United States Patent

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[21] Appl No. **835,825**
Division of Ser. No. 635,939, Apr. 5, 1967, abandoned, division of Ser. No. 503,157, Oct. 23, 1965, Pat. No. 3,363,955.
[22] Filed **Jan. 17, 1969**
[45] Patented **Aug. 10, 1971**
[73] Assignee **Lyon Metal Products, Inc.**
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[54] **PEDESTAL AND LEG CONSTRUCTION**
7 Claims, 21 Drawing Figs.

[52] **U.S. Cl.** **248/188.4,** 248/188.8
[51] **Int. Cl.** **A47b 13/02**
[50] **Field of Search** ..... 248/188, 188.4, 188.8, 188.2, 188.5, 163, 165, 151; 312/194, 195, 239; 108/156; 5/310; 126/304—306; 4/186

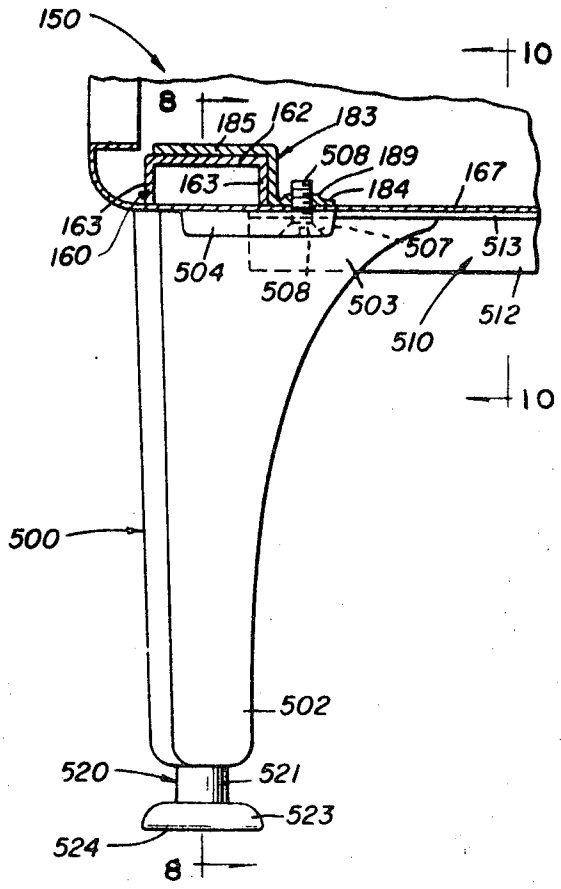
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ABSTRACT: The present invention is directed to a furniture leg construction comprising an upstanding body having a lower end and a substantially rearwardly extending elongated upper end, a substantially cylindrical recess in the lower end of the body and having threads formed on the inner periphery thereof, a pair of outwardly extending wings on the upper end of the body and disposed toward the forward edge thereof, the upper end having a channel-receiving notch in the rear portion thereof and extending forwardly and into at least a portion of the wings, the portion of each of the wings with the notch therein having an opening therein for receiving mounting fasteners therethrough, and a foot having an integral shank extending upwardly therefrom and carrying an integral molded threaded portion engaging the threads in the body.



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SHEET 1 OF 6

FIG. 1

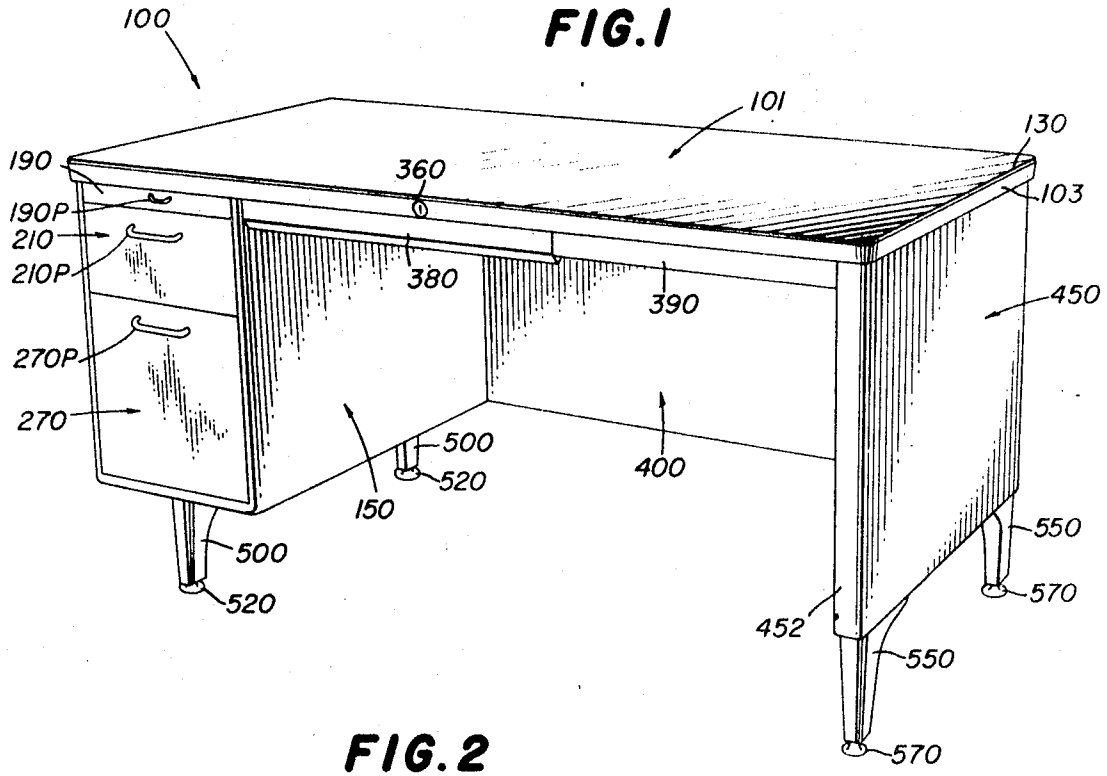
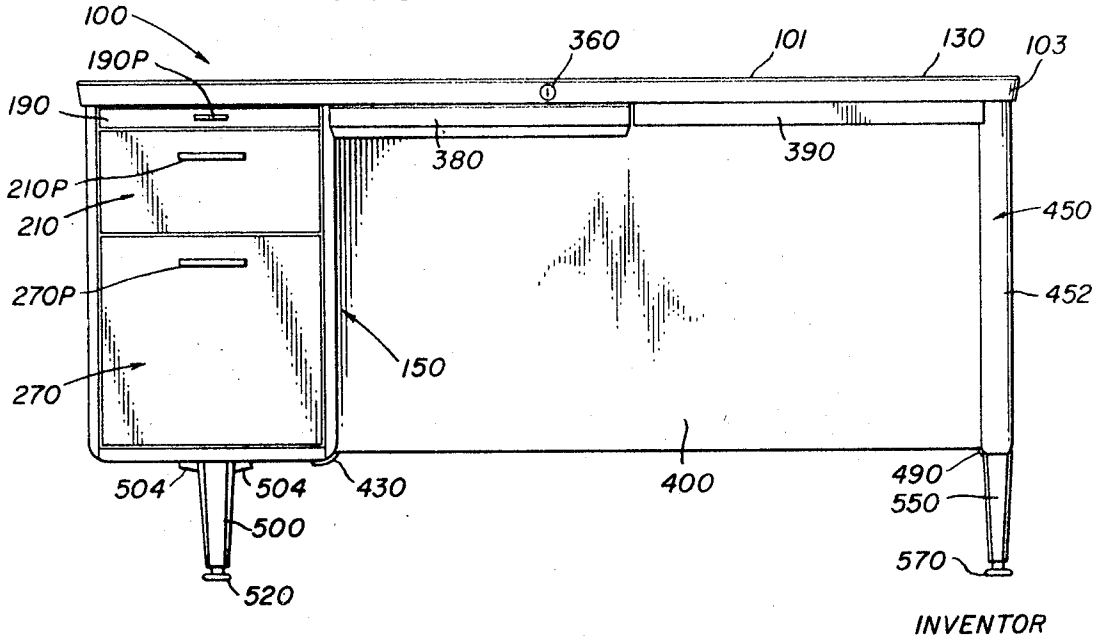


FIG. 2



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ATTYS.

FIG. 3

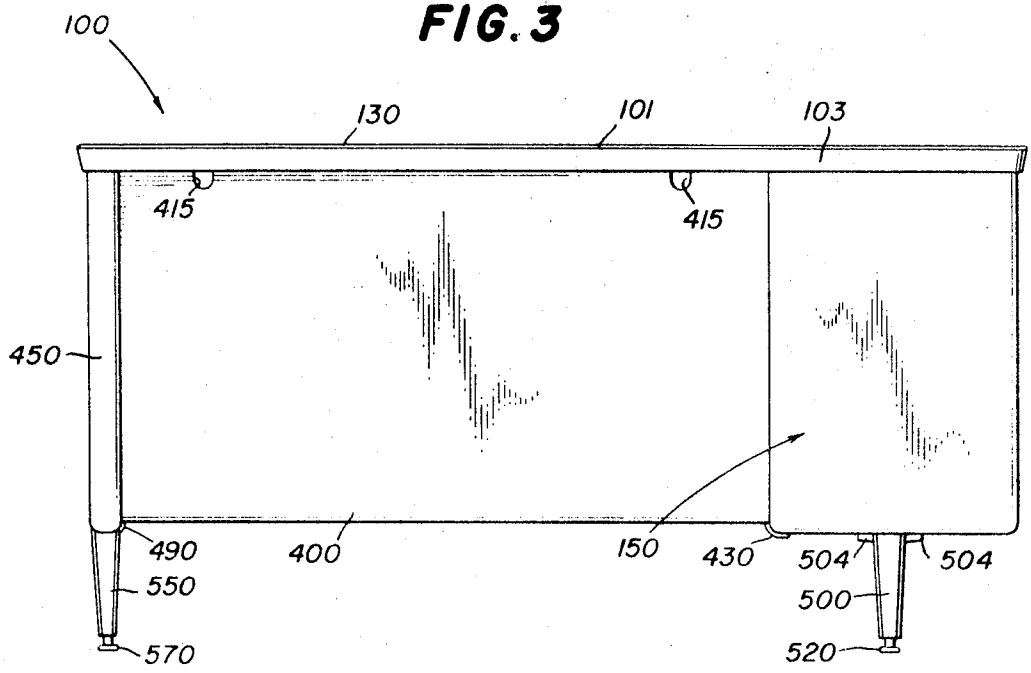

100
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415
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504
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550
500
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FIG. 4

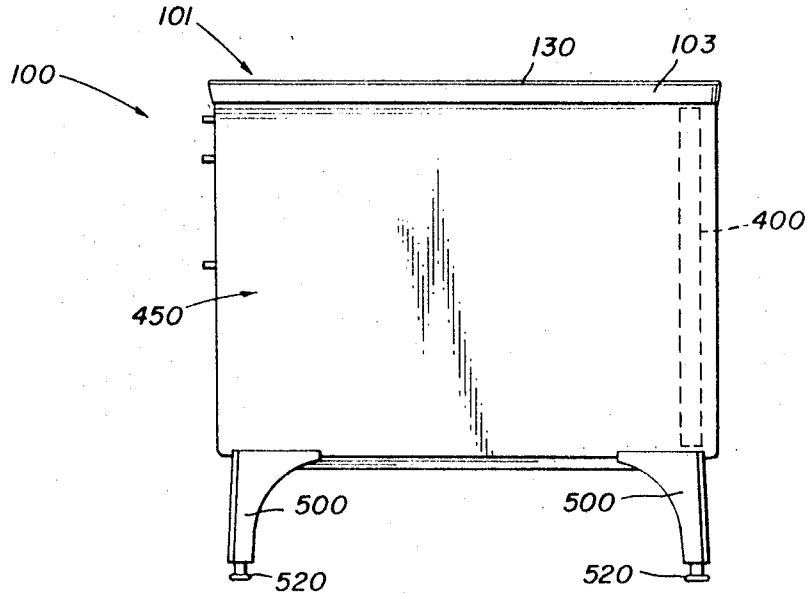

101
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520

FIG. 5

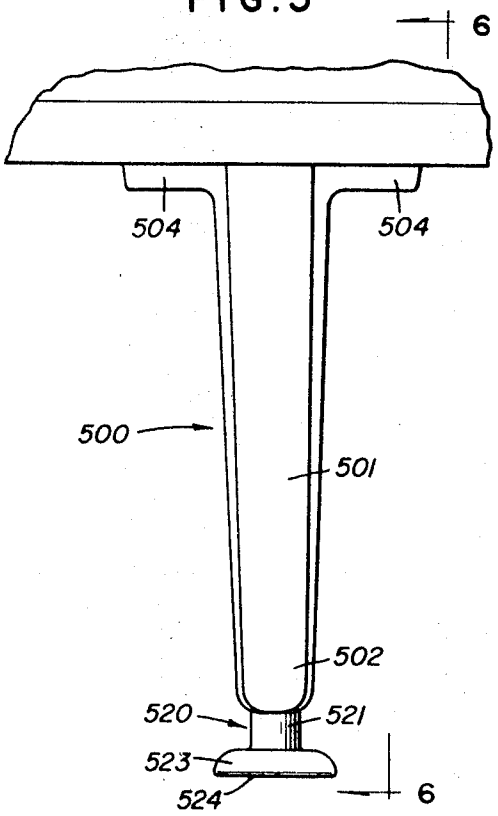


FIG. 6

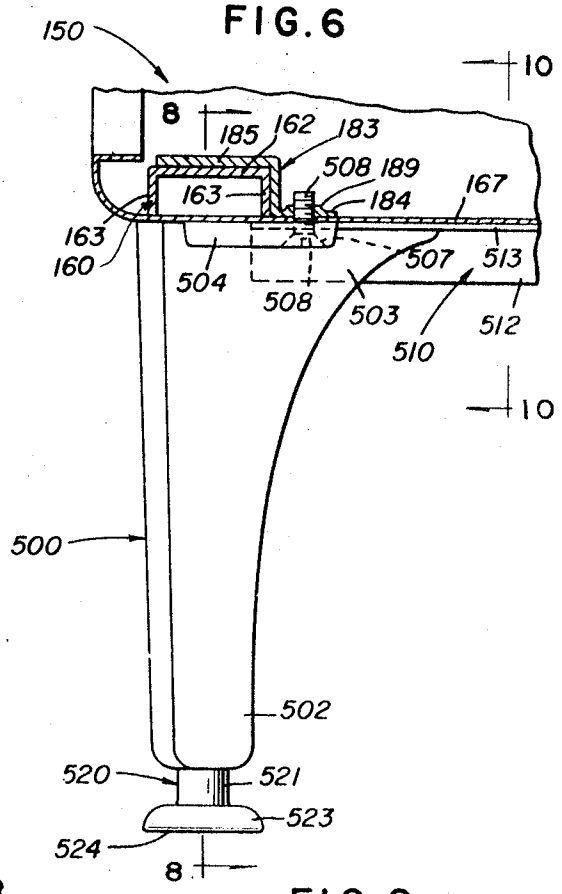


FIG. 7

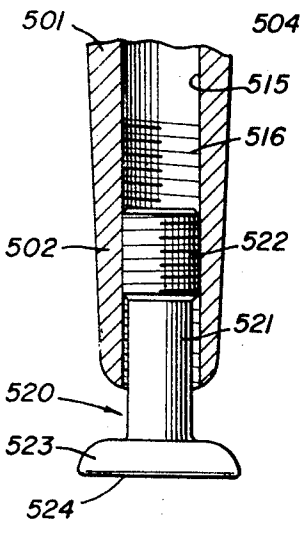


FIG. 8

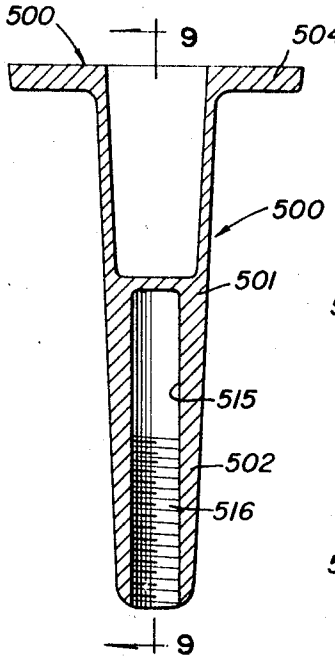


FIG. 9

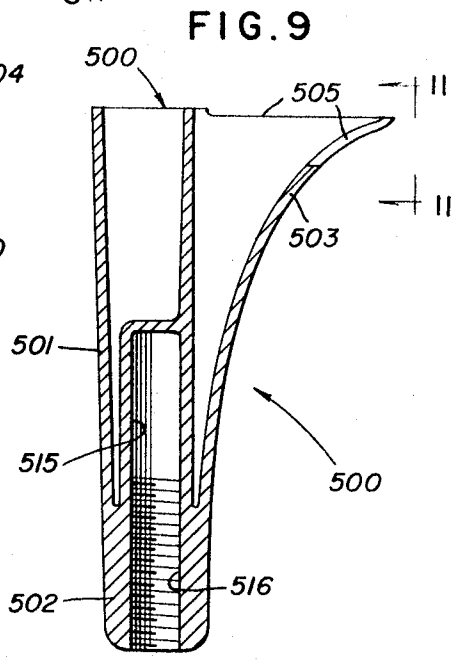


FIG. 10

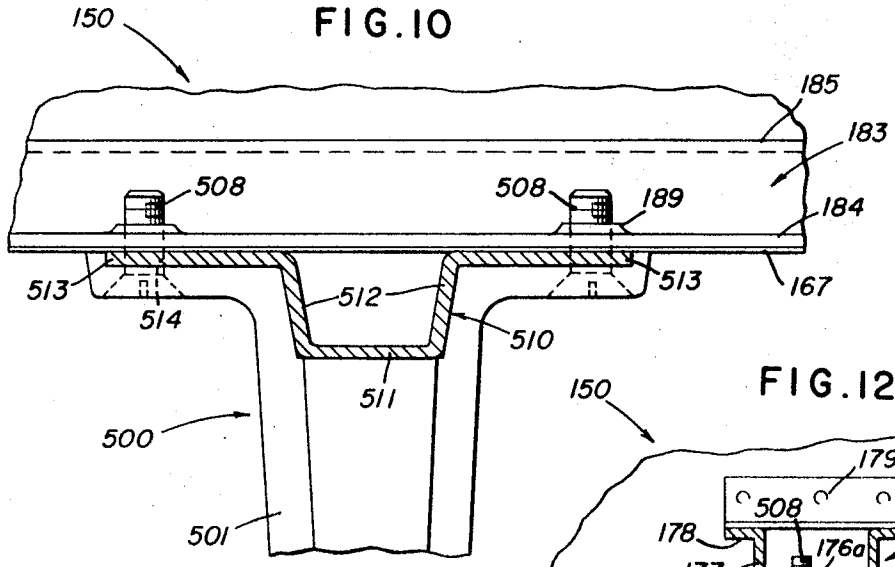


FIG. 12

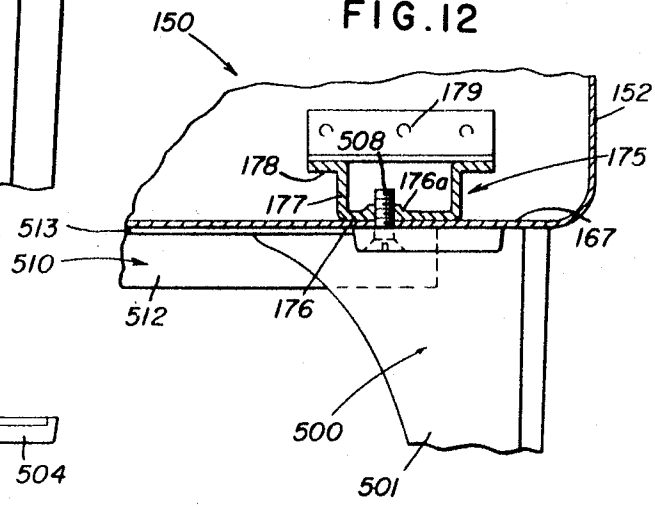


FIG. 11

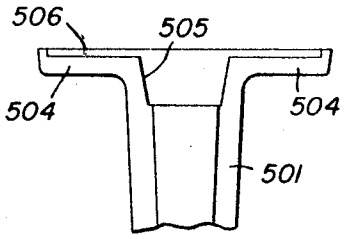


FIG. 13

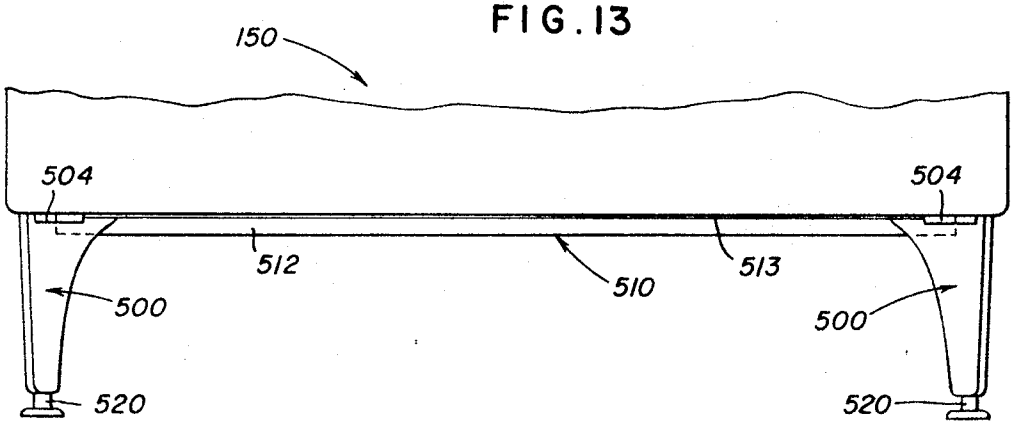


FIG. 14

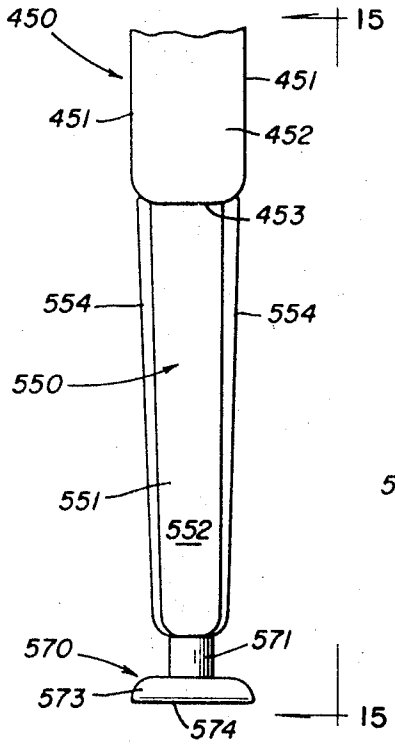


FIG. 15

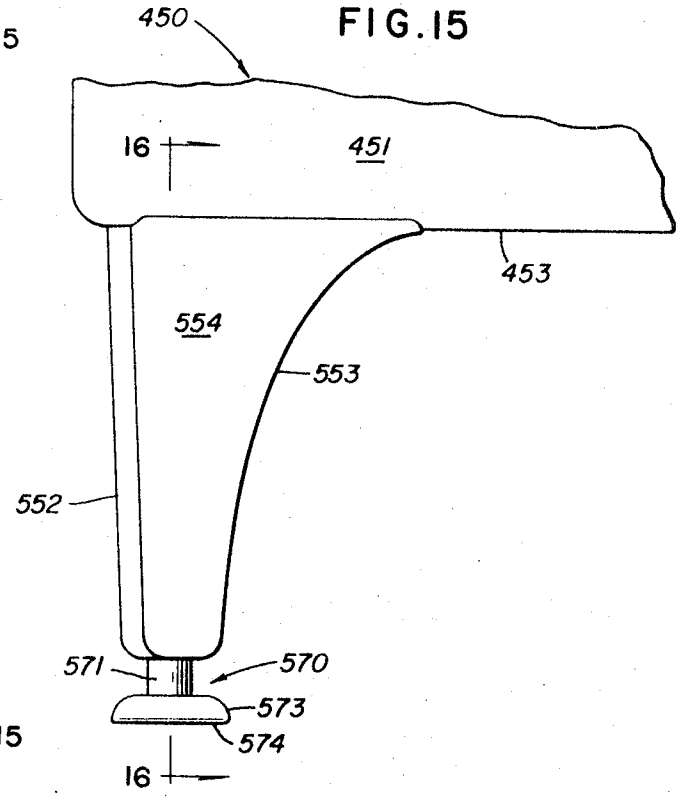


FIG. 16

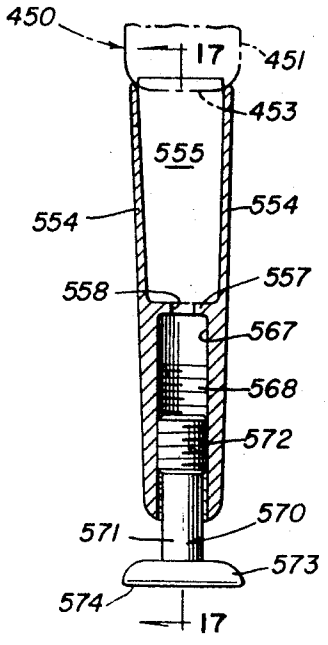
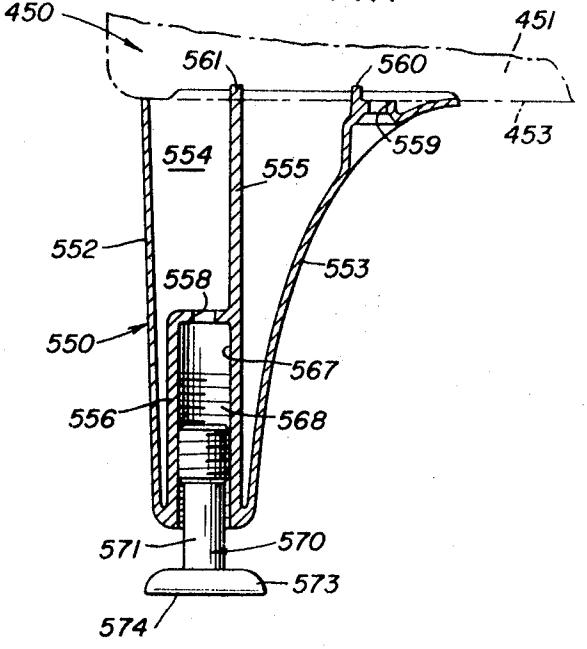


FIG. 17



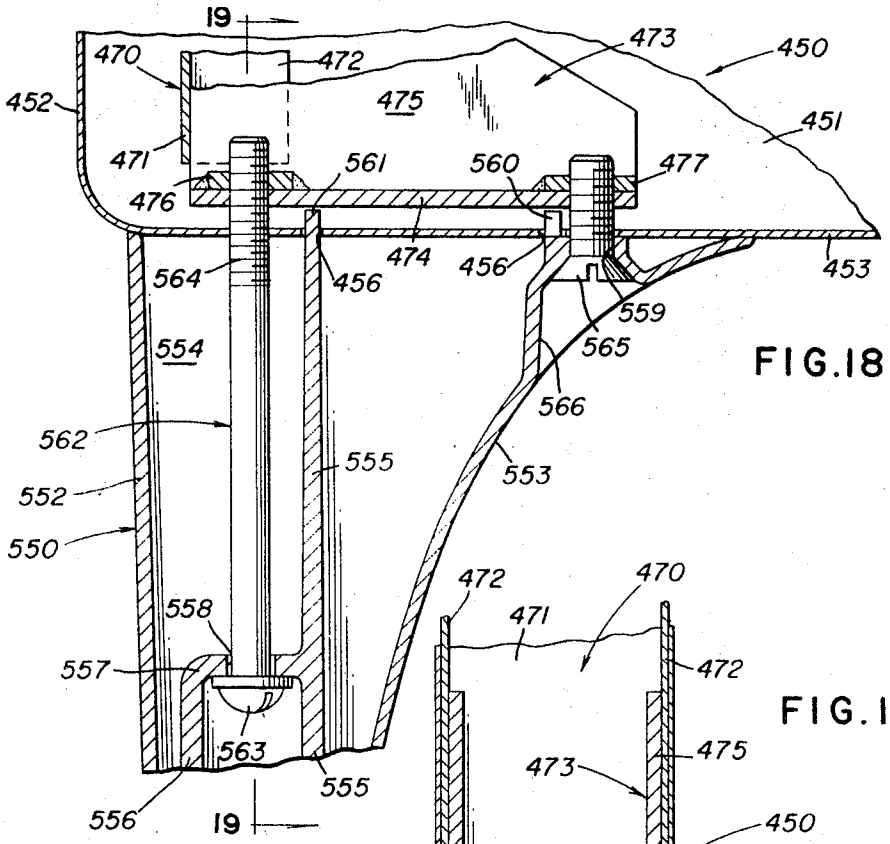
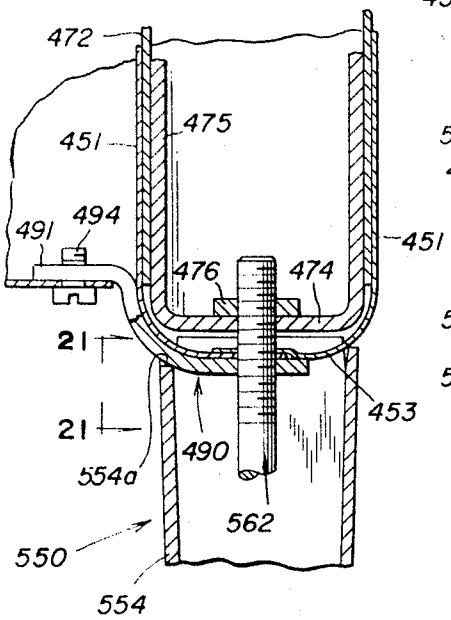


FIG. 18

FIG. 19

FIG. 20



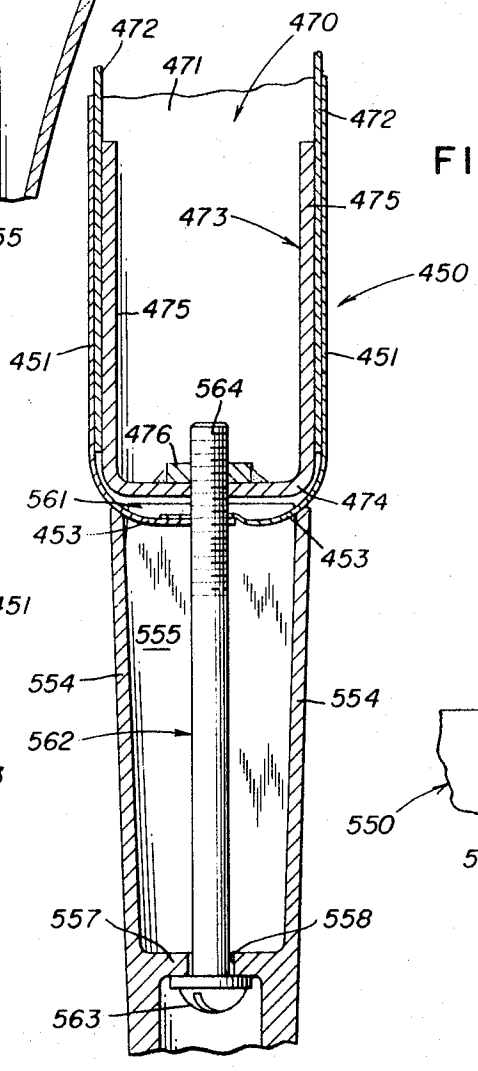
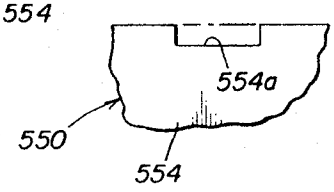


FIG. 21



PEDESTAL AND LEG CONSTRUCTION

This application is a division of the copending application, Ser. No. 635,939, filed Apr. 5, 1967, for DESK CONSTRUCTION, now abandoned which, in turn, is a division of the copending application, Ser. No. 503,157, filed Oct. 23, 1965, for DESK CONSTRUCTION, now U.S. Pat. No. 3,363,955.

This invention relates to an improved leg construction and particularly a leg construction used to support a pedestal.

An important object of the present invention is to provide an improved furniture leg and foot, the foot being adjustable with respect to the furniture leg and providing a large floor contact area and a large adjustment range, all with low construction cost.

In connection with the foregoing object it is another object of the invention to provide an improved adjustable furniture leg and foot particularly adapted to mounting on the bottom of a desk pedestal, two of the furniture legs being provided and connected by a stablilizing bar that serves to distribute the load in the pedestal between the two furniture legs.

Further features of the invention pertain to the particular arrangement of the parts whereby the above-outlined and additional features thereof are attained.

The invention, both as to its organization and method of construction, together with other objects and advantages, will best be understood by reference to the following specification taken in connection with the accompanying drawings, in which: FIG. 1 is a perspective view of a single pedestal desk made in accordance with and embodying the principles of the present invention;

FIG. 2 is a front elevational view of the desk of FIG. 1;

FIG. 3 is a rear elevational view of the desk of FIGS. 1 and 2;

FIG. 4 is an end elevational view of the desk illustrated in FIGS. 1 to 3;

FIG. 5 is an enlarged fragmentary view illustrating a leg mounted on and supporting the pedestal;

FIG. 6 is a side view partly in section along the line 6–6 of FIG. 5;

FIG. 7 is an enlarged view in vertical section through the bottom of the leg and illustrating the connection thereof to the associated foot;

FIG. 8 is a view in vertical section through the leg of FIG. 6 along the line 8–8 thereof, the associated foot and mounting structure having been removed for illustrative purposes;

FIG. 9 is a view in vertical section through the leg of FIG. 8 along the line 9–9 thereof;

FIG. 10 is a further enlarged view in vertical section through the tie channel and the bottom of the pedestal along the line 10–10 in FIG. 6, and illustrating additional features of the mounting of the leg on the pedestal;

FIG. 11 is a rear view of the upper portion of the leg of FIG. 9 as seen along the line 11–11 thereof;

FIG. 12 is a view similar to FIG. 6 but illustrating the mounting of the rear leg on the pedestal;

FIG. 13 is a side elevational view of the lower end of the pedestal and illustrating the interconnection between the legs by the tie channel disposed therebetween;

FIG. 14 is an enlarged view of the lower end of the end panel and showing the associated leg mounted thereon;

FIG. 15 is a side elevational view of the structure of FIG. 14 as seen in the direction of the arrows along the line 15–15 thereof;

FIG. 16 is a view in vertical section through the leg of FIG. 15 along the line 16–16 thereof;

FIG. 17 is a view in vertical section through the leg of FIG. 16 along the line 17–17 thereof;

FIG. 18 is a further enlarged view in vertical section with certain portions broken away and illustrating the interconnection between the leg and the pedestal of FIG. 14 at the front of the desk;

FIG. 19 is a view in vertical section through the assembly of FIG. 18 along the line 19–19 thereof;

FIG. 20 is a view similar to FIG. 19 illustrating the connection between the back panel and the end panel and the associated leg; and

FIG. 21 is a further enlarged view of the upper end of the leg prior to assembly in FIG. 20.

Referring now to the drawings, and particularly to FIGS. 1 to 4 thereof, there is illustrated a piece of furniture made in accordance with and embodying the principles of the present invention, a left-hand single pedestal desk **100** having been shown for purposes of illustration. The desk **100** includes a desk top **101** at one end of which is disposed a pedestal **150** supported by a pair of legs **500** having associated feet **520**, the pedestal **150** having mounted therein a shelf **190**, a box drawer **210** and a file drawer **270**, the shelf **190** being provided with a pull **190P**, the box drawer **210** being provided with a pull **210P** and the file drawer **270** being provided with a pull **270P**. Mounted on the other end of the desk top **101** is an end panel **450** supported by a pair of legs **550** having associated feet **570**, the space between the pedestal **150** and the end panel **450** at the rear of the desk top **101** being closed by a back panel **400**; as may be best seen in FIG. **3**, the back panel **400** is provided with a pair of wiring openings **415** for the reception of telephone wires and the like. There further is mounted on the desk top **101** a center drawer **380** and a depending front wall or skirt **390**, a lock **360** being provided in substantially the center of the front edge of the desk top **101** to lock the several drawers **210**, **270** and **380**.

Disposed at the forward portion of the pedestal **150** and completely encircling the interior thereof is a front frame **160** that includes a main wall **162** (see FIG. **6**) and a pair of integral side flanges **163** extending normal thereto and parallel to each other. The bottom wall **167** of the pedestal **150** is connected to the front frame **160** by means of a bracket **183** which includes an attachment flange **184** secured to the bottom wall **167** and a holding flange **185** that extends upwardly over the upper surface of the associated channel main wall **162** and is suitably secured thereto as by welding. A bottom reinforcement **175** (see FIG. **12**) is also provided at the rear of the pedestal **150** in the bottom thereof and includes a main wall **176** extending laterally of the pedestal **150** and a pair of upstanding side walls **177** on the edges thereof, the sidewalls **177** in turn carry out-turned flanges **178** (see FIG. **12**). The bottom reinforcement **175** is secured as by welding to the bottom wall **167** and is also secured at the outer ends thereof to the sidewalls of the pedestal **150** by means of reinforcement angles **179** that are suitably secured both to the reinforcement **175** and the adjacent sidewalls by welding.

As is seen in FIG. **1** to **4** of the drawings, two of the legs **500** are provided beneath the pedestal **150** to support the same upon an underlying support surface, the legs **500** being disposed substantially centrally laterally of the pedestal **150** and being respectively disposed adjacent to the front and rear thereof. The details of construction and the details of mounting the pedestal legs **500** are illustrated in FIGS. **5** to **13** of the drawings, wherein it will be seen that each of the legs **500** rests against the bottom wall **167** of the pedestal. Each of the pedestal legs **500** more particularly includes a body **501** that is preferably formed of metal, such as cast aluminum, and is provided with a lower end **502** and an upwardly and rearwardly directed upper end **503**. Extending laterally with respect to the body **501** and at the upper end thereof are two wings **504**, the wings underlying and having at least portions thereof resting against the lower surface of the pedestal bottom wall **167**. Disposed in the rear wall portion of the upper end **503** is a channel-receiving notch **505** extending substantially from the longitudinal midpoint of the wings **504** rearwardly to the rear end of the body **501**. Each of the wings **504** also has a recess **506** in the rearmost portion thereof communicating with the notch **505**, the notch **505** and the recesses **506** cooperating to receive the adjacent end of a tie channel **510** therein. As may best be seen in FIG. **10**, the tie channel **510** includes a bottom wall **511** adapted to lie on the bottom of the notch **505** and a pair of upwardly and outwardly directed sidewalls **512** lying

against the sides of the notch 505 and integral with the upper edges of the sidewalls 512 are out-turned flanges 513 lying in the recesses 506 in the associated wings 504. Each of the wings 504 has an opening 507 therein that is in general alignment with an opening 514 in the adjacent flange 513, these openings receiving a bolt 508 therethrough. The details of the attachment of the front leg 500 are illustrated in FIGS. 6 and 10, wherein it will be seen that the bolts 508 also extend upwardly through an aligned opening in the pedestal bottom wall 167 and into internally threaded embossments 189 formed in the attachment flange 184 of the front bracket 183. The rear leg 500 is similarly attached to the bottom reinforcement 175, and particularly to the main wall 176 thereof by the bolts 508, the bolts 508 engaging in threaded embossments 176*a* formed in the main wall 176. From FIG. 13 it will be seen that the tie channel 510 extends between the front and rear pedestal legs 500 to provide interconnection therebetween and to reinforce the pedestal bottom wall 167, thereby to stabilize and tie together the various parts thereof.

Referring now particularly to FIGS. 7 to 9, it will be seen that the lower end of each of the legs 500 carries a foot 520, each lower end 502 of each leg 500 more particularly having a vertically extending recess 515 therein on the walls of the lower portion of which are formed threads 516. Each foot 520 includes an elongated shank 521 that extends upwardly into the associated recess 515 and carries on the upper end thereof an enlarged threaded section 522 carrying threads that engage with the threads 516. The lower end of the shank 521 carries an outwardly directed support member 523 that is generally circular in outline and has a generally circular support surface on the underside thereof. The surface 524 can be adjusted vertically with respect to the pedestal leg 500 by threading the threaded section 522 downwardly and upwardly with respect to the threads 516. A substantial distance of adjustment can be achieved while providing good stability between the leg 500 and the foot 520, all while concealing the threaded connection therebetween. As a result, a mechanically strong and stable leg and foot construction of good appearance is thus provided.

The end panel 450 is supported by two end panel legs 550, one of the legs 550 being disposed toward the forward end of the end panel 450 and the other leg 550 being disposed toward the rear end of the end panel 450, both of the legs being centered laterally under the end panel 450. The details of construction and connection of the end panel legs 550 are best illustrated in FIGS. 14 to 21 of the drawings wherein it will be seen that each of the legs 550 includes a body 551 formed of metal, preferably cast aluminum. The body 551 includes a transversely curved upstanding front wall 552 that merges with a pair of substantially flat sidewalls 554 that extend rearwardly with respect to the front wall 552 and are curved upwardly and directed rearwardly as may best be seen in FIG. 15. The sidewalls 554 are joined by a transversely curved and upwardly and rearwardly curved rear wall 553. There further is provided an intermediate wall 555 extending substantially the entire vertical length of the leg 550 and integrally joining an inner wall 556 cooperating to provide a vertically extending recess 567 therein provided with threads 568 on the lower portions of the wall thereof. Finally, a transverse wall 557 is provided joining the upper end of the wall 556 and an intermediate portion of the intermediate wall 555, the transverse wall 557 having an opening 558 therein that is in general axial alignment with the recess 567 and adapted to receive therethrough a fastener as will be described more fully hereinafter. The rear wall 553 also has a fastener receiving opening 559 therein, there being provided adjacent to the opening 559 an upwardly extending projection 560, a cooperating projection 561 being provided on the upper end of the intermediate wall 555, the projections 560 and 561 extending into cooperating openings or slots 456 in the bottom flange 453 of the end wall 450 (see FIG. 18).

In order to attach each of the legs 550 to the underside of the end wall 450, a first bolt 562 has been provided having an enlarged head 563, the shank of the bolt 562 extending upwardly through the opening 558 in the transverse wall 557 with the head 563 engaging the under surface of the wall 557, the upper end of the bolt 562 carrying a threaded portion 564 that extends upwardly through aligned openings in the clip flange 493 (where provided as in FIG. 20) and the bottom flanges 453 and the bottom wall 474 and threadedly engaging the nut 476. A second bolt 565 is disposed in the recess 566 in the rear wall 553 that is in alignment with the opening 559 therein, the bolt 565 extending through an aligned opening in the bottom flanges 453 and the bottom wall 474 and threadedly engages the nut 477. It will be seen from FIGS. 18 and 19 that the leg 550 is firmly mounted upon the end wall 450 by means of the bolts 562 and 565, the connection being entirely concealed. It further is noted that the upper edges of the front wall 552, the rear wall 553, the sidewalls 554 and the intermediate wall 555 are all curved to accommodate the curved lower edge of the end panel 450.

The lower end of each of the legs 550 has operatively connected thereto a foot 570, the foot 570 including an elongated vertically arranged shank 571 extending upwardly into the associated recess 567 and having adjacent to the upper end thereof an enlarged threaded section 572 carrying threads that engage the threads 568 in the leg 550. Integral with the lower end of the shank 571 is an enlarged support member 573 of generally circular outline and having a substantially flat support surface 574 on the underside thereof. It will be seen that the foot 570 is adjustable with respect to the leg 550 and possesses all of the advantages that have been set forth above with respect to the leg 500 and its associated foot 520, whereby in the interest of brevity, the name will not be here repeated.

From the above description it will be seen that there has been provided an improved furniture leg for mounting on the bottom of a piece of furniture such as a desk pedestal, two of the furniture legs being provided and connected by a stabilizing bar that serves to distribute the load in the pedestal between the two furniture legs.

While there has been described what is at present considered to be the preferred embodiment of the invention, it will be understood that various modifications may be made therein, and it is intended to cover in the appended claims all such modifications as fall within the true spirit and scope of the invention.

What I claim is:

1. A furniture leg construction comprising an upstanding body having a lower end and a substantially rearwardly extending elongated upper end, a substantially cylindrical recess in said lower end of said body and having threads formed on the inner periphery thereof, a pair of outwardly extending wings on the upper end of said body and disposed toward the forward edge thereof, said upper end having a channel-receiving notch in the rear portion thereof and extending forwardly and into at least a portion of said wings, the portion of each of said wings with said notch therein having an opening therein for receiving mounting fasteners therethrough, and a foot having an integral shank extending upwardly therefrom and carrying an integral molded threaded portion engaging the threads in said body.

2. The furniture leg construction set forth in claim 1, wherein said foot is substantially circular in outline and the position thereof with respect to the lower end of said body is adjustable by means of the threaded connection between said body and said shank.

3. The furniture leg construction set forth in claim 1, wherein said notch is relatively shallow in said wings and in relatively deep in said body.

4. A pedestal and leg construction comprising a pedestal having a longitudinally extending bottom wall, a first support leg disposed at the forward end of said pedestal substantially centrally laterally thereof, said first leg including a first upstanding body having a lower end and a substantially rearwardly elongated upper end, a first pair of outwardly extending wings on the upper end of said first body and disposed

toward the forward edge thereof, said upper end having a first channel-receiving notch in the rear portion thereof and extending forwardly and into at least a portion of said first wings, the portion of each of said first wings with said first notch therein having an opening therein, a second support leg disposed at the rear end of said pedestal substantially centrally laterally thereof, said second leg including a second upstanding body having a lower end and a substantially forwardly elongated upper end, a second pair of outwardly extending wings on the upper end of said second body and disposed toward the rear edge thereof, said upper and having a second channel-receiving notch in the forward portion thereof and extending rearwardly and into at least a portion of said second wings, the portion of each of said second wings with said second notch therein having an opening therein, a tie channel disposed beneath said pedestal bottom wall and extending between and having the opposite ends thereof disposed in said notches in said legs, and a plurality of fasteners passing through said openings and engaging the bottom of said pedestal to mount said legs thereon with said channel extending therebetween to stabilize and equalize the load between said legs.

5. The pedestal and leg construction set forth in claim 75, wherein said tie channel includes a substantially U-shaped body having a pair of outwardly extending flanges on the upper edges thereof, said notches having a complementary shape with the U-shaped body of said tie channels disposed in the portion of each notch disposed in the body of the associated leg and with said outwardly extending channel flanges disposed in the portion of the notches disposed in said wings.

6. A pedestal and leg construction comprising a pedestal having a front frame positioned at the forward end thereof and extending completely therearound and a bottom reinforcement disposed adjacent to the rear end thereof, a first support leg disposed at the forward end of said pedestal below said front frame and substantially centrally laterally thereof, said first leg including a first upstanding body having a lower end and a substantially rearwardly elongated upper end, a first pair of outwardly extending wings on the upper end of said first body and disposed toward the forward edge thereof, said upper end having a first channel-receiving notch in the rear portion thereof and extending forwardly and into at least a portion of said first wings, the portion of each of said first wings with said first notch therein having an opening therein, a second support leg disposed adjacent to the rear end of said pedestal beneath said bottom reinforcement and substantially centrally laterally thereof, said second leg including a second upstanding body having a lower end and a substantially forwardly elongated upper end, a second pair of outwardly extending wings on the upper end of said second body and disposed toward the rear edge thereof, said upper end having a second channel-receiving notch in the forward portion thereof and extending rearwardly and into at least a portion of said second hinge, the portion of each of said second wings with said second notch therein having an opening therein, a tie channel disposed beneath said pedestal bottom wall and extending between and having the opposite ends thereof disposed in said notches in said legs, and a plurality of fasteners passing through said openings and respectively engaging said frame and said bottom reinforcement to mount said legs thereon with said channel extending therebetween to stabilize and equalize the load between said legs between said front frame and said bottom reinforcement.

7. A furniture leg construction comprising an upstanding front wall, a substantially upstanding rear wall, and a pair of upstanding sidewalls integral with said front and rear walls to define an upstanding body with a substantially hollow interior and an opening at the lower end thereof, said rear wall sloping rearwardly and upwardly to provide said upstanding body with an elongated upper end, means forming a substantially cylindrical recess in said lower end of said interior and terminating in said opening, said recess carrying threads formed on the inner periphery thereof, a pair of outwardly extending wings respectively attached to the upper ends of individual ones of said sidewalls said elongated upper ends having a channel notch in the rear portion thereof and extending forwardly therethrough into at least a portion of said wings, the portion of each of said wings with said notch therein having an opening therein for receiving a mounting fastener therethrough for mounting said leg construction to a piece of furniture, and a foot having a shank connected therewith and extending upwardly therefrom and into said recess, said shank carrying on the upper end portion thereof a threaded portion engaging the threads in said body to permit adjustment of the foot with respect to the body, the portion of said shank between said foot and said threaded portion being unthreaded and having a predetermined length, whereby said foot may be adjusted with respect to the body a distance equal to said predetermined length while concealing the threaded portion of said shank in said recess.

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,598,351 Dated August 10, 1971

Inventor(s) Kenneth D. Schreyer

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Col. 4, line 67, "in" (second occurrence) should be -- is --.
Col. 5, line 11, "and" should be -- end --;
line 23, "75" should be -- 4 --.
Col. 6, line 9, "hinge" should be -- wings --;
line 30, insert a comma after "sidewalls";
line 30, "ends" should be -- end --.

Signed and sealed this 16th day of May 1972.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents

FORM PO-1050 (10-69)

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