E. E. BARNEY.

TYPE WRITING MACHINE CLAMP.

APPLICATION FILED MAR. 13, 1905.

942,049. Patented Dec. 7, 1909.

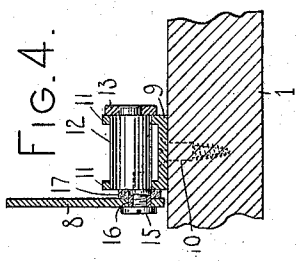

FIG. 4.

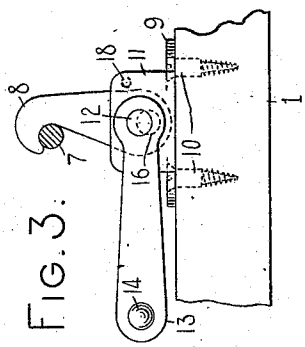

FIG. 3.

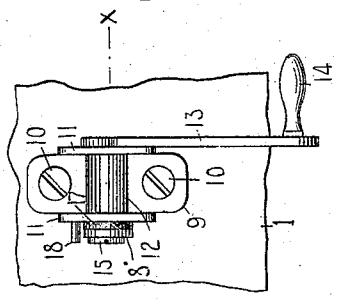

FIG. 2.

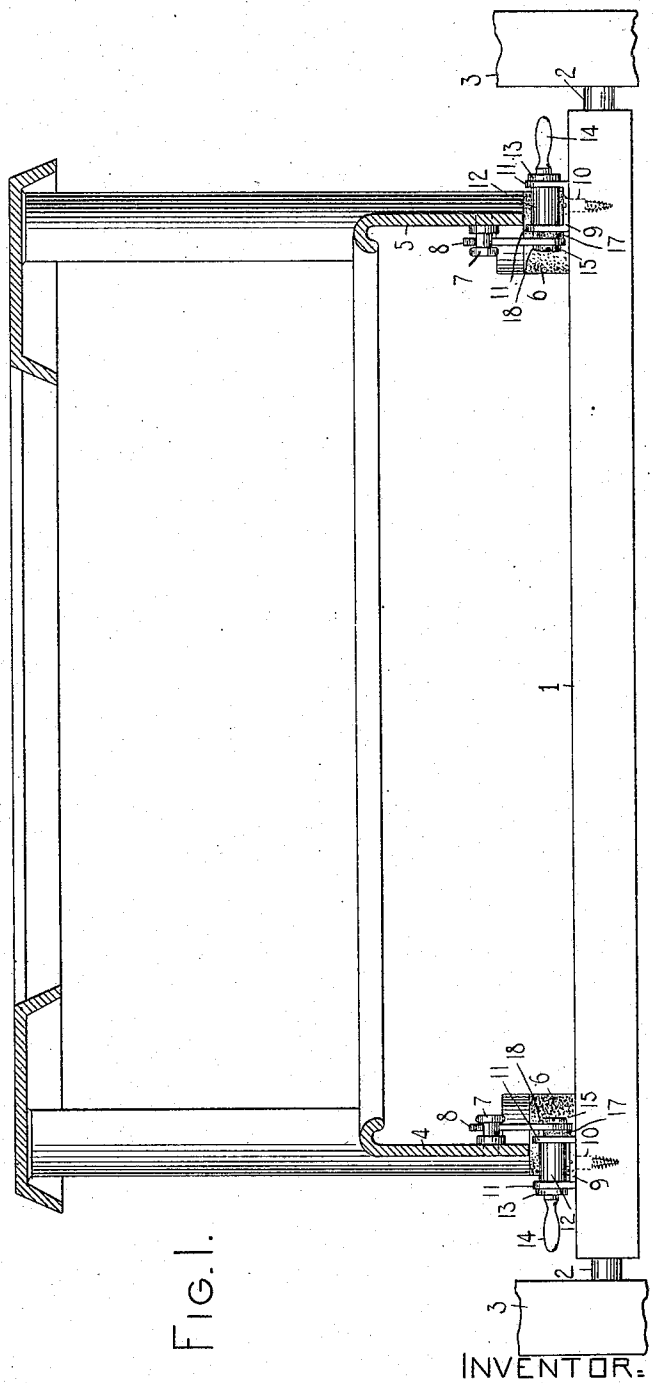

FIG. 1.

WITNESSES.

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UNITED STATES PATENT OFFICE.

EDWIN E. BARNEY, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE MONARCH TYPE-WRITER COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING-MACHINE CLAMP.

942,049. Specification of Letters Patent. Patented Dec. 7, 1909.

Application filed March 13, 1905. Serial No. 249,860.

To all whom it may concern:

Be it known that I, EDWIN E. BARNEY, citizen of the United States, and resident of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Type-Writing-Machine Clamps, of which the following is a specification.

My invention has for its principal object to provide an improved clamp for securing a typewriting machine or other machine to a baseboard or other support, such for example, as the shelf or platform of a drop cabinet.

In carrying out my invention, I have provided a simple and inexpensive device whereby the typewriting machine may be clamped to or released from the baseboard or support by a single motion of the hand.

My invention consists in certain combinations and arrangements of parts, and features of construction which will be fully set forth herein and particularly pointed out in the claims.

In the accompanying drawings illustrating my invention, Figure 1 is a front view showing a typewriter frame clamped to a desk or cabinet by means of my device, the typewriter frame being shown in transverse vertical section; Fig. 2 is a top view of a right-hand clamp in locking position; Fig. 3 is a side view of the same; and Fig. 4 is a vertical section on the line *x*—*x* of Fig. 2, looking in the direction of the arrow.

In the drawings, 1 designates the base to which the typewriter is secured. As shown in the drawings, this consists of the platform of a drop cabinet, said platform being supported in part by pins 2 which project from the side edges thereof into slots in the faces of the side pieces 3 of the cabinet. This cabinet may be of any suitable construction. As ordinarily constructed, the platform 1 is depressed below the general level of the top of the desk and is so arranged that it may be lowered in a slanting position and a lid drawn over it, thus converting the typewriter cabinet into a desk having a flat top, the typewriter being inclosed between the lid and the base or platform 1. When the desk is thus closed with the base 1 dropped, said base is inclined downward, and it is therefore necessary that the typewriter be firmly clamped in place.

The frame of the typewriting machine has a base portion which comprises a left-hand side plate 4 and a right-hand side plate 5 extending in a front and back direction and the frame is supported on feet 6, which are usually made of rubber and which elevate the side plates 4 and 5 above the support on which the machine rests. I secure headed pins 7 to the side plates 4 and 5, preferably on the inner sides thereof; and my clamps comprise coupling members 8 which engage these pins or projections and hold the machine in place. Each of the clamps employed has a flat base portion 9 which is secured by screws 10 to the support 1. From the right and left-hand sides of the base 9 rise ears 11 in which is journaled a shaft 12 which passes loosely through suitable openings in the two ears 11. On one end of the shaft 12 outside of the ear 11 is rigidly secured a crank arm 13 having a handle 14 on its free end. Into the other end of the shaft 12 a headed screw 15 is threaded eccentrically, the axis of the screw being parallel with the axis of the shaft. A sleeve 16 (Fig. 4) surrounds the screw 15 and is clamped between the end of the shaft and the head of the screw. The coupling member 8, as shown in the present instance, consists of a suitably formed hook or latch having at its lower end an opening by which it is journaled on the sleeve 16. A friction washer 17 is compressed between the hook 8 and the end of the shaft 12. The washer 17 is preferably made of leather or similar material. The construction is such that when the shaft 12 is turned by the handle 14, the hook 8 tends to turn therewith on account of its frictional connection with the shaft 12 and screw 15; but the shaft may be turned independently of the hook if the latter is held by any means. Endwise motion of the shaft 12 in one direction is prevented by the crank arm 13 engaging one of the ears 11 and such motion in the other direction is prevented by the washer 17 engaging the other of said ears. This frictional engagement of the washer 17 with the ear 11 tends to hold the shaft 12 against accidental rotation. The motion of the hook or catch 8 toward the back of the machine is limited by a pin 18 which projects from one of the ears 11 into the path of said hook. The shaft 12 is free to turn through about a half rotation, its motion being limited by the engagement of the arm 13 with the baseboard. The arm 13

and the eccentric screw 15 are so arranged with relation to each other that when said arm stands in a horizontal position toward the front of the machine, the eccentric stands approximately vertically beneath the axis of the shaft, being either on the dead center or a little past it; but if the arm 13 be turned to a horizontal position toward the back of the machine, the eccentric stands approximately vertically over the axis of the shaft.

The clamp is screwed to the baseboard in such position that when the typewriting machine is placed on said baseboard the side plate 4 or 5 stands above the shaft 12 as shown in Fig. 1, the hook 8 being inside of the framework of the machine in position to engage the pin or stud 7 and the crank arm 13 and handle 14 being outside of the framework in position to be readily grasped by the hand of the operator. I may use either two clamps, each being placed midway of one of the side plates, or four clamps, two to each side plate, as may be preferred.

When the machine is set on the baseboard the handles 14 extend toward the back of the machine and the hooks 8 are in engagement with their stop pins 18, said hooks then standing in an inclined position behind the pins 7. The handles 14 are then turned toward the front of the machine. The hooks 8 turn with the shafts 12 toward the front of the machine until they are arrested by the pins 7, after which the movement of the handles 14 is continued and the eccentric screws 15 are turned to their lowest position, shown in Fig. 3, thus drawing the hooks down tightly against the pins 7 and clamping the machine firmly and under tension in place. When it is desired to remove the machine from the baseboard, the handles are turned to their rear positions, the turning of the shafts 12 moving the eccentric screws to their highest positions and thus relieving the pressure or tension between the hooks 8 and pins 7. As soon as this pressure is sufficiently relieved the hooks 8 are moved back by their frictional connection with the shafts until said hooks are arrested by the pins 18. In this position of the parts the machine is entirely free from the clamps and may be lifted off the baseboard and the clamps themselves are in position to reëngage the pins 7 whenever the machine is replaced.

It will be perceived that the machine is clamped in place by a single movement of the hands of the operator and is released by a single movement. It will also be perceived that all of the parts of the clamp are on top of the baseboard where they are readily accessible and that the handle is outside of the machine frame and the hooks on the inside thereof.

Various changes may be made in the details of construction and arrangement without departing from my invention.

What I claim as new and desire to secure by Letters Patent, is:—

1. In a baseboard clamp for machines, a horizontal rock shaft mounted on said baseboard and extending beneath a lower frame piece of the machine, a handle on the outer end of said shaft, a hook pivotally mounted on the inner end of said shaft to swing in a vertical plane, a stud on the machine in position to be engaged by said hook, and a washer of pliable material tightly held between the outer face of said hook and the inner face of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud.

2. In a baseboard clamp for machines, a horizontal rock shaft mounted on said baseboard and extending beneath a lower frame piece of the machine, a handle on the outer end of said shaft, a hook pivotally and eccentrically mounted on the inner end of said shaft to swing in a vertical plane, a stud on the machine in position to be engaged by said hook, and a washer of pliable material tightly held between the outer face of said hook and the inner face of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud but will turn on its pivot when in such position as the rock shaft is turned still farther, to draw the hook tightly against the stud through the action of its eccentric mounting.

3. In a baseboard clamp for clamping a machine to a baseboard, the combination of a rock shaft mounted on one of the parts to be clamped together, a handle on one end of said rock shaft, a hook pivotally and eccentrically mounted on the other end of said shaft, a stud on the other of said parts engageable by said hook, and a friction device tightly held between a surface of said hook and a surface of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud but will allow the shaft to be turned still farther after the hook is arrested to draw the hook tightly against the stud through the action of the eccentric mounting.

4. In a baseboard clamp for clamping a machine to a baseboard, the combination of a rock shaft mounted on one of the parts to be clamped together, a handle on one end of said rock shaft, a hook pivotally and eccentrically mounted on the other end of said shaft, a stud on the other of said parts engageable by said hook, a friction device tightly held between a surface of said hook and a surface of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position

in which it engages against the stud but will allow the shaft to be turned still farther after the hook is arrested to draw the hook tightly against the stud through the action of the eccentric mounting, and frictional means for holding said rock shaft against the accidental turning.

5. In a clamp for clamping a machine to a baseboard, the combination of a rock shaft, a hook pivotally and eccentrically mounted on said rock shaft, a frame in which said rock shaft is journaled, and a friction device engaging surfaces of said hook, rock shaft and frame and under tension sufficient to cause the hook to be turned with the rock shaft to hold the hook against accidental motion and to permit the rock shaft to turn independently of the hook when the hook is arrested; and means coöperating with said hook to connect the machine and baseboard and for arresting said hook.

6. In a device for clamping a typewriting or other machine to a baseboard, the combination of a part connected with the machine and a part connected with the baseboard, one of said parts including a hook or latch for engaging the other of said parts; a rock shaft on which said hook is pivotally and eccentrically mounted; a friction device connecting said rock shaft and latch and under such tension as to cause said hook or latch to move with said rock shaft into and out of engaging position; and means for turning said rock shaft.

7. In a device for clamping a typewriting or other machine to a baseboard, the combination of a frame secured to said baseboard, a rock shaft in said frame, a hook eccentrically mounted on said rock shaft, a friction washer engaging said hook, rock shaft and frame and held under such tension as to cause said hook to turn with said rock shaft until the hook is arrested to allow the rock shaft to turn farther after the hook is arrested and to prevent accidental turning of said rock shaft, a stop for arresting said hook in one direction, a handle for said rock shaft, and a pin on said typewriting machine adapted to be engaged by said hook and to arrest it in the other direction.

8. In a baseboard clamp for typewriting or other machines, the combination of a frame secured to the baseboard, a rock shaft in said frame lying beneath the frame piece of the machine, an upstanding hook frictionally and eccentrically connected with said rock shaft on the inner end thereof, a stud on the inner side of said frame piece engaged by said hook, and a handle on the outer end of said rock shaft, the frictional connection being of such tightness as to cause the hook to turn with the rock shaft and to allow the rock shaft to turn farther after the hook is arrested by the stud.

9. In a baseboard clamp, the combination of a frame, a rock shaft pivoted in said frame, a handle fixed on one end of said rock shaft, a hook eccentrically journaled on the other end of said rock shaft, a frictional connection between said hook and said rock shaft under such tension that said connection is operative to transmit motion from said rock shaft to said hook, and a part adapted to be coupled to said hook.

10. In a baseboard clamp, the combination of a frame, a rock shaft pivoted in said frame, a handle fixed on one end of said rock shaft, a hook eccentrically journaled on the other end of said rock shaft, a frictional connection between said hook and said rock shaft and between said rock shaft and said frame under such tension as to prevent accidental turning of said rock shaft and as to render said connection operative to transmit motion from said rock shaft to said hook, and a part adapted to be coupled to said hook.

Signed at Syracuse, in the county of Onondaga, and State of New York, this 9th day of March A. D. 1905.

EDWIN E. BARNEY.

Witnesses:

GEO. A. SEIB,

R. F. CRUDGINTON.