connected to said plate and said legs for urging said legs in extended position with respect to said tray.

5. An extensible foot rest for a chair comprising a tray, means having adjustable connection with the tray for connecting the tray to the bottom structure of a chair, a foot rest plate, a sup-

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porting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, and means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray.

6. An extensible foot rest for a chair comprising a tray, means having adjustable connection with the tray for connecting the tray to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, means for releasably latching said other leg to said plate when said legs are in extended position with respect to said plate, and means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray.

7. An extensible foot rest for a chair comprising a tray adapted to be connected to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said

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last named means functioning to guide the plate and the collapsed legs into the said tray, spring means connected to said plate and said legs for urging said legs in extended position with respect to said tray, means for releasably latching said other leg to said plate when said legs are in extended position with respect to said plate.

8. An extensible foot rest for a chair comprising a tray, means having adjustable connection with the tray for connecting the tray to the bottom structure of a chair, a foot rest plate, a supporting structure for the plate including a pair of legs connected together in scissors formation, means for pivotally connecting one of the legs to said plate, means for adjustably connecting the other leg to said plate whereby said pair of legs may be collapsed against said plate, means for releasably latching said other leg to said plate when said legs are in extended position with respect to said plate, means for adjustably connecting the legs to said tray, said plate and said legs when in collapsed relation adapted to be confined in said tray and said last named means functioning to guide the plate and the collapsed legs into the said tray, and spring means connected to said plate and said legs for urging said legs in extended position with respect to said tray.

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