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2 Sheets-Sheet 1

Fig. 1.

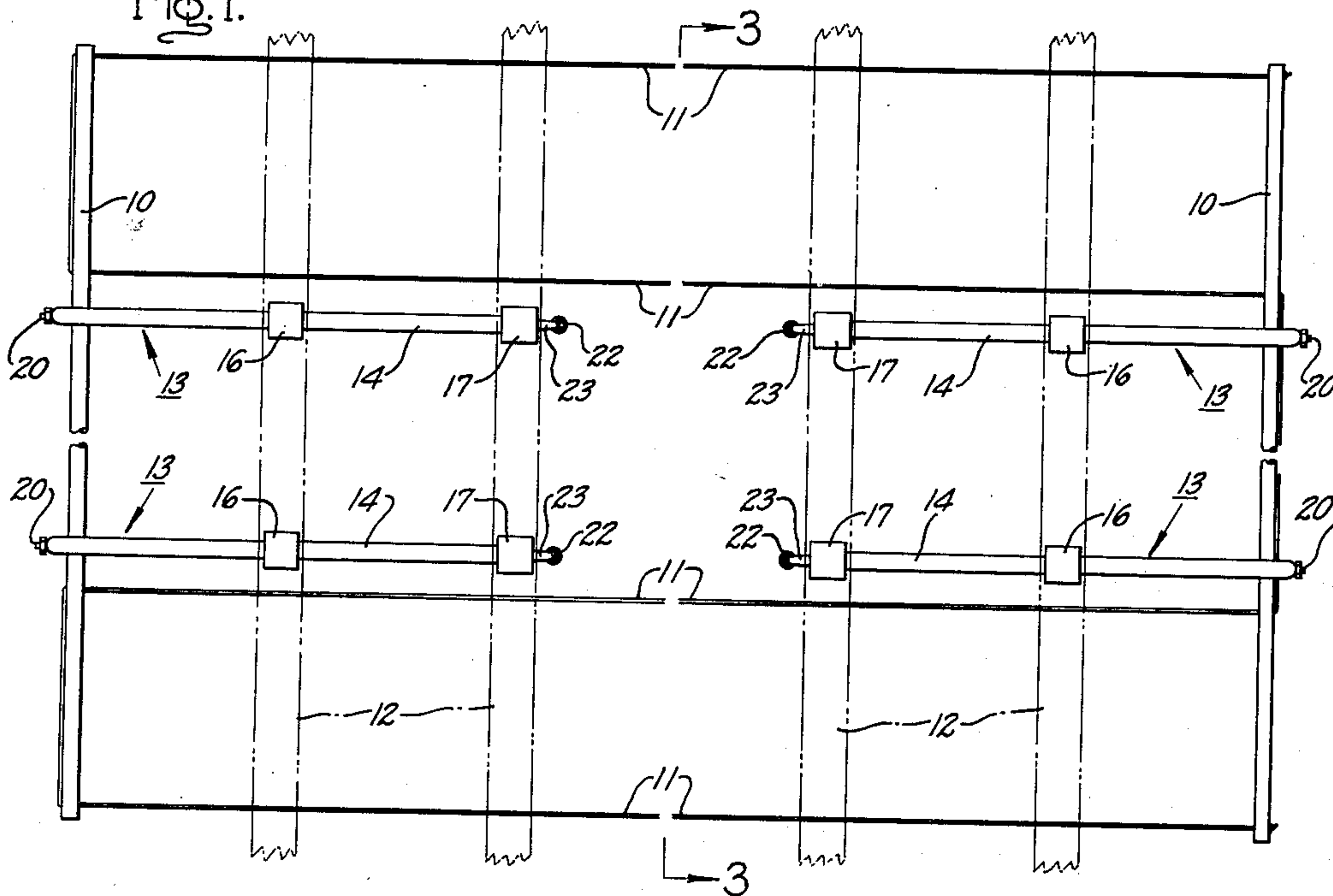


Fig. 2.

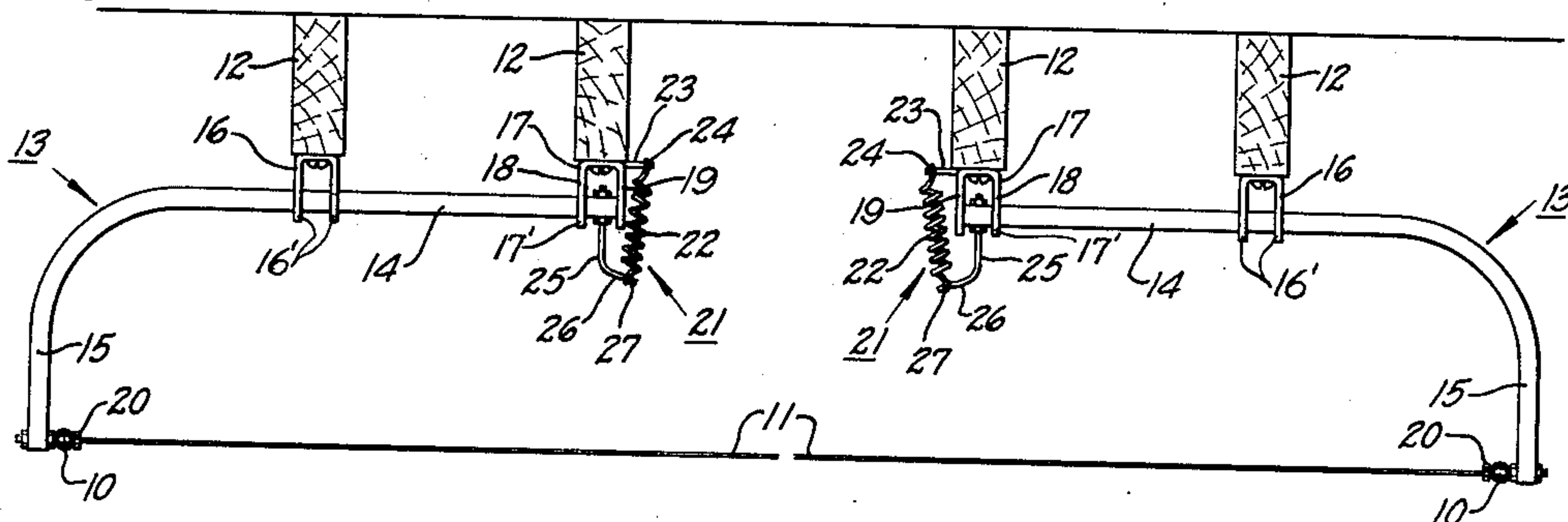
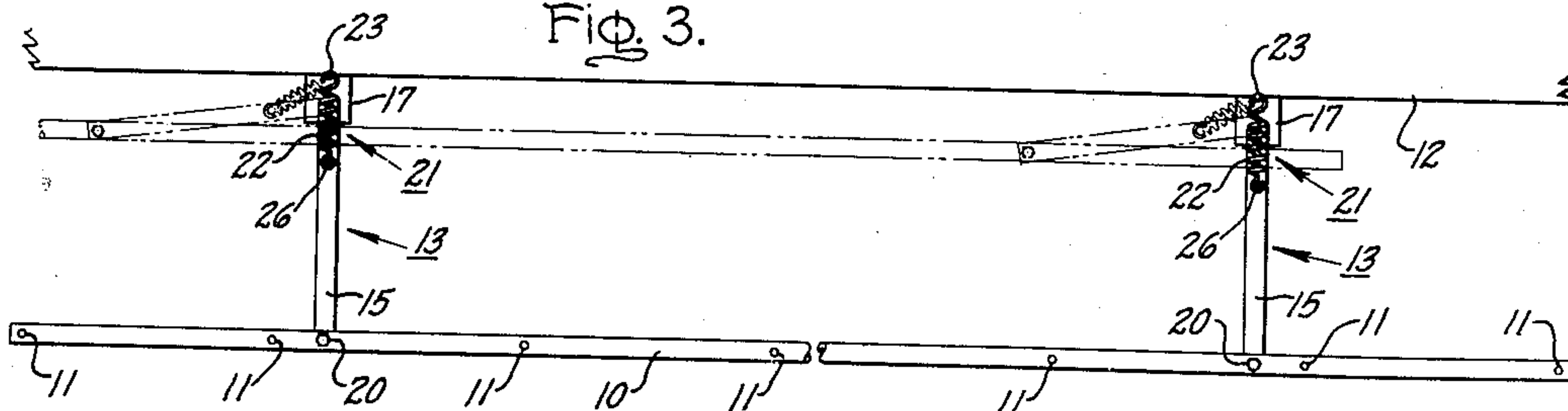


Fig. 3.



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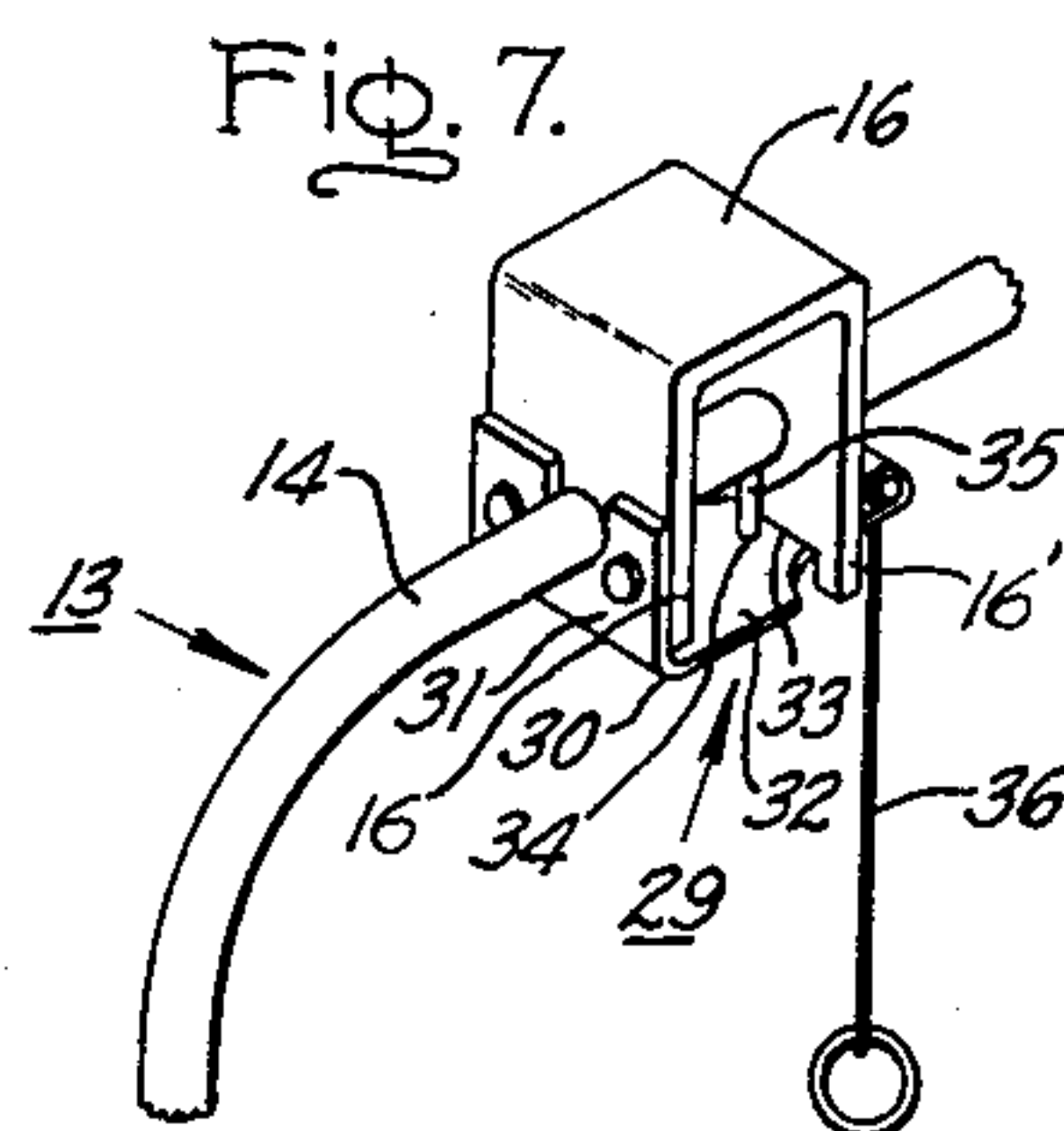
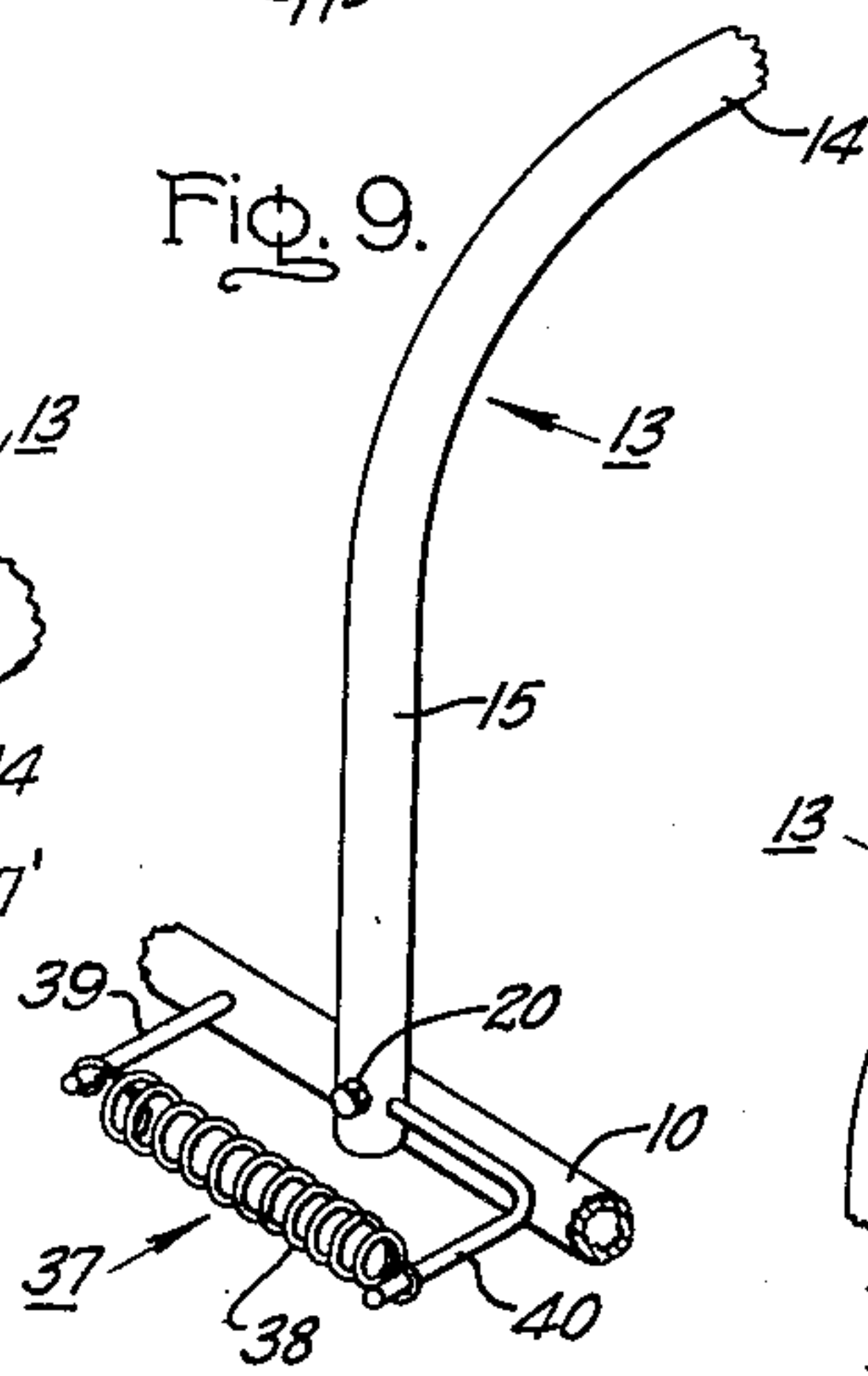
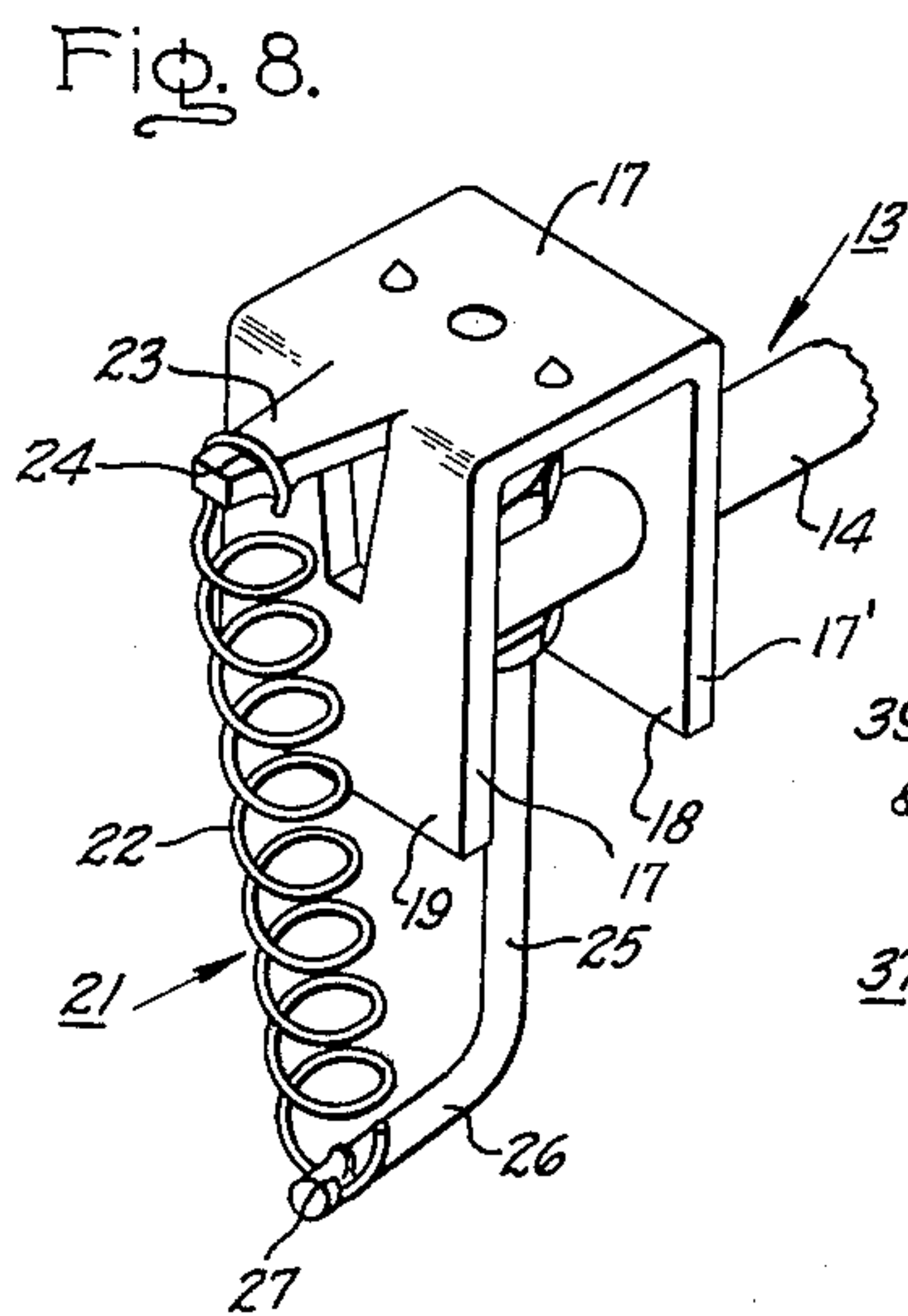
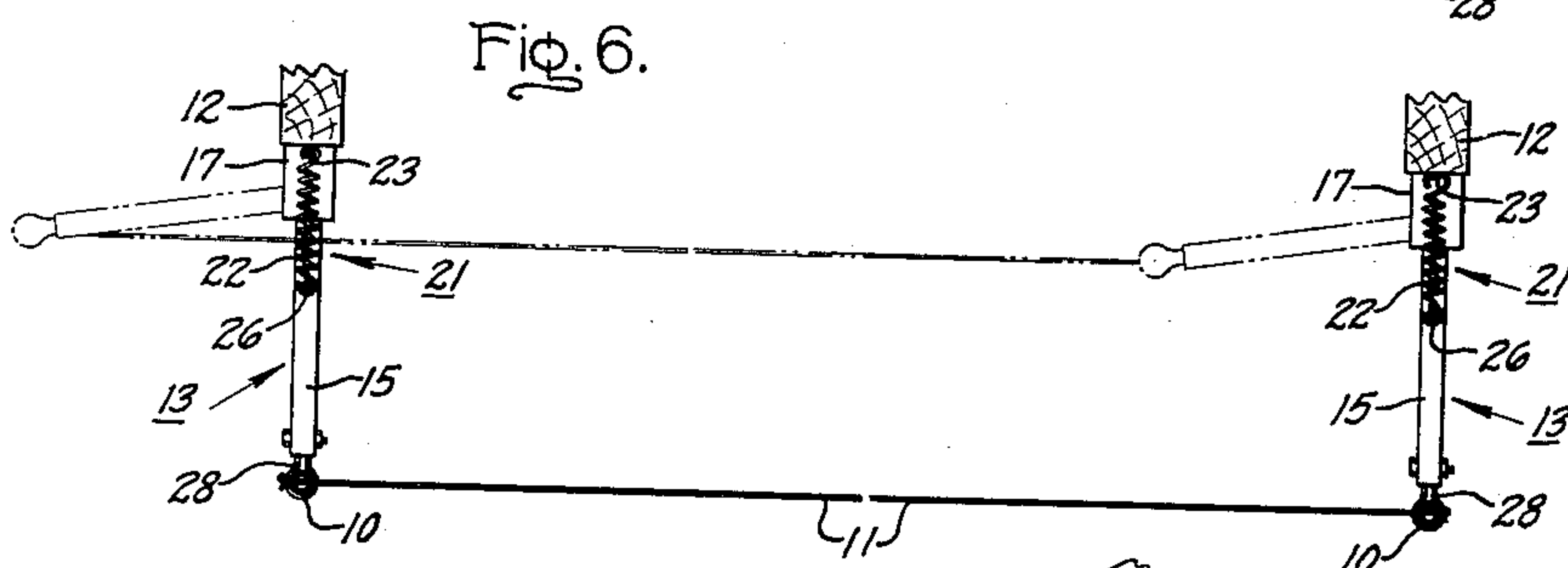
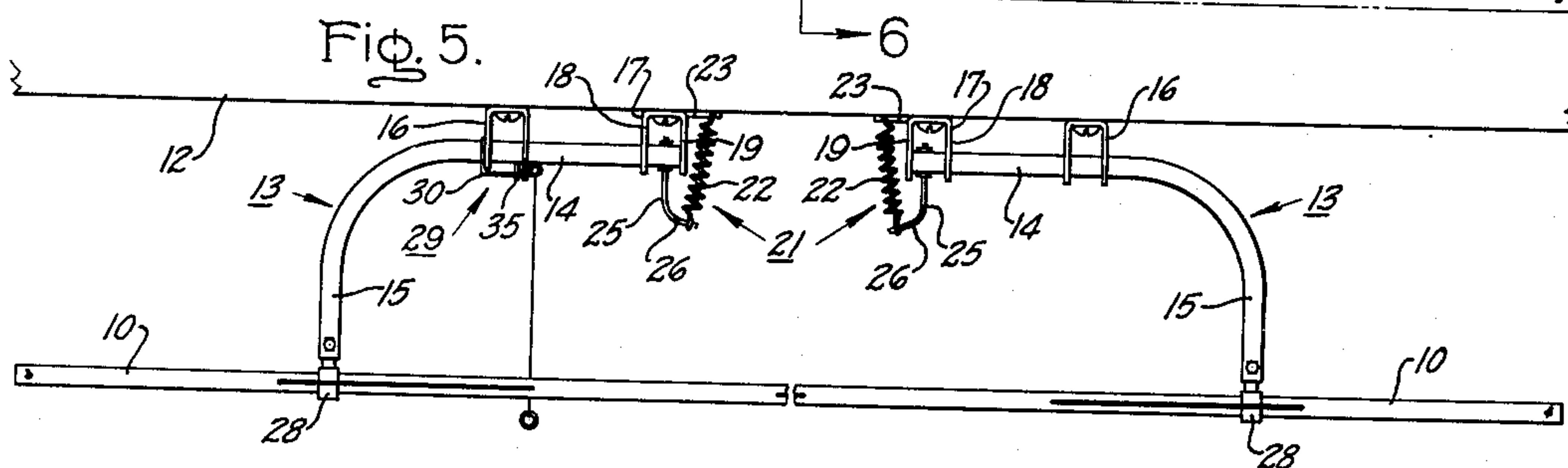
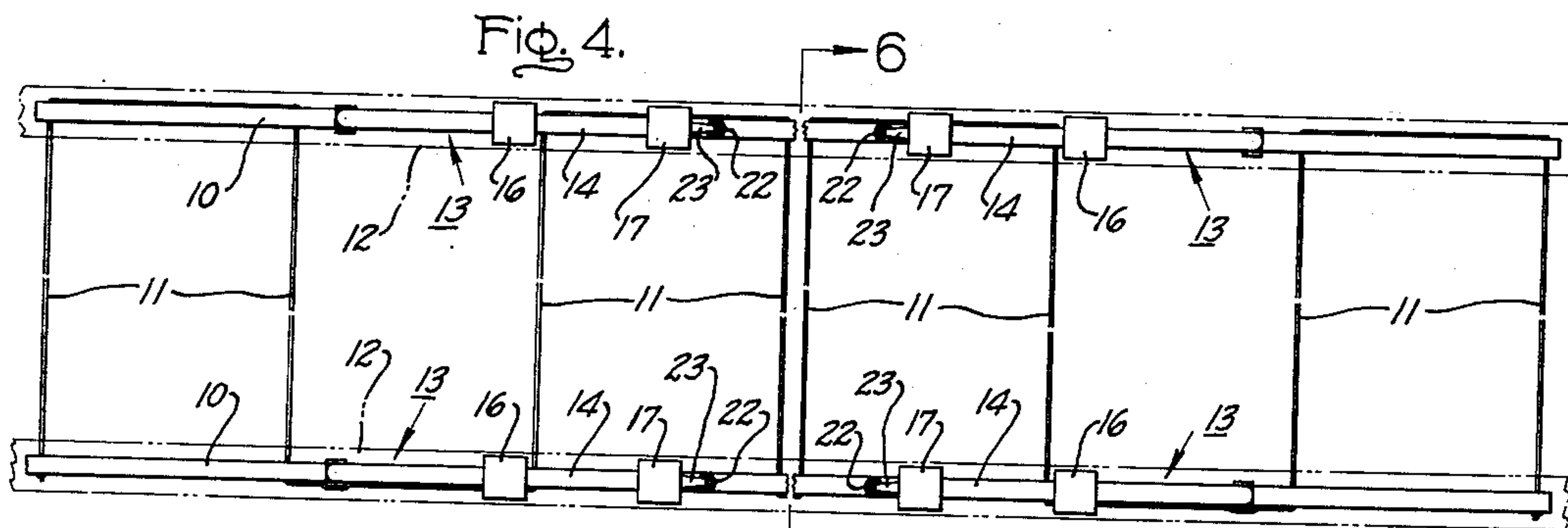
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2,659,493

LAUNDRY HANGER

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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LAUNDRY HANGER

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5 Claims. (Cl. 211—119.16)

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My invention relates to a laundry hanger, and more particularly to a laundry hanger of the overhead suspended type for use in basements, laundry rooms, and attics, for instance.

Clotheslines strung indoors in basements, laundry rooms and the like are usually low-hanging and sagging in character, thus interfering with the free and unhindered movement of persons about the basement or laundry room through lack of sufficient head room. Moreover, such low-hanging clotheslines always pose the danger of serious accident to persons who may be walking about in the dark unaware of their presence. While this condition may be eliminated by taking down the clothesline following each period of use, this is seldom ever done as a practical matter because of the considerable inconvenience involved.

It is an object of my invention, therefore, to provide a laundry hanger of the overhead suspended type which, when not in use, may be quickly and easily moved from its lowered clothes-hanging position to a raised inoperative position up against the ceiling where it will be out of the way.

Another object of my invention is to provide a laundry hanger of the ceiling suspended type which is of simple and sturdy construction and which can be easily mounted in place on the ceiling or ceiling rafters.

A feature of the invention is the provision of a spring-lift arrangement for returning and maintaining the hanger in its raised inoperative position while permitting the hanger to remain in its lowered clothes-hanging position when moved to such position.

Further objects and advantages of my invention will appear from the following description of species thereof and from the accompanying drawing in which:

Fig. 1 is a plan view of a laundry hanger comprising my invention; Fig. 2 is a side elevation of the hanger; Fig. 3 is a section on the line 3—3 of Fig. 1; Figs. 4 and 5 are plan and end views, respectively, of a modified form of laundry hanger comprising my invention; Fig. 6 is a section on the line 6—6 of Fig. 4; Fig. 7 is a perspective view of the locking arrangement for the support arms of the modified hanger shown in Figs. 4—6; Fig. 8 is a perspective view of the spring lift arrangement for the hangers shown in Figs. 1—6; and Fig. 9 is a perspective view of a modified form of spring lift arrangement for the hanger of Figs. 1—3.

Referring to Figs. 1—3, the laundry hanger there shown comprises a spaced pair of horizontally-extending parallel spreader bars 10 between

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which a clothesline or wire 11 is strung back and forth. The spreader bars 10 are preferably formed of metal tubing or pipe of a suitable size, for instance, of 1" outside diameter or thereabouts, and they are preferably provided with transverse apertures through which the clothesline 11 may be threaded.

Each spreader bar 10 is supported from an overhead support, such as a ceiling or ceiling rafters 12, by means of a swing mounting comprising a set of two or more L-shaped swing hangers or support arms 13 each comprising a horizontally extending leg portion 14 and a swinging leg portion 15. The horizontal leg portions 14 of the several hanger or support arms 13 all extend approximately parallel to one another. In the form of the invention shown in Figs. 1—3, the leg portions 14 of each set of support arms extend in a direction transversely of their respective spreader bar 10 and preferably in a direction towards the leg portions 14 of the other set of support arms 13 for the spreader bar at the opposite end of the hanger. The several support arms 13 are preferably made of a single piece of metal tubing or pipe bent into shape, the tubing or pipe being of a suitable size, for instance, of 1" outside diameter or thereabouts.

The horizontal leg portions 14 of the support arms 13 are each rotatably supported in a relatively widely spaced pair of inverted U-shaped brackets 16, 17 to permit rotation of the support arms about the axes of their said leg portions 14. The brackets 16, 17 are suitably fastened, as by screws, to the ceiling or to adjacent ceiling rafters 12, 12, as shown. The outer brackets 16 each have bearing openings 16' in both their depending arms for the leg portions 14 of the support arms 13. The inner brackets 17, however, have bearing openings 17' for the support arm leg portions 14 in only one of their depending arms, i. e., arm 18, as shown in Fig. 8. The other depending arms 19 of the brackets 17 act as end stops against which the ends of the support arm leg portions 14 engage to limit movement of the support arms 13 inwardly of the hanger. The swinging leg portions 15 of each set of support arms 13 are pivotally connected at their free ends to the respective spreader bar 10, as by bolts 20 for instance, in a manner to permit pivotal movement therebetween about an axis parallel to the axis of rotation of the support arm leg portions 14.

The spreader bars 10 and the associated clothesline 11 are normally held in an elevated or inoperative position more or less up against the ceiling or ceiling rafters, as shown in dash dot

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lines in Fig. 3, by spring lift means 21, separate means 21 preferably being provided for each support arm 13. As shown more particularly in Fig. 8, each spring lift means 21 comprises a tension coil spring 22 extending more or less transversely of and across one end of the leg portion 14 of the associated support arm 13 and acting on the support arm in such a manner as to rotate it and thus lift the spreader bar 10 supported thereby whenever the spreader bar is shifted from its lowest or operative position to cause the support arm leg portion 15 to be swung a slight amount to one side or the other of its vertical or "dead center" position. To produce such overthrow action of the spring 22 on the support arm 13, one end of the spring is fulcrumed on a fixed support or hook 23 and its other end connected to the support arm in a manner such that the opposite ends of the spring are anchored at points located on diametrically opposite sides of the axis of rotation of the support arm when the leg portion 15 thereof is in its vertical or downwardly swung position. In this down position of the support arm then, the force of the tensioned spring 22 will be directed or centered through the axis of rotation of the support arm 13 (i. e., the axis of the leg portion 14 thereof) as a result of which the support arm will remain in such down or "dead center" position. The friction in the support arm bearings serves to provide a limited amount of variation from the exact "dead center" position of the support arm before the spring 22 will act to rotate the said arm. To raise the spreader bar 10 to its elevated position, it is merely necessary to shift the bar longitudinally a slight amount so as to swing the associated support arms 13 to one side or the other of their down or "dead center" position, thus causing the force of the spring 22 to be correspondingly shifted and directed to one side of the axis of rotation of the associated support arm whereby it acts to pivot or swing the said arm upwardly, carrying the spreader bar up along therewith to its raised or inoperative position, as shown in dash dot lines in Fig. 3.

In the particular case illustrated, the fixed support or hook 23 on which one end of the spring 22 is fulcrumed is in the form of an arm or lug projecting more or less horizontally from the outer face of the bracket arm 19 adjacent the upper end thereof and substantially aligned vertically with the support arm leg portion 14. The said spring hook or lug 23 may be conveniently formed by punching it out of the bracket arm 19 during the fabrication of the bracket 17. Adjacent its free end, the spring hook or lug 23 is notched or crimped, as indicated at 24 (Fig. 7), to provide a seat within which one end of the spring 22 is hooked to thereby lock the spring in place on the hook. The other end of the spring 22 is anchored to a more or less L-shaped spring post 25 fastened to and extending from the underside of the support arm 13 at a point intermediate the two arms 18, 19 of bracket 17. The free end 26 of the spring post 25 is bent at an angle approximating 90° so as to extend beyond the bracket leg 19. As will be apparent from Fig. 3, the spring post 25 is mounted on the support arm 13 in a manner such that the plane defined by the bent arms of the spring post substantially coincides with the plane defined by the leg portions 14, 15 of the support arm. As a result, the bent end portion 26 of the spring post 25 will be vertically aligned with and will underlie the spring hook 23 when the support arm 13 is in its vertical down position, thus insuring that the force of the

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spring 22 will be directed through the axis of rotation of the support arm so as not to rotate the arm when it is in the said down position. Like the spring hook 23, the spring post 25 is notched or crimped adjacent its free end, as indicated at 27, to provide a seat around which the end of the spring 22 is hooked to thereby lock the spring in place on the post. As shown in Fig. 2, the seat 24 for the upper end of the spring 22 is located further beyond the bracket leg 19 than the seat 27 on the spring post 25 whereby the spring 22 is tilted inwardly in a manner to exert a slight inward pull on the support arm 13 which tends to maintain the end of the support arm leg portion 14 continuously against the leg 19 of support bracket 17.

The modification illustrated in Figs. 4-7 is similar to but differs from the form of the invention shown in Figs. 1-3 in that the movement of the hanger to its elevated or inoperative position is effected by a lateral rather than a longitudinal shifting of the spreader bars 10. In this case, the support arms 13 for each spreader bar 10 are mounted with their horizontal leg portions 14 aligned axially and extending substantially parallel to the spreader bar instead of transversely thereof as in Figs. 1-3. While the spreader bars 10 in this modification may be secured to their respective support arms 13 in the same manner as before, i. e., by bolts, they may if desired be rotatably mounted thereon instead so as to rotate on their own axes during the swinging movement of the support arms. For this purpose, the spreader bars 13 may be supported in bearing hangers 28 fastened to the free ends of the support arm leg portions 15.

As shown in Fig. 7, suitable locking means 29 are provided for locking the support arms 13 of this modification in their downwardly swung position, the said locking means thus serving to prevent the weight of any clothes hanging on the clothesline 11 from pulling the spreader bars 10 towards one another whereby the springs 22 would tend to swing the support arms and associated spreader bars upwardly to their raised position. The locking means 29 may comprise an L-shaped plate spring 30 mounted on one of the support brackets 16 for the support arms 13, only one such spring 30 being necessary for each spreader bar 10. One arm 31 of the spring 30 is fastened to one of the depending legs of the bracket 16 while the other arm 32 extends underneath the said bracket and is laterally locked in a notch 33 in the other leg of the bracket. The leg 32 of the spring 30 is provided with an aperture 34 to receive a locking pin 35 projecting laterally from the support arm leg portion 14. When the support arm 13 is swung down to its lowered or vertical down position, the end of the pin 35 engages and flexes the spring leg 32 until the pin comes opposite the aperture 34 whereupon the spring leg 32 snaps over the pin, thus locking the support arm 13 against further rotation. The release of the locking means 29 to permit return of the spreader bar 10 to its raised position is effected simply by deflecting the spring leg 32 downwardly to disengage the pin 35 from the aperture 34 and then swinging the spreader bar and associated support arms upwardly while the said spring leg is so deflected. A pull chain or cord 36 may be attached to the free end of the spring leg 32 to enable convenient release of the locking means 29.

The modified arrangement illustrated in Figs. 4-7 has the additional advantage over the form

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of the invention shown in Figs. 1-3 in that the lowering or raising of the hanger can be effected by the shifting of only one of the spreader bars 10, whereas in the form shown in Figs. 1-3 each bar 10 must be moved separately. To accomplish this, it is merely necessary to move that spreader bar 10 which, through the clothesline 11 interconnecting the two spaced spreader bars, will pull the other spreader bar along therewith. Of course, it is necessary in such case for the clothesline 11 to be stretched more or less taut between the two spreader bars.

Fig. 9 illustrates a modified form of spring lift means 37 which may be utilized with the form of hanger shown in Figs. 1-3 in place of the spring lift means 21 therein illustrated. The modified spring lift means 37 comprises a tension coil spring 38 extending more or less parallel to the vertical plane of and alongside the co-operating spreader bar 10 and connected between a pair of spring posts 39, 40 extending, respectively, from the spreader bar 10 and the leg portion 15 of support arm 13. The spring posts 39, 40 are so arranged as to anchor the opposite ends of the spring 38 on opposite sides of the pivotal connection (bolt 20) between the spreader bar 10 and support arm 13 when the said bar is in its lowered position. As a result, the force of the tensioned spring 38 will be directed or centered through the said pivotal connection and thus will have no tendency to pivotally close together the lowered spreader bar and support arm. However, when the spreader bar 10 is shifted a slight amount longitudinally from its lowered or "dead center" position, the force of the spring will be correspondingly shifted or directed to one side of the pivotal connection between the spreader bar and support arm as a result of which it will act to pivotally close them together, thus swinging the spreader bar up to and holding it in its raised position.

Where the spreader bars 10, when in their raised position up against the ceiling, are out of reach of the person desiring to use the hanger, a pull cord or chain may be fastened to each spreader bar by means of which they may be conveniently pulled or swung down to their lowered clothes-hanging position.

The use of support arms 13 formed of a single length of metal tubing bent to shape and mounted transversely of the spreader bars 10 as in Figs. 1-3, together with the supporting of said arms 13 at widely spaced points therealong in the brackets 16, 17, provides an exceptionally sturdy and rugged hanger construction which will effectively withstand the service conditions to which it is subjected.

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

1. A laundry hanger comprising a horizontally extending spreader bar for supporting a clothesline, a plurality of hanger arms fastened to and suspending said spreader bar from an overhead support, said arms comprising horizontally extending pivot shaft portions of appreciable length and swing leg portions extending transversely of and integral with said horizontal shaft portions and pivotally connected adjacent their free ends to the spreader bar, and support means mounted on said overhead support and supporting the pivot shaft portions of said hanger arms at widely spaced points therealong and in parallel relation for rotation about their respective axes whereby the spreader bar may swing between

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a lowered operative position and a raised inoperative position.

2. A laundry hanger comprising a horizontally extending spreader bar for supporting a clothesline, and a plurality of hanger arms fastened to and suspending said spreader bar from an overhead support, said arms each comprising a one-piece tubular metal member having a longitudinally extending pivot shaft portion of appreciable length and a laterally bent end leg portion pivotally connected adjacent its free end to the spreader bar, and support brackets mounted on said overhead support and supporting the pivot shaft portions of said hanger arms at widely spaced points therealong and in parallel relation for rotation about their respective axes whereby the spreader bar may swing between a lowered operative position and a raised inoperative position.

3. A laundry hanger comprising a horizontally extending spreader bar for supporting a clothesline, a plurality of hanger arms fastened to and suspending said spreader bar from an overhead support, said arms comprising horizontally extending pivot shaft portions of appreciable length and swing leg portions extending transversely of and integral with said horizontal leg portions and pivotally connected adjacent their free ends to the spreader bar, separate support bracket means on said overhead support for each hanger arm, said support bracket means supporting the pivot shaft portions of said hanger arms at widely spaced points therealong and in parallel relation for rotation about their respective axes whereby the spreader bar may swing between a lowered operative position and a raised inoperative position, and spring lift means for at least one of the hanger arms, said spring lift means comprising a tension coil spring connected at its opposite ends to respective anchoring means on the hanger arm and on the associated support bracket means to anchor the opposite ends of the spring on diametrically opposite sides of the rotational axis of the hanger arm pivot shaft portion when the spreader bar is in its lowered position.

4. A line hanger as set forth in claim 3 wherein each of said hanger arms is provided with the said spring lift means, and each hanger arm and its associated support bracket means are respectively provided with a spring post and a projecting arm to which the opposite ends of the spring are anchored.

5. A line hanger comprising a pair of horizontally extending parallel spreader bars spaced apart laterally of each other, a clothesline strung between and interconnecting the two spreader bars, a separate pair of hanger arms fastened to and suspending each spreader bar from an overhead support means, said arms comprising one-piece tubular metal members each having a horizontal pivot shaft portion of appreciable length extending transversely of the spreader bar and a laterally bent outer end leg portion pivotally connected at its free end to the spreader bar with the horizontal pivot shaft portions of the hanger arms extending toward the other spreader bar at the opposite end of the line hanger, said overhead support means comprising a pair of support brackets for each hanger arm rotatably supporting the horizontal pivot shaft portions of the hanger arms therein at widely spaced points therealong, the innermost one of each pair of support brackets having a stop surface opposed to and engaged by

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the inner end of the associated hanger arm to limit movement thereof inwardly of the line hanger toward the opposite end of the latter, and spring lift means for each of said hanger arms comprising a tension coil spring extending transversely of the horizontal pivot shaft portion of the respective hanger arm and connected at its opposite ends to respective anchoring means on the hanger arm and on the overhead support means at points offset to opposite sides of the axis of rotation of the hanger arm when in its lowered position.

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