Nov. 13, 1923.

1,473,736

W. S. PHILLIPS

TABLE AND CHAIR STRUCTURE

Filed Aug. 8, 1922

2 Sheets-Sheet 1

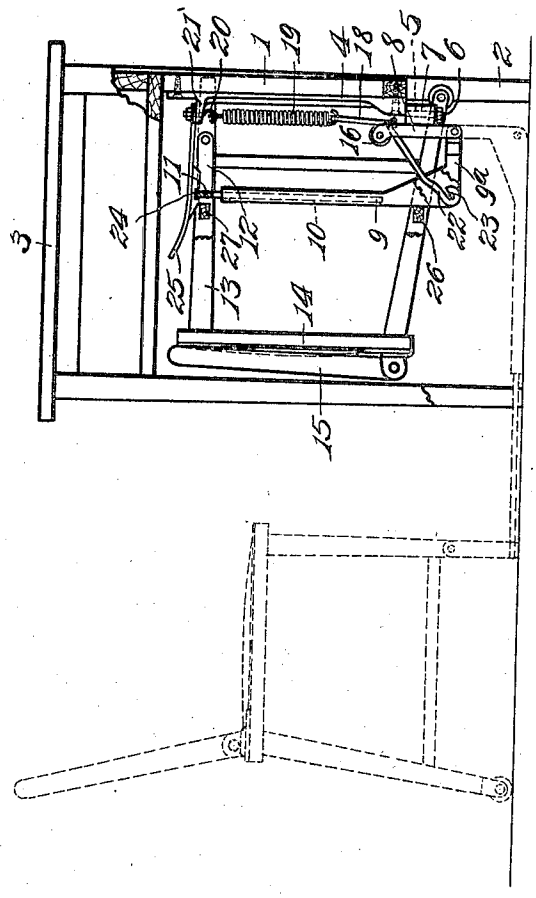

FIG. 1

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Nov. 13, 1923.

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2 Sheets-Sheet 2

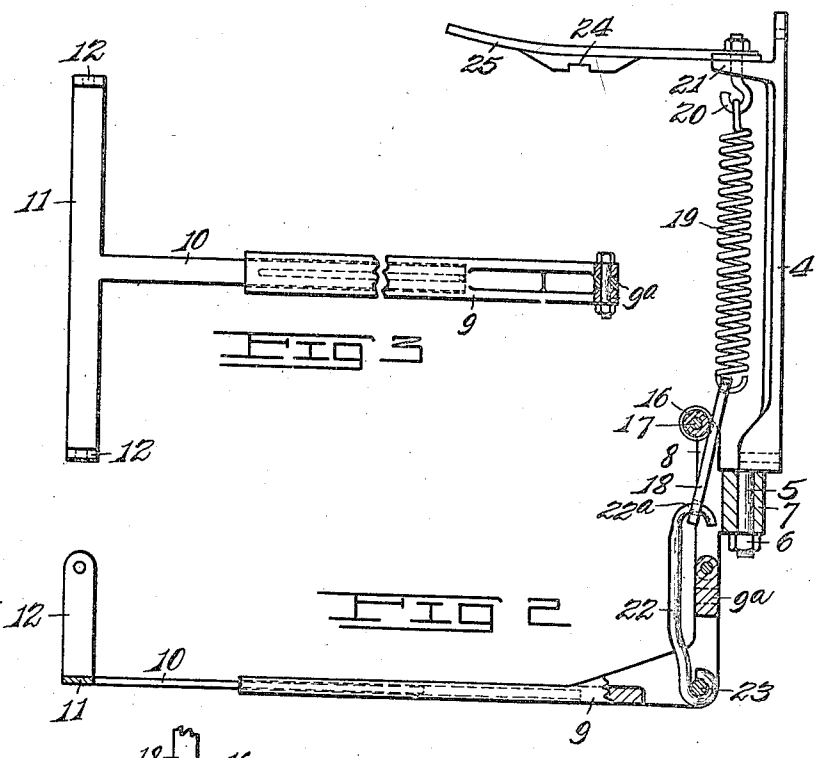

FIG 3

FIG 2

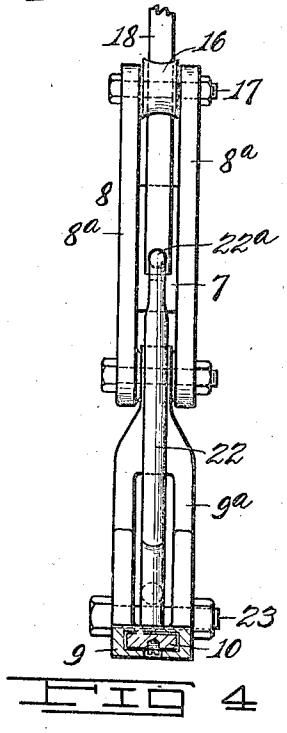

FIG 4

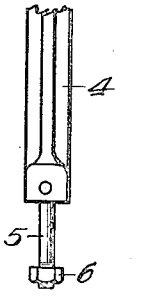

FIG 5

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Patented Nov. 13, 1923. 1,473,736

UNITED STATES PATENT OFFICE.

WILLIAM S. PHILLIPS, OF CAMERON, WEST VIRGINIA.

TABLE AND CHAIR STRUCTURE.

Application filed August 8, 1922. Serial No. 580,432.

To all whom it may concern:

Be it known that I, WILLIAM S. PHILLIPS, a citizen of the United States of America, and resident of Cameron, county of Marshall, and State of West Virginia, have invented certain new and useful Improvements in Table and Chair Structures, of which the following is a specification.

This invention relates specificially to a combined table and chair structure, and it has for its primary object to provide, in association with a table, desk, stand or other similar article of furniture, hereinafter for convenience referred to as a table, a chair which is readily foldable from a usable position in front of the table to a wholly enclosed or out-of-the-way position under the table, and vice versa.

A further object is to provide a structure of the character mentioned in which are employed a minimum number of parts, in which the parts are of strong and substantial forms not readily liable to become out of order, and in which said parts are so formed and related that objectionable binding thereof is not likely to occur in effecting the movements required in shifting the chair from either of its two positions to the other.

And a still further object is to simplify and structurally improve the construction disclosed in my former Patent No. 958,529, granted May 17, 1910.

With these and other objects in view, the invention resides in the features of construction, arrangement of parts and combinations of elements which will hereinafter be fully described, reference being had to the accompanying drawings, in which—

Figure 1 is view of the invention partly in side elevation and partly in broken section;

Figure 2 is an enlarged sectional elevation of the chair carrying mechanism;

Figure 3 is a sectional top plan view of the telescoping arm;

Figure 4 is an enlarged front view of the lower portion of the chair supporting mechanism, showing the telescoping arm in cross section; and—

Figure 5 is a front elevation of the supporting bracket or hanger.

Referring to said drawings, 1 indicates a stationary upright back or support provided between the rear legs 2 of a table, desk, stand, or like article of household or office furniture having a top 3. Rigidly mounted upon said support 1 in a forwardly-facing position is an upright-bar-like bracket or hanger 4 which has on its lower end an integral depending bolt-like stem 5 having a threaded end. Detachably secured upon said stem 5, as by means of a nut 6, is a lug 7 formed upon the rear intermediate portion of an upright supporting member 8 which has pivotally attached to the lower end thereof an upright arm 9^a formed upon the bifurcated inner end of the sleeve section 9 of an extensible bar which normally rests on the floor upon which stands the table, said section 9 being related telescopically with an alined bar section 10. The outer end of said bar 10 carries a cross bar 11 which has its opposite ends turned upwardly to form lugs 12.

Pivotally attached to the upper ends of the upright lugs 12 are intermediate portions of the front legs 13 of a chair which comprises a seat 14 and a back 15, said back being hinged or pivoted in any suitable manner to the rear portion of said seat so as to be readily foldable upon the latter from its normal substantially upright position, shown in dotted lines in Fig. 1.

The upright member 8 comprises vertically disposed parallel bars 8^a, and mounted for rotation between the upper ends of said bars is a pulley wheel 16, the same being journaled upon a transverse pin or bolt 17 carried by said ends. Disposed for longitudinal movement behind and in seated relation to the periphery of said pulley is a rod 18 which is suspended from the lower end of a retractile coil spring 19 which has its upper end attached, as by means of a depending hook 20, to a forwardly directed lug 21 formed on the hanger 4 adjacent to the upper end of the latter.

Loosely engaged with the lower end of the rod 18 so as to allow of swinging movement relative to said rod is a bill or hook 22^a formed on the upper end of a link 22 which has its lower end extending into the bifurcation of the section 9 of the telescoping bar and which is mounted upon a transverse pivot-pin or bolt 23 carried by said bar in crossing relation to said bifurcation.

When the chair occupies its usable position in front of the table, as indicated in dotted lines in Fig. 1, the weight imposed thereby upon the outer end of the telescoping bar more than suffices to maintain said bar in its lowered position in which, through the

intermediacy of the link 22, the rod 18 is drawn into a downwardly and forwardly inclined position, placing the spring 19 under strong tension. In said position said rod rests against the rear side of the pulley 16.

When it is desired to fold the chair to an out of the way position beneath the table, the top of the back 15 thereof is grasped and the chair is tilted rearwardly and at the same time is moved inwardly to telescope the bar sections 9 and 10, whereupon the spring 19 acts through the rod 18 and link 22 to elevate the telescoping bar to a substantially upright position wherein an edge of the cross-bar 11 of the latter is received in a recess or seat 24 provided therefor in the under face of a forwardly directed resilient arm or latch member 25 which has its rear end rigidly mounted upon the lug 21 of the hanger 24. In said position of the parts the front legs of the chair assume the position shown in full lines in Fig. 1, and a bar or rung 26 connecting the rear legs of the chair at a suitable height rests against the front face of the sleeve section 9 of the telescoping bar. In moving from one position to the other the rod 18 rides upon the pulley 16.

To release the chair from the supported position beneath the table, the upper end of the chair back is grasped and drawn outward slightly and at the same time, by lifting on said back, the rear legs of the chair are drawn forward. This movement swings the chair on the pivots which secure the front legs thereof to the lugs 12 of the bar member 10 to the extent that a properly positioned bar or rung 27 connecting the front legs exerts an elevating pressure on the latch member 25 whereby disengagement of the cross bar 11 from the recess 23 is effected. So released, the chair is drawn outward against the tension of the spring 19 to the dotted line position shown in Fig. 1. It will thus be seen that both the inter-engagement of the chair with the latch member and the disengagement of the chair from the latch member is effected in a manner which may be characterized as automatic.

In the elevated position of the chair, ready access is had for cleaning the floor beneath the table without hindrance from the chair.

As used in the appended claims the term "table" is intended to include a desk, stand, bench, or other form of table-like support.

What is claimed is—

1. The combination with a table, of a hanger carried by said table below the top thereof, a telescoping bar having an inner portion disposed at an angle thereto, said portion being mounted in pivotal relation to said hanger, a spring having pivoted-link connection with said bar and tending to swing the latter on its pivotal mounting to an upright position, a chair pivotally attached to the outer end of said bar and adapted to swing inward and upward to elevated under-table position with said bar, a latch carried by the table automatically inter-engageable with a part of said bar for rigidly supporting the latter and the thereby-carried chair in elevated position, and means carried by said chair for actuating said latch to bar-releasing position when an elevating and retracting force is applied to the chair.

2. The combination with a table, of a hanger rigidly carried by said table below the top thereof, a telescoping bar having an inner portion disposed at an angle thereto, said portion being mounted in pivotal relation to said hanger, a spring having pivoted-link connection with said bar and tending to swing the latter on its pivotal mounting to an upright position, a chair pivotally attached to the outer end of said bar, said chair having rungs connecting its front and rear legs, respectively, and a latch member adapted for automatically assuming supporting relation to the bar-carried parts when the bar is moved to upright position, the rear-leg connecting rung of the chair being adapted to rest against said bar when the latter occupies its upright position, and the front-leg connecting rung being adapted to actuate the release of said bar-carried parts from the latch member when the chair is drawn outward and upward.

3. The combination with a table, of a hanger rigidly carried by said table below the top thereof, an upright member carried upon the lower end of said hanger, a pulley journaled in the upper end of said member, a telescoping bar having an inner end portion disposed at substantially a right angle thereto, said portion being pivotally attached to said upright member, said telescoping bar being movable from a horizontal to an upright position, a chair having the front legs thereof pivotally attached to the free end of said telescoping bar, a spring supported by the table, pivoted members intermediate said spring and said telescoping bar, one of said pivoted members being engaged with and riding on said pulley in swinging movement of said bar, a latch member engageable automatically with the front end of said bar when the latter assumes upright position, and a member carried by the chair engageable with said latch member when retracting force is applied to the chair whereby said latch member is elevated to bar-releasing position.

4. The combination with a table, of a hanger rigidly carried by said table below the top thereof, an upright member carried upon the lower end of said hanger, a pulley journaled in the upper end of said member, a telescoping bar having an inner end portion disposed at substantially a right angle

thereto, said portion being pivotally attached to said member, said bar being movable from a horizontal to an upright position, a chair having the front legs thereof pivotally attached to the free end of said bar, a spring supported by the table, connected members intermediate said spring and said bar, one of said members being engaged with and riding on said pulley in swinging movements of said bars, a latch member engageable with the front end of said bar when the latter assumes upright position, and a latch-underlying member carried by the chair adapted through upwardly-swinging retracting movement of the chair to actuate said latch member to bar-releasing position.

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

WILLIAM S. PHILLIPS.

Witnesses:

GEORGE RAY WELLS,

LEVI L. PHILLIPS.