

[54] **EXTENDIBLE RUNNER**  
 [76] Inventor: **Leslie Gordon Hudson, Little**  
 Copped Hall, Epping, Essex,  
 England  
 [22] Filed: **June 22, 1971**  
 [21] Appl. No.: **155,553**

1,191,159	7/1916	Cunningham.....	308/3.6
786,540	4/1905	Williams.....	312/335
808,169	12/1905	Rhodes.....	312/346
1,301,495	4/1919	Otte.....	312/338
2,081,635	5/1937	Meyer.....	248/250

**FOREIGN PATENTS OR APPLICATIONS**

823,512	11/1959	Great Britain.....	248/250
1,012,396	7/1952	France.....	248/250

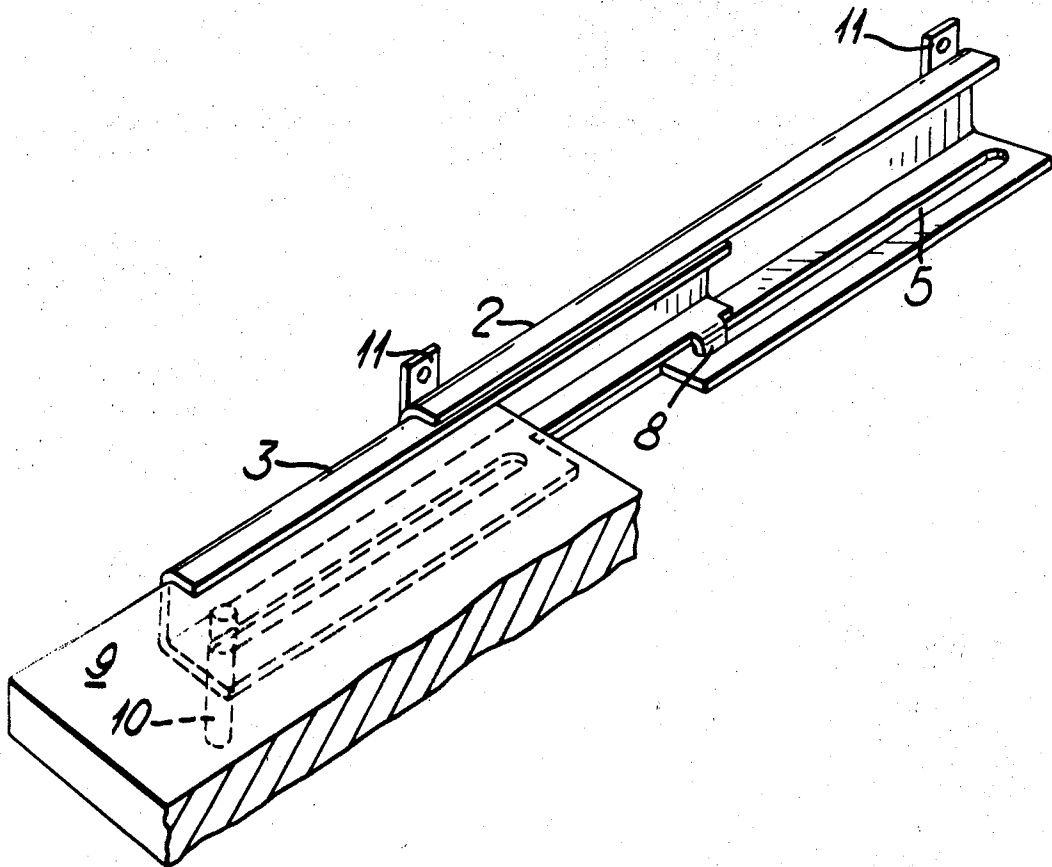
[30] **Foreign Application Priority Data**  
 June 23, 1970 Great Britain..... 30,420/70  
 [52] U.S. Cl..... **308/3.6, 312/348**  
 [51] Int. Cl..... **F16c 21/00**  
 [58] Field of Search..... 308/3.6, 3.8;  
 312/338, 346, 348, 335, 332, 334, 347;  
 211/762; 248/250; 108/83, 102, 143

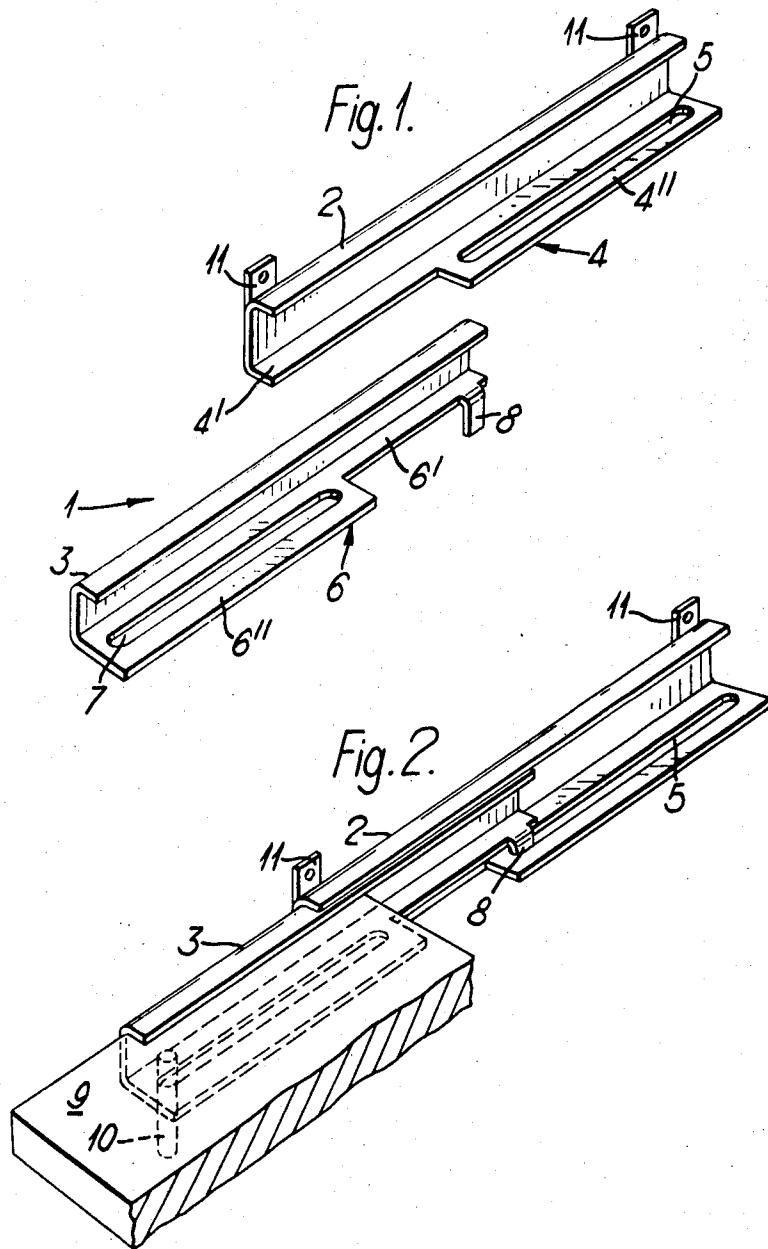
*Primary Examiner*—Charles J. Myhre  
*Assistant Examiner*—R. H. Lazarus  
*Attorney*—Woodhams, Blanchard & Flynn

[56] **References Cited**  
**UNITED STATES PATENTS**  
 3,419,317 12/1968 Mutchnik..... 108/83  
 2,215,881 9/1940 Leveneten..... 312/348

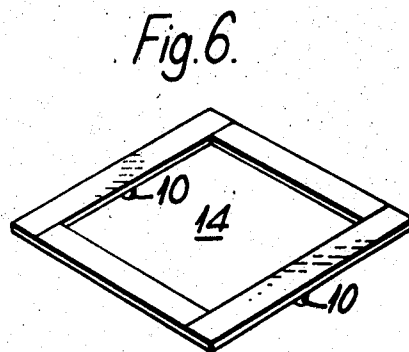
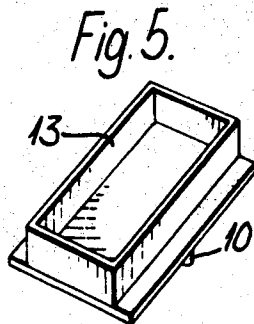
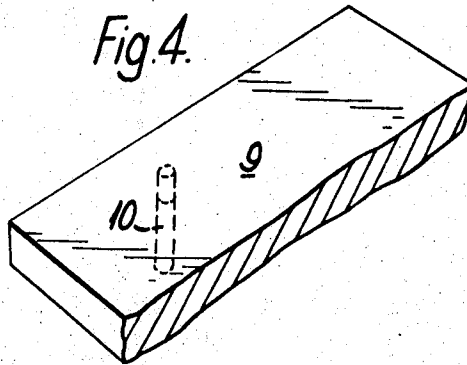
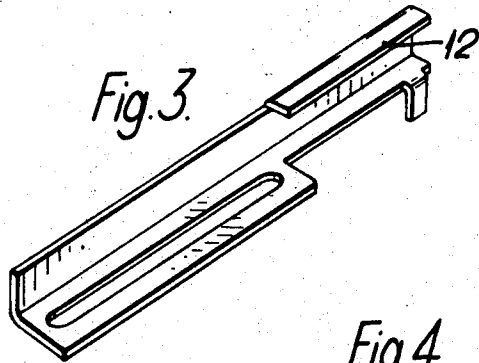
[57] **ABSTRACT**  
 The invention relates to a telescopic runner unit for supporting a shelf or other storage member on storage supports and includes means such as a lug on one member running in a slot on the other member so that the two telescopic members forming the unit are positively engaged and do not disengage laterally during use.

**8 Claims, 10 Drawing Figures**

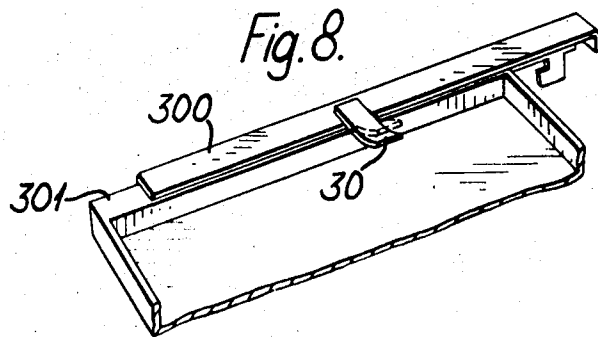
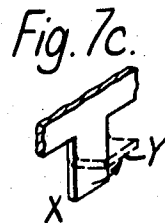
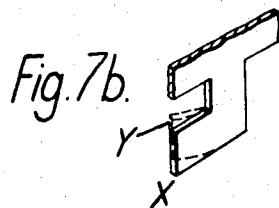
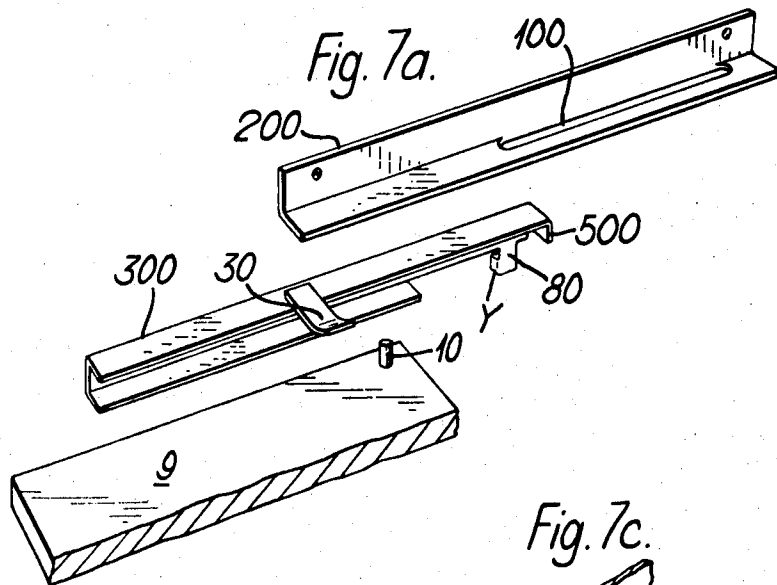




INVENTOR  
LESLIE GORDON HUDSON  
BY  
Woodhams, Blanchard & Flynn  
ATTORNEYS



INVENTOR  
LESLIE GORDON HUDSON  
BY  
Woodhams, Blanchard & Flynn  
ATTORNEYS



INVENTOR  
LESLIE GORDON HUDSON  
BY  
Woodhams, Blanchard & Flynn  
ATTORNEYS

## EXTENDIBLE RUNNER

The invention relates to extendible slides or runners of the kind used to provide easy access to filing cabinets and drawers.

It is an object of the invention to provide means whereby a drawer or shelf can be pulled out from a housing to approximately its full extent.

According to the invention there is provided a telescopic unit for supporting a storage member, such as a shelf, mounted on one part of the telescopic unit so that when the storage member is moved the parts of the telescopic unit move relative to each other.

Suitably the parts of the telescopic unit may comprise two channel section members which have a sliding fit one with the other, the one being lockingly engaged on the other part.

Alternatively the parts of the telescopic unit may comprise one of channel shape and one of L-shape.

Preferably the one part may be lockingly engaged with the other part by means of a lug engaging in a slot.

The storage member may also slide relative to the one part of the telescopic unit. This relative sliding movement may be accomplished by means of a spigot engaging in a slot in the one part.

Three embodiments of the invention are diagrammatically illustrated, by way of example, in the accompanying drawings, in which:

FIG. 1 shows an exploded view of one embodiment of extendible runner for a shelf;

FIG. 2 shows an extendible shelf mounted on the runner of FIG. 1, in the fully extended position;

FIG. 3 shows part of another embodiment of runner;

FIG. 4 shows a shelf for use with the runners;

FIG. 5 shows a drawer;

FIG. 6 shows a particular form of shelf or platform for supporting a bowl or other receptacle;

FIGS. 7a to 7c shows an exploded view of a third embodiment of telescopic runner; and

FIG. 8 shows part of a drawer mounted in the runner.

Referring to FIGS. 1 to 6 of the drawings an extendible runner, indicated generally by 1, for a shelf comprises an inner U-shaped or channel member 3 which slides telescopically within an outer member 2 also U-shaped or of channel section. The outer member 2 has a lower limb 4 which has a narrow portion 4' and a portion 4'' of greater width. The portion 4'' has a slot 5 which is just less than half the length of the member 2. The inner member 3 also has a lower limb 6 which has a narrow portion 6' and a portion 6'' of greater width including a slot 7. The narrow portion 6' includes an integral depending lug 8. As shown in FIG. 1 the wider portions 4'' and 6'' of the lower limbs 4 and 6 are at opposite ends of the respective members 2 and 3.

A shelf 9 which is extendible has such a width that it just fits inside the U-shaped inner member 3 (FIG. 3) and includes a downwardly depending screw, peg or spigot 10 set midway of its width and just inboard of its edge (FIG. 4).

In use, the telescopic member 1 is supported by brackets or lugs 11 on a suitable framework or base (not shown) with the lug 8 engaged in the slot 5, and the spigot 10 engaged in the slot 7. The spigot 10 prevents the member 1 from disengaging sideways from the shelf 9, which is thus held in correct alignment.

Referring to FIG. 2, if it is desired to retract the shelf from the fully extended position shown, it is only neces-

sary to push the shelf from the outside towards the outer member 2 of the telescopic runner 1. The shelf 9 slides in the inner member 3 until the spigot 10 engages the rear end of the slot 7. The inner member 3 of the telescopic runner now slides in the channel of the outer member 2 until the lug 8 engages the rear end of the slot 5, which thus acts as a back stop to prevent the runner from being dismantled accidentally.

In order to extend the shelf, it is merely necessary to grip the front edge of the shelf 10 and draw it away from the outer member 2 so that the spigot 10 runs forwardly in the slot 7 until it engages the front edge of the slot 7. The inner member 3 then moves, under continued drawing motion, until the lug 8 engages the front edge of the slot 5. The shelf is then fully extended to almost its own width, as shown in FIG. 2.

It will be understood that the extendible shelf is usually mounted on two telescopic runners of the kind described, one at each side of the shelf and that the inner member has approximately the same length as the width of the shelf.

FIG. 3 shows a modified form of inner channel member 12, in which the upper limb is part cut away to provide a partially open channel. The cut away portion of the upper limb of this channel member allows a shelf to be inserted or removed from above instead of from the front and enables the shelf to be easily removed for cleaning purposes.

The runners can be used for extending drawers 13, as shown in FIG. 5, by building up four sides as shown.

Alternatively, the shelf may include a recess 14 (FIG. 6) for holding a bowl, wash-basin or receptacle (not shown). Such an arrangement is suitable for use in hospitals, laboratories or kitchens where it is desirable to provide a basin which is extendible or retractable into a cupboard.

Referring now to FIGS. 7a to 7c, a further embodiment shown therein comprises, instead of FIG. 2 part 2 having a top flange to prevent part 3 from tipping downwards when extended, the lug 8 of FIG. 1 can be bent as in FIG. 7b or 7c from x to y (in dotted lines) after insertion into the slot 100 so that it cannot be withdrawn and thus allow part 200 to tip downwards. Part 200 is of L-shape. Also part 3 of FIG. 2 is modified to have a spring or hinged clip 30 attached to the top flange midway in the length of member 300 in FIG. 7. The clip 30, which engages against a peg 10 situated on the top and rear end of a shelf 9 so that when the shelf is pulled out, the peg 10 engages the clip 30 and draws the member 300 forward. By bending clip 30 upwards the shelf can be completely disengaged. The member 500 is a stop which is engaged by peg 10 when the shelf is pushed back and causes part 300, to be pushed back with it when so engaged.

FIG. 8 shows how part 300 (FIG. 7), can engage inside the back of a drawer so that a drawer provided with a flange 301 to engage in the channel 8 in the member 300 (FIG. 7) can be used in place of a shelf.

It is also to be understood that the runners and shelf may be manufactured from any suitable material, for example metal or plastics.

The invention therefore provides a simple and inexpensive extendible runner for a shelf or drawer which requires no wheels or revolving parts.

What is claimed is:

1. A telescopic runner unit, comprising a first runner means, said first runner means having a vertical body

portion, said vertical body portion having a lateral base flange projecting horizontally from the lower longitudinal edge thereof, said vertical body portion being provided with means for securing said vertical body portion to vertical furniture means, said lateral base flange being formed over part of its length taken from one end thereof with elongated slot means, and second runner means comprising a substantially channel-shaped body portion arranged on one side of said vertical body portion to run on said lateral base flange and provided at one end with locking lug means adapted to engage and run in said slot means.

2. A runner unit according to claim 1, wherein said locking lug means has a first part parallel to said vertical body portion and an integral second part lying at right angles to said vertical body portion to prevent said lug means from being removed from said slot means.

3. A runner unit according to claim 2, wherein said second runner means is provided with spring clip means intermediate its length adapted to be engaged with shelf means slidably engaged in said channel-shaped body portion.

4. A runner unit according to claim 3, wherein stop means is provided on the upper flange means of said channel-shaped body portion adjacent the rearward end thereof and positioned for engagement with said shelf means.

5. In a support structure for an article, such as a shelf or drawer, said support structure including a pair of substantially parallel and elongated telescopic runner units which are extendable and contractable in a first horizontal direction, said pair of runner units being disposed on opposite sides of said article for supporting same for movement in a horizontal direction, said pair of runner units being positioned between and respectively mounted on a pair of opposed and substantially parallel vertical support surfaces, said runner units being mirror images of one another, comprising the improvement wherein each runner unit includes:

a first substantially horizontally elongated runner member, said first runner member including a substantially vertical support portion adapted to be positioned adjacent one of said vertical support surfaces and a horizontal support flange fixedly secured to and projecting inwardly from said support portion along the lower longitudinal edge thereof, said horizontal flange having an elongated slot formed therein and extending longitudinally thereof, and means associated with said first runner member for permitting same to be fixedly secured to one of said vertical support surfaces;

said elongated slot having the opposite ends thereof defined by a pair of opposed stop portions, one of said stop portions being disposed adjacent one end of said first runner member and said other stop portion being disclosed approximately midway between the ends of said first runner member;

a second substantially horizontally elongated runner member slidably supported on said first runner member and movable longitudinally thereof in said first horizontal direction, said second runner member having a substantially channel-shaped body portion which opens in a second substantially hori-

zontal direction which is substantially perpendicular to said first direction, said channel-shaped body portion having a substantially vertically extending base portion disposed directly adjacent one side of the vertical support portion of said first runner member, said channel-shaped body portion also including upper and lower substantially horizontal flanges projecting inwardly from said vertical base portion adjacent the upper and lower longitudinally extending edges thereof, said lower flange being slidably supported on the horizontal flange of said first runner member;

said second runner member including lug means fixedly secured thereto and projecting vertically downwardly therefrom into the elongated slot formed in said first runner member, whereby said second runner member is slidably movable relative to said first runner member between a first position wherein the second runner member is disposed substantially totally within the first runner member and the lug means is engaged with said one stop portion and a second position wherein the second runner member is at least partially withdrawn from said first runner member and said lug means is disposed in engagement with said other stop portion; and

said article having a side portion thereof slidably supported within said channel-shaped body portion, said cooperating stop means coacting between said second runner member and said article for permitting said article to be linearly slidably displaced relative to said second runner member through a predetermined distance in a direction parallel to said first direction.

6. A support structure according to claim 5, wherein said stop means includes first and second stop members fixedly secured to said second runner member and a third stop member fixedly secured to said article, said first and second stop members being spaced said predetermined distance apart with said first stop member being disposed adjacent the rearward end of said second runner member and said second stop member being disposed intermediate the ends of said second runner member, and said third stop member being fixedly secured to said article adjacent the rearward end thereof and being positioned between said first and second stop members.

7. A support structure according to claim 6, wherein one of said second and third stop members comprises a resilient platelike spring disposed for engagement with the other of said second and third stop members, said spring being resiliently deflectible so as to enable said third stop member to move past said second stop member to enable said article to be completely separated from said second runner member.

8. A support structure according to claim 5, wherein said lug means includes a portion on the free end thereof extending transversely of said slot and projecting beneath said horizontal flange for positively preventing said lug means from being withdrawn from said slot.

\* \* \* \* \*