

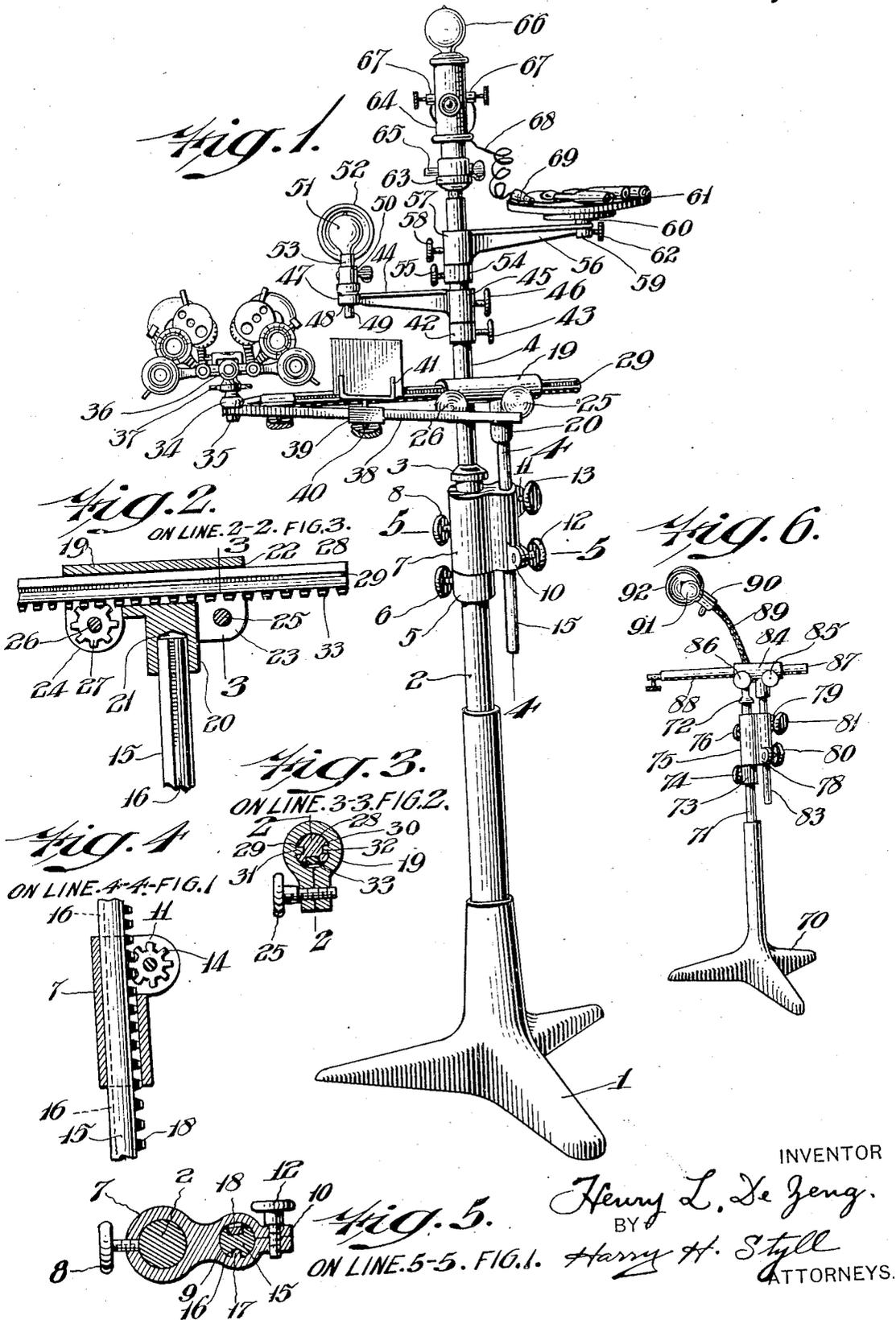
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STAND FOR DIAGNOSTIC INSTRUMENTS

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UNITED STATES PATENT OFFICE

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STAND FOR DIAGNOSTIC INSTRUMENTS

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My invention relates to a novel and improved stand for diagnostic instruments and has particular reference to a device of this character which will conveniently support a plurality of diagnostic instruments in such a way that any selected instruments may be brought into operative position and the others moved out of the way.

Prior to my invention it has been the customary practice of oculists, optometrists, and other diagnostic specialists to provide themselves with a number of the necessary instruments of their profession, and as supplemental equipment, they have had a number of supporting tables, storage cabinets, and shelves, etc. Thus in the course of examining a patient, for example in the case of an optometrist testing a person's vision, the one under examination would, of necessity, be conducted from one table to another, at each of which some certain part of the examination would be made. Such arrangements have been a source of annoyance and inconvenience to both the operator and the patient, as well as requiring a great deal of office space, and altogether tending toward inefficiency. By my invention I have provided a support or stand for a plurality of instruments which may be used interchangeably, all being conveniently arranged so that the busy practitioner will be able to attain maximum efficiency, by being enabled to perform his examination with ease, rapidity, and accuracy.

One of the principal objects of my invention is to provide a stand for diagnostic instruments with means for positioning the instruments in desired relationship to the stand.

Another object of my invention is to provide a stand for diagnostic instruments whereon a plurality of instruments are adjustably mounted so as to be readily movable to desired positions.

Another object is to provide such a device with means for locking the various parts in their relative adjusted positions.

Another object is to provide such a device which will be accurate in use, strong and durable in service, simple in construction, and an improvement in the art.

These and other objects will be readily

apparent from the following description taken in connection with the accompanying drawing, wherein for the purpose of illustrating my invention I have shown forms thereof which are at present preferred by me, since they will give in practice satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 of the drawing shows an embodiment of my invention with the parts assembled in operative adjustable relation to each other.

Figure 2 is a partial cross-sectional enlarged view, taken on line 2—2 of Figure 3, showing the rack and pinion mechanism.

Figure 3 is a cross-sectional view, taken on line 3—3 of Figure 2, showing in detail the cross-sectional shape of the rack and its carrying sleeve.

Figure 4 is a cross-sectional view, taken on line 4—4 of Figure 1, showing the vertical rack and pinion adjustment mechanism and the carrying sleeve thereon.

Figure 5 is an enlarged cross-sectional view, taken on line 5—5 of Figure 1, showing in section the supporting standard, the adjustable carrying sleeve thereon and the rack mounted therein, with the lock screw for the carrying sleeve.

Figure 6 is an adjustable stand, embodying my invention, carrying a flexible lamp support and showing the vertical and horizontal adjustment mechanisms.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:—

1 is a foot or base portion of my device carrying an upright supporting shaft or standard 2, which is provided with a collar or stop 3 at its intermediate portion, above which extends a second supporting shaft or standard 4, carried on and preferably a part of the first mentioned shaft 2 and in align-

ment therewith, the latter shaft or standard being of reduced dimensions.

On the shaft or standard 2 is mounted a slidably adjusted collar 5, which is adapted to be slidably adjusted on the standard 2 to any degree of elevation or height. The collar 5 is provided with a lock screw 6, adapted to lock the collar 5 in any position of adjustment on its carrying shaft. Mounted around the shaft or standard 2, carried thereon and above the collar 5, is a sleeve 7, which is likewise adapted to be slidably adjustable upon the standard 2 to any degree of elevation or height, and which is provided with a lock screw 8, adapted to lock the sleeve 7 in any position of adjustment in height. The standard 2 is of cylindrical shape and the sleeve 7 is so mounted thereon that it is capable of being given a rotary adjustment around the standard 2 while the lock screw 8 is adapted to lock the sleeve 7 and restrain and hold it against rotation around this standard.

The sleeve 7 is provided with an aperture, which extends longitudinally through its body portion, parallel to the standard 2. The portion of the sleeve having the aperture 9 is split and provided with lugs 10 and 11. Through the lug 10, a lock screw 12 is inserted, while the lug 11 carries a stud 13, on which is mounted a pinion 14, which pinion 14 is adapted to be actuated by the turning of the stud 13. A standard 15 is mounted in the aperture 9 of the sleeve 7, in such a manner that it can be slidably adjusted upwardly or downwardly therein. The standard 15 is provided on one side with a longitudinal slot 16, which receives a tongue 17, integral with the sleeve 7, which prevents the standard 15 from turning within the aperture 9. The standard 15 is provided also with a series of teeth, forming a rack 18, which extends the length of the standard. The rack 18 is so positioned on the standard 15 that the pinion 14 will mesh therewith, and when actuated will slide the standard upwardly and downwardly within the aperture 9 of the sleeve 7 and thereby effect the desired vertical adjustment of the standard 15 and the parts carried thereon.

The lock screw 12, when loosened, permits the standard 15 to be readily adjusted upwardly or downwardly, but when tightened is adapted to draw together the split portions of the sleeve 7 and thereby clamp the standard 15 tightly in the aperture 9 and lock it in adjusted position.

It will be seen therefore, that the standard 15 may be readily adjusted upwardly and downwardly in the sleeve 7, by operating the stud 13 and the pinion 14 carried thereon, and may be securely locked in any desired position of adjustment by tightening the lock screw 12 in the lug 10.

Carried upon the upper end of the standard 15 is a sleeve or supporting yoke 19. The

sleeve or yoke 19 is provided with an angularly extending portion 20, which is in turn provided with an aperture or opening 21 in its lower portion, which is adapted to receive the upper end of the standard 15 and thereby mount the sleeve 19 securely on said standard. The sleeve 19 is provided with a longitudinally extending aperture 22 and with lug portions 23 and 24 and is split at the lug 23. The lug 23 carries a lock screw 25, while the lug 24 carries a stud 26 on which is mounted a pinion 27 adapted to be actuated and turned by the stud 26.

In the aperture 22 of the sleeve 19, I provide a supporting shaft or standard 28. This shaft or standard 28 is mounted in the sleeve 19 and in slidable relation thereto. The shaft or standard 28 is provided, on opposite sides, with slots or grooves 29 and 30, adapted to receive tongues 31 and 32, formed in the inner portion of the aperture 22 and integral with the sleeve 19. The tongues 31 and 32 engaging the sleeves 29 and 30, prevents the turning of the supporting shaft or standard within the sleeve and aperture 22. The shaft or standard 28 is also provided with a series of teeth, forming a rack 33, which is shorter than the shaft or standard 28 and which are so positioned thereon as to be adapted to mesh with the teeth of pinion 27. By turning or actuating the stud 26, carried in the lug 24, and thereby turning or actuating the pinion 27, the standard or shaft 28 may be adjusted forwardly or backwardly to any desired degree in the sleeve 19. The lock screw 25 in the lug 23, when loosened, permits the free lateral longitudinal movement or adjustment of the shaft or standard 28 within the sleeve 19 to any desired degree or point of adjustment, but when tightened, the stud 25 draws the split portions of the sleeve 19 together and securely clamping the shaft or standard 28, thereby locking it in any position of adjustment against movement.

On the outer end of the standard 28, I provide an enlarged portion 34, having an aperture therein, adapted to receive a bolt or other suitable fastening means 35, by which I mount at the extremity of the shaft or standard 28, a diagnostic instrument 36, in such a manner that it may be turned or rotated upon the supporting bolt or pin 35 to any point of rotary adjustment and may there be locked by means of a lock nut or wheel 37. While I have illustrated a proptor supported by the shaft 28, I desire to have it clearly understood that I may use any one of a plurality of interchangeable instruments, for example, I may mount a proptor, ophthalmoscope or other device, as desired. Likewise carried by the bolt or pin 35, is a supporting arm 38 which in turn is graduated and carries a movable member 39, adapted to be slid or moved to any position

of adjustment longitudinally along the supporting arm 38. This movable member 39 is provided with a lock screw 40 adapted to lock it in any adjusted position thereon. This sliding member 39 is provided with a bracket or fingers 41 adapted to carry a test card or other device applicable for use in my diagnostic unit. With this arrangement it will be possible to easily bring the test card, or object to be viewed, into operative relation with the instrument 36, or it may be moved out of the way if not desired for use.

Mounted upon the upper diminished portion 4 of the upright standard, is a collar 42 carried in slidable relation thereto, so that it may be placed in any position of elevation on the standard 4. The collar 42 is provided with a lock screw 43, which is adapted to engage the standard 4 and lock the collar 42 in any position or elevation on adjustment.

Likewise, mounted on the diminished portion 4 of the upright standard and above the collar 42 is a supporting arm 44, provided with an enlarged sleeve portion 45, which is slidably mounted on and around the standard 4, so that it may be moved upwardly or downwardly on said standard to any desired position of elevation, and may likewise be rotated thereon to any radial position adjustment. The sleeve 45 carries a lock screw 46, which is adapted to lock the sleeve 45 and arm 44 in any position of vertical adjustment, and also to lock these parts against movement around the standard 4, so that when the supporting arm 44 is adjusted in its desired position, it will be securely held therein by tightening the lock screw 46.

At the outer end of the arm 44, I provide an enlarged portion 47, having an opening 48 therein, adapted to receive a pin or rod 49 that in turn carries a socket 50 in which is mounted an electric lamp 51 or other source of light. Suitable affixed to the base of the lamp or to the socket 50, if desired, is a reflector 52 adapted to be adjusted around the axis of the lamp to direct rays of light from the lamp in any direction from the axis thereof. The reflector 52 is provided with a collar 53, or other similar means, encircling the base of the lamp, but in such a relation thereto that it may be turned around the lamp base to position the reflector 52 so that the rays of light from the lamp may be directed to the point desired. Thus suitable illumination may be had either on the instrument or on the object being viewed in any position in which it may be placed.

Above the sleeve 45 and bracket 44 there is mounted on the supporting standard 4, a collar 54. This collar may be moved upwardly and downwardly and rotated upon the standard 4 to any desired position of adjustment and is provided with a lock screw 55 which is adapted to lock the collar 54 against turning on the shaft 4 and

also lock it in any position of upward or downward adjustment.

Above this collar 54 is a bracket 56, in all respects substantially similar to the bracket 44, provided with a sleeve 57, substantially similar to the sleeve 45 carrying the bracket 44. The sleeve 57 is mounted on and around the standard 4 in substantially the same manner as the sleeve 45, carrying the bracket 44, and is arranged on the standard 4 so that it is adapted for upward or downward and radial adjustment similarly to the bracket 44 and sleeve 45 thereon. The sleeve 57 is provided with a lock screw 58, substantially similar to the lock screw 46 in the sleeve 45, which lock screw 58 locks the sleeve 57 and bracket 56 in any desired position of elevation or radial adjustment in relation to the standard 4.

The bracket 56 is provided with an enlarged portion 59, at its outer end, in which is mounted a pin or stud 60 that carries on its upper end a table or stand 61. The stud 60 is carried in an aperture in the enlargement 59, so that it may be moved upwardly or downwardly or rotated therein in order to adjust the table 61 in any desired position. A lock screw 62 is provided in an enlarged portion of the bracket 56 and is adapted to lock the stud 60 and the table 61 in any desired position of adjustment upwardly or downwardly or otherwise in relation to the arm 56. This table 61 may be suitable for carrying any tools or instruments needed in connection with the use of my diagnostic unit or for any other like or suitable purpose. It is particularly adaptable for supporting the smaller diagnostic instruments, such as retinoscopes, etc., which are provided with self contained illuminating means, most commonly requiring low-voltage electric current. In order to supply the current of necessary voltage to these instruments, I provide a suitable transformer or current controller which may be of the type illustrated and described in my U. S. Patent No. 1,010,125, issued November 28, 1911, or any other suitable or desired form.

Near the upper end of the standard 4, I provide an electric lamp socket 63, which serves as a base or support for a current controller or transformer 64, mentioned above. The transformer 64 is provided with a threaded butt, whereby it may be screwed into an ordinary electric lamp socket 63, having a suitable switch mechanism 65 in such manner that if desired, it may be readily detached and dismantled.

The transformer 64 may be provided with an electric lamp or other source of light 66, carried in any suitable way in its upper end and with terminal connections 67, mounted in any suitable portion of the device, to which are connected by means of conductors 68, the previously mentioned low-voltage instruments carried by the table 61.

Referring to Figure 6, I show a lamp and reflector, carried on a flexible arm, upon a modified form of an adjustable diagnostic unit support. This support consists of a foot or base 70 carrying an upright supporting shaft or standard 71, provided with a collar or stop 72 near its upper end. On the supporting shaft or standard 71, I mount a collar 73, adapted to slide upwardly or downwardly thereon to any position of adjustment or elevation and is provided with a lock screw 74, adapted to lock the collar 73 in any position of adjustment on the shaft 71. Mounted on the shaft or standard 71 is a sleeve 75 substantially similar in all respects to the sleeve 7, carrying a lock screw 76 substantially similar to the lock screw 8 in Figure 1, and being also provided with parts 77—78—79—80—81—82—83, substantially similar in all respects to the parts 9—10—11—12—13—14—15, in Figure 1 and functioning for the same purpose and in substantially the same way.

Carried upon the upper end of the standard 83 is a sleeve 84, mounted on the standard 83, in the same manner as the sleeve 19 is mounted on the standard 15 and for substantially the same purpose. The sleeve 84 is provided with parts 85 and 86, substantially similar to the parts 25 and 26 in Figures 1 and 2, operating in substantially the same manner and for substantially the same purpose. Mounted in the sleeve 84 is a shaft or standard 87, substantially similar in all respects to the shaft or standard 28 in Figures 1 and 2, operating in substantially the same manner as the shaft or standard 28 and for substantially the same purpose. The shaft or standard 87 is provided with a rack 88, substantially similar to the rack 33, provided on the standard 28 in Figures 1 and 2. This rack is adapted to be in mesh with a pinion operated by the part 86 similar to the pinion 27 in Figure 2 and be thereby slidably moved forwardly or backwardly to any desired position of adjustment within and in relation to the sleeve 84. On the sleeve 84, is mounted a flexible lamp carrying member or support 89, provided with a socket 90, having thereon a lamp 91 and carrying a reflector 92.

Still referring to Figure 6, it will be seen therefore, that the lamp mounted on flexible support 89 is, because of the flexibility of this support, adjustable around a given point, to substantially any radial distance or direction. Further it will be seen that since the collar 73 is slidable upon the standard 71 and carries the sleeve 75 with the collar 73, the sleeve 75 may be placed in any position of elevation on the standard 71 and locked therein by locking the lock screw 74 carried on the collar 73. It will be further seen that since the sleeve 75 is permitted a rotation on the standard 71, that the sleeve and the parts carried thereby may be adjusted in any radial position around the axis of the standard 71.

And, since the standard 83 is slidably mounted in an aperture of the sleeve 75 and may be adjusted upwardly or downwardly in relation thereto by the operation of the stud 81, carrying the pinion which meshes with the rack on the standard 83, it will be obvious that the standard 83 and the parts carried thereon, may be adapted to any degree of elevation in relation to the sleeve 75. Moreover, since the supporting arm or standard 87 is mounted in slidable relation to the sleeve 84, carried on the standard 83, it is obvious that by the actuation of the pinion carried by the stud 86, meshing with the rack 88, that the supporting arm or standard 87 may be moved backwardly and forwardly within and in relation to the sleeve 84 and thereby adjusted to any radial position in relation to the sleeve 84 and the standard 83.

Referring to Figure 1, Figure 2, Figure 3, and Figure 4, the operation and adjustability of my diagnostic unit will be readily understood from the following:—

The collar 5, mounted on the supporting standard 2, being in relation thereto, is permitted an upwardly and downwardly vertical adjustment thereon and may be locked in any position of adjustment by the lock screw 6. The sleeve 7, carried upon the standard 2 is likewise slidably mounted in relation thereto and is permitted an upward and downward movement on said standard to any position of adjustment. The sleeve 7 is held in its adjusted position on the standard 2 by the collar 5, when the same is locked. The sleeve 7 may be turned around the standard 2 to any extent and may be locked against turning and against other movement by the tightening of the lock screw 8. The standard 15, provided with the rack 18, being slidable in an aperture 9 of the sleeve 7, and being actuated by the pinion 14, is thereby adjustable upwardly or downwardly in relation to the sleeve, to any desired position and may be locked in its position of adjustment by the lock screw 12.

The standard 28 being slidably mounted in the sleeve 19, carried upon the standard 15 and being provided with a rack 33, which meshes with a pinion 27, may be adjusted forwardly or backwardly in the sleeve 19, by the actuation of the pinion 27 and may be locked in any desired position of adjustment by the lock screw 25.

Carried on the end of the supporting arm 28 is an adjustable arm 38, which is adapted to be swung in a given plane to any desired position around its pivot. On the arm 38 the sliding carrier 39 is mounted and is adjustable to any desired position along the length of said arm and may be locked in any position of adjustment by the lock screw 40. Also carried on the end of the arm 28 is a phoropter, which is so mounted as to be adjustable on its pivot for 360 degrees.

From the foregoing, it will be seen that by the adjustment of the collar 5 to any desired position, a corresponding adjustment of the sleeve 7, by any desired vertical adjustment of the arm 15, and by any inward or outward adjustment of the arm 28, that any instrument carried upon the end of the arm 28, in this instance a phoropter, may be positioned with a great degree of accuracy at any point desired. And likewise by the adjustment around its pivot of the arm 38 and the adjustment thereon of the sliding carrier 39, any index or test card carried on the sliding carrier may be adjusted with a great degree of accuracy, with relation of any source of light, instrument or other object.

By positioning the collar 42 to any adjustment along the length of the supporting standard 4, and locking the same by the lock screw 43, the vertical position of adjustment of the supporting bracket 44, carried by the sleeve 45, mounted on the supporting standard 4, may be determined. And, because the sleeve and bracket may be turned around the supporting standard 4, the lamp and reflector 51 and 52, carried thereon, may be given any radial position of adjustment around the axis of the standard 4 and locked therein by the lock screw 46.

It will be seen therefore, that the source of light, embodied by the lamp 51, may be actuated and adjusted to any point or position in relation to the instrument carried upon the arm 28, in the case the phoropter, and to any test card or other device carried upon the sliding carrier 39.

The collar 54, being slidably mounted upon the supporting standard 4, may be adjusted vertically to any position of elevation and locked therein by the lock screw 55. The supporting bracket 56 which is mounted upon the standard 4 is in slidable relation to said standard and may thereby be positioned to any degree of elevation and be prevented from displacement by the collar 54. The sleeve 57, permitting the turning of the bracket around the axis of the supporting standard 4, adapts the standard to be positioned to any point radially around said standard. The lock screw 58 may be tightened and lock the sleeve 57 and the arm 56 in position of radial or vertical adjustment.

It will be obvious therefore, that any table or support carried on the arm 56 may be readily placed with a great degree of accuracy to any desired position in relation to the standard 4, and may therefore be conveniently disposed to carry any tools or instruments or other apparatus necessary for use in connection with the operation of my diagnostic unit.

By the provision of the slot 16 in the standard 15, and the cooperation of the tongue 17 therewith the standard is firmly held against

rotary motion on its axis and the rack 18 is thereby retained in mesh with the pinion 14, in proper operative position. By the provision of the slots 29 and 30 in the standard 28, the said standard is prevented from turning on its axis by the cooperation of the tongues 31 and 32 therewith the rack 33 is held in mesh with the pinion 27 in proper operative relation.

It will be seen from the above description that I have provided a diagnostic unit, comprising means that are substantially, universally adjustable to each other, which adjustment can be controlled to a high degree of accuracy and can be effected readily and conveniently and which unit is of such construction and organization that the parts thereof may be securely locked against displacement when adjusted.

It will also be seen that my diagnostic unit is of such construction that it is of comparatively few parts, is positive and delicate in operation, can be controlled to a nice degree of accuracy, is of comparatively cheap cost and has other advantages and results not herein specifically set out but which may be obvious to one skilled in the art.

Although I have described my invention in detail, I do not wish to be limited thereby, except as the state of the art and the appended claims may require, for it is obvious that changes may be made in the particular construction, combination, and organization of parts, without departing from the spirit and skill of my invention.

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

1. In an instrument stand, a vertical rod standard, an annular sleeve rotatably and slidably mounted on the standard, screw means to tighten and loosen the sleeve on the standard, a second annular sleeve on the standard above the first sleeve rotatably and slidably mounted thereon and resting on the first sleeve having a portion offset from the standard which offset portion has a vertical bore and a split extending into the bore, screw means to tighten and loosen the second sleeve on the standard, a vertical rod in the bore of the offset portion slidably mounted therein, a toothed rack on the vertical rod, a pinion meshing with the rack to move the rod up and down in the bore of the offset portion, and screw means to tighten and loosen the split portion of the offset portion on the vertical rod.

2. In an instrument stand, a vertical rod standard, an annular sleeve rotatably and slidably mounted on the standard, screw means to tighten and loosen the sleeve on the standard, a second annular sleeve on the standard above the first sleeve rotatably and slidably mounted thereon and resting on the first sleeve having a portion offset from the

- standard which offset portion has a vertical bore and a split extending into the bore, screw means to tighten and loosen the second sleeve on the standard, a vertical rod in the bore of the offset portion slidably mounted therein, a toothed rack on the vertical rod, a pinion meshing with the rack to move the rod up and down in the bore of the offset portion, screw means to tighten and loosen the split portion of the offset portion on the vertical rod, a split member on the vertical rod above the second sleeve having a horizontal bore, a horizontal rod in said bore, and screw means to loosen and tighten the horizontal rod in the said bore.
3. In an instrument stand, a vertical rod standard, an annular sleeve rotatably and slidably mounted on the standard, screw means to tighten and loosen the sleeve on the standard, a second annular sleeve on the standard above the first sleeve rotatably and slidably mounted thereon and resting on the first sleeve having a portion offset from the standard which offset portion has a vertical bore and a split extending into the bore, screw means to tighten and loosen the second sleeve on the standard, a vertical rod in the bore of the offset portion slidably mounted therein, screw means to tighten and loosen the split portion of the offset portion on the vertical rod, a toothed rack on the vertical rod, a pinion meshing with the rack to move the vertical rod up and down in the offset portion, a split member on the vertical rod above the second sleeve having a horizontal bore, a horizontal rod in the said bore, screw means to loosen and tighten the horizontal rod in said bore, a toothed rack on the horizontal rod, a pinion meshing with the rack to move the horizontal rod back and forth in the said bore, and screw means to tighten and loosen the horizontal rod in the said bore.
4. In an instrument stand, a support, a sleeve slidable and rotatable on the support and having an offset portion with a bore parallel with the support, means to lock the sleeve on the support, a rod in the bore of the offset portion and slidable therein, means to lock the rod in the bore, a sleeve on the rod having a bore transverse to the rod, a second rod slidable in the sleeve, and means to lock the rod in the sleeve.
5. In an instrument stand, a support, a sleeve slidable and rotatable on the support and having an offset portion with a bore parallel with the support, means to lock the sleeve on the support, a rod in the bore of the offset portion and slidable therein, rack and pinion means to slide the rod in the bore, means to lock the rod in the bore, a sleeve on the rod having a bore transverse to the rod, a second rod slidable in the sleeve, rack and pinion means to slide the rod in the sleeve, and means to lock the rod in the sleeve.
6. In an instrument stand, a support, a sleeve slidable and rotatable on the support and having a split offset portion with a bore parallel with the support, means to lock the sleeve on the support, a rod in the bore of the split offset portion and slidable therein, means to lock the rod in the bore, a sleeve on the rod having a split bore transverse to the rod, a second rod slidable in the split sleeve, and means to lock the rod in the sleeve.
7. In an instrument stand, a support, a sleeve slidable and rotatable on the support and having a split offset portion with a bore parallel with the support, means to lock the sleeve on the support, a rod in the bore of the split offset portion and slidable therein, rack and pinion means to slide the rod in the bore, means to lock the rod in the bore, a sleeve on the rod having a split bore transverse to the rod, a second rod slidable in the sleeve, rack and pinion means to slide the rod in the sleeve, and means to lock the rod in the sleeve.
8. In a device of the character described, a sleeve surrounding a support, means to secure said sleeve against rotary movement on said support, means to secure said sleeve against longitudinal movement on said support, a split offset portion on the sleeve, a rod slidable in the offset portion and means to close the split offset portion together to lock the rod therein.
9. In a device of the character described, a sleeve rotatably mounted on a support, means on the support for securing the sleeve against longitudinal movement during the rotation thereof, means on the sleeve independent of the means for securing the sleeve against longitudinal movement for securing the said sleeve against rotary movement when in desired adjusted position, a split offset portion on the sleeve, a rod slidable in the offset portion and means to close the split offset portion together to lock the rod therein.

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