

H. M. VAUGHAN.
ERASING DEVICE FOR TYPE WRITERS.
APPLICATION FILED FEB. 13, 1911.

1,019,205.

Patented Mar. 5, 1912.

Fig. 1.

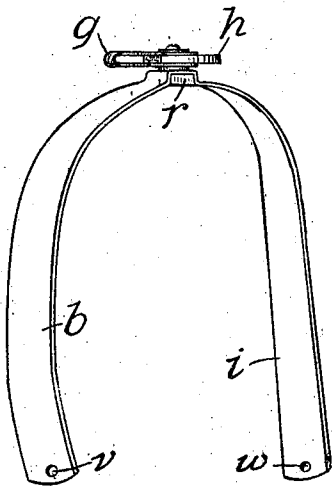
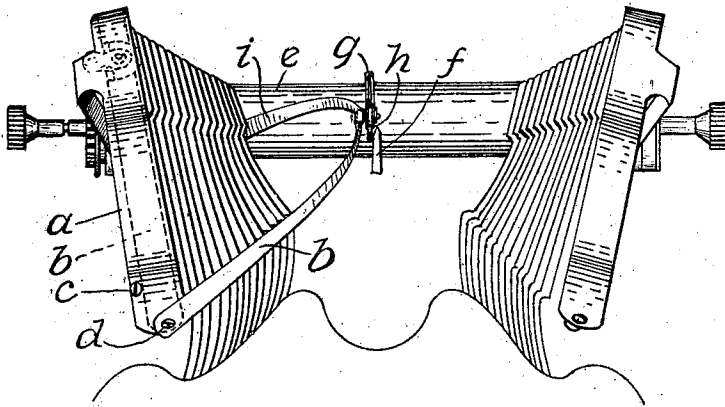


Fig. 2.

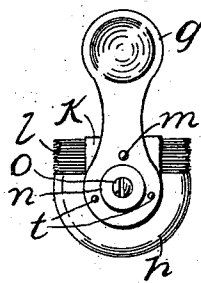


Fig. 3.

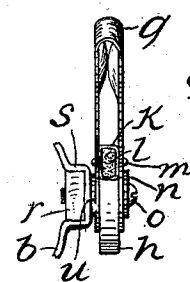
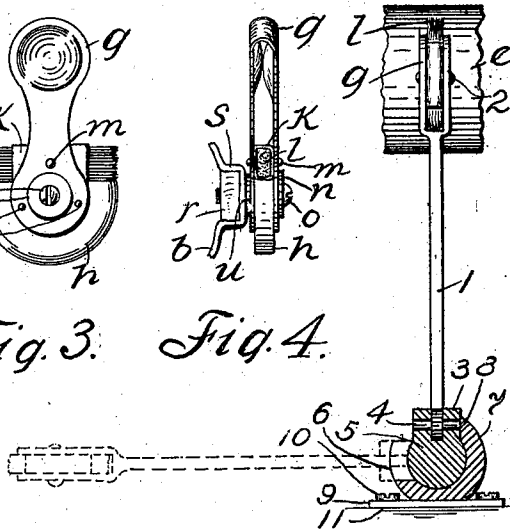


Fig. 4.

Fig. 5.



Witnesses:

L. G. Noe
M. Pinner

Inventor,
H. M. Vaughan,
by

G. C. Kennedy
Attorney.

UNITED STATES PATENT OFFICE.

HENRY M. VAUGHAN, OF NEWTON, IOWA.

ERASING DEVICE FOR TYPE-WRITERS.

1,019,205.

Specification of Letters Patent.

Patented Mar. 5, 1912.

Application filed February 13, 1911. Serial No. 608,356.

To all whom it may concern:

Be it known that I, HENRY M. VAUGHAN, a citizen of the United States of America, and a resident of Newton, Jasper county, Iowa, have invented certain new and useful Improvements in Erasing Devices for Type-Writers, of which the following is a specification.

My invention relates to improvements in erasing means for type-writing machines, and the object of my improvement is to provide an eraser movable from a fixed base on the machine to and from the movable platen of the machine for convenient and self-adjustable use thereon.

Another object of my improvements is to suitably combine with the erasing-means other means adapted to concurrently act in removing any litter accruing from the action of the erasing-means on the object on the platen, both the eraser and the other means being mounted and adapted to impinge upon a space on the platen which has immediately theretofore been acted upon by a type-face.

These objects I have accomplished by the means which are hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which:

Figure 1 is a partial view of a type-writing machine, showing the relative positions of the movable erasing-means on a fixed base relative to the movable platen in full lines, with the position of the erasing-means when retracted away from the platen, in dotted lines. Fig. 2 is an enlarged detail perspective view of the said erasing-means when furnished with a pivoted bowed support. Fig. 3 is an enlarged side elevation of the combined eraser and brush with finger-piece, as separated from the supporting-means. Fig. 4 is a front elevation of the structures shown in Fig. 3. Fig. 5 is an elevation of the said eraser as supported on a single supporting arm.

Similar characters of reference designate corresponding parts throughout the several views.

In Fig. 1, the character *a* represents a fixed support of bowed form on a type-writing machine, which is situated at one side of the machine and anterior to one end of the movable platen *e*. Comprised within this bowed support is the usual plurality of type-bars employed in this class of machine,

of bowed form similar to that of the said support.

The bowed eraser-support has the two limbs *b* and *i*, as shown in Fig. 2, slightly larger than the support *a* in order to be mounted thereover and conform itself thereto. The limbs *b* and *i* are provided at their lower ends with orifices *v* and *w* respectively, to receive screws *d* which both serve as pivots therefor and secure them to the lower ends of said support *a*.

The middle upper part of the bowed support *b-i* is offset upwardly in such a manner as to provide a rectangularly formed seat for a nut *r*, such offset parts *s* serving to keep said nut fixed relative thereto, when a short screw or bolt *o* threaded therinto is moved relatively thereto. The bolt *o* passes through registering openings in the rubber eraser *h*, and the spaced apart holding arms *u* of a finger-piece *g*, the latter extending upwardly and having oppositely located concavities for finger-holds. The arms *u* are also secured to said eraser *h* by means of rivets *t*.

Washers *n* may be used between the bolt-head and the adjacent arm *u*, and between the arm *u* on the other side of the eraser and the offset part *s* of the bowed support if desired, and as shown, and either may be removed or others inserted to properly locate the eraser relatively to the platen, particularly when the eraser may have become worn and a little out of line, or to adjust for different type sizes. I have combined with my said erasing means, other means for brushing away the litter resulting from the erasing action on the paper on the platen. This means comprises a brush *l* secured in a hollow tube *k* medially between the arms of the finger-piece *g* adjacent and fitting upon the upper flat edge of the eraser *h* by means of a rivet *m*. The tube *k* is shorter than the brush, the ends of the latter projecting therefrom, and the brush ends being trimmed and of such a length and so located relatively to the circular edge of the eraser, that their brushing parts are tangent with said edge. This disposition of the brush-ends causes them to act evenly upon the paper immediately after the action of said eraser thereon, and the eraser with said brush act together in the same alinement in moving alternately back and forth over the paper on the platen.

Since the combined eraser and brush are so mounted as to be separable from the bowed support, they may be reversed when worn down considerably on the part of the edge used, to present fresh and unworn edges to the paper. The eraser may be reversed by simply withdrawing the bolt *o* and replacing it when the eraser has been turned over.

As will be seen in Fig. 1, the edge of the eraser is so located as to impinge upon the platen at a location immediately to one side of the spot thereon on which the type-bars strike, so that in case of an error necessary to be corrected, the character to be erased is just one space out of line with the type-bar alinement and does not interfere with the action of the machine. It will be seen, furthermore, that since the bowed support *b-i* is pivoted suitably to cause the eraser *h* to impinge with the platen at the proper location, that no matter how much the eraser edge may have been worn down, the erasing contact will always be perfect, since the eraser is movable toward the platen.

I do not intend to confine myself strictly to the exact pattern of eraser or supporting-means therefor shown, since it is obvious that other and similar means may come within the scope and principle of my invention. I have shown therefore in Fig. 5, a form of eraser support, which comprises a single arm 1 whose forked free end 2 holds pivotally the eraser holder *g* with the brush *l*. The other end of the arm 1 is hinged for forward and back swinging movement to a shaft or pintle 4 in a projection 3 of a rock-body 5 of cylindrical form, the latter mounted to rock in a bearing in a body 7 integral with a base 9 which is secured by the screws 10 to the machine frame 11. The forward part of the body 7 is closed to prevent the arm 1 from passing forward from the vertical position, the part 8 of the body serving as a stop for movements to the right

of said arm, while the arm when swung forward from the platen *e*, may be swung down to the left into a grooved seat 6 in said body 7, out of the way, the whole being within the scope of my invention.

When desired, a stop may be furnished for the bowed arm *b-i*, such as the screw-head *c* shown in Fig. 1, to prevent the arm from moving to the left beyond the proper distance.

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

1. In a typewriting machine, in combination, fixed supporting means, a relatively movable platen; a rigid arm movable from said fixed supporting means toward and from said platen, and erasing-means mounted on said rigid arm and reversible to present unworn parts to said platen.

2. In a typewriting machine, in combination, a platen, fixed supporting means, erasing-means pivotally mounted on and adjustable relatively to said supporting-means and to the platen, said erasing-means being mounted to contact with the platen at a uniform distance from its pivotal mounting.

3. In a typewriting machine, in combination, fixed supporting means, a relatively movable platen, a rigid body movable from said fixed supporting means toward and from said platen, and erasing-means pivotally mounted on said body, said erasing-means being mounted suitably to contact with said platen at a uniform distance from the connection of said body with said fixed supporting means.

Signed at Waterloo, Iowa, this 28th day of Jan. 1911.

HENRY M. VAUGHAN.

Witnesses:

GEO. C. KENNEDY,
L. F. NOE.