May 17, 1955 G. J. LINDROTH 2,708,474

RECLINING SEAT CONSTRUCTION

Filed Feb. 8, 1950 2 Sheets-Sheet 1

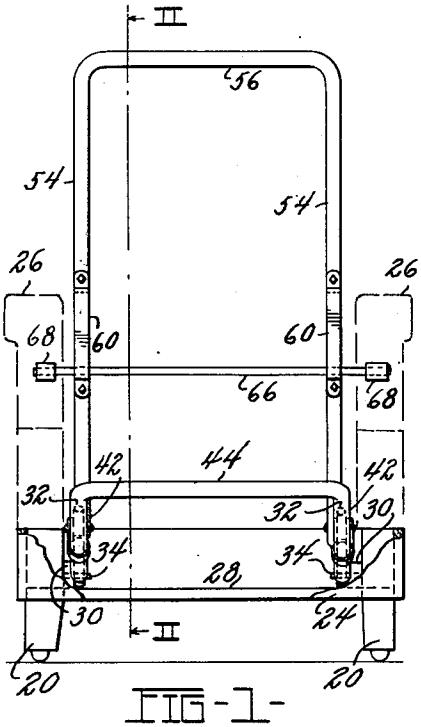


FIG-1-

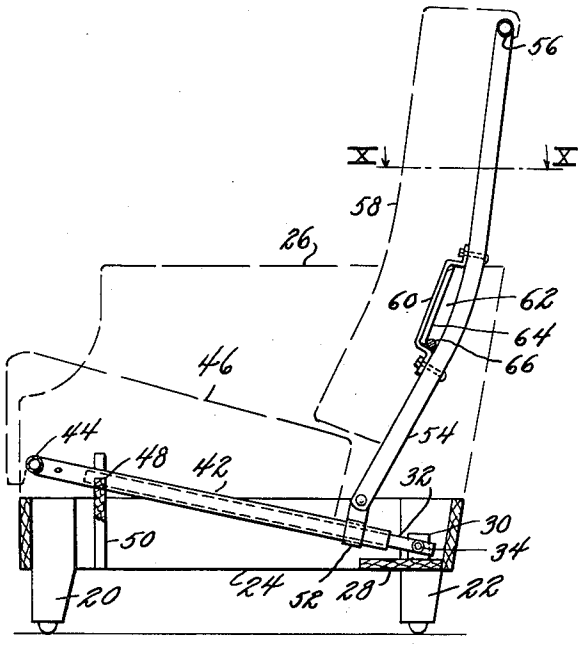


FIG-2-

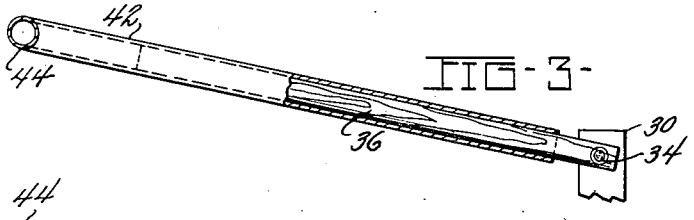


FIG-3-

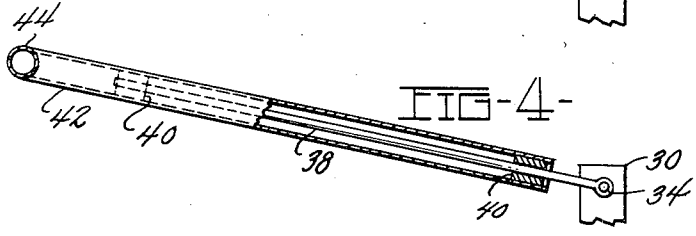


FIG-4-

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RECLINING SEAT CONSTRUCTION

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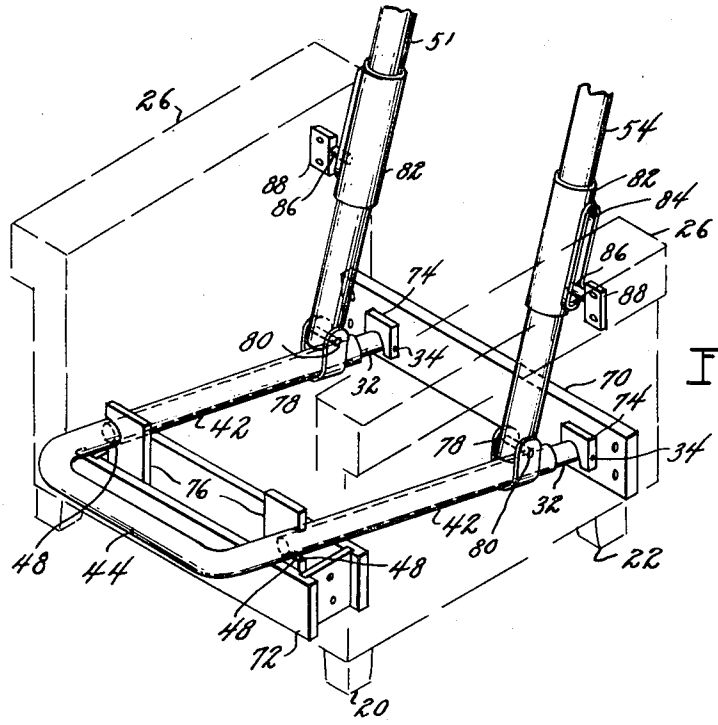


FIG-5-

FIG-7-

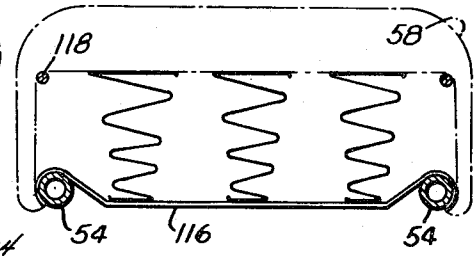
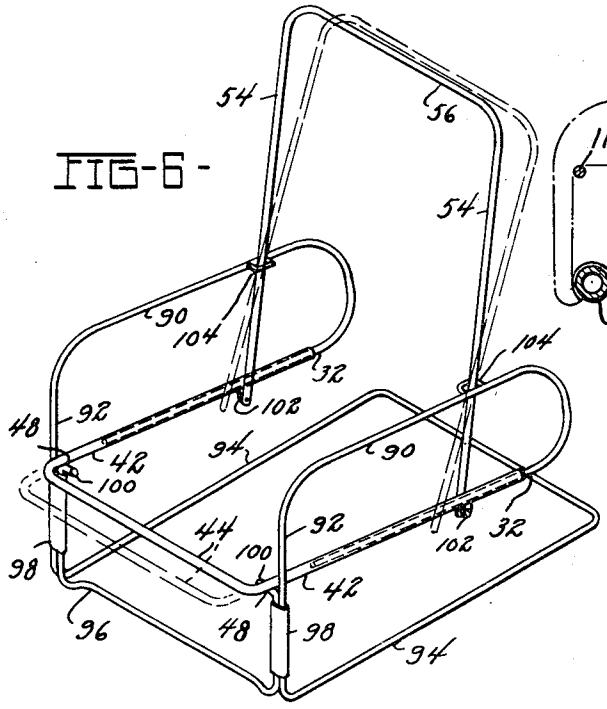


FIG-6-



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RECLINING SEAT CONSTRUCTION

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12 Claims. (Cl. 155—116)

This invention relates to furniture, more particularly to seats of the reclining types.

An object of this invention is to provide a reclining chair or davenport frame which requires a small number of simple parts, allows seat and back adjustment, and is adaptable to be fitted with various springs, pads and upholstery.

Another object of this invention is to provide a reclining frame which may be upholstered to provide the appearance of the various forms of davenports, lounge chairs and the like, yet retains an unusually smooth, easy shift to comfort positions.

Another object of this invention is to provide a "trombone slide" seat frame, easily adjusted and easily maintained in a desired adjustment.

Another object of this invention is to provide a cooperating back frame construction which will automatically follow positioning movements of the seat.

And another object of this invention is to provide a frame having all the advantages of the "trombone slide" construction without sacrificing appearance, comfort upholstery and means for incorporating or cooperating with additional comfort or utility accouterments.

Other objects and advantages of this invention relating to the arrangement, operation and function of the related elements of the structure, to various details of construction, to combinations of parts and to economies of manufacture, will be apparent to those skilled in the art upon consideration of the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification, wherein like reference characters designate corresponding parts in the several views.

Referring to the drawings:

Fig. 1 is a front elevation of a chair frame embodying the invention herein;

Fig. 2 is a view on the line II—II, Fig. 1;

Fig. 3 is a detail of one form of seat slide construction;

Fig. 4 is a view similar to Fig. 3, illustrating a modified form for the seat slide;

Fig. 5 is a perspective view of a modified form of frame construction which is particularly adaptable for "knock-down" shipping;

Fig. 6 is a perspective view showing a frame embodying features of the invention, which frame is fabricated from tubular stock;

Fig. 7 is a view on the line X—X, Fig. 2.

While the chair is the primary object of this invention, its construction lends itself to the addition of or cooperation with accessories to increase its utility. Examples thereof are hereinafter described.

A preferred form of construction embodies front legs **20** and rear legs **22** mounting base frame **24** which in turn may support sides or arm rests **26**.

A horizontal plate **28** extends across and reinforces the rear of the base frame **24**. This plate mounts bearing providing brackets **30**. Bars or rods **32** are pivotally connected to these brackets **30** by suitable pins **34** and these

slides extend therefrom in an upwardly canted direction toward the front of the chair.

The bars **32** may be of various materials and design as, for example, a cylindrical rod, solid or tubular. Wood rounds **36** may be employed being selected from furniture stock which has the desired qualities, such as maple. Or a small diameter rod **38** may be employed which carries bushings **40** desirably of oil or graphite impregnated wood.

Each pivotally mounted member serves as one element of a "trombone slide" construction, the other element comprising a tubular extension or sleeve **42** telescopically shrouding or encasing the bars. The two reaches **42** are connected by portion **44** forming a U-shaped seat frame. This frame may be fabricated from a pair of metallic tubes connected by a wooden plate or additional tubing or for economy and simplicity, may comprise a single length of tubing bent to form.

The seat frame **42, 44, 42**, carries a seat construction **46** selectively upholstered. The outer or forward portion of the seat construction is supported by having the portions **42** slidably carried in seats **48** of vertically disposed plate **50** mounted on the base **24** and serving as an additional reinforcement therefor.

By this construction, a trombone slide mounted seat may be easily shifted forwardly or rearwardly between the arms **26** within its limits.

The chair back is automatically adjusted therewith. To this end, the slides **42** carry bearing providing plate parts **52** fixed adjacent the rear of the seat. An inverted upwardly extending U-shaped back frame has the outer terminal of each leg **54** pivotally connected to a fitting **52** remotely from cross-connecting portion **56**. This back frame may be straight or arched as shown in Fig. 2 to provide the proper base for a pre-designed upholstered back rest or cushion **58**.

Intermediate the length of the legs **54** slide-way providing fittings **60** are attached to define guides **62**. These guides are preferably lined on their supporting or wear receiving sides, by brass or bronze plates **64**. Rod **66** extending between brackets **68**, one within each arm construction **26**, passes through the guide-ways **62**. This provides a support for the back and allows a limited adjustment thereof as following the seat. The seat and back are hingedly connected and the design of the seat and back will accord the better comfort relationship regardless of the seat position relative to the chair base.

A modified form of the chair is illustrated in Fig. 5 which more readily lends itself to shipment in knock-down form. The two side units **26** may be set up by bolting rear plate **70** thereto to extend therebetween adjacent the rear legs **22** and a front connecting and reinforcing unit **72** may be attached between the front legs **20**.

The plate **70** mounts bearing providing blocks **74** for the pins **34** which pivotally attach the parts **32** to the chair base. The seat mounting unit **42, 44, 42**, is slidably carried thereon and the supporting seats **48** are provided by plate **76** mounted on the front frame unit **72**. The back frame piece **54, 56, 54**, is hingedly attached to the slides **42** by clips **78** which embrace the slides and mount pins **80** extending through the legs **54**.

A desirable back supporting slide mechanism for this form of chair is provided by fixing sleeves **82** on the legs **54**, which sleeves embody slide-ways **84** for receiving pins **86** extending from brackets **88**, one of such brackets being included in each arm construction.

The invention is readily adaptable for use in the all tubular type of chair frame. As shown in Fig. 6, one or more lengths of tubing may be formed into a base. This would include the slide supports **32** from which the tube could be upwardly curved into arm extensions **90** with continuing portions **92** downwardly extending to

floor engaging or base portion **94**. A front connection **96** is attached by clips **98** between the portions **92**. The connection **96** serves as a base unit reinforcing piece and also has its terminals **100** inwardly bent to serve as the seats **48** for the seat unit **42, 44, 42**. Wing-pieces **102** can be welded to the slides **42** for the pivotal attachment of the legs **54** thereto, and brackets **104** can also be welded to the arms **90** to serve as the back support. This provides a most economical construction adaptable to the modern motifs.

The tubular frame construction for the various parts lends itself to substantial yet economical upholstering. For example, the seat or back may have the opposing legs connected by a series of spaced bands **116**, which are a part of or may mount a spring construction **118** to be covered by the cushioning upholstery **58** (Fig. 10).

It is to be understood that the above detailed description of the present invention is intended to disclose an embodiment thereof to those skilled in the art, but that the invention is not to be construed as limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of being practiced and carried out in various ways without departing from the spirit of the invention. The language used in the specification relating to the operation and function of the elements of the invention is employed for purposes of description and not of limitation, and it is not intended to limit the scope of the following claims beyond the requirements of the prior art.

What is claimed and is desired to secure by United States Letters Patent:

1. In a seating unit of furniture, a base having a rear and front portion, a pair of cylindrical bars, each having one end thereof pivotally attached to said rear portion and extending toward the front portion, a seat frame including a pair of sleeves for telescopically engaging said slides, and a seat mounted on said frame.

2. The structure set forth in claim 1 including a slide support for the sleeves adjacent the front portion of said base.

3. In a seating structure, a base, a pair of bearings mounted on said base adjacent its rear, a pair of slides each having one end mounted in the bearings and said slides extening outwardly therefrom toward the front of said base, a U-shaped member having tubular legs telescopically embracing said slides, and a seat mounted on said U-shaped member.

4. The structure set forth in claim 3 wherein a slide for the U-shaped member is mounted by said base to support said member remotely from the bearings.

5. A seating unit embodying a base, a pair of cylindrical slides, each slide having one of its terminals pivotally attached to one end of said base and extending upwardly toward the opposite end thereof, a U-shaped frame having its legs telescopically engaging said slides, a support for said frame adjacent said opposite end, and a seat on said frame laterally shiftable over said base.

6. A chair embodying a base including upwardly extending opposing arm rest providing extensions, a pair

of slides pivotally attached to the rear of said base permitting vertical swinging thereof, a U-shaped seat frame having its opposing legs telescopically engaging said slides, a slide support for said seat frame spaced from the rear of said base, a seat on said frame, a back frame including a pair of legs swingably attached to said seat frame legs and extending upwardly therefrom, a back rest mounted on said back frame and means mounted by an arm extension to slidably engage and support said back frame.

7. The structure set forth in claim 6 wherein the back frame is a U-shaped element.

8. The structure set forth in claim 6 wherein said back frame support comprises an extension from said arm rest engaging a slide provided by a bracket carried on said back frame.

9. The structure set forth in claim 6 wherein said back frame comprises a U-shaped element having a slide-way providing bracket mounted on an intermediate extent of the length of each leg, and a fixed extension from each arm rest into said brackets.

10. A chair frame embodying a pair of U-shaped elements, the terminals of the legs of one of said elements hingedly attached to the legs of the other element adjacent the terminals thereof, a base, a pair of slides each having one of its terminals pivotally mounted on said base and telescopically engaging one of the legs of one of said U-shaped elements, an extension from said base, and a slide connection between said extension and the other of said U-shaped elements.

11. A chair frame embodying a U-shaped seat frame, a U-shaped back frame hingedly attached to said seat frame, a base, a telescopic mounting for said seat frame on said base, an arm rest providing an extension from said base, and a slide connection between said extension and said back frame.

12. A seating furniture unit comprising a base, a bracket mounted by said base adjacent the rear thereof, a seat longitudinally shiftable over the base, and a connection therebetween including the bracket mounted on said base, together with a pair of elements one telescopic within the other, one of said elements comprising a cylindrical bar, one end thereof pivotally attached to said bracket to permit swing thereof vertically toward and from the base, and the other element comprising a tube telescopically slidable on said bar, said tube mounting the seat.

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