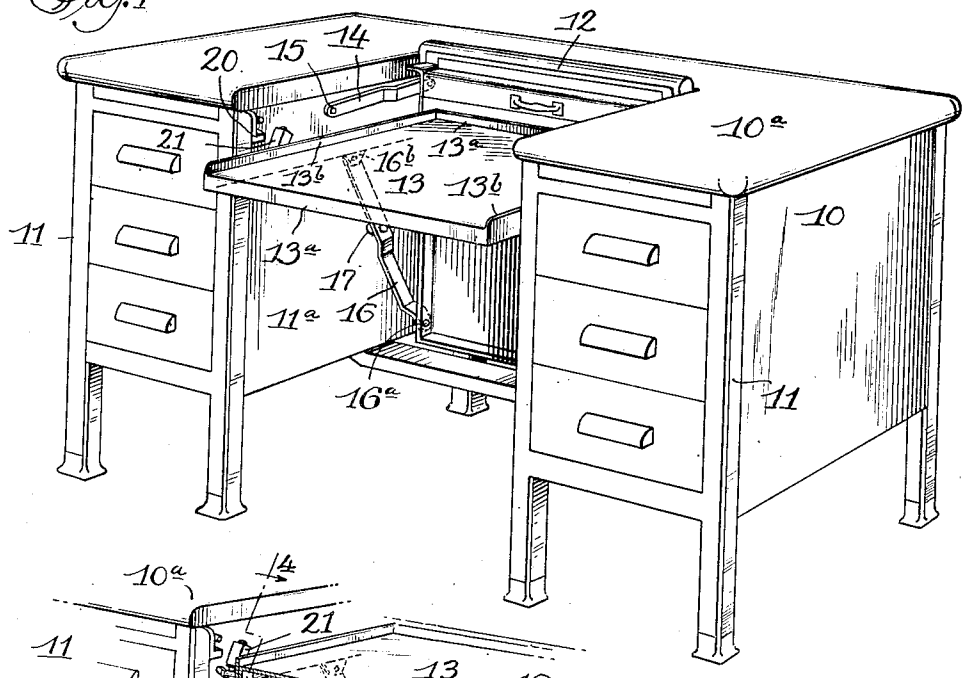
Sept. 23, 1941. J. S. BURDICK 2,256,547

DROPHEAD TYPEWRITER DESK

Filed March 2, 1939

Fig. 1



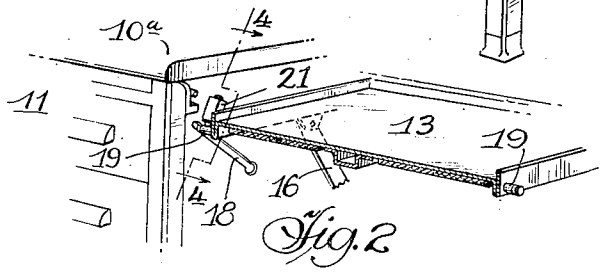




Fig. 2

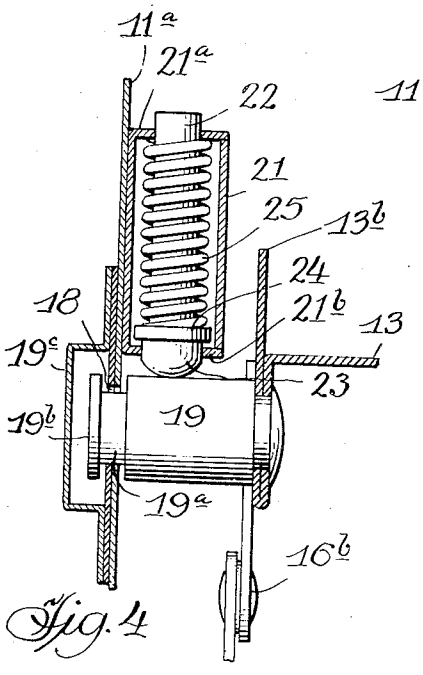



Fig. 4

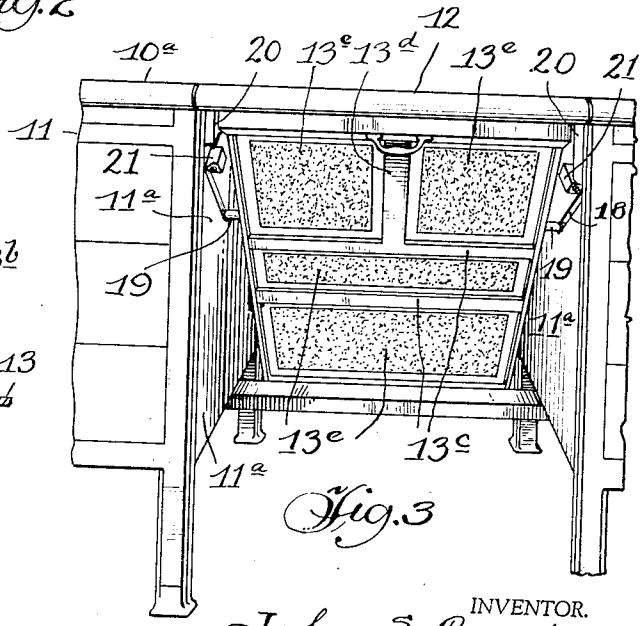



Fig. 3

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## DROPHEAD TYPEWRITER DESK

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Application March 2, 1939, Serial No. 259,346

5 Claims. (Cl. 312—25)

This invention relates to typewriter desks of the drop-head type and consists of the matters hereinafter described and more particularly pointed out in the appended claims.

In typewriter desks of the kind the typewriter platform is mounted below the plane of the desk top in an open space (or well) between the pedestals and is connected by levers fulcrumed on the side walls of said pedestals to the rear end of a sectional top adapted to close said space. The sectional top is also connected by arms to the sides of the pedestals so that by a vertical pull at the front end of the sectional top it may be brought to position to close the space between the pedestals and at the same time the typewriter platform will be swung to a position downwardly and rearwardly inclined below said sectional top. To guide the typewriter platform in this movement it is provided with laterally projecting studs near its forward end which engage and are adapted to slide in upwardly and forwardly inclined slots in the side walls of the pedestals in such manner as to guide the platform from one position to the other. As heretofore made, there is an element of looseness or play between the studs and the guide slots after the typewriter platform has been brought to horizontal position, which permits an objectionable vibration or movement of the typewriter platform in the operation of the typewriter.

The object of the invention is to provide in such a desk means associated with the said studs and guide slots which will lock the platform, when brought to its upper position, against both vertical and lateral movement, and prevent or reduce to a minimum the vibration which would otherwise occur in the operation of the typewriter.

The advantages of the invention will appear more fully as I proceed with my specification.

In the drawing:

Figure 1 is a perspective view of a typewriter desk of the drop-head type, showing my improvement applied thereto.

Figure 2 is a detail perspective view with the front end of the typewriter platform broken away to show the device by means of which the platform is held against vibration when in its operative position.

Figure 3 is a partial perspective view of the desk showing the sectional top in closed relation and the platform in its lower position.

Figure 4 is an enlarged detail sectional view of a stud and guide slot in a plane indicated by the line 4—4 of Figure 2.

Referring now to that embodiment of the invention illustrated in the drawing: 10 indicates a typewriter desk of the drop-head type having a fixed top $10^a$ and laterally spaced pedestals 11, 11. 12 indicates a sectional top adapted to close the space between the pedestals when the typewriter platform has been dropped, as shown in Figure 3, and which is adapted to stand in vertical position at the back of the space between the pedestals when the typewriter platform indicated at 13 is in raised horizontal position, as shown in Figure 1. The sectional top 12 is pivotally connected at its forward end to arms 14 pivotally connected at 15 to the inner sides of the pedestals. The rear end of said sectional top is pivotally connected at $16^a$ to levers 16 fulcrumed on the inner side walls of the pedestals at 17 and pivotally connected at their upper ends at $16^b$ to the sides of the typewriter platform. 18, 18 (see Figures 2 and 3) indicate upwardly and forwardly inclined slots formed in the side walls of the pedestals near their front ends, and 19, 19 indicate studs projecting laterally from the typewriter platform 13 and engaged to ride in the slots 18. Brackets 20 on the sides of the pedestals near the top $10^a$ of the desk arrest and hold the sectional top in horizontal position when it is swung upwardly and forwardly to drop the typewriter platform or head to the position shown in Figure 3, and to close the space between the pedestals. The construction thus far is familiar and needs no further description.

Near the upper forward end of each slot 18 in the space between the side of the typewriter platform 13 and the side of the proximate pedestal is mounted on said pedestal a housing 21 containing a spring-controlled plunger 22. The housing 21 and the plunger 22 are so disposed that the plunger is directed at approximately a right angle to the length of the associated slot 18, and are positioned near the upper end of the slot 18 at a point where the plunger 22 will engage the stud 19 in the slot 18 and hold it forcibly against the bottom edge of said slot when the platform 13 is in its upper normal position for operating the typewriter, shown in Figures 1 and 2.

The top end of the plunger 22 extends through an opening in the top wall $21^a$ of the housing 21. The bottom end of the plunger is of larger diameter and is formed with a rounded end or head 23 which projects through an opening in the bottom wall $21^b$ of the housing. Above said head and within the housing the plunger is provided with a collar 24 of still larger diameter;

and a coiled spring 25, acting between the top wall 21a of the housing and said collar 24, forces the head 23 into contact with the associated stud 19 when the typewriter head has been brought to position to bring said stud 19 into line with said plunger 22. When the stud 19 is at either side of said plunger, the movement of the plunger is arrested by the collar 24 striking the bottom end wall 21b of the housing 21, so that the head 23 of the plunger normally stands in the path of movement of the stud 19.

The stud 19 in the space between the platform 13 and the pedestals 11 is of greater diameter than the width of the slot 18 (see Figure 4). It has a part 19a in the plane of the slot 18 of less diameter than the width of said slot in which it rides. It has also a flange 19b beyond the plane of the slot, preferably housed by a channel plate 19c fixed to the side wall of the pedestal.

The operation is as follows: When the sectional top 12 is swung from closed position (Figure 3) to uncover the space between the pedestals 11 and to bring the typewriter platform 13 to working position (Figure 1), the studs 19 move first to the top ends of the slots 18 and then return to rest when the typewriter platform is in normal upper position as shown in Figure 1, to points slightly below said upper ends. This is because of the complementary movements of the several pivotal and fulcrum points of the arms 14 and levers 16 in desks of the kind. Thus the studs 19 in their upward movement will engage and pass the yielding heads 23 of the plungers 22 and will be reengaged thereby on their short return movement when they reach a position in diametric alignment with said plungers as shown in Figure 4, with the typewriter platform in its upper normal position.

In such position the plungers 22 under the pressure of the springs 25 (which are made preferably to exert a pressure of approximately twenty-five pounds) will directly hold the platform studs by the engagement of their reduced parts 19a against the bottoms of the slots 18 against vertical vibratory movement of the platform 13. At the same time said plungers by their pressure and the friction increased thereby between the said reduced parts 19a of the studs and the bottoms of the slots 18, will hold the studs 19 against longitudinal movement and against a corresponding lateral movement of the typewriter platform 13. As a result the usual vertical and lateral vibratory movement of the platform 13 in the operation of a typewriter in a desk of the kind is obviated or reduced to a minimum.

In describing the invention, I have omitted details of construction which, in the preferred form illustrated, are those involved in the usual fabrication of metal furniture, without any reference whatever to the familiar reinforcements generally adopted in such structures. It is to be understood that the invention is in no way limited to such details as illustrated or described except as may be pointed out in the appended claims.

Since the typewriter platform is made of sheet metal it is subject to internal vibration in the operation of the typewriter which, unless obviated, results in a drumming, hollow reverberation or noise. For the purpose of strengthening the platform and making the sheet metal plate of which it is made as rigid as possible, it is provided with front and back flanges 13a, 13a and lateral flanges 13b, 13b (see Figures 1 and 2). In addition, it is provided on the bottom with fixed, transverse bars 13c, 13c (see Figure 3) extending between the lateral flanges 13b and a median longitudinal bar 13d extending between the front flange 13a and the nearer transverse bar 13c.

In the spaces between said bars and flanges are secured to the bottom of said platform 13 by suitable cement, strips or sheets of felt 13e. Said felt strips or sheets terminate at their edges somewhat short of the proximate flanges and bars, as shown in Figure 3. It has been found that such felt strips deaden and practically eliminate the hollow drumming sound above referred to.

I claim as my invention:

1. In a typewriter desk of the drop-head type, including spaced pedestals, a typewriter platform mounted between said pedestals and movable between a working position and a retracted position, pairs of inter-engaging guide members for said platform, one of each pair being fixed to said platform and the other to the associated pedestal, one guide member being a stud extending transversely to the travel of said platform and the other comprising means providing a slot in which said stud is guided, and a spring actuated member positioned to engage said stud when said platform is in working position, said spring actuated member being adapted to direct its pressure approximately at right angles to said stud and to said slot to hold said stud in said slot against transverse and longitudinal movement of said stud.

2. In a typewriter desk of the drop-head type, including spaced pedestals, a typewriter platform mounted between said pedestals and movable between a working position and a retracted position, horizontal studs carried at the edges of said platform, means fixed to said pedestals providing guide slots for said studs, and spring actuated members mounted on said pedestals in position to engage said studs when said platform is in working position, said spring actuated members being directed to engage said studs approximately at right angles to said studs and to said slots to hold said studs in said slots against transverse and longitudinal movement.

3. In a typewriter desk of the drop-head type, including spaced pedestals, a typewriter platform mounted between said pedestals and movable between a top horizontal working position and a retracted position, lateral studs projecting from said platform near its forward edge, and means providing guide slots on said pedestals for engagement by said studs, spring-controlled plungers mounted on said pedestals and positioned to engage said studs and hold them against said guide slot means when said platform is in working position, said plungers being directed to engage said studs approximately at right angles to said studs and said slots to hold said studs in said slots against transverse and longitudinal movement.

4. In a typewriter desk of the drop-head type, including spaced pedestals, a typewriter platform mounted between said pedestals and movable between a top horizontal working position and a retracted position, lateral studs carried by said platform near its forward edge, slotted plates fixed to said pedestals and engaged by said studs, housings fixed to said pedestals adjacent the upper end of said slots, and spring-controlled plungers mounted in said housings and projecting therefrom into the paths of said studs, said

plungers being directed and positioned to engage said studs at right angles to said studs and to said slots to hold said studs in said slots against transverse and longitudinal movement.

5. In a typewriter desk of the drop-head type, including spaced pedestals, a typewriter platform mounted between said pedestals and movable between a top horizontal working position and a retracted position, lateral studs carried by said platform near its forward edge, slotted plates fixed to said pedestals and engaged by said studs, housings fixed to said pedestals adjacent the upper end of said slots, and spring-controlled plungers mounted in said housings and projecting therefrom into the paths of said studs, said plungers being directed and positioned to engage said studs at right angles to said studs and to said slots to hold said studs in said slots against transverse and longitudinal movement, and said plungers having rounded heads for engagement with said studs.

JOHN S. BURDICK.