

No. 681,846.

Patented Sept. 3, 1901.

L. P. DISS.
TYPE WRITING MACHINE.

(Application filed Jan. 12, 1900.)

(No Model.)

Fig. 1.

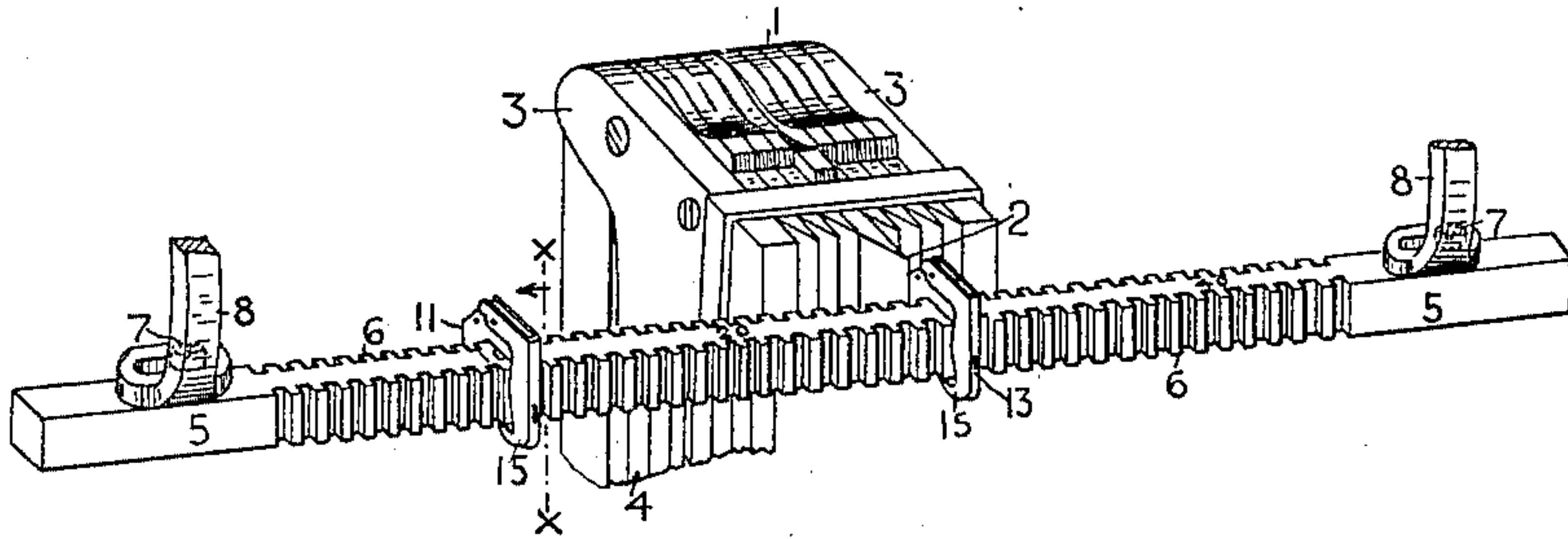


Fig. 2.

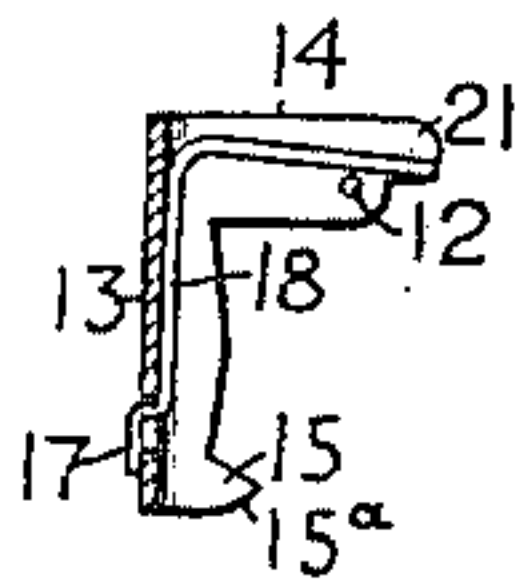


Fig. 3.

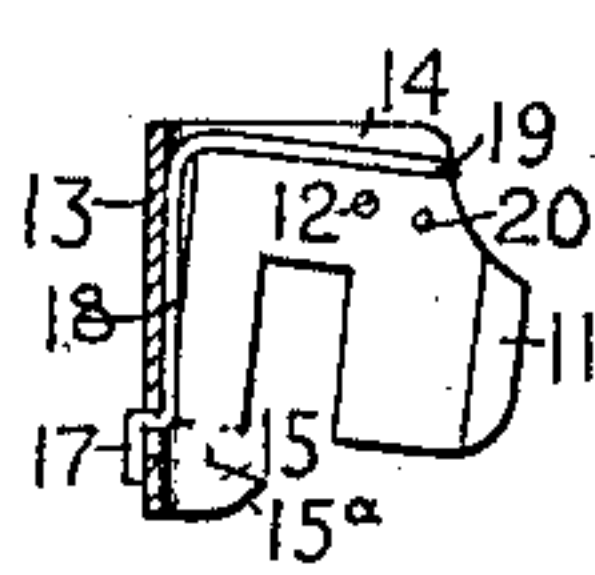


Fig. 4.

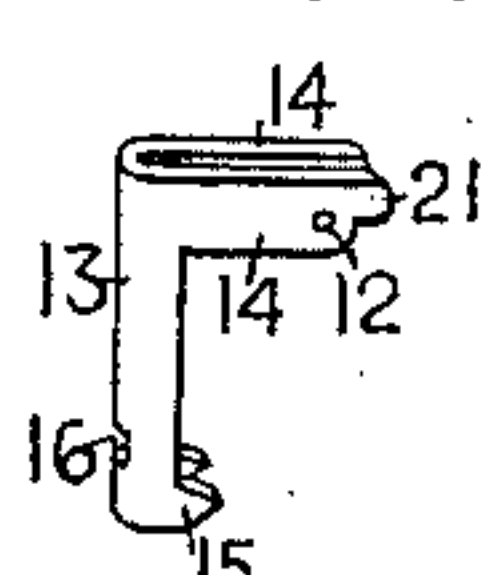


Fig. 5.

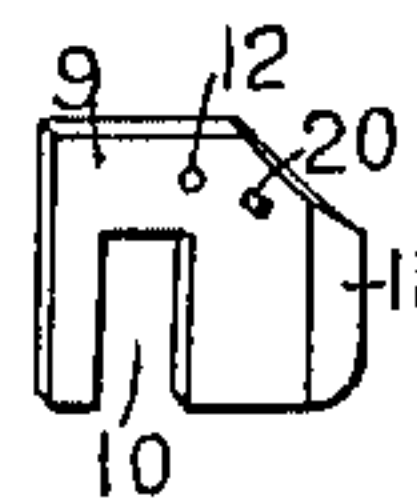


Fig. 6.

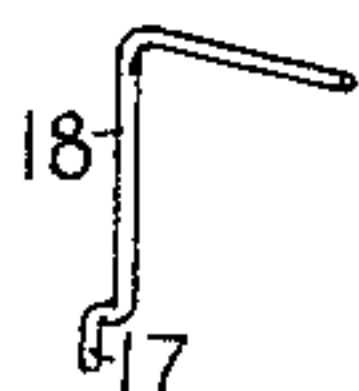


Fig. 7.

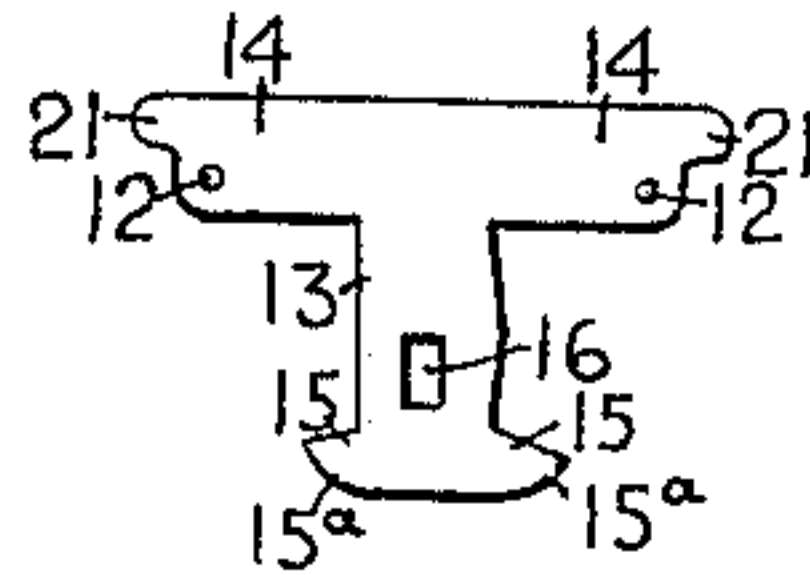


Fig. 8.

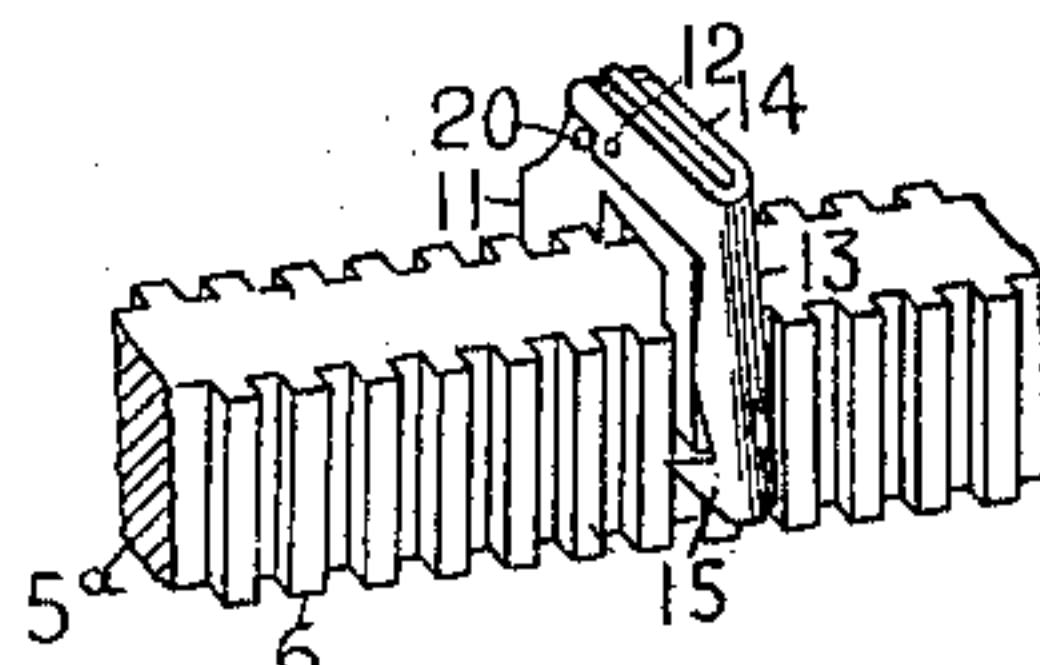


Fig. 9.

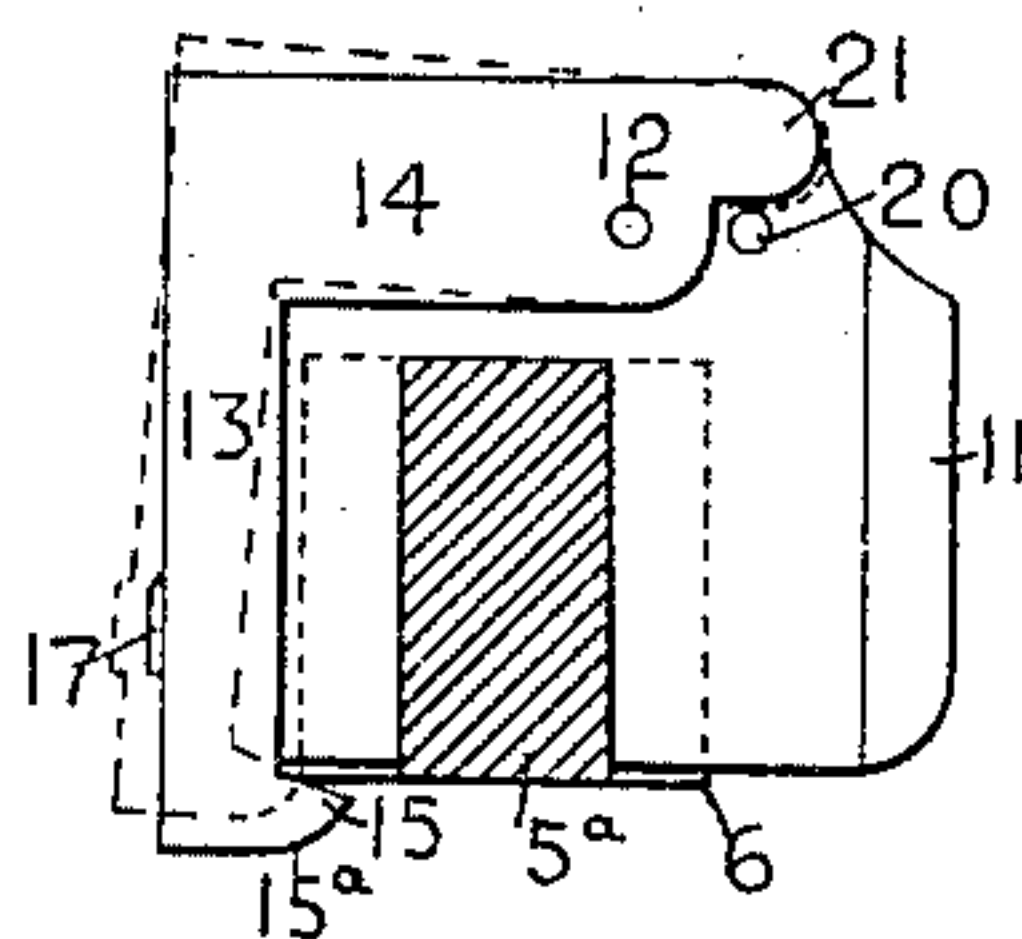


Fig. 10.

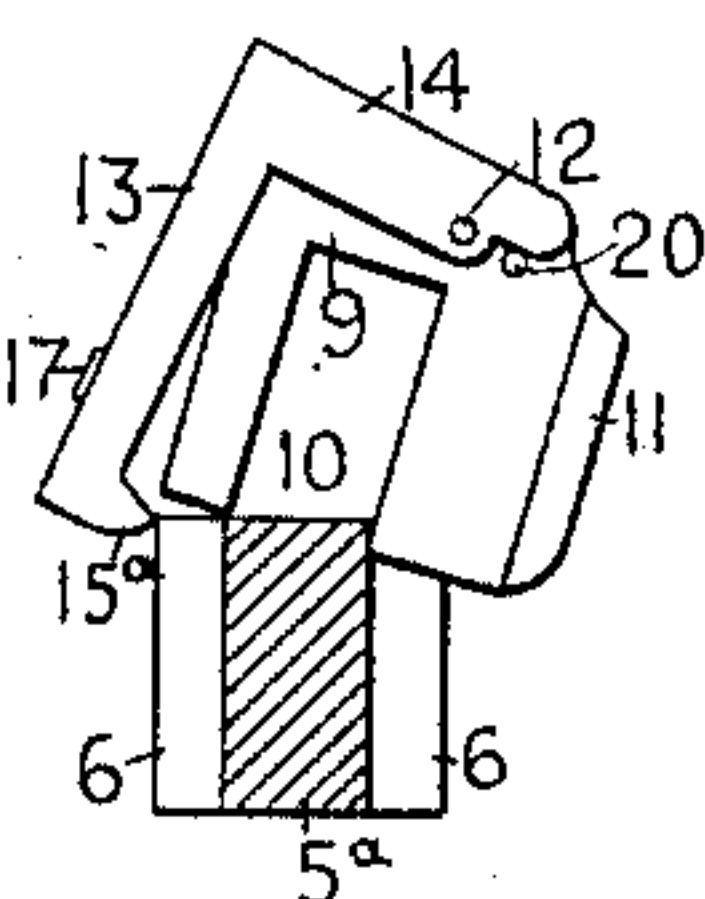
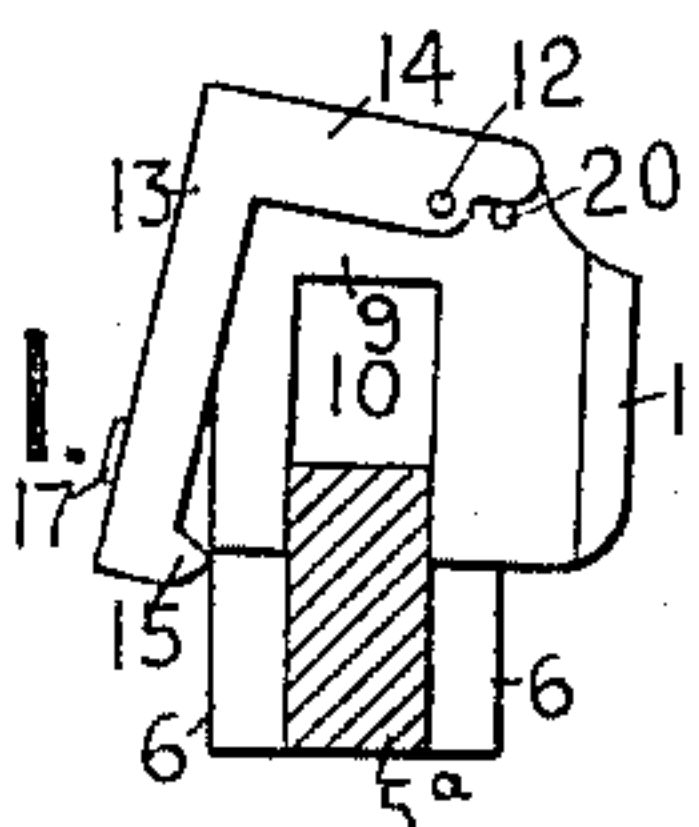


Fig. 11.



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UNITED STATES PATENT OFFICE.

LOUIS P. DISS, OF ILION, NEW YORK, ASSIGNOR TO WYCKOFF, SEAMANS & BENEDICT, OF SAME PLACE.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 681,846, dated September 3, 1901.

Application filed January 12, 1900. Serial No. 1,181. (No model.)

To all whom it may concern:

Be it known that I, LOUIS P. DISS, a citizen of the United States, and a resident of Ilion, in the county of Herkimer 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 tabulating mechanism for type-writing machines; and its object is to provide an improved adjustable stop or tappet for use upon the tabulating-rack of the paper-carriage.

The invention consists in certain features of construction and combinations of devices, all as will be hereinafter fully described, and particularly pointed out in the concluding claims.

In the accompanying drawings, Figure 1 is a perspective view of so much of the tabulating mechanism of a type-writing machine as is necessary to illustrate my invention. Fig. 2 is a sectional view of a retaining-hook and a spring attached thereto. Fig. 3 is a sectional view of a tappet including the retaining-hook. Fig. 4 is a perspective view of a retaining-hook. Fig. 5 is a perspective view of the plate portion or blade of the tappet. Fig. 6 is a perspective view of a spring. Fig. 7 is a view of a sheet-metal blank from which the retaining-hook is made. Fig. 8 is a perspective view of a fragment of a rack, showing a tappet being placed in position. Fig. 9 is an enlarged view taken on the line *x x*, Fig. 1, and looking in the direction of the arrow and showing the rack in section and a tappet in position thereon. Fig. 10 is an enlarged view showing the method of inserting the tappet between the teeth of the rack. Fig. 11 is a view similar to Fig. 10, but showing the position of the parts while the tappet is being pressed down to its working position.

In the several views similar parts are designated by similar numerals of reference.

Key-controlled denomination-stops 1, each being of a thickness equal to the letter-space movement of the paper-carriage and having a beveled vertical working edge 2, are assembled side by side between parallel jaws 3 and provided with vertical operating-levers 4, by which any selected stop may be projected, as illustrated at Fig. 1. A rack-bar 5, having

teeth 6 cut upon its front and rear edges, is secured by means of screws 7 to the lower ends of arms 8, which are secured to the carriage. (Not shown.) Teeth 6 are disposed at intervals equal to the letter-spacing movements of the paper-carriage. The parts just described are usual in the tabulating mechanism supplied for Remington No. 6 type-writing machines. My improved tappet comprises a plate portion 9, which is notched vertically at 10 to form a fork, whereby said plate is enabled to be seated between teeth 6 upon opposite sides of the rack-bar 5, the width of the said opening 10 being substantially equal to the thickness of the rack-bar at 5^a between the bottoms of the kerfs, Figs. 8, 9, 10, and 11. One of the prongs of the fork is widened so as to form a toothed portion 11, which is beveled so as to leave a clearance for the projection of the stop-blades 1. For retaining the tappet in position upon the rack-bar an L-shaped detent is provided which is made of sheet metal, folded so as to partially embrace the plate 9. This detent comprises a vertical stem or arm 13, from the upper portion of which project parallel arms 14, one upon each side of the plate 9, the free ends of said arms being pivoted to the plate at 12. At the lower end of said stem is provided a pair of beveled catches or hooks 15, which when the tappet is in position upon the bar engage the lower projecting corners of the teeth 6 upon the front side of the rack-bar. Near its lower end, the stem 13 is perforated at 16, and into this perforation is inserted the bent end 17 of a wire spring, the body of said spring extending upwardly at 18 along the edge of the plate 9 and being bent at about right angles, so as to extend over and bear upon the top edge of said plate at 19. The stem 13 is firmly held by the spring between the body portion 18 and the bent end 17. The relative position of the hook and plate when detached from the rack-bar is indicated at Fig. 3, from which it will be seen that the said spring has a tendency to cause the catch end of the hook to swing to a point below the notch 10 in the plate 9. Undue swinging of the hook outwardly from said plate is prevented by a pin stop or stud 20, secured in

said plate in rear of the pivot 12 and just below an ear 21, formed upon the free end of each of the arms 14 and in position to be engaged by said ear upon a slight vibration of the hook, as indicated by dotted lines at Fig. 9.

In operation the corner of the wide prong of the fork is inserted between the selected teeth upon the rear side of the rack-bar, as indicated at Fig. 10, and the other prong is passed down between the corresponding teeth on the front side of the rack-bar. The rounded under portion 15^a of the hook contacts with the top of the rack-teeth, and by reason of the downward pressure put upon the tappet by the operator the hook is forced outwardly against the tension of the spring 18, as indicated at Fig. 10, so as to allow the turning of the plate to a vertical position, as indicated at Fig. 11. Thereupon the tappet is pressed down as far as it will go—that is, until the upper edge of the notch 10 contacts with the upper face of the rack-bar. At this time the spring 18 causes the hook to snap under the lower edge of the rack-teeth, as indicated in full lines in Fig. 9, whereby accidental displacement of the tappet is prevented. As many of these tappets may be placed in position as required, and tabulating-work may then proceed in the usual manner. In removing a tappet it is necessary only to grasp the arms 14 at their forward portions and give a slight lift in the direction required for removing the plate 9 from the rack-bar, which will cause said arms to swing about the pivot 12 and the hook 15 to become disengaged from the lower edge of the rack-tooth, as indicated in dotted lines at Fig. 9, whereupon continued lifting causes the entire device to be withdrawn from the rack-bar, the point of the hook 15 riding along the front edges of the teeth 6. To facilitate the described releasing action of the hook, the working edge of the latter is slightly beveled or inclined downwardly, as shown in the several views. It will be observed that this construction is very compact. The metal used may be quite thin, and in practice I have succeeded in reducing the thickness of the entire structure to something less than the ordinary letter-space measurement of a type-writing machine. It will also be observed that the whole forms a very durable and convenient device, which can be made at very slight expense, and that the tappet when placed in position is firmly secured and not liable to become accidentally displaced. The toothed portion 11 of the plate 9 has a solid side support between the teeth of the rack-bar, insuring the accurate positioning of the carriage at the operation of the tabulating mechanism, while at the same time the structure is very light, so that the addition of undue weight of the paper-carriage is avoided. Various changes in detail construction and arrangement may be resorted to without departing from my invention, which is also

adapted for use in a variety of tabulating-machines.

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

1. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising a thin plate adapted to engage between the teeth of a rack-bar and having a toothed portion, and comprising also an independently-movable detent for engaging said rack-bar to retain the tappet in place.

2. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising a thin plate adapted to engage between the teeth of a rack-bar and having a toothed portion and comprising also a pivoted detent for engaging said rack-bar to retain the tappet in place, and means for limiting the movement of said detent.

3. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising a thin plate having a notched portion for engaging between teeth upon the opposite sides of the rack-bar, a toothed portion, and a detent pivoted to said plate.

4. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising a thin plate having a notched portion for engaging between teeth upon the opposite sides of a rack-bar, a toothed portion, a detent pivoted to said plate, and a spring for said detent.

5. A tappet for the tabulating mechanism of a type-writing machine, comprising a plate, a detent formed of sheet metal and folded to partially embrace said plate, and a spring.

6. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising a thin forked plate, at least one of the prongs of the fork being widened and adapted to coact with the denomination-stops of the tabulating mechanism, and also comprising a spring-pressed detent for retaining said plate in position.

7. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising a thin forked plate, at least one prong of which is beveled, and a detent pivoted to said plate and adapted to retain it in position.

8. A tappet for the tabulating mechanism of a type-writing machine, comprising a plate which is notched vertically to form a fork, whereby said plate is enabled to be seated between teeth upon opposite sides of a rack-bar, the width of the said notch being substantially equal to the thickness of the rack-bar between the bottoms of the kerfs, and a spring-pressed detent mounted on said plate.

9. A tappet for the tabulating mechanism of a type-writing machine, comprising a plate adapted to be engaged by the denomination-stops of the tabulating mechanism, and a detent pivoted to said plate and comprising a folded stem 13, parallel arms 14 extending therefrom, one upon each side of the plate, said arms being pivoted to the plate at their free ends, and means upon the lower end of

said stem for engaging the lower projecting corners of the teeth upon the rack-bar.

10. A tappet for the tabulating mechanism of a type-writing machine, comprising a plate, 5 a folded detent device partially embracing said plate, and a spring secured to said detent device, and adapted to bear upon the upper edge of said plate.

11. A tappet for the tabulating mechanism 10 of a type-writing machine comprising a forked plate, a folded detent device pivoted thereto and provided with a perforation, a spring secured in said perforation and extending upwardly and bent at substantially right angles 15 and adapted to bear upon the upper edge of said plate.

12. A tappet for the tabulating mechanism of a type-writing machine, comprising plate 20 9, detent 13 having arms 14 pivoted at 12 to said plate, and also having a catch 15, ear 21 formed on at least one of said arms 14, and stop 20 on said plate adapted to be engaged by said ear 21.

13. A tappet for the tabulating mechanism 25 of a type-writing machine, comprising two parts pivoted to each other, one of said parts being adapted to be seated between the teeth of the rack-bar and the other of said parts being adapted to prevent accidental displacement 30 of the tappet.

14. A detachable tappet for the tabulating mechanism of a type-writing machine, comprising two parts pivoted to each other, one of said parts being folded so as to partially 35 embrace the other of said parts, and one of said parts being adapted to be seated between the teeth of the rack-bar and also to engage the denomination-stops of the tabulating

mechanism and the other of said parts being adapted to retain the tappet in position upon 40 the rack-bar of the tabulating mechanism.

15. A tappet for the tabulating mechanism of a type-writing machine, comprising a thin forked plate portion adapted to engage between the teeth of the rack-bar, and a spring- 45 pressed detent adapted to automatically move to a position to retain the tappet upon the bar after the latter is placed in position, the construction and arrangement being such that upon grasping said detent and moving 50 it in a direction to remove the tappet from the bar, said detent is automatically released and the removal of the tappet is permitted.

16. A tappet for the tabulating mechanism of a type-writing machine, comprising a plate 55 and a spring-pressed L-shaped detent, the detent being pivoted to the plate at the end of one of its L-arms and being provided with a catch portion at the end of the other L-arm.

17. The combination with a bar correspondingly toothed on two sides, of a thin 60 plate-like tappet having portions adapted to enter between the teeth on said sides so as to support and sustain said tappet, and an independent spring-pressed catch mounted on 65 said plate and adapted to engage the bar and hold said tappet against accidental displacement.

Signed at Ilion, in the county of Herkimer and State of New York, this 10th day of January, A. D. 1900. 70

LOUIS P. DISS.

Witnesses:

RALPH W. GOUGH,
CHAS. E. MAURICE.