I. LEVIN.

COLLAPSIBLE GARMENT FORM STAND.

APPLICATION FILED NOV. 7, 1914.

1,153,634.

Patented Sept. 14, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

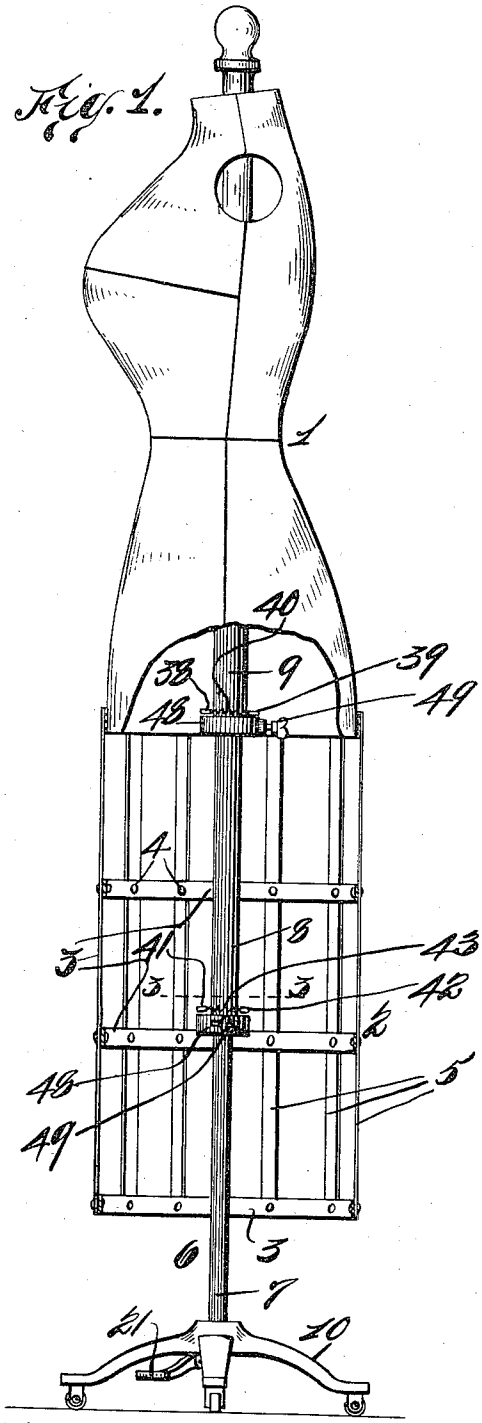


Fig. 2.

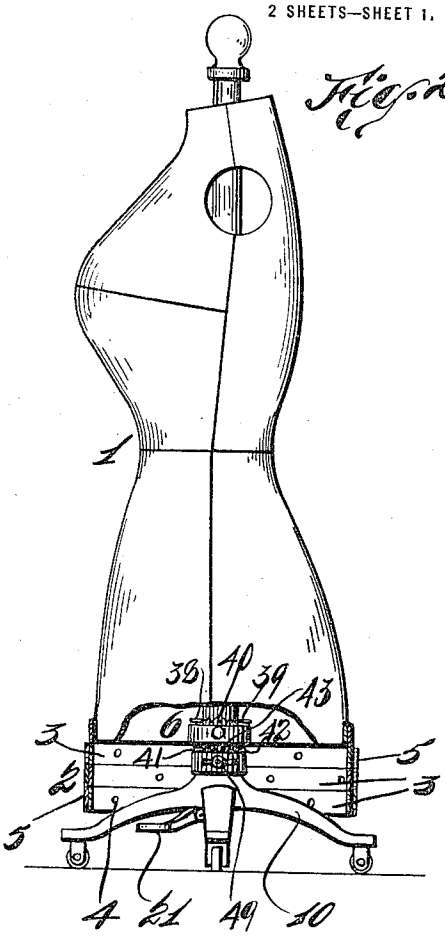
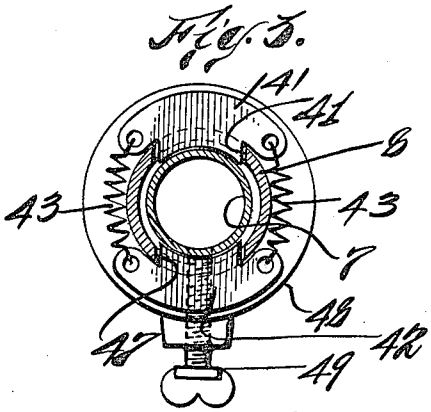


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

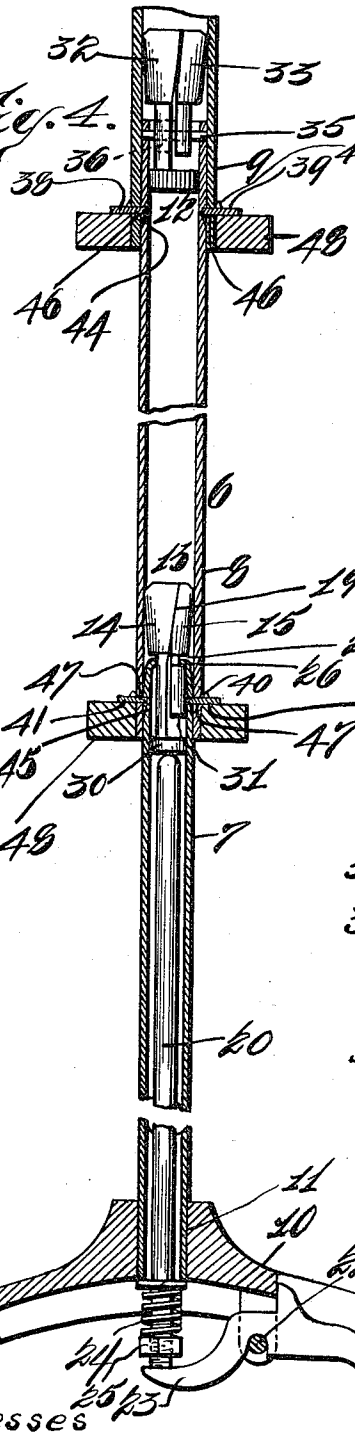


Fig. 5.

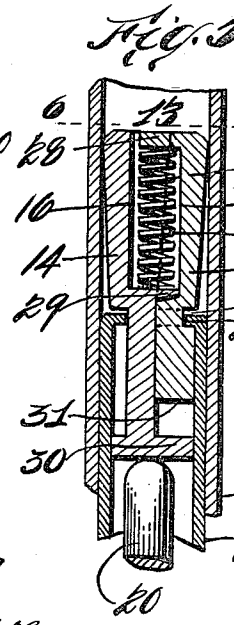


Fig. 6.

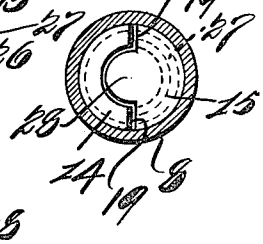


Fig. 7.

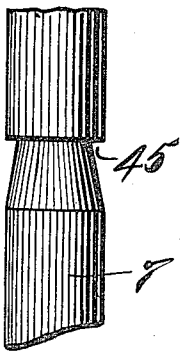
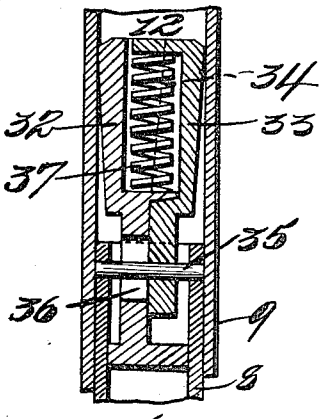


Fig. 8.



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COLLAPSIBLE GARMENT-FORM STAND.

1,153,634. Specification of Letters Patent. Patented Sept. 14, 1915.

Application filed November 7, 1914. Serial No. 870,727.

To all whom it may concern:

Be it known that I, ISAAC LEVIN, a citizen of the United States of America, residing at Brooklyn, Kings county, State of New York, have invented certain new and useful Improvements in Collapsible Garment-Form Stands, of which the following is a full, clear, and exact description.

This invention relates to an improvement in garment-forms, but more particularly to the supporting post or standard thereof.

One of the objects of my invention is to provide a collapsible supporting post or stand for garment forms consisting in part of a locking mechanism operable by the foot whereby the collapsible members can be manipulated to close or extend the standard and thus do away with binding screws that have to be manipulated by passing a hand under the form, or through a skirt portion thereof, if one is used.

The invention resides mainly in the novel manner of assembling and manipulating the locks, of which there are a plurality, one only being positively operated by a foot-pedal, the other being automatic in its operation.

Other features of my improvement will hereinafter appear.

Having set forth the objects of my invention, I will now proceed to describe the operation and construction of the several parts which act jointly to produce my improved collapsible stand for garment-forms, reference being had to the accompanying drawings, forming part hereof, wherein—

Figure 1 a side elevation partly in section of a form embodying my improvement, the standard being illustrated as extended; Fig. 2 is a similar view, the standard being illustrated as collapsed; Fig. 3 is an enlarged sectional detail plan view, the section being taken on a line 3—3 in Fig. 1; Fig. 4 is an enlarged vertical sectional view of a portion of the garment-form standard, the upper part being broken away; Fig. 5 is an enlarged sectional detail view of a portion of the standard and the positively operated lock or clutch; Fig. 6 is a sectional plan view, the section being taken on a line 6—6 in Fig. 5; Fig. 7 is an enlarged fragmentary detail view showing the annular recess in the standard members which coöperates with the automatic stops; and Fig. 8 is a view similar to Fig. 5 illustrating the upper or automatically operated lock or clutch.

My improved supporting post is herein illustrated as applied to a sectional adjustable garment-form 1, having a collapsible skirt portion 2, the said skirt portion consisting of band members 3 having pivotally secured thereto, as at 4, resilient vertical strips 5. While my improved supporting post is applicable to any garment-form, it is particularly well adapted for garment-forms provided with collapsible skirt portions, as indicated by 2, and described in U. S. Letters Patent No. 1,060,270 dated April 29, 1913, and issued to me.

My improved standard or post is indicated generally by 6 and consists of a relatively fixed post 7 having in slidable engagement therewith a somewhat larger post-member 8 which in turn slidably supports a somewhat larger post-member 9, to which the form 1 is secured. The post-member 8 will slide over or longitudinally of the post-member 7. Likewise the post-member 9 will slide longitudinally of the post-member 8 in order that the standard as a whole can be collapsed as shown in Fig. 2. The form as a whole is carried by a pedestal 10 to which the post-member 7 is secured as at 11.

To hold the post-members 7, 8 and 9 in extended positions, I employ locks or clutches 12 and 13. The lock 12 is carried by the post-member 8 at the top thereof, while the lock 13 is carried by the post-member 7, also at the upper end thereof. It may here be stated that the lock or clutch member 13 is positively operated to unlock or release the same, while the lock or clutch 12 is automatically operated to release or unlock the same. The lock or clutch 13 consists of a plurality of blocks 14 and 15 recessed as at 16 and 17 to form a pocket for a spring 18. The upper portion of each block 14 and 15 is tapered or angularly disposed as at 19 to form a wedge. As herein arranged the lock-member 14 is longitudinally movable, while the lock-member 15 is not, but both of said lock-members will rotate with the post-member 8 when said lock elements are locked.

To operate or move the block 14 upward to release the lock, I provide a vertically movable rod 20 operable by a treadle 21 pivotally mounted on the pedestal 10 as at 22. It will be seen in Fig. 4 that the rod 20 is not positively connected to the block 14, but merely contacts with it, the rod 20 being

fitted between the said block 14 and inner end 23 of the treadle 21. The treadle 21 is kept in an elevated or normal position by a spring 24, a nut 25 being used to alter the tension of the spring.

It will be seen by referring to Fig. 5. that the upper end of the post-member 7 is turned inwardly to form a flange 26 which engages an annular recess 27 in the clutch-block 15. The flange 26 acts to retain the block 15 in place to prevent the longitudinal movement, but not the rotation thereof. The flange 26 does not in any way rigidly secure the block 15 which is rotated by the rotation of the block 14 due to the contact of said blocks at the surface 19 or wedge portion. To provide seats for the spring 18, I provide the block 14 with a projection 29 which enters the recess 17 in the block 15. The block 15 is likewise provided with a projection 28 which enters the recess 16 in the block 14. When the block 14 is pushed upwardly by the rod 20, as soon as the treadle 21 is operated, the spring 18 will be compressed and the clutch will be released, after which the post-member 8 can be raised or lowered to the full extent, or not, as may be desired. A feature of this clutch or locking element 13 is that while it will lock the post-members 7 and 8 against longitudinal movement, it will permit the said post-member 8 to be rotated upon the post-member 7, due to the manner of connecting the block 15 and post-member 7. When the post-member 8 is rotated the block 14 will rotate or revolve upon the upper end of the rod 20. The flange 26 acts to prevent the withdrawal or depression of the block 15 when the post member 8 is raised or lowered. The block 14 is prevented from being withdrawn by the head 30, which will strike the end 31 of the block 15. The spring 18 acts by its tension to lock the post-member 8 when the treadle is released.

Referring to the clutch 12 it is constructed the same as the clutch 13. The clutch 12 consists of the blocks 32 and 33 having angular meeting surfaces to form a wedge 34. The manner of mounting the clutch 12 differs from the mounting of the clutch 13. The block 33 of the clutch 12 is secured to the post-member 8 by a pin 35, the said pin being fastened in the post-member 8 and passes through a slot 36 in the block 32. Both of the blocks 32 and 33 revolve with the post-member 8. The clutch 12 acts to engage the post-member 9, which carries the form 1, and hold it in a longitudinally adjusted position. The clutch 12 is unlocked or released by contact with the clutch 13. When not in contact with the clutch 13 the clutch 12 will always grip the post-member 9, which I will term, for the sake of clearness, the form-carrying-member.

Should I desire to entirely collapse the standard, as a whole, I would depress the treadle 21, thereby releasing the block 14 and unlocking the clutch 13, after which the post-member 8 can be lowered. After a certain amount of downward movement on the part of the member 8, the upper clutch block 32 will strike the raised block 14, at which time the block 32 will rise, unlocking the clutch 12 and thereby allowing the form-carrying-member 9 to drop. The clutch 12 is provided with a spring 37 for the same purpose as the spring 18 in the clutch 13. To extend the form, the treadle 21 will be depressed, allowing the post-member 8 to be raised after the form-carrying-member 9 has been raised, due to the provision of an automatic stop carried by the post-member or form-carrying-member. The automatic stop referred to consists of a pair of plates 38 and 39 connected by springs 40, the said plates and springs being identical with the plates 41 and 42 and springs 43 of the automatic lock on the post-member 8, the last named lock being illustrated in Fig. 3. The plates 38 and 39 engage an annular groove 44 in the post-member 8 when the member 9 is pulled out to the full extent, said groove being illustrated in Fig. 7. The plates 41 and 42 also engage a groove 45 in the post-member 7 when member 8 is pulled out to the full extent. The plates 38 and 39 pass through slots 46 in the post-member 9, while the plates 41 and 42 pass through slots 47 in the post-member 8. When the post-member 9 is pulled upwardly to the full extent the plates will engage the shoulder formed by the groove 44, after which the post-member 8 will move outwardly until the plates 41 and 42 engage the shoulder formed by the groove 45, provided of course the treadle 21 is depressed. Adjacent each automatic lock, I locate a block 48 provided with a set screw 49 to lock the post-member against movement. The blocks 48 to some extent support the plates 38, 39, 41 and 42, although they are not absolutely essential to said plates.

Having now described my invention, what I claim and desire to secure by Letters Patent, is:

1. An adjustable standard for garment-forms consisting of a pedestal, a fixed post carried thereby, a tubular post slidably mounted on said fixed post, and adapted for rotation thereupon, a clutch consisting of a plurality of coöperating wedge-blocks rotatably supported by said fixed post, and means within the fixed post to actuate said clutch, said means normally contacting with but not secured to said clutch.

2. An adjustable standard for garment-forms consisting of a pedestal, a fixed post carried thereby, a tubular post slidably mounted on said fixed post, and adapted for rotation thereupon, a clutch consisting of a

plurality of coöperating members rotatably supported by said fixed post, a rod contacting with one of said clutch-members, and a treadle carried by the pedestal to actuate said rod.

3. An adjustable standard for garment-forms consisting of a fixed tubular post, a tubular post slidably mounted on said fixed post and adapted for rotation thereupon, a clutch carried by said fixed post consisting of a longitudinally movable member adapted for rotation, a coöperating clutch-member adjacent thereto also adapted for rotation, means to prevent longitudinal movement of the last named clutch-member, and means within the fixed post to actuate the longitudinally movable member, said means normally contacting with but not secured to said member.

4. An adjustable standard for garment-forms, consisting of a pedestal, a plurality of slidably connected posts carried thereby, clutches to engage said slidably connected posts, means to release the lower of said clutches, means to lock said lower clutch, a treadle to operate said lower clutch-releasing means, and means to maintain the upper clutch normally locked, said lower clutch being arranged to release the upper clutch when both clutches are brought into contact.

5. An adjustable standard for garment-forms consisting of a pedestal, a fixed post carried thereby, a tubular post slidably mounted on said fixed post, and adapted for rotation thereupon, a clutch consisting of a plurality of coöperating members rotatably supported by said fixed post, a rod contacting with one of said clutch-members, and means to automatically limit the outward movement of said tubular post.

6. An adjustable standard for garment-forms consisting of a pedestal, a fixed post carried thereby, and a rotatable clutch consisting of a plurality of coöperating members supported by said fixed post, a post slidably mounted on the fixed post and engaged by said rotatable clutch, a rod contacting with one of said clutch-members but not secured thereto, and means to lock said tubular post against movement.

7. An adjustable post for garment-forms consisting of a pedestal, a fixed post, a tubular post slidably mounted on said fixed post and adapted for rotation, a clutch carried by the fixed post consisting of a plurality of cooperating wedge-blocks, one of said blocks being provided with an annular recess, a flange carried by the fixed post engaging said recess and adapted to prevent the longitudinal movement of said block but to permit the rotation thereof, the other of said wedge-blocks being adapted for longitudinal movement relative to its coöperating block, a head carried by said last named block located below and out of contact with the cooperating block, a rod contacting with said head but not secured thereto, and means to actuate said rod.

8. A garment-form-support comprising a fixed post, a clutch consisting of a plurality of wedge-blocks carried by said post, each of said blocks being provided with a recess, a flange carried by each block projecting into the recess of its coöperating block to form a pocket, a spring located in said pocket and seated against said flanges, and means to move one of said blocks longitudinally with respect to its coöperating block, and a movable post carried by the fixed post and engaged by said clutch.

9. A standard for garment-forms consisting of a plurality of slidably connected tubular posts, each of said posts being provided with slots, a fixed post slidably engaging one of said tubular posts, said fixed post being provided at its upper end, with an annular recess, the tubular post carried by said fixed post being also provided with an annular recess at its upper end, locking plates carried by the tubular posts projecting through the slots therein and adapted to engage the annular recess in the coöperating standard-members, and springs to keep said plates normally pressed inwardly.

10. In combination with a garment-form, a standard consisting of a plurality of slidably connected tubular posts, the upper post supporting the garment-form, a clutch carried by the lower post consisting of a plurality of wedge-blocks, one of said blocks being secured to the lower post, the other block being longitudinally movable with respect to the fixed block and means to operate said longitudinally movable block automatically when the lower post reaches the limit of its inward movement, and a support for the lower post.

11. In combination with a garment-form, a standard consisting of a plurality of slidably connected tubular posts, the upper post supporting the garment-form, a clutch carried by the lower post consisting of a plurality of wedge-blocks, one of said blocks being secured to the lower post, the other block being longitudinally movable with respect to the fixed block, a fixed post supporting the lower tubular post and means carried by the fixed post to lock the lower tubular post against longitudinal movement upon the fixed post.

12. A standard for garment-forms, consisting of a plurality of slidably connected members, independently operable clutches to engage said slidably connected members, and a lever to release the lower clutch, the lower clutch also constituting means to automatically release the upper clutch.

13. A standard for garment-forms comprising telescoping posts, a plurality of

clutches to lock the posts in adjusted positions, and means to actuate one of the clutches automatically when one of the posts reaches the limit of its inward movement.

14. In combination with a garment-form standard, a plurality of telescoping members, automatically operating stops carried by said members, and means carried by the coöperating members of the standard to engage said stops when said members have been extended to a predetermined extent.

15. In combination with a garment-form standard, a plurality of telescoping members, provided with openings, automatically operating stops carried by said members, consisting of a plurality of plates extending through said openings, the coöperating standard-members being provided with annular grooves adapted to engage said plates when said members have been extended to a predetermined extent, and springs connecting said plates arranged to draw said plates toward each other.

16. An adjustable standard for garment-forms consisting of a pedestal, a fixed tubular post carried thereby, a tubular post slidably mounted on said fixed post, and adapted for rotation thereupon, a clutch consisting of a plurality of coöperating members rotatably supported by the fixed post, the lower portion of said clutch members extending into the fixed post, the upper portion thereof extending into the tubular post carried by the fixed post, and means to actuate said clutch.

17. An adjustable standard for garment-forms consisting of a pedestal, a fixed tubular post carried thereby, a tubular post slidably mounted on said fixed post, and adapted for rotation thereupon, a clutch consisting of a plurality of coöperating members rotatably supported by the fixed post, the lower portion of said clutch-members extending into the fixed post, the upper portion thereof extending into the tubular post carried by the fixed post, and means within and operable from the lower end of said fixed post to actuate said clutch.

18. In a standard for garment-forms, a fixed tubular post, a clutch located at one end of said post consisting of a plurality of coöperating contacting members, one of said members being adapted for rotation but held against longitudinal movement, the other clutch-member being arranged for rotation and longitudinal movement, a portion of each of said clutch members being inserted into said fixed post, means located within the fixed post to actuate said clutch, and a slidable post carried by the fixed post.

Signed at New York city, N. Y. this 5 day of Nov. 1914.

ISAAC LEVIN.

Witnesses:
EDWARD A. JARVIS,
MAURICE BLOCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."