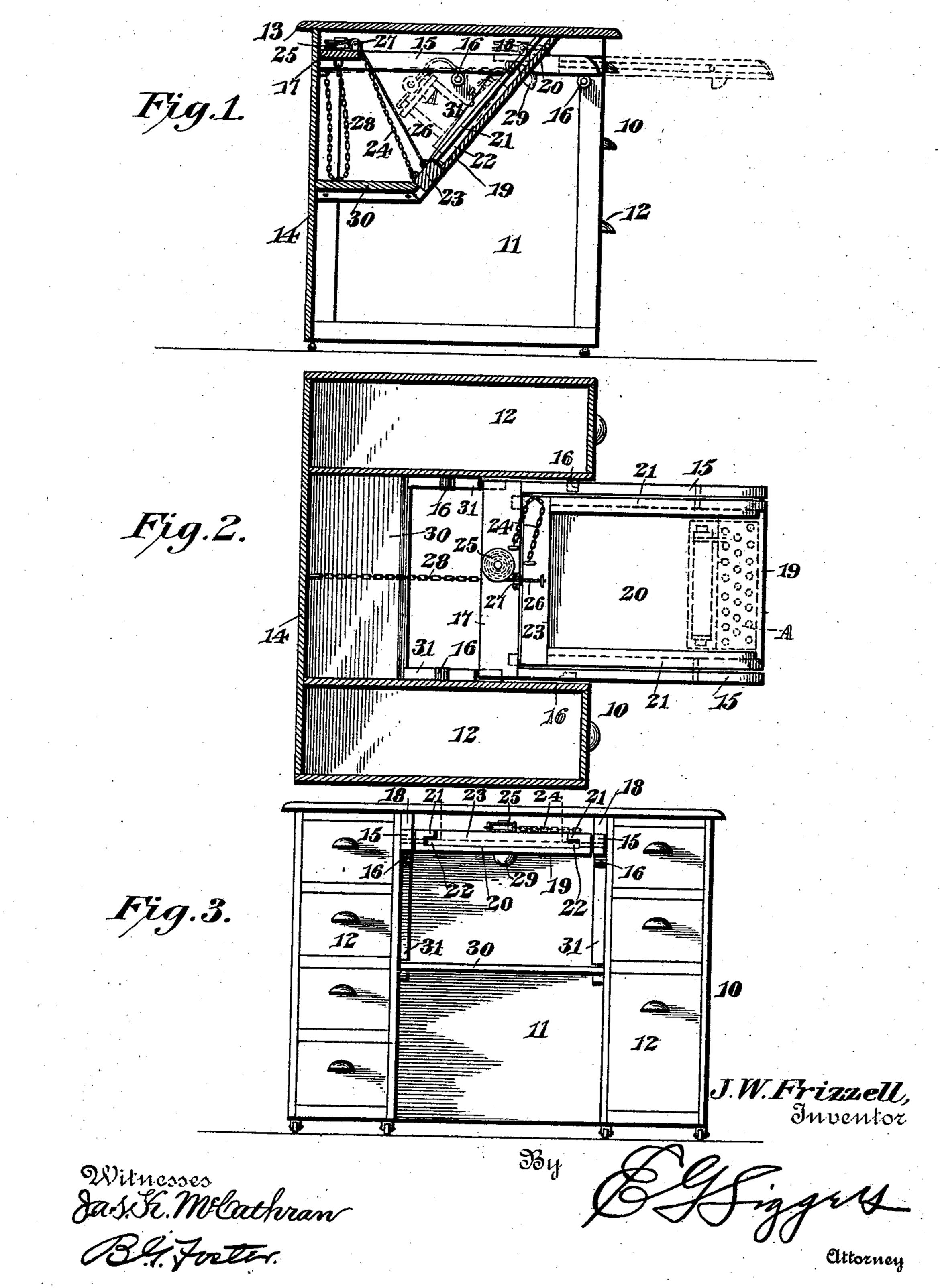
## J. W. FRIZZELL.

## TYPE WRITER SUPPORT FOR DESKS, &c.

(Application filed Dec. 19, 1900.)

(No Model.)



## United States Patent Office.

JOHN W. FRIZZELL, OF EAU CLAIRE, WISCONSIN.

## TYPE-WRITER SUPPORT FOR DESKS, &c.

SPECIFICATION forming part of Letters Patent No. 692,652, dated February 4, 1902.

Application filed December 19, 1900. Serial No. 40,414. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. FRIZZELL, a citizen of the United States, residing at Eau Claire, in the county of Eau Claire and State 5 of Wisconsin, have invented a new and useful Type-Writer Support for Desks and the Like, of which the following is a specification.

The present invention relates to supports for type-writers and the like, and more parro ticularly to the means for supporting them

upon a desk or cabinet.

One of the objects of the invention is to provide a movable support entirely independent of the desk-top, which support will hold the 15 type-writer in proper position to be operated upon and is adapted to be disposed beneath said desk-top to support the type-writer when not in use out of the way of the user.

Another object is to construct the support 20 so that when the type-writer is arranged in an operative position thereon said support

will be held fixed and rigid.

A further object is to provide a housing for the type-writer when in its inoperative posi-25 tion, the support forming a portion of said housing, so that the type-writer will be completely inclosed and protected from dirt.

A still further object is to provide a support that may be readily attached to the or-30 dinary desk, so that a simple and convenient type-writer cabinet will be formed, thereby dispensing with the necessity of a specially-

constructed desk.

To the accomplishment of these objects the 35 construction described in the following specification and illustrated in the accompanying drawings is provided; but it will be understood that the construction thus described and shown is open to various changes and 40 modifications within the scope of the claims hereto appended.

In the drawings, Figure 1 is a vertical sectional view through the central portion of a desk and showing the improved support ap-45 plied thereto. Fig. 2 is a horizontal crosssection through the upper part of the same and showing the support drawn out to hold the type-writer in proper position to be operated upon. Fig. 3 is a front elevation of the 50 desk with the support in the position illustrated in Fig. 2.

Similar characters of reference designate corresponding parts in the several figures of

the drawings.

The invention is shown applied to an ordi- 55 nary flat-top desk, (designated as a whole by the reference-numeral 10;) but it will be readily apparent that it may be used in connection with desks of various forms and constructions. In the present form, however, an 60 inclosed knee-space 11 is formed by the spaced rows of drawers 12, the top 13, and the solid back 14. In this space is mounted the type-writer support which constitutes the invention. This support is preferably in the 65 form of a drawer and is constructed as follows: An open frame is slidably mounted in the upper portion of the knee-space and comprises a pair of oppositely-arranged slides 15, supported by antifriction-rollers 16, secured 70 to the side walls of said space and connected at their inner ends by the cross-bar 17. A pair of guide-bars 18 is secured to the side walls above the slides 15. By this arrangement it will be seen that the frame has a free 75 longitudinal movement, but is rigidly held against lateral movement. Fitting in said frame between the two slides 15 is the typewriter-supporting platform 19, which is pivotally secured to said slides intermediate its 80 ends. This platform consists of a flat base 20, having overhanging cleats 21 at its side edges which form grooves 22, that receive the edges of the usual type-writer base. The rear end of the platform is also provided with an 85 upstanding flange 23, which forms a stop to limit the backward movement of the typewriter. The inner edge of the platform is arranged to contact with the under side of the cross-bar 17 to limit the upward swing of said 90 platform, and a chain 24 or similar flexible connection is provided between the rear end of the platform and the cross-bar 17 to limit the downward swing of the same. The platform may therefore be arranged either at an 95 inclination to the frame or in a horizontal position, as shown, respectively, in full and dotted lines in Fig. 1. In order to assist in drawing the platform from its inclined position, a horizontally-disposed spring-operated ico drum 25 is secured to the cross-bar 17 and is connected to the inner end of the platform

by means of a suitable belt 26, which runs over an antifriction-roller 27, arranged at the edge of the bar 17. This drum may be of any well-known construction, and the tension 5 of the spring is preferably adjustable to accommodate type-writers of different weights. A chain 28, secured, respectively, to the back of the desk and the cross-bar 17, limits the outward movement of the support. A suitro able operating-handle 29 is also secured to

the under side of the platform.

When the type-writer is not in use, it is very desirable to have it housed from dust, and for this purpose a horizontal wall 30 is 15 disposed across the knee opening or space 11, and the inner edge of the platform is arranged to contact with this wall. Suitable filling-blocks 31 are also secured to the side walls of the opening beneath the slides 15. 20 By this means it will be seen that a complete housing is provided and that the platform forms a closure for the same when tilted to its normal position, as the inner end will abut against the wall 30 and the outer end 25 will be raised into contact with the under side of the top 13.

The operation of the support will be readily apparent. A type-writer A, of any suitable construction, is slidably mounted upon 30 the platform 20 by having the edges of its base-board engaging in the grooves 22 of said platform. In its inoperative position this type-writer is slid to the inner end of the platform, which will therefore be tilted to the in-35 clination shown in full lines in Fig. 1. The support and type-writer are then moved under the top 13. In this position both the typewriter and its support will be disposed entirely out of the way of the user of the desk.

closed and protected from dirt and dust. When it is desired to use the type-writer, the holder is drawn out, the platform raised, and the type-writer moved to the outer end of the 45 platform beyond the pivot-point thereof. In this position the weight of the type-writer and the tension of the spring 25 will hold the inner end of the platform against the cross-

40 Furthermore, the type-writer is entirely in-

bar 17 and the type-writer will therefore be 50 supported rigidly.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without fur-55 ther description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages 60 of the invention.

Having thus described my invention, what I claim as new, and desire to secure by means

of Letters Patent, is—

1. In a device of the class described, the 65 combination with a desk or analogous article of furniture having an open space beneath its top, of a frame slidably mounted in the up- i

per portion of said space and comprising a pair of slides connected at their rear ends by a cross-piece, a platform pivotally mounted 70 intermediate its ends between and upon the slides, said platform having a stop that abuts against the under face of the rear cross-piece to limit the swinging movement of the platform, and means for movably securing a type- 75 writing machine upon the platform so that said type-writing machine may be moved to either side of the pivot-axis of the platform.

2. In a device of the class described, the combination with a slidably-mounted sup- 80 porting-frame, of a platform pivotally mounted intermediate its ends upon said supporting-frame, means connecting the frame and platform for limiting the downward-swinging movement of said platform, and a spring-drum 85 having a connection with the platform and the frame and arranged to move the platform

into engagement with said frame.

3. In a device of the class described, the combination with a desk having a knee-space, 90 of a frame slidably mounted in the upper portion of said space, and comprising a pair of slides connected at their rear ends by a crosspiece, and a platform pivotally mounted intermediate its ends upon the slides and ar- 95 ranged to engage the under side of the crosspiece, said platform being provided with upstanding flanges having grooves in their opposing faces adapted to receive a type-writer base.

ICÔ

4. In a device of the class described, the combination with a desk having a knee-space, of a frame slidably mounted in the upper portion of said space and comprising a pair of slides connected at their rear ends by a cross-105 piece, means for limiting the movement of the frame, a platform pivotally mounted intermediate its ends upon the slides and arranged to engage the under side of the crosspiece, said platform being provided at its op- 116 posite side edges with upstanding flanges having grooves in their opposing faces adapted to receive a type-writer base, and means connecting said cross-piece and platform to limit the downward-swinging movement of the 115 latter.

5. In a device of the class described, the combination with a desk having a knee-space, of a frame slidably mounted in the upper portion of said knee-space, and comprising a pair 120 of slides connected at their rear ends by a cross-piece, a flexible connection between the desk and the frame to limit the outward movement of the latter, a platform pivotally mounted intermediate its ends upon the slide 125 and arranged to engage the under side of the cross-piece when in raised position, said platform being provided with upstanding flanges at its opposite side edges, said flanges having grooves in the opposing faces adapted to re- 130 ceive a type-writer base, a flexible connection between the cross-piece and the platform to limit the downward - swinging movement of the same, and a spring-drum mounted

upon the cross-piece and having a connection with the platform, said spring-drum being arranged to draw the platform into engage-

ment with the cross-piece.

6. In a device of the class described, the combination with a desk or analogous article of furniture having a knee-space beneath its top, of a horizontal wall extending across the rear portion of the knee-space, rollers mount-10 ed upon the opposing side walls of said space, slides movably mounted upon the rollers, inclined cleats secured to said side walls and extending from the slides to the horizontal wall, a platform pivotally mounted interme-15 diate its ends between and secured to the slides, said platform being arranged to be tilted so that its lower end will abut against the horizontal wall and its upper end will rest against the under side of the desk-top, said platform when thus tilted fitting snugly between the inclined cleats, and means for movably supporting a type-writing machine upon the platform so that said machine may

be moved to either side of the axis of said platform.

7. In a device of the class described, the combination with a desk or analogous article of furniture having a knee-space, of rollers mounted upon the side walls of the knee-space, an open frame slidably mounted upon the 30 rollers, and comprising spaced slides connected at their rear ends by a cross-piece, a platform arranged between and pivotally connected intermediate its ends to the side bars, said platform being arranged to engage the 35 cross-bar of the open frame whereby its swinging movement is limited, and means for securing a type-writing machine upon the platform.

In testimony that I claim the foregoing as 40 my own I have hereto affixed my signature in the presence of two witnesses.

J. W. FRIZZELL.

Witnesses:

BURT E. DE YO, WM. RITCHIE.