

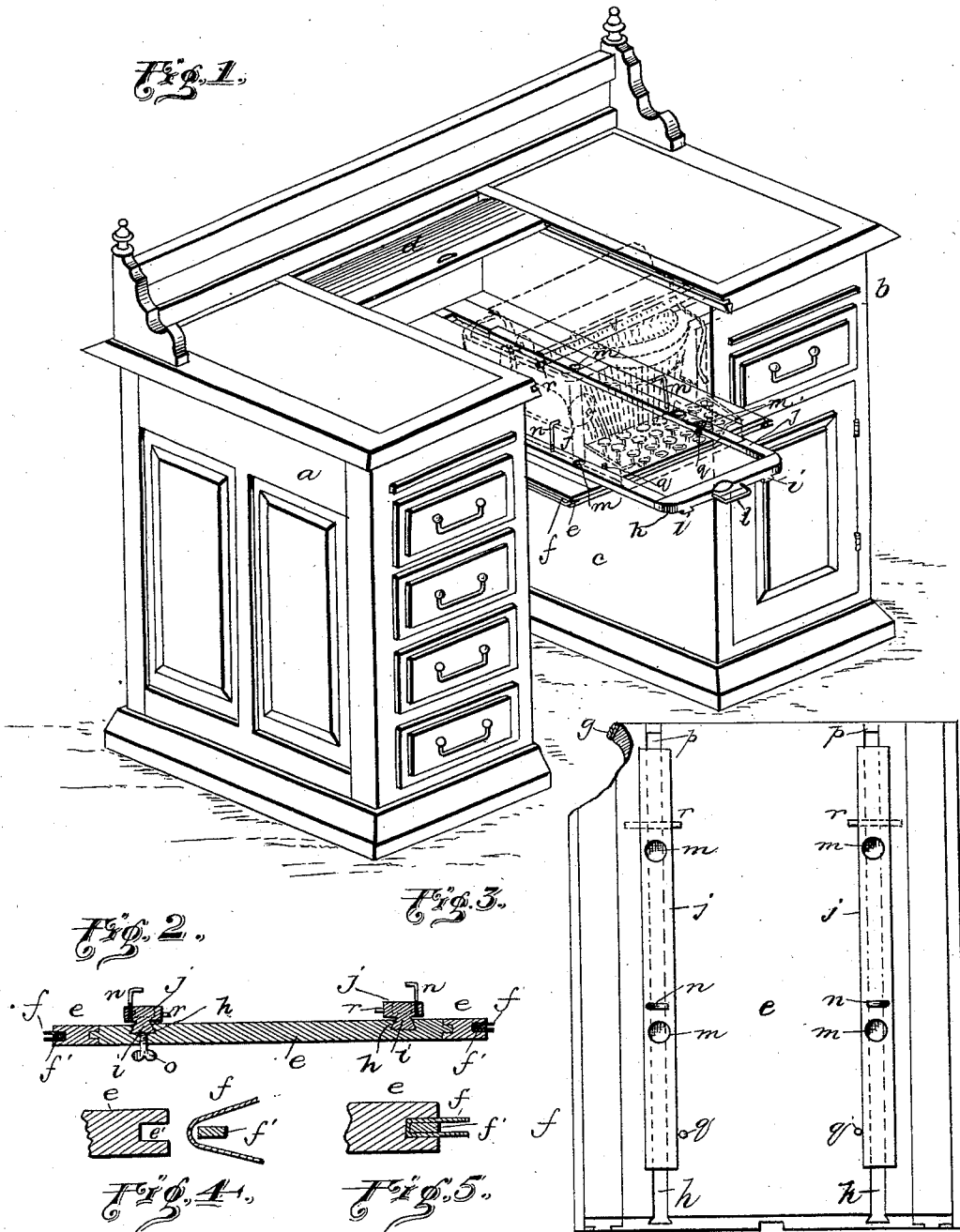
(No Model.)

2 Sheets—Sheet 1.

L. G. BILLINGS.
TYPE WRITER CABINET.

No. 411,003.

Patented Sept. 17, 1889.



WITNESSES
F. L. Ouraud
Edwin A. Finckel.

INVENTOR
Luther G. Billings
by W. H. Finckel
his Attorney

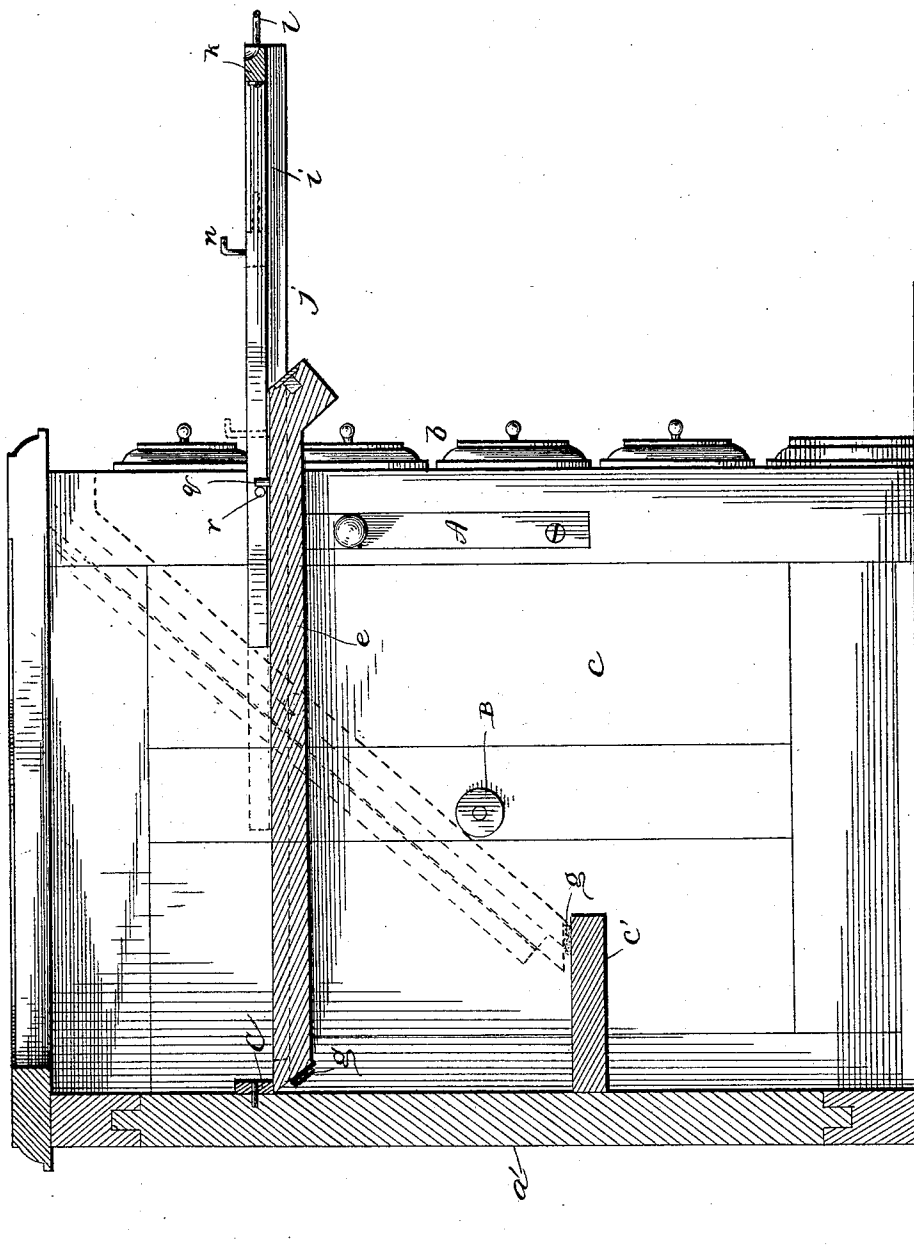
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WITNESSES

Wm R. Mackrille,
Edwin A. Finckel.

FIG. 2.

INVENTOR

Luther G. Billings,
by Wm A. Finckel,
Attorney.

UNITED STATES PATENT OFFICE.

LUTHER G. BILLINGS, OF WASHINGTON, DISTRICT OF COLUMBIA.

TYPE-WRITER CABINET.

SPECIFICATION forming part of Letters Patent No. 411,003, dated September 17, 1889.

Application filed May 7, 1888. Serial No. 273,108. (No model.)

To all whom it may concern:

Be it known that I, LUTHER G. BILLINGS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a certain new and useful Improvement in Type-Writer Cabinets, of which the following is a full, clear, and exact description.

The object of this invention is threefold—namely, first, to render the platform which receives the machine proof against the entrance from below of dust into the chamber in which the machine is inclosed when not in use; second, to provide for the ready movement of the machine upon the platform and to bring it out into the operator's lap as far as may be desired, or, in other words, to make an extension-platform, and, third, to render the desk or cabinet as non-resonant as possible under the operation of the machine.

The invention consists, therefore, in a type-writer cabinet having a swinging platform pivoted in a well between the stationary ends of the cabinet, and having its side and rear edges provided with felt, cloth, rubber, or other flexible material, whereby the spaces between the platform and the walls of the well are filled up or closed against the passage of rising dust above the platform.

The invention further consists in a platform provided with a machine-carriage adapted to be slid back and forth upon the platform and to be held in any position thereupon, so as to permit the machine to be placed in positions to be inclosed in the well and for use by the operator to admit of bringing the machine into any position relatively to the operator, even well out of the cabinet and into the operator's lap as may be desired or most convenient for use.

The invention further consists in isolating or insulating the platform from the desk or cabinet and the carriage from the platform, so as to make the cabinet as non-resonant as may be, and this is effected by the felt or other non-resonant flexible material on the edges of the platform, and by raising the carriage from the platform.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view showing the machine-

carriage drawn out for use. Fig. 2 is a cross-section of the platform. Fig. 3 is a plan view of the platform, the carriage being returned and with one corner of the platform broken out to show the packed rear edge. Fig. 4 is a sectional display of the construction employed for securing the side packing. Fig. 5 is an enlarged cross-section of the side edge, showing the same features in position; and Fig. 6 is a vertical section of the form of desk shown in my patent, No. 382,942, dated May 15, 1888, with my present improvements applied.

For examples of the class of platforms to which my improvement primarily relates reference is made to my application for patent filed March 22, 1888, Serial No. 263,134, and to my patent just above mentioned, though there are other examples in patented type-writer cabinets of shelves or platforms having similar tilting, swinging, or pivotal capacity and adapted to receive my additions, although my invention may be applied wholly or in part to stationary platforms.

For illustration I have shown my invention applied to a cabinet having the side compartments *a* and *b*, which are connected by a back *a'*, as usual, and are separated by a well *c*, which latter is covered or inclosed by a flat rolling top *d*, as in my case last referred to, as indicated in Fig. 1, or by a hinged top, as in the form of desk shown in my patent, No. 382,942, dated May 15, 1888.

The shelf or platform *e* may be of ordinary construction and material and hung in the well in any approved manner, though I prefer it should be so hung that when placed horizontally for writing purposes its forward end will project four or more inches beyond the front of the cabinet, as in my cases referred to.

In order to make a dust-proof fit between the side edges of the platform and the walls of the well, I provide the said side edges of the platform with strips *f* of felt, cloth, rubber, or other flexible material, projecting therefrom with such freedom as to make a sort of packing between the platform and well, sufficiently tight and close to arrest the upward passage of dust past the platform, and yet flexible enough not to bind the platform or interfere with its movement, and I also similarly pack the rear edge of the platform,

as at *g*, Fig. 3, this portion coming in contact with and resting upon the dust-board *c'*, (shown in Fig. 6,) and usual in the class of cabinets referred to.

5 A convenient way to secure especially the side packing to the platform consists in making saw-kerfs or other grooves *e'* in the edges of the platform, then folding or doubling strips of the packing material *f* about splines
10 or feathers *f'*, which are then driven into the kerfs or grooves with the packing between them. Glue may be laid in the kerfs or grooves and on the splines or feathers for additional security. The cut edges of the pack-
15 ing project freely from the sides of the platform, so as to be self-conforming to the sides of the well and not interpose too much friction. The details of this way of securing the packing are fully illustrated in and by Figs.
20 2, 4, and 5. The packing *g* may be tacked or otherwise fastened on flat to the platform in any thickness or any number of folds.

In the third part of my invention I have referred to this dust-proof packing (designated *f* and *g*) as subserving the additional
25 purpose of isolating or insulating the platform from the desk or cabinet sufficiently to largely diminish, if not quite overcome, resonance. The noise of the operation of a type-
30 writer is considerable and to some persons excessively annoying, and when to this is added the sounding-board qualities of the desk or cabinet it becomes somewhat of a nuisance. The packing serves as a mute, as already indicated, and thus overcomes this objection.
35 The face of the platform is provided with longitudinal grooves *h h*, preferably made dovetail, and these grooves receive complementally-shaped rails *i*, projecting from the machine-carriage, whereby such carriage may be
40 made to traverse the platform. Two forms of carriage are shown. In both I employ slides *j*, of wood or other material, which are provided with the rails *i*, just mentioned. In one form,
45 Fig. 1, these slides are connected by a front cross-piece *k*, which may have any suitable handle *l*; but in practice this cross-piece and its handle will be hardly necessary, and hence in the other form, as shown in Fig. 3, I dis-
50 pense with them, and in their stead the machine set upon the slides performs practically their functions. The slides *j j* stand above the face of the platform an eighth or even a
55 sixteenth of an inch by reason of the height of their rails, and so are insulated from the platform, and thus assist in reducing resonance in accordance with the third part of my invention. The slides are provided with
60 cavities *m* to receive the usual cushioned or insulated feet of the machine, and thus the machine, with its rigid frame, serves to unite or couple the slides and enable them to be moved together. The machine is held to the slides and kept down thereon by turn-buttons
65 *n*, here shown as right-angled screw-hooks of ordinary construction tapped into the slides and adapted to engage the frame of the ma-

chine. The turn-buttons *n* also serve as stops or clamps to securely hold the carriage in any given position, and to this end said turn-but-
70 tons may have squared or flat ends to be turned down through the slides and be jammed against the face of the platform. The usual extended position of the carriage is indicated by the horizontal dotted-line posi-
75 tion of Fig. 6, though the full-line position of Fig. 6 may be employed.

Instead of using the turn-button for clamping the carriage in adjusted position, a separate clamping device may be used, such as a
80 set-screw *o*, (shown in Fig. 2;) or any other suitable clamp and otherwise arranged may be employed for this purpose.

Stops *p* are employed to limit the rearward movement of the carriage, and these stops
85 may be pieces of wood fitted into the grooves *h*. Stops for limiting the forward movement may consist of stationary upright pins *q*, set in the face of the platform and engaged by movable pins *r*, extending transversely from the
90 slides into the planes of the pins *q*. The pins *r* are made movable, so as to be slipped out of contact with the pins *q*, as indicated by the dotted lines in Fig. 3, to permit the entire removal of the carriage from the platform.
95

Obviously the carriage with the superposed machine may be drawn forward right into the operator's lap when desired, and as shown in full lines in Fig. 6, and this is oftentimes
100 quite convenient.

As already stated, the packings *f* and *g* deaden the noise of the machine, or, more accurately, intercept its transmission through the resonant cabinet, and hence overcome one
105 fault common to such cabinets. The insulated slides of the carriage assist in the same direction. The packing *g* also cushions the descending platform against the usual dust-board. The carriage movable upon the platform, as described, converts such platform,
110 practically, into an extensible platform.

Any suitable and common anti-friction device or medium may be interposed between the rails and grooves or carriage and platform, if desired; but ordinarily none will be needed.
115

In Fig. 6, *A* may represent the catch *k* of Patent No. 382,942 to hold the platform in horizontal position, and *B* and *C* may represent the buffers *n* and *o*, respectively, of said patent to act as stops for the platform.
120

What I claim is—

1. In a type-writer cabinet, the combination, with stationary ends connected by a back, with a well between them and a dust-board in the well, of a platform pivoted in the well
125 and having its side and rear edges provided with felt, cloth, rubber, or other flexible material, whereby the spaces between the platform, the dust-board, and the sides of the well are filled up, substantially as and for the pur-
130 poses described.

2. In a type-writer cabinet having a well and usual dust-board therein, a pivoted platform in said well, combined with flexible

packing-strips arranged upon its sides and rear end to exclude rising dust, and also to insulate the platform from the cabinet and impede or intercept the transmission of sound, substantially as described.

3. In a type-writer cabinet having an open-front well to receive the machine, a platform pivoted in said well and adapted to be moved toward the operator, combined with a machine-carriage arranged upon the face of the platform and adapted to be moved thereon toward the operator, substantially as and for the purpose described.

4. In a type-writer cabinet having an open-front well to receive the machine, a platform pivoted in said well and adapted to be moved toward the operator, and having parallel dove-tail grooves in its face, combined with slides having rails arranged in said grooves, and thereby secured to the platform, and constituting a carriage to receive the machine and adapted to be moved toward the operator, substantially as described.

5. In a type-writer cabinet having an open-front well, a platform pivoted in said well and adapted to be moved toward the operator, and having grooves in its face, combined with a machine-carriage comprising slides and rails fitted in said grooves, and also adapted to be moved toward the operator additionally to the movement of the platform, the slides being provided with sockets to receive the usual feet of the machine, and turn-buttons to lock the machine to the slides and incidentally to fix the slides in given position, substantially as described.

6. In a type-writer cabinet having an open-front well, the pivoted platform for moving the machine toward the operator for use and back again for disuse, having longitudinal grooves in its face, and a traversing carriage provided with rails fitted to slide in said grooves and adapted to receive the machine and further move it toward the operator, combined with a screw to retain the carriage in adjusted position, substantially as described.

7. In a type-writer cabinet having an open-front well, the pivoted platform for moving the machine toward the operator for use and back again for disuse, and provided with face

grooves, combined with a carriage adapted to further move the machine toward the operator, and having rails fixed to it and fitted to slide in said grooves and of a height greater than the depth of the grooves to elevate the carriage slightly above and so insulate it from the platform, substantially as described.

8. In a type-writer cabinet, the sides *a b* and open-front well *c* between them, combined with the platform pivoted in said well and adapted to move toward the operator and having grooves in its face, and the machine-carriage adapted to further move the machine toward the operator, and having parallel slides constructed with rails which are fitted in said grooves, and the cross-piece connecting the slides at their outer or leading ends and provided with a handle, substantially as described.

9. In a type-writer cabinet, the combination of a platform arranged in a horizontal plane for supporting the machine for use within the cabinet and having grooves in its face, a machine-carriage having slides and rails fitted to said grooves and adapted to be drawn forward beyond the front of the cabinet, and so as to project over the front edge of the platform and well into the lap of the operator, stationary pins on the platform, and intercepting movable pins on the carriage to arrest the forward movement of the carriage, substantially as described.

10. In a type-writer cabinet, the platform arranged in a horizontal plane for supporting the machine for use within the cabinet, combined with an extension for receiving the machine, movable upon the platform and adapted to be projected not only beyond the front of the cabinet, but also over the outer end of the platform, thus to place the machine well out of the cabinet and into the lap of the operator, as desired, substantially as described.

In testimony whereof I have hereunto set my hand this 4th day of May, A. D. 1888.

LUTHER G. BILLINGS.

Witnesses:

EDWIN A. FINCKEL,
WM. R. MACKRILLS.

It is hereby certified that in Letters Patent No. 411,003, granted September 17, 1889, upon the application of Luther G. Billings, of Washington, D. C., for an improvement in "Type-Writer Cabinets," an error appears in the printed specification requiring correction, as follows: In line 68, page 1, the serial number "263,134," should read 268,134; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 24th day of September, A. D. 1889.

[SEAL.]

CYRUS BUSSEY,

Assistant Secretary of the Interior.

Countersigned:

C. E. MITCHELL,

Commissioner of Patents.