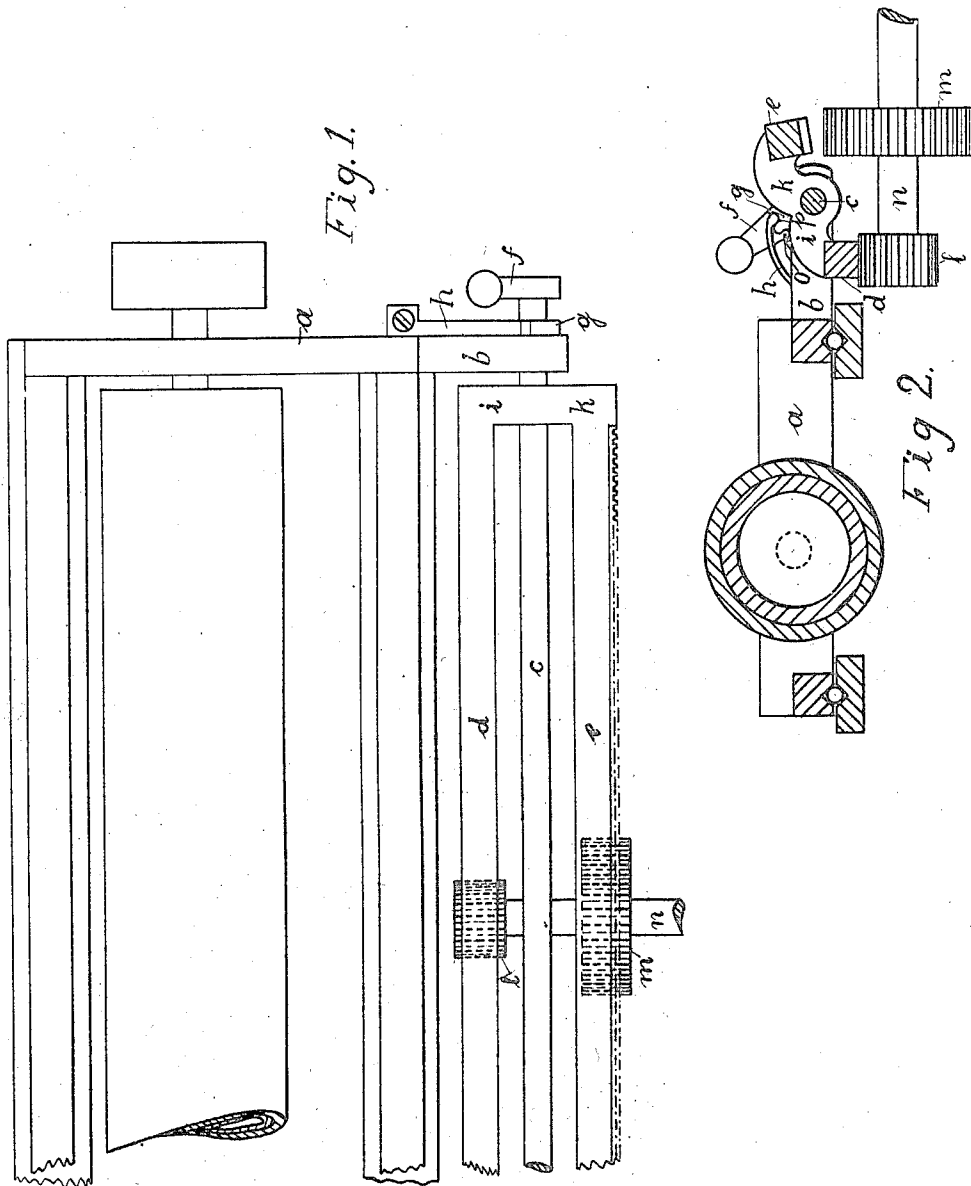


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TYPE WRITER ATTACHMENT.
APPLICATION FILED NOV. 11, 1909.

971,736.

Patented Oct. 4, 1910.



Witnesses.
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TYPE-WRITER ATTACHMENT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MAX EINSTEIN, merchant, a citizen of the State of Hamburg, residing at Hamburg, in the Empire of Germany, have invented certain new and useful Improvements in Type-Writer Attachments, of which the following is a specification.

With devices hitherto in use for spacing separate characters or producing tabulated work on typewriters without the use of the space-bar or the carriage release-key, there is always the objection that in spacing, by reason of the greater distance between the typed matter and the corresponding distance traveled by the carriage, the latter is pulled with increased speed toward the end of its travel and so causes the draw-bar or other carriage pulling member to strike with corresponding force and noise against the carriage stop.

Designers of typewriters adopt various means for deadening the noise in typewriters, and with this object in view the following improved arrangement is provided which forms the subject of this invention.

For spacing separate characters or for tabulating work the ordinary carriage rack normally in engagement with the rack-pinion is moved out of engagement while at the same time a second rack is made to gear with a second rack pinion of larger diameter than the other on the same shaft.

An embodiment of my invention is shown in the accompanying drawings, in which:—

Figure 1 is a plan of a portion of the carriage of a typewriter. Fig. 2 is a cross-section of the carriage.

The carriage *a* has rear arms *b* in which is mounted a spindle *c* carrying two racks *d* and *e* by means of fixed cross-arms *i* and *h* respectively at each end. One end of the spindle *c* projects beyond the arms *b* and is fitted with a handle *f* and with a locking plate *g* formed with two notches *o* and *p* in which the nose of a spring-pawl *k* engages.

Beneath the rack *d* is the usual step by step pinion *l* for the carriage which after the depressing of a key moves the carriage for the space of one letter when, as here shown, the rack *d* and pinion *l* are in engagement.

On the shaft *n* of the pinion *l* is keyed a second pinion *m* of double the diameter of that of pinion *l* and the teeth of which, therefore, at each step-movement pass through a path twice the length of that which the teeth of pinion *l* describe.

For spacing work, the handle *f* is turned toward the rear so that the rack *d* is lifted away from the pinion *l* and the rack *e* lowered into engagement with its pinion *m*. The carriage after each depression of a key will now be moved step-wise by the large pinion *m* for a longer distance than ordinarily. The two positions of the racks *d* and *e* are determined and locked by the spring-pawl *h* which firmly engages in the one or the other of the notches *o*, *p*, in plate *g*.

Having now described my invention, what I claim is:

In a typewriter, the combination of a carriage, a spindle carried thereby, arms on said spindle, two racks carried by said arms, a shaft, two pinions of different sizes thereon, means for rocking the racks to bring either into engagement with its cooperating pinion, a spring detent on the carriage, and a locking plate on the spindle having two notches for alternate engagement with said detent, substantially as described.

In testimony, whereof I have signed my name to this specification.

MAX EINSTEIN.

In the presence of two subscribing witnesses:

ERNEST H. L. MUMMENHOFF,
EDUARD HOPF.