G. F. BALLOU.

TYPE WRITING MACHINE.

APPLICATION FILED SEPT. 24, 1907.

929,182. Patented July 27, 1909.

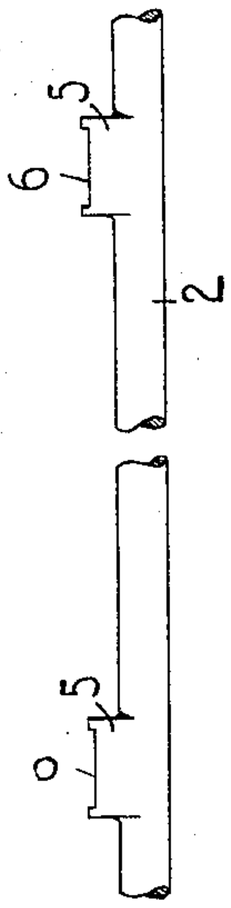


FIG. 2.

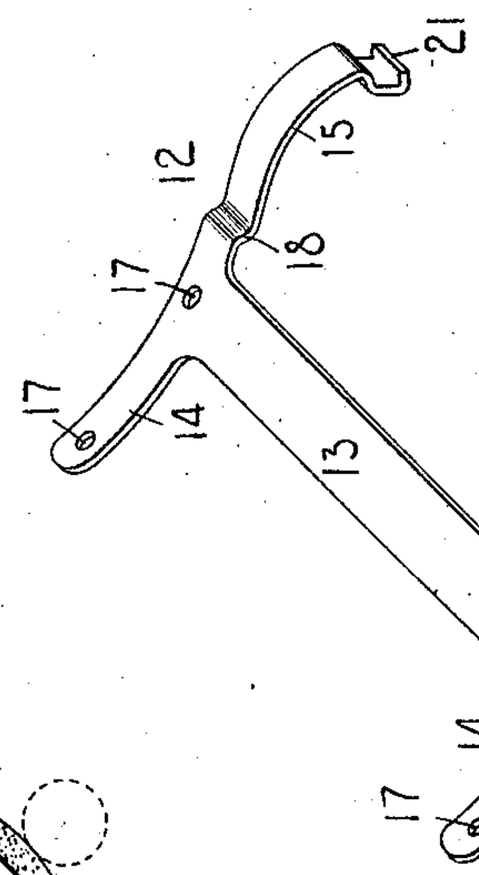


FIG. 4

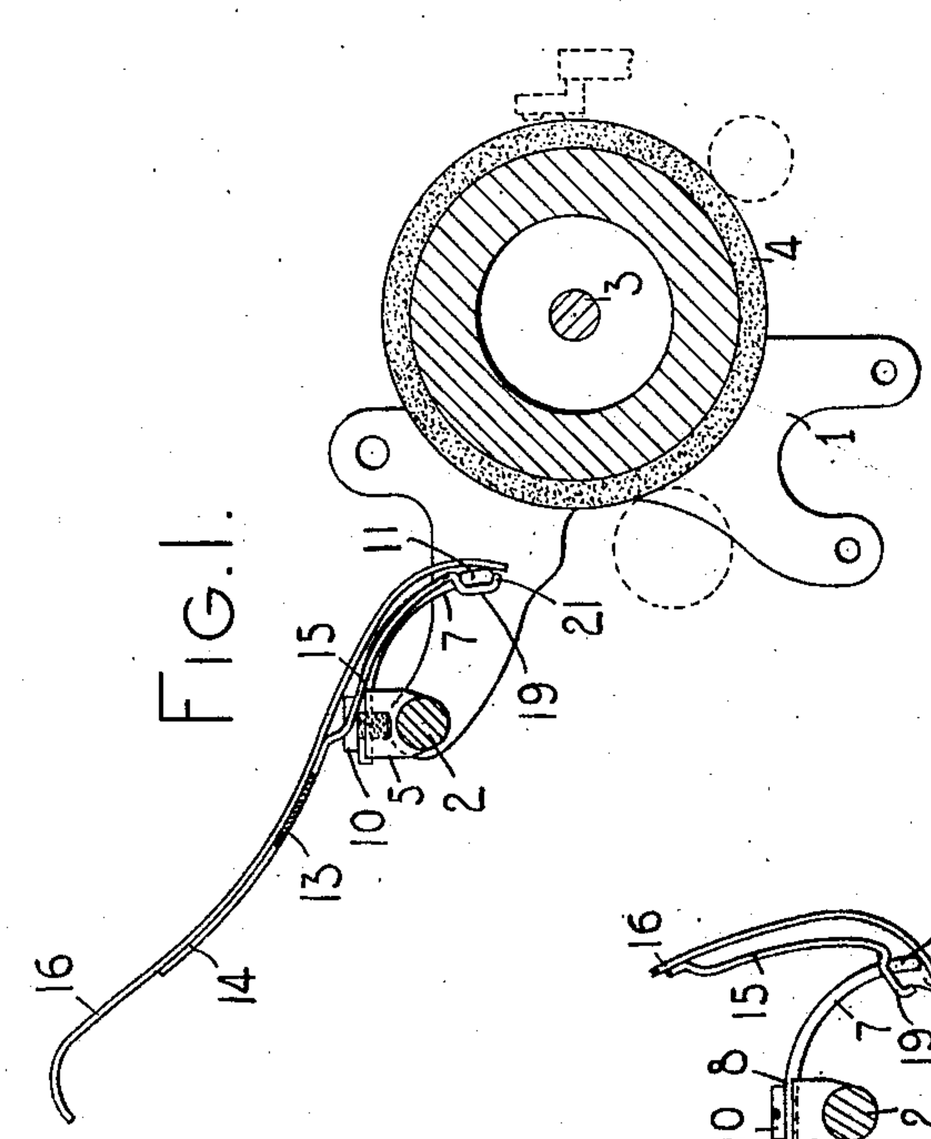
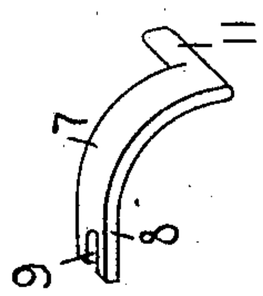


FIG. 1.



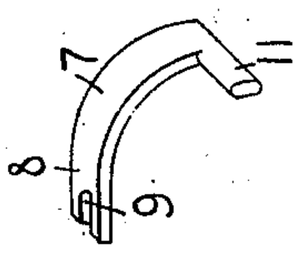


FIG. 3

FIG. 5.

WITNESSES:

E. M. Wells.

Wheeler E. Smith

INVENTOR:

George F. Ballou

By Jacob Tabel

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE F. BALLOU, OF NEW YORK, N. Y., ASSIGNOR TO WYCKOFF, SEAMANS & BENEDICT, OF ILION, NEW YORK, A CORPORATION OF NEW YORK

TYPE-WRITING MACHINE.

No. 929,182. Specification of Letters Patent. Patented July 27, 1909.

Application filed September 24, 1907. Serial No. 394,349.

To all whom it may concern:

Be it known that I, GEORGE F. BALLOU, citizen of the United States, and resident of the borough of Manhattan, city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and more particularly to means for mounting the paper table, and the objects thereof are to provide simple and efficient means for pivotally and detachably mounting the paper table in place and for exerting a spring pressure on the paper table to maintain it in normal position and to restore it to normal position when turned around its pivots and released.

To the above and other ends which will hereinafter appear, my invention consists of the features of construction, arrangements of parts and combinations of devices to be set forth in the following specification and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a detail vertical central sectional view taken through the carriage or platen frame of a typewriting machine embodying my invention. Fig. 2 is a fragmentary detail front elevation of the supporting rod for the paper table. Fig. 3 is a detail perspective view of the supporting brackets. Fig. 4 is a detail perspective view of the frame which is secured to the paper table and by means of which the paper is connected to its supporting pivots. Fig. 5 is a fragmentary end elevation showing the connection between the paper table and its supporting brackets, with the paper table shown swung forward.

The carriage comprises a platen frame, the end plates 1 of which are united by a cross bar 2 and in which is journaled a platen shaft 3 carrying a cylindrical platen 4, the types being adapted to impact against the front face of the platen as indicated in Fig. 1. The supporting rod 2 is formed with two upwardly extending lugs 5 flattened and slightly depressed on the upper face thereof as indicated at 6 for the reception of angular pivot carrying brackets 7. Each of these brackets is provided with a substantially horizontally disposed arm or portion 8 slotted at 9 for the reception of a headed screw 10 threaded at its lower end into a tapped opening in the corresponding lug 5 on the supporting bar. This affords means for detachably mounting the brackets on the platen frame, the brackets being clamped between the upper faces of the lugs 5 and the heads of the screws 10. Each bracket is prevented from turning on its screw 10 as a center by the engagement of the bracket with side walls of the depressed portion 6 in the lug although a slight fore and aft adjustment of the brackets may be had. The lower depending portion of each bracket has an outwardly projecting arm which forms a pivot 11 that is flattened at opposite sides thereof for purposes which will hereinafter more clearly appear.

A sheet metal frame, indicated as a whole by the reference numeral 12 and shown in detail in Fig. 4, comprises a cross bar 13, securing arms 14 and spring arms 15. The frame is curved to correspond generally to the curvature of the paper table 16 as seen in side elevation as will clearly appear from an inspection of Fig. 1. The frame 12 is secured to the under-side of the paper table in any suitable manner as by rivets which extend through openings 17 in the frame and through like openings in the paper table. The cross bar 13 and arms 14 of the frame bear against the paper table, whereas the spring arms 15 are off-set by bends 18 so that they are maintained out of contact with the paper table and are spring-pressed toward the paper table. The lower end of each spring arm is bent to form a pivot bearing 19 that opens toward the paper table and forms a pocket-like recess for the reception of its coöperating pivot 11. The walls of the pocket or bearing 19 in each spring arm conform substantially to the shape of the flattened pivot received therein. The construction is such that each spring arm receives its coöperating pivot in a bearing formed therein and presses the pivot between the spring arm and the paper table as shown in Fig. 1 and this spring pressure is exerted against the flat face of the pivot to maintain the paper table in its normal posi-

tion shown in Fig. 1. Should it be desired to turn the paper table for any reason, as for instance to give access to the usual tabulating or margin stops located in the rear of the machine and under the paper table the operator may swing the upper end of the paper table forwardly against the pressure of the spring arms 15 and the paper table will turn on its pivot 11. When the paper table is released it will be restored to normal position by the pressure of the spring arms. The construction is such that the paper table may if desired be detached from its supporting brackets by first turning the paper table from its normal position around its pivots 11. The effect of this is to press the lower ends of the spring arms away from the paper table so that an opening 20 is created between the ends 21 of the spring arms and the paper table as shown in Fig. 5 so that the paper table may be then pulled upwardly and forwardly and readily detached when desired from its supporting brackets.

From the foregoing description it will be seen that I have provided simple and efficient means for pivotally mounting the paper table in place said means affording a ready detachment of the paper table when desired by swinging the arms 15 away from the paper table to permit a removal of the pivots from the pivot bearings in said arms.

Various changes may be made without departing from the spirit and scope of my invention.

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

1. In a typewriting machine, the combination of a paper table, a support therefor, individual pivots carried by one of said parts and on which the paper table turns, spring bearings for the pivots, the spring bearings being carried by the other of said parts, and means whereby the spring bearings are effective to afford a connection or disconnection between the paper table and the support therefor.

2. In a typewriting machine, the combination of a paper table, a support therefor, pivots carried by one of said parts, and spring bearings for the pivots carried by the other of said parts, the spring bearings pressing on the pivots to press the paper table back to normal position.

3. In a typewriting machine, the combination of a paper table, a support therefor, pivots carried by and fixed to one of said parts, spring bearings for the pivots, the spring bearings being carried by the other of said parts, and means whereby the spring bearings exert pressure to move the paper table to normal position and whereby the bearings and pivots may be separated to detach the paper table when desired.

4. In a typewriting machine, the combination of a paper table, a support therefor, pivots carried by one of said parts, spring arms carried by the other of said parts, and means whereby said spring arms are sprung by a swinging movement of the paper table to positions where the pivots may be separated therefrom to afford a ready detachment of the paper table.

5. In a typewriting machine, the combination of a paper table, a spring carried by said paper table, a pivot for the paper table, a bearing in the spring to engage said pivot, and means whereby the spring exerts a pressure to move the paper table back to normal position.

6. In a typewriting machine, the combination of a paper table, spring arms on said paper table, pivot bearings formed in part by the paper table and in part by said spring arms, and pivots which are engaged by pivot bearings and on which the paper table turns.

7. In a typewriting machine, the combination of a paper table, spring arms on said paper table, pivot bearings formed in part by the paper table and in part by said spring arms, and flattened pivots seated in said bearings so that the pressure of said spring arms holds the paper table in normal position.

8. In a typewriting machine, the combination of a paper table, spring arms on said paper table, pocket-like pivot bearings in said spring arms, and pivots in said pocket-like bearings and which are pressed by the springs against the paper table.

9. In a typewriting machine, the combination of a paper table, spring arms carried by said paper table and having pivot bearings therein, brackets detachably mounted on the carriage and each carrying a pivot which is seated within a bearing in a spring arm and on which pivot the spring arm exerts a spring pressure to move the paper table back to normal position.

10. In a typewriting machine, the combination of a paper table, spring arms carried by said paper table and having pivot bearings therein, brackets detachably mounted on the carriage and each carrying a flattened pivot which is seated within a bearing in a spring arm, the shape of the pivot bearings conforming generally to the shape of the pivot so that the spring arms exert a spring pressure on the paper table to hold it in its normal position.

11. In a typewriting machine, the combination of a paper table, a frame secured to the paper table and having spring arms, and pivots on which said paper table is mounted and against which the spring arms bear transversely of the axes of said pivots.

12. In a typewriting machine, the combination of a paper table carrying spring arms,

and angular brackets on which the paper table is mounted, one arm of each bracket forming a pivot and the other arm having an open ended slot to receive a securing screw, said spring arms being coöperative with said pivots.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York, this 21st day of September, A. D. 1907.

GEORGE F. BALLOU.

Witnesses:

CHARLES E. SMITH,

E. M. WELLS.