Nov. 29, 1966 A. K. BARNES 3,288,247

SAFETY STEPLADDER

Filed July 26, 1965

FIG. 1

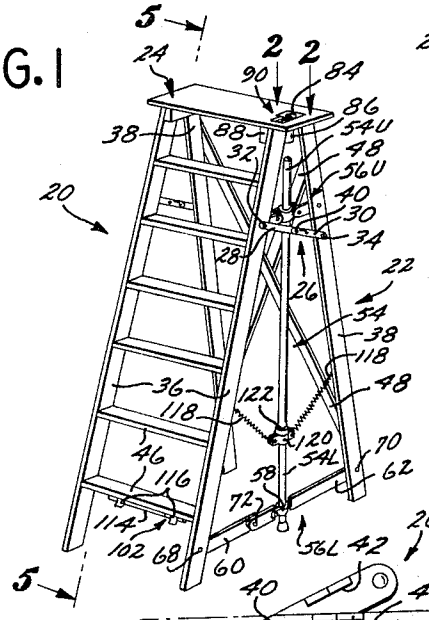


FIG. 2

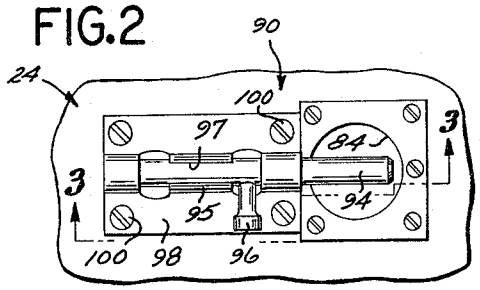


FIG. 3

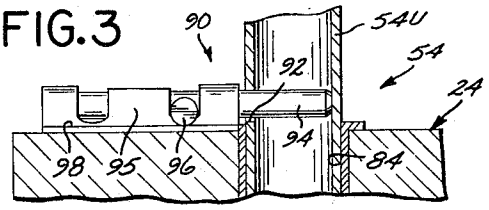


FIG. 4

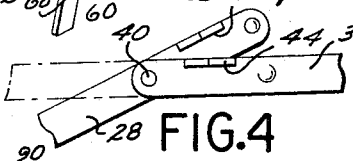


FIG. 5

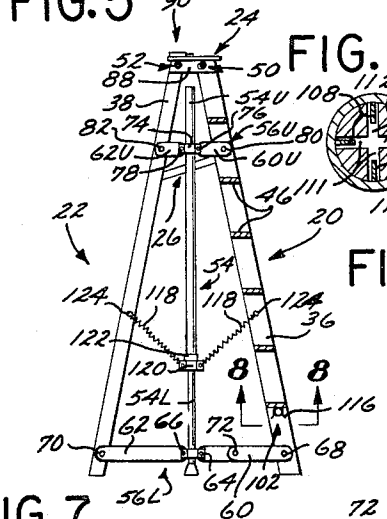


FIG. 11

FIG. 6

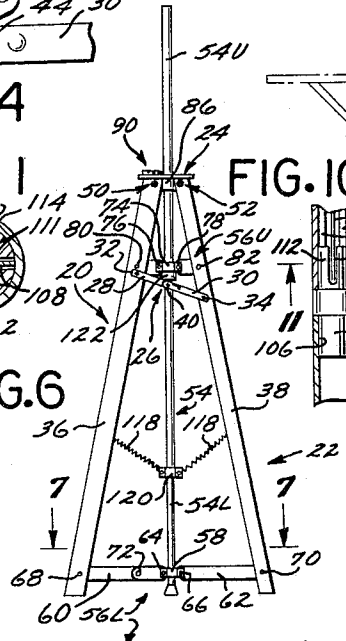


FIG. 10

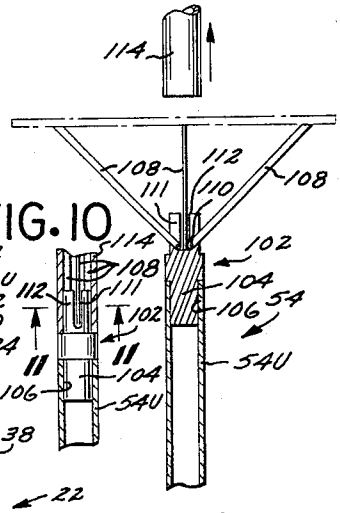


FIG. 9

FIG. 7

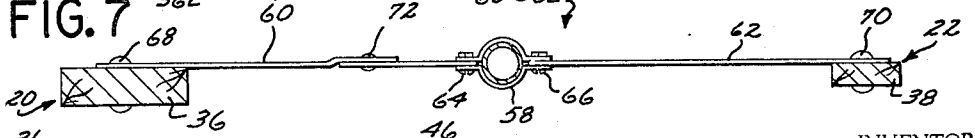
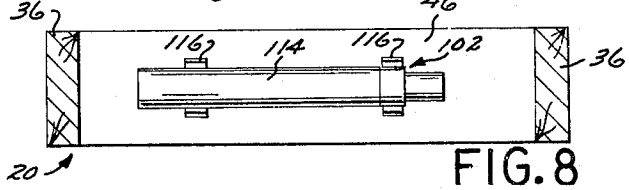


FIG. 8



INVENTOR.
ALBERT K. BARNES

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3,288,247

SAFETY STEPLADDER

Albert K. Barnes, 82—67 Austin St., Kew Gardens, N.Y.

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5 Claims. (Cl. 182—106)

Generally speaking, the present invention relates to the ladder art and, more particularly, to a safety ladder which usually takes the form of a safety stepladder of the type wherein the stepladder comprises a front stepladder portion and a rear stepladder portion effectively hingedly interconnected at the top and adapted to be moved from closely adjacent, parallel, folded, non-use relationship into an angularly separated relationship which provides a very stable four-point support for the base of the stepladder when it is to be used. Of course, the front and rear stepladder portions are usually provided with interconnected arms which allow the opening and closing hinged movements of the front and rear stepladder portions just mentioned; said interconnecting arms usually being so arranged as to be capable of being locked when the front and rear stepladder portions are in an open, operative, use relationship, thus providing even greater stability to the stepladder.

The type of stepladder just described briefly and generically is well known in the art and is a highly useful type of ladder for a variety of purposes. However, it has certain disadvantages, particularly when a person attempts to climb too high up on the ladder and, thus, loses all auxiliary lateral contact with the ladder (other than that provided by the person's feet) which normally acts to provide a steadying effect for the person using the ladder. In other words, normally, when one climbs up the steps of the front stepladder portion to any level substantially below the top of the complete stepladder, it will be found that the person's feet standing on the step of the stepladder provide the main weight-carrying engagement of the person relative to the stepladder, but it will also be found that the person's lower legs and, in some cases, knees will be laterally resting against the steps of the stepladder above the one upon which the person is standing, and this lateral engagement may additionally include engagement of side portions of the stepladder with the person's legs.

The above-mentioned type of auxiliary lateral engagement of the person's body with respect to the stepladder provides a very stable arrangement and, normally, will prevent a person from inadvertently falling off the stepladder as a result of temporary dizziness or any other temporary unsteadiness. This may be further enhanced by reason of the fact that the person standing on a step below the top level of the stepladder will also find that he can quickly grab the closely adjacent portions of the stepladder with one or both hands in the event that he feels slightly unsteady and thinks that he might fall off the stepladder. However, these prior art ways of preventing a person from inadvertently falling off the stepladder become progressively less effective as one approaches the top of the stepladder and completely disappear when the person stands upon the top step or horizontal platform member comprising the absolute top of the stepladder. This is so because less and less of said auxiliary lateral contact, or engagement of portions of the person's body other than his feet with portions of the stepladder, will occur as the person stands at a progressively higher level relative to the stepladder by standing upon a relatively higher step and, of course, all such auxiliary lateral contact or engagement disappears completely when the person stands upon the top step or platform member comprising the absolute top of the stepladder. When this occurs, the sole contact that the user of the stepladder has with the ladder is provided by his

feet, and, thus, a very good sense of balance is required if a person is to avoid falling off the top of the stepladder. The situation is aggravated even more under certain circumstances of use which require that the person reach up or lean back or assume other unbalanced positions while standing on the top of the stepladder.

The novel safety stepladder of the present invention virtually completely eliminates and overcomes disadvantages and dangers or hazards of the type referred to above by reason of the fact that it provides a controllably vertically extendable and retractable auxiliary support means which may normally be retracted or collapsed so as to be in a lower position adjacent to and between front and rear stepladder portions in a manner which does not in any way interfere with the normal storage, transporting, and/or opening and closing movement of the stepladder.

However, when the stepladder is to be used, said auxiliary support means may be controllably vertically extended to a very substantial height above the top step and horizontal platform member, which otherwise comprises the absolute top of the stepladder, and may be positively and very strongly and firmly locked in said extended position so that it may be used as an auxiliary support by either manually grasping same, hooking one's arms thereabout, or leaning thereagainst so as to prevent the above-mentioned prior art tendency to fall off a stepladder when standing very near the top thereof or on the top thereof. This is extremely unlikely when the novel auxiliary support means of the present invention is extended vertically upwardly above the top of the ladder and locked in said relationship. This is the primary and most important feature of the present invention. However, it should be noted that said auxiliary support means may also be provided with a novel auxiliary carrying means, if desired, which may assume any of a variety of different types adapted to facilitate the carrying of various auxiliary objects at an elevated position above the top step and platform member of the stepladder.

In one exemplary form of the invention, said auxiliary carrying means may comprise a multiple-arm supporting rack means comprising a base portion having engagement means cooperable for removable mounting engagement with respect to an upper portion of said previously mentioned auxiliary support means so that it can be mounted or dismounted with respect thereto and additionally having a plurality of pivotally mounted carrying arms positioned for collapsing into closely adjacent, substantially parallel, vertical relationship and/or for being folded outwardly into substantially radially related, outwardly projecting relationship ideally suited for carrying one or more auxiliary objects either therebelow or thereabove.

Said auxiliary carrying means may be normally mounted on said auxiliary support means (usually adjacent to the top thereof, although not specifically so limited in all forms of the invention) and may be either of a removable or non-removable nature. In the event that it is of a removable nature, it may be provided with means for storing it away during non-use periods at a convenient location with respect to some other portion of the stepladder such as underneath a brace, step, or the like, for example, although not specifically so limited.

With the above points in mind, it is an object of the present invention to provide a novel safety stepladder of the nature referred to both hereinbefore and hereinafter, having the features referred to herein, generically and/or specifically, and individually or in combination, and which is of extremely simple, inexpensive, easy-to-use construction suitable for simple and easy mounting on either a preexisting stepladder or for being incorporated thereinto at the time that it is initially manufactured, and

with the complete device being readily adapted for mass manufacture at very low cost whereby to be conducive to widespread use thereof.

Further objects are implicit in the detailed description which follows hereinafter (which is to be considered as exemplary of, but not specifically limiting, the present invention), and said objects will be apparent to persons skilled in the art after a careful study of the detailed description which follows hereinafter.

For the purpose of clarifying the nature of the present invention, several exemplary embodiments of the invention are illustrated in the hereinbelow-described figures of the accompanying single drawing sheet and are described in detail hereinafter.

FIG. 1 is a fragmentary, partially-broken-away, three-dimensional, perspective view of one embodiment of the safety stepladder of the present invention with the auxiliary support means in a fully downwardly retracted relationship and with certain parts of the near side member of the front portion of the stepladder and the first step below the top level thereof broken away for reasons of drawing clarity. It should be noted that, in this view, the stepladder is in a fully open operative position for providing an effective four-point supporting contact with an underlying floor (not shown for reasons of drawing simplicity).

FIG. 2 is a greatly enlarged, fragmentary top plan view, as is generally indicated by the arrows **2—2** of FIG. 1, showing just that portion of the combination top platform and step through which the auxiliary support means is adapted to be vertically upwardly extended and locked in such vertically upwardly extended relationship.

FIG. 3 is a staggered plane fragmentary view, partly in section and partly in elevation, taken substantially along the staggered plane indicated by the arrows **3—3** of FIG. 1 and the arrows **3—3** of FIG. 2. However, it should be noted that in FIG. 3 the auxiliary support means is shown in an upwardly, vertically extended and locked relationship rather than in the fully retracted relationship thereof illustrated in FIGS. 1 and 2.

FIG. 4 is an enlarged fragmentary, side elevational view of a travel-limiting means (of which, there may be one or two) for effectively foldably interconnecting the front and rear stepladder portions.

FIG. 5 is a view, partly in section and partly in elevation, taken substantially along the plane indicated by the arrows **5—5** of FIG. 1.

FIG. 6 is a side elevational view of the near side of the safety stepladder of FIG. 1 but shows it with the auxiliary support means in a fully upwardly extended and locked relationship rather than in the fully retracted relationship illustrated in FIG. 1.

FIG. 7 is an enlarged fragmentary view taken substantially along the plane indicated by the arrows **7—7** of FIG. 6 and shows only the side members of the front and rear stepladder portions at one side of the complete stepladder, and shows the lower linkage means interconnecting same and effectively rigidly mounting the lower portion of said auxiliary support means relative to said front and rear stepladder portions.

FIG. 8 is an enlarged view partly comprising a sectional view and partly comprising a bottom plan view, taken substantially along the plane indicated by the arrows **8—8** of FIG. 5 and clearly illustrates one type of arrangement for storing the auxiliary carrying means of FIGS. 9, 10, and 11 when not in use.

FIG. 9 is a fragmentary view comprising a central plane sectional view of a top part of the upper portion of the auxiliary support means and shows it when provided with an auxiliary carrying means which can be controllably opened from a closed relationship whereby to provide a very effective means for carrying one or more auxiliary objects. It is shown in an open carrying or supporting relationship in FIG. 9.

FIG. 10 is a fragmentary view of the auxiliary carrying means of FIG. 9 when in a fully collapsed non-use relationship and when maintained in said collapsed non-use relationship by a cylindrical cover member or tubular keeper sleeve, which is shown in fully-engaged relationship in FIG. 10.

FIG. 11 is an enlarged cross-sectional view taken substantially along the plane indicated by the arrows **11—11** of FIG. 10.

Generally speaking, the safety stepladder of the present invention comprises a front stepladder portion, such as is generally designated at **20**, a rear stepladder portion, such as is generally designated at **22**, with said front and rear stepladder portions **20** and **22** being effectively provided with a top platform and step member, indicated generally at **24**, which is effectively hingedly connected with respect to the top of the front stepladder portion **20** and the top of the rear stepladder portion **22** whereby to allow said front and rear stepladder portions **20** and **22** to be moved from a very closely adjacent, substantially parallel, folded, non-use and storage position (not shown since such a position is conventional and well known in the art) into a normal, operative, use position such as is shown in FIGS. 1, 5, and 6, wherein said front and rear stepladder portions **20** and **22** effectively downwardly diverge, or upwardly converge, with respect to each other and with respect to the hinged attachment of the top ends thereof relative to said top step and platform member **24**.

Of course, in order to prevent the opening and separating hinged relative movement of said front and rear stepladder portions **20** and **22** from exceeding a predetermined limit, said front and rear stepladder portions **20** and **22** are provided at one side thereof, or at each side thereof, with travel-limiting means, such as generally designated at **26**, which comprises, in each such case, a pair of arms **28** and **30** pivotally connected at outer ends thereof, as indicated at **32** and **34**, respectively, to corresponding upwardly directed side members **36** and **38**, respectively, of said front and rear stepladder portions **20** and **22**, respectively.

Said arm members **28** and **30** are intermediately pivotally connected with respect to each other, as indicated at **40**, with one of said arm members having an extended portion provided with laterally projecting abutment means **42** so positioned as to strike the corresponding upper edge abutment portion **44** of the other arm when they reach an aligned, straight relationship as is best shown fragmentarily in FIG. 4, thus acting to effectively lock them in said aligned, straight relationship until manually unlocked prior to moving said front and rear ladder portions **20** and **22** toward each other for relatively collapsing same for storage or the like, until the next use of the stepladder is to be made.

Incidently, it will be noted that, in the exemplary form of the invention illustrated, the front stepladder portion **20** has a pair of laterally spaced, upwardly directed side members **36**, as referred to above, with a plurality of horizontal step members **46** being positioned in vertically spaced and horizontally directed relationship between said side members **36**.

Also, in the specific exemplary form of the invention illustrated, it will be noted that said rear stepladder portion **22** has a pair of said laterally spaced, upwardly directed side members **38** of the type previously mentioned, having more than one brace member **48** interconnecting same and acting to provide great rigidity thereto.

Additionally, it should be noted that, in the exemplary form of the invention illustrated, the previously mentioned top step and platform member **24** is effectively hinged with respect to said front and rear stepladder portions **20** and **22**, as mentioned hereinbefore, by reason of provision of the front hinge means at the upper end of each of said side members **36** at locations such as the one generally designated at **50**, while the hinged connection of the rear stepladder portion **22** with respect to said top step or platform member **24** is provided by means of a

generally similar pair of hinge means carried at the top of each of the side members **38** at locations such as the one generally designated at **52**. However, various other hinging arrangements may be employed within the broad scope of the present invention.

The novel apparatus of the present invention includes controllably vertically extendable and retractable auxiliary support means, such as is generally designated by the reference numeral **54**, which comprises a lower portion **54L** and an upper portion **54U** which are relatively vertically slidably engaged with respect to each other. In the example illustrated, it will be noted that the upper and lower portions **54U** and **54L** are telescopically slidably engageable with respect to each other by reason of the fact that each of said portions comprises a tubular member, with the lower tubular member **54L** being of smaller exterior diameter than the interior diameter of the upper tubular member **54U** whereby to vertically slidably receive said upper tubular member **54U** on the outside of the lower tubular member **54L**. However, the relative positioning of the upper and lower telescopically engaged tubular members **54U** and **54L** may be positionally reversed within the broad scope of the present invention and, indeed, relatively slidable upper and lower portions other than of the tubular type illustrated may be employed in lieu thereof—all within the broad scope of the present invention.

It should be noted that the lower portion **54L** of the auxiliary support means **54** is effectively provided with mounting means for mounting same relative to said front and rear stepladder portions **20** and **22** and, in the exemplary form illustrated, takes the form of a lower pivotal linkage means, generally indicated at **56L**, having a center clamp **58** adapted to be rigidly clamped onto and connected to a lower part of said lower portion **54L** of said auxiliary support means **54**, and with said linkage means **56L** also including front and rear linkage portions **60** and **62** pivotally connected as indicated at **64** and **66**, respectively, to the clamp **58** and pivotally connected at the outer ends, as indicated at **68** and **70**, respectively, to the corresponding lower parts of said corresponding side members **36** and **38** of the front and rear stepladder portions **20** and **22**. It should be noted that said front linkage portion **60** actually comprises two independent linkage arms pivotally interconnected, as indicated at **72**, in the exemplary form of the invention illustrated.

The lower pivotal linkage means generally designated at **56L** allows the front and rear stepladder portions **20** and **22** to be folded and opened in the manner previously mentioned, while at all times positively clamping and holding the lower portion **54L** of the auxiliary support means **54** and provides a very effective means for doing so. However, various other types of mounting means may be employed in lieu thereof within the broad scope of the present invention.

The mounting means previously referred to may also include an upper pivotal linkage means, generally designated at **56U**, which has a centrally positioned vertically apertured slide-bearing means **74** (which may actually comprise a conventional clamp which is merely not clamped tight but is loose enough to function as such a slide-bearing means **74**), provided with front and rear linkage portions **60U** and **62U** pivotally connected to said slide-bearing means **74**, as indicated at **76** and **78**, respectively, and pivotally connected at the outer ends thereof, as indicated at **80** and **82**, respectively, to upper parts of the corresponding side members **36** and **38** of said front and rear stepladder portions **20** and **22**.

The arrangement of said upper mounting means **56U** is such as to normally receive therein the upper end of the tubular upper portion **54U** of the auxiliary support means **54** even when it is in fully vertically retracted and downwardly collapsed relationship, such as is illustrated in FIGS. 1 and 5, thus keeping it in proper vertical alignment with a vertical guide aperture and slide-bearing means **84** carried in and extending vertically through the top step and platform member **24** of the stepladder which normally acts, when the auxiliary support means **54** is vertically extended upwardly into and operative use position such as is shown fragmentarily in FIG. 3, to provide lateral support and stability to the vertically extended auxiliary support means **54** and, in particular, to the upper portion **54U** thereof.

It should also be noted that immediately below the guide aperture and slide-bearing means **84** (which comprises a metallic sleeve inserted in a hole in the wooden top step or platform portion **24** of the stepladder), and in vertical alignment therewith, an auxiliary metallic clamp **86** is fastened to the brace member **88** to provide even further lateral support and stability to the auxiliary support means **54**; said clamp **86** being loose enough with respect to upper portion **54U** of the auxiliary support means **54** to effectively comprise a supplementary slide-bearing means therefor.

The exemplary form of the invention is also provided with controllably manually operable locking means, such as is generally indicated at **90**, which is effectively cooperable with respect to the vertically slidable upper portion **54U** of said auxiliary support means **54** for controllably and positively locking said upper portion **54U** of said auxiliary support means **54** in the vertically extended position best shown in FIGS. 3 and 6 and for doing so in an extremely structurally strong and positive manner whereby to provide a very stable and strong type of auxiliary support available to a person standing at an elevated height on any of the upper steps **46** of the stepladder by merely manually grasping the vertical upwardly extended and firmly locked upper portion **54U** of the auxiliary support means **54** or by leaning thereagainst if desired.

It will be noted that, in the exemplary form illustrated, said locking means **90** is of a nature such as to prevent either longitudinal or rotary movement of the upper portion **54U** of the auxiliary support means **54** and takes the form of a transversely directed locking aperture **92** at a predetermined location of said upper portion **54U** of said auxiliary support means **54** (or a plurality of such apertures **92** at a plurality of vertically spaced predetermined locations along said upper support means portion **54U**) and a fixedly horizontally mounted, longitudinally horizontally reciprocatable locking bolt member **94** provided with operating handle means **96** for horizontally reciprocating said bolt member **94** into said locking aperture **92** (or any of said plurality thereof) whereby to provide the above-mentioned type of positive locking of the upper auxiliary support means portion **54U** against both vertical movement and rotary movement.

It should be noted that, in the exemplary form of the invention illustrated, the above-mentioned fixed mounting of the horizontally reciprocatable locking bolt member **94** is provided by a conventional-type base mounting plate **98** slidably carrying said bolt member **94** in a partial sleeve **95** having a top slot **97** therein and firmly fastened by the fastening means **100** to the top surface of said top step and platform member **24** in a position and orientation such as to align the bolt member **94** closely laternally adjacent to and perpendicular with respect to the vertical axis of the bearing aperture **84**.

FIGS. 9 and 10 fragmentarily illustrate the fact that the upper end of the upper portion **54U** of the auxiliary support means **54** may, if desired, be provided with auxiliary carrying means, such as is generally designated at **102**, which may be adapted to be operated into a compact, non-use relationship or an opened-up, effectively expanded, use relationship wherein it provides a maximum carrying capacity for carrying auxiliary objects. In the exemplary from illustrated in FIGS. 9–11, said auxiliary carrying means **102** takes the form of a multiple-arm supporting rack means, also generally designated by said reference numeral **102**, having a base portion **104** which effectively comprises engagement means cooperable for

removably mounting engagement within the hole **106** in the open top of the upper auxiliary support means portion **54U**, and having a plurality of pivotally mounted carrying arms **108**, each pivotally mounted at its inner end **110** with respect to the corresponding slot **111** of a multi-slotted, upwardly extending portion **112**, with said pivotally mounted carrying arms **108** positioned for collapsing into an upstanding, substantially parallel, closely adjacent relationship when a tubular keeper sleeve or cylindrical cover member **114** is positioned thereover, which is normally the case when the carrying means **102** is not to be used and is to be either removed or stored away. This is shown in FIG. 10. However, when the tubular keeper case **114** is removed from the remainder of the carrying means **102**, all of the arms **108** pivot downwardly into the effectively opened-up or expanded, radially outwardly projecting, object-carrying relationship best shown in FIG. 9.

When said auxiliary carrying **102** is not to be used, it may be removed entirely, and if desired, may be stored in a non-use relationship at some other suitable location with respect to any other portion of the complete stepladder. For example, as best shown in FIGS. 1, 5, and 8, it may be positioned under one of the steps **46** (or fastened to one of the rear braces **48**) and mounted there by means of a spring clamp, or a pair thereof, such as shown at **116**. However, various other storage arrangements may be employed within the broad scope of the present invention.

It should be noted that the exemplary form of the invention illustrated additionally includes spring-biasing means effectively connected to said front and rear stepladder portions **20** and **22** and provided with means operated by said spring-biasing means for normally resiliently forcibly biasing said upper portion **54U** of said auxiliary support means **54** into a position sufficiently elevated to cause the upper portion thereof to be in interior engagement within said previously-mentioned slide-bearing means comprised by the loose clamp member **74**. This is for the purpose of maintaining positive vertical alignment of said upper support means portion **54U** with the guide aperture and slide-bearing means **84** passing vertically through the top step and platform member **24** of the stepladder.

In the exemplary arrangement illustrated, said spring-biasing means takes the form of the two springs **118** and said means operated thereby takes the form of a biasing collar **120** connected to inner ends of said two tension springs **118** and vertically slidably mounted on the lower portion **54L** of the auxiliary support means **54** for forcibly abutting the enlarged lower end or shoulder **122** carried at the bottom end of the upper portion **54U** of said auxiliary support means **54**. The outer ends of the springs **118** are fastened, as indicated at **124**, to the corresponding side members **36** and **38** of the corresponding front and rear stepladder portions **20** and **22**, thus providing an upward biasing force against the lower end of the upper portion **54U** of said auxiliary support means for the alignment maintenance purposes previously mentioned. Also said springs **118** effectively comprise shock absorbers acting to slow down the downward movement of the upper portion **54U** of the auxiliary support means **54** after the locking means **90** is unlocked, released, and disengaged therefrom. Additionally, it should be noted that in the event that the carrying means **102** is mounted in the hole **106** at the top of the upper support means portion **54U** in the collapsed manner shown in FIG. 10, and it is not desired to remove it during non-use thereof and to store it in the clamps **116**, it may be left in said hole **106** and depressed downwardly into the vertically aligned slide-bearings **84** and **86** until the top of the cover **114** lies below the level of the bolt **94** which may then be moved into an extended relationship similar to that shown in FIGS. 2 and 3 which will lock the carrying means **102** in said position and with the springs **118** under tension so that when the locking means **90** is unlocked and released, said springs **118** will automatically move the upper support means portion **54U** upwardly to an extent sufficient to protrude the auxiliary carrying means **102** above the level of the upper guide aperture and slide-bearing means **84** and also above the top level of the top step and platform member **24** of the stepladder.

In other words, the arrangement just described effectively provides an alternate storage arrangement for the auxiliary carrying means **102** which is particularly advantageous since said auxiliary carrying means **102** remains mounted in the top hole **106** of the upper support means portion **54U** at all times and thus is ready for use whenever the cover **114** is removed therefrom (of course, after the locking means **90** has been previously unlocked).

Furthermore, it should be understood that, in certain forms of the invention, the auxiliary carrying means **102**, or any substantial functional equivalent thereof, may be non-removably carried by the auxiliary support means **54** in any suitable way.

Incidentally, it should be noted that as an alternate to the above arrangement and completely distinct from the mounting of the auxiliary carrying means **102**, the top end of the upper support means portion **54U** may extend to a height slightly greater than that illustrated so that it may be the structure resiliently abutting the lower surface of the extended bolt **94**, with the springs **118** under tension so that upon the unlocking of the locking means **90** said top end of the upper support means portion **54U** will automatically be elevated through the guide aperture and sliding-bearing means **84** to a position above the top surface of the top step and platform member **24** in a manner similar to that described in the preceding paragraph relative to the automatic resilient upward extension of the auxiliary carrying means **102** upon the unlocking of the locking means **90**. Both of these arrangements are within the broad scope of the present invention and are implicit in the showing set forth in the figures of the drawing and are intended to be included and comprehended as a part of the present invention.

It should be understood that the figures and the specific description thereof set forth in this application are for the purpose of illustrating the present invention and are not to be construed as limiting the present invention to the precise and detailed specific structure shown in the figures and specifically described hereinbefore. Rather, the real invention is intended to include substantially equivalent constructions embodying the basic teachings and inventive concept of the present invention.

I claim:

1. A safety stepladder, comprising: a front stepladder portion, a rear stepladder portion, a top step and platform member providing thereunder hinge means effectively hingedly connected to the top of said front stepladder portion and to the top of said stepladder portion for hingedly mounting said front and rear stepladder portions with respect to each other and with respect to said top step and platform member; controllably vertically extendable and retractible auxiliary support means having a lower portion provided with mounting means effectively mounting same with respect to said front and rear stepladder portions and having an upper portion vertically slidably engaged with respect to said lower portion for controllable upward extension and downward retraction relative thereto and relative to said top step and platform member; and controllably manually operable locking means effectively cooperable with respect to said vertically slidable upper portion of said auxiliary support means for controllably and positively locking, in a structurally strong manner, said upper portion of said auxiliary support means in a desired vertically extended position whereby to provide a stable and strong type of auxiliary support for manual grasping by a person standing on the safety stepladder, said mounting means for mounting said lower

portion of said auxiliary support means with respect to said front and rear stepladder portions comprising lower pivotal linkage means having a center clamp rigidly connected at the middle thereof to said lower portion of said auxiliary support means and having front and rear linkage portions pivotally connected with respect to said clamp at the inner ends thereof and pivotally connected at the outer ends thereof to corresponding lower parts of said front and rear stepladder portions, said mounting means also comprising upper pivotal linkage means having a centrally positioned vertically apertured slide-bearing means and having front and rear linkage portions pivotally connected to said slide-bearing means at the inner ends thereof and pivotally connected at the outer ends thereof, to corresponding upper parts of said front and rear stepladder portions.

2. A stepladder as defined in claim 1, wherein said locking means controllably releasably engages said upper portion of said auxiliary support means in a manner preventing longitudinal movement thereof and also preventing rotary movement thereof and takes the form of a transversely horizontally directed locking aperture at a predetermined lower location of said upper portion of said auxiliary support means and a fixedly horizontally mounted longitudinally horizontally reciprocatable locking bolt member provided with handle means for horizontally reciprocating same in said locking aperture whereby to positively lock said upper portion of said auxiliary support means against vertical movement and against rotary movement, said locking bolt member being rigidly fixedly mounted on said top step and platform member and being laterally adjacent to and perpendicularly directed across said vertical guide aperture and slide-bearing means of said top step and platform member.

3. A stepladder as defined in claim 1, and auxiliary carrying means adapted to be carried by an upper part of said upper portion of said auxiliary support means and effectively providing a convenient means for carrying one or more auxiliary objects, said auxiliary carrying means comprises a multiple-arm supporting rack means having a base portion effectively comprising engagement means cooperable for removable mounting engagement with respect to a top end of said upper portion of said auxiliary support means and further having a plurality of pivotally mounted carrying arms positioned for controllable collapsing into substantially vertical, closely adjacent, retracted relationship and for effective expansion from said retracted relationship by pivotal movement of said carrying arms outwardly into substantially radially related, outwardly projecting, object-carrying relationship.

4. A stepladder as defined in claim 3, wherein said supporting rack is provided with a substantially tubular cylindrical cover member slidable over the collapsed retracted and vertically folded carrying arms whereby to hold same in said collapsed retracted relationship.

5. A safety stepladder, comprising: a front stepladder portion; a rear stepladder portion; a top step and platform member provided thereunder with hinge means effectively hingedly connected to the top of said front stepladder portion and to the top of said rear stepladder portion for hingedly mounting said front and rear stepladder portions with respect to each other and with respect to said top step and platform member; controllably vertically extendable and retractable auxiliary support means having a lower portion provided with mounting means effectively mounting same with respect to said front and rear step ladder portions and having an upper portion vertically slidably engaged with respect to said lower portion for controllable upward extension and downward retraction relative thereto and relative to said top step and platform member; and controllably manually operable locking means effectively cooperable with respect to said vertically slidable upper portion of said auxiliary support means for controllably and positively locking, in a structurally strong manner, said upper portion of said auxiliary support means in a desired vertically extended position whereby to provide a very stable and strong type of auxiliary support for manual grasping by a person standing on the safety stepladder, wherein said mounting means for mounting said lower portion of said auxiliary support means with respect to said front and rear stepladder portions comprises lower pivotal linkage means having a center clamp rigidly connected at the middle thereof to said lower portion of said auxiliary support means and having front and rear linkage portions pivotally connected with respect to said clamp at the inner ends thereof and pivotally connected at the outer ends thereof to corresponding lower parts of said front and rear stepladder portions, said mounting means also comprising upper pivotal linkage means having a centrally positioned vertically apertured slide-bearing means and having front and rear linkage portions pivotally connected to said slide-bearing means at the inner ends thereof and pivotally connected at the outer ends thereof to corresponding upper parts of said front and rear stepladder portions, and including spring biasing means effectively connected to said front and rear stepladder portions and provided with a biasing collar normally resiliently forcibly engaging a lower part of said vertically slidable upper portion of said auxiliary support means for normally biasing same upwardly into interior engagement within said slide-bearing means.

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REINALDO P. MACHADO, *Primary Examiner.*