

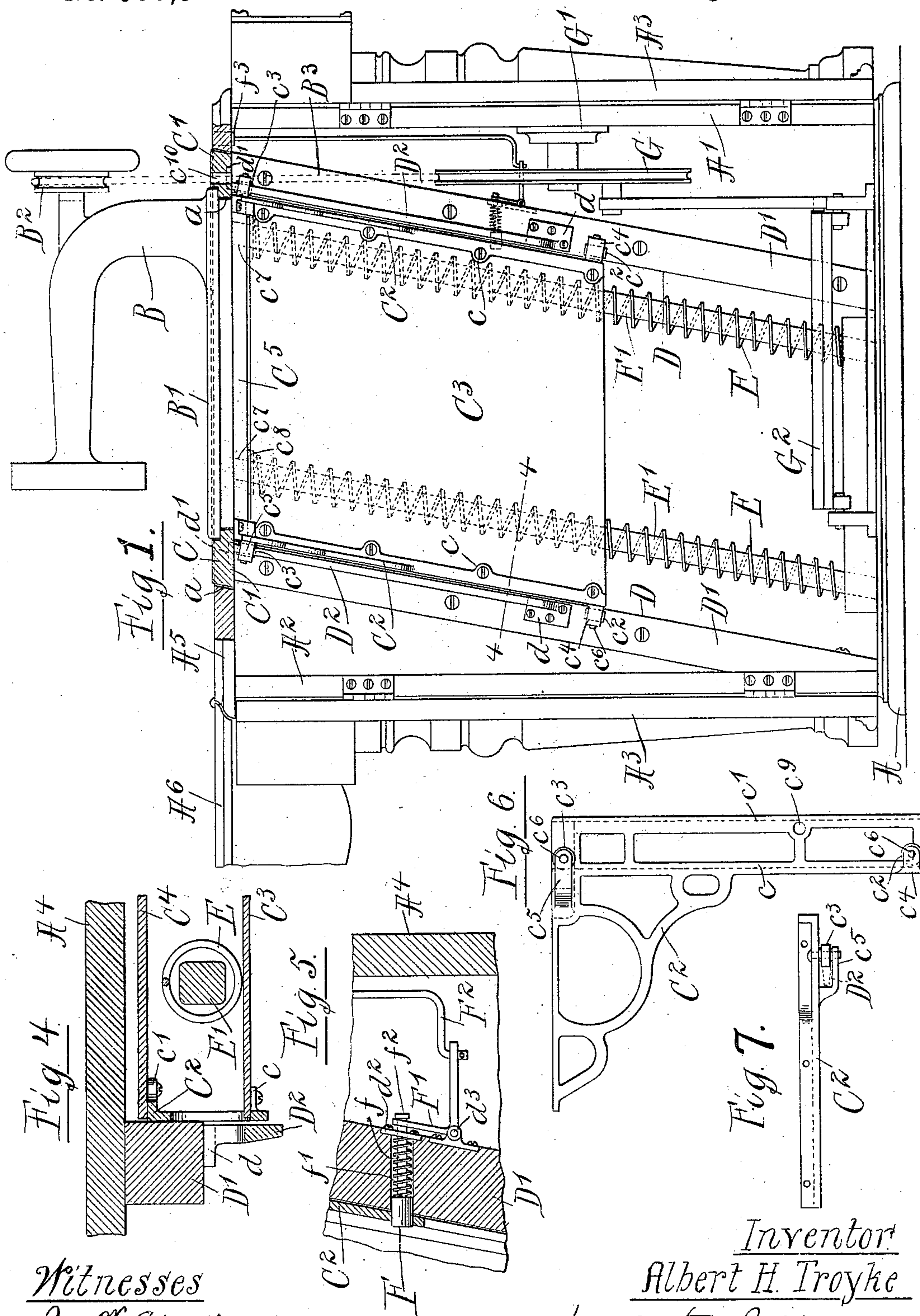
(No Model.)

2 Sheets—Sheet 1.

A. H. TROYKE.
CABINET FOR SEWING MACHINES.

No. 560,380.

Patented May 19, 1896.



Witnesses

Jno. W. Adams.
Louis L. Whitehead.

Inventor

Albert H. Troyke

by Clayton Poole & Brown,
his Attorneys

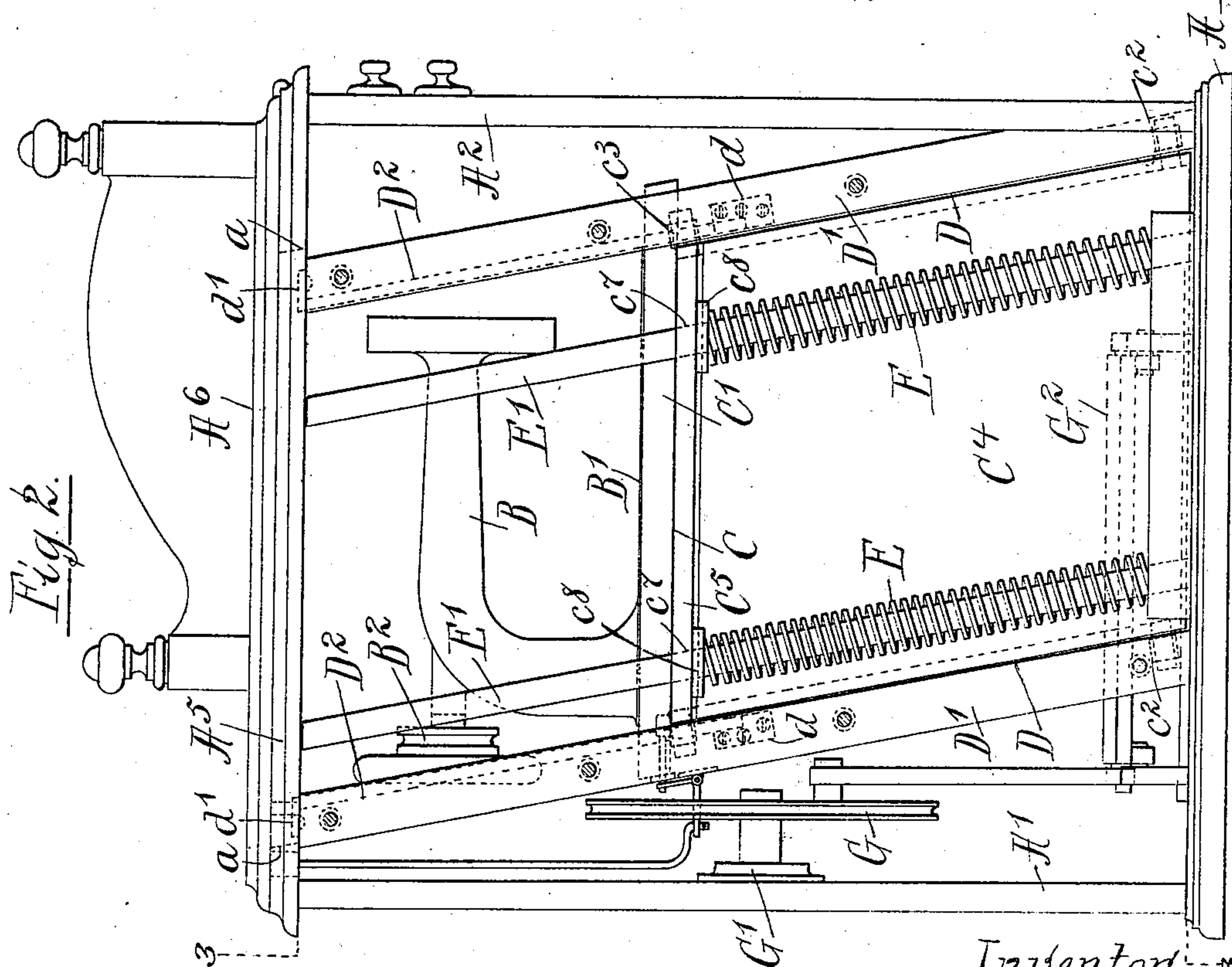
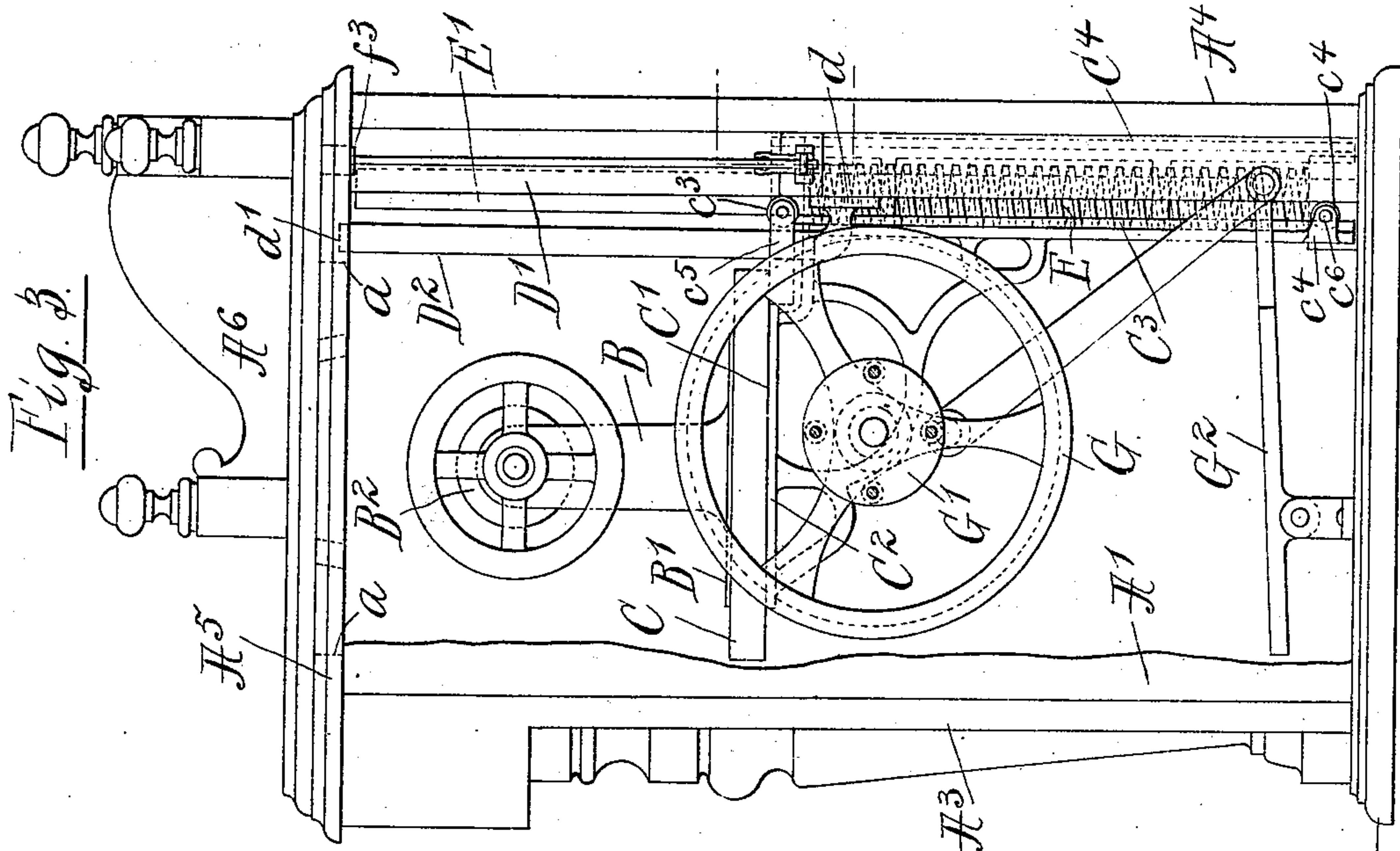
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UNITED STATES PATENT OFFICE.

ALBERT H. TROYKE, OF CHICAGO, ILLINOIS.

CABINET FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 560,380, dated May 19, 1896.

Application filed January 19, 1894. Serial No. 497,380. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. TROYKE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Cabinets for Sewing-Machines, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of
10 this specification.

This invention relates to improvements in sewing-machine cabinets of that class in which the machine when not in use is adapted
15 to be lowered or depressed beneath the level of the top of the cabinet and to be returned to its normal elevated position when it is again desired to place the machine in readiness for operation.

20 The object of the invention is to provide an improved construction in devices of the character referred to; and it consists in the matters hereinafter set forth, and particularly pointed out in the appended claims.

25 Figure 1 is a front elevation, partly in section, of a cabinet constructed in accordance with my invention, the cabinet being thrown open and the machine raised into operative position. Fig. 2 is a rear elevation thereof,
30 the back of the cabinet being removed to disclose the interior construction. Fig. 3 is a sectional side elevation on line 3 3 of Fig. 2. Fig. 4 is a horizontal sectional detail on line 4 4 of Fig. 1. Fig. 5 is a vertical sectional
35 detail of the locking-bolt and connections. Figs. 6 and 7 are details of one of the bracket-castings removed.

A designates the base of the cabinet, A¹ and A² its right and left side walls, and A³
40 and A⁴, respectively, its front and rear walls, the front wall being usually composed of two hinged doors, which swing open, as shown in Fig. 1, to expose the interior of the cabinet.

A⁵ designates the cabinet-top, which is cut
45 out centrally to provide a rectangular aperture *a* large enough to permit the sewing-machine B to pass through without coming in contact with the edges thereof.

50 The machine B is carried by a bracket C, comprising a horizontal shelf C', fitting within the aperture *a*, and the center of which is suitably cut out to receive the base B' of the

machine. The shelf C', as herein shown, rests upon corner-braces C², which are in this instance connected at their rear and vertical
55 portions by parallel plates or boards C³ and C⁴, the braces being provided with inwardly-turned parallel flanges *c* and *c'* to which said boards or plates are screwed. The bracket thus provided is adapted to slide between
60 downwardly-extending parallel guides D, herein shown as comprising wooden bars D', secured at their upper and lower ends to the top and base, respectively, of the cabinet and at the rear thereof. Along the upper portion
65 of the bars and arranged edgewise in front of and parallel to the same are provided metallic ways D², having their lower ends bent or extended rearwardly and provided with flanges
70 *d*, which are secured by screws to the fronts of the bars D', about midway of the length of the same. The upper ends *d'* of the ways are herein shown as bent at right angles and secured by screws to the under side of the top
75 A⁵. Antifriction-rollers *c*², journaled to the lower ends of the braces C², engage and travel upon the lower front faces of the bars D', and similar rollers *c*³, journaled to the upper rear
80 portions of the braces C², project behind and engage the rear faces of the ways D², thereby preventing the bracket from falling forward away from the guides. Integral arms *c*⁴ and
85 *c*⁵ on the braces extending around the rollers *c*² and *c*³, respectively, serve to support the outer ends of their bearing-pins *c*⁶, the arms *c*⁵ being made long enough to extend around the ways D², as shown in Fig. 7.

As a means of counterbalancing the weight of the machine B and its supporting-bracket C, compression-springs E are herein shown
90 provided upon guide-rods E', which in this instance are secured at their lower ends in the base A and extend upward parallel to the guides D, passing between the plates C³ and C⁴ of the bracket C. A horizontal cross piece
95 or bar C⁵, secured to and extending between the upper rear portions of the braces C², immediately beneath and at the rear of the shelf C', rests upon the spring E, being provided with suitable perforations *c*⁷, through which
100 the bars E' pass. Washers *c*⁸ are shown as inserted between the lower face of the bar C⁵ and the tops of the springs E to receive any wear occurring at these points. The springs

E are preferably made of such strength and resilience as to be capable of supporting the bracket C and machine B nearly or quite in their uppermost position, while at the same time readily compressible sufficiently to permit the lowering of the bracket and machine, as shown in Figs. 1 and 2.

As a means of locking the bracket C in its raised and lowered positions I have in this instance provided a bolt F, extending laterally through one of the guide-bars D' and adapted to engage the adjacent brace C² of the bracket C. As herein shown, said bolt is made with a reduced shank *f*, provided with a coiled spring *f'*, which is compressed between the head of the bolt and a plate *d*², covering the outer end of the bolt-aperture and perforated for the passage of the shank *f*. The outer end of the shank engages an aperture in the upper end of a bell-crank lever F', which is pivoted at its angle to a bearing *d*³ on the bar D', the end of the shank being enlarged to form a head *f*² by which the lever is maintained in engagement therewith. Said bell-crank lever is itself actuated by means of a push-rod F², engaging its outer end and extending up through an aperture in the top of the cabinet. The head *f*³ of the push-rod F² is in this instance enlarged and cut off substantially flush with the upper surface of the top A⁵ and forms in effect a push-button, by pressing on which the bolt may be withdrawn. When the bracket C is fully depressed, the bolt F projects over the top of the adjacent brace C² and holds the bracket down. When the bracket is fully raised, the bolt enters an aperture *c*⁹, suitably provided in said brace, and maintains the bracket in that position. Obviously by reason of the spring *f'* the bolt will automatically lock the bracket whenever the latter is forced to either its raised or lowered position and will be maintained in engagement therewith until released by pressure upon the head *f*³ of the push-rod.

The driving-wheel G of the machine is herein shown journaled upon a suitable bearing G', attached by screws or otherwise securely fastened to the side wall A' of the cabinet, and is driven in the usual manner by a treadle G², pivotally mounted upon the base A of the cabinet and connected with the wheel G by the usual connecting-rod G'. Obviously the driving-pulley B² of the machine B, when the latter is raised into its operative position, must stand directly above the wheel G in order that a driving-belt B³ may be trained over them, said belt passing through suitably-arranged apertures *c*¹⁰ in the shelf C'. In order, however, that the base of the machine and the shelf C' may clear the wheel G when in lowered position, it is necessary that they should stand so far out from the wall A' as to bring the pulley B² out of the alignment required. The guides D, therefore, for the purpose of shifting the machine laterally, so as to bring the pulley B² directly over the wheel G when the machine is raised, and

avoid collision with said driving-wheel when the machine is lowered, are somewhat inclined from the vertical, standing farther from the wall A' at their lower than at their upper ends. By this construction the necessary lateral movement of the machine and shelf A⁷ obviously must accompany the raising and lowering of the bracket.

A leaf or lid A⁶, hinged to the one edge of the top A', is adapted to fold down upon the latter and conceal the aperture *a* when the machine is lowered, and is turned back, as shown in Fig. 1, to enlarge the working surface of the cabinet-top before the machine is to be brought into operation.

When the machine is depressed, the doors A⁴ closed, and the leaf A⁶ folded down upon the permanent top A⁵, the cabinet is in condition to be used as a table or desk or for any other suitable purpose and betrays no evidence of the mechanism inclosed within. The exterior of the cabinet may be ornamented as desired and the cabinet thus be made a pleasing article of furniture. To bring the machine into use, it is only necessary to throw over the leaf A⁶ and press upon the button or exposed end *f*³ of the operating-rod F², when the bracket C will be released and the springs E will instantly act to raise the shelf C' substantially flush with the top A⁵. As soon as the shelf reaches this position, either solely by the actuating impulse of the springs E or when the latter are aided by the hand, the locking-bolt F slips into the aperture *c*⁹, as hereinbefore described, and thereby locks the machine in its operative position. The doors A⁴ being then thrown open to expose the treadle G² and the driving-belt adjusted the machine is adapted for operation in the ordinary manner. When it is desired to inclose the machine again, the button *f*³ is again pressed to disengage the locking-bolt F and the machine and bracket C forced down against the springs E until the bolt F automatically locks said bracket in its lowest position. The leaf A⁶ may then be folded over upon the top A⁵ and the doors A⁴ closed. The mechanism is then completely inclosed, and as the machine B is securely and rigidly supported the complete device will be in shape for shipment without the necessity of separating the machine from the cabinet.

Obviously, though herein set forth as particularly applicable to a sewing-machine cabinet, many of the features of my invention may in some cases be advantageously employed in the construction of cabinets for type-writing machines and other instruments, and all such constructions are contemplated as embraced within the scope of my invention. Moreover, it will be understood that so far as the other features of my invention are concerned the counterbalancing of the machine and its supporting-table may be accomplished by weights instead of springs, or by tension-springs, or by springs otherwise located than in the particular construction herein illustrated. Ob-

viously also, while the greater part of the cabinet is designed to be ordinarily constructed of wood, a few minor parts only being advantageously made of metal, any other suitable material may be substituted in either case, if so desired. All such and other obvious modifications are, however, within the scope of my invention.

I claim as my invention—

10 1. A machine-cabinet, provided in its top with an aperture through which a machine can pass, downwardly-extending guides within the cabinet a movable bracket-shelf having a machine-supporting portion fitting within
15 said aperture and a vertical portion engaging said downwardly-extending guides and compression-springs beneath the shelf, extending parallel with said guides and pressing upward on said shelf to counterbalance the weight of
20 the machine and said shelf, substantially as described.

2. A machine-cabinet provided in its top with an aperture through which the machine can pass, a bracket having a machine-supporting shelf fitting within said aperture, downwardly-extending guides within the cabinet having upper rearwardly-facing surfaces and lower forwardly-facing surfaces, upper anti-friction-rollers on said bracket engaging said
25 rearwardly-facing surfaces, and lower anti-friction-rollers on said bracket engaging said forwardly-facing surfaces, substantially as described.

3. A machine-cabinet provided in its top with an aperture through which the machine can pass, a bracket having a machine-supporting shelf fitting within said aperture, downwardly-extending guides within the cabinet comprising bars having ways secured parallel
30 to and in front of their upper portions, upper anti-friction-rollers on the bracket engaging the rear faces of said ways and lower anti-friction-rollers on the bracket engaging the front surfaces of the bars below the ways, substantially as described.

4. A machine-cabinet provided in its top with an aperture through which the machine can pass, a bracket having a machine-supporting shelf fitting within said aperture and engaging downwardly-extending guides within the cabinet, compression-springs mounted on rods extending parallel with said guides and pressing upward on said bracket, substantially as described.

55 5. A machine-cabinet provided in its top with an aperture through which the machine

can pass, a machine-carrying bracket fitting within said aperture and movably supported upon downwardly-extending guides within the cabinet by springs located within the cabinet parallel with said guides, a spring-bolt for locking said bracket in its raised or lowered position and a rod for actuating said bolt, substantially as described.

6. A machine-cabinet provided in its top with an aperture through which a machine can pass, a machine-carrying bracket fitting within said aperture and normally supported upon downwardly-extending guides within the cabinet, compression-springs beneath the bracket and located parallel with said guides for counterbalancing the weight of the machine and bracket and normally raising the latter, a spring-bolt for locking said bracket in its raised or lowered position, and a push-rod for actuating said bolt, the end of the push-rod extending through an aperture in the top of the cabinet, substantially as described.

7. A sewing-machine cabinet provided in its top with an aperture through which the machine can pass, a driving-wheel journaled within the cabinet beneath one end of the aperture, a machine-carrying shelf fitting within said aperture and normally supported upon downwardly-extending guides with said cabinet, said guides inclining away from the driving-wheel toward their lower edges, whereby when raised in operative position the machine will stand with its driving-pulley above the driving-wheel, but will be shifted laterally to clear said wheel as it is lowered, and compression-springs located in the cabinet beneath the shelf parallel to said inclined guides to normally tend to raise the shelf and the machine thereon to its upper or operative position, substantially as described.

8. A machine-cabinet provided in its top with an aperture through which the machine can pass, a machine-support engaging downwardly-extending guides within the cabinet and counterbalancing compression-springs beneath the support parallel with said guides and pressing upward on the support substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

ALBERT H. TROYKE.

Witnesses:

C. CLARENCE POOLE,
ALBERT H. GRAVES.