Aug. 11, 1959 E. H. PIGNONE 2,898,702

ADJUSTABLE DRAFTING BOARD ASSEMBLY

Filed Feb. 25, 1958

FIG. 1

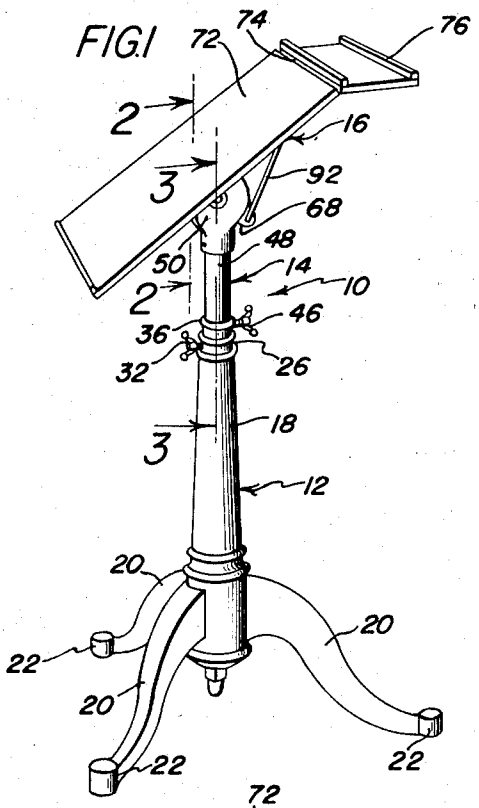
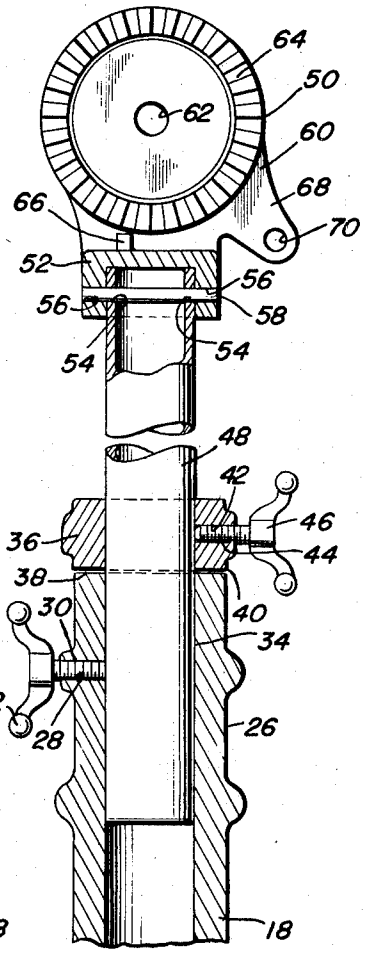


FIG. 3



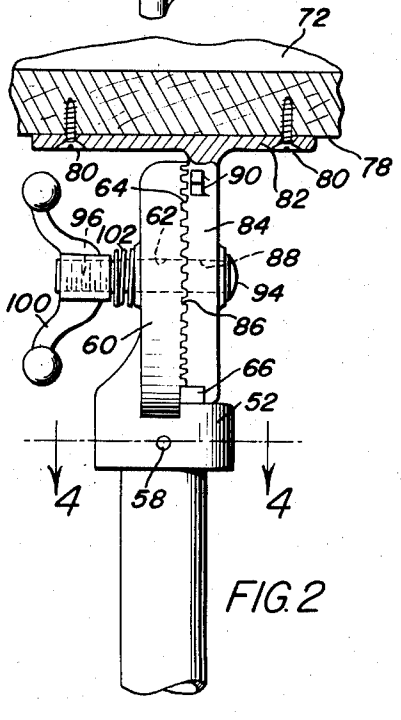


FIG. 2

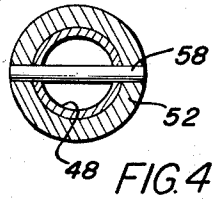


FIG. 4

INVENTOR

EDWARD H. PIGNONE

BY Ben Colen

ATTORNEY

United States Patent Office 2,898,702
Patented Aug. 11, 1959

2,898,702

ADJUSTABLE DRAFTING BOARD ASSEMBLY

Edward H. Pignone, Nixon, N.J.

Application February 25, 1958, Serial No. 717,425

1 Claim. (Cl. 45—131)

This invention relates generally to drafting equipment and is more particularly concerned with an adjustable drawing stand assembly which is readily manufactured, assembled and adjusted, and highly satisfactory and practical for the purpose intended.

A primary object of this invention is to provide an improved adjustable drawing stand assembly, including the means facilitating the manufacture, adjustment and assembly of the same.

Another object of this invention is to provide in a drawing stand assembly including a vertically pivotal drawing board supported on a support stand including a vertically extending tubular post, a support shaft telescopically and rotatably received at one end in the post and adjustably maintained therein, and a machined casting secured on the other end of the shaft, the casting including means cooperating with portions on the drawing board facilitating the vertical pivotal adjustment of the board.

A further object of this invention is to provide in a drawing stand assembly of the character mentioned means on a support casting which maintains a member hingedly secured to the upper edge of a drawing board in a substantially horizontal position during various positions of vertical pivotal adjustment of the drawing board.

More particular objects of invention will become apparent from the reading of the following description of the preferred embodiment, the appended claim of the accompanying drawings, in which:

Figure 1 is a perspective view of the drawing stand assembly with a portion broken away for clarity;

Figure 2 is an enlarged fragmentary section taken substantially on line 2—2 of Figure 1, portions being broken away for the purpose of clarity;

Figure 3 is an enlarged fragmentary vertical section taken substantially on line 3—3 of Figure 1, with the drawing board and cooperating mounting portions thereof being removed, portions being broken away and shown in section for clarity; and

Figure 4 is a section taken on line 4—4 of Figure 2.

Referring to the drawing in detail, indicated generally at **10** is a drawing stand assembly including a support stand indicated generally at **12**, a spindle assembly indicated generally at **14** and a drawing board assembly indicated generally at **16**.

The stand **12** includes a vertically extending frustroconical post **18** having secured on a lower portion thereof in any suitable manner radially extending legs **20** terminating in enlarged knobs or feet **22**. The upper end of the post **18**, see Figure 3, terminates in a uniform diametered sleeve portion **26** including a tapped bore **28** transversely therethrough. The bore **28** receives therein a threaded shaft **30** of a manually rotatable wing screw **32** utilized for a purpose to be subsequently described in detail. A collar **36** engages the upper edge **40** of the sleeve portion **26**. The collar **36** incorporates a

transverse tapped bore **42** receiving therein the threaded shaft **44** of a second manually rotatable wing screw **46**.

The spindle assembly **14** includes a separately manufactured seamless tubular support shaft **48** of stainless steel, for example, the lower end of which being received in the sleeve portion **26** and collar **36**. The lock or wing screw **46** may be rotated to have the terminal end of the threaded shaft **44** engaging the outer surface of the shaft **48** thus retaining it in a fixed vertically adjusted position. In this regard, the screw **32** may be backed off to permit the shaft **48** to freely rotate in the sleeve **26** of the post **18** with the collar **36** engaged on the upper edge **40** of the sleeve.

The spindle **14** also includes a machined casting comprising a body member **50** including a lower annular hub **52** receiving the upper end of the shaft **48** therein, this connection being by means of a press fit. To retain the shaft and the casting together, the shaft incorporates diametrically aligned apertures **54** in alignment with similar apertures **56** in the hub **52** and a suitable lock pin **58** retains the body member **50** to the upper end of the shaft **48**. Body member **50** includes an upwardly extending mounting portion **60** normal to the hub, the portion **60** including a transverse aperture **62** therethrough. Concentric to the transverse aperture **62** and extending laterally from one side thereof is a serrated portion **64**, the function of which to subsequently become apparent. Extending vertically from the upper surface of the hub of **52** in spaced relationship from serrated portion **64** is an abutment lug **66**. Extending away from the serrated portion **64** and formed integral with the mounting portion **60** is a downwardly projecting extension indicated at **68** incorporating a transverse aperture **70** therethrough eccentric to the transverse aperture **62**.

The drafting board assembly **16** comprises a board member **72** of wood or any other suitable material, having hingedly mounted at its upper edge **74** a support shelf **76** which will be maintained in a substantially horizontal position. Secured to the under surface **78** of the board **72** by means of suitable wood screws **80** is a mounting plate **82** integral with a mounting portion **84** similar to portion **60** of the body member **50**. The mounting portion **84** incorporates on one side thereof a serrated portion **86** concentric to a transverse aperture **88** therethrough, the serrated portion **86** meshingly engaging the serrated portion **64**. The abutment lug **66** on the hub **52** is disposed in the plane of the serrated portion **64** of the body member **50** and is engageable with a similar abutment lug **90** formed on the mounting portion **84**. When the abutment lugs **66** and **90** are in engagement the board **72** will be disposed in a substantially vertical position.

The transverse aperture **70** of portion **68** of the body member **50** pivotly receives at one end of an orienting rod **92**, the other end of which having a lost motion connection with the under surface of the shelf member **76**, this construction not being shown.

The apertures **62** and **88** are disposed in alignment as seen in Figure 2, and received therethrough a headed support shaft **94** which is threaded at **96** receiving thereon the internally threaded sleeve at **98** of a manually rotatable wing nut **100**. A suitable compression spring **102** is circumposed about the shaft **94** between the end of the sleeve at **98** and adjacent side of the mounting portion **60** for urging the serrated portions **64** and **86** together.

The construction shown embodies the invention in the preferred form, but it is intended that the disclosure be illustrative rather than definitive, the invention being defined in the claim.

I claim:

In an adjustable drawing board assembly comprising a support stand including a vertical extending tubular sup-

port sleeve, lock means on said sleeve for engaging a support shaft in said sleeve, an independent collar coaxial with said sleeve including second lock means for engaging the support shaft in said sleeve; a spindle assembly comprising a machined casting for supporting a vertically pivotal drawing board thereon, said casting comprising a body member including a downwardly opening hub, a mounting portion extending vertically from said hub for engagement with a cooperating portion on the drawing board, said mounting portion being normal to said hub including a transverse aperture therethrough for receiving a support shaft upon which the cooperating portion of the board is journalled, one side of said mounting portion including a laterally extending circular serrated portion concentric to the transverse aperture, said serrated portion including radially spaced teeth for engaging similar teeth on the cooperating portion of the drafting board, an abutment lug extending from said hub spaced from and in the plane of the teeth of the serrated portion for engaging an abutment portion disposed in a similar relationship on the cooperating portion of the drafting board

and for orienting said board in a substantially vertical position, and a support shaft secured at its upper end in said hub and depending therefrom for receipt in the sleeve and engageable with the first and second lock means for affording vertical adjustment and horizontal rotation of the drawing board, said support shaft comprising a cylindrical hollow seamless member press fitted and pinned at its upper end in said hub.

References Cited in the file of this patent

UNITED STATES PATENTS

274,605	Hormann	Mar. 27, 1883
493,605	Tiffany	Mar. 14, 1893
502,601	Anderson et al.	Aug. 1, 1893
689,707	Davis	Dec. 24, 1901
1,024,804	Mergner	Apr. 30, 1912
1,542,881	Hoffman	June 23, 1925
1,707,505	Bishop	Apr. 2, 1929

FOREIGN PATENTS

6,089	Great Britain	1914