

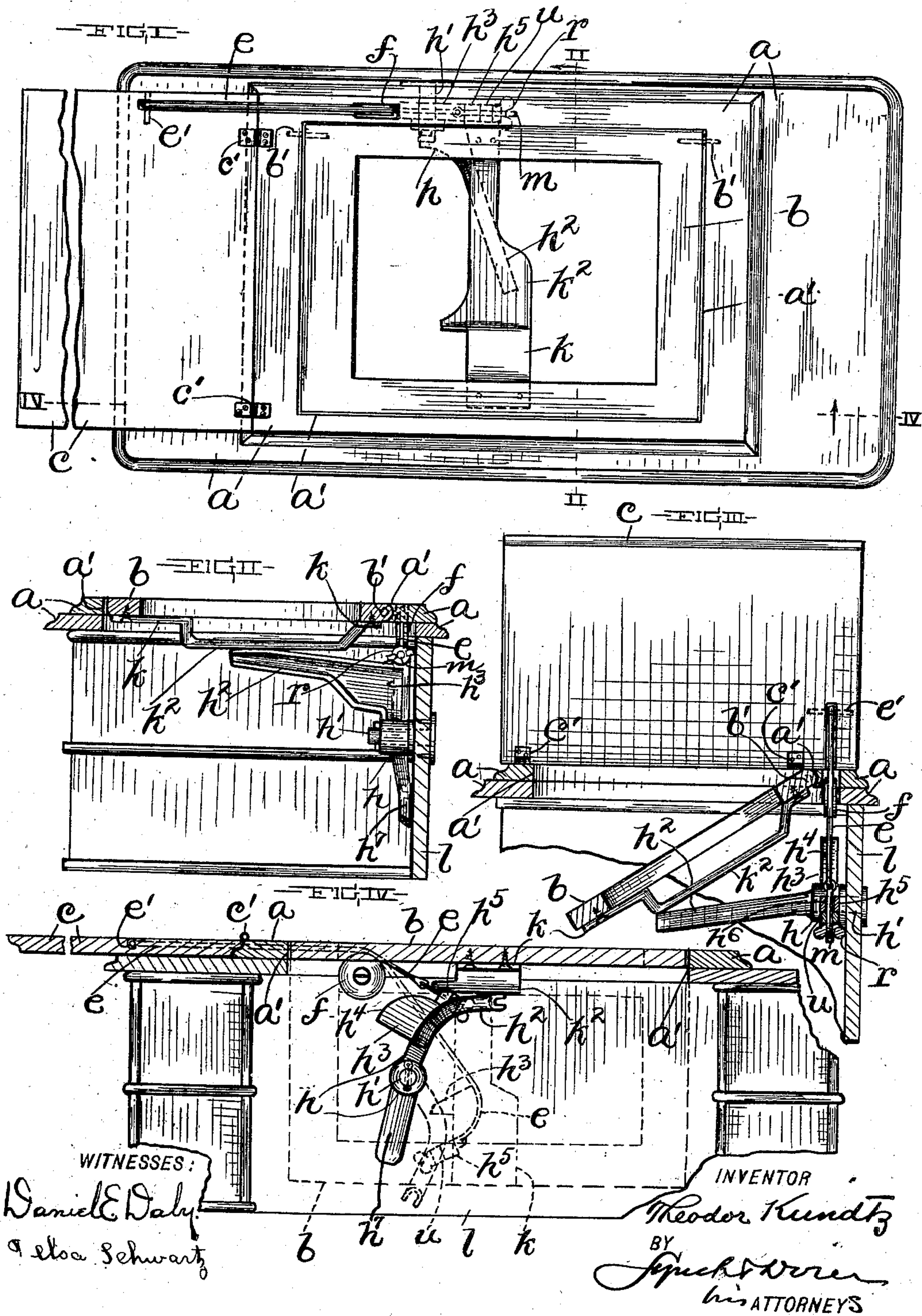
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Patented Sept. 16, 1902.

T. KUNDTZ.
MACHINE BEARING CABINET.

(Application filed Apr. 14, 1902.)

(No Model.)



UNITED STATES PATENT OFFICE.

THEODOR KUNDTZ, OF CLEVELAND, OHIO.

MACHINE-BEARING CABINET.

SPECIFICATION forming part of Letters Patent No. 709,098, dated September 16, 1902.

Application filed April 14, 1902. Serial No. 102,806. (No model.)

To all whom it may concern:

Be it known that I, THEODOR KUNDTZ, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Machine-Bearing Cabinets; and I 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 pertains to make and use the same.

This invention relates to improvements in machine-bearing cabinets, wherein a tilting leaf adapted to carry a sewing-machine head, type-writer, or other machine or mechanism is lowered below or occupies an opening in the top of the cabinet, according as the said leaf is in its depending or upwardly-tilted and horizontal position.

This invention pertains more especially to novel and meritorious mechanism for operating the said load-bearing tilting leaf.

The object of this invention is to provide a simple and inexpensive and reliable and convenient operative connection between the said load-bearing leaf and a lifting leaf which is hinged to the top of the cabinet.

With this object in view the invention consists in certain features of construction and combinations of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure I is a top plan of a machine-bearing cabinet embodying my invention. Fig. II is an end elevation, mostly in vertical section on line II II, Fig. I, looking in the direction indicated by the arrow. Fig. III is an end elevation, mostly in vertical section and corresponding with Fig. II, except that in Fig. III the load-bearing leaf is shown tilted about half-way. Fig. IV is a front side elevation largely in section on line VI VI, Fig. I.

Portions are broken away in the drawings to reduce their size.

The cabinet comprises a horizontally-arranged top *a*, which is provided, preferably centrally, with a rectangular opening *a'*, which extends vertically through the said top and accommodates the location and operation of the load-bearing leaf *b* of the cabinet, which leaf is pivoted horizontally, as at *b'*, to the rear portion of the top *a*. The pivots

b' are shown arranged longitudinally of the cabinet in close proximity to the rear edge of the leaf *b*. In Figs. I and II and in solid lines, Fig. IV, the leaf *b* is shown in its upwardly-tilted and horizontal position, and therefore occupying the opening *a'* in the top *a*. In Fig. III the leaf *b* is shown lowered about half-way, and consequently depending below the opening *a'*, and in dotted lines, Fig. IV, the said leaf is in its depending position. The leaf *b* is actuated from its upwardly-tilted or horizontal position into its depending position, or vice versa, according as the sewing-machine head or other machine or mechanism (not shown) which the said leaf is adapted to bear, is to be conveyed into the cabinet from outside the cabinet, or vice versa.

A leaf *c*, which is shown hinged at one end, as at *c'*, to the top *a*, horizontally and transversely of the cabinet at the left-hand side of the opening *a'*, has the dimensions and arrangement required to render it capable of being swung over, and thereby closing the opening *a'* or forming an extension of the top *a*, according as the said leaf is actuated into the one or the other of its extreme positions.

A novel and meritorious operative connection between the leaf *c* and the leaf *b*, whereby the latter is tilted downwardly or upwardly, according as the former is actuated over the opening *a'* or moved to uncover the said opening, is provided and constitutes the subject-matter of this application, and the said operative connection comprises a chain or cable *e*, attached at one end, as at *e'*, (see Figs. I, III, and IV,) to the leaf *c* near the rear edge of the said leaf. The cable *e* extends from the leaf *c* to and over a guide-sleeve *f*, which is supported from the rear portion of the top *a* rearward of the opening *a'* and near the left-hand end of the said opening. The cable *e* leads from the sheave *f* downwardly and inwardly and is operatively connected at its inner end with a lever *h*, which is fulcrumed at one end, as at *h'*, horizontally and transversely of the cabinet to the upright stationary back *l* of the cabinet, which back depends from the rear portion of the top *a* rearward of the cable *e*. The lever *h* is provided upon its forward side with a forwardly-projecting arm *h²*, which engages the under side of the central and depressed

portion k^2 of a bar k , which is arranged below and extends transversely of the under side of the leaf b centrally between the ends of the said leaf and is secured in any approved manner at its ends to the said leaf. 5 The relative arrangement of the bar k and the lever-arm h^2 is such that the said arm shall remain in engagement with the bar k during the actuation of the leaf b from one 10 to the other of its extreme positions and shall effectually support the said leaf and its load—sewing-machine head or other machine or mechanism (not shown)—which the said leaf is adapted to bear in the upwardly-tilted and 15 horizontal position of the said leaf. The lever h is provided with a flange h^3 , which has an outer peripheral surface h^4 extending circumferentially of the axis of the lever and arranged to afford bearing to and guide the 20 cable e during the actuation of the leaf b and in the depending position of the said leaf. The lever h is provided at the inner end of the peripheral surface of the flange h^4 (see Figs. III and IV) with a lug h^5 , which is per- 25 forated longitudinally, as at h^6 , to form a slideway or bearing for an endwise-shiftable externally-screw-threaded pin m , which extends loosely through the said lug and has a limited movement endwise. The cable e is 30 attached to the pin m at the adjacent end of the lug h^5 , and a correspondingly-threaded nut is mounted upon and engages the threads of the pin m at the opposite end of the said lug. A compressible and elastic member— 35 such, for instance, as a sleeve u , of rubber—is loosely mounted upon the pin m between the nut r and the lug h^5 , and the arrangement of the parts is such that the leaf c when it has been actuated into a horizontal posi- 40 tion, so as to form an extension of the top a upon actuating the load-bearing leaf b from its depending position into its upwardly-tilted and horizontal position, shall pull upon the cable e and the connected nut m against the 45 action of the compressible and elastic sleeve or member u , and thereby positively maintain the lever-arm h^2 in engagement with the depressed portion k^2 of the bar k in the upwardly-tilted and horizontal position of the 50 said leaf b . I would remark also that the lever h to avoid strain upon its fulcrum by the weight upon its arm h^2 in the horizontal and upwardly-tilted position of the leaf b is provided with a brace-forming arm h^7 , arranged, 55 preferably, diametrically opposite the arm h^2 and next forward and close to the inner side of the back l . The arm h^7 when the load bears downwardly upon the arm h^2 engages the said side of the said back and then per- 60 forms the function of a brace for the lever.

What I claim is—

1. The combination, with the top of the cabinet, which top has an opening extending vertically therethrough, a stationary back be- 65 low the top rearward of the said opening; a tilting leaf supported from the top and ar-

ranged to tilt about a horizontal axis and to occupy the aforesaid opening in its upwardly-tilted position, and the tilting leaf hinged to the top horizontally and transversely of the 70 cabinet at one side of the aforesaid opening, of a lever fulcrumed horizontally and transversely of the cabinet to the aforesaid back a suitable distance below the top and having 75 an arm extending in under and transversely of and instrumental in supporting the first-mentioned leaf, which lever has a brace-forming arm arranged next to the inner side of the aforesaid back, and an operative connection 80 between the said lever and the aforesaid lifting leaf.

2. The combination, with the top of the cabinet, which top has an opening extending vertically therethrough; a stationary back be- 85 low the top rearward of the said opening; a leaf pivoted, near its rear edge, to the top horizontally and longitudinally of the cabinet; a bar arranged transversely of the under side of and secured to the said leaf, and a 90 lifting leaf hinged to the top horizontally and transversely of the cabinet at the left-hand side of the aforesaid opening, of a lever fulcrumed horizontally and transversely of the cabinet to the aforesaid back a suitable distance below the top and having a forwardly- 95 projecting arm extending in under and engaging the under side of the aforesaid bar, which lever has a brace-forming arm arranged next to the inner side of the aforesaid back, and an operative connection between the lift- 100 ing leaf and the aforesaid lever.

3. The combination, with the top of the cabinet, which top has an opening extending vertically therethrough, and a stationary back 105 below the top rearward of the said opening; a tilting leaf supported from the top and arranged to tilt about a horizontal axis and to occupy the aforesaid opening in its upwardly-tilted position, and the lifting leaf hinged to the top horizontally and transversely of the 110 cabinet at one side of the aforesaid opening, of a lever fulcrumed horizontally and transversely of the cabinet to the aforesaid back a suitable distance below the top and having 115 an arm extending in under and transversely of and instrumental in supporting the first-mentioned leaf, a cable-guiding flange h^3 and a perforated lug h^5 , formed upon the said lever, an endwise-shiftable externally-screw- 120 threaded pin extending loosely through the perforation in the said lug; a cable operatively attached, at one end, to the lifting leaf, and operatively connected with the aforesaid pin 125 at the adjacent end of the aforesaid lug; a nut upon the said pin at the opposite end of the said lug; a compressible and elastic sleeve upon the pin between the nut and the lug, and a guide-sheave engaging the aforesaid cable and arranged between the said pin and the aforesaid lifting leaf. 130

4. The combination, with the top of the cabinet, which top has an opening extending

vertically therethrough, and a stationary back below the top rearward of the said opening; a leaf pivoted, near its rear edge, to the top horizontally and longitudinally of the cabinet; a bar arranged transversely of the under side of and secured to the said leaf, and a lifting leaf hinged to the top horizontally and transversely of the cabinet and the left-hand side of the aforesaid opening, of a lever fulcrumed horizontally and transversely of the cabinet to the aforesaid back a suitable distance below the top and having a forwardly-projecting arm extending in under and engaging the under side of the aforesaid bar, which lever has a brace-forming arm arranged diametrically opposite the first-mentioned arm next to the inner side of the aforesaid back, and is provided with a cable-guiding flange h^3 and a centrally-perforated lug h^5 ; an endwise-shiftable externally-screw-threaded pin extending through the perforation in the said lug; a cable operatively attached, at one end, to the lifting leaf a suitable distance from the axial line of the leaf and operatively connected with the aforesaid pin at the adjacent end of the aforesaid lug; a nut upon the said pin at the opposite end of the said lug; a compressible and elastic sleeve upon the pin between the nut and the lug, and a guide-sheave engaging the afore-

said cable and arranged between the said pin and the aforesaid lifting leaf.

5. The combination, with the top of the cabinet, which top has an opening extending vertically therethrough; a stationary back below the rear portion of the top rearward of the said opening; a leaf pivoted, near its rear edge, to the top horizontally and longitudinally of the cabinet; a bar k arranged transversely of the under side of and secured to the said leaf centrally between the ends of the leaf, and a lifting leaf hinged to the top transversely of the cabinet, of a lever fulcrumed horizontally and transversely of the cabinet to the aforesaid back a suitable distance below the rear portion of the top and having an arm extending forwardly in under and engaging the under side of the aforesaid bar, which lever has a brace-forming arm arranged to engage the inner side of the aforesaid back, and an operative connection between the said lever and the aforesaid lifting leaf.

In testimony whereof I sign the foregoing specification, in the presence of two witnesses, this 3d day of April, 1902, at Cleveland, Ohio.

THEODOR KUNDTZ.

Witnesses:

C. H. DORER,

G. M. HAYES.