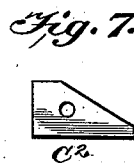
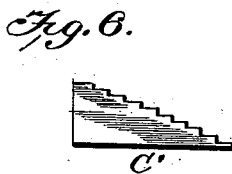
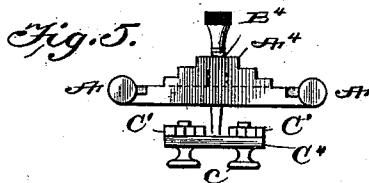
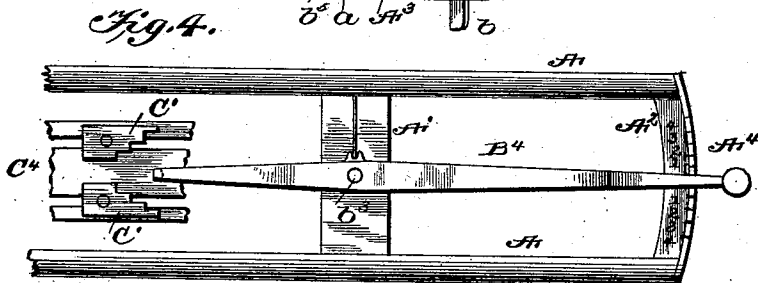
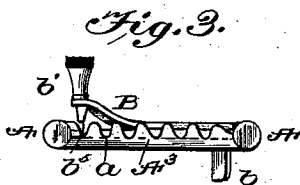
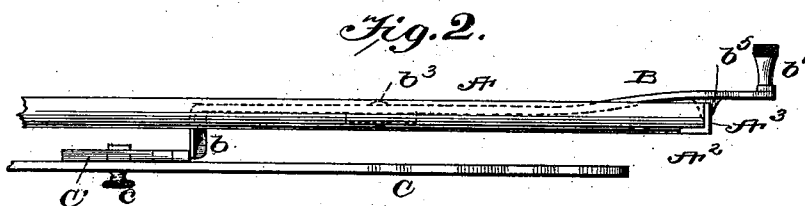
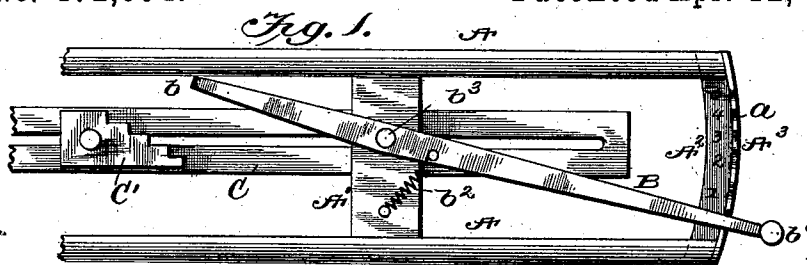


(No Model.)

G. C. BLICKENS DERFER.
TYPE WRITING MACHINE.

No. 472,694.

Patented Apr. 12, 1892.



Witnesses

John Dmirie
Franklin Moore

Inventor

Inventor
G. C. Blickensderfer
By his Attorneys
Hallock and Hallett

UNITED STATES PATENT OFFICE.

GEORGE C. BLICKENS DERFER, OF STAMFORD, CONNECTICUT, ASSIGNOR TO
THE BLICKENS DERFER MANUFACTURING COMPANY, OF NEW YORK, N. Y.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 472,694, dated April 12, 1892.

Application filed October 29, 1891. Serial No. 410,232. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. BLICKENS-
DERFER, a citizen of the United States, resid-
ing at Stamford, in the county of Fairfield
and State of Connecticut, have invented cer-
tain new and useful Improvements in Type-
Writing Machines; and I do hereby declare
the following to be a full, clear, and exact de-
scription of the invention, such as will enable
others skilled in the art to which it appertains
to make and use the same.

This invention relates to type-writing ma-
chines; and it consists in certain new and
useful improvements in the means for stop-
ping the carriage at any predetermined point
while moving to the left, so as to enable the
operator to columnate matter with exactness
and rapidity and without observing the scales
of the machine, as will be hereinafter fully
set forth, and pointed out in the claims.

My invention is illustrated in the accompa-
nying drawings, as follows:

Figure 1 is a top view of the right-hand end
of the paper-carriage of a type-writing ma-
chine and a stop-bar C and stop C', located
below the carriage and fixed onto the frame
of the machine, said frame not being shown.
Fig. 2 is a side view of the same parts shown
in Fig. 1. Fig. 3 is an end view of the car-
riage shown in Fig. 1. Fig. 4 is a plan view
like Fig. 1, showing an alternative construc-
tion of certain parts. Fig. 5 is an end view
of the parts shown in Fig. 4. Figs. 6 and 7
show alternative forms of the stop-block.

A' A² marks the carriage-frame; B, the
variable laterally-swinging catch-lever on the
carriage; C, the stop-bar on the frame of the
machine; C', the adjustable laterally-gradu-
ated stop-block on the stop-bar. The carriage
is stopped by the end *b* of the lever B coming
into contact with the stop-block C'. This will
only occur when the lever B is so placed as
to bring the point *b* into line with the block
C', and the point at which the carriage will
be stopped will be regulated by the stop or
notch on the block C' with which the lever B
contacts, and this will depend on the position
of the lever B. The block C' can be adjusted
at various places on the bar C for the purpose
of fixing the point where the column of mat-
ter to be printed shall be located on the sheet.

The notches or stops on the block C' repre-
sent units, tens, hundreds, and so on, begin-
ning with the notch or stop farthest to the
left, as shown in Fig. 1. For example, the
lever B is pivoted at *b*³ in the frame-piece A'
of the carriage and is held, as shown in Fig.
1, by a spring *b*², so as to have the catch-point
b so far to one side as to not come in contact
with the block C'. On the frame-piece A² of
the carriage is a notched quadrant A³ with
figures "1 2 3," &c., opposite its notches *a*.
On the under side of the lever is a lug *b*⁵ for
engagement with the notches *a* of the quad-
rant, said lever having enough spring to al-
low it to be moved vertically. To stop the
carriage at the unit-point, the operator will
move the lever so that it will rest in the notch
a opposite the figure "1," and this will bring
the catch point *b* into line with the first notch
on the left of the stop-block. To stop at tens,
the lever will be adjusted in the notch marked
"2," and so on.

In printing bills or like matter the opera-
tor will first print in the item, then set the
lever B on the quadrant A³ to the number
equal to the number of digits in the amount
to be printed, and then move the carriage
until the catch-lever engages the stop-block,
then release the lever B from the notch on the
quadrant, and let it assume the position
shown in Fig. 1, so as to leave the carriage
free to move to the left by the action of the
keys, and then proceed to put in the number.

In the construction shown in Figs. 4 and 5
the neutral position of the catch-lever B⁴ is
parallel with the frame-pieces A A, and by
having two stop-blocks C' C', as shown, the
lever can be moved in either direction the
requisite number of notches to engage and
stop the carriage, and the quadrant A⁴ is
made with oppositely-graduated notches.

In Fig. 6 the stop-block C' is shown with
ten distinct stops in place of five, as in Fig. 1.

In Fig. 7 the stop-block C² is shown with-
out any notches, its inclined or graduated
side being left plane. Such a block could be
used.

I do not herein claim an attachment for
type-writing machines consisting, essentially,
of a series of stops arranged side by side and
a letter-distance apart for the purpose of de-

termining the stopping-point of the carriage, as said construction is claimed in a sparate application, Serial No. 410,893, filed by me November 4, 1891; nor do I claim herein the combination of a carriage, a stop mechanism for arresting the carriage at different points as it moves to the left, and a key mechanism for manipulating the stop mechanism to stop the traverse of the carriage at any desired point in the line; nor do I claim herein the combination of a carriage, a stop mechanism, and a key mechanism for positioning said stop mechanism to stop the traverse of the carriage at any desired point in the line during the motion toward a uniform point, as both of said subjects-matter are claimed in a separate application, Serial No. 398,672, filed by me July 7, 1891; nor do I claim herein the combination of a paper-carriage, a stop mechanism for stopping said carriage at varying predetermined points within its forward traverse, and means for bringing said stop into action and out of action and fixing the variable point at which said carriage shall be stopped, which means are under the control of the hand of the operator while it is moving the carriage; nor do I claim the combination of a paper-carriage, a variable stop or catch mechanism carried by said carriage and under the control of the operator's hand while moving the carriage, and a stop (which may be adjustable) on the frame of the machine for engaging with the variable stop or catch mechanism; nor the combination of a paper-carriage, a stop on the frame of the machine, a variable catch mechanism on the carriage, and means for actuating said variable catch while moving the carriage, as said subjects-matter are claimed in application, Serial No. 399,117, filed by me July 11, 1891; nor do I claim herein the combination of a frame having a series of stops in the path of the paper-carriage, and said carriage having a key-controlled stop mechanism normally out of the way of said stops when the carriage is moved, as that forms one of the subjects-matter claimed in application, Serial No. 410,231, filed by me October 29, 1891; nor do I claim in this

application a columnating attachment consisting of a stop and a catch-lever on the part of the machine opposite to the stop and having a variable throw relative to said stop, nor when said stop is on the frame and the catch is on the carriage, as said constructions form the subjects-matter of application Serial No. 410,230; nor do I claim in this application the combination of a stop and a catch variably engaging and manually adjustable relative to said stop, and automatically reverting to a uniform normal position, nor when said catch is variable longitudinally, nor when said catch is normally out of the path of the stop, nor when said catch is under control of the operator's hand, as such constructions form part of the subjects-matter of application, Serial No. 422,867, filed by me February 26, 1892.

What I claim as new is—

1. In a type-writing machine, the combination, with the paper-carriage thereof, of a horizontally-swinging catch on the carriage and laterally-graded stop-block connected with the frame below the carriage for engaging said catch and stopping the carriage at various predetermined points.

2. In a type-writing machine, the combination, with the carriage thereof, of a laterally-graded stop connected with the frame-work below the carriage, a laterally-swinging catch on the carriage, a lever for moving said catch, and a series of catches for holding said lever at various points of adjustment.

3. In a type-writing machine, the combination, with the paper-carriage thereof, of a laterally-graded adjustable stop-block connected with the frame-work below the carriage, a laterally-swinging catch on the carriage, a laterally-swinging and vertically-flexible lever for moving said catch, and a notched bar for engaging the flexible end of said lever.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE C. BLICKENS DERFER.

Witnesses:

M. F. HALLECK,
FRANKLIN MOORE.