No. 619,985. Patented Feb. 21, 1899.

J. H. NILES.

TYPE WRITER PLATEN PAWL.

(Application filed July 29, 1898.)

(No Model.)

Fig:1.

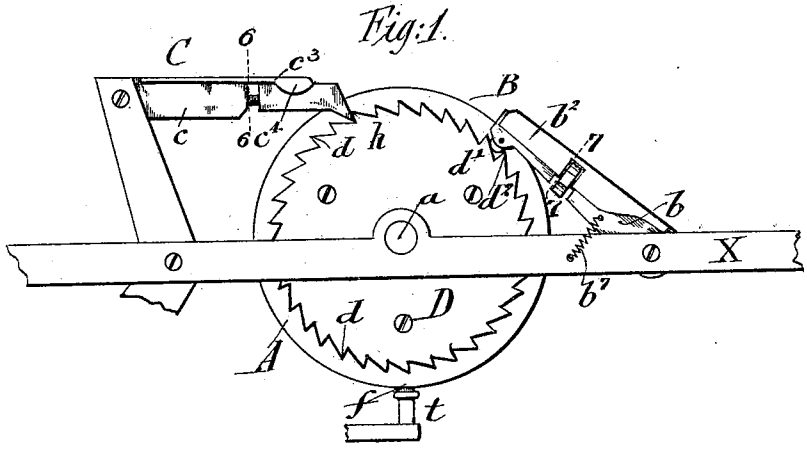


Fig:6.



Fig:7.

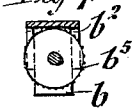


Fig:8.

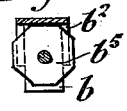


Fig:9.

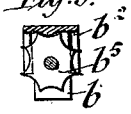


Fig:10.

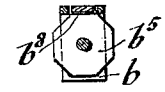


Fig:2.

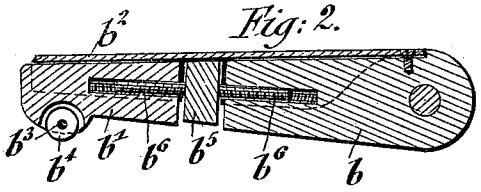


Fig:3.

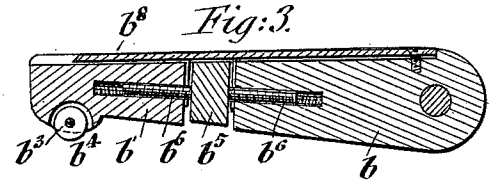


Fig:4.

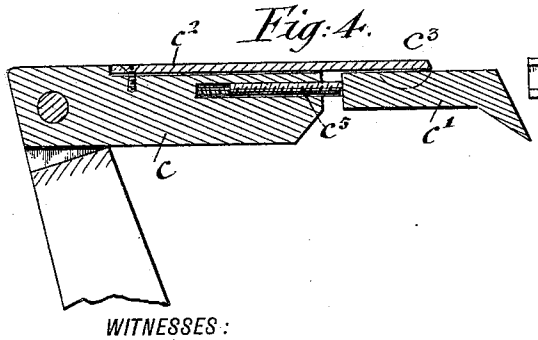
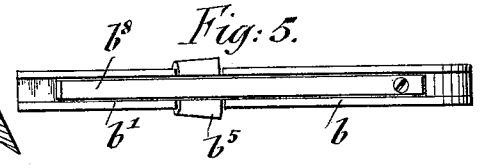


Fig:5.



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UNITED STATES PATENT OFFICE.

JOSEPH H. NILES, OF NEW YORK, N. Y.

TYPE-WRITER-PLATEN PAWL.

SPECIFICATION forming part of Letters Patent No. 619,985, dated February 21, 1899.

Application filed July 29, 1898. Serial No. 687,229. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. NILES, a citizen of the United States, residing at New York, borough of Brooklyn, in the State of New York, have invented certain new and useful Improvements in Type-Writer-Platen Pawls, of which the following is a specification.

This invention relates to improvements in type-writers; and the object of the invention is to provide means for adjusting the platen or impression-roller of a type-writer so that the lines of type impression on the same are shifted circumferentially of the roller and the punching of depressions in the surface of the roller by the constant hammering of the type on the same lines of impression in the operation of writing is avoided.

The invention consists of a pawl for type-writer platens, comprising a body portion and a nose portion adjustable relatively to said body portion, and, further, in certain details of construction and combinations of parts to be more fully described hereinafter and pointed out in the claims.

In the accompanying drawings, Figure 1 shows in end view a type-writer platen and in side elevation a detent-pawl and a platen-actuating pawl, each embodying in a different form my invention and operating in conjunction with the platen. Fig. 2 is a sectional view of the detent-pawl shown in Fig. 1. Fig. 3 is a sectional view of a modified form of the detent-pawl shown in Fig. 1. Fig. 4 is a sectional view of the platen-actuating pawl shown in Fig. 1. Fig. 5 is a top view of the detent-pawl shown in Fig. 3. Fig. 6 is a cross-section of the platen-actuating pawl on line 6 6 of Fig. 1; and Figs. 7, 8, 9, and 10 show various forms of thumb-wheel for operating the adjusting mechanism, Fig. 7 being a cross-section of the detent-pawl on line 7 7 of Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a type-writer platen mounted on the shaft a, which is supported at or near its ends in the type-writer carriage X in any suitable manner. Ratchet-teeth d are formed on the circumference of the end plate D, which is attached to the platen. The detent-pawl B consists of a main portion b, a tooth-engaging or nose portion b', at or near the end of which is supported on a pin b^3 the pawl-wheel b^4, a screw having its ends b^6 oppositely threaded and entering correspondingly-threaded recesses of the main portion b and nose portion b' and provided at its middle part with a thumb-wheel b^5 and a retainer b^2, which is fixed at its rear end to the main portion and extends over the nose portion. The engagement of the top and sides of the retainer with the top and sides of the main portion and nose portion prevents the turning of the latter when the pawl is in use, which would otherwise occur through the pressure of the nose portion on the ratchet-teeth, produced by the tension of the spring b^7. The sides of the retainer are cut away, so as to fit the thumb-wheel and permit its rotation. The thumb-wheel extends beyond the sides of the retainer, as shown in Figs. 7, 8, 9, and 10, so that it may be readily turned with the thumb and finger. As indicated, it may be of any suitable cross-section and either milled on its edge or plain. The retainer in either case may be made with a plane surface or of such cross-section as will best engage the style of thumb-wheel used, as indicated in Fig. 9. The retainer prevents the turning of the nose portion, as set forth, and, further, by its locking action on the thumb-wheel it prevents the slightest turning of the screw b^6 and consequent variation in the length of the pawl during use. To permit the turning of the thumb-wheel, the retainer is made of metal having a slight spring.

A modified form of retainer is shown in Figs. 3 and 5. In this case the top of both portions of the pawl is channeled, and the retainer consists of a single strip of metal b^8, which is located in the channel, being attached to the main portion and extending upon the nose portion, thus preventing the turning of the latter. The locking action upon the thumb-wheel is the same as with the retainer first described.

The platen-actuating pawl C consists of a main portion c, a nose portion c', and a retainer c^2. The nose portion is provided with a screw-threaded extension c^5, which enters a correspondingly-threaded recess of the main portion. The retainer is secured to the main portion and extends upon the nose portion, as shown in Fig. 1, its top c^3 resting on and its ears c^4 depending at the sides of the nose

portion. The turning of the nose portion in the main portion is thereby prevented.

The detent-pawl and platen-actuating pawl are supported in operative position with regard to the platen and end plate in any suitable manner. Other forms of connection between the body portion and nose portion may be employed, but the forms shown are preferred because they are readily operated by hand without the use of tools.

The operation of adjusting the pawls will be readily understood from the drawings and description. The adjustment is preferably made when no work is in the type-writing machine, as otherwise a break in the even appearance of the page would be produced. By turning the thumb-wheel with the thumb and finger the nose portion of the pawl is drawn back or extended, according to the direction of turning. The pawl-wheel remains constantly seated between the two teeth d' d^2 and carries the entire platen circumferentially the distance for which the pawl is extended or contracted as produced by the screw. If the platen-actuating pawl is close to the tooth h and the detent-pawl be extended, the platen-actuating pawl will prevent the movement of the platen circumferentially. It should therefore be first contracted by raising it from the ratchet-teeth and slightly lifting the retainer c^2 and turning the nose portion so as to screw it into the body portion of the pawl. If the detent-pawl be contracted instead of extended, the platen-actuating pawl is to be correspondingly extended. It will be seen that by either adjustment all the lines of type impression on the platen are shifted circumferentially—for example, the type having previously struck at the point f will strike after the pawls are changed at a point either forward or behind the point f on the platen. If the pawls be applied to a machine fitted with an old indented platen, the platen can be so turned that the type t will strike between the lines of indentation, so that a firm, smooth, perfect surface is afforded and the quality of the work turned out by the type-writing machine rendered equal to that possible with a new platen. The life of the platen is thus increased. If the pawl be fitted to a machine having a new platen or a platen not indented at any point and the pawls be adjusted, say, if the machine is in hard use, once a month or oftener, and the adjustment instead of being sufficient to shift the lines of impression to an entirely new surface be made only so as to shift the lines a short distance from their former position, the surface of the platen will never become so deeply indented at any point as to produce poor work and will last indefinitely, and the expense of new platens, heretofore necessary, will be avoided.

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

1. A pawl for type-writer platens, consisting of a body portion, and a nose portion adjustable relative to said body portion, substantially as set forth.

2. A pawl for type-writer platens, consisting of a body portion, a nose portion, means for adjusting said nose portion, and means for retaining said nose portion in operative position relatively to said body portion, substantially as set forth.

3. The combination, with a type-writer platen, and teeth at an end of the same, of a detent-pawl engaging said teeth and having its tooth-engaging portion adjustable in and longitudinally of the path of said teeth, substantially as set forth.

4. The combination, with a type-writer platen, and teeth at an end of the same, of a detent-pawl engaging said teeth and having its tooth-engaging portion adjustable in and longitudinally of the path of said teeth, and a platen-actuating pawl having its tooth-engaging portion adjustable in and longitudinally of the path of said teeth, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two subscribing witnesses.

JOSEPH H. NILES.

Witnesses:

GLENN H. NILES,

WALTER RAPPELYEA DAVIES.