W. V. LEWIS.

ADJUSTABLE STAND.

APPLICATION FILED MAY 29, 1919.

1,359,399.

Patented Nov. 16, 1920.

2 SHEETS—SHEET 1.

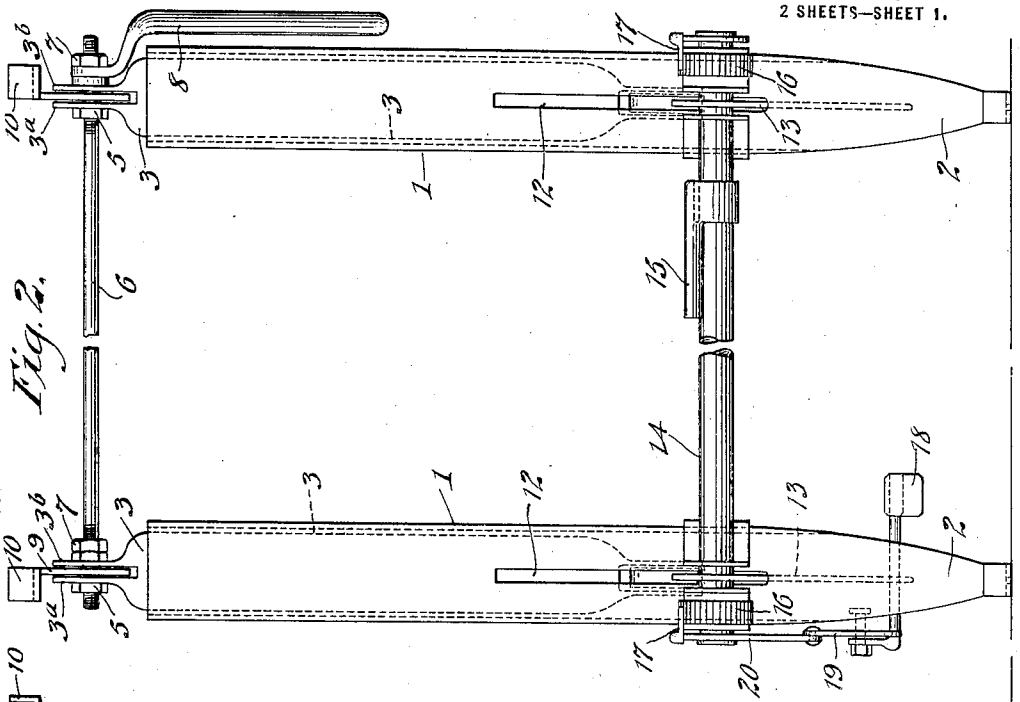


Fig. 2.

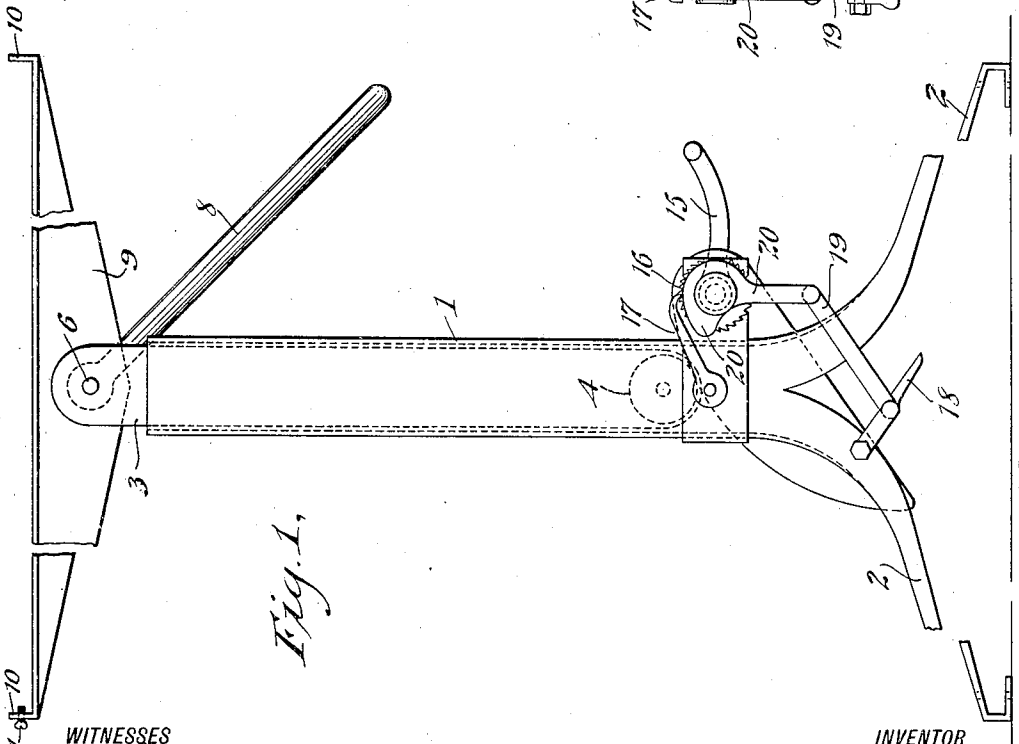


Fig. 1.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

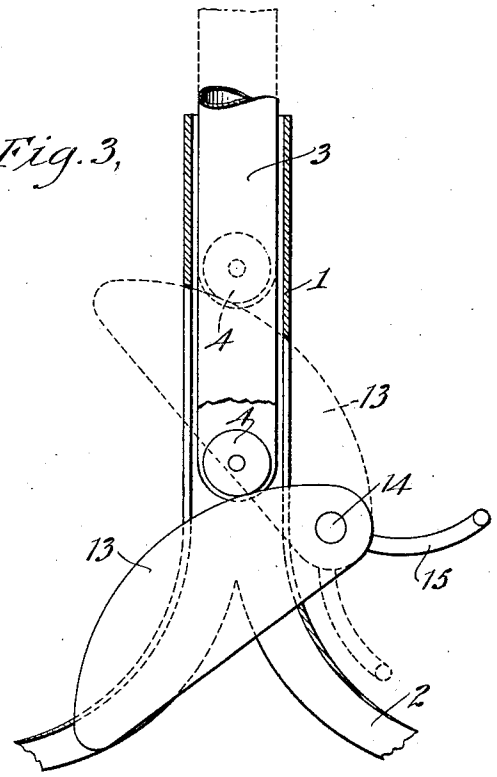
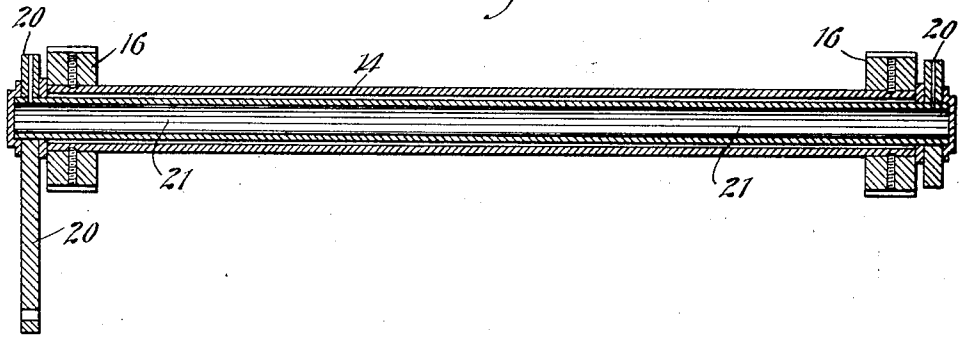


Fig. 4.



WITNESSES.

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ADJUSTABLE STAND.

1,359,399. Specification of Letters Patent. Patented Nov. 16, 1920.

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To all whom it may concern:

Be it known that I, WALTER V. LEWIS, a citizen of the United States, and a resident of Schenectady, in the county of Schenectady and State of New York, have invented a new and improved Adjustable Stand, of which the following is a full, clear, and exact description.

My invention relates to improvements in adjustable stands, and it consists in the combinations, constructions and arrangements hereinafter described and claimed.

An object of my invention is to provide an adjustable stand which may serve as a drafting table, a reading table, or for any other similar purpose, and which may be readily adjusted to desired heights as well as to desired angles.

A further object of my invention is to provide a device of the type described in which one or more legs or standards may be used, each of the legs or standards having extension members adapted to be moved to the desired position at the will of the user of the device.

A further object of my invention is to provide an adjustable stand or table which may be held in its adjusted position but which may be quickly released and lowered when desired.

A further object of my invention is to provide novel means for clamping the top in its various adjustable positions.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming a part of this application in which—

Figure 1 is a side view of the device;

Fig. 2 is a front view;

Fig. 3 is a section through a portion of one of the legs or standards; and

Fig. 4 is a sectional view through a portion of the releasing mechanism.

In carrying out my invention I provide one or more legs or standards. These legs comprise an outer member 1 which is preferably a cylinder having feet 2. Disposed within the outer member 1 is an inner member 3 which is provided near its bottom with a roller 4. The inner member 3 is shaped to conform to the interior of the outer member 1 and is divided or split at its top to provide the two clamping portions 3^a and 3^b. Secured to each clamping portion 3^a and forming an integral part thereof is a nut 5. In that form of the device as shown in Fig. 2 there is a rod 6 which is threaded at both ends and which extends through the nut 5 and also through the clamping portions 3^a and 3^b of the two legs. On the rod 6 are disposed nuts 7, these nuts being secured to the rod so as to turn with it. An operating handle 8 is also secured to the rod.

Between the clamping member 3^a and 3^b of each of the legs is disposed an arm 9 having upturned flanges 10 arranged to receive a suitable top, not shown, but which may be held in position by means of set screws, such as that shown at 11.

It will be obvious from the description of the device given heretofore that when the handle 8 is moved in one direction it will tend to rotate the rod 6 so as to cause the members 3^a and 3^b to grip or clamp the intervening arms 9 securely, thus retaining them in any position in which they may have been previously set. When the handle 8 is moved in the opposite direction the result will be that the clamping members 3^a and 3^b of each arm will be released, thereby permitting the angular adjustment of the table top.

As will be seen from the drawings the outer member 1 of each of the legs or standards is slotted at 12 to receive an arm 13 which is mounted eccentrically on the hollow shaft or sleeve 14 extending from one leg to the other. The roller 4 of the inner extension member 3 rests on the upper edge of the eccentric arm 13. A foot pedal 15 is secured to the sleeve 14 so as to rotate the latter when the foot pedal is operated. This causes the movement of the eccentric arms 13 of each leg thus raising the inner extension members 3 as shown in dotted lines in Fig. 3. The sleeve 14 is provided with ratchets 16 which are engaged by pawls 17

to hold the ratchets in the position to which they are turned by the foot pedal 15, thus locking the standard in its extended position. The pawls 17 may be quickly released by pressing on the foot lever 18. The latter is connected by means of the link 19 with an eccentric 20 which engages the pawl when the foot lever 18 is depressed so as to lift it out of engagement with the ratchet 16. It will be observed that this action takes place on each leg so that the holding or retaining devices for each leg are released simultaneously, thereby permitting the lowering of the stand to any desired position.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. If the table is to be raised a downward pressure of the foot lever 15 will cause both legs to be extended simultaneously and to the same extent, the movement depending upon the distance to which the lever 15 is depressed. The pawl 17 as stated will hold the stand in its adjusted position. A single movement of the handle 8 will unclamp or release the arms 9 which bear the top, not shown, thereby permitting the tilting of the latter to any desired position. The reverse movement of the handle 8 will lock the table in its inclined position.

As will be seen from Fig. 4, the eccentrics 20 for the two legs are on a common shaft 21 which extends through the sleeve 14. This permits the simultaneous release of the pawls 17 thus permitting the lowering of the table top.

I claim:

1. An adjustable table comprising an outer stationary leg, an inner slidable telescopic member, a roller carried by the latter at the lower end thereof, an eccentric arm for supporting the roller, a rock shaft for supporting said eccentric arm, means for rotating the rock shaft to move the eccentric arm about its axis for raising the roller and its telescopic member, means for retaining the latter in any desired position, said last-named means comprising a ratchet carried by the rock shaft, and a pawl for engaging the ratchet, and means for releasing the pawl, comprising a cam and a foot lever.

2. An adjustable stand, comprising a pair of legs, each of said legs consisting of a stationary member and a vertically slidable and adjustable member, the adjustable members having clamping members at their upper ends, one part of each clamping member having a nut secured thereto, a support for a top having arms extending between the clamping members of the sliding members, a rotatable rod having screw threaded ends passing through the clamping members and arms and having a nut on each end.

3. An adjustable stand, comprising a pair of legs, each consisting of a stationary member, and a vertically adjustable member, the adjustable members having their upper ends slotted forming clamping members, a support for a top having apertured arms extending between the said clamping members, a rotatable rod extending through the clamping members and the arms of the top support, and means for operating the clamping members by rotating the rod to clamp the arms of the top support.

4. An adjustable stand comprising a top having a pair of supporting arms, a pair of legs or standards, each of said legs including a stationary member and a telescopic extension member, each of said extension members having a slot at its top arranged to receive one of said arms, clamping means carried by each of said extension members for clamping said members to said arms, means for simultaneously operating the clamping means of said extension members, means for simultaneously raising or lowering said extension members, means for simultaneously locking the extension members, and means for simultaneously releasing the locking means.

5. An adjustable stand comprising a plurality of legs or standards, each of said legs comprising a stationary member having a slot, a telescopic extension member for each stationary member, a rotatable sleeve having an eccentric arm disposed in each of the slots of said stationary members and being secured to said sleeve, a foot pedal for rotating the sleeve, a roller carried by each of said extension members and arranged to be engaged by one of said eccentric arms for raising or lowering the extension, a pawl and ratchet for locking the extension member in position, a cam for disengaging the pawl from the ratchet wheel, and a foot lever for operating the cam.

6. An adjustable stand comprising a plurality of legs or standards, each of said legs comprising a stationary member having a slot, a telescopic extension member for each stationary member, a rotatable sleeve having an eccentric arm disposed in each of the slots of said stationary members and being secured to said sleeve, a foot pedal for rotating the sleeve, a roller carried by each of said extension members and arranged to be engaged by one of said eccentric arms for raising or lowering the extension, a ratchet carried by said sleeve at each end thereof, a pawl for each ratchet, a foot pedal, and means operated by the foot pedal for releasing the pawls simultaneously.

7. An adjustable stand comprising a plurality of legs or standards, each of said legs comprising a stationary member having a slot, a telescopic extension member for each stationary member, a rotatable sleeve hav-

ing an eccentric arm disposed in each of the slots of said stationary members and being secured to said sleeve, a foot pedal for rotating the sleeve, a roller carried by each of said extension members and arranged to be engaged by one of said eccentric arms for raising or lowering the extension, a ratchet carried by said sleeve at each end thereof, a pawl for each ratchet, a foot pedal, means operated by the foot pedal for releasing the pawls simultaneously, said releasing means comprising a shaft extending through said sleeve, an eccentric cam carried by said shaft at each end thereof and arranged to engage its individual pawl, and a foot lever for rotating said shaft.

WALTER V. LEWIS.