(No Model.) 6 Sheets—Sheet 1.

A. HÖRMANN.

DRAWING TABLE.

No. 274,605. Patented Mar. 27, 1883.

Fig. 1.

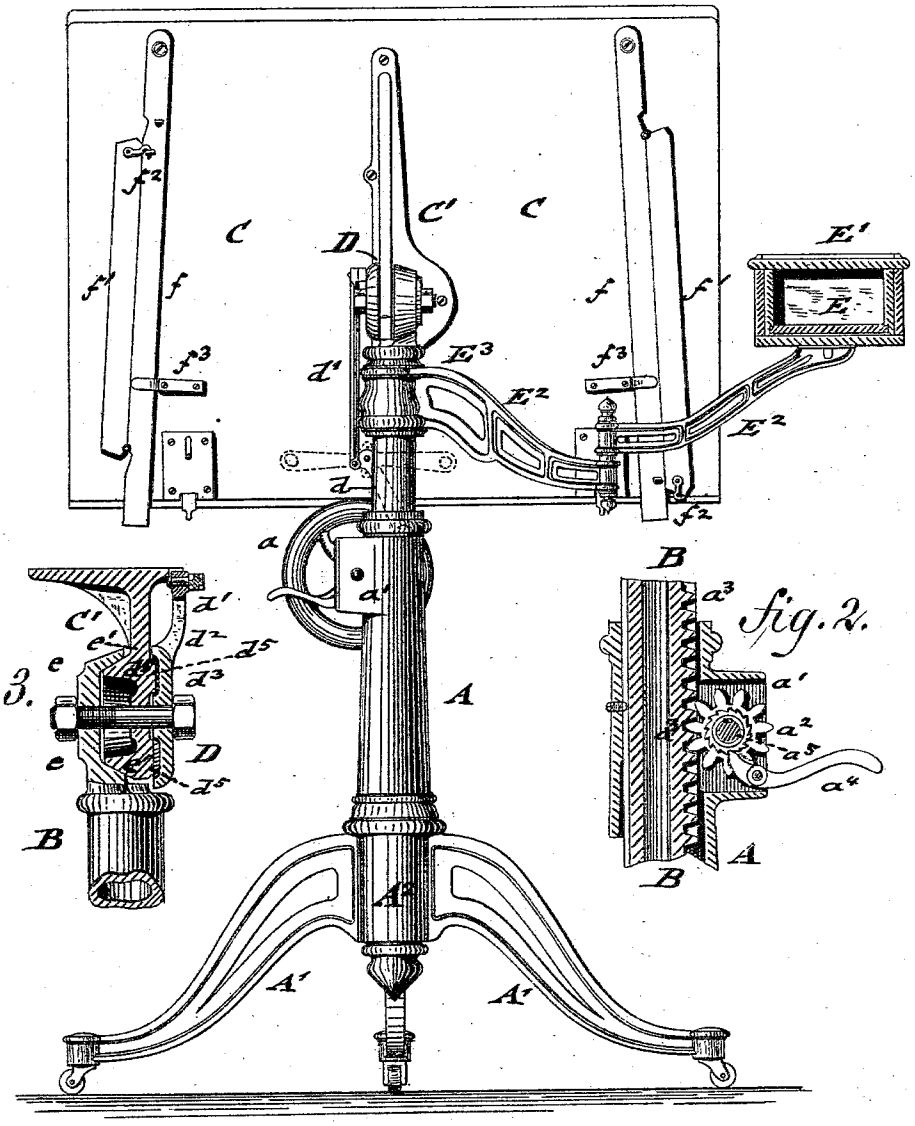


Fig. 3.

Fig. 2.

WITNESSES:

F. H. Rosenbaum.

Otto Risch.

INVENTOR

Arnold Hörmann

BY Paul Goepel.

ATTORNEY

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 6 Sheets—Sheet 2.

A. HÖRMANN.

DRAWING TABLE.

No. 274,605. Patented Mar. 27, 1883.

Fig. 4.

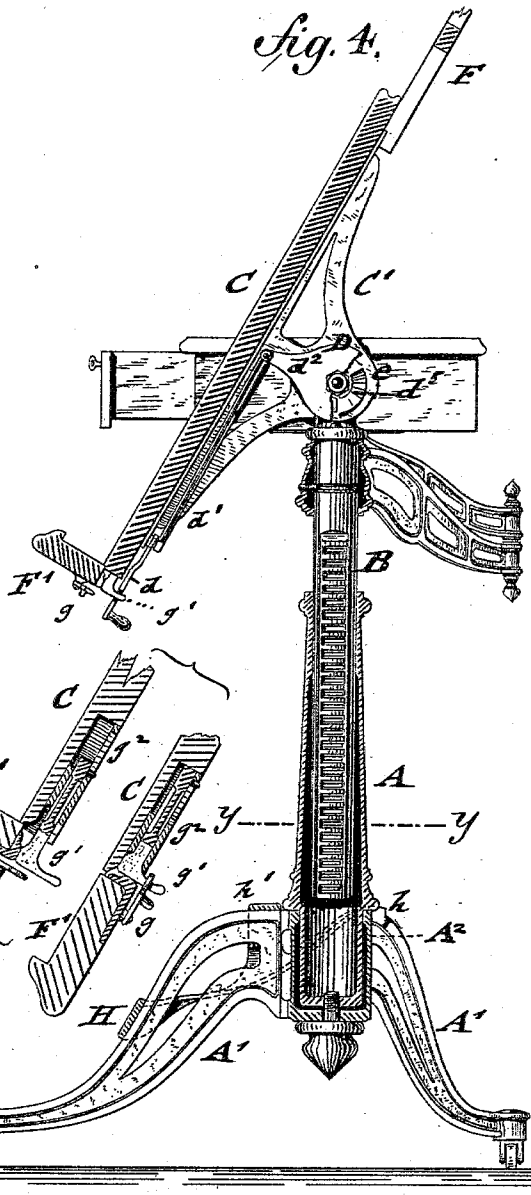
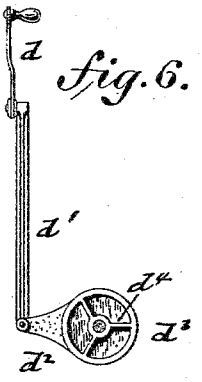


Fig. 5.

Fig. 6.



WITNESSES:

Jos. H. Rosenbaum.

Otto Kisch

INVENTOR

Arnold Hörmann

BY Paul Goepel.

ATTORNEY

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.)

6 Sheets—Sheet 3.

A. HÖRMANN.

DRAWING TABLE.

No. 274,605. Patented Mar. 27, 1883.

fig. 7.

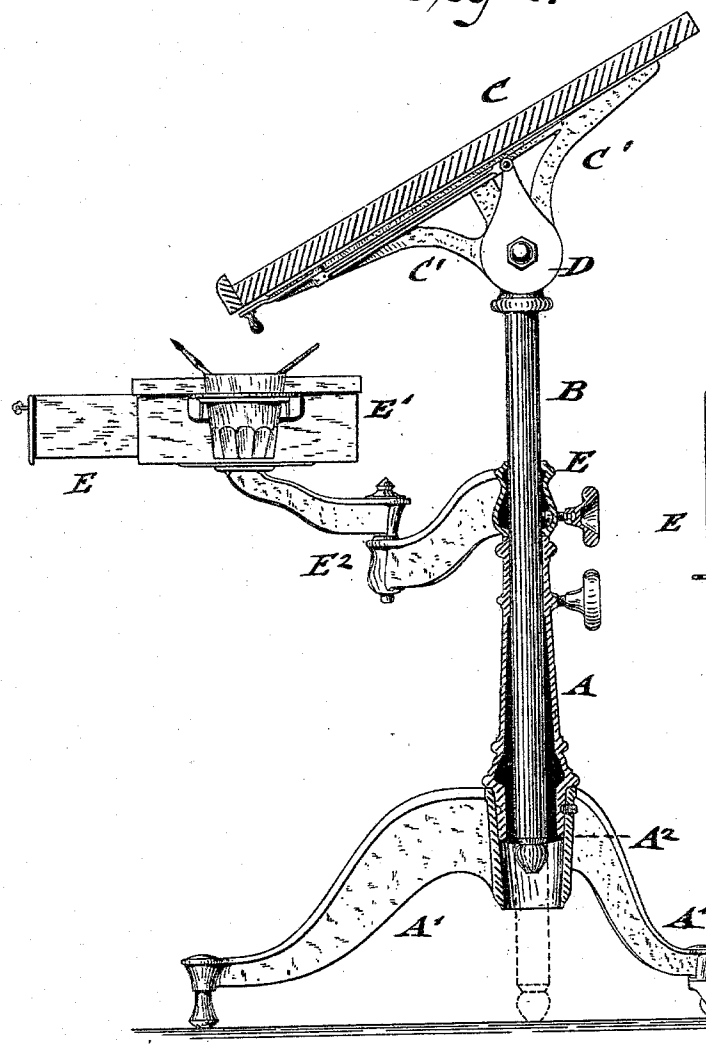
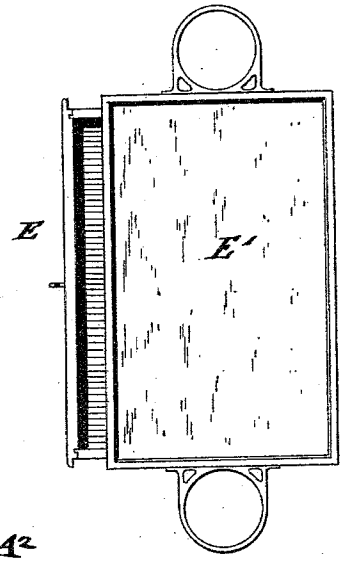


fig. 8.



WITNESSES:

F. H. Rosenbaum.

Otto Risch.

INVENTOR

Arnold Hörmann

BY Paul Goepel.

ATTORNEY

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 6 Sheets—Sheet 4.

A. HÖRMANN.

DRAWING TABLE.

No. 274,605. Patented Mar. 27, 1883.

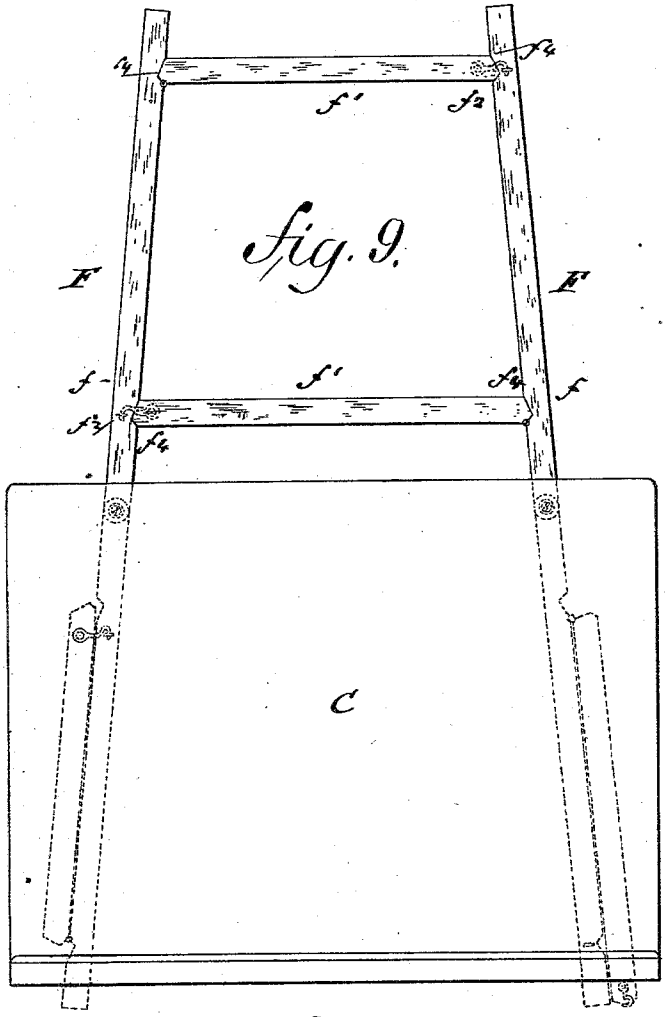


Fig. 9.

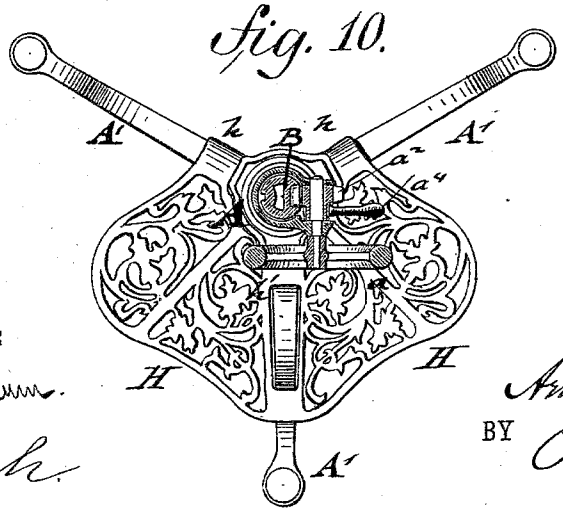


Fig. 10.

WITNESSES:

Fr. N. Rosenbaum.

Otto Kirsch

INVENTOR

Arnold Hörmann

BY Paul Goepel.

ATTORNEY

N. PETERS. Photo-Lithographer. Washington, D. C.

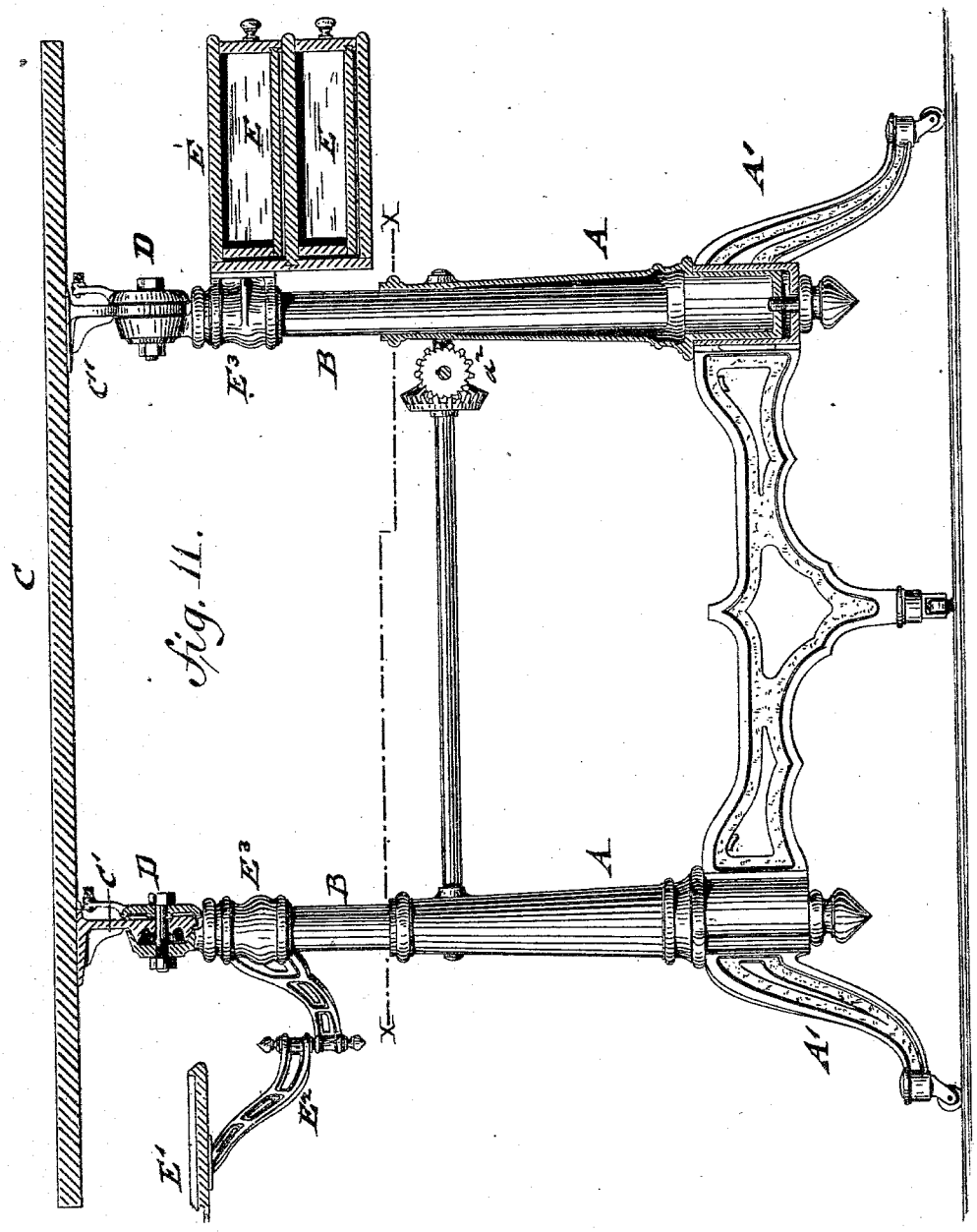
(No Model.)

6 Sheets—Sheet 5.

A. HÖRMANN.

DRAWING TABLE.

No. 274,605. Patented Mar. 27, 1883.



WITNESSES:

F. H. Rosenbaum.

Otto Kisch.

INVENTOR

Arnold Hörmann

BY Paul Goepel

ATTORNEY

N. PETERS. Photo-Lithographer, Washington, D. C.

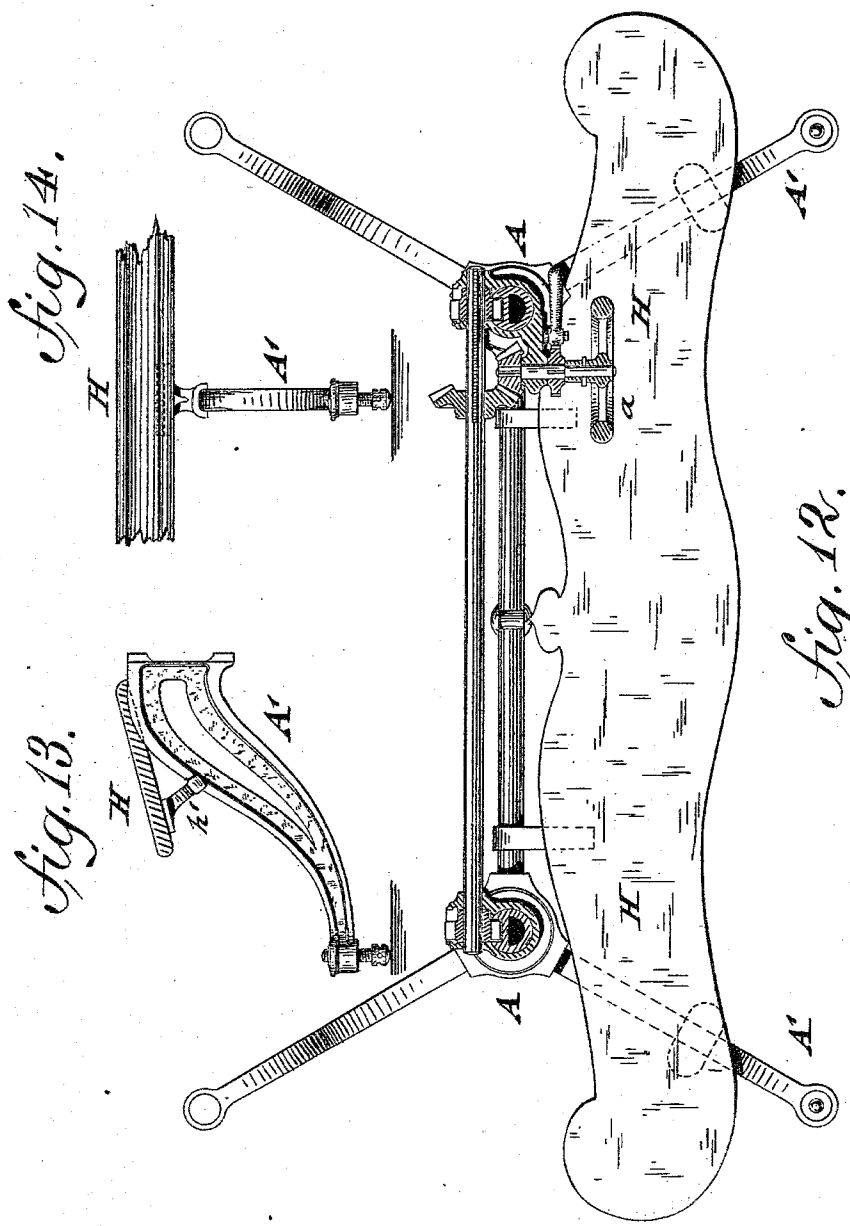
(No Model.)

6 Sheets—Sheet 6.

A. HÖRMANN.

DRAWING TABLE.

No. 274,605. Patented Mar. 27, 1883.



WITNESSES:

F. K. Rosenbaum.

Otto Kirsch

INVENTOR

Arnold Hörmann

BY Paul Goepel.

ATTORNEY

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ARNOLD HÖRMANN, OF HOBOKEN, NEW JERSEY.

DRAWING-TABLE.

SPECIFICATION forming part of Letters Patent No. 274,605, dated March 27, 1883.

Application filed October 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD HÖRMANN, of Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Drawing-Tables, of which the following is a specification.

This invention has reference to an improved drawing-table which can be readily adjusted to any desired height and inclination in a convenient manner without stooping down; and the invention consists of a hollow supporting-column secured to a suitable base and carrying a toothed center-post, which is raised by a pinion and hand-wheel and locked by a ratchet-wheel and gravity-pawl at the proper height. The table is applied to the vertically-adjustable center-post by a bracket-frame which is pivoted to the post and secured rigidly by a clamping device operated by a lever-rod and a fulcrumed elbow-lever, the latter being arranged near the front edge of the table. A hinged and folding bracket-arm is supported on the center-post and arranged to carry a drawer and platform at its outer end. A detachable foot-rest is supported on the base of the center-column by means of suitable hooks and bearing-cheeks. The table may be changed to an easel by hinging the lower transverse section of the table and locking it by suitable mechanism either at right angles to the body of the table or in line therewith. To the under side of the table is applied a pivoted and folding extension, which is thrown up above the table when the same is to be used as an easel.

In the accompanying drawings, Figure 1 represents a rear elevation, partly in section, of my improved drawing-table. Figs. 2 and 3 are detail vertical transverse sections of the mechanisms for raising the center-post and adjusting the table thereon. Fig. 4 is a vertical transverse section of my improved drawing-table. Fig. 5 is a detail vertical transverse section of the lower transverse section of the table, shown locked at right angles to the table and in line therewith, according as the table is to be used as an easel or a drawing-table. Fig. 6 is a detail view of the lever mechanism for clamping the table to the center-post. Fig. 7 is a vertical transverse section of a simpler construction of my improved drawing-table. Fig. 8 is a top view of the drawer and platform used in connection therewith. Fig. 9 is a front view of the drawing-table and its extension-frame, the latter shown in position for use as an easel. Fig. 10 is a plan view and a horizontal section of the drawing-table on line *y y*, Fig. 4. Fig. 11 is a side elevation, partly in section, of a drawing-table constructed on a larger scale and supported on two columns. Fig. 12 is a horizontal section of the same on line *x x*, Fig. 11; and Figs. 13 and 14 are details showing the connection of the foot-rest with the supporting-base.

Similar letters of reference indicate corresponding parts.

My improved drawing-table can be constructed with a single column or with double supporting columns or pillars. In one case the column A is supported on a base, A′, having three or four legs, with or without casters, as desired. The column and its base are preferably made of cast-iron, the legs of the base being either secured by wedge-shaped tongues to corresponding grooves of a socket, A^2, as shown in Figs. 1 and 4, or the legs may be cast in one piece with the socket or sleeve, as shown in Fig. 7. The column A is made hollow and is secured at its lower end to the socket A^2 of the base A′ in any approved manner. The tubular column A serves to guide the vertically-adjustable post B, to the upper end of which the table C is applied by means of a strong bracket-frame, C′, and a suitable clamping mechanism, D. The vertical adjustment of the post B and table C is accomplished by means of a hand-wheel, *a*, the shaft of which turns in bearings *a′* of the column A and carries a pinion, a^2, that meshes with a rack, a^3, cast into the post B, as shown clearly in Figs. 2 and 4. The post B is splined to the column A to prevent axial motion and locked automatically at any desired height by means of a gravity-pawl, a^4, that takes into the teeth of a ratchet-wheel, a^5, keyed to the shaft of the hand-wheel *a* or cast in one piece with the transmitting-pinion a^2, as shown clearly in Fig. 2. By turning the hand-wheel *a* the table C is raised, while for lowering the same the gravity-pawl is withdrawn from the pinion a^2 and released at the proper moment.

In cheaper constructions of the drawing-

table the pinion and rack and the pawl-and-ratchet mechanism are dispensed with and a plain clamp-screw used in place thereof for securing the center-post at the proper height, as in Fig. 7. The proper inclination of the drawing-table is obtained by the clamping mechanism D, which is operated by means of a short fulcrumed elbow-lever, d, near the lower front edge of the table C, said fulcrumed lever being connected by a pivot-rod, d', to the crank-arm d^2 of a clamping-disk, d^3, that turns on the pivot which connects the bracket-frame C′ to the post B, the connection of the latter being made by means of conical friction-cheeks e e', as shown clearly in Fig. 3. The clamping-disk d^3 is provided with radial ribs d^4, as shown in detail in Fig. 6, which move, on turning the disk around its axis by means of the lever d and connecting-rod d', over inclines d^5 of cheek e' of the bracket C′, so as to press the conical cheek e' tightly against the cheek e at the upper end of the post B, as shown in Fig. 3. The operating elbow-lever d of the clamping device D is arranged at the lower front part of the table C and swung to one side or the other, so as to apply or release it from the bracket-frame C′ of the table. By this arrangement of the lever the table C can be readily adjusted at any desired angle of inclination on the post B without stooping down or other inconvenience.

A drawer and platform, E E′, for the storage and support of the drawing-instruments and other articles, are supported on the outer end of a folding bracket-arm, E^2, the inner end of which is applied by a sleeve, E^3, to the post B, so that the bracket-arm E^2 may be turned on the same into any desired direction, so as to bring the drawer and platform into the most convenient position at either side of the drawing-table. After use the bracket-arm is folded and the platform and drawer are stored away below the table.

The drawer-frame may be provided with supports for the water-tumbler and other appliances, as shown in Fig. 8. When the drawing-table is designed for artists' use it is provided with a folding frame, F, at the under side of the table C, and with a hinged transverse section, F′, at the lower part of the table C, as shown in Figs. 1 and 9 and Figs. 4 and 5, respectively. The extension-frame F is made of two sets of strips, f f', of which the strips f are pivoted to the drawing-table C, near the upper edge thereof, while the strips f' are hinged to the strips f, and connected thereto by hooks and eyes f^2 when folded back of the table, as shown in Fig. 1, or they are locked to recesses f^4 of the opposite strips, f f, when extended, as shown in Fig. 9. The strips f f' are retained in folded position at the under side of the table by suitable clasps or other catch devices, f^3. When the strips f f are thrown up and are connected to each other by means of the strips f' f' and the hooks and eyes f^2 f^2, the angular ends of the strips f' f' are seated in the recesses f^4 f^4 of the strips f f, so as to impart thereby the required degree of rigidity and stability to the extension-frame F, as shown in Fig. 9. The lower hinged transverse section, F′, of the table C is either locked into line with the body of the table by means of hooks g, which engage slide-bolts g', or at right angles thereto by pulling forward the slide-bolts g', as shown clearly in Figs. 4 and 5. The sliding bolts g' are guided in slotted casings g^2, let into recesses at the under side of the drawing-table C, the bolts being provided with a finger-rest, so as to be readily drawn out or returned. The hinged section F′ is provided with heels g^3 for the slide-bolts g', whereby a rigid support for the section F′ is obtained when it is thrown up at right angles to the table C. By pushing back the slide-bolts g', returning the section F into line with the body of the table C, and locking it then by means of the hooks g and slide-bolts g', the hinged section F′ is firmly retained in position in line with the body of the table. The extension-frame F and the hinged section F′ admit the ready changing of the drawing-table into an easel whenever this is desired.

As it is desirable in drawing-tables of this class to provide a support for the feet, a foot board or rest, H, is arranged, which is applied by means of hooks h to the rear legs of the base A′, and by means of slots, brackets, or other devices, h', to the front leg or legs of the base A′, as shown clearly in Figs. 4, 10, 12, 13, and 14. In drawing-tables of larger size, which are supported on two columns—such as shown in Figs. 11 and 12—the vertical adjustment is accomplished by the hand-wheel, intermediate bevel-wheels, and a longitudinal shaft having pinions at the ends which mesh with the racks of the vertical posts B, as shown in Fig. 12. The inclination of a drawing-table supported on two columns is adjusted by means of clamping devices operated by hand-levers at the lower front part of the table in the same manner as in tables with single columns. In double-column tables it is preferable to arrange the folding bracket-arm E^2, which supports the platform E, in connection with one of the columns, and the drawers E in connection with the other column, as shown in Fig. 11.

By the different adjusting mechanisms described, the drawing-table may be readily arranged at any desired height and inclination, with the drawing materials closely and conveniently at hand, or changed into an easel when required for painting and exhibition purposes.

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

1. The combination of a supporting-column, a vertically-adjustable post, a drawing-table having a bracket-frame pivoted to the upper end of the post, and a clamping device applied to the bracket-frame and actuated by a connecting-rod, and elbow-lever fulcrumed near the

lower front edge of the table, so as to adjust the table to any desired inclination, substantially as and for the purpose set forth.

2. The combination of the supporting-column A, vertical adjustable post B, having a cone-plate, *e*, drawing-table C, pivoted by bracket-frame C′, having a friction-cone, *e′*, with inclines d^5 to the plate *e*, clamping-plate d^3, having ribs d^4 and arm d^2, lever-rod *d′*, and elbow-lever *d*, fulcrumed to the lower front edge of the table C, substantially as specified.

3. The combination, with an adjustable drawing-table, of an extension-frame pivoted to the upper part of the table, a transverse section hinged to the lower part of the table, and means for locking the latter at right angles to the body of the table or in line therewith, whereby the drawing-table may be changed into an easel, substantially as set forth.

4. The combination, with a drawing-table, C, having retaining-clasps f^3, of the pivoted strips *f f*, having angular recesses f^4, and strips *f′ f′*, hinged to the strips *f f* and connected thereto by hooks and eyes or other fastening devices, f^2, substantially as described.

5. The combination, with a drawing-table, of a transverse section hinged to the lower edge of the table, of sliding bolts for retaining the hinged section at right angles to the body of the table, and of means whereby the hinged section is locked by the slide-bolts in line with the body of the table, as described.

6. The combination, in a drawing-table, of the base of the supporting column or columns, with a detachable foot-rest supported on the rear legs by hooks and at the front leg or legs by suitable cheeks or seats, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ARNOLD HÖRMANN.

Witnesses:
PAUL GOEPEL,
SIDNEY MANN.