Jan. 5, 1965 L. J. ARMSTRONG 3,164,348

STAND FOR MOVIE SCREEN DEVICE

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FIG. 1

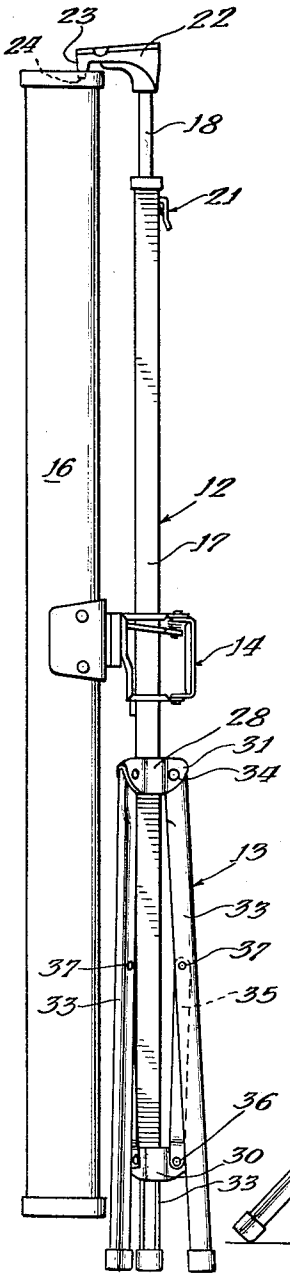



FIG. 2

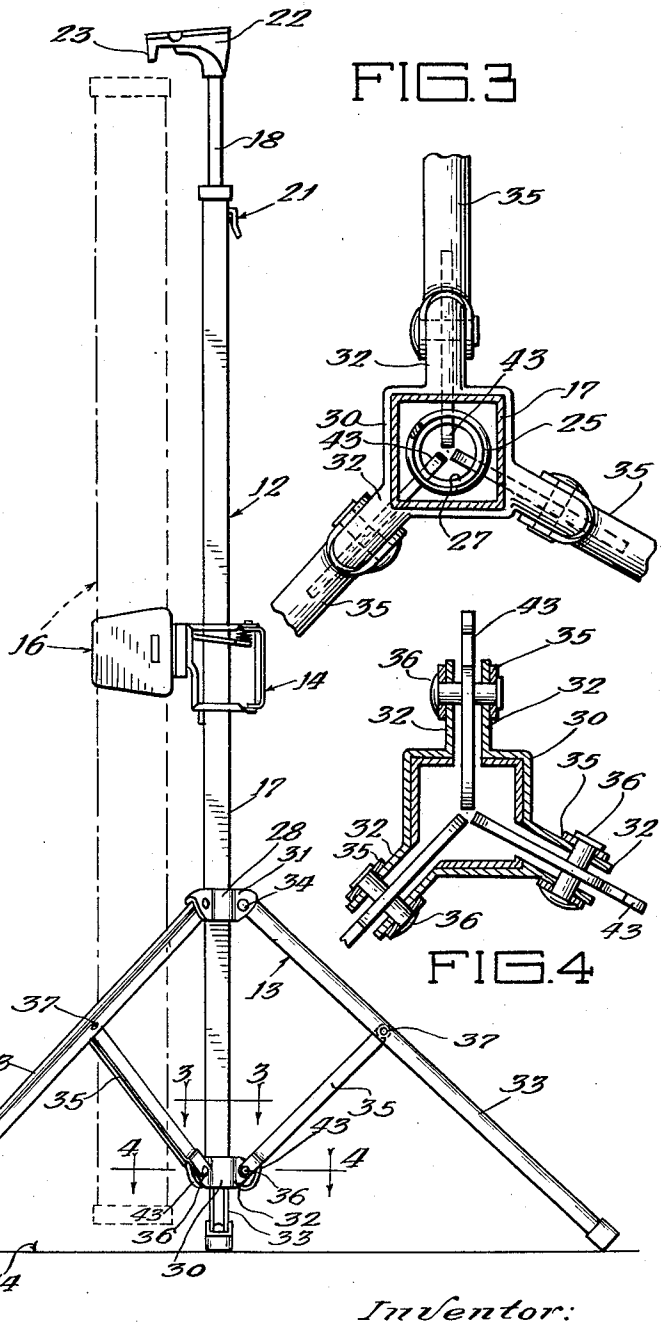



FIG. 3







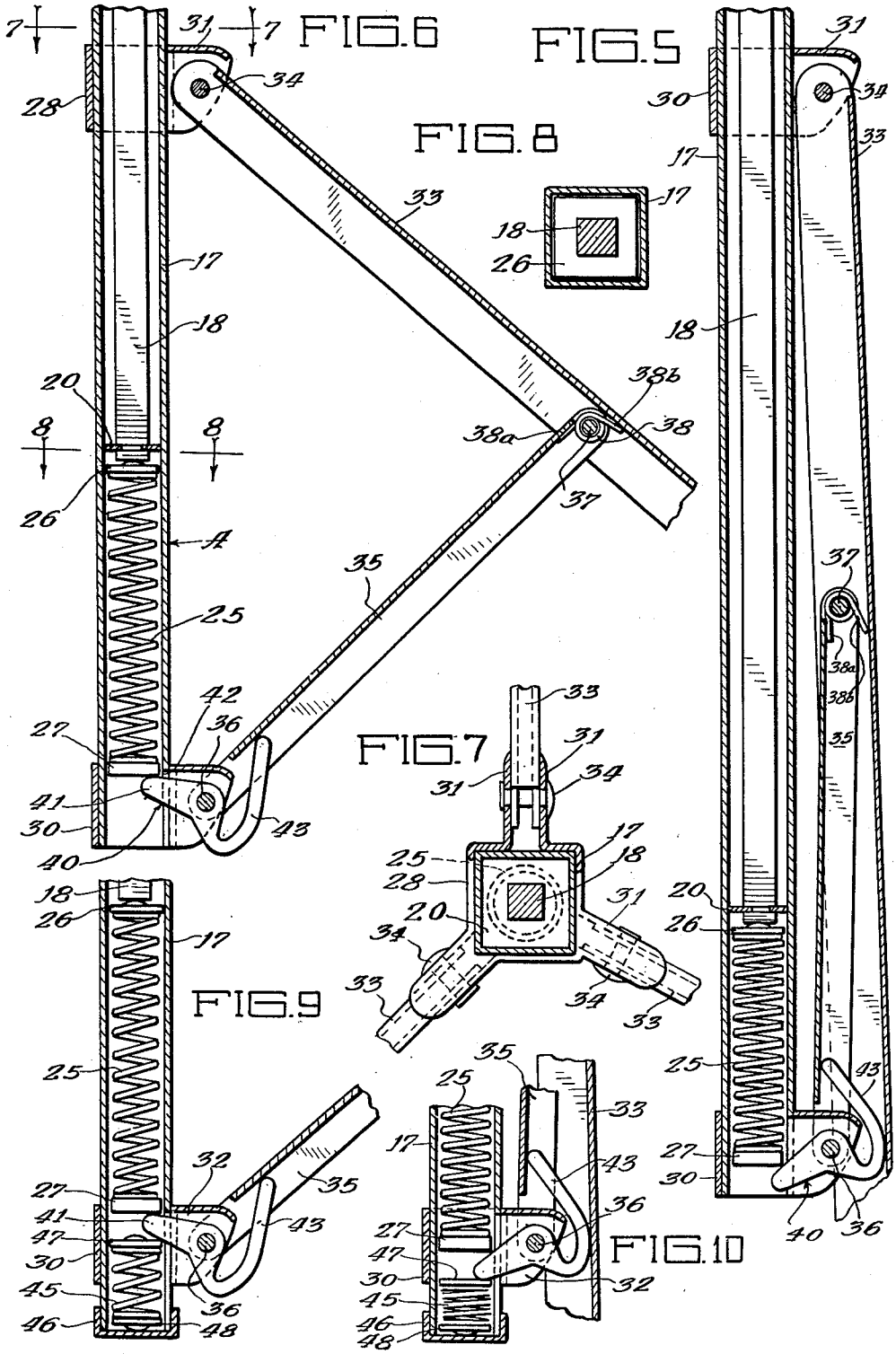
FIG. 4

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3,164,348

# STAND FOR MOVIE SCREEN DEVICE

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The present invention relates to a portable movie screen structure, and more particularly to a stand for such a screen structure which is constructed and arranged so that the leg unit of the stand is automatically urged from supporting position to closed position when the stand is lifted from its supporting surface.

The primary object of the present invention is to provide a new and improved support for a portable movie screen.

Another object is to provide a portable movie screen stand in which the leg unit when lifted from supporting position on a surface is capable of movement automatically to closed position.

A further object is to provide a movie screen stand in which the leg unit is capable of being held in closed position adjacent the standard without the use of conventional latch means.

Still another object is to provide a movie screen stand having a leg unit which is capable of automatic movement from closed position adjacent the standard to open supporting position.

A further object is to provide a movie screen stand having a leg unit in which a first spring means within the standard cooperates with pivoted lever means to urge the leg unit toward closed position, and in which a second spring means cooperates with the same lever means to urge the leg unit toward supporting position upon release of the first spring means.

The invention is illustrated in the preferred embodiment in the accompanying drawings, in which:

FIG. 1 is a side elevational view of the movie screen device with the leg assembly or leg unit in closed position and the screen casing also held in closed position parallel to the standard;

FIG. 2 is a side elevational view of the movie screen device with the leg unit in supporting position, the leg unit having been released for outward movement to such supporting position by releasable clamp means operative between the telescoping members to permit upward projection of one telescoping member so as to release the casing at the same time as the release of the leg unit to permit the casing to swing automatically from the dotted line position 90° to the full line position perpendicular to the standard as shown;

FIG. 3 is an enlarged fragmentary sectional view taken as indicated on line 3—3 of FIG. 2;

FIG. 4 is an enlarged sectional view taken as indicated on line 4—4 of FIG. 2;

FIG. 5 is an enlarged fragmentary sectional view of the lower end of the standard showing the position of the legs of the leg unit in closed position (only one leg being shown for clarity) and illustrating the cooperative relation between spring means in the standard and one of the three pivoted lever means which urge the leg unit toward closed position;

FIG. 6 is an enlarged fragmentary sectional view of the lower end of the standard, similar to FIG. 5, showing one leg of the leg unit in supporting position and illustrating the spring means in released position whereby torsion springs acting between each of the braces and legs urge the leg unit toward supporting position;

FIG. 7 is a sectional view taken as indicated on line 7—7 of FIG. 6 showing the slidable collar at the upper portion of the leg assembly;



FIG. 8 is a sectional view taken as indicated on line 8—8 of FIG. 6;

FIG. 9 is an enlarged fragmentary longitudinal sectional view of the lower end of the standard illustrating a modified form of the invention and showing a portion of one of the three bracing links in the extended position occupied by the bracing links when the leg assembly is in supporting position and showing also the relative position of one of the three lever means in relation to the first spring means and an opposed second spring means; and

FIG. 10 is a view similar to FIG. 9 showing the bracing link and its corresponding leg swung inwardly adjacent the lower end of the standard in the position occupied by all of the bracing links and legs when the leg assembly is in closed position, the view also showing the first spring means being compressed by the inner end of the telescoping rod to pivot one of the three lever means counterclockwise to urge the bracing links toward the standard and to compress the second spring means for its subsequent release with the first spring means to pivot the lever means clockwise to kick the legs outwardly toward supporting position.

In the embodiment illustrated, and referring particularly to FIGS. 1 and 2, a standard, generally designated 12, is adapted for support in upright position preferably by a tripod-type leg unit, generally designated 13. The standard carries a handle member, generally designated 14, which is slidably mounted on the standard 12 and is provided with a latching member for adjustably positioning the handle member 14 vertically of the standard 12.

The forward face of the handle member 14 affords a mounting surface to which a conventional screen casing, generally designated 16, is pivotally mounted. The casing 16 is preferably mounted in the manner illustrated in the Petrick et al. Patent No. 3,022,816, entitled "Portable Movie Screen," issued February 27, 1962, so that the screen casing 16 when released from its carrying position parallel to the standard (as shown in FIG. 1), will automatically pivot 90° to its operative position perpendicular to the standard, as shown in FIG. 2.

The standard 12 is comprised of a main tubular member 17 and a telescoping rod 18 which is slidably received in the tubular member 17 and generally guided at its lower end by a guide washer 20 affording close tolerance with the inner walls of the tubular member 17. The telescoping rod 18 is normally held in varying positions of extended adjustment by conventional clamping member, generally designated 21, located near the upper end of the tubular member 17. The clamping member is preferably spring biased so that it is normally held in clamping position and must be manually released to adjust the telescoping rod 18. The upper end of the rod 18 carries a bail support 22 from which the free end of the movie screen is supported in a conventional manner. The bail support 22 is provided with a depending lug 23 of a size to fit within a well 24 in the end of the casing 16 to hold the casing 16 in its carrying position parallel to the standard, as shown in FIG. 1.

As best seen in FIGS. 5 and 6, a coil spring 25 is preferably positioned within the lower end of the tubular member 17. The spring 25 is provided with a washer 26 secured to its upper end and a washer 27 secured to its lower end to afford guiding and bearing surfaces to the coil spring 25. The function of the coil spring 25 is to cooperate with portions of the leg unit 13 and with an extension rod 18 so that the leg unit 13 can be held adjacent the standard 12 in closed position when desired, as shown in FIGS. 1 and 5, and so that the leg unit 13 can be permitted when desired to move outwardly to supporting position, as illustrated in FIGS. 2 and 6.

To this end, the leg unit 13 is provided with an upper collar 28 which slidably embraces the lower end portion

of the tubular member 17 and with a lower collar 30 which is fixedly secured adjacent the lower end of the tubular member 17. The upper collar 28 may be provided with three pairs of spaced ears 31, and the lower collar 30 may likewise be provided with three pairs of spaced ears 32 peripherally spaced about the lower collar 30 in similar fashion to the ears 31 on the upper collar 28.

As best seen in FIGS. 2, 6 and 7, a channel-shaped leg member 33 is swingably secured to each pair of ears 31 by a rivet 34. A channel-shaped bracing link 35 is similarly pivotally secured at one end to each pair of ears 32 on the lower collar 30 by rivet 36. The opposite end of each of the bracing links 35 is pivotally secured to a medial portion of its corresponding leg member 33 by a rivet 37.

The portions of the leg unit 13 thus far described are conventional. When the leg unit 13 is swung toward closed position adjacent the standard 12, the slidable upper collar 28 moves upwardly on the tubular member 17 (FIGS. 1 and 5), and the leg members 33 and bracing links 35 swing inwardly about the pivot connections afforded by the rivets 34, 36 and 37. Similarly, but in reverse fashion, when the leg unit 13 is moved to spread-apart supporting position, the upper collar 28 slides downwardly upon the tubular member 17 (FIGS. 2 and 6) and the leg members 33 and bracing links 35 pivot outwardly.

In the present invention, first means or mechanism is operatively associated with the leg unit 13 to cause the leg unit to be automatically swung to, and held in, closed position adjacent the standard when the standard and leg unit are lifted from the floor or other supporting surface. In addition, control means or mechanism is provided for releasing the leg unit from its inwardly urged closed position, thereby permitting second means or mechanism to cause the leg unit to be swung automatically to outwardly spread position.

In the preferred embodiment, the second means for normally urging the leg unit 13 toward spread supporting position is best shown in FIGS. 5 and 6 and comprises a torsion spring 38 embracing the rivet 37 joining the bracing link 35 to the leg member 33. Torsion springs are preferably provided encircling each of the three rivets 37 of the leg members 33. The free ends 38*a* and 38*b*, respectively, of the torsion spring 38 bear in opposite directions against the medial web of each of the bracing links and leg members. Thus, when the leg members 33 are folded in closed position adjacent the standard, as shown in FIG. 5, the torsion spring 38 is wound up so that each torsion spring normally urges each leg member outwardly of the standard toward supporting position.

However, when the leg unit 13 is being held in closed position, outward movement of the leg members is prevented by spring forces exerted on a lever means, generally designated 40, which is capable of restraining each leg member 33 and bracing link 35 against such outward movement. As herein shown, each lever means 40 is pivotally mounted between each pair of spaced ears 32 of the lower collar 30 by rivets 36. Each lever means 40 includes an inwardly extending arm 41 projecting into the lower end of the main tubular member 17 through a slot 42 in the tubular member 17, and an arcuate arm 43 extending outwardly and having a free end for engaging the web of the adjacent bracing link 35, as shown in FIGS. 5 and 6. FIGS. 5 and 6, for clearness of illustration, show only one of the three leg members, lever means and associated parts.

When sufficient downward force is caused to be exerted (as will be subsequently explained) upon the three arms 41 extending into the tubular member 17, and the leg unit 13 is lifted from its supporting surface, each arcuate arm 43 is caused to be pivoted counterclockwise (FIG. 6) with sufficient force to overcome the forces exerted by the torsion springs 38 (tending to swing the legs outwardly) so that each bracing link 35 and attached leg



member 33 is normally urged inwardly toward closed position adjacent the standard.

As herein shown, the operative force against the arms 41 is provided by the relatively heavy compression spring 25. In FIG. 6, the compression spring 25 has not yet been compressed. However, as soon as the extension rod 18 is pushed downwardly (approximately to Point A in FIG. 6) and releasably clamped by the clamping member 21 in the position shown in FIGS. 1 and 5, the coil spring 25 is compressed between the end of the extension rod 18 and the ends of the arms 41. The extension rod 18 and the clamping member 21 afford a control means for the coil spring 25. When the spring 25 is held fully compressed, the lug 23 of the bail support 22 is generally locked within the well 24 of the end of the casing 16 by the clamping member 21, as shown in FIG. 1. This locking of the casing is done preparatory to putting the screen away in storage. The leg unit 13 will still remain in outwardly spread supporting position because the weight of the standard 12 and casing 16 is sufficient to prevent the compressed coil spring 25 from forcing counterclockwise rotation of the lever means 40.

However, as soon as the leg unit is lifted from its supporting surface 44, gravity or the weight of the portable screen is no longer acting upon and being sustained by the leg unit 13. Accordingly, the lower end of the compressed spring 25 immediately moves downwardly and forces the three lever means 40 to rotate counterclockwise so that the arcuate arms 43 force the bracing links 35 and the leg members 33 into closed position adjacent the standard 12, as shown in FIG. 5. It will be noted that the arcuate arms 43 are so shaped and positioned as to extend around the ends of the ears 32 to retain the bracing links in substantially vertical position, and that the web of each leg member preferably bears against an exposed portion of the arcuate arm 43 so that the leg unit is held compactly and firmly in closed position.

The portion of the leg unit of FIG. 5 illustrates the leg unit in closed position in the manner shown in FIG. 1. When it is desired to once more place the movie screen in supporting position preparatory to viewing, it is merely necessary to release the clamping member 21 which permits the extension rod 18 to move outwardly, as shown in FIG. 2, thereby releasing the coil spring 25 from its compressed state (shown in FIG. 5) to its released state (shown in FIG. 6). When the coil spring 25 is released, the torsion springs 38 take over as previously explained and swing the leg members and bracing links to outwardly extended supporting position as previously described.

The release of the clamping member 21 also causes the extension rod 18 to be projected upwardly by the coil spring 25 so that the lug 23 of the bail support 22 is removed from the well 24 in the end of the casing 16. The screen casing 16 is then free to automatically pivot 90° to its operative position perpendicular to the standard as shown in full line in FIG. 2. Thus, the release of the clamping member 21, in addition to releasing the leg unit 13 for movement to supporting position, also releases the screen casing 16 for pivotal movement to operative position.

A modification of the invention is illustrated in FIGS. 9 and 10 wherein the torsion springs 38 are not needed. Instead, a second compression spring 45 is employed to supply the force to urge the leg unit 13 toward supporting position, the spring being seated in the lower end of the main tubular member 17 against a cap 46. The coil spring 45 is preferably not as stiff or as strong a spring as is spring 25 and may have attached buttons 47 and 48 at each of its ends. The modified structure is otherwise the same as shown and explained for the preferred embodiment.

In the modified form, when the leg unit 13 is in supporting position (FIGS. 1 and 9) and it is desired to close the leg unit and place the screen device in storage posi-

tion, the same procedure is followed as in the preferred form of the invention.

The extension rod **18** is depressed and clamped by clamping member **21** to compress spring **25** against arms **41** of the lever means **40**. Initially, spring **45** is not compressed because the weight of the standard and casing is sufficient to overcome the action or force of spring **25** and keep the leg unit **13** in spread supporting position on the supporting surface **44**. However, when the standard is lifted from the surface **44**, the force of spring **25** rotates the lever means **40** counterclockwise which pivots the bracing links **35** and leg members **33** to closed position adjacent the standard.

The rotation of the arms **41** of the lever means **40** by the force of the spring **25** also compresses the lighter and weaker spring **45**, as shown in FIG. 10. The web of each channel leg member **33** bears inwardly against the arcuate part of arm **43**.

When the clamping member **21** is released, extension rod **18** pops up and relieves the compression in spring **25**. Spring **45** is then free to move upwardly pivoting the lever means **40** clockwise so that each arcuate arm **43** strikes outwardly against its leg member **33** to kick the leg members toward spread position. Once the leg members are angled outwardly by the initial force of the blow from arcuate arms **43**, gravity causes the collar **28** to ride downwardly until the legs are in spread supporting position.

The foregoing detailed description is given for clearness of understanding only and no unnecessary limitations should be understood therefrom for some modifications will be obvious to those skilled in the art.

I claim:

1. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread-apart supporting position in which the standard is maintained uprightly; a bracing link pivotally secured at each of its opposite ends to one of the leg members and to the lower end of the standard; spring means positioned at the lower end of the standard; a lever pivoted on the lower end of the standard, one arm of the lever engaging the bracing link and the other arm of the lever engaging the spring means; and means for imparting stress to the spring means to exert forces on the other arm of the lever whereby, when the stand is removed from the supporting surface, the lever is rotated pivoting the bracing link and the leg members inwardly to closed position adjacent the standard.

2. A stand as specified in claim 1, in which the lower end of the standard is hollow and the spring means is a compression spring resting upon the other arm of the lever.

3. A stand as specified in claim 1, in which a bracing link is provided for each leg member, each bracing link being pivotally secured at each of its opposite ends to one of the leg members and to the lower end of the standard.

4. A stand as specified in claim 1, in which a bracing link is provided for each leg member, each bracing link being pivotally secured at each of its opposite ends to one of the leg members and to the lower end of the standard, and a plurality of levers are pivotally secured to the lower end of the standard, each lever having one arm engaging one of the bracing links and its other arm engaging the spring means, the spring means exerting forces on the other arms of the levers to rotate the levers and pivot the bracing links and leg members inwardly to closed position when the stand is removed from the supporting surface.

5. A stand for a movie screen device adapted to be maintained in upright position upon a supporting surface, comprising: a tubular standard; an extension rod telescoping with said standard; clamping means operable between said rod and standard for holding said extension rod in varying degrees of extended adjustment; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread-apart supporting position in which the standard is maintained uprightly; a bracing link pivotally secured at each of its opposite ends to one of the leg members and to the lower end of the standard; a lever mounted for pivotal movement on the lower end of the standard, one arm of the lever engaging the bracing link and the other arm of the lever extending into the lower end of the tubular standard; and a compression spring in the lower end of the standard resting upon the other arm of the lever, the extension rod being of such length as to be depressible into the standard to compress the spring and the clamping means holding the rod in depressed condition against the force exerted by the spring, whereby said spring exerts forces on the other arm of the lever and rotates the lever causing the bracing link and leg members to pivot inwardly to closed position when the stand is removed from the supporting surface.

6. A stand as specified in claim 5, in which a bracing link is provided for each leg member, each bracing link being pivotally secured at each of its opposite ends to one of the leg members and to the lower end of the standard, and a plurality of levers are pivotally secured to the lower end of the standard, each lever having one arm engaging one of the bracing links and its other arm engaging the spring, the spring exerting forces on the other arms of the levers to rotate the levers and pivot the bracing links and leg members inwardly to closed position when the stand is removed from the supporting surface.

7. A stand as specified in claim 5, in which a casing is pivoted to the tubular standard and normally urged from storage position parallel to the standard to viewing position perpendicular thereto, the extension rod having a portion engaging an end of the casing to hold it in storage position when the rod is depressed to compress the spring, and means are provided to urge the leg members from closed position toward supporting position when the extension rod is released by the clamping member, the release of the extension rod releasing the casing and the lever so that the casing turns to viewing position and the leg members are released for movement to supporting position by said means.

8. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard having a tubular lower end portion; a plurality of leg members swingably mounted on the lower end of the standard for movement between a closed position adjacent the standard and a spread-apart supporting position; a plurality of bracing links each pivotally secured at one end to one of the leg members and at the other end to the standard; a plurality of levers pivotally secured to the lower end of the standard each having one arm extending into the lower end portion and the other arm engaging a bracing link; a first compression spring resting upon said one arms of the levers and being compressible to exert forces urging said other arms of the levers to rotate in one direction to urge the bracing links and attached leg members toward closed position; control means selectively actuatable for releasing and for maintaining compressive forces in said first compression spring and a second compression spring; positioned within the standard below said one arms of the levers, said second spring being compressed by forces exerted by the first spring when the leg members are in closed position, the release of said first spring by the control means releasing said second spring for movement against the undersides of said one arms to rotate the other arms of the levers in an opposite direction and urge the leg members toward supporting position.

9. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard; a compression spring positioned at the lower

end portion of the standard; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread-apart supporting position in which the standard is maintained uprightly; a bracing link extending between one of the leg members and the lower end portion of the standard and having one end pivotally secured to said lower end portion of the standard and the other end pivotally secured to said one leg member; lever means extending inwardly of the pivot at the one end of said bracing link so as to be positioned to receive thrust exerted from the compression spring and to transmit that thrust to the bracing link in a direction tending to swing said bracing link toward the standard and thereby fold the leg members and the bracing link adjacent to the standard; and means for compressing the compression spring to impart thrust thereto to cause the compression spring to exert forces against the lever means whereby, when the stand is removed from the supporting surface, the lever means and said bracing link are rotated to pivot the bracing link and leg members inwardly to closed position adjacent the standard.

10. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard; a compression spring positioned at the lower end portion of the standard; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread supporting position in which the standard is maintained uprightly; a bracing link extending between each leg member and the lower end portion of the standard, each bracing link having one end pivotally secured to the lower end portion of the standard and the other end pivotally secured to one of the leg members; lever means extending inwardly of the pivot at one end of one of said bracing links so as to be positioned to receive thrust exerted from the compression spring and to transmit that thrust to said one bracing link in a direction tending to swing said one bracing link toward the standard and thereby fold the leg members and bracing links adjacent to the standard; and means for compressing the compression spring to impart thrust thereto to cause the compression spring to exert forces against the lever means whereby, when the stand is removed from the supporting surface, the lever means and said one bracing link are rotated to pivot the bracing links and leg members inwardly to closed position adjacent the standard.

11. A stand as specified in claim 10 in which the lever means is formed separately from the one bracing link.

12. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard; a compression spring positioned at the lower end portion of the standard; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread-apart supporting position in which the standard is maintained upright; a bracing link extending between each leg member and the lower end portion of the standard, each bracing link having one end pivotally secured to the lower end portion of the standard and the other end pivotally secured to one of the leg members; a lever arm extending inwardly of the pivot at the one end of each bracing link so as to be positioned to receive thrust exerted from the compression spring and to transmit that thrust to said bracing links in a direction tending to swing said bracing links toward the standard and thereby fold the leg members and bracing links adjacent to the standard; and means for compressing the compression spring to impart thrust thereto to cause the compression spring to exert forces against the lever arms whereby, when the stand is removed from the supporting surface, the lever arms and the bracing links are rotated to pivot the bracing links and leg members inwardly to closed position adjacent the standard.

13. A portable movie screen device adapted to be maintained in upright position upon a supporting surface, comprising: an elongated tubular standard; an extension rod telescoping with said standard; clamping means operable between said rod and said standard for holding said extension rod in varying degrees of extended adjustment; a screen casing pivoted to the standard for movement from viewing position perpendicular to the standard to storage position parallel to the standard; a bail support on the free end of the extension rod for engaging one end of the casing to hold the casing in storage position; a compression spring positioned at the lower end portion of the standard, the compression spring being compressed by the inner end of the extension rod when the extension rod is depressed to engage the bail support with said one end of the screen casing, the compression in said compression spring exerting thrust axially of said standard; a plurality of leg members swingably mounted on the lower end portion of the standard and normally urged from a closed position adjacent the standard toward a spread supporting position in which the standard is maintained uprightly; a bracing link extending between each leg member and the lower end portion of the standard, each bracing link having one end pivotally secured to the lower end portion of the standard and the other end pivotally secured to one of the leg members; and a lever arm extending inwardly of the pivot at one end of one of said bracing links so as to be positioned to receive the axial thrust exerted from the compression spring and to transmit that thrust to said one bracing link in a direction tending to swing said one bracing link toward the standard, the axial thrust being of such magnitude as to oppose and overcome the normal urge of the leg unit to move from closed toward supporting position and thereby to fold the leg members and bracing links toward the standard when the device is lifted from the supporting surface, the release of the clamping means when the leg members are in closed position and the compression spring is compressed causing the extension rod to be urged upwardly to release the casing from the bail support and to dissipate the axial thrust of the compression spring whereby the leg members will move automatically from closed to supporting position.

14. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard having a hollow lower end portion; a compression spring positioned within the lower end portion of the standard; a movable member positioned adjacent the lower end of the spring within the hollow end portion of the standard; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread-apart supporting position in which the standard is maintained uprightly; a bracing link extending between each leg member and the lower end portion of the standard, each bracing link having one end pivotally secured to the lower end portion of the standard and the other end pivotally secured to one of the leg members; a lever arm extending inwardly of the pivot at one end of one of said bracing links so as to be positioned to engage said movable member and to receive thrust through said movable member from said compression spring within the standard, the lever arm transmitting that thrust in a direction tending to swing said one bracing link toward the standard and thereby fold the leg members and bracing links adjacent to the standard; and means for imparting thrust to the compression spring to cause said spring to exert forces against said movable member and said lever arm whereby, when the stand is removed from the supporting surface, the lever arm and said one bracing link are rotated to

pivot the bracing links and leg members inwardly to closed position adjacent the standard.

15. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard; a compression spring positioned at the lower end portion of the standard; a leg unit including a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread supporting position in which the standard is maintained uprightly; spring means normally urging the leg unit from closed position toward supporting position; a bracing link extending between each leg member and the lower end portion of the standard, each bracing link having one end pivotally secured to the lower end portion of the standard and the other end pivotally secured to one of the leg members; lever means extending inwardly of the pivot at one end of one of said bracing links so as to be positioned to receive thrust exerted from the compression spring and to transmit that thrust to said one bracing link in a direction tending to swing said one bracing link toward the standard and thereby fold the leg members and bracing links adjacent to the standard; and control means for compressing the compression spring to impart thrust thereto of sufficient magnitude to oppose and overcome the force of said spring means normally urging the leg unit from closed toward supporting position, said thrust acting against the lever means to swing the leg unit to closed position when the stand is lifted from the supporting surface, said control means being actuatable to release the compression in the compression spring so that the spring means will move the leg unit automatically from closed to spread supporting position.

16. A stand adapted to be maintained in upright position upon a supporting surface, comprising: an elongated standard; a pair of compression springs positioned at the lower end of the standard, one of the springs being positioned above the other; a plurality of leg members swingably mounted on the lower end portion of the standard for movement together between a closed position adjacent the standard and a spread supporting position in which the standard is maintained uprightly; a bracing link extending between each leg member and the lower end portion of the standard, each bracing link having one end pivotally secured to the lower end portion of the standard and the other end pivotally secured to one of the leg members; lever means extending inwardly of the pivot at one end of one of said bracing links so as to be positioned between said compression springs to receive thrust therefrom when said springs are compressed, the lever arm receiving thrust from the one spring when compressed and transmitting that thrust to said one bracing link in a direction tending to swing the one bracing link toward the standard and thereby fold the leg members and bracing links adjacent to the standard when the stand is lifted from the supporting surface, the thrust of said one spring being of sufficient magnitude to compress the other spring and create an opposing thrust as said leg members are moved toward closed position; and control means selectively actuatable for releasing and for maintaining compression in said one compression spring, the release of thrust in said one compression spring causing the opposing thrust in said other compression spring to act on said lever means and to force said leg members to swing outwardly toward supporting position.




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