(No Model.) 2 Sheets—Sheet 1.

H. S. MARTIN.

TYPE WRITING MACHINE.

No. 491,714. Patented Feb. 14, 1893.

Fig. 1.

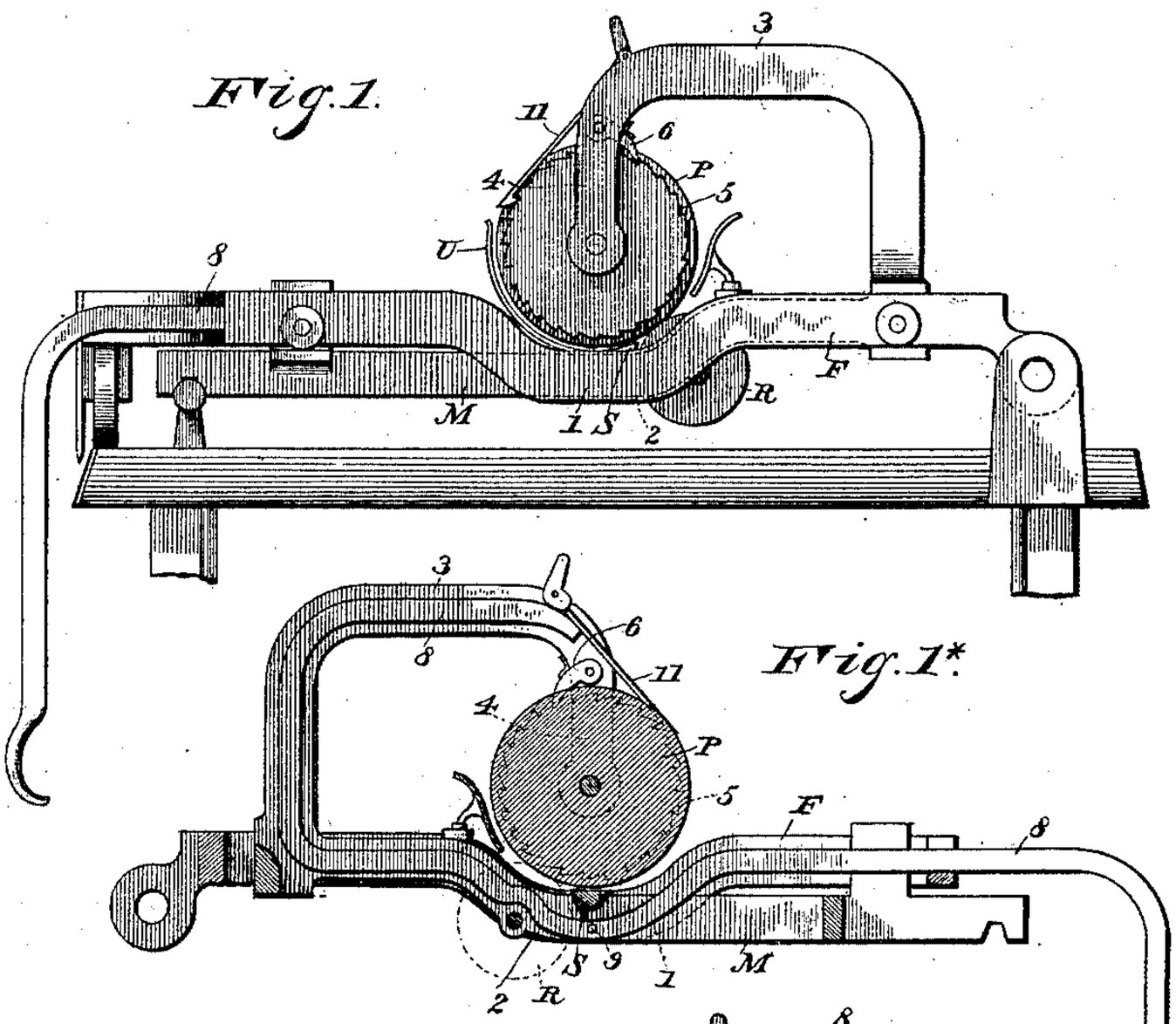
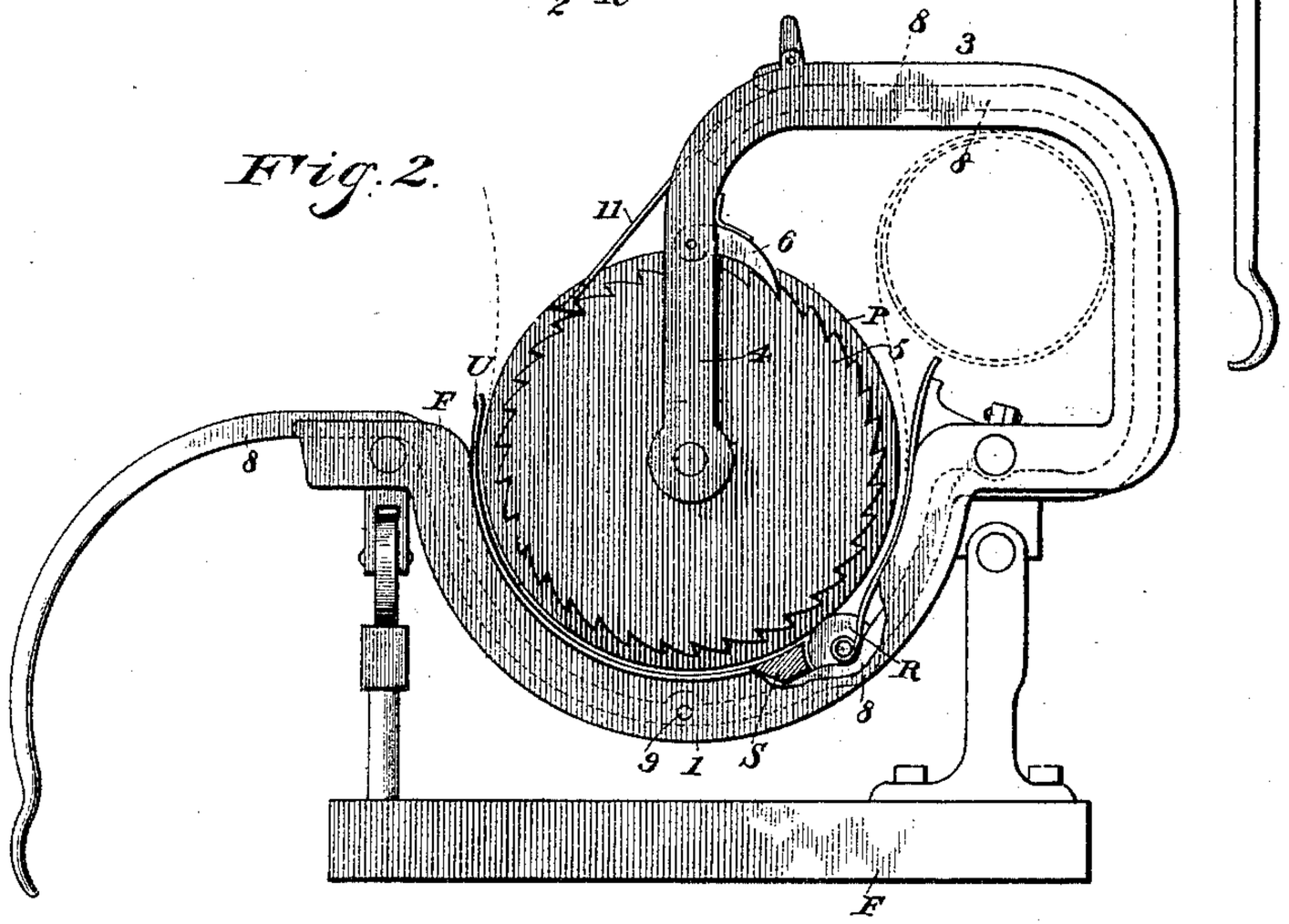


Fig. 1*.

Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

H. S. MARTIN.

TYPE WRITING MACHINE.

No. 491,714. Patented Feb. 14, 1893.

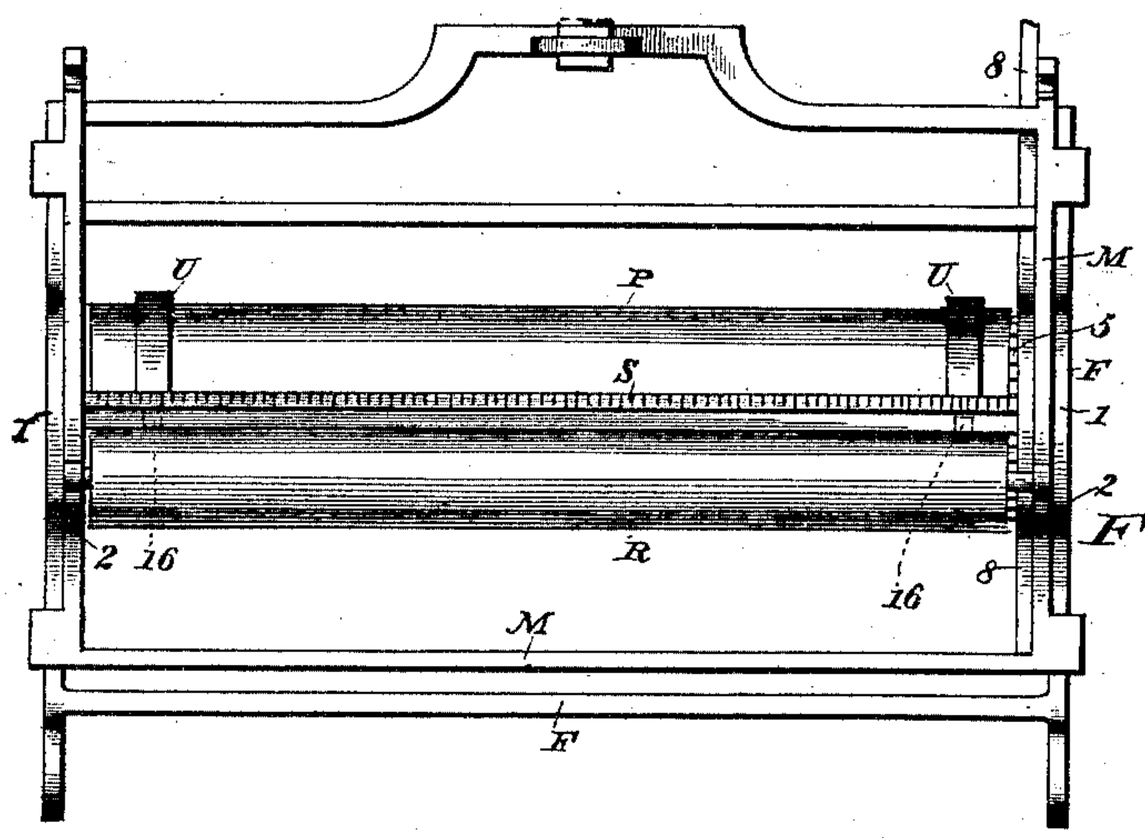


Fig. 3.

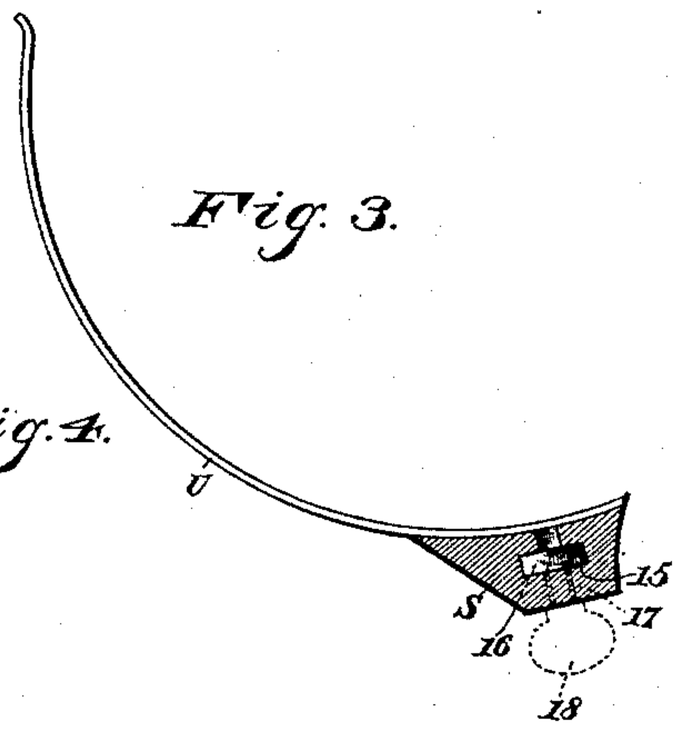
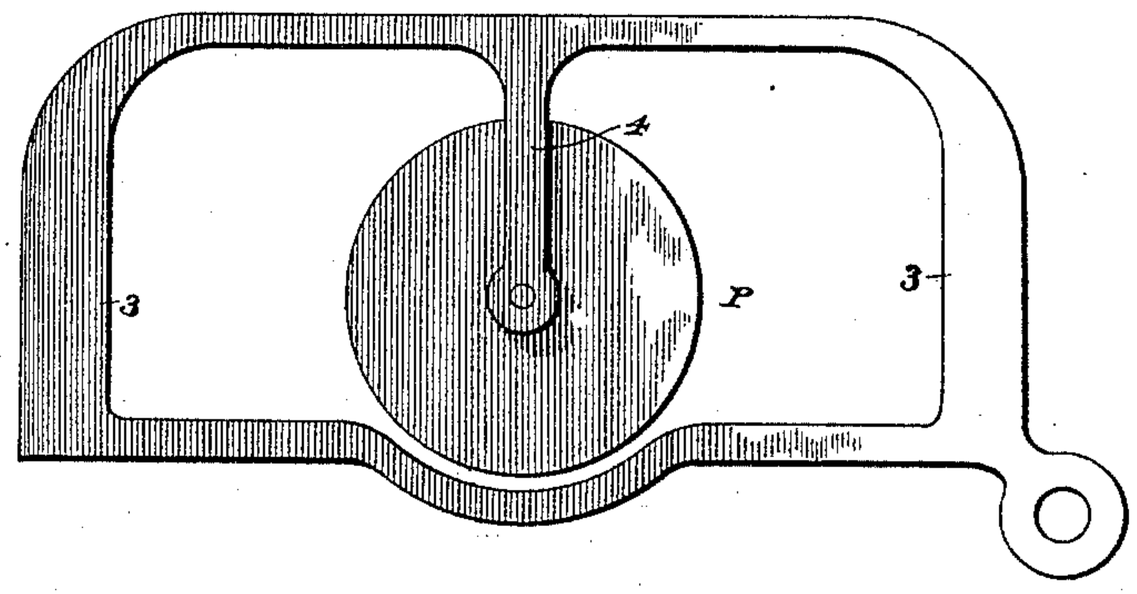


Fig. 4.

Fig 5.



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UNITED STATES PATENT OFFICE.

HARRISON SMITH MARTIN, OF BROOKLYN, ASSIGNOR TO WYCKOFF, SEAMANS & BENEDICT, OF NEW YORK, N. Y.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 491,714, dated February 14, 1893.

Application filed June 22, 1891. Serial No. 397,084. (No model.)

To all whom it may concern:

Be it known that I, HARRISON SMITH MARTIN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Carriage for Type-Writing Machines, of which the following is a specification.

This invention relates to type-writing machines, and more especially to the carriage thereof; and the object of the same is to construct a carriage of this character in an improved manner and capable of holding a very wide or a very narrow sheet or piece of paper.

To this end the invention consists in a carriage having certain details of construction and arrangement of parts—all as hereinafter more fully described and claimed, and as illustrated on the two sheets of drawings, wherein—

Figure 1 is an end elevation of my invention as applied to a "Remington type-writer" carriage. Fig. 1× is a section of Fig. 1, looking in the opposite direction. Fig. 2 is a similar view as applied to a "caligraph" carriage. Fig. 3 is an enlarged cross-section of the carriage scale-bar, showing one of the spring paper-holding fingers with a head or button adapted to move in the slot in said scale-bar. Fig. 4 is an elevation of the carriage shown in Fig. 1 when raised and viewed as the operator would see it. Fig. 5 is an end elevation of another form of bracket.

Referring to the said drawings, the letter F designates the carriage frame, M the movable portion of the carriage as in a Remington type-writer, P the platen roller, R the presser roller, S the scale, and U the upwardly-curved spring-finger—all as are common in machines of this character now on the market.

Coming now to the present invention, the carriage frame F is bent downwardly as at 1 opposite the end of the platen roller and to such an extent that the roller if continued longitudinally would pass over the frame at this point. In the Remington type-writer the movable portion M of the frame is similarly bent down at 2 as seen in dotted lines in Fig. 1, although in the caligraph it will be understood that there is no such movable portion; and in both machines the presser roller R is so located that it bears against the rear and under face of the platen roller P about as shown. Rising from the frame near its rear side and at each end thereof, is a bracket 3 which curves forwardly as shown and whose front end 4 passes vertically downward, and the journal of the platen roller is mounted in this lower end. Around one end of the platen roller is the usual ring of ratchet teeth 5, and this ring is engaged by the following described mechanism—or any other that will answer suitably—for turning the platen roller as may be necessary.

6 is a pawl secured to the depending end 4 of the bracket 3 and engaging at its free end with the teeth 5 to hold the roller.

8 is a lever passing alongside the carriage and following the shape thereof as shown, and this lever is pivoted at 9 to the depressed portion 1 of the carriage, its rear end following the shape of the bracket 3, and 11 is a spring-pawl attached to this lever with its tip engaging the teeth 5.

It is necessary in order to carry out the present invention that all parts of the line-spacing mechanism stand between vertical planes passing through the front and rear faces of the platen roller and above the curved line of the lower face of said roller if such line were extended beyond the end of the roller, and such is the fact with the above devices.

With the above construction of parts, the paper is inserted as usual between the two rollers and passes beneath and around the platen roller, but the advantage of the upwardly-curved bracket 3 and the line-spacing mechanism described, is that paper considerably wider than the length of the machine may be written on and without curling or crimping its edges. Such paper is rolled crosswise and inserted beneath the two brackets 3, its upper end being passed between the rollers and around under the platen roller to the position shown in dotted lines, and at this time it will be understood that the edges of the paper may project considerably beyond the ends of the carriage and of the roller. The downwardly-curved portion 1 of the carriage frame on the caligraph follows the curva-

ture of the lower side of the platen roller than which it is slightly larger, but with the Remington this portion must be slightly elongated as shown in order to permit the necessary movements of the movable portion M of the carriage which is peculiar to this machine.

In Fig. 5 I have illustrated a slight modification in the shape of one end of the carriage. In this case brackets 3 rise from the front and rear corners of the carriage and meet at the center from which an arm 4 depends wherein the roller P is journaled. I have stated above that the brackets 3 rise from the rear corner of the frame, but by a slight change in the construction they might be caused to rise from the front corner, or as just stated from both corners.

Other details of construction will suggest themselves to the manufacturer, and need not be elaborated here.

In order to provide for writing upon paper which is narrower than the length of the platen roller I make use of the following devices: S is the scale-bar employed upon the carriages of machines of this character and standing adjacent the lower face of the platen roller as seen in Fig. 4, and in the upper side of this bar I form a slot 15. U U are upwardly-curving spring-fingers, provided with buttons or heads 16 at their lower ends which project downwardly and are adapted to fit closely yet movably in the slot 15. Under ordinary circumstances these fingers stand near the ends of the platen roller and bear upon the margins of the sheet being written on, and such might be the case if the sheet were wider than the carriage—it being of course necessary to slip the sheet if it were desired to write near the edges thereof. To facilitate such slipping of the sheet and hence to adapt the machine carriage to sheets wider than the length of the carriage, I therefore prefer these spring-fingers to the rubber bands now used on the Remington and which are drawn laterally out of place when the paper is slipped on the platen. Moreover, if such rubber bands were used there would of necessity be another shaft in the carriage with wheels over which the front ends of the bands passed; and not only would the bands interfere with the slipping of the paper, but there would also be no ready and convenient adjustment of the paper-holding devices like that above described. The ordinary typewriter has sixty-five or seventy spaces, and when the paper is wide and may be used and slipped in the carriage as above described, it becomes desirable not only to provide paper-holding devices beneath which it may be readily slipped, but also to have these devices adjustable. When the writing is to occupy say ninety spaces, that is where the sheet is wider than usual but not twice as wide, and where after it is slipped to fill out the twenty-five or twenty spaces in writing one margin of it must be held by some means near the center of the roller, it will be obvious that the spring-fingers above described may be adjusted to the proper points on the scale, and afterward the paper may be slipped for each line if desired beneath said fingers. When it is desired to write upon paper narrower than the normal distance between these fingers, one or both of them are moved inwardly from the ends of the carriage to proper points to grasp whatever margins a narrow sheet of paper may have. Such movement of the fingers may be done by hand, the buttons or heads 16 slipping in the slot 15 with some friction, as will be readily understood. When this slot is in the upper side of the scale S it does not mar the face thereof and is not seen, and the shape of the slot and button is sufficient to give the finger a firm support against displacement. In elevation the button is preferably square or rectangular, as seen in dotted lines in Fig. 4, in order to prevent the finger rocking from side to side as would be the case if the button were round.

What is claimed as new, is—

1. In a type-writer, a carriage having standards rising from the opposite ends thereof and provided with depending portions whose ends have bearings, combined with a platen roller journaled in the bearings at the ends and having its surface above the carriage frame whereby paper of greater width than the platen roller may be inserted in the carriage and operated upon, substantially as specified.

2. In a type-writer carriage, the combination with the carriage frame having at each end a curved bracket rising therefrom and provided with a depending free end; of the platen roller journaled between said depending ends with all parts of its lower face in a line above the end-bars of the frame, means for holding the paper against said roller, and line-spacing mechanism substantially as described following the shape of said bracket, as and for the purpose set forth.

3. In a type-writer carriage, the combination with the carriage frame having at each end a downwardly-bent portion, a movable portion sliding in said frame and also bent downwardly, and at each end of this movable portion a bracket rising therefrom and having a depending front end standing above said downwardly-bent portion; of the platen roller journaled between said depending ends with all parts of its lower face in a line above the upper sides of all said downwardly-bent portions, and a presser roller journaled in the movable portion in rear of and bearing against the platen roller, substantially as described.

4. In a type-writer carriage, the combination with a platen roller, and the scale-bar adjacent the same having a slot opening through its rear face; of the spring-fingers having buttons frictionally seated in said slot, substantially as described.

5. In a type-writer carriage, the combination with the platen roller, and the scale-bar adjacent the same and having a longitudinal

slot in its rear face of T-shaped cross-section; of the upwardly-curved spring-fingers following the curvature of the roller, and rectangular buttons at their lower ends frictionally seated in said slot, substantially as described.

6. In a type-writer carriage, the combination with the platen roller, and the scale-bar adjacent the same and having a longitudinal slot; of the upwardly-curved spring-fingers having buttons moving in said slot, and set-screws passing through the slot from the front and into said buttons, substantially as described.

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

HARRISON SMITH MARTIN.

Witnesses:
HOWARD A. PORTER,
MARVIN INGRAHAM.