

J. A. RUFFIN.

SHUTTLE SHIELD FRAME FOR TYPE WRITERS.

APPLICATION FILED FEB. 4, 1911. RENEWED JUNE 24, 1912.

1,035,747.

Patented Aug. 13, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

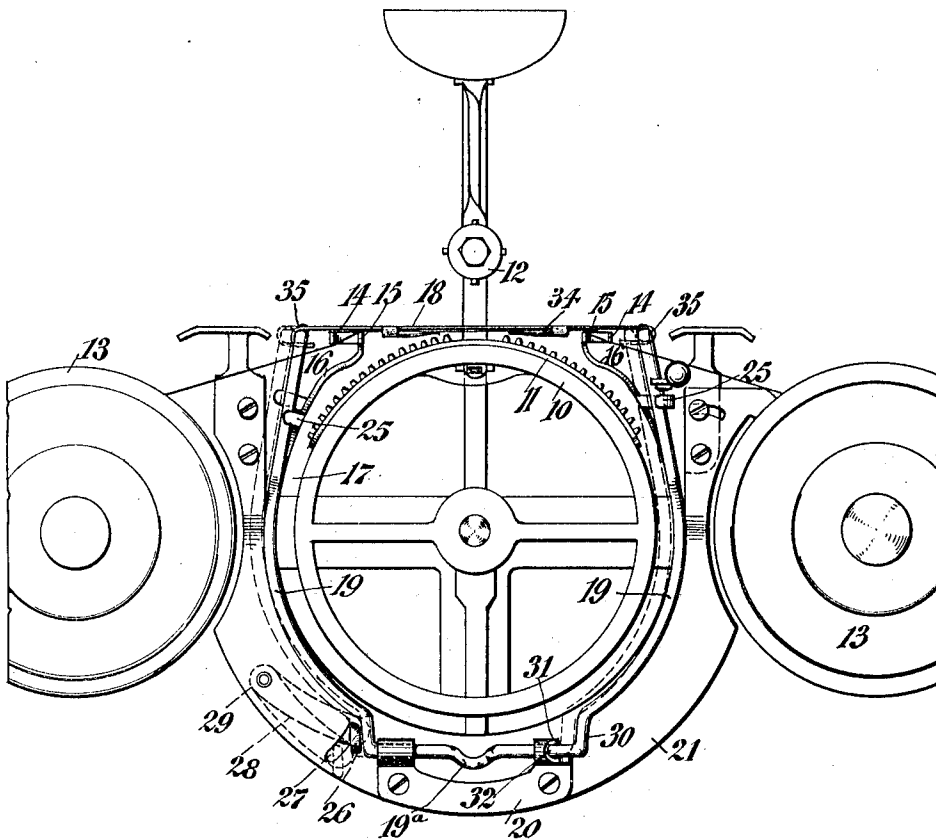
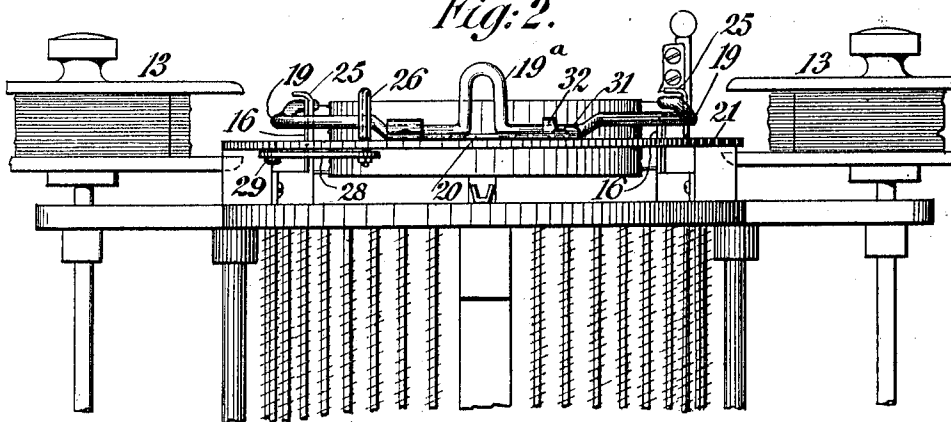


Fig. 2.



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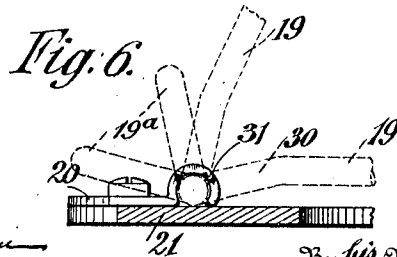
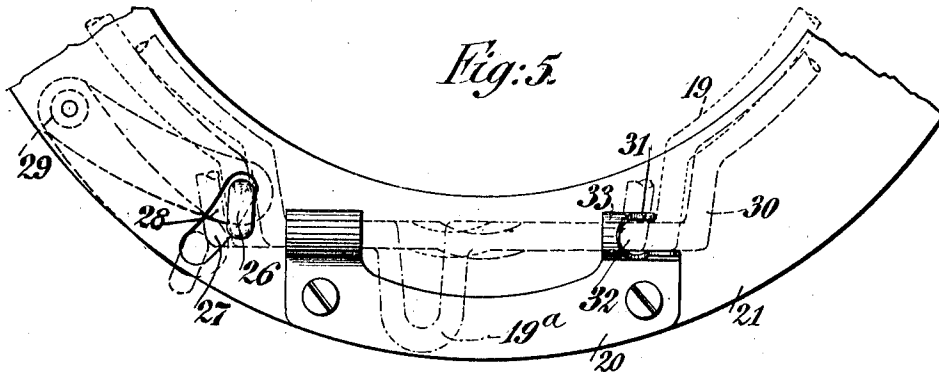
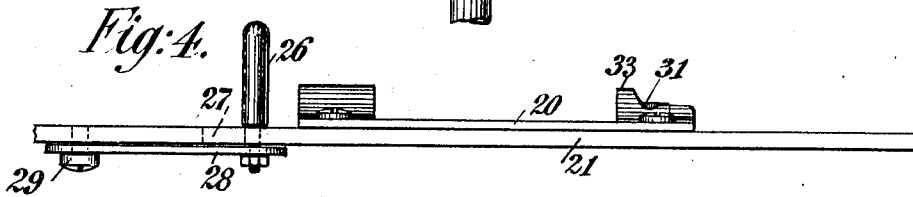
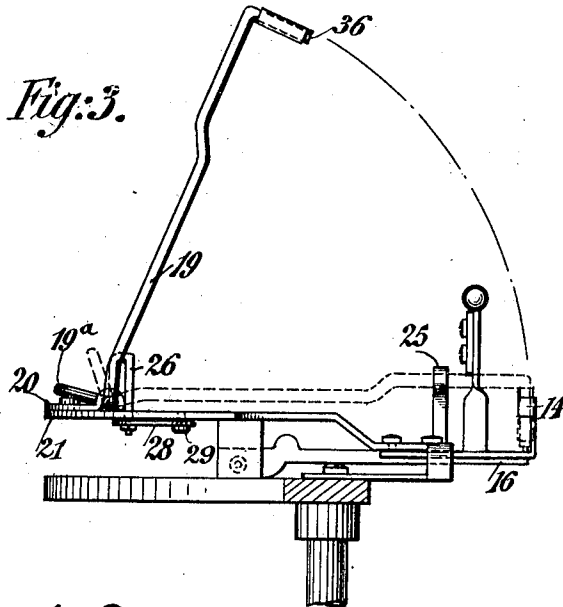
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2 SHEETS-SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN A. RUFFIN, OF NEW YORK, N. Y., ASSIGNOR TO HAMMOND TYPEWRITER COMPANY, A CORPORATION OF NEW YORK.

SHUTTLE-SHIELD FRAME FOR TYPE-WRITERS.

1,035,747.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed February 4, 1911, Serial No. 606,509. Renewed June 24, 1912. Serial No. 705,842.

To all whom it may concern:

Be it known that I, JOHN A. RUFFIN, a citizen of the United States of America, residing in the borough of Manhattan, city of New York, county and State of New York, have invented certain new and useful Improvements in Shuttle-Shield Frames for Type-Writers, of which the following is a specification.

10 This invention relates to shuttle-shield frames for typewriters, and more particularly, to such as applied to a machine of the well known Hammond type.

15 In the use of the frames hitherto employed, great difficulty was often encountered in disengaging the frames from their holding parts and in the replacing of shuttle-shields, which by the unequal movement of the sides of the frame were bent and the shuttle-shield injured.

20 The object of this invention is to provide a simple construction by which it is possible to easily shift the shuttle-shield frame from its operative position to its inoperative position, and in this position hold the shuttle-shield frame in raised position for inserting new ribbons and cleaning the shields and for replacing broken shuttle-shields.

25 A further object is to positively hold or lock the frame in operative position. To this end I have provided a shuttle-shield frame pivoted in a bracket secured to the front part of the top face of the typewriter frame, and the frame extending around the typewriter shuttle and anvil and holding the shuttle-shield between the hammer and the shuttle, said bracket being cut away to enable the frame to be shifted therein and also so as to form a shoulder for holding the shuttle-shield frame in raised position. Locking means are also provided to hold the frame in position during the operation of the machine.

30 In the accompanying drawings, Figure 1 is in a plan-view of the invention as embodied in an approved form of the Hammond typewriter, Fig. 2 is a front-elevation of the same, Fig. 3 is a cross-sectional view showing the new shield frame in side elevation, in upward position in full lines and in operative position in dotted lines, Fig. 4 is an

enlarged front-elevation showing the bracket on which the shield frame is pivotally mounted, and also showing the locking means therefor, Fig. 5 is a top plan-view of the same, part of the shield frame being shown in dotted lines in different positions, and Fig. 6 is a sectional view of the typewriter frame showing the shield frame supporting bracket in end elevation, part of the shield-frame being shown in dotted lines in two positions.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

65 Referring more particularly to the drawings, the anvil 10, the shuttle 11, the hammer 12 and the ribbon-spools 13 are of the ordinary construction and arrangement. The ribbon passes from the spools between the shuttle and hammer by way of guide-fingers 14 and 15 arranged in pairs on arms 16 which are suitably secured to the frame part 17 of the typewriter. The shuttle-shield 18 is carried in the usual manner by a frame 19 comprising arms of curved form to embrace the anvil 10, being united at the front of the machine and pivoted by a bracket 20 on the ring or frame 21 surrounding the anvil. The shield-frame 19 is bent at its front part to form a manipulating finger 19^a. The shuttle-shield is provided with an opening or openings in which the hammer 12 strikes, as is well known. Lugs or fingers 25 are provided on the arm 16 which serve to elevate the ribbon to permit writing in another color, the frame being held thereunder in the position of the solid lines in Figs. 1 and 2. These parts with the exception of the novel bracket 20 shown in the drawings, are all well known.

75 In order to hold the shield-frame in operative position a locking lug 26 is provided slidably mounted in a slot 27 in the ring 21 and supported on a link 28 pivoted as at 29 for movement on the under face of the ring 21. When this lug 26 is in the position shown in full lines in Fig. 1, it bears against the frame 19 and holds the same in its operative position shown in full lines, whereby the frame is locked in its operative position. When it is desired to raise the frame, the

lug 26 is moved to the position of dotted lines of Fig. 1, thus permitting the frame 19 to be moved or shifted laterally so as to occupy the initial position shown in the dotted lines, by which rectilinear movement it clears the lugs 25 from which initial position it may be moved upwardly to the position shown by the full lines of Fig. 3. The frame 19 is then moved farther in the bracket 20 laterally of the initial position to the extreme left-hand position shown by the dotted lines of Fig. 5, in which position the straight part 30 of the frame 19 rests upon the shoulder 31 formed by the recess 32 in the right-hand bearing sleeve 33 of the bracket 20. This holds the frame 19 in the inoperative position shown in Fig. 3, in full lines, which position enables the shuttle-shields to be renewed in case they may be worn out or broken, the hooked ends 35 of the shuttle-shield being easily slipped off from the downwardly bent end 36 of the shield-frame 19.

When the frame is desired to be again lowered, it is shifted laterally, now in opposite direction to the former shifting so as to disengage from the recess of the bracket, whereupon it is lowered to its initial position, when the operation of the locking-lug by its movement moves the frame from its initial position back to its operative position and holds it there.

My invention therefore consists of the laterally shiftable shuttle-shield frame, which is normally held in position against lateral and upward movement, and further in the means for locking it in position.

The arrangement and details of construction of the herein described improvement may be varied without departing from the spirit and scope of the invention as defined in the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a typewriter of the Hammond type, the combination of a shuttle-shield frame normally held in operative position against lateral and upward movement, and means for guiding the frame permitting lateral movement of the same for shifting it from its operative position.

2. In a typewriter, pivotally operative movable shuttle shield frame capable of lateral movement, normally held in position against lateral and upward movement, and means guiding said frame and permitting lateral movement of the same and holding the same when in upward position.

3. In a typewriter, the combination of a pivoted shuttle-shield frame, capable of lateral movement and means adapted to engage said frame, move it from its initial to its operative position and hold it there.

4. In a typewriter, a shield frame, means

for supporting the shield frame of the typewriter and adapting the shield frame for rectilinear and pivotal movement, and means holding the shield frame in operative position when in one position of its rectilinear movement.

5. In a typewriter, the combination of a shield frame, a bracket for holding said frame and permitting rectilinear movement and pivotal movement of the same, means for holding said frame in inoperative position when it is in one position of its rectilinear movement, and means moving said frame from its initial position into operative position and holding it there.

6. In a typewriter, a frame with a slot, undercut lugs mounted on said typewriter frame, a shield frame adapted to be placed under said lugs when in one position of its rectilinear movement and capable of rectilinear movement in order to be released therefrom, and a locking lug movable in the slot of the frame and adapted to press against said shoulder frame to hold the same under said lugs.

7. In a typewriter, the combination of a frame having a slot therein, undercut lugs mounted on said typewriter frame, a bracket mounted on said frame, a shield frame supported in said bracket and adapted for rectilinear and pivotal movement and adapted to be placed under said lugs when in one position of its rectilinear movement, a link pivoted to the under face of said typewriter frame and a locking lug movable in the slot of the frame and adapted to press against said shoulder frame to hold the same under the undercut lugs.

8. In a typewriter, the combination of a bracket having a bearing sleeve, said bearing sleeve having a cutout recess at its upper part forming a shoulder and a shield frame having a straight part received in said bearing sleeve whereby said shield frame is adapted for rectilinear and pivotal movement therein and having another part adapted to engage the recess for holding the frame therein.

9. In a typewriter, a pivotally movable shuttle shield frame, the entire frame being capable of lateral movement from its operative position to a shifted position for releasing it, and capable of upward movement while in shifted position.

10. In a typewriter, a pivotally movable shuttle-shield frame, the entire frame being capable of lateral movement from its operative position to a shifted position for releasing it, and capable of upward movement while in shifted position, means for holding it in upward position and means for locking it in its operative position.

11. In a typewriter, a pivotally movable shuttle-shield frame, the entire frame being capable of lateral movement from its opera-

tive position to a shifted position for releasing it, and capable of upward movement while in shifted position, and means shifting the frame from its shifted position to operative position and holding it in that position.

as my invention, I have signed my name in presence of two subscribing witnesses.

JNO. A. RUFFIN.

Witnesses:

H. GOEPEL,

L. M. DORMAN.

In testimony that I claim the foregoing

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."