

E. BALTZLEY.

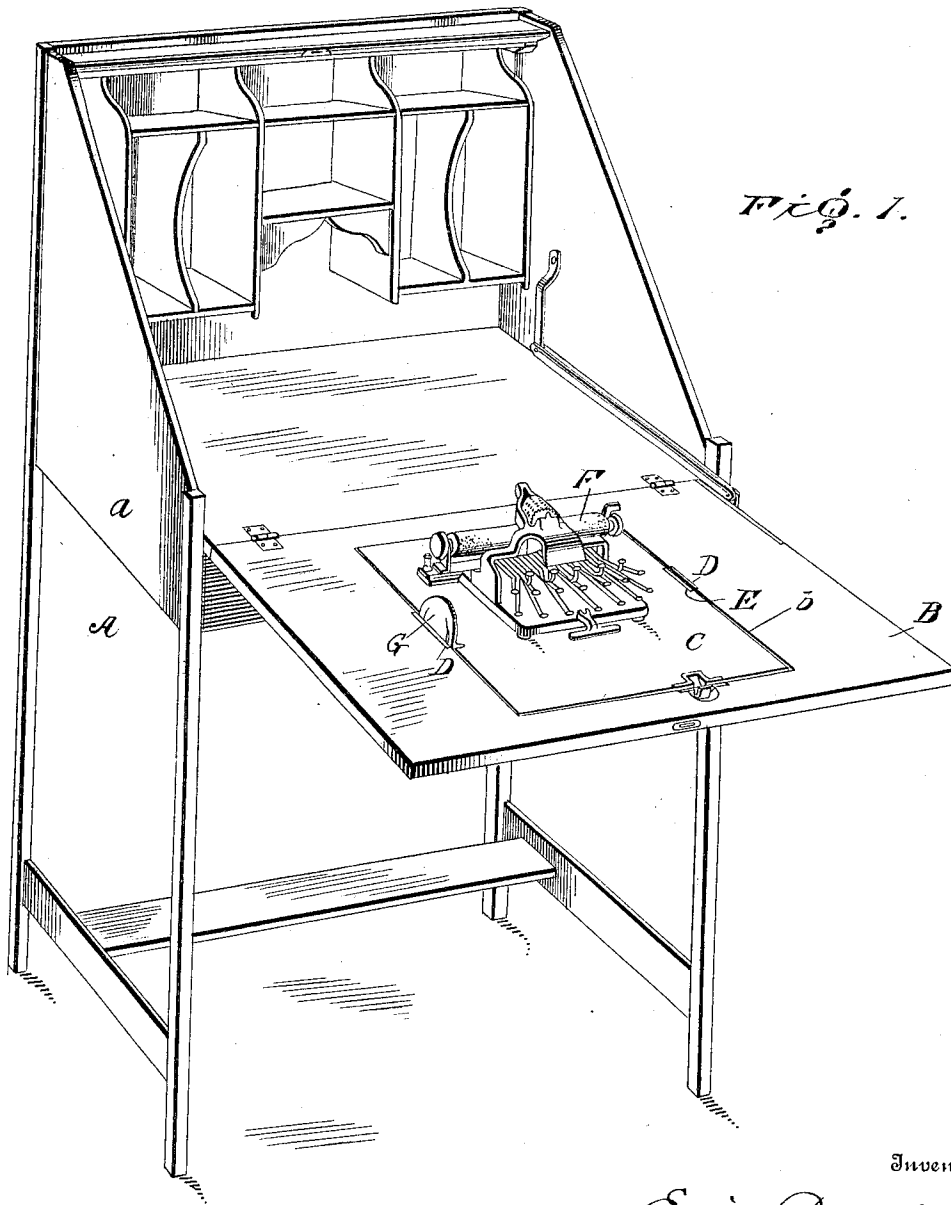
TYPE WRITER DESK OR STAND.

APPLICATION FILED MAR. 5, 1907. RENEWED SEPT. 22, 1913.

1,084,387.

Patented Jan. 13, 1914.

3 SHEETS—SHEET 1.



Inventor

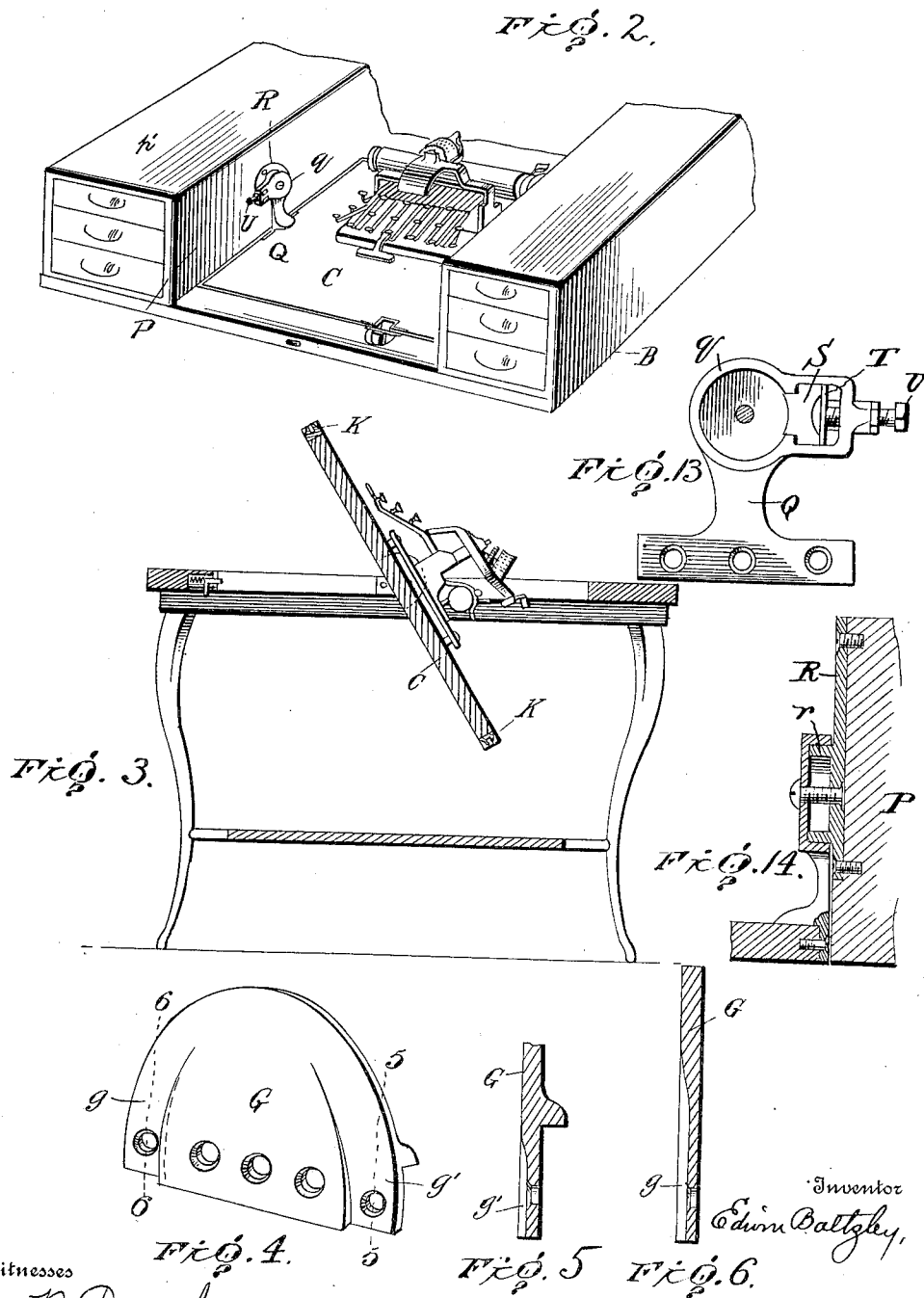
Edwin Baltzley.

Witnesses

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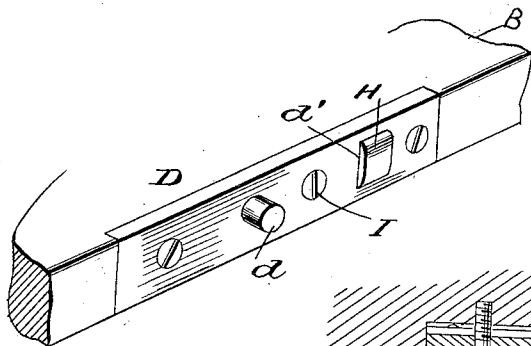


Fig. 7.

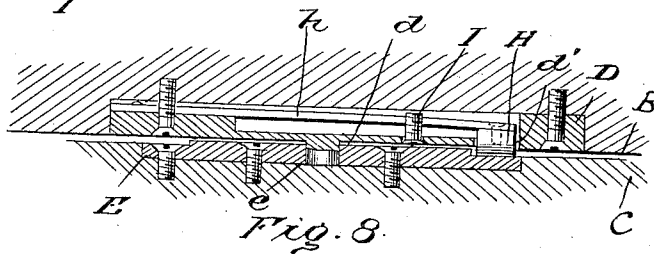


Fig. 8.

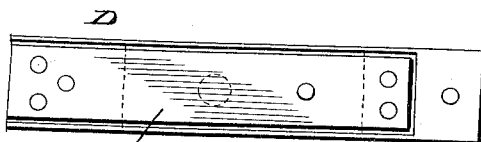


Fig. 9.

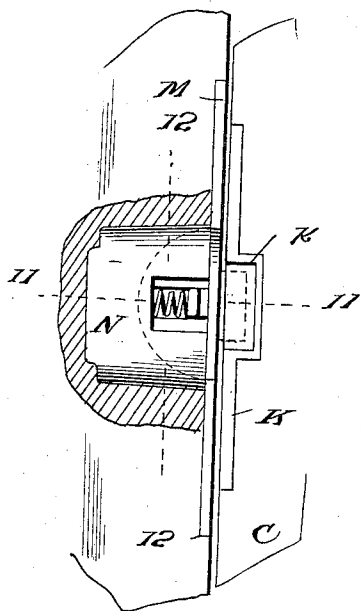


Fig. 10.

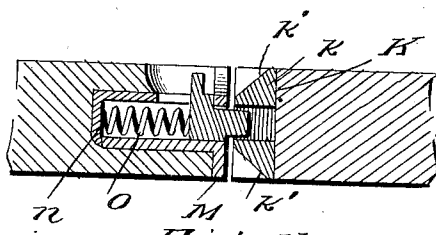


Fig. 11.

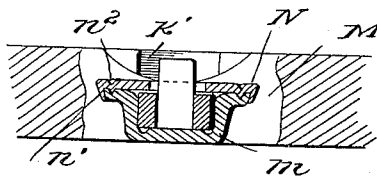


Fig. 12.

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UNITED STATES PATENT OFFICE.

EDWIN BALTZLEY, OF GLEN ECHO, MARYLAND, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO VERNON I. RICHARD, OF WASHINGTON, DISTRICT OF COLUMBIA.

TYPE-WRITER DESK OR STAND.

1,084,387.

Specification of Letters Patent.

Patented Jan. 13, 1914.

Application filed March 5, 1907, Serial No. 360,642. Renewed September 22, 1913. Serial No. 791,247.

To all whom it may concern:

Be it known that I, EDWIN BALTZLEY, of Glen Echo, in the county of Montgomery, and in the State of Maryland, have invented
5 a certain new and useful Improvement in Type-Writer Desks or Stands, and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in
10 which—

Figure 1 is a perspective view of the familiar style of desk known as a secretary with my invention applied or adapted thereto; Fig. 2 is a similar view of a fragment of the hinged leaf of the secretary shown detached from the desk and illustrating a different embodiment of my invention from that shown in Fig. 1; Fig. 3 is a vertical section through an ordinary flat top table or stand embodying my invention; Fig. 4
15 a detail perspective view of one of the members of one form of brake or controlling device I may use; Figs. 5 and 6 are, respectively, sections on the lines 5—5 and 6—6
20 of Fig. 4; Fig. 7 a detail view in perspective of the other member of said brake or controlling device; Fig. 8 a horizontal section through the parts of said brake or controlling device assembled; Fig. 9 a side
25 elevation of the member of said brake or controlling device illustrated in Fig. 7; Fig. 10 a top plan view, partly in section, of a latch device that I employ; Fig. 11 a section thereof on the line 11—11 of Fig. 10; Fig. 12
30 a section on the line 12—12 of Fig. 10; and Figs. 13 and 14 are, respectively, detail views in elevation and section of a different form of brake which I may employ.

My invention relates to disappearing devices for typewriters of the class which forms the subject of my application for Patent No. 348,470, filed December 18, 1906, wherein the typewriter is rotatably mounted in an opening in the desk, stand or other
35 piece of furniture, which opening is closed or concealed when the typewriter is in position out of use, so that the desk or other piece of furniture, when the typewriter is not in use, has the appearance of an ordinary
40 piece of furniture, and its use merely as a desk or table is freely possible notwithstanding the presence of the typewriter.

Because of the weight of the typewriter,

it is of the utmost importance, in a practical, commercial device, that its turning movements shall be as gentle and free from violence as possible, not only to avoid injury or damage to the more or less delicate mechanism, but to avoid injury or damage to the desk or stand structure, and obviate the likelihood of cutting or bruising the fingers of the user, should the fingers, by mischance, be in such position on the turning of the typewriter as to be caught.

One of the objects of my invention, therefore, is to so control the turning of the typewriter as to make its movements gentle or free from violence.

Another object of my invention is to utilize the familiar style of desk, known as the secretary, as the typewriter support or stand, the utilization of the secretary being desirable because of the convenience of this style of desk and the simplification of structure which it permits, since, when it is closed, it completely houses and protects the typewriter, and no supplemental protector or guard for it needs to be provided.

Another object of my invention is to provide a simple form of latch especially fitted to cooperate with my brake or controlling device, and especially suited for the embodiment of my invention in a secretary.

For the attainment of the objects stated, my invention consists in the construction of parts substantially as hereinafter specified and claimed.

In Fig. 1 of the drawings I show a secretary A, of ordinary construction, having hinged at its front, as usual, a leaf B, which may be turned to a horizontal position, in which position it is shown in Fig. 1, when the desk is to be used or turned to an upwardly and rearwardly inclined position, for which purpose the sides *a* of the desk are inclined, and thereby completely close the desk. In the leaf B I saw, or provide otherwise, an opening or hole *b*, whose dimensions from side to side are greater than the corresponding dimensions of a typewriter, and I pivot in such opening a board C corresponding to the form of the opening and snugly fitting the same. The opening and board are preferably rectangular, although, of course, they may be given any configuration not incompatible with the proper pas-

sage through the opening of the typewriter when it revolves with the board, as it is adapted to do so as to cause the typewriter to be placed upon one side or the other of the leaf B.

The board C may be pivoted on an axis running transversely of the desk and its hinging or pivoting may be very simply done on each side, as by means of a round pin or pintle *d* projecting horizontally from a plate or bar D let into a mortise or recess in the side wall of the leaf opening *b*, and an opening *e* for the reception of the pintle in a plate or bar E mortised or let into a recess in the contiguous edge or side of the board C, the two pivots being situated at or near the center of the board C from front to rear. The board may be freely revolved in the opening in the leaf B, either by continuous motion in one direction, or by a to-and-fro motion through a semicircle.

The typewriter F is fastened to the board C by suitable means, and preferably in such position that its weight will be nearly equally distributed in front and rear of the axis of revolution of the board C.

It will be evident that, without some means to control the turning of the typewriter from a position at the upper side of the leaf B to a position beneath it, the typewriter will move with considerable violence, and this might be disastrous to the delicate typewriter mechanism; it would strain or wrench, and perhaps damage the desk, which, if it be of the secretary type, will be a more or less delicate structure, as desks of such class are not heavily built; and there will be danger of injury to the fingers of the user, if, by inadvertence, the hand should be left in position on the leaf B with the fingers projecting in the path of movement of the board C, an accident especially likely to happen where there is a cross-piece at the front of the board, such as results as when a hole is cut wholly within the limits of the leaf B. I have, therefore, provided means to control the turning movement of the typewriter with the board C. Such means in one form of embodiment will be found illustrated in Figs. 4 to 9, and comprises a plate G, which is attached to, or made an integral extension of, the board-pivoting plate or bar E, and a friction block H attached to and supported by the pintle-carrying bar or plate D, which friction block H bears against the contiguous surface of the plate G, and thereby serves to check or control the rate of movement of the typewriter in passing from a position above the leaf B to a position below the same. The friction block H is adjustable, so that the degree of its pressure upon the friction plate G may be nicely regulated; and a very simple means for enabling it to be adjusted consists in attaching the block to one end of a

flat spring *h* whose other end is riveted to the pintle-carrying plate D, the direction of movement of the spring being to carry the block away from the friction plate G, while to move the block toward the plate and hold it with the desired pressure in contact there-with a screw I is employed which engages a tapped or threaded opening in the spring, and has its head seated in a countersunk opening in the plate D. The plate D is channeled or chambered to accommodate the spring *h*, and it is provided with a slot *d'* in its outer wall for the passage or play of the friction block H.

It has been found essential to have less friction upon the friction plate G at each end of the semi-circular swing of the typewriter than between the intermediate points, and, indeed, it is desirable to have the friction plate G practically free from pressure at the end of the semi-circular swing, and for this reason I provide the plate G with cut-away portions *g* and *g'* respectively (see Figs. 4, 5 and 6) which portions lie in a vertical plane farther removed from the friction block H than the vertical plane of the remainder of the shoe-engaging portion of the plate. This arrangement, whereby a reduction of friction, or a practical absence of friction at the points mentioned has been found necessary in the one case to enable the automatic reversing of the typewriter from its uppermost position to begin, and sufficient momentum required to continue such automatic reversal when the latch device (which is hereinafter described) is released, which holds or secures the typewriter in its uppermost position in readiness for use. In the other case of the reduction or absence of friction, it has been found necessary in order to secure the automatic latching of the typewriter, by the latch device just referred to, in its inverted position with the then upper or outer surface of the board C in the plane of the upper side or surface of the leaf B.

The latch I have invented, as especially adapted for the purpose of holding the board C in the plane of the leaf B, whether the typewriter be in one or the other of its positions, and which is so adapted because of my brake or controlling device, comprises a keeper K mortised in both the front and rear edges of the board C, and which consists of a bar or plate with a bolt-engaging slot *k*, and a bolt L slidably mounted in the front wall of the leaf opening *b*. The keeper has a beveled or inclined surface *k'* running from both the top and the bottom of its bolt-engaging slot, so that in whichever direction the board swings one inclined surface or the other will strike the bolt and crowd or cam the latter away from the keeper until the slot aligns with the bolt and the bolt can spring into the slot. The bolt

consists of a simple block slidably mounted in a casing that is formed of a plate M, that has a trough-shaped guide *m* that projects rearwardly from the plate, whose top and inner end are closed by a cap N and a depending flange *n* against which one end of the spring O bears that engages the bolt and moves it into locking position. The plate M and its bolt guide *m* may be cast, while the cap N and its depending flange *n* may be stamped out of sheet metal, and to secure the cap N in place, it has at each side, an inwardly bent lip or flange *n'* which engages an adjacent inclined surface on the side of the guide *m*, so that the connection between the two parts is a dove-tail one, the cap N being slid endwise into position and there secured by means of a prick-punch indentation *n*². For moving the bolt to release it, it has projecting from its upper side a lug that may be engaged by the finger, the cap N being slotted, of course, to accommodate said lug. It will be evident that the latch device is very simple in construction and inexpensive to manufacture, and it has both of these characteristics because it does not have to possess very great strength, this latter being possible notwithstanding the fact that the typewriter may be of considerable weight, because, by my brake device I am able to so control or regulate the movement of a comparatively heavy typewriter as to make the burden that falls upon and is borne by the latch a light one.

It will be seen that when the leaf B of the secretary is in an open position, as shown in Fig. 1, said leaf may be used as a writing surface by having the free or unoccupied surface of the board C uppermost and the board latched in such position, or the board C may be revolved, bringing the typewriter uppermost, and the typewriter used. The typewriter is secured in this position when the desk is not to be used and the leaf is closed up, because when the leaf is closed the typewriter is completely housed within the cabinet part of the desk, where it is protected from dust and possible injury of all sorts, and in external appearance the secretary will not look at all unlike an ordinary secretary.

To invert the typewriter, assuming that the leaf is open and the typewriter is uppermost, it is necessary merely to draw the latch bolt L, whereupon, as the typewriter is mounted so as slightly to unbalance the board C, the latter will begin to turn under the unbalanced weight of the typewriter, and if the adjustments are nice or close, the board will turn through a half revolution and the keeper which was at what was the then rear edge of the board, will move into engagement with and be locked by the bolt. Should the latching, however, not take place, and the now forward edge of the board C pass above the plane of the leaf B, it will

return with diminished momentum, and the keeper immediately engage with the bolt L, or it will do so after a few passes or oscillations. The first or initial movement of the board will take place as soon as the bolt is withdrawn, as has just been described, because it will be remembered the friction block H exerts little or no pressure on the friction plate G, because of the provision of the cut-away portion *g*, and the locking of the table C in the plane of the leaf B, or the coming to rest of the leaf B in such plane with the typewriter beneath the board C, is possible because just before the board C reaches such position, the friction block H exerts little or no pressure upon the friction plate G, because of the provision of the cut-away portion *g'*.

Should it be desired to have the typewriter in a lower plane when in position for use than the plane of the surface of the leaf B when used as an ordinary desk or writing surface, this may be accomplished by the construction illustrated in Fig. 2, wherein at either side of the opening for the board C and the typewriter thereon, the leaf is provided with a vertical wall P and a horizontal table-form surface *p'*, from the vertical center of which wall P the board C is pivotally suspended, so that when the typewriter is in position for use, it is in a lower plane than the board C occupies when the typewriter is inverted, for at that time the board C is in the same plane as the table surfaces *p'* at either side thereof, thus providing a table surface in a higher plane than that occupied by the typewriter.

The walls P and the table surfaces *p'* are conveniently used as the sides and tops, respectively, of a cabinet of drawers at either side of the leaf B, so that I thus most advantageously use the construction which I have devised for having the typewriter, when in use, in a lower plane than the table or desk surface when this is to be used as an ordinary writing desk.

I show as applied to the construction illustrated in Fig. 2 a different form of brake or controlling device, which, as illustrated in Figs. 13 and 14, consists of an annular or ring-form socket *q* attached to or integral with one of the hangers Q for pivotally suspending the board C, a ring-form or annular hub *r* on a bracket R fastened to the desk wall P, and a friction block or shoe S radially slidable in a lateral off-set or extension of the socket *q*, and bearing yieldingly upon the periphery of the hub. The block or shoe is caused to yieldingly bear upon the hub by means of a spring T in the form of a simple elastic plate bearing upon the block or shoe, and whose tension is adjustable by means of a set screw U. I do not make any specific claims herein to this form of my brake, as the same con-

stitutes the subject of a separate application for patent, filed March 5, 1907, No. 360,643.

In Fig. 3 I show my invention as applied to an ordinary flat top table or stand, which may be a delicate or light structure, because of the fact that the revolution of the typewriter is under such complete control that the stand is not subjected to any objectionable shocks or strains. As the mechanism of this adaptation of my invention is, or may be, precisely like that which I have described in connection with the adaptation of it to a secretary, it is not necessary to give any detailed description of the mechanism illustrated in Fig. 3.

It is to be understood that I do not limit the scope of my invention to the particular details of construction which I have illustrated and described, nor is it necessary that all the various devices I have described be embodied in one organization; and I also wish it understood that, though I have made my invention with especial reference to its employment with typewriters I, nevertheless, regard the adaptation of my device for other machines which it may be desirable to mount disappearingly, to be within the scope of my invention.

Having thus described my invention, what I claim is:—

1. In a stand for typewriters and other machines, the combination of means for rotatably supporting a typewriter, a device for controlling such rotation while it is in progress, and means for rendering such device active after the commencement of such rotation.

2. In a stand for typewriters and other machines, the combination of means for rotatably supporting a typewriter, a device for controlling such rotation while it is in progress, and means for rendering such device inactive before the completion of the turning of the machine.

3. In a stand for typewriters and other machines, the combination of means for rotatably supporting a typewriter, a device for controlling such rotation while it is in progress, and means rendering said device inactive at the beginning and end of the turning movement.

4. In a stand for typewriters and other machines, the combination of means for rotatably supporting a typewriter, a device for controlling such rotation, means rendering said device inactive at the beginning and end of the turning movement, and automatic means to latch the machine in reversed position, and when the controlling device is inactive.

5. A brake device for rotatably mounted

typewriters or other machines, comprising a friction plate and a friction block, the plate having surfaces opposite the block that lie in different planes in combination with a rotating member whose movement is to be controlled.

6. A stand for typewriters and other machines, having a cabinet with a swinging leaf that performs the double function of a door and table, and means rotatably supporting the machine by said leaf, a brake device for controlling the rotation of the machine, and a latch for holding the machine in a fixed position.

7. In a stand of the class described, the combination with a rotatable supporting member, and a structure in which the same is mounted for rotation, of means for controlling the speed of rotation of said supporting member comprising a friction plate having cut-away terminal portions, and a friction shoe yieldably mounted in relation to said plate and adapted to engage the same intermediate the cut-away portions.

8. In a stand of the class described, the combination with a rotatable supporting member, and a structure in which the same is mounted for rotation, of means for controlling the speed of rotation of said supporting member comprising a friction plate, and a friction shoe bearing against said plate, the latter being provided with means for affording variation in pressure of the friction shoe relatively to the plate at different points in the rotation of said supporting member.

9. In a stand of the class described, an element having a table surface, and also provided with an opening, a board pivoted and reversible in said opening, said board in its normal and reversed positions lying in the plane of the table surface, a brake device to control the movement of said board, and automatic means to lock said board when in both its normal and reversed positions.

10. In a desk, the combination with a cabinet, of a door hinged to the front thereof to swing from horizontal to a closed position, a board pivoted and reversible in an opening in said door, a brake device to control the movement of said board, and automatic means to rigidly lock said board when in both its normal and reversed positions.

In testimony that I claim the foregoing I have hereunto set my hand.

EDWIN BALTZLEY.

Witnesses:

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F. J. EHLERS.