Dec. 31, 1946. A. H. SYMONS 2,413,342

ADJUSTABLE SHORE

Filed July 26, 1943 3 Sheets-Sheet 1

Fig. 1

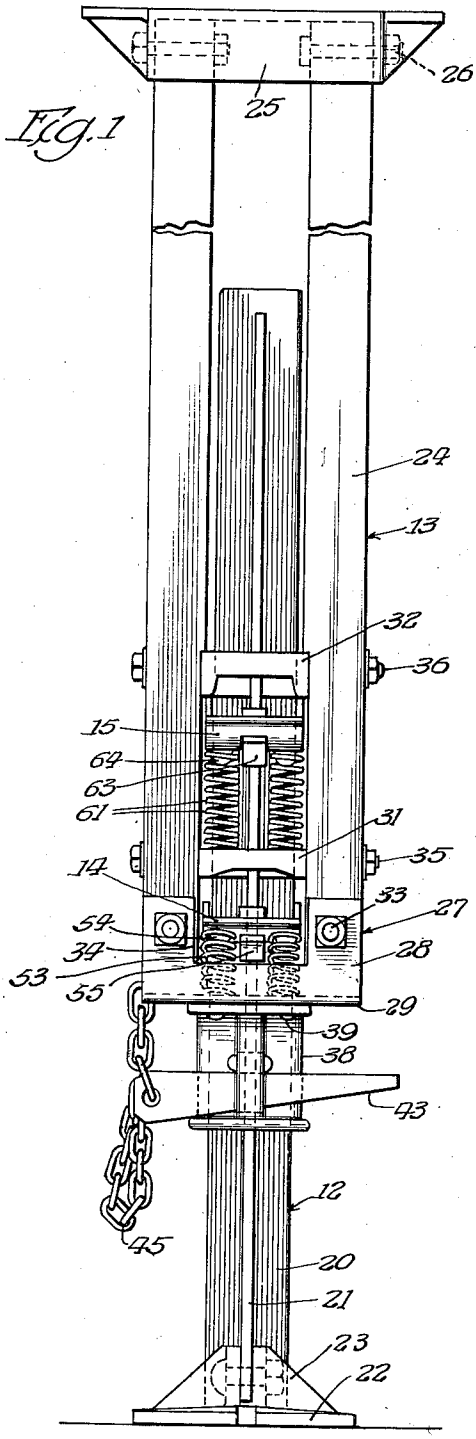
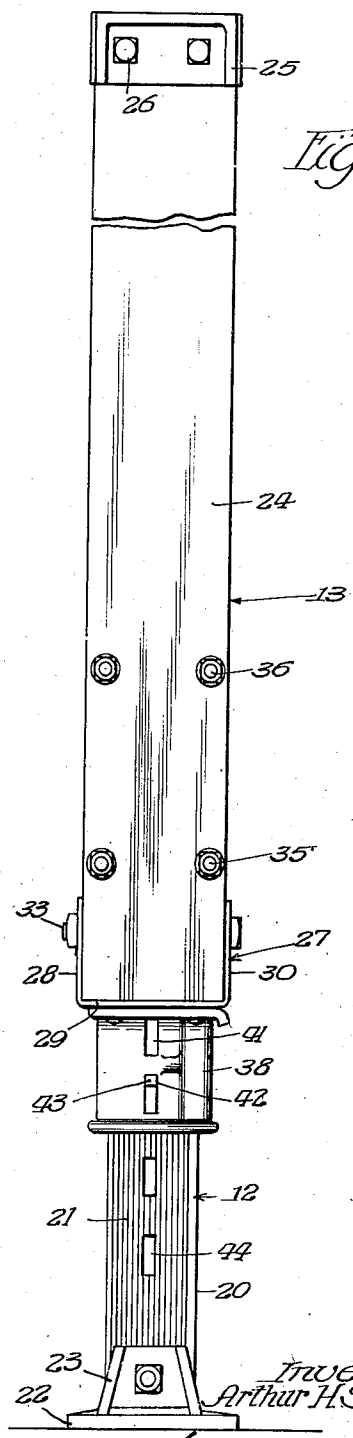


Fig. 2



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ADJUSTABLE SHORE

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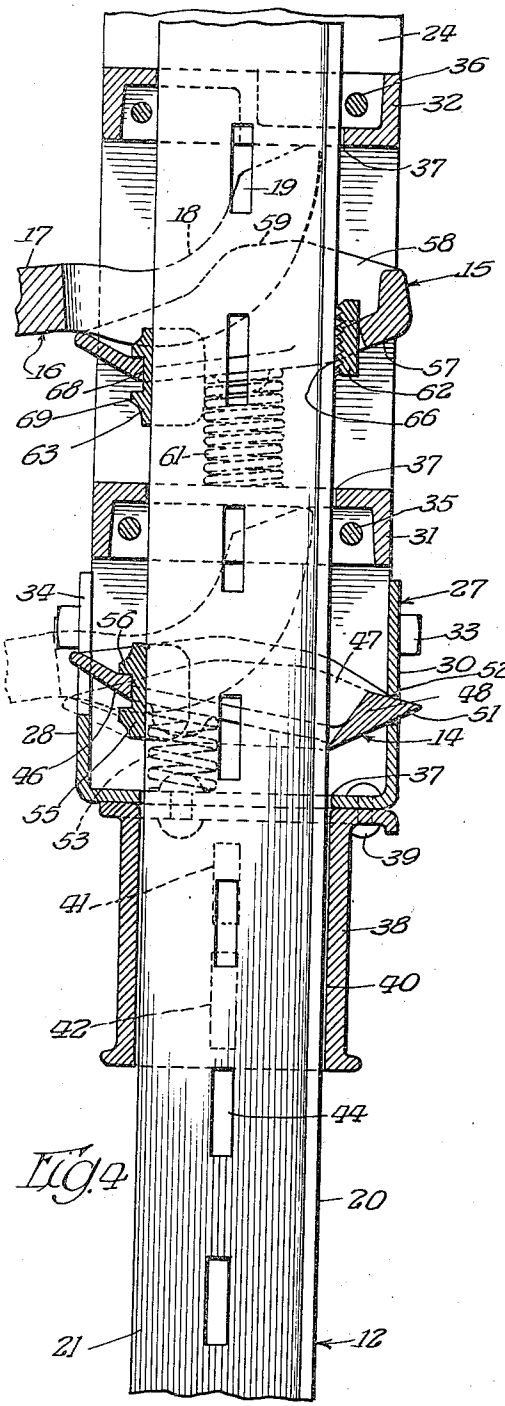


Fig. 4

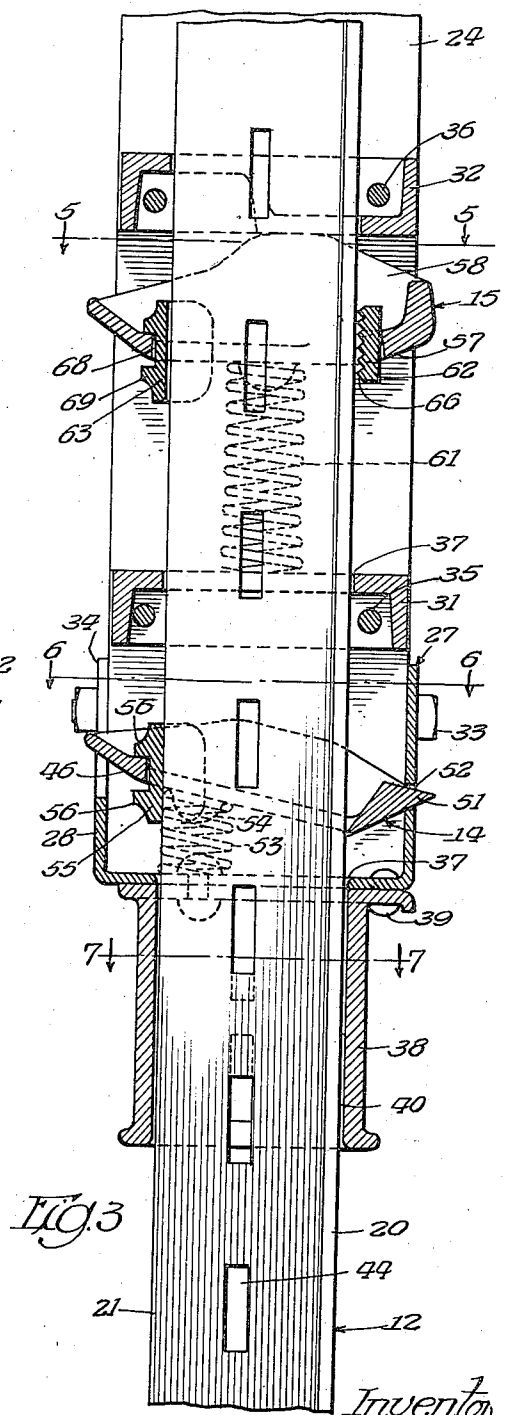


Fig. 3

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ADJUSTABLE SHORE

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Fig. 5

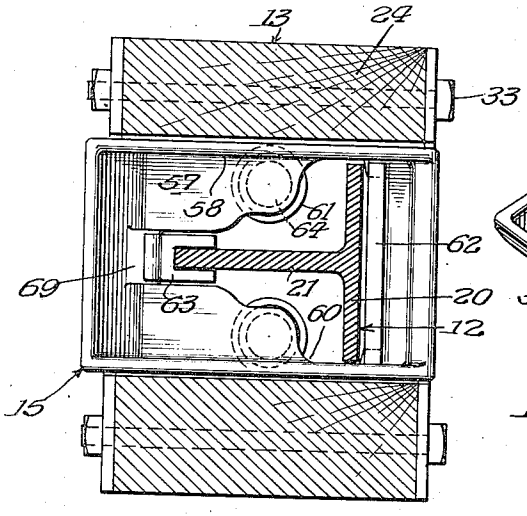


Fig. 9

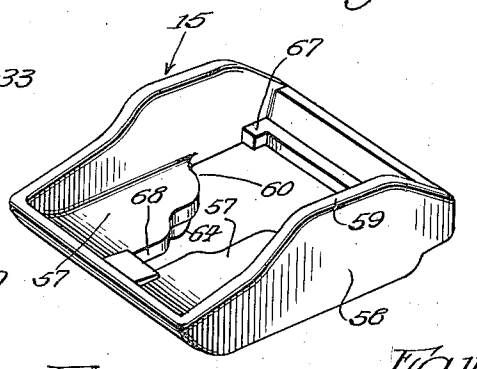


Fig. 10

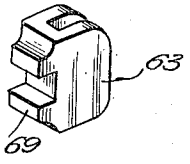


Fig. 11

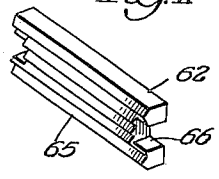


Fig. 6

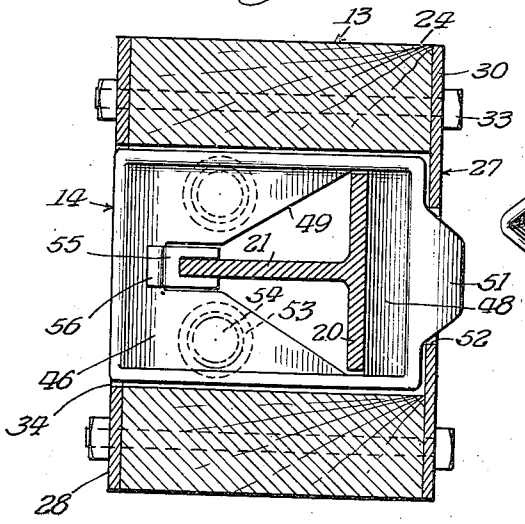


Fig. 8

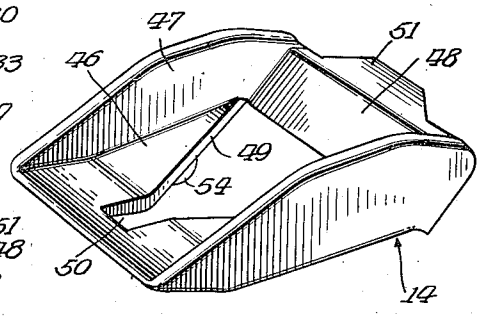
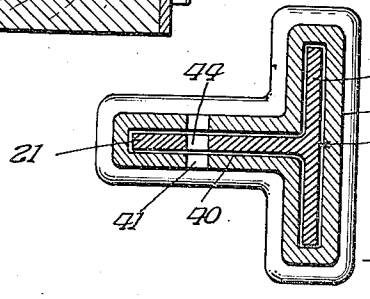


Fig. 7



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Patented Dec. 31, 1946

2,413,342

UNITED STATES PATENT OFFICE

2,413,342

ADJUSTABLE SHORE

Arthur H. Symons, Chicago, Ill., assignor to Symons Clamp & Mfg. Company, Chicago, Ill., a corporation of Delaware

Application July 26, 1943, Serial No. 496,127

12 Claims. (Cl. 248—355)

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The present invention relates generally to shores. More particularly the invention relates to that type of shore which is vertically adjustable in order that the head or upper end thereof may be positioned at the desired elevation, and as its principal parts comprises (1) a normally stationary structural steel lower strut; (2) an upper strut which consists of a pair of parallel, laterally spaced timbers, is arranged in telescopic relation with the lower strut, and has a plurality of superposed crossplates between the lower ends of its timbers for accommodating and slidably receiving the lower strut; (3) an apertured normally canted spring positioned clutch plate which is pivotally connected to the lower end of the upper strut, surrounds the lower strut, serves normally as a one-way clutch whereby the upper strut is locked against downward movement relatively to the lower strut after it is raised or upwardly adjusted to the desired extent, and is adapted when swung or shifted out of its normal canted or angular position against the force of the spring to release its one-way grip on the lower strut and permit the upper strut to slide downwards; and (4) an apertured normally horizontal spring positioned plate which is disposed beneath one of the crossplates, extends loosely around the lower strut and is adapted when one end of a lever is interposed between one of the marginal portions thereof and the superjacent crossplate and swung downwards to a limited extent, to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut.

One object of the invention is to provide an adjustable shore of this type which is an improvement upon, and more efficient than, previously designed shores and is characterized by high efficiency and facility of adjustment.

Another object of the invention is to provide a shore of the type under consideration in which the structural steel lower strut is of T-shaped cross section and the clutch plate for normally locking the upper strut against downward displacement with respect to the lower strut is of new and improved design and includes a downwardly and inwardly inclined wedge shaped part for gripping the outer face of the web of the lower strut and in addition a U-shaped shoe which surrounds the outer margin of the centrally disposed right angle flange of the lower strut and serves frictionally to grip the same when the clutch plate is in its normal or operative canted position.

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Another object of the invention is to provide an adjustable shore of the aforementioned character in which the apertured normally horizontal plate for use in raising the upper strut is of new and improved construction and includes a shoe having inwardly facing teeth for gripping the outer face of the web of the lower strut and also a U-shaped shoe which is disposed in opposed relation with the teeth equipped shoe, surrounds the outer margin of the flange of the lower strut and serves frictionally to grip such margin of the flange when the plate is canted in connection with manipulation of the lever.

A further object of the invention is to provide in connection with an adjustable shore of the type and character under consideration novel mounting means for the clutch plate and the fulcrum forming plate.

A still further object of the invention is to provide an adjustable shore which effectively and efficiently fulfills its intended purpose and is so designed and constructed that it may be produced at a comparatively low cost.

Other objects of the invention and the various advantages and characteristics of the present shore will be apparent from a consideration of the following detailed description.

The invention consists in the several novel features which are hereinafter set forth and are more particularly defined by claims at the conclusion hereof.

In the drawings which accompany and form a part of this specification or disclosure and in which like numerals of reference denote corresponding parts throughout the several views:

Figure 1 is a front view of a shore embodying the invention;

Figure 2 is a side view;

Figure 3 is a fragmentary vertical transverse section illustrating in detail the arrangement and manner of mounting the clutch plate and the fulcrum forming plate;

Figure 4 is a similar section showing the manner in which the fulcrum forming plate coacts with the lever in connection with raising of the upper strut and also showing how the lever may be utilized to swing or shift the clutch plate out of its normal canted or angular position in order to release its one-way grip on the lower strut and permit lowering of the upper strut relatively to the lower strut;

Figures 5, 6 and 7 are horizontal sections taken respectively on the lines 5—5, 6—6 and 7—7 of Figure 3;

Figure 8 is a perspective of the clutch plate;

Figure 9 is a perspective of the fulcrum forming plate;

Figure 10 is a perspective of the U-shaped shoe which is associated with the fulcrum forming plate and surrounds the outer margin of the right angle flange of the lower strut; and

Figure 11 is a perspective of the teeth equipped shoe which is associated with, and forms a part of, the fulcrum forming plate and is adapted to grip the outer face of the web of the lower strut.

The shore which is shown in the drawings constitutes the preferred form or embodiment of the invention. It is adapted primarily for use in building construction and comprises a lower strut 12, a vertically adjustable upper strut 13 in longitudinal alignment and telescopic relation with the lower strut, a clutch plate 14 for locking the upper strut against downward displacement when it is raised to the desired extent, and a fulcrum forming plate 15. As hereinafter described, the fulcrum forming plate is adapted to coact with a lever 16 to effect raising of the upper strut relatively to the lower strut. The lever 16 is in the form of an elongated handle 17 and a fork 18. The fork of the lever is rigidly connected to one end of the handle and consists of a pair of laterally spaced curved fork members 19. The lever not only serves in conjunction with the fulcrum forming plate 15 to effect raising of the upper strut 13 relatively to the lower strut, but also as a medium for releasing the clutch plate 14 when it is desired to lower the upper strut.

The lower strut 12 is preferably formed of structural steel and is T-shaped in cross section. It is vertically elongated and consists of a web 20 and a flange 21. The web is of uniform width from end to end and is of such thickness that the lower strut possesses the necessary rigidity and strength to fulfill its intended purpose. The flange 21 is joined to the central portion of the web and extends at right angles to the latter. It also is of uniform width from end to end. The lower strut 12 is provided with a flat horizontally extending base plate 22 which is adapted to rest upon the ground or any suitable supporting structure when the shore is in use. As shown in Figures 1 and 2, the base plate 22 is provided with a pair of upstanding ears 23 which are arranged in straddled relation with, and are bolted to, the lower end of the flange 21 of the lower strut 12.

The upper strut 13 comprises a pair of parallel, laterally spaced, coextensive timbers 24 and is vertically elongated similarly to the lower strut. The upper end of the upper strut is provided with a cast metal head bracket 25 and this is adapted to be placed directly against the work or used in connection with an L head or T head type crossbar, as well understood in the art. Bolts 26 extend through the head bracket and the upper ends of the timbers 24 and serve fixedly to connect the head bracket to the upper end of the upper strut. The lower end of the upper strut is provided with a U-shaped bracket 27 and this consists of a vertically extending front part 28, a horizontally extending bottom part 29, a vertically extending back part 30. In addition to the bracket 27 the lower end of the upper strut is provided with a pair of vertically spaced crossplates 31 and 32. The bottom part of the U-shaped bracket 27 underlies and abuts directly against the bottom faces of the timbers 24. The front and back parts 28 and 30 of the bracket 27 are arranged in straddled relation with the lower ends of the timbers and are fixedly connected thereto by way of horizontal bolts 39. A

cutout 34 is formed in the upper central portion of the front part 28. The crossplate 31 is positioned a short distance above the U-shaped bracket 27 and fits between the lower ends of the timbers 24. It is disposed horizontally when the shore is in its operative position and is connected to the adjacent portions of the timbers 24 by way of horizontally extending bolts 35. The crossplate 32 is positioned above, and in spaced relation with, the crossplate 31 and is secured to the adjacent portions of the timbers 24 by horizontally extending bolts 36. The bottom part of the U-shaped bracket 27 and the central portions of the crossplates 31 and 32 are provided with T-shaped slots 37, as shown in Figures 3 and 4. These slots are vertically aligned and serve slidably to receive the lower strut 12. They are slightly oversized so far as the cross sectional contour of the lower strut is concerned and permit the upper strut freely to slide vertically with respect to the lower strut. In addition to the parts heretofore mentioned the upper strut comprises a cast metal T-shaped housing 38. The latter depends from the bottom part 29 of the U-shaped bracket 27 and is connected to said bottom part by rivets 39. It is shaped to define a vertically extending T-shaped slideway 40 for the lower strut 12. As shown in Figures 3 and 4 the slideway is open ended and registers with the T-shaped slot in the bottom part of the bracket 27. The portions of the housing 38 that define the flange receiving part of the slideway 40 are provided with an upper pair of opposed vertically extending slots 41 and a lower pair of opposed vertically extending slots 42. These two pairs of slots are adapted selectively to receive a wedge 43. The flange 21 of the lower strut 12 is provided with a vertically extending series of equidistantly spaced wedge receiving slots 44. The latter are vertically aligned with upper and lower pairs of slots 41 and 42 in the housing 38. Such pairs of slots are spaced apart a different distance than the slots 44 in order that one pair of slots is always in registering relation with whichever slot 44 is disposed in the housing 38. The wedge 43 is adapted to extend through the slot 44 that is disposed within the confines of the housing 38 and also through the registering pair of slots in the housing and serves when in place to lock the upper strut against downward displacement with respect to the lower strut. It is essentially a safety item and is connected to the U-shaped bracket 27 by way of a chain 45. When it is desired to raise or lower the upper strut the wedge 43 is removed, as well understood in the art.

The clutch plate 14 serves normally as a one-way clutch whereby the upper strut 13 is locked against downward movement with respect to the lower strut 12 after it is raised or upwardly adjusted to the desired extent. It is preferably in the form of a metallic casting and comprises a bottom wall 46, a pair of upstanding side walls 47 and a back part 48. The side walls 47 project upwards from, and are formed integrally with, the side margins of the bottom wall 46. They are spaced apart a distance slightly less than the distance between the inner faces of the timbers 24 constituting the upper strut 13. The bottom wall 46 has a triangular aperture 49 in the central and rear portions thereof for accommodating the lower strut 12. The front portion of the bottom wall is inclined slightly upwards and has a notch 50 which leads to, and communicates with, the front corner of the triangular aperture 49 and

loosely receives the outer margin of the flange 21 of the lower strut. The back part 48 of the clutch plate extends between, and is formed integrally with, the rear ends of the side walls 47 and is in the form of a downwardly and inwardly inclined wedge. It is adapted, as hereinafter described, to grip the outer face of the web of the lower strut and embodies a rearwardly projecting lug 51. The clutch plate 14 is disposed between the lower ends of the timbers 24 and directly overlies the bottom part 29 of the U-shaped bracket 27. The rearwardly projecting lug 51 fits within a horizontally extending slot 52 in the central portion of the vertically extending back part 30 of the U-shaped bracket 27 and forms a pivotal connection whereby the clutch plate is permitted to swing upwards and downwards to a limited extent while at the same time it is connected to the lower end of the upper strut so that it is movable therewith. Two side by side compression springs 53 extend between the front portions of the bottom part 29 of the U-shaped bracket 27 and the bottom wall 46 of the clutch plate and serve to urge the front end of the clutch plate upwards so that the clutch plate as a whole assumes a canted position wherein the inner edge of the downwardly and inwardly extending wedge shaped back part 48 is in gripping relation with the outer face of the web 20 of the lower strut 12. The lower ends of the springs 53 rest on the upper face of the bottom part of the U-shaped bracket 27 and the upper ends of the springs abut against the lower face of the bottom wall 46 of the clutch plate. As shown in Figure 6 the two springs are arranged in straddled relation with the flange of the lower strut 12. The bottom wall 46 of the clutch plate is provided with a pair of depending protuberances 54 and these fit within the upper ends of the springs and serve to hold the springs against lateral displacement. The clutch plate is provided with a U-shaped shoe 55 and this, as shown in Figures 3, 4 and 6, surrounds the outer margin of the centrally disposed right angle flange 21 of the lower strut and serves frictionally to grip the same when the clutch plate is in its normal or operative canted position. The crosswall of the shoe is provided with a pair of forwardly extending vertically spaced lugs 56 which are arranged in straddled relation with the portion of the bottom wall 46 of the clutch plate that defines the front end of the notch 50. Such lugs connect the shoe 55 for movement with the clutch plate 14 while at the same time they permit the plate to tilt or pivot to a limited extent relatively to the shoe. When the springs 53 swing the clutch plate upwards into its normal canted position the shoe 55 slides upwards on the adjacent portion of the outer margin of the flange of the lower strut and the inner edge of the downwardly and inwardly inclined wedge shaped back part 48 of the clutch plate swings inwards and upwards into firm gripping relation with the outer face of the web of the lower strut and thus locks the clutch plate and the upper strut against downward displacement relatively to the lower strut. The clutch plate when in its normal canted position resulting from the operation of the compression springs 53 precludes downward displacement of the upper strut relatively to the lower strut by a one-way clutch or gripping action while at the same time it permits upward movement or displacement of the upper strut with respect to the lower strut. When the upper strut is raised or shifted upwards in connection with adjustment thereof the clutch plate, due to the drag of the

shoe 55 on the flange of the lower strut, swings downwards to a slight extent against the force of the compression springs 53 and releases the inner edge of the back part 48 of the clutch plate from its gripping or locking position with respect to the outer face of the web of the lower strut. When the upper strut is brought to rest after upward adjustment thereof the springs 53 swing the clutch plate 14 upwards into its normal canted position resulting in the shoe 55 and the back part 48 gripping the lower strut in such manner as to prevent downward displacement of the upper strut with respect to the lower strut. When it is desired to lower the upper strut it is only necessary to swing or shift the clutch plate 14 downwards out of its normal canted or angular position. When the clutch plate is swung downwards against the force of the compression springs 53 the wedge shaped back part 48 of the clutch plate releases its grip on the outer surface of the web of the lower strut and thus releases the upper strut so that it is free to slide downwards. Downward swinging of the clutch plate 14 to effect release of the upper strut in connection with lowering thereof is preferably effected by way of the lever 16. In using the lever in connection with lowering of the upper strut the fork members 19 constituting the fork 18 are inserted between the front portion of the bottom wall 46 of the clutch plate and the central portion of the crossplate 31, as shown in Figure 4. Thereafter the handle 17 of the lever 16 is swung downwards. During downward swing of the lever the outer extremities of the fork members 19 fulcrum on the plate 31 and the inner ends of the fork members swing the clutch plate downwards into its lower strut releasing position. The front portion of the bottom wall 46 of the clutch plate 14 projects through the cutout 34 in the upper central portion of the front part 28 of the U-shaped bracket 27. When the upper strut is slid downwards to the desired extent the handle of the lever is swung upwards so as to disengage the inner ends of the fork members 19 from the front portion of the bottom wall of the clutch plate. As soon as the front portion of the clutch plate bottom wall is disengaged the springs 53 swing the clutch plate upwards into its normal canted position wherein it effects locking of the upper strut with respect to the lower strut. The clutch plate, because it includes the downwardly and inwardly inclined wedge shaped back part 48 and the U-shaped shoe 55, effectively and efficiently fulfills its intended purpose. When in its normal or canted position it effectively locks the upper strut against downward displacement with respect to the lower strut and when swung downwards out of its normal position it releases the upper strut for downward sliding movement relatively to the lower strut.

The fulcrum forming plate 15 which serves in conjunction with the lever 16 to effect raising of the upper strut relatively to the lower strut, extends loosely around the lower strut 12 and is positioned between the crossplates 31 and 32. It is preferably in the form of a metallic casting and consists of a bottom wall 57 and a pair of upstanding side walls 58. The side walls are spaced apart a distance slightly less than the distance between the inner faces of the timbers 24 and are formed integrally with the side margins of the bottom wall 57. The central portions of the side walls are upwardly extended or enlarged and have flat upper edges 59. The bottom wall is provided in the central and rear portions thereof with a substantially triangular aperture

60 for accommodating the lower strut 12. The fulcrum forming plate 15 is urged upwards against the crossplate 32 by way of a pair of compression springs 61 and is provided with a pair of shoes 62 and 63. The compression springs 61 are disposed in side by side relation and straddle the flange 21 of the lower strut 12. The lower ends of the springs rest on the upper face of the plate 31 and the upper ends of the springs abut against the bottom face of the bottom wall 57 of the fulcrum forming plate 15. Said bottom wall of the plate 15 is provided with a pair of side by side depending protuberances 64 and these fit within the upper ends of the springs 61 and serve to hold the springs against lateral displacement. The flat upper edges 59 of the side walls of the clutch plate are adapted to abut against the bottom face of the cross plate 32 and are so arranged that when they are held in abutment with such cross-plate by the action of the springs 61 they maintain the plate 15 in a normal inoperative position wherein it is loose with respect to the lower strut and the bottom wall 57 thereof is horizontally disposed. The shoes 62 and 63 coact to lock the fulcrum forming plate of the upper strut when the plate is canted downwards out of its normal inoperative or loose position as hereinafter described. The shoe 62 is in the form of a straight horizontally extending metallic strip and is located along the rear portion of the substantially triangular aperture 60 in the bottom wall 57 of the plate 15. It is provided on the inner face thereof with a vertical series of horizontal teeth 65 and these are adapted when the fulcrum forming plate is swung downwards into a canted position to grip the outer face of the web 20 of the lower strut 12. As shown in Figure 11 the teeth 65 extend from one end of the shoe 62 to the other. When the fulcrum forming plate is in its normal position such teeth 65 slide freely on the outer face of the web of the lower strut. The ends of the shoe 62 are provided with outwardly extending notches 66. Lugs 67 are located at the rear corners of the substantially triangular aperture 60 in the bottom wall of the plate 15 and these fit loosely within the notches 66 and connect the shoe 62 so that it is vertically movable with the plate 15 while at the same time they permit the plate to tilt upwards and downwards relatively to the shoe. As shown in Figure 9, the lugs 67 are formed as integral parts of the bottom wall 57 of the plate 15. The front portion of the bottom wall 57 extends upwards and outwards and is provided in the central portion thereof with a notch 68. The latter leads to, and communicates with, the front corner of the substantially triangular aperture 60 and fits loosely around the outer margin of the flange 21 of the lower strut 12. The shoe 63 is U-shaped and surrounds said outer margin of the lower strut flange 21. It fits within the notch 68 and is provided with a pair of vertically spaced forwardly extending lugs 69 which straddle the portion of the bottom wall 57 that defines the front end of the notch and coacts with such portion so as to hold the shoe 63 in connected relation with the fulcrum forming plate 15 while at the same time permitting the plate to tilt or swing relatively to the shoe. When the fulcrum forming plate 15 is in its normal inoperative position wherein the bottom wall 57 thereof extends horizontally the shoes 62 and 63 are loose so far as the lower strut is concerned. When, however, the front portion of the plate 15 is swung downwards so as to place the plate as a whole in a downwardly canted position the two shoes are urged into gripping relation with the lower strut and hence lock the plate to such strut. When it is desired to raise the upper strut relatively to the lower strut the fork members 19 of the lever 16 are first inserted between the front portion of the bottom wall 57 of the plate 15 and the central portion of the superjacent crossplate 32 and thereafter the handle of the lever is swung downwards. During the initial part of the downward swing of the lever the outer extremities of the fork members fulcrum or pivot on the crossplate 32 and the inner ends of the fork members swing downwards and effect downward canting of the fulcrum forming plate 15 and result in locking of the plate to the lower strut. During further downward swing of the lever the inner ends of the fork members fulcrum about the front portion of the bottom wall of the plate 15 and the outer extremities of the fork members swing upwards and result in upward displacement of the upper strut with respect to the lower strut. When the handle of the lever is swung upwards after effecting raising of the upper strut the compression springs 61 slide the plate 15 upwards into its normal inoperative position wherein it is loose with respect to the lower strut and the edges 59 of the side walls 58 are in abutment with the crossplate 32. By pumping the lever 16 up and down the upper strut will be raised with a jack action. During raising of the upper strut by use of the lever 16 in connection with the fulcrum forming plate 15 the clutch plate 14 slides freely with respect to the lower strut. However, as soon as the upper strut is brought to rest the clutch plate, because of the action of the compression springs 53, assumes its normal canted position wherein it effects a one-way grip on the lower strut and prevents the upper strut from moving downwards.

When it is desired to use the shore for building construction or other purposes the shore is arranged in a vertical position with the base plate 22 at the lower end of the lower strut in abutment with the ground or subjacent supporting structure. Thereafter the wedge 43 is removed from the housing 38 so as to unlock the upper strut with respect to the lower strut. After removal of the wedge the upper strut is raised so as to position the cast metal head bracket 25 at the outer end of the upper strut at the desired elevation. Raising of the upper strut with respect to the lower strut is effected by inserting the fork members 19 of the lever 16 in interposed relation with the front portion of the bottom wall 57 of the fulcrum forming plate 15 and the central portion of the crossplate 32 and then swinging the handle of the lever downwards as hereinbefore described. During raising of the upper strut the clutch plate 14 slides upwards in a free manner relatively to the lower strut. When the upper strut is raised or upwardly adjusted to the desired extent the clutch plate 14 serves automatically to prevent downward displacement of the upper strut. After adjustment of the upper strut by use of the lever 16 the wedge 43 is inserted into place in order further or additionally to lock the upper strut against downward displacement with respect to the lower strut. When it is desired to lower or collapse the upper strut after the shore has served its purpose the wedge 43 is removed and the clutch plate 14 is swung downwards out of its normal canted position by way of the lever 16. As soon as the clutch plate is

swung downwards by the fork members of the lever the shoe 55 and the downwardly and inwardly inclined wedge shaped back part 48 of the plate 14 move out of gripping relation with the lower strut and this releases the upper strut so that it is free to slide downwards.

The hereindescribed shore effectively and efficiently fulfills its intended purpose and is characterized by high efficiency and facility of adjustment because of the arrangement, design and construction of the clutch plate 14 and the fulcrum forming plate 15. It is essentially of simple design and hence may be produced at a comparatively low cost.

The invention is not to be understood as restricted to the details set forth since these may be modified within the scope of the appended claims without departing from the spirit and scope of the invention.

Having thus described the invention what I claim as new and desire to secure by Letters Patent is:

1. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut and in addition a bracket connected to the lower ends of the members and having an upstanding part extending between the members and provided in the central portion thereof with a slot, and a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised or upwardly adjusted, embodying an apertured normally canted clutch plate positioned between the lower ends of the bar type members and adjacent the bracket, extending around the lower strut and having at the lower portion thereof a straight inwardly and downwardly inclined wedge shaped part adapted when the plate is in its normal canted position frictionally to grip the outer face of the web of the lower strut and provided with an outwardly extending lug extending into said slot and forming a pivotal connection whereby the upper portion of the plate may be swung downwards in order to move said wedge shaped part out of gripping relation with the outer face of the web of the lower strut and thus release the upper strut for lowering purposes, and spring means arranged to urge the plate into its normal canted position.

2. An extensible shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut and in addition a bracket connected to, and extending across, the lower ends of the members and provided between said members with a T-shaped slot for slidably receiving the lower strut, and a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, embodying an apertured normally canted clutch plate positioned between the lower ends of the bar type members and above the bracket, extending around the lower strut, having at the lower portion thereof a straight inwardly and downwardly inclined wedge shaped part for gripping the outer face of the web of the lower strut when the plate is in its normal canted position, and pivotally connected to the lower end of the upper strut so that the upper portion thereof may be swung downwards in order to move said wedge shaped part out of gripping relation with the outer face of the web of the lower strut and thus release the upper strut for lowering purposes, and a pair of compression springs positioned between the bracket and the clutch plate and on opposite sides of the flange of the lower strut and serving to urge the plate into its said normal canted position.

3. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised or upwardly adjusted, embodying an apertured normally canted clutch plate positioned between the lower ends of the bar type members and around the lower strut, having at the lower portion thereof a straight inwardly and downwardly inclined wedge shaped part for gripping the outer face of the web of the lower strut and at its upper portion a separately formed vertically elongated U-shaped shoe for gripping the outer margin of the flange of the lower strut, and pivotally connected to the lower end of the upper strut so that the upper portion thereof may be swung downwards in order to release said wedge shaped part and shoe and permit lowering of the upper strut, and spring means arranged to urge the plate into its normal canted position.

4. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised or upwardly adjusted, embodying an apertured normally canted clutch plate positioned between the lower ends of the bar type members and around the lower strut, having at the lower portion thereof an integral inwardly and downwardly inclined wedge shaped part for gripping the outer face of the web of the lower strut and at the upper portion thereof a separately formed vertically elongated pivotally connected U-shaped shoe for gripping the outer margin of the flange of the lower strut, and pivotally connected to the lower end of the upper strut so that the upper portion thereof may be swung downwards in order to release said wedge shaped part and shoe and permit lowering of the upper strut, and spring means arranged to urge the plate into its normal canted position.

5. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut and a bracket connected to, and extending across, the lower ends of the members and provided between said members with a T-shaped slot for slidably receiving the lower strut, and a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised or upwardly adjusted, embodying an apertured normally canted clutch plate

positioned between the lower ends of said members and directly above the bracket, surrounding the lower strut, having at the lower portion thereof a straight inwardly and downwardly inclined wedge shaped part for gripping the outer face of the web of the lower strut and at its upper portion a separately formed vertically elongated pivotally connected U-shaped shoe for gripping the outer margin of the flange of said lower strut, and pivotally connected to the lower end of the upper strut so that said upper portion may be swung downwards in order to release said wedge shaped part and shoe and thus permit lowering of the upper strut, and a pair of compression springs positioned between the bracket and the clutch plate and on opposite sides of the flange of the lower strut and serving to urge the plate into its said normal canted position.

6. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate between the members and positioned a small distance above the lower extremities thereof, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut and provided with a separately formed shoe having inwardly extending teeth for gripping the outer face of the web of the lower strut when the plate is canted in connection with manipulation of the lever, and spring means for urging the plate towards the crossplate and into its normal horizontal position.

7. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate positioned between the members and a small distance above the lower extremities thereof and embodying a T-shaped slot for slidably receiving said lower strut, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut, and provided with a straight horizontally elongated separately formed pivotally connected shoe having inwardly extending teeth for gripping the outer face of the web of the lower strut when the plate is canted in connection with manipulation of the lever, and spring means for urging the plate towards the crossplate and into its normal horizontal position.

8. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate positioned between the members and a small distance above the lower extremities thereof and embodying a T-shaped slot for slidably receiving said lower strut, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut, and provided with a separately formed U-shaped shoe for gripping the outer margin of the flange of the lower strut when the plate is canted in connection with manipulation of the lever, and spring means for urging the plate towards the crossplate and into its normal horizontal position.

9. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate positioned between the members and a small distance above the lower extremities thereof and embodying a T-shaped slot for slidably receiving said lower strut, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut, and provided with a separately formed vertically elongated pivotally connected U-shaped shoe arranged so that it surrounds the outer margin of the flange of the lower strut and adapted frictionally to grip said outer margin when the plate is canted in connection with manipulation of the lever, and spring means for urging the plate towards the crossplate and into its normal horizontal position.

10. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate positioned between the members and a small distance above the lower extremities thereof and embodying a T-shaped slot for slidably receiving said lower strut, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung

downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut, and provided at opposed marginal portions thereof with a separately formed tooth equipped shoe and a U-shaped shoe for respectively gripping the outer face of the web of the lower strut and the outer margin of the flange of said lower strut when the plate is canted in connection with manipulation of the lever, and spring means for urging the plate towards the crossplate and into its normal horizontal position.

11. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate positioned between the members and a small distance above the lower extremities thereof and embodying a T-shaped slot for slidably receiving said lower strut, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut, and provided at opposed marginal portions thereof with a horizontally elongated pivotally connected straight tooth equipped shoe and a U-shaped

pivotally connected shoe for respectively gripping the outer face of the web of the lower strut and the outer marginal portion of the flange of said lower strut when the plate is canted in connection with manipulation of the lever, and spring means for urging the plate towards the crossplate and into its normal horizontal position.

12. An adjustable shore comprising an upstanding lower strut of T-shaped cross section, an upstanding upper strut including a pair of laterally spaced bar type members in straddled and telescopic relation with the lower strut, and a crossplate positioned between the members and a small distance above the lower extremities thereof and embodying a T-shaped slot for slidably receiving said lower strut, a releasable one-way clutch device for locking the upper strut against downward displacement with respect to the lower strut while at the same time permitting the upper strut to be raised, an apertured normally horizontal plate disposed beneath the crossplate and around the lower strut, adapted when one end of a lever is interposed between one of the marginal portions thereof and the crossplate and swung downwards to a limited extent to be canted into locked relation with the lower strut and form a fulcrum whereby further downward swinging of the lever results in raising of the upper strut relatively to the lower strut, and provided at the margins thereof that are adjacent the inner faces of the members with upwardly extending side walls having straight upper edges in parallel relation with the plate proper, and a compression spring beneath the plate for urging the plate upwards into a position wherein said straight edges of the side walls abut against the crossplate and maintain the plate in its normal horizontal position.

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