March 16, 1954 S. SEGAL 2,672,385

VERTICALLY ADJUSTABLE POSTING STAND

Filed July 24, 1951 2 Sheets-Sheet 1

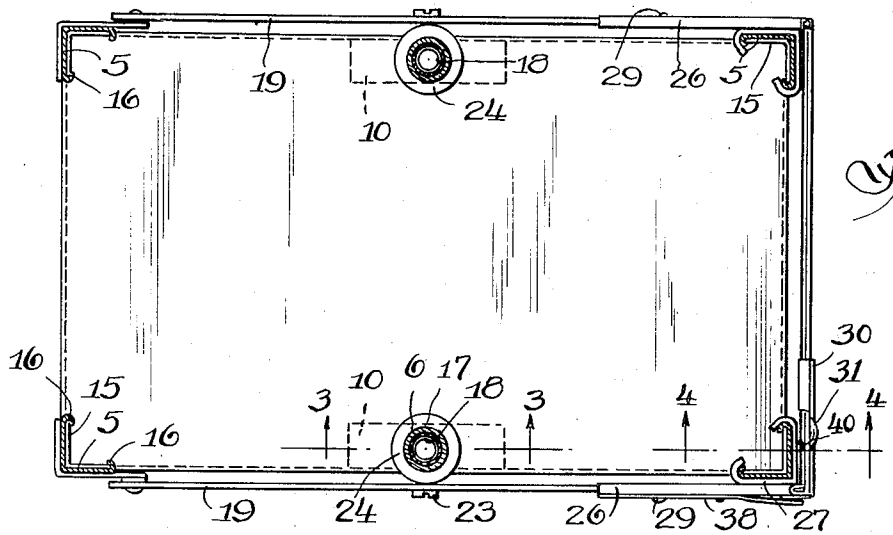


Fig. 2

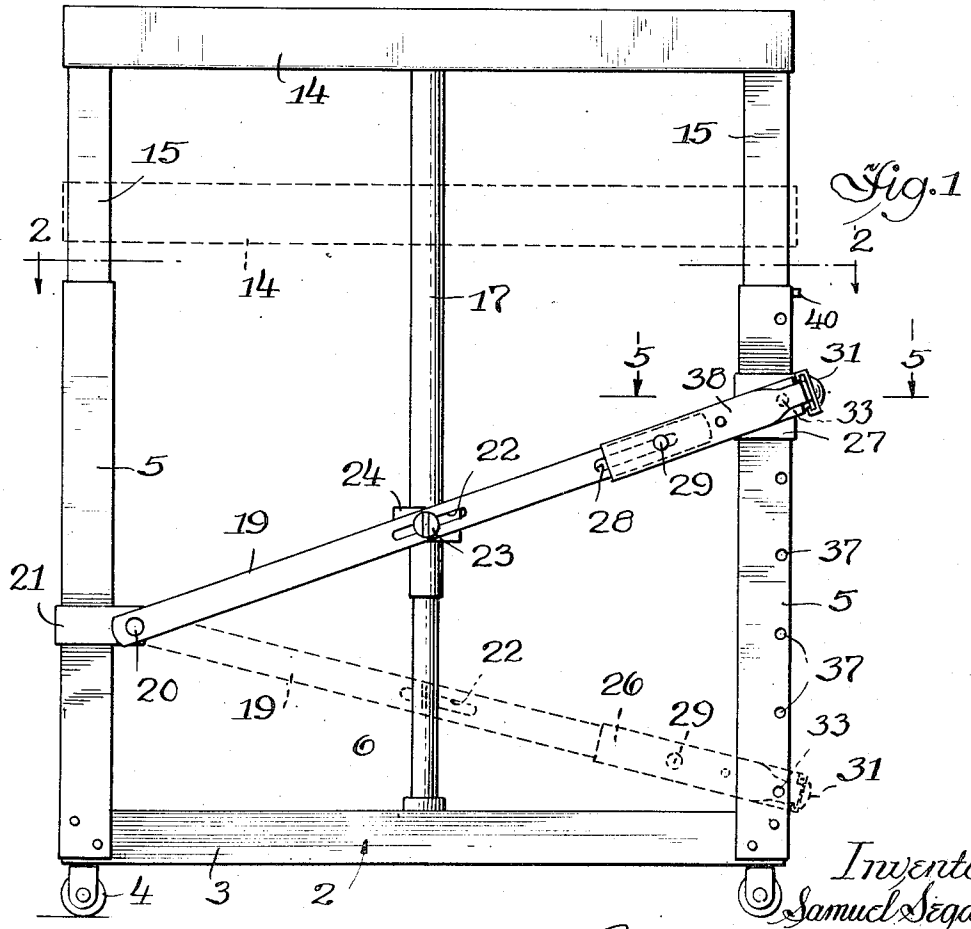


Fig. 1

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Fig. 3

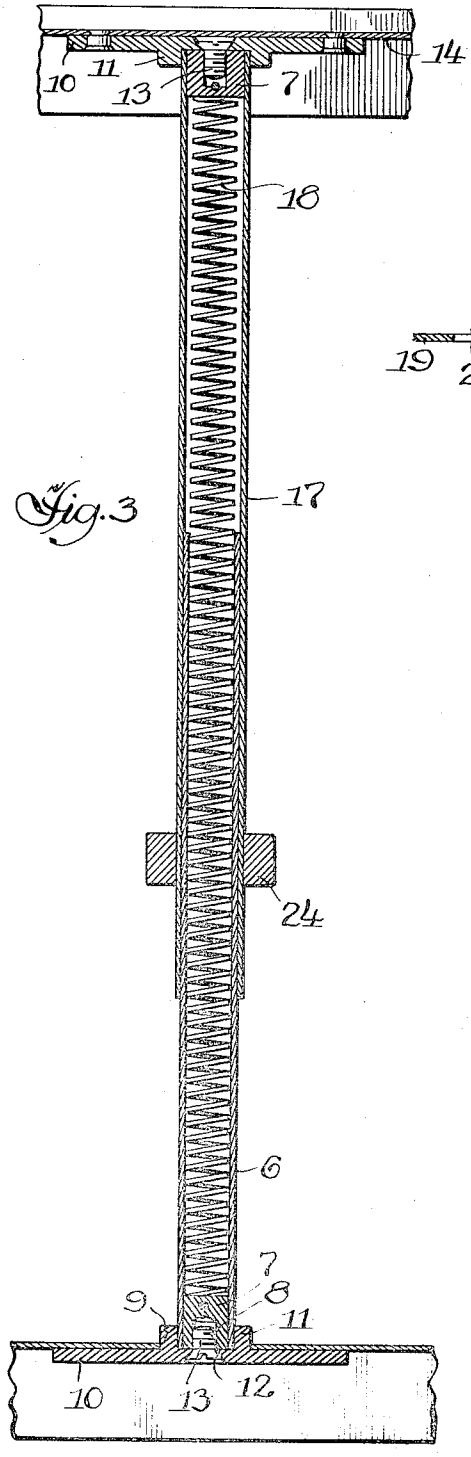


Fig. 5

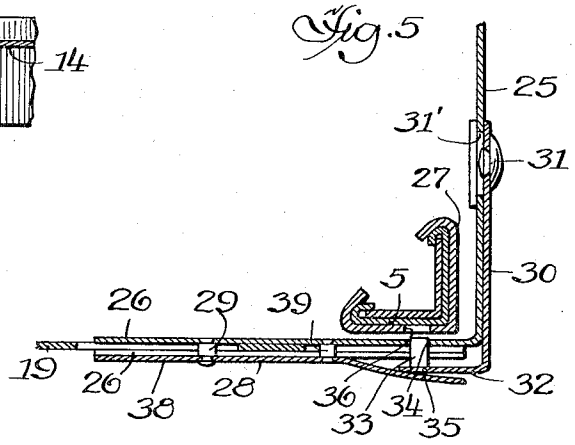
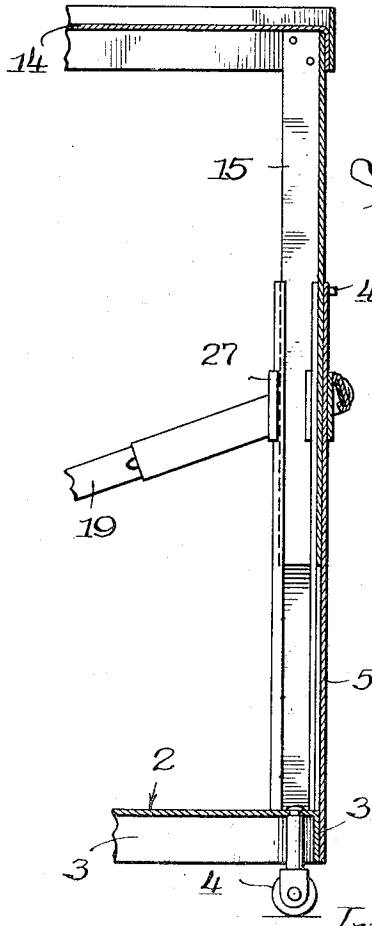


Fig. 4



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Patented Mar. 16, 1954

2,672,385

UNITED STATES PATENT OFFICE

2,672,385

VERTICALLY ADJUSTABLE POSTING STAND

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Application July 24, 1951, Serial No. 238,340

3 Claims. (Cl. 311—39)

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This invention relates to a posting stand and particularly to an adjustable stand that may be kept at any desired height.

Although the stand of the present invention is capable of general utility, it is particularly designed to support a posting tray in convenient position for efficient use by a clerk using the tray. Posting entries on ledger sheets is generally done by a clerk sitting at a billing machine or typewriter, but a person using a posting tray for reference often remains in standing position. Accordingly, it is sometimes desirable to position the tray at a comparatively low level, while at other times it must be positioned at a higher level for efficient use.

It is an object of this invention to provide a posting stand that may be easily adjusted to any desirable height and will support the load for which it is designed in any such position. It is another object of the invention to provide spring means to compensate for the load supported on the stand to facilitate the movement of the load supporting platform in either vertical direction. Another object is to provide an operating handle with latch means effective to hold the stand at any desired height, and means for quickly releasing the handle for movement in either direction. Other objects of the invention will become apparent upon reading the following description, taken in conjunction with the accompanying drawings, in which:

Figure 1 is a side elevational view of a posting stand embodying the invention;

Figure 2 is a cross sectional view, taken substantially along the line 2—2 of Figure 1;

Figure 3 is a vertical sectional view, taken substantially along the line 3—3 of Figure 2;

Figure 4 is a vertical sectional view, taken substantially along the line 4—4 of Figure 2; and

Figure 5 is a cross sectional view, taken substantially along the line 5—5 of Figure 1.

Referring to the drawings, the reference numeral 2 indicates a base member comprising a flat metal plate having flanges 3 turned downwardly along each of its edges. A plurality of casters 4 may be provided to facilitate movement of the stand, if desired. Angular members 5 are rigidly secured to each corner of the base member 2 and extend upwardly therefrom. The angular members are preferably welded to the base member, but they may be secured in any conventional manner. A tubular post 6 is rigidly secured adjacent opposite edges of the base member 2. The posts 6 are positioned centrally of the length of the base member. A plug 7 having a threaded recess 8 extending upwardly from its bottom edge is secured within the post 6 at its lower edge, as shown in Figure 3. The base member 2 is apertured, as indicated at 9, and a plate 10, positioned under the base member, has a boss 11 projecting through the aperture 9. The plate 10 has an aperture 12, and a screw

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13 is threaded into the recess 8 to secure the post 6 in place.

The top section of the stand comprises a load supporting platform 14 having angular members 15 rigidly secured to each corner and projecting downwardly therefrom. Each member 15 fits within the angular member 5 with which it is aligned. The longitudinal edges of each member 5 are turned inwardly to form flanges 16 which embrace the edges of the members 15. Tubular posts 17, similar to the posts 6, are secured to the underside of the platform 14 in the same manner that the posts 6 are secured to the base member. The posts 17 are in alignment with the posts 6 which telescope therein. A coiled compression spring 18 is positioned within each pair of posts 6, 17, with its opposite ends bearing against the plugs 7. The springs 18 resist the downward movement of the platform 14 so that the weight of a posting tray placed on the platform will be compensated for to a substantial extent, and the latching means, hereinafter described, for holding the stand in adjusted position will not have to bear the full force which would otherwise be exerted against it.

The operating handle for the stand comprises a pair of similar levers 19 at opposite edges of the stand, each of which has one end pivotally secured, as indicated at 20, to a strap 21 welded to one of the angular members 5. Each lever 19 is provided with a centrally disposed longitudinal slot 22, and a screw 23 extending therethrough is threaded into a collar 24 rigidly mounted on the post 17. The slots 22 permit pivotal movement of the levers 19, while the screws 23 limit the amount of such pivotal movement and also maintain the relationship between the levers and the collars 24. The handle is provided with a transverse bar 25 extending across the front of the stand and having its opposite ends bent at right angles, as shown at 26. The edges of the handle portions 26 are bent into tubular formation to form sleeves into which the ends of levers 19 extend. Each sleeve 26 is welded to an angular strap 27 which slidably fits over the angular member 5. The levers 19 are each provided with a longitudinal slot 28 adjacent the end fitting in the sleeve 26, and a pin 29 which secures the lever to the sleeve 26 extends through the slot so that the ends of the levers 19 can telescope within the sleeves as the handle is moved about the pivot 20. This telescoping relationship between the levers 19 and the sleeves 26 permits the transverse bar 25 to remain adjacent the front edge of the stand regardless of the position of the platform 14. Otherwise the bar 25 would project forwardly when the platform is in its lowermost position and would be in the way of the person using the posting tray.

The latching means for holding the platform 14 at any desired height, as shown in Figure 5, comprises a plate 30 slidably secured to the bar

25 by means of a stud 31 which fits in an aperture 31' provided in the bar 25 for that purpose. One end of the plate 30 is bent at right angles, to extend over the end of the adjacent sleeve 26, as indicated at 32. A stud 33 secured adjacent the end of portion 32 projects through apertures 34 and 35 provided in the sleeve 26. The angular member 27 is also provided with an aperture 36 which is in registration with the apertures 34 and 35. The angular member 5, adjacent the latching means, is provided with a series of vertically spaced apertures 37 positioned at any desired height so that when the platform 14 is positioned at any desired height the stud 33 will be aligned with one of the apertures 37. A resilient strip 38, secured to the sleeve 26 by the pin 29, and one or more similar pins 39, has one end constantly pressing against the portion 32 to urge the stud 33 into latching engagement with the angular member 5. Thumb pressure exerted laterally against the button 31 holds the stud 33 outwardly of the angular member 5 so that the handle may be freely moved about its pivot 20. A stop member 40 is provided on the upper edge of the angular member 5 to limit the upward movement of the operating handle.

The springs 18 exert a constant force urging the load supporting platform 14 upwardly, but the weight of the posting tray, for which the stand is designed, exerts a slightly greater force tending to compress the springs, with the result that the top section of the stand is generally in substantial equilibrium. Accordingly, when the handle is moved in either direction only a slight force is required, and when the latching means is in latching position the stud 33 is subjected to comparatively little strain. For this reason the stand requires latching means on only one side.

Although I have described a preferred embodiment of my invention in considerable detail, it will be understood that the description thereof is intended to be illustrative, rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I do not desire to be restricted to the exact structure disclosed, except as limited by the appended claims.

I claim:

1. A stand comprising a rectangular base member having an angular member projecting upwardly from each rear corner, an angular member projecting upwardly from each front corner, and a tubular post projecting upwardly adjacent each opposite edge of said base member at a point substantially centrally disposed relative to the length of said base member, a top section having a load supporting platform, angular members depending from said platform and slidably engaged with each of said front and rear angular members, tubular posts depending from said platform and telescopically engaged with each of said first mentioned tubular posts, a compression spring positioned within each pair of said telescopically arranged posts, said spring exerting a constant force urging said load supporting platform upwardly, an operating handle pivotally secured to the rear two of said first mentioned angular members, said handle including a bar extending transversely in front of said front angular members, a plate mounted on said bar and slidable transversely relative thereto, said plate including an angular extension projecting rearwardly and spaced outwardly from one of said front angular members, said last mentioned front angular member having a plurality of vertically spaced apertures, and a stud projecting transversely from said extension, said stud being selectively engageable with said apertures to retain said load supporting platform in a plurality of predetermined positions of different heights.

2. A stand comprising a base member having an angular member projecting upwardly from each corner and a tubular post projecting upwardly adjacent each opposite edge of said base member at a point substantially centrally disposed relative to the length of said base member, a top section having a load supporting platform, a plurality of depending angular members slidably engaged with said first mentioned angular members, and a tubular post telescopically engaged with each of said first mentioned tubular posts, a compression spring positioned within each pair of said telescopically arranged posts, said spring exerting a constant force urging said load supporting platform upwardly, an operating handle including a pair of levers each pivotally secured to a rear one of said first mentioned angular members and a transverse bar slidably secured to the free end of each of said levers, means to maintain said transverse bar closely adjacent the front edge of said stand throughout all pivotal movement of said operating handle, and a latch mounted on said transverse bar, said latch being engageable with a front angular member to retain said load supporting platform in a plurality of different predetermined positions.

3. A stand comprising a base member having an angular member projecting upwardly from each corner and a tubular post projecting upwardly adjacent each opposite edge of said base member at a point substantially centrally disposed relative to the length of said base member, a top section having a load supporting platform, a plurality of depending angular members slidably engaged with said first mentioned angular members, and a tubular post telescopically engaged with each of said first mentioned tubular posts, a compression spring positioned within each pair of said telescopically arranged posts, said spring exerting a constant force urging said load supporting platform upwardly, an operating handle including a pair of levers each pivotally secured to a rear one of said first mentioned angular members and slidably secured relative to one of said posts, and a transverse bar having its opposite end portions bent into sleeve formation to slidably receive the ends of said levers, and an angular strap slidably mounted on each of the front of the first mentioned angular members, said transverse bar being rigidly secured to each of said angular straps whereby the closely adjacent relationship between said transverse bar and the front edge of said stand is maintained throughout the pivotal movement of said levers.

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