C. M. MARKHAM.

ADJUSTABLE JACK OR SHOE.

APPLICATION FILED MAY 1, 1918.

1,349,576.

Patented Aug. 17, 1920.

4 SHEETS—SHEET 1.

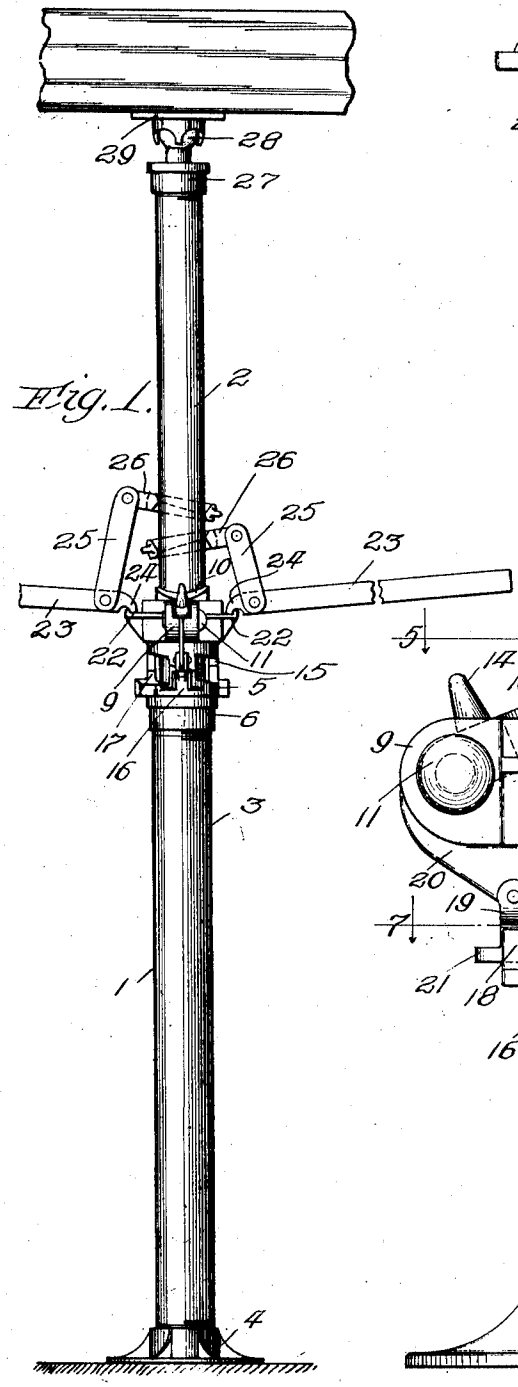

Fig. 1.

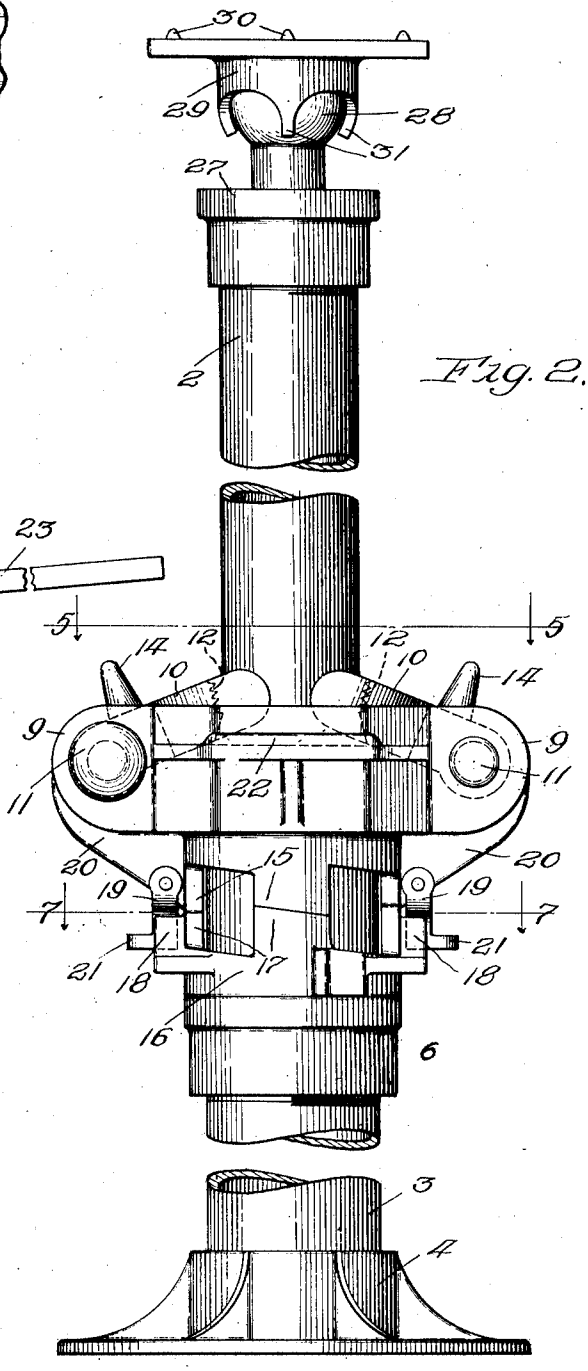

Fig. 2.

Witness:
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4 SHEETS—SHEET 2.

Fig. 4.

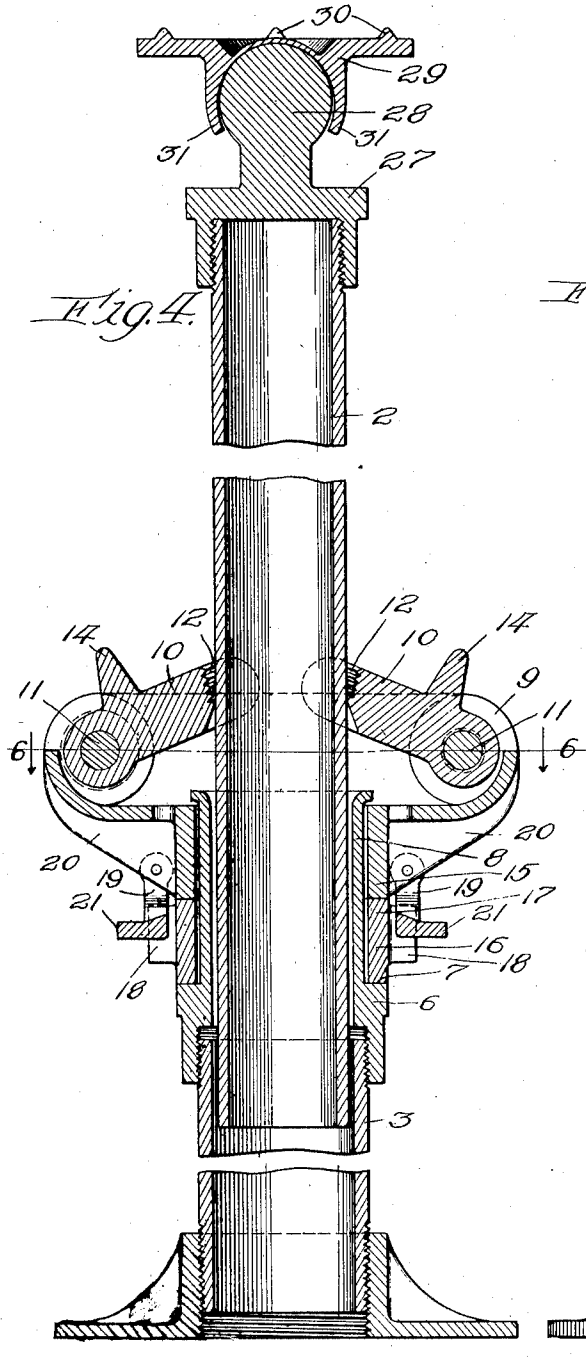
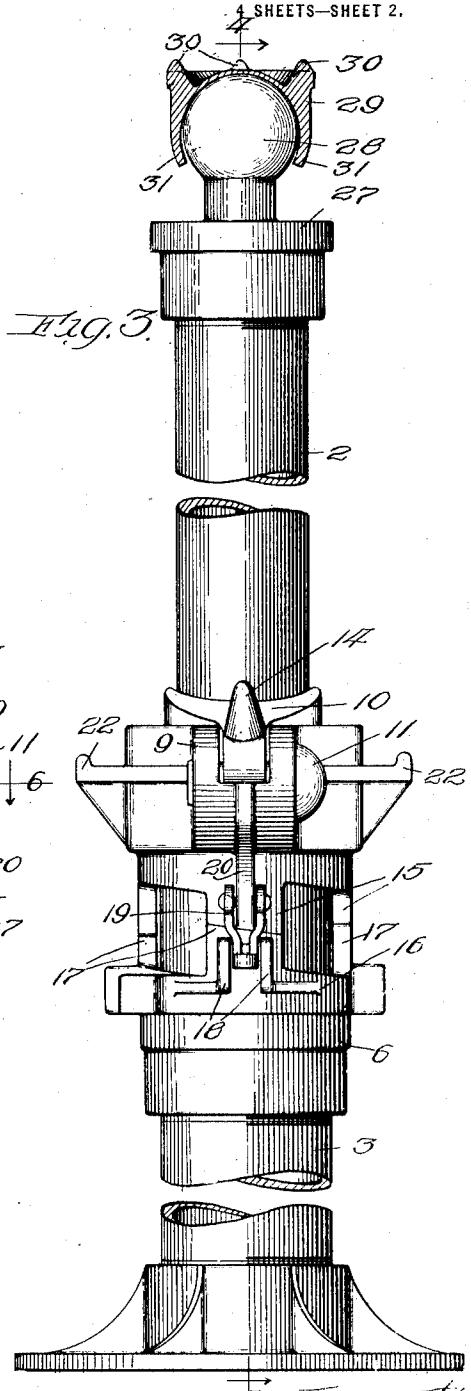


Fig. 3.



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4 SHEETS—SHEET 3.

Fig. 5.

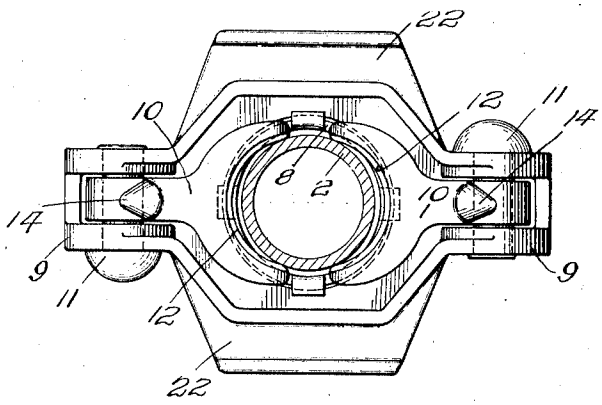


Fig. 6.

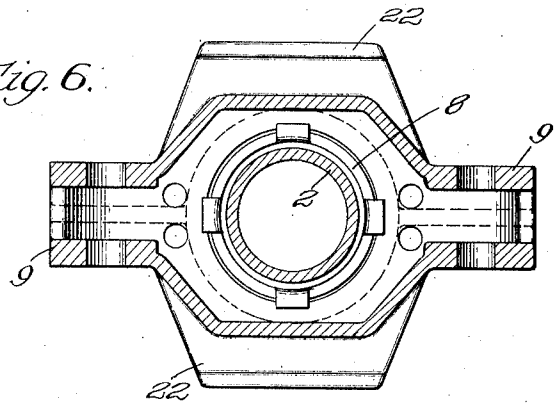
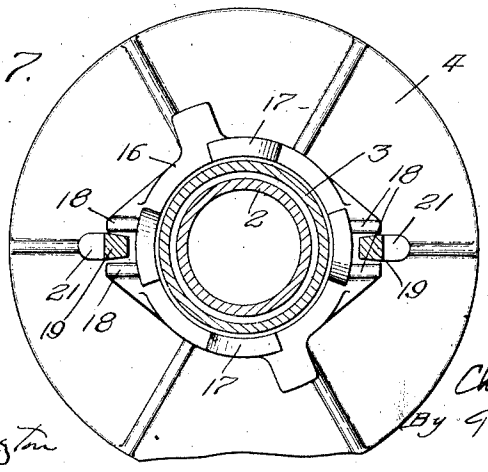


Fig. 7.



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C. M. MARKHAM.

ADJUSTABLE JACK OR SHOE.

APPLICATION FILED MAY 1, 1918.

1,349,576. Patented Aug. 17, 1920.

4 SHEETS—SHEET 4.

Fig. 8.

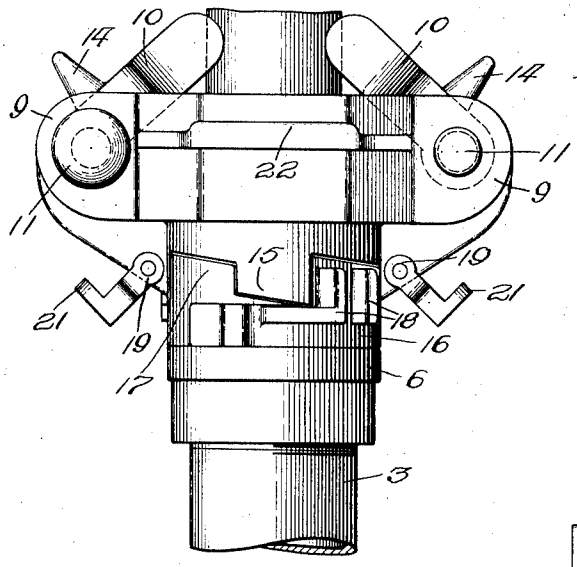


Fig. 9.

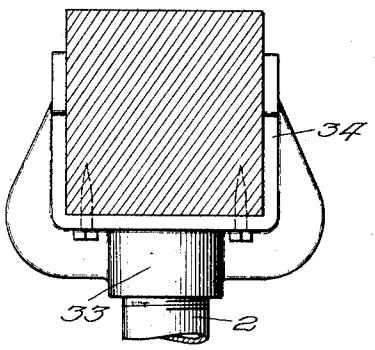


Fig. 10.

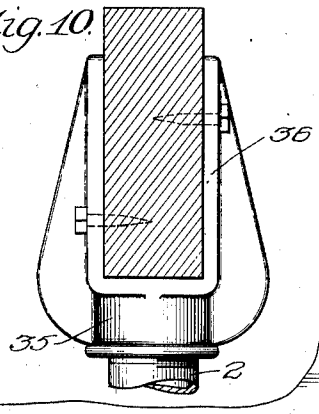
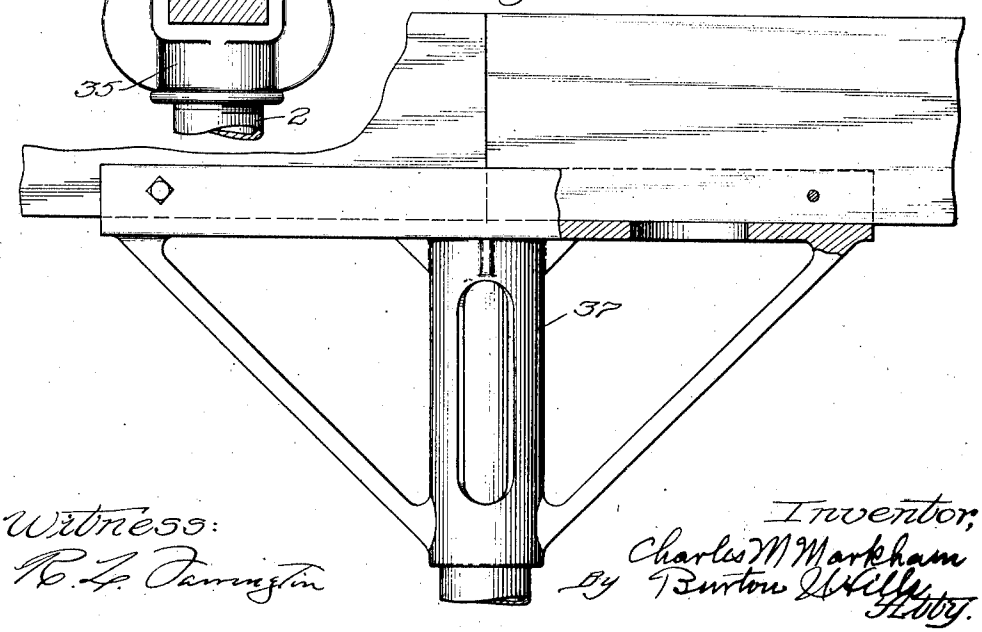


Fig. 11.



Witness:
R. L. Farrington

Inventor,
Charles M. Markham
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UNITED STATES PATENT OFFICE.

CHARLES M. MARKHAM, OF MILWAUKEE, WISCONSIN.

ADJUSTABLE JACK OR SHORE.

1,349,576. Specification of Letters Patent. Patented Aug. 17, 1920.

Application filed May 1, 1918. Serial No. 231,832.

To all whom it may concern:

Be it known that I, CHARLES M. MARKHAM, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in an Adjustable Jack or Shore, of which the following is a description.

My invention relates to that class of devices employed for raising, supporting or holding in place portable objects, structures or the like, such as parts of buildings, embankments etc.

The object of my invention is to provide a simple, convenient and easily adjusted device of the kind described which when once set may be depended upon to sustain the load.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described and more particularly pointed out in the claims.

In the accompanying drawings wherein like or similar reference characters indicate like or corresponding parts:

Figure 1 is a side elevation of my device.

Fig. 2 is an enlarged elevation at substantially right angles to that shown in Fig. 1.

Fig. 3 is an enlarged elevation of the device shown in Fig. 1.

Fig. 4 is a section taken substantially on line 4—4 of Fig. 3.

Fig. 5 is a section taken substantially on line 5—5 of Fig. 2.

Fig. 6 is a section taken substantially on line 6—6 of Fig. 4.

Fig. 7 is a section taken substantially on line 7—7 of Fig. 2.

Fig. 8 is a side elevation of the controlling mechanism with the several parts shown in release position.

Figs. 9, 10 and 11 are each detail elevations of slightly modified forms of bearing heads for my improved shore.

My improvement comprises a pedestal 1 and a column 2 mounted upon the pedestal and adapted to move longitudinally thereof with means for rigidly locking the column in position and for adjusting its position longitudinally of the pedestal to control the ultimate length of the shore.

As shown the pedestal comprises a tubular body 3 having a base 4 rigidly secured to its lower end and adapted to engage or rest upon an object or structure to support the pedestal in position. A cap or head 5 is also provided upon the body 3 for engaging the column 2 to lock the same in position when in service. As shown the head 5 comprises a sleeve 6 rigidly secured to the upper end of the body part 3 (see Fig. 4) with a projecting flange or shoulder 7 near its lower end and having a cylindrical body or shaft 8 extending upward therefrom. A head 9 is mounted upon the shaft 8 and adapted to move longitudinally thereof and a pair of dogs or clamps 10 are pivotally mounted as at 11 on the head 9 substantially opposite each other so as to engage the opposite sides of the column 2 to lock the column 2 against downward movement in the pedestal.

In the preferred form the faces 12 of the dogs 10 adjacent the column 2 are serrated, as shown, to provide a more secure engagement with the column and are each preferably formed to substantially fit the exterior of the column so as to prevent the formation of local indentations or crushing the column when in service. Suitable projections 14 are also provided on each of the dogs 10 near its pivotal connection with the head adapted to serve as convenient means for manually operating the dogs; a suitably formed wrench or other convenient means being preferably provided to engage the projections for disengaging or otherwise operating the dogs. Obviously when my shore is in service supporting considerable weight it is difficult to disengage the dogs without first slightly raising the column or lowering the head 9 to permit the necessary upward movement of the free ends of the dogs.

In the preferred construction a plurality of dentals 15 are provided at the lower side of the head 9, the space between the dentals being preferably slightly wider than each dental and a collar 16 is provided upon the body 8 below the head 9 adapted to rest upon the shoulder 7 with its upper edge provided with dentals 17 corresponding to the dentals 15 upon the head 9 so that when in service the dentals 15 may coöperate with the dentals 17 to support the head 9 in position but when desired the collar 16 may be rotated sufficiently to bring the dentals 17 into the spaces between the dentals 15 thus

permitting the head to slide downward upon the body 8 to facilitate the release of the dogs 10.

In the preferred construction the coöperating faces of the dentals 15 and 17 are inclined slightly as shown in Figs. 2, 3 and 8 so that a very slight movement of the collar 16 will relieve the pressure on the coöperating faces of the dentals thus permitting the collar to be conveniently moved as described.

In the preferred construction suitable means are also provided to rigidly lock the head and collar together to maintain the head in operating position. In the form shown a pair of projecting lugs 18 are provided at each side of the collar 16 and a pivotally mounted latch 19 is attached to a rib 20 upon the head and adapted to normally hang with its free end between the lugs 18 thus bringing the dentals 17 into position to engage the ends of the dentals 15 to support the head 9 in position and preventing rotation between the collar and head.

When it is desired to lower the head as described the projecting ends 21 of the latches may be engaged to swing the free ends of the latches outward sufficiently to clear the lugs 18 thus releasing the collar and permitting its rotation as hereinbefore described. Any suitable means may be provided for adjusting the position of the column 2 upon the pedestal. As shown the head 9 is provided with a projecting rib 22 at each side. The margin of the rib extends upward slightly to afford a secure engagement for a bar and a pair of levers 23 are provided each having a projecting tip or finger 24 at one end adapted to engage the part 22. A link 25 is pivotally connected to the lever 23 near the finger 24 and an open clamp 26 is pivotally connected to the free end of the link 25; the engaging faces of the clamp 26 being formed to cramp upon the column 2 to rigidly lock the clamp in position so that by manipulating the lever, the column 2 may be successively raised; that is, when the free end of the lever 23 is raised the clamp 26 will engage the column to force the same upward and when the free end of the lever 23 is lowered the clamp 26 will merely slide downward on the column and engage the same at the first upward movement of the lever.

The column 2 is preferably a tubular member of substantially uniform size throughout its length with a suitable bearing head at its upper end adapted to engage the object being supported. In the form shown the bearing head comprises a suitably formed cap 27 rigidly secured to the upper end of the column and provided with a spherical projection or knob 28 at its center and a cap 29 is also provided having a suitably formed bearing face at its top or upper side which may, if desired be provided with projecting pins or calks 30 for engaging a timber or other compressible surface to prevent the head from slipping in service, a central recess is also formed in the cap 29 adapted to receive the knob 28, and finger 31 or other suitable means are provided at the margin of the recess adapted to be bent inward around the knob to retain the cap in position thus providing a head having a bearing face adapted to adjust itself to any irregularities or inequalities in the bearing surfaces to which it is applied.

In Figs. 9, 10 and 11 I have shown other forms of bearing heads adapted for use with my improved shore. In Fig. 9 the cap 33 is provided with suitable jaws 34 for engaging a timber. In Fig. 10 a somewhat similar form is provided with jaws 36 arranged to engage a joist or plank to support the same edgewise while in Fig. 11 the head is extended laterally in a form adapted to support the ends of two abutting timbers or joists. Obviously in many cases it is desired to provide bearing heads similar to 27, 33, 35 or 37 in place of the base 4 as shown but the operation and construction of my device would not be altered by such an arrangement it being obvious that bearing heads and bases of any desired form suitable to the material to be supported or to its form or other peculiarities of the situation may be provided without departing from the spirit of invention, hence I do not wish to be understood as limiting myself to the exact form or construction shown.

What I claim as new and desire to secure by Letters Patent is:

1. An adjustable support comprising a pedestal, a column mounted upon said pedestal and adapted to move longitudinally thereof, a part adjustable longitudinally of said pedestal, a collar rotatably mounted upon said pedestal adjacent said part for controlling the position of said part, means for locking said collar against rotation upon said pedestal and a pair of dogs mounted upon said part adapted to engage said column to control the longitudinal position of the column upon the pedestal, in combination with means for adjusting the longitudinal position of said column upon the pedestal.

2. An adjustable support comprising a pedestal, a column mounted upon said pedestal and adapted to move longitudinally thereof, a part attached to, and adjustable longitudinally of said pedestal, a collar rotatably mounted upon said pedestal adjacent said part, said part and collar each having dentals upon their proximate faces adapted to coöperate to control the position of said part by the position of said col-

lar, means for locking said collar against rotation upon said pedestal, and means mounted upon said part adapted to engage said column to control the longitudinal position of the column upon the pedestal, in combination with means for adjusting the longitudinal position of said column upon the pedestal.

3. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal a part attached to, and adjustable longitudinally of said pedestal, and clamping means mounted upon said part and adapted to engage said column to maintain the column in adjusted position in the pedestal, in combination with column clamping means for adjusting the longitudinal position of said column in the pedestal.

4. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to, and adjustable longitudinally of said pedestal, and clamping means carried by and cooperating with said part and engaging said column to maintain the column in adjusted position in the pedestal, in combination with column clamping means for adjusting the longitudinal position of said column in the pedestal.

5. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part adjustable longitudinally of said pedestal, means upon the pedestal for controlling the position of said part, and means mounted upon said part adapted to engage said column to maintain the column in adjusted position in the pedestal, in combination with means for adjusting the longitudinal position of said column in the pedestal.

6. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part adjustable longitudinally of said pedestal, and a pair of dogs mounted upon said part adapted to engage said column to maintain the column in adjusted position in the pedestal, in combination with means for adjusting the longitudinal position of said column upon the pedestal.

7. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to, and adjustable longitudinally of said pedestal, and means mounted upon said part adapted to automatically clampingly engage said column to maintain the column in adjusted position in the pedestal, in combination with means for adjusting the longitudinal position of said column upon the pedestal.

8. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to, and adjustable longitudinally of said pedestal, and means mounted upon said part adapted to clampingly engage said column to maintain the column in adjusted position in the pedestal, in combination with means adapted to loosely engage said part and clampingly engage the column for adjusting the longitudinal position of said column upon the pedestal.

9. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to, and adjustable longitudinally of said pedestal, means upon the pedestal for controlling the position of said part, and a pair of dogs mounted upon said part adapted to engage said column to maintain the column in adjusted position in the pedestal, in combination with means for adjusting the longitudinal position of said column upon the pedestal.

10. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to the upper portion of, and adjustable longitudinally of said pedestal, a collar rotatably mounted upon said pedestal adjacent said part and means mounted upon said part adapted to engage said column to maintain the column in adjusted position, in combination with means for adjusting the longitudinal position of said column in the pedestal.

11. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to the upper portion of, and adjustable longitudinally of said pedestal, a collar rotatably mounted upon said pedestal adjacent said part, said part and collar each having dentals upon their proximate faces adapted to coöperate to control the position of said part by the position of said collar, and means mounted upon said part adapted to engage said column to maintain the column in adjusted position in the pedestal, in combination with means for adjusting the longitudinal position of said column in the pedestal.

12. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to, and adjustable longitudinally of said pedestal, and a pair of dogs pivotally mounted upon said part adapted to engage said column to maintain the column in adjusted position, in combination with means for adjusting the longitudinal position of said column in the pedestal.

13. An adjustable support comprising a tubular pedestal, a column slidably extending into said pedestal, a part attached to, and adjustable longitudinally of said pedestal, means upon the pedestal for controlling the position of said part, and a pair of dogs coöperating with said part adapted to

automatically engage said column to maintain the column in adjusted position with relation to said part, in combination with means for adjusting the longitudinal position of said column in the pedestal.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES M. MARKHAM.

Witnesses:
BURTON U. HILLS,
BLANCHE CHALMERS.