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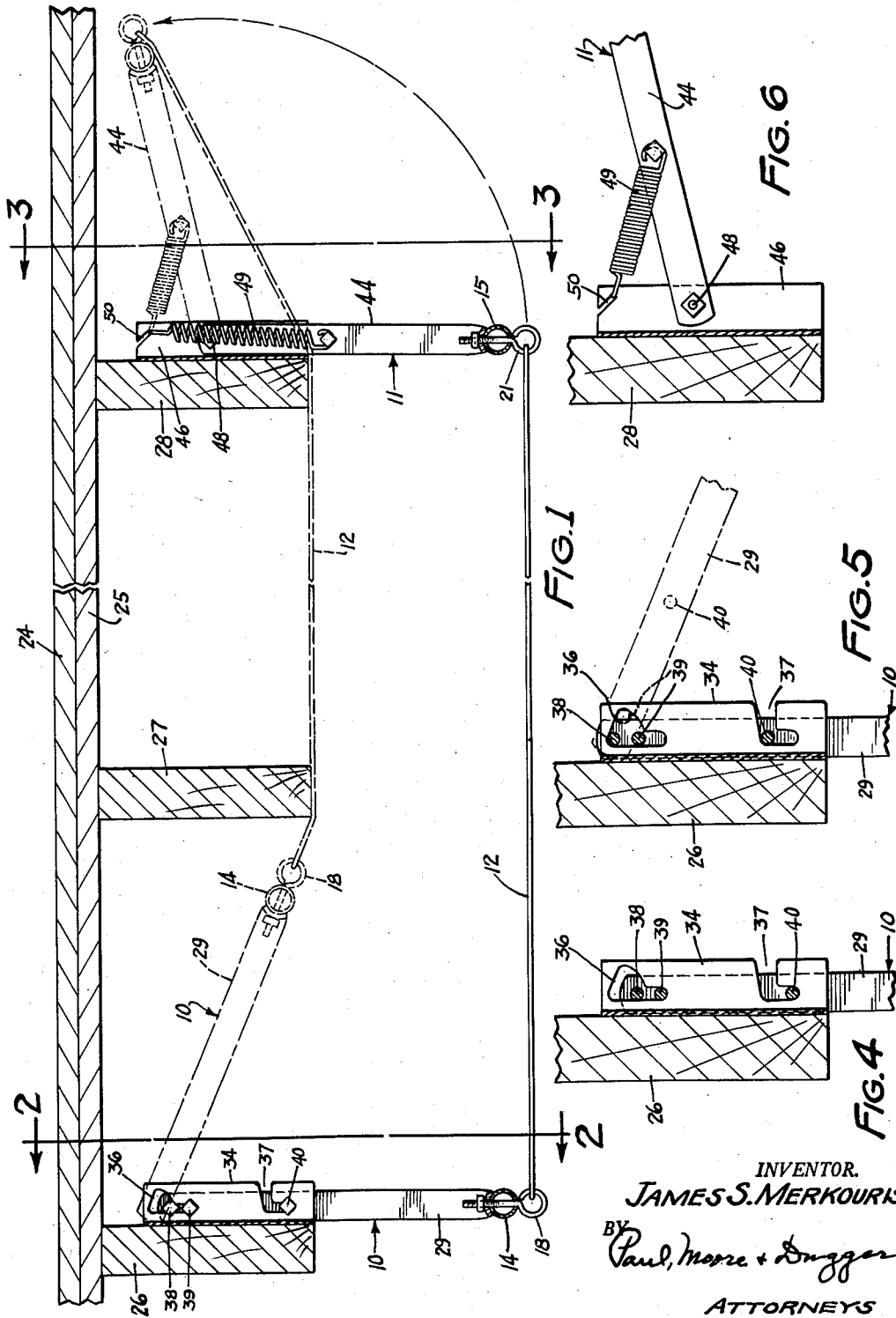
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2,899,080

RETRACTABLE CLOTHESLINE SUPPORT

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2 Sheets-Sheet 1



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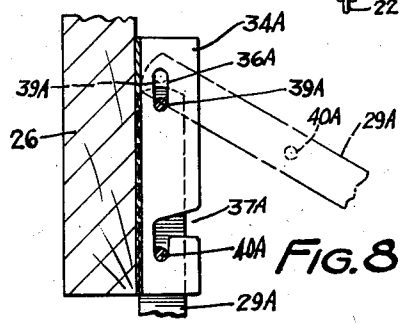
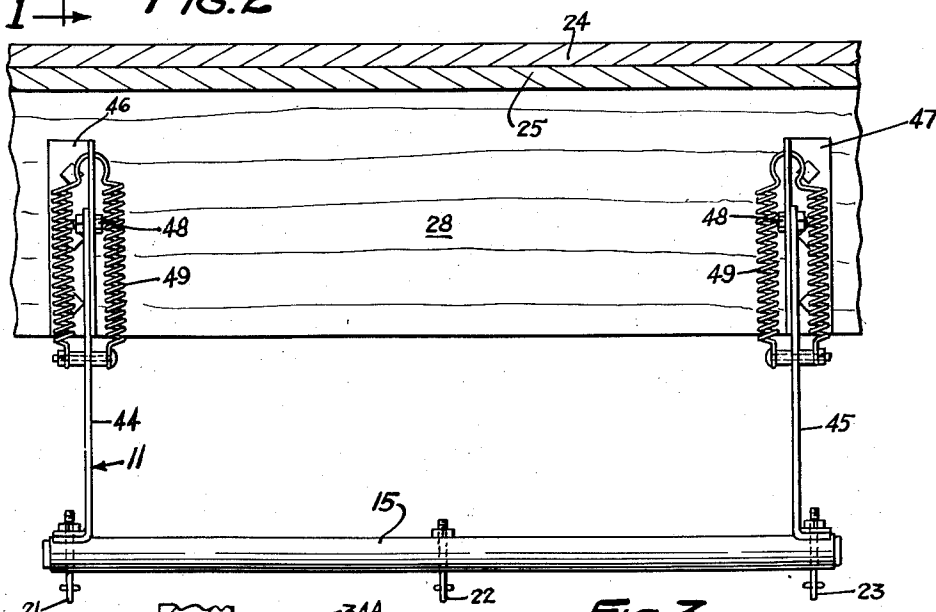
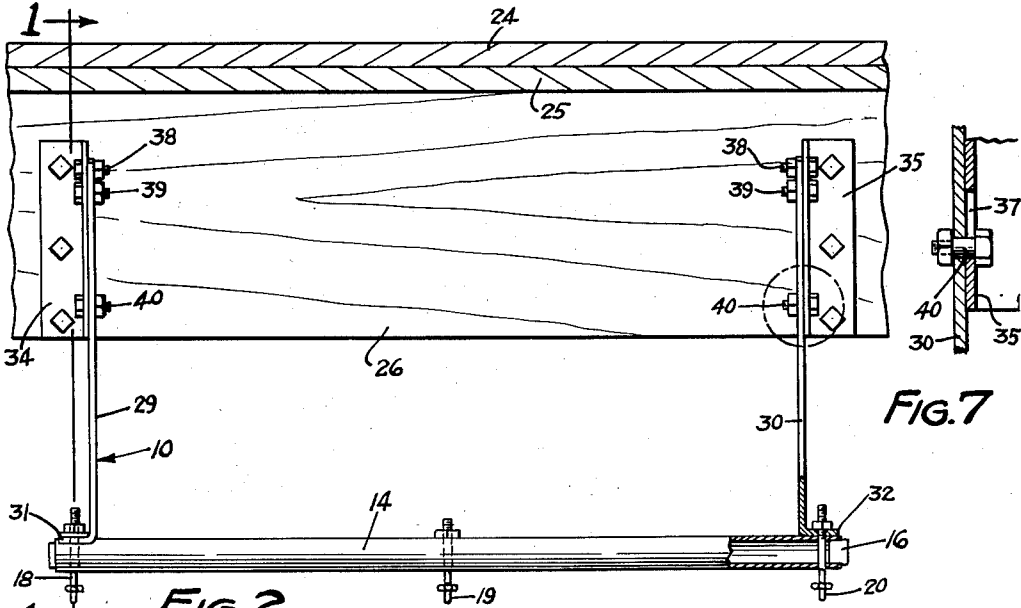
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2 Sheets-Sheet 2



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RETRACTABLE CLOTHESLINE SUPPORT

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3 Claims. (Cl. 211—119.17)

This invention relates to supports for clotheslines and like supporting elements. More particularly, this invention relates to retractable or foldable means for supporting clotheslines and the like from ceilings, and which may be folded away against the ceiling so as to be unobtrusive when not in use.

Many homes with basements have large unobstructed areas well suited for use as amusement or playrooms. In many regions, particularly in the north, this space is also often needed for clothes drying. Ordinary foldable clothesline supports which are available for indoor use are for the most part mounted on the lower side of the overhead floor joists in such a way that even when folded away, normal headroom is reduced. Such ordinary devices are often complex in construction and difficult to operate to raise and lower. Such supports are not generally adaptable to use where the drying room ceiling is finished.

It is the principal object of this invention to provide a simple lightweight, sturdy, low-cost, retractable clothesline support which is easy to install and use.

Another object of this invention is to provide a retractable clothesline support which when folded out of the way when not in use, does not reduce headroom.

Still another object of this invention is to provide a retractable clothesline support which may be raised and lowered simply and easily from one end of the assembly.

A further object of this invention is to provide a retractable clothesline support which may be folded unobtrusively into the spaces between the joists of basement drying rooms.

It is a still further object of this invention to provide a retractable clothesline support adapted to be installed for storage out of sight when not in use in a drying room having a finished ceiling.

Other objects of this invention will become apparent as the description proceeds.

In the accompanying drawings there has been disclosed a structure designed to carry out the various objects of the invention, but it is to be understood that the invention is not confined to the exact features shown, as various changes may be made within the scope of the claims which follow.

In the drawings:

Figure 1 is a side elevation of the clothesline support of this invention taken on the line 1—1 of Figure 2 and in the direction of the arrows showing the support in place in a typical basement ceiling, the support being shown in its lowered position ready for use in full lines and in its raised or retracted position in broken lines;

Figure 2 is a front elevation, partly in section, of the operating and locking end of the support assembly taken along the line 2—2 of Figure 1 and in the direction of the arrows;

Figure 3 is a front elevation of the spring actuated release end of the support assembly taken along the line 3—3 of Figure 1 and in the direction of the arrows;

Figure 4 is a side elevation, somewhat enlarged and

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partly in section, of the locking means for the line support shown in locking position;

Figure 5 is a view similar to Figure 4 showing the locking means in release position;

Figure 6 is a side elevation of one of the spring actuated release arms in the raised position;

Figure 7 is an enlarged sectional elevation of the area contained within the broken line circle of Figure 2 taken through the locking notch and showing the locking stud in place in the notch; and

Figure 8 is a side elevation of a modified form of locking means for the line support of this invention.

Referring now to the drawings, there is here shown a clothesline support comprising essentially two U-shaped mounting frames, one of these indicated generally 10 being an operating and locking frame, and the other indicated generally at 11 being a spring actuated release frame. The clothesline or similar line 12 is stretched between the U-shaped frame members. The line supporting frames comprise two laterally spaced horizontal cross bars or end bars 14 and 15, preferably formed of tubular metal. The opposite ends of the tubular bars are desirably capped or provided with plugs 16, as in Figure 2. Each bar has a plurality of laterally spaced apart eye bolts 18, 19, 20, 21, 22 and 23 clamped in holes drilled in the tubular bars. The eye bolts on the two bars are so spaced as to be complementary to form terminals for stretching the line in taut parallel relationship between the bars.

The line supporting frames are supported by the joists of a typical basement ceiling, as shown in Figure 1. As in ordinary frame construction, the ceiling comprises a floor 24 laid over a sub-flooring 25 which in turn is supported by joists 26, 27 and 28. Cross bar 14 is supported by suspending arms 29 and 30 which, in the preferred form illustrated, are formed with angular lugs 31 and 32 respectively which are held to the cross bar by eye bolts 18 and 20 respectively. Suspending arms 29 and 30 which serve as locking arms, are supported in a pair of angle brackets 34 and 35 respectively, which are bolted or otherwise firmly secured to one side of joist 26. Brackets 34 and 35 each are provided with a generally outwardly extending keyhole slot 36 at the upper or pivot end of locking arms 29 and 30 and an open locking notch 37. Locking notch 37 is positioned near the lower end of the bracket and has its opening in the direction away from joist 26 and bends angularly downwardly from the opening. Arms 29 and 30 are each provided with a pivoting stud 38 at their upper ends. Spaced apart below stud 38 are two locking studs 39 and 40, each spaced apart so as to rest in the bottoms of keyhole slot 36 and locking notch 37 respectively, when the end frame 10 is in its lowered position. In its upper or raised position, the frame pivots on studs 38 in the top of the keyhole slots 36.

The cross arm 15 is supported by suspending arms 44 and 45 which are preferably secured to the cross bar by eye bolts 21 and 23 respectively. Suspending arms 44 and 45 are supported in a pair of angle brackets 46 and 47 respectively securely fastened by such means as bolts 60 to one side of joist 28. All brackets 34, 35, 46 and 47 are placed on the joists to face in the same direction, as shown in Figure 1. Arms 44 and 45 are somewhat shorter in length than corresponding arms 29 and 30 and are pivotally supported by studs 48 in holes in the brackets, near the top ends thereof, but spaced downwardly therefrom.

Arms 44 and 45 are each provided with a double helical spring 49 operatively connected through off-center slots 50 in brackets 46 and 47 to normally tend to swing arms 44 and 45 upwardly and away from the brackets.

However, when cross bars 14 and 15 are in extended operative positions, as shown in full lines in Figure 1, springs 49 exert force along their axes approaching dead center. The length of the clothesline is such that when frames 10 and 11 are in extended positions, and frame 10 is pulled downwardly to move studs 40 into the lower portions of slots 37, the lines are pulled taut and will remain so until the studs 40 are subsequently released from slots 37. It will be understood that other spring means, for example, a sear spring, may be used.

To bring the lines down from the raised position to the lowered position for hanging clothes, it is only necessary to grasp horizontal cross bar 14 and pull generally downwardly until the locking studs 40 enter the locking notches 37. Then the frame 10 is pulled down and locked in place with locking studs 39 and 40 in locking position in the bottoms of slots 36 and notches 37 respectively. The use of the keyhole slots 36 at the upper or pivot end of the locking frame 10 positions the locking studs 40 within the reentrant locking notches 37 before the arms 29 and 30 are permitted to drop down into locking position. This feature makes the operation of the device from the raised to the lowered position much easier.

To raise the clothesline a simple upward push on cross bar 14 of frame 10 disengages studs 39 and 40. Arms 29 and 30 are permitted to pivot on studs 38 at the upper end of the keyhole slot, stud 39 swings out into the enlarged portion of that slot and stud 40 swings free from the locking notch 37. The springs 49 on frame 11 raise the support frames out of the way between the joists and hold the lines taut against the intervening joists. When the frames are in the raised position, no part of the assembly extends below the bottoms of the joists, except the lines themselves which are held up tight against the ceiling so as not to reduce headroom.

A simplified and alternative form of locking device for the line support is shown in Figure 8. Bracket 34A is provided with an elongated vertical slot 36A at the upper end and an open locking notch 37A positioned near the lower end of the bracket with its opening in the direction away from joist 26. Notch 37A bends angularly downwardly from the opening. Arm 29A is provided with a pivoting stud 39A at its upper end and a locking stud 40A spaced apart downwardly from it. The studs are spaced apart so as to rest in the bottoms of slot 36A and locking notch 37A locking frame 10 against movement when it is in the lowered position.

The line support of this invention may be simply and easily mounted. No layout work is required, since the entire mechanism is contained within the support frames. Merely assembling the several elements places them in correct relative position for attaching to the joists.

The line support of this invention can be installed in completely finished ceilings simply by providing a hinged panel in the ceiling at each end of the support assembly, leaving only enough clearance between the panel and the ceiling joists for the lines. Extensions may be inserted in the ends of tubular cross bars 14 and 15 to provide greater width where required.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

I claim as my invention:

1. A retractable clothesline support comprising first and second pairs of upright, elongated supporting brackets, said pairs of brackets being adapted to be secured to the side faces of laterally-spaced ceiling joists, whereby their lowermost ends do not extend below the bottom edges of said joists, first and second U-shaped frames each comprising a horizontal cross-bar having a suspending arm secured to each end thereof, pivot pins pivotally suspending the arms of said first and second U-shaped frames from their respective first and second pairs of brackets, a plurality of clotheslines stretched between and secured to said crossbars, spring means connected to one of said U-shaped frames and to its respective supporting brackets and disposed in off-center relation to the frame supporting pivots, thereby to constantly urge said U-shaped frame into inoperative retracted position between adjacent joists, and whereby the other of said U-shaped members will be similarly swung upwardly into inoperative position between adjacent joists because of its connection with said first U-shaped frame through said clotheslines, and means for locking said U-shaped frames in downwardly extended operative positions, whereby the clotheslines are positioned below said joists.

2. A retractable clothesline support according to claim 1 wherein eye-bolts secure the lower ends of said suspending arms to their respective cross-bars, said eye-bolts also providing means for securing the clotheslines to said cross-bars.

3. A retractable clothesline support, first and second line-supporting frames each comprising a cross-bar having the corresponding ends of a pair of suspending arms secured to the ends thereof, a pair of elongated, vertical mounting brackets for each of said frames, the upper end of each arm of said first line-supporting frame being pivotally and slidably connected to the upper ends of its mounting brackets, and the lower end of each of said mounting brackets having an L-shaped slot therein for receiving studs on said arms, thereby to lock said arms in operative position.

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