Oct. 25, 1966 E. FAUST 3,280,527

AXIALLY EXTENSIBLE COLUMN CONSTRUCTION WITH UPPER TUBULAR BEARING CAP

Filed July 29, 1963

2 Sheets-Sheet 1

FIG. 1.

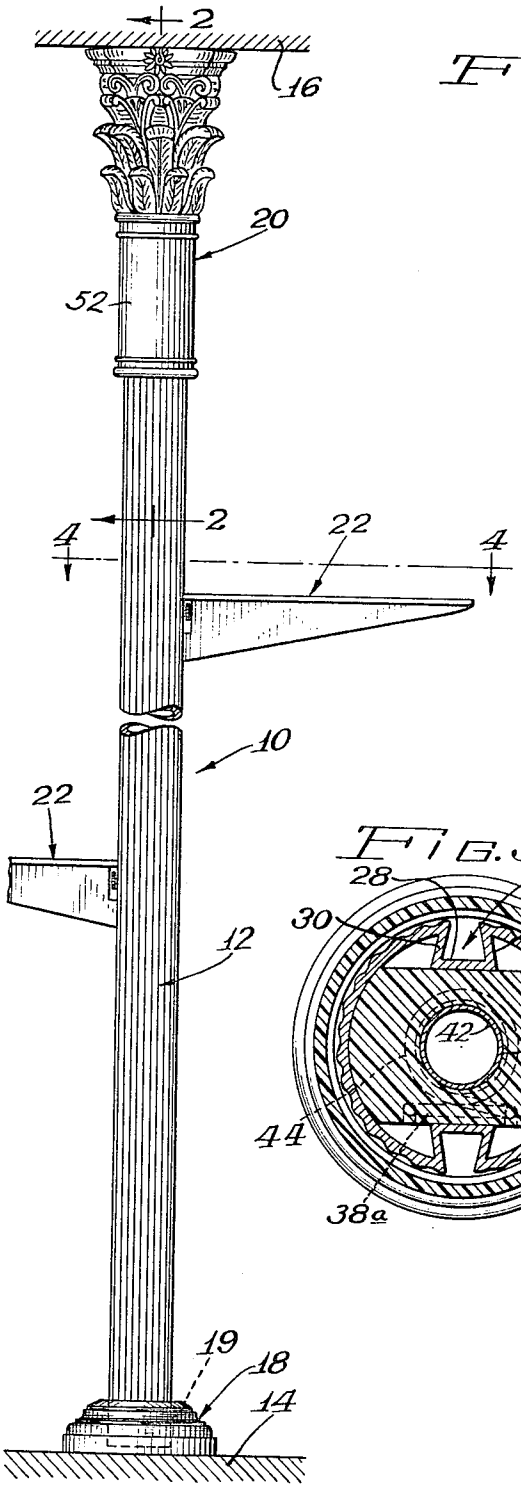


FIG. 2.

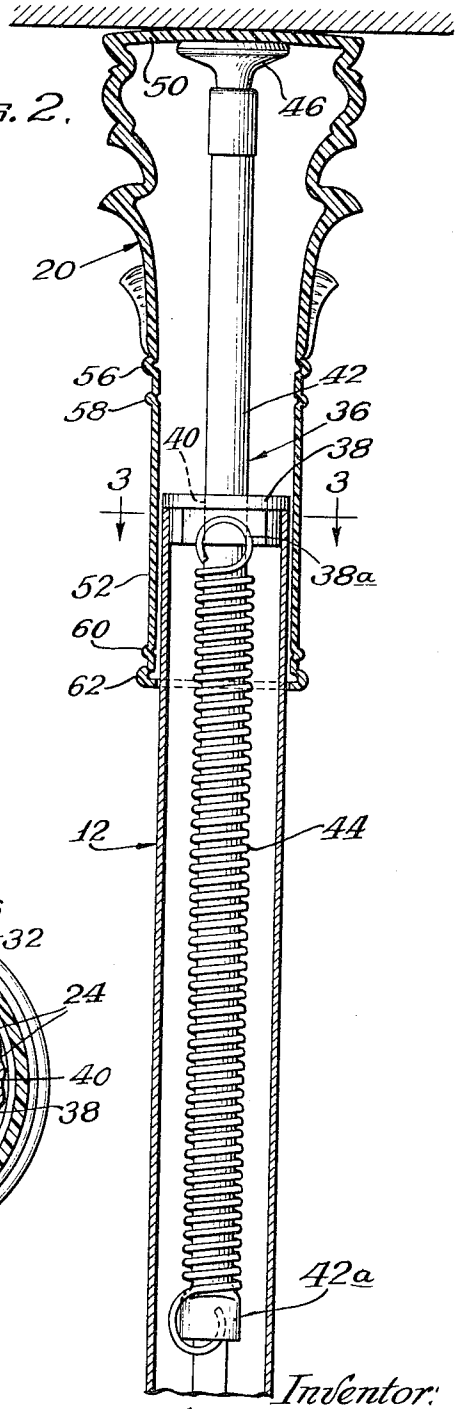


FIG. 3.

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FIG. 4.

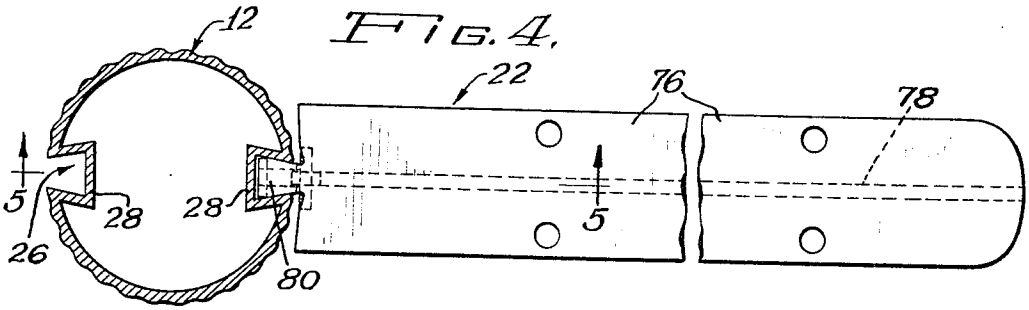


FIG. 5.

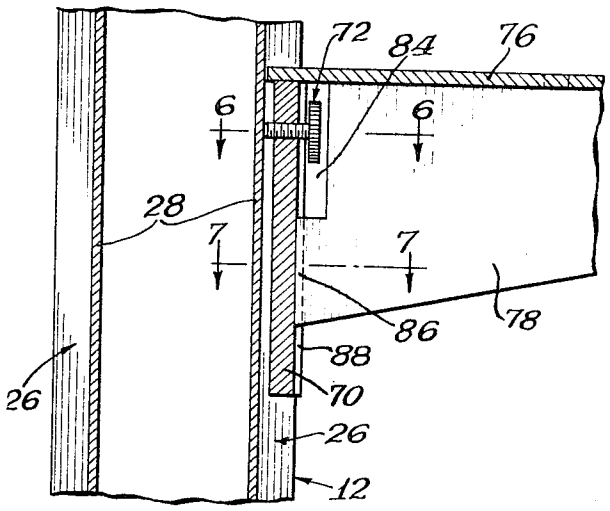


FIG. 6.

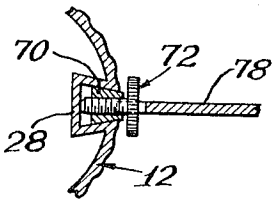


FIG. 7.

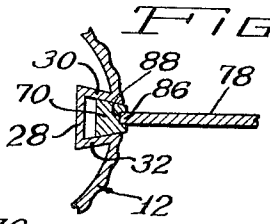


FIG. 8.

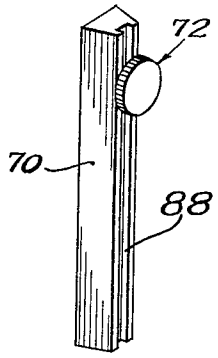
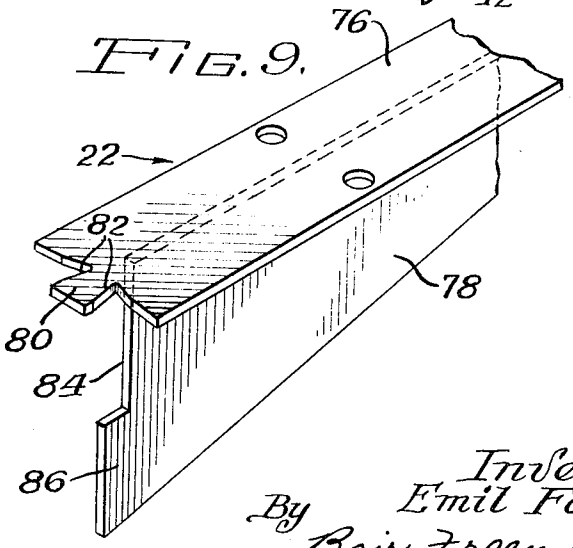


FIG. 9.



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AXIALLY EXTENSIBLE COLUMN CONSTRUCTION WITH UPPER TUBULAR BEARING CAP

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Filed July 29, 1963, Ser. No. 298,105
1 Claim. (Cl. 52—301)

This invention relates to a column construction and more particularly to a construction that may be used to provide a desirable decorative effect in homes and the like.

The use of extensible, vertical pole-like elements in homes and the like as supports for lamps and other minor accessories, is of course, well known. Heretofore, from an aesthetic standpoint all previous designs have attempted to be unobtrusive and to merely serve their function as a structural support, because their actual presence almost invariably could not be properly integrated with an overall decorative effect sought to be achieved.

The principal object of this invention is to provide a column construction of a novel structural design which has the intended purpose, within homes and the like, to serve as a focal point of interest as well as a structural support.

Another object of this invention is to provide a column construction having versatility of use as a decorative accessory, or as a structural support, and particularly wherein the structure of the elements that lend vitality to the decorative design appearance of the column serve in a structural capacity to provide an improved support.

Still another object of this invention is to provide a column construction that is particularly adapted to have vertically-selectively-positionable shelves supported thereon and wherein the features of construction camouflage the mounting means for the shelves to provide an aesthetically desirable and versatile product.

A further object of this invention is to provide a column construction for homes and the like which is characterized by its attractiveness of appearance, and by its simplicity and inexpensiveness of fabrication.

Further objects and advantages of this invention will become apparent as the following description proceeds and the features of novelty which characterize this invention will be pointed out with particularity in the claims annexed to and forming part of this specification.

A preferred embodiment of the invention is shown in the accompanying drawings, in which:

FIG. 1 is a fragmentary elevational view of a column construction embodying the invention;

FIG. 2 is an enlarged fragmentary vertical cross-sectional view taken on line 2—2 of FIG. 1;

FIG. 3 is a cross-section view taken on line 3—3 of FIG. 2;

FIG. 4 is a cross-section view taken on line 4—4 of FIG. 1;

FIG. 5 is a fragmentary enlarged cross-section taken on line 5—5 of FIG. 4;

FIGS. 6 and 7 are fragmentary cross-sections taken respectively on lines 6—6 and 7—7 of FIG. 5;

FIG. 8 is a perspective view of the bracket-support wedge seen in FIGS. 4–7; and

FIG. 9 is a perspective view of the support end of the bracket seen in FIGS. 4–7.

Referring now to the drawings, the column construction of this invention, generally indicated at **10**, includes a vertically elongated support member **12** that is adapted to be positioned between floor **14** and ceiling **16**, a base **18** and a cap **20**. The base **18** is formed of any suitable material such as a plastic and is ornamental and protective and is formed to define a central socket or cup-shaped

depression **19** for receiving thereinto the lower end of the support member **12**. One or more vertically adjustable shelves **22** may be provided on the support member **12** in a manner as more fully described hereinafter.

Referring now with more particularity to FIGS. 2 and 3, the support member **12** is preferably an elongated, unitary, extruded tubular element formed of aluminum, which material affords anodizing thereof to achieve selected coloring. Tubular support member **12** may also be formed of steel or other selected structural material. The exterior periphery of support member **12** is provided with longitudinal flutes or serrations **24**, and with one or more socket, or slot, defining means generally indicated at **26** extending longitudinally of support member **12**.

The socket defining means **26** extends inwardly of the exterior periphery of support member **12**, and is generally frusto conical in cross-section, thereby defined an inner wall **28** and side walls **30** and **32** which converge toward each other. The restricted opening to the socket defining means **26** has a width that is in the order of the width of the flutes **24**, so as to achieve a desirable appearance which camouflages the socket **26**.

An extensible spring-biased pressure means **36** is mounted on the upper end of support member **12** and extends upwardly therefrom, to provide a column construction of variable height. The broad combination of a spring-biased pressure means **36** and of an elongated support member **12** which is adapted to be positioned between the floor and ceiling of a room is well known in the art. The spring-biased pressure means **36** herein shown is preferably in the form of a pre-assembled unit which includes a apertured abutment plate **38** for engaging the upper edge of the support member **12**, an elongated stem member **42** that slides through opening **40** in plate **38** and projects both above and below the abutment plate **38**, and a coil spring **44** for normally biasing stem **42** upwardly relative to plate **38**. The spring **44** surrounds the depending portion of stem member **42** and has its lower end secured to a pinched-in end portion **42***a* on stem **42** and has its upper end hooked into a slot **38***a* defined in a boss that depends from abutment plate **38** into support member **12**. The upper end of stem **42** carries a pivoted pressure foot **46** that is normally adapted to engage a ceiling such as **16**. The pre-assembled unit **36** is of a dimension so that all portions thereof are located within the vertically projected confines of support member **12**.

The elongated cap, or capital member, **20**, is best seen in FIG. 2 as being a hollow member which preferably is formed by moulding of plastic material. The cap **20** defines a pressure transmitting wall, or surface, **50** at the upper or closed end thereof, a generally elongated cylindrical portion **52** at the other or lower end thereof, and an intermediate decorated portion between said ends. A plurality of peripheral beads **56**, **58**, **60**, **62** are located at the ends of cylindrical portion **52** and serve both as reinforcing means and as decorative features which blend with the overall artistic effect intended to be conveyed. The exterior periphery of cap **20** between the uppermost bead **56** and wall **50** is artistically decorated to convey a desired impression to the observer, with such decorations preferably being integrally molded in the cap.

The length of hollow cap **20** is selected to receive therein both the upper portion of spring-biased pressure means **36** and at least a segment of the upper portion of support member **12** for the operating range of movement of the pressure means **36**. The interior dimension of cylindrical portion **52** is similar to but preferably only slightly larger than the outer peripheral dimension of support **12** so as to permit of free and easy telescoping of the parts, to provide for symmetrical alignment, and

to prevent lateral dislocation of the cooperating parts.

In the support of a shelf member **22**, as best seen in FIGS. 4 through 8, there is provided an elongated plug member **70**, of generally frusto-conical cross section, carrying adjacent its upper end a selectively manipulatable clamp means in the form of screw **72** whose tip is adapted to engage the inner wall **28** of the socket defining means **26**. The plug member **70** is normally slidably arranged within the longitudinally extending socket **26**. The inclined walls of the plug member **70** are adapted to frictionally engage and cooperate with the side walls **30** and **32** as best seen in FIGS. 6 and 7, so that by merely tightening up on screw **72**, sufficient frictional force is developed between plug **70** and the support member **12** to maintain the plug member at a selected position along the groove **26**.

The shelf **22** is adapted to be selectively removably mounted on and supported by the support member **12** and the plug member **70**. The shelf **22** includes a horizontal surface **76** and a vertically rigidifying rib **78** therebelow. The innermost end of surface **76** is shaped to define a central tongue **80** with undercut portions **82**, so as to provide tongue **80** with a generally frusto-conical shape, as best seen in FIG. 9. The innermost edge of rigidifying rib **78** is provided with a recess or cut-out **84** and a plug-engaging toe **86** therebelow.

With the plug member **70** located at a desired position, the shelf **22** is turned to dispose the surface **76** and tongue **80** generally vertically, in which position the tongue **80** is readily introduced into groove **26** above the upper end of the plug **70**. Then by rotating shelf **22** to its normal position, as seen in FIG. 5, the tongue **80** moves to a position where it operates to engage the lateral walls **30** and **32** while simultaneously the toe **86** is caused to enter a longitudinal groove **88** formed in plug **70** so as to both engage and stabilize the shelf. The recess **84** provides for clearance of the head of screw **72**, while permitting access to said screw.

It will be seen from the foregoing description that there has been provided by this invention an improved column construction which because of its nature is easily integrated into an overall decorative effect that may be sought to be achieved in a home or the like. The rather large diameter support member **12**, together with the decorative cap construction **20** serves as a focal point of interest as well as a structural support, and the cap **20** serves both to camouflage the pressure means and to supply a relatively large ceiling-engaging surface for transmitting forces from the pressure means. The column construction of this invention has versatility of use as a decorative accessory and as a structural support and is characterized by its attractiveness of appearance and in simplicity and inexpensiveness of fabrication.

While the support member **12** has been shown as generally cylindrical, it will be understood that it could be of other cross-section, such as oval, or other arcuate or polygonal cross-section.

While there has been shown and described a particular

embodiment of this invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention and, therefore, it is intended in the appended claim to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

A column construction comprising, in combination, a vertically elongated support member; extensible spring-biased pressure means mounted on said support member and extending upwardly therefrom to provide a column of variable height, within the range of expansion of said spring-biased means, adapted for endwise pressure-mounting thereof; and a hollow elongated tubular cap closed at one end and of a length for telescopically receiving therein both the spring-biased pressure means extending upwardly from the support member and at least a segment of the upper portion of the vertical support member; said support member being a tubular extrusion; said spring-biased pressure means including an apertured abutment plate engaging and supported on the upper end of the support member, an axially elongated stem means disposed in the tubular extrusion and extending upwardly through the apertured abutment plate within the axially projected confines of the tubular support member, and spring means operatively disposed between the abutment plate and the portion of the axially elongated stem means disposed below said abutment plate for biasing the axially elongated stem means upwardly; said hollow tubular cap presenting a pressure transmitting wall at the closed end thereof which is of substantially a greater area than that defined by an axial projection of the tubular support member, the opposite end of said tubular cap defining a substantially cylindrical sleeve of similar, but slightly larger, interior peripheral contour as the exterior peripheral contour of the tubular support, to provide an aligning but freely telescoping fit therebetween, and the exterior periphery of the said tubular cap between the ends thereof being artistically decorated.

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