

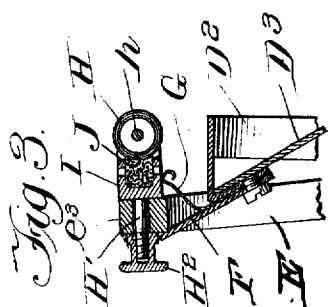
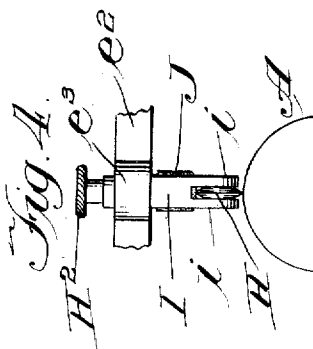
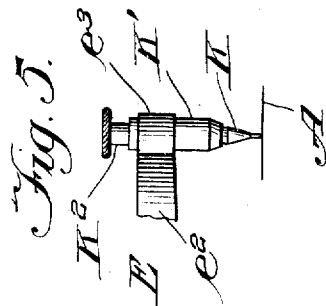
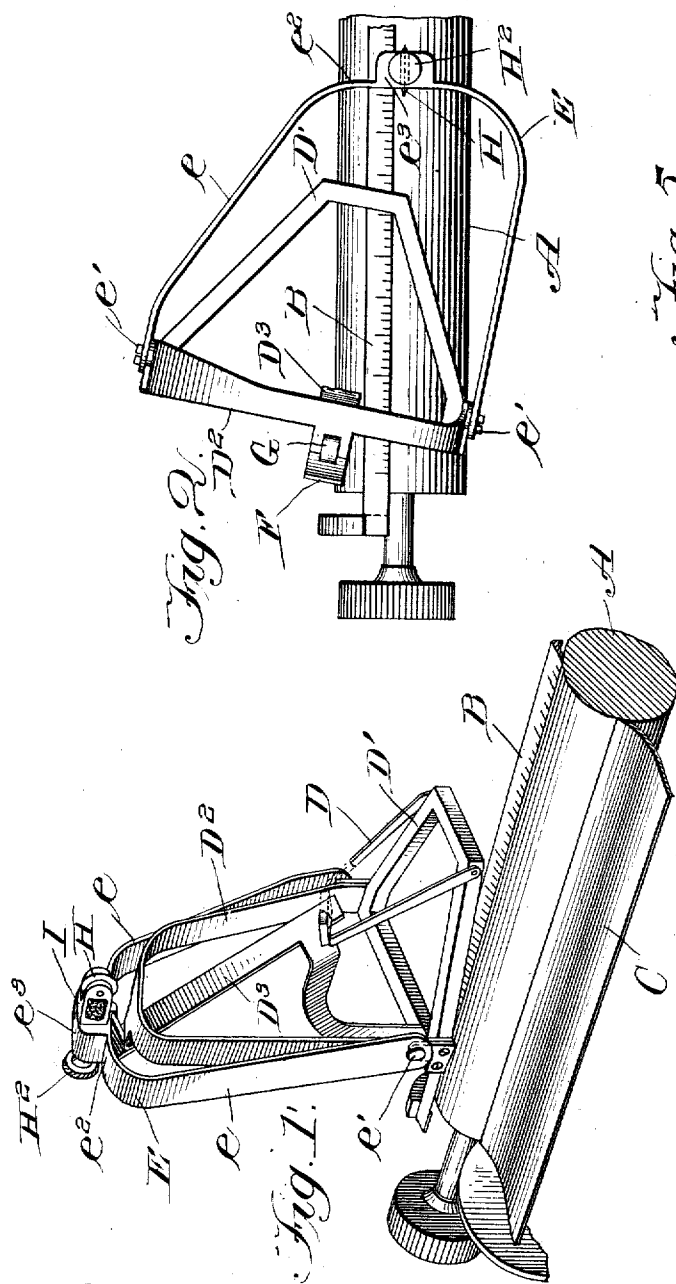
No. 829,108.

PATENTED AUG. 21, 1906.

S. HERR.

RULING DEVICE FOR TYPE WRITING MACHINES.

APPLICATION FILED MAY 12, 1904.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## RULING DEVICE FOR TYPE-WRITING MACHINES.

No. 829,108.

Specification of Letters Patent.

Patented Aug. 21, 1906.

Application filed May 12, 1904. Serial No. 207,540.

*To all whom it may concern:*

Be it known that I, STEPHEN HERR, a citizen of the United States, residing at Woodstock, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Ruling Devices for Type-Writing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a ruling or marking device for use in type-writing machines and designed to produce on the sheet a continuous ruled line extending transversely across the sheet and from one margin to the other or of any intermediate length desired.

The device is more especially useful in connection with machines designed for preparing tabulated statements or bills, but may be used on machines adapted for other character of work where such ruling is required.

A device embodying my invention embraces in general terms a hinged arm which swings toward and from the platen and is provided at its outer or free end with a marker which is adapted for contact with the sheet of paper in the machine when swung into a position adjacent to the platen, and said arm thus carrying the marker is adapted to be pressed toward the platen to hold the marker against the sheet of paper while the carriage is moved from end to end of its travel, the carriage for this purpose being released from its letter-spacing mechanism.

My invention is herein shown as applied to the "Oliver" type-writing machine, and in this form of device the hinged or swinging arm carrying the marker assumes a U-shape form, conveniently adapting it to the type-bar-supporting yoke of the machine. The device when applied to other types of machines, however, may be varied to accommodate or adapt it to such changed relation.

As shown in the drawings, Figure 1 is a fragmentary perspective view showing part of the platen, the type-supporting yoke, and my improved ruling device as applied to the Oliver type-writing machine. Fig. 2 is a plan view of the parts with the ruling device swung downwardly into position for pro-

ducing a ruled line when the carriage is moved endwise. Fig. 3 is a fragmentary section taken through the marker and illustrating the manner of supporting the device in its upper or inoperative position. Fig. 4 is a fragmentary front elevation of the marker shown in its downward or operative position. Fig. 5 illustrates a modified form of marker for the ruling device.

As shown in the drawings, A designates the platen, B the scale, and C one of the paper-guides of the carriage of the Oliver type-writing machine.

D designates one of the swinging U-shaped type-bars of the machines, and D' designates as a whole one of the supporting-frames for the type-bars which overhangs the platen.

D<sup>2</sup> designates a yoke rising obliquely upwardly from said frame D' and carrying an inclined type-bar support D<sup>3</sup>, against which the U-shaped type-bars D rest when in their upper or inoperative positions.

In this form of machine the hinged or swinging arm E of the ruling device is U-shaped, and it is made of somewhat greater dimensions than the yoke D<sup>2</sup>. The said arm is hinged at the lower ends of the side members e thereof to the lower part of the supporting-yoke D<sup>2</sup> by means of short transverse pintles e'. The said U-shaped arm E when in its upper or inoperative position is located with its side members e laterally outside of the yoke D<sup>2</sup> and with its closed part or end e<sup>2</sup> above the closed top of said yoke. Said arm rests when in this position against a stop-plate F, which is attached to and extends upwardly from the supporting-yoke D<sup>2</sup> for the type-bars, as more clearly shown in Fig. 3. Said stop is so located that the arm swings past the vertical plane of its pivots for engagement therewith, so that the arm is held in its upward position by its gravity.

The device is held from accidental displacement by means of a spring-latch G, attached to said yoke D<sup>2</sup> in any suitable manner and adapted to frictionally or yieldingly engage the device.

The marker for the ruling device consists, as shown in Figs. 1 to 4, inclusive, of a rotary disk H, which is affixed to a short shaft h, that extends transversely across and has bearing in the arms i of a block I, which is attached in any suitable manner to the closed

or looped end  $e^2$  of the swinging arm E. As herein shown, said block is provided with a rearwardly-directed reduced portion or stem  $H'$ , which extends through a suitable opening in a thickened part  $e^3$  of the closed portion  $e^2$  of the swinging arm. Said block bears against the inner face of said thickened part of the swinging arm and is provided at its end with a screw threaded portion which is engaged by a clamping-nut  $H^2$ , by which the marker is held in place. The rotary marking-disk  $H$  is beveled on both sides of its margin to produce a sharp marking edge which bears against the paper on the platen. The said marking-disk is furnished with ink, as herein shown, through the medium of an inking-pad  $J$ , which is located in a recess in the bearing-block  $I$  in rear of the marking-disk, as shown in Fig. 3. The spring-latch  $G$  before referred to bears upwardly against the lower side of the block  $I$ . It is provided with a rounded free end to permit the parts to be brought readily into holding engagement.

In the use of the device the arm E is swung downwardly into the position indicated in Figs. 2 and 4, with the marking-disk bearing on the paper, and thereafter the carriage is released from its letter-spacing mechanism and is moved freely in its line of travel. The extent of movement depends upon the length of line required. The marker need not be pressed with great force against the paper in a manner to injure the same, and the carriage may be moved endwise as many times as is required to produce a distinct continuous line. If desired, the swinging arm of the ruling device may be operatively connected with a key by which it is adapted to be swung downwardly toward the platen and held in its downward position while the ruling-line is produced.

Instead of employing a rotative marking-disk, such as is shown in the figures described, I may employ a pencil  $K$ , such as is shown in Fig. 5. Said pencil is fitted in a socket in a suitable carrier  $K'$ , that is fixed to the swinging arm E by a nut  $K^2$  in the same manner as the block  $I$  is fixed in place.

As before stated, the structural details of the apparatus may be varied either when applied to the form of machine herein shown or applied to other forms. The construction illustrated, however, is peculiarly adaptable to the Oliver type-writing machine and is hereinafter made the subject of specific claims.

The swinging arm which carries the marker is herein shown as pivoted directly to the type-bar support or stationary part on which the type-bars are mounted; but it is to be understood that in applying my invention to the Oliver machine or to other forms of type-writing machines the said arm may be pivoted to any other part on the frame of the machine, which latter is intended to be in-

cluded in the term "type-bar support" as used in the appended claims.

I claim as my invention—

1. A ruling device for type-writing machines comprising, in combination with the platen and the type-bar support, a swinging arm hinged to said type-bar support and adapted to swing toward and from the platen, a marker carried by the upper or outer end of said arm, a stop on said type-bar support for limiting the movement of said arm away from the platen, and a spring-latch adjacent to said stop for yieldingly holding the arm in its retracted position.

2. A ruling device for type-writing machines comprising, in combination with the platen and the type-bar support, the latter located above and overhanging said platen, a swinging arm hinged to said type-bar support and adapted to swing toward and from the platen, a marker carried by the outer end of said arm, a stop at the upper end of said type-bar support for limiting the upward movement of said arm, said stop being so located that said arm swings backwardly past the vertical plane of its hinge for engagement with its stop, whereby it is held against the stop by its gravity.

3. A ruling device for type-writing machines comprising, in combination with a platen, U-shaped type-bars which strike downwardly on the platen, a support for the type-bars located above and overhanging said platen, and a stationary yoke-shaped part which extends over the outermost of said type-bars and is rigidly attached at its ends to said support, a U-shaped arm which is pivoted at the lower ends of the side members thereof to the said type-bar support and which extends above and outside of said yoke-shaped part and is adapted to swing freely on its pivot toward and away from the platen and a marker carried by the central part of said arm.

4. A ruling device for type-writing machines comprising, in combination with a platen, type-bars which strike downwardly on said platen, a type-bar support embracing a horizontal part which is located above and overhangs said platen and to which the type-bars are hinged and a yoke-shaped part extending over the outermost type-bar and which is rigidly attached at its ends to the type-bar support and is provided with a type-support against which the type-bars rest when retracted from the platen, a U-shaped arm the side members of which are located outside of and are hinged to said type-bar support and which extends at its central part above and outside of the said yoke-shaped part and which is adapted to swing on its pivots freely toward and away from the platen and a marker carried by the central part of said arm.

5. A ruling device for type-writing ma-

chines comprising, in combination with a  
platen, type-bars which strike downwardly  
on said platen and a type-bar support located  
over and overhanging said platen, a U-shaped  
5 arm, the side members of which are hinged at  
their lower ends to said support and which  
swings toward and away from said platen  
and a marker carried by the outer or closed  
part of said arm, embracing a part which car-  
10 ries a marking device, said part being pro-  
vided with a screw-threaded stem which ex-

tends through the closed part of said arm and  
a clamping-nut engaging said screw-threaded  
stem.

In testimony that I claim the foregoing as 15  
my invention I affix my signature, in pres-  
ence of two witnesses, this 6th day of May, A.  
D. 1904.

STEPHEN HORR.

Witnesses:

W. W. CHANDLER,  
E. R. HOY.