

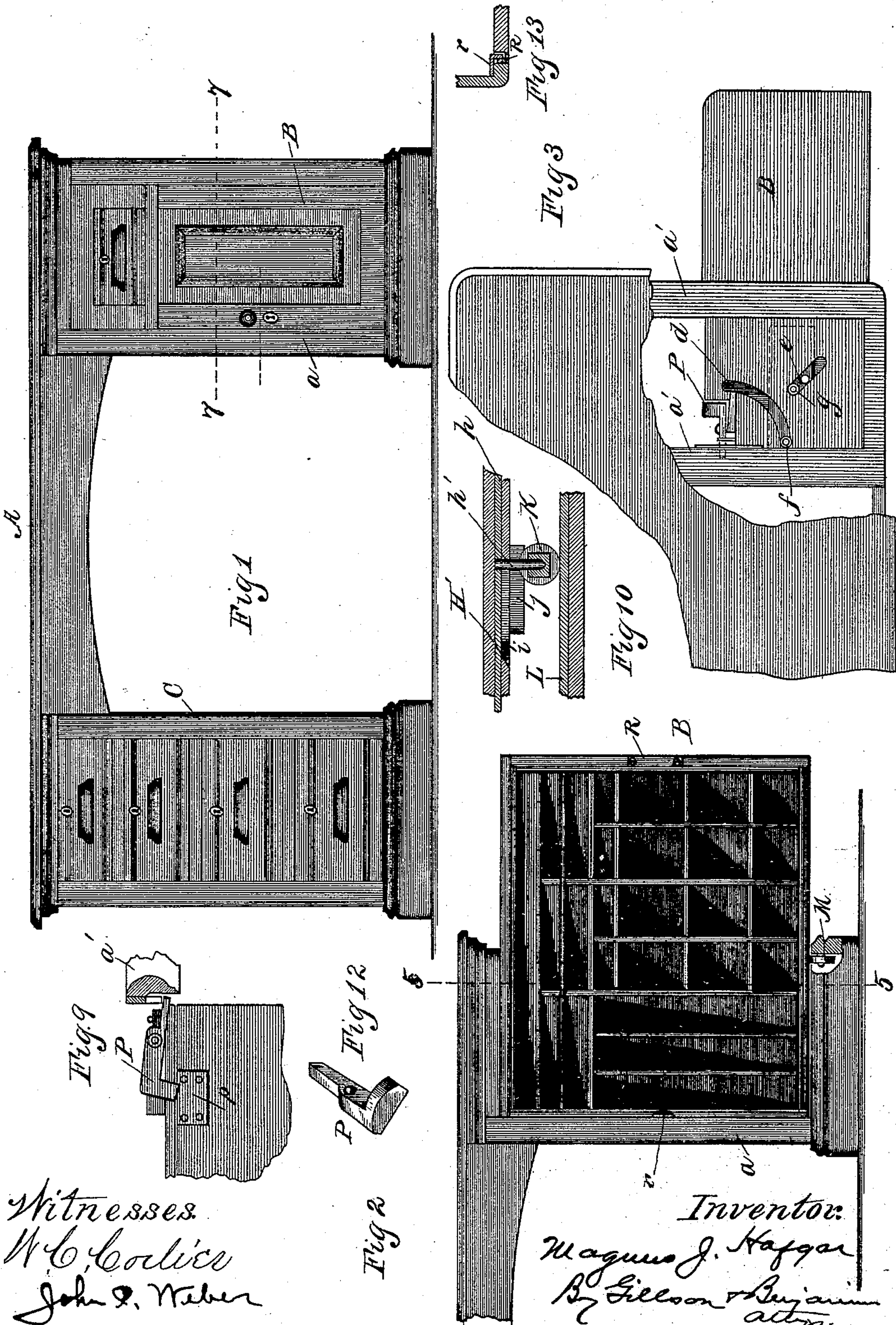
(No Model.)

2 Sheets—Sheet 1.

M. J. HAFGAR.
DESK.

No. 478,594.

Patented July 12, 1892.



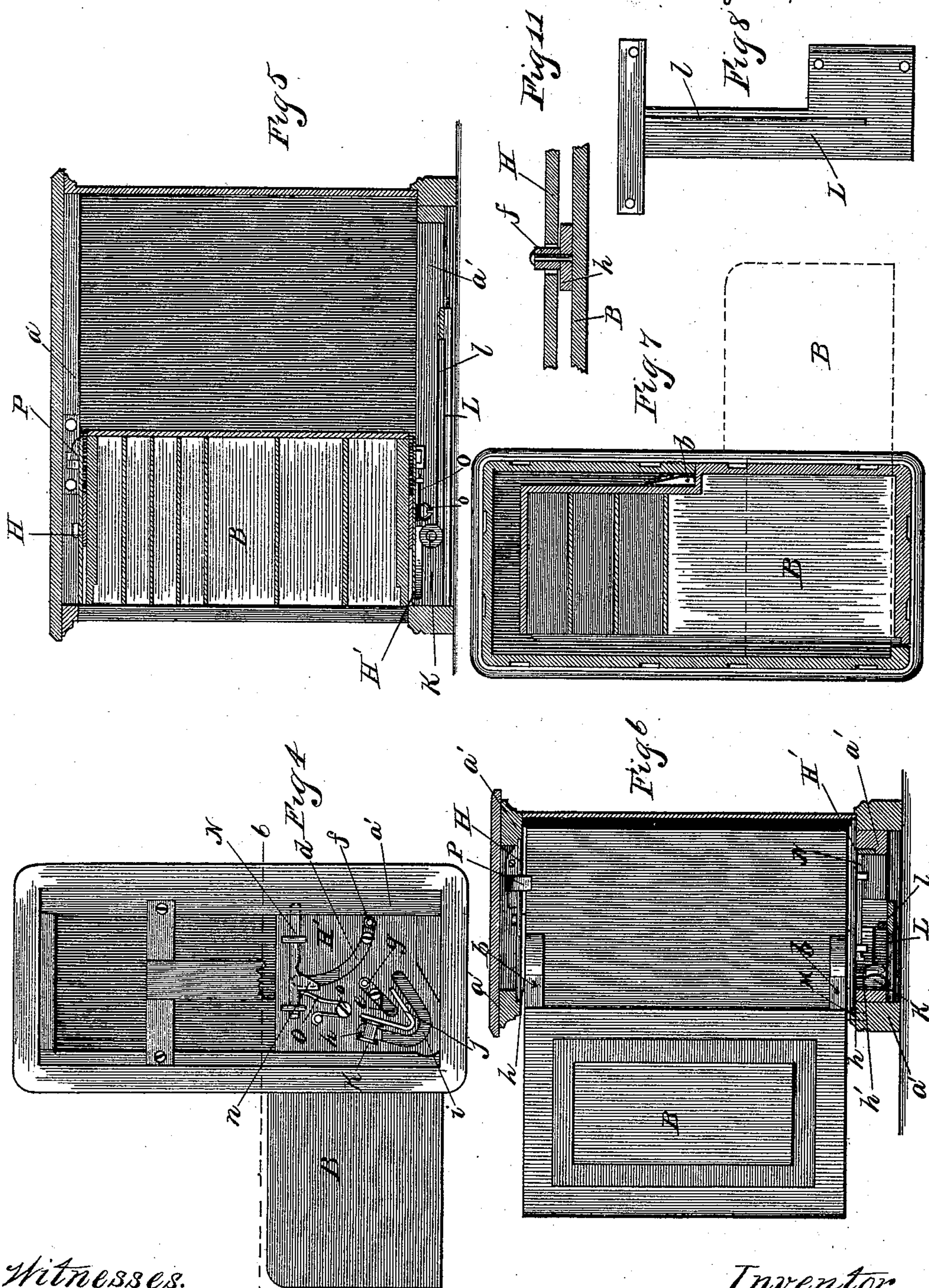
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2 Sheets—Sheet 2.

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DESK.

No. 478,594.

Patented July 12, 1892.



Witnesses.
W. C. Corlies
John P. Weber

Inventor.
Magnus J. Hafgar
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UNITED STATES PATENT OFFICE.

MAGNUS J. HAFGAR, OF CHICAGO, ILLINOIS.

DESK.

SPECIFICATION forming part of Letters Patent No. 478,594, dated July 12, 1892.

Application filed April 24, 1891. Serial No. 390,233. (No model.)

To all whom it may concern:

Be it known that I, MAGNUS J. HAFGAR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Desks; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to office-desks; and its object is to provide new and improved means for carrying a swinging and sliding cabinet having pigeon-holes, book-racks, &c.

In the accompanying drawings, Figure 1 shows a front elevation of a desk. Fig. 2 is a front elevation of a portion of the same desk, showing the cabinet open, a portion of the desk being broken away to reveal some of the mechanism. Fig. 3 is a plan view of a portion of the desk with the cabinet open, a part of the top of the desk being broken away to show the internal construction. Fig. 4 is a bottom plan view of the desk with the cabinet open. Fig. 5 is a transverse section on the line 5 5, Fig. 2. Fig. 6 is a vertical section on the line 6 6, Fig. 4. Fig. 7 is a plan section on the line 7 7, Fig. 1. Figs. 8 to 13 are details of various portions of the mechanism.

My invention consists of improvements in the means of carrying the cabinet, so as to adapt it for use in small and low-priced desks.

In the drawings, A represents a table-desk of ordinary form, having drawers in one of its upright portions C and a swinging cabinet B at the opposite end. The cabinet B is of such size as to fit within the standard of the desk and when closed forms the front and a portion of the side wall of the standard, as more plainly shown in Fig. 7.

The cabinet B is supported by a caster K, carried by the pintle *h'*, fixed in the plate *h*, which is attached to the floor of the cabinet. The caster K rides upon the floor of the desk, which is provided with a metal plate L for that purpose. Sliding hinge-plates H and H' are fitted between guide-rails *a'* at the top and bottom, respectively, of the standard *a*. The cabinet B is hinged to the plate H' by

means of the pintles *f*, *g*, and *h'*, fixed in the plate *h* at the bottom of the cabinet, and to the plate H by means of similar pintles *f* and *g*, fixed in the plate *h* upon the top of the cabinet. Said pintles are located upon a longitudinal line of the cabinet. Plates H and H' are each provided with a quadrant slot *d*, crossing the inner rear corner or quarter of the plate, and also with a diagonal slot *e* between the front and outer corner of the plate and the curved slot *d* for the accommodation, respectively, of the pintles *f* and *g*. The distance between the inner end of the slot *e* and either end of the slot *d* or between the outer end of the slot *e* and the nearest point of the slot *d* must not be less than the distance between the pintles *f* *g*.

In opening the cabinet B it is first drawn directly forward until the front ends of the plates H and H' come in contact with the front cross-bars of the standard *a*. The cabinet is then swung outwardly from the center of the desk, and by this operation the pintle *g* is carried from the inner to the outer end of the slot *e* and the pintle *f* is carried in the slot *d* to a point directly opposite the slot *e*. As the cabinet is continued in its movement and the pintle *f* passes and recedes from the slot *e* the pintle *g* is brought back to the inner end of the said slot.

The movement of the cabinet, as above described, will cause the caster K, which is located forward of the pintles *f* and *g*, to move in the form of a parabola, and I therefore locate a slot *i* of this form in the plate H' for the accommodation of the pintle *h'*.

To insure the turning of the caster K, so that it will roll in the direction in which the cabinet is moving, a longitudinal guide-flange *l* is located upon the plate L adjacent to the line of movement of the caster K and a guide-flange *j* is placed upon the plate H' adjacent to the inner side of the slot *i*.

For the purpose of preventing the cabinet from being easily displaced when open I provide devices for locking the plates H and H' when they are brought to the forward end of the standard *a* and the cabinet is swung. The locking device for the plate H consists of a weighted pawl P, pivoted to the rearward end of said plate and adapted to engage in a suitable aperture in the guide-rail *a'*. A striker-

plate *p* is fixed upon the inner end of the cabinet, so as to come in contact with the weighted end of the pawl *P* when the cabinet is in line with the standard, thus throwing the pawl out of the aperture and unlocking the plate. The device for locking the plate *H'* consists of a bolt *N*, carried in suitable eyelets fixed to the plate and adapted to be thrown into an aperture in one of the guide-rails *a'*. The bolt *N* is provided with a lateral lug *n*, having one of its edges beveled and extending across the inner end of the slot *d* when the bolt is thrown. A spring *O* is secured to the plate *H'* by the pin *o* in such position as to engage the lug *n*, so as to throw the bolt outwardly. When the desk is in line with the standard *a*, the pintle *f* forces the bolt *N* back and unlocks the plate *H'*. When the cabinet is swung, the bolt is released and the plate is locked. A caster *M* is placed at the forward outer corner of the desk to support the cabinet and relieve the friction. The inner or rearward end of the cabinet is necessarily narrower than the forward end. Shoulder-pieces *b* are placed at the forward end of the narrower part of the cabinet, so as to abut against the side wall of the standard when the cabinet is closed, thereby preventing in a measure lateral movement of the cabinet. Lateral movement of the cabinet is entirely prevented by means of the hook *r*, attached to the standard *a*, so as to engage the socket *R* on the outer end of the front of the cabinet when the latter is closed.

I am aware that a swinging cabinet having projecting arms carrying hinge-pins has been used with fixed plates having segmental and diagonal slots, and I do not claim such construction.

I claim—

1. In a desk, the combination, with a horizontally-swinging cabinet, of top and bottom sliding hinge-plates for carrying the wing, substantially as described, and for the purposes set forth.

2. The combination, with a desk, of a swinging and sliding cabinet, sliding hinge-plates, as *H* and *H'*, above and below the cabinet, segmental and diagonal slots, as *d* and *e*, in each of said plates, and pintles, as *f* and *g*, fixed in the top and bottom of the cabinet and adapted to engage in said slots, substantially as described, and for the purposes set forth.

3. The combination, with a desk, of a swinging cabinet, sliding hinge-plates, as *H* and *H'*, above and below the cabinet, segmental and diagonal slots, as *d* and *e*, in each of said plates, and pintles, as *f* and *g*, fixed in the top and bottom of the cabinet and adapted to engage in said slots, substantially as described, and for the purposes set forth.

4. In a desk, the combination, with a swinging cabinet and with sliding hinge-plates for carrying said cabinet, of a weighted latch or pawl pivoted upon said plate and a recess in the desk-frame for engaging said pawl, the cabinet being adapted when closed to disengage the pawl from the recess, substantially as described, and for the purposes set forth.

5. In a desk, the combination, with a swinging cabinet and with sliding hinge-plates for carrying the cabinet, of a spring-actuated bolt carried by the hinge-plate, a lateral lug upon the bolt and having its forward side oblique to the bolt, a pin fixed in the cabinet and adapted to bear against the oblique side of the lug as the cabinet is closed, and a recess in the desk-frame for receiving the bolt, substantially as described, and for the purposes set forth.

6. In a desk, the combination, with a swinging cabinet, of sliding hinge-plates having guideways or channels for the hinge-pins of the cabinet, latches for automatically locking the hinge-plates when the cabinet is swung open, and striker bosses or studs carried by the cabinet for disengaging the latches when the cabinet is swung into position for closing, substantially as described.

7. In a desk having a swinging cabinet, the combination, with sliding hinge-plates and with a supporting-caster, of guide-flanges, as *j* and *l*, along the path of the caster, substantially as described, and for the purposes set forth.

8. In a desk, the combination, with a sliding and swinging cabinet, of a forwardly-projecting hook *r* upon the standard of the desk and a socket *R* for engaging said hook upon the front of the cabinet, substantially as described, and for the purposes set forth.

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

MAGNUS J. HAFGAR.

Witnesses:

FRANK G. WARD,
JOHN C. WEBER.