No. 657,033. Patented Aug. 28, 1900.

C. H. SANFORD.

TABLE.

(Application filed May 19, 1900.)

(No Model.)

Fig. 1.

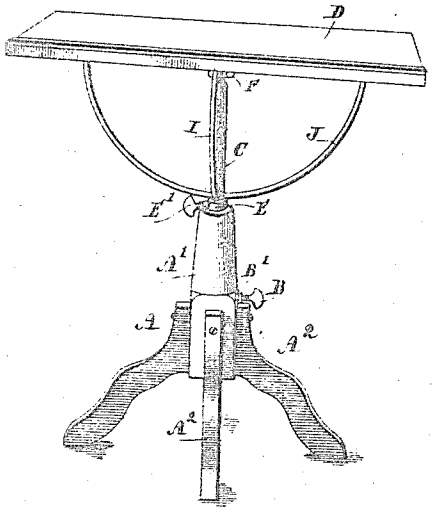


Fig. 2.

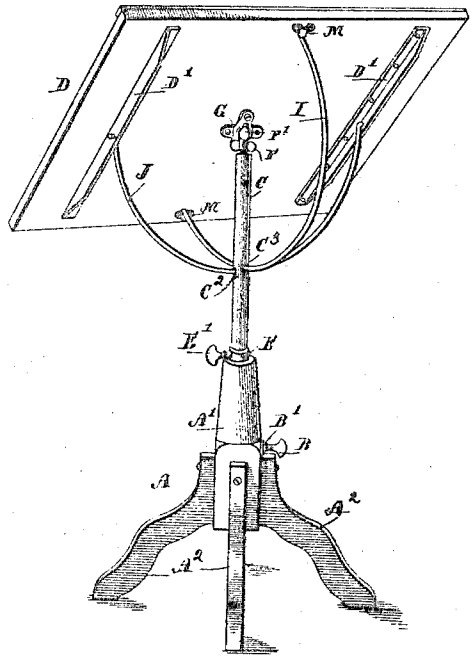


Fig. 3.

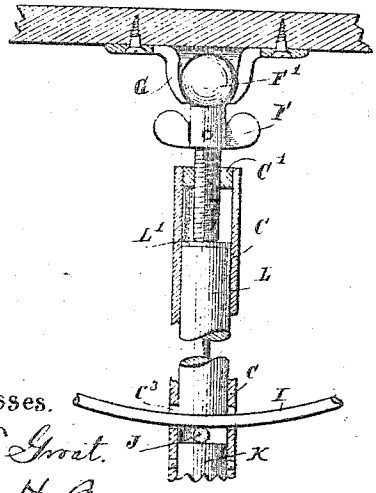
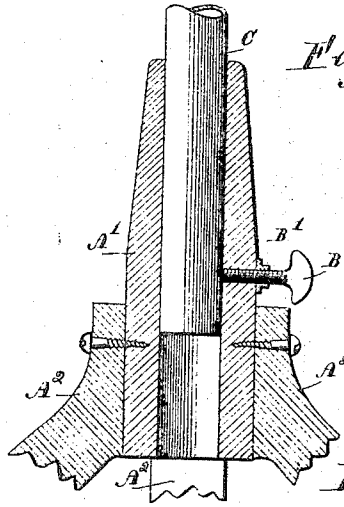


Fig. 4.



Witnesses.

J. F. Grout.

W. A. Burton

Inventor.

Charles H. Sanford.

By J. M. St. John

Atty

UNITED STATES PATENT OFFICE.

CHARLES H. SANFORD, OF CEDAR RAPIDS, IOWA.

TABLE.

SPECIFICATION forming part of Letters Patent No. 657,033, dated August 28, 1900.

Application filed May 19, 1900. Serial No. 17,307. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SANFORD, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Tables; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to produce a table for reading, drawing, and the like which may be conveniently adjusted in height and tilted to any desired angle.

The nature of the invention will fully appear in the description and claims following, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of a table embodying my invention as seen in perspective. Fig. 2 is a rear view of the same more elevated. Fig. 3 is a central cross-section showing detail of the parts connecting with the table-top. Fig. 4 is a similar section showing detail of the base and its connections.

Similar letters of reference denote like parts in all the views.

In the construction of the table embodying this invention I have made use of the principle contained in my former invention in tables, Letters Patent for which, numbered 637,289, were issued to me on the 21st of November, 1899. In adapting the principle to small tables and stands with a central support, however, certain novel features have been devised, and these will now be described.

In the drawings, A designates the base, which is composed of a central hollow column A′, flanked by four flaring legs A^2. At one side the column is provided with a set-screw B in the nature of a thumb-screw fitting a nut B′, attached to the column. In this column is mounted a shaft C, which forms a central support for the table-top D. A collar E, with a thumb-screw E′, serves for adjusting the height of the shaft, while allowing it to turn freely in the column. The set-screw first described serves for fastening it securely when desired, as shown in Fig. 4. The shaft is tubular, as shown, and in its upper end is a nut C′ to take a winged screw F, at the upper end of which is a ball F′, fitting a socket G, attached to the middle of the table-top on the under side. Near two sides of the table-top, on the under side, are cleats D′, which in practice I make of angle-iron, so as to give the requisite stiffness to the table-top and prevent its taking a concave form from the strain brought to bear upon it by the spring-bail I, which controls the tilt of the table-top. The table-top is braced laterally by braces J, pivoted in the cleats, so as to allow the table-top to tilt. In practice these braces form a single curved rod passing through slotted holes C^2 in the shaft, the holes being slotted to allow the angled ends, which serve as pivots, to pass through. This construction would admit of the table-top tilting laterally; but as this is unnecessary the bail J is fastened centrally by a plug K, driven and pinned in the lower part of the tubular shaft. Just above this bail J, forming the double brace, as described, is another and similar bail I, passing through holes C^3 at right angles to the other bail and pivoted at its ends in ears M. By screwing down the winged bolt F the periphery of this bail and the other also is forced downwardly to the limit of its movement in this direction, the lower halves of the holes forming abutments against the bails, and a radial pressure is exerted which produces sufficient friction on the part of the bail passing through the shaft to hold the table-top in any desired position. At the same time this friction is of such a nature that the table-top may be forcibly tilted by simply pressing down on either side. Provision is also made for fastening the table-top securely at any angle. This may be simply a plug of wood L, with a metal cap L′ to take the screw F, mounted in the tubular shaft above both bails, as shown in Fig. 3. By turning the screw a certain distance the friction is all due to the radial elasticity of the bails, as intimated above; but by turning the screw still farther both bails are pressed tightly between the plugs K and L and both are held securely.

While any lateral tilt to the table-top is unnecessary in ordinary use, it is not to be understood that it may not be desirable under some circumstances, as in folding for transportation or otherwise, and I therefore desire to claim a construction which admits of the table tilting in either direction. For this pur-

pose the plug K need not be so tight as to bind the bail J, or might be dispensed with altogether, though it is useful as a support against the pressure of the upper plug, as above described.

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

1. In a table, the combination of a table-top, a semicircular bail attached to the under side thereof, a shaft to support the table-top and forming an abutment against the periphery of the bail, a screw engaging the upper end of said shaft, and a universal-joint connection of the screw with the under side of the table-top central to the circle of which the bail forms a part.

2. The combination of a table-top, a supporting-shaft therefor, a screw connecting the table-top and shaft by a universal joint, a semicircular bail attached to the under side of the table concentric to said joint and in the plane of the shaft, abutments on the shaft to engage the periphery of the bail, and braces at right angles to said bail pivoted to the under side of the table-top.

3. The combination of a table-top, a central shaft to support the same, provided with bail-holes, and adjusting-screw in the top of said shaft connecting with the under side of the table by a universal joint, and a pair of semicircular bails pivoted to the under side of the table-top, concentric with said joint, and passing through holes in said shaft.

4. The combination of a table-top, a pair of semicircular bails pivoted to the under side thereof, a supporting-shaft through which said bails pass, threaded in its upper end and a winged bolt or screw in the threaded upper end of said shaft, and a ball-and-socket connection of said screw with the table-top central to the circles partially described by said bails.

5. The combination of a table-top, a pair of bails depending therefrom, a shaft to support said table-top, through which said bails pass, said shaft being tubular and provided with a screw-threaded hole at its upper end, a screw fitted therein, and having a universally-jointed connection with the table-top, and a plug mounted in the shaft between the end of said screw and said bails, whereby they may be fastened in any desired position, as described.

6. The combination of a table-top, a shaft to support the same, a bolt screwed into the upper end of said shaft and connecting with the table-top by a universal joint, a semicircular bail attached to the under side of the table-top concentric to said joint, an abutment on the shaft to bear against the periphery of the bail, and means substantially as described for fastening the bail against slipping along said abutment.

7. The combination of a table-top, a central shaft screw-threaded in its upper end to support the same, a screw connecting the upper end of the shaft with the table-top by a universal joint, a pair of semicircular bails pivoted to the table-top concentric to said joint, and engaging said shaft, a hollow base-column to receive said shaft, and means for adjusting the elevation of the table and the securing of the same in any desired position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. SANFORD.

Witnesses:
J. F. GROAT,
J. M. ST. JOHN.