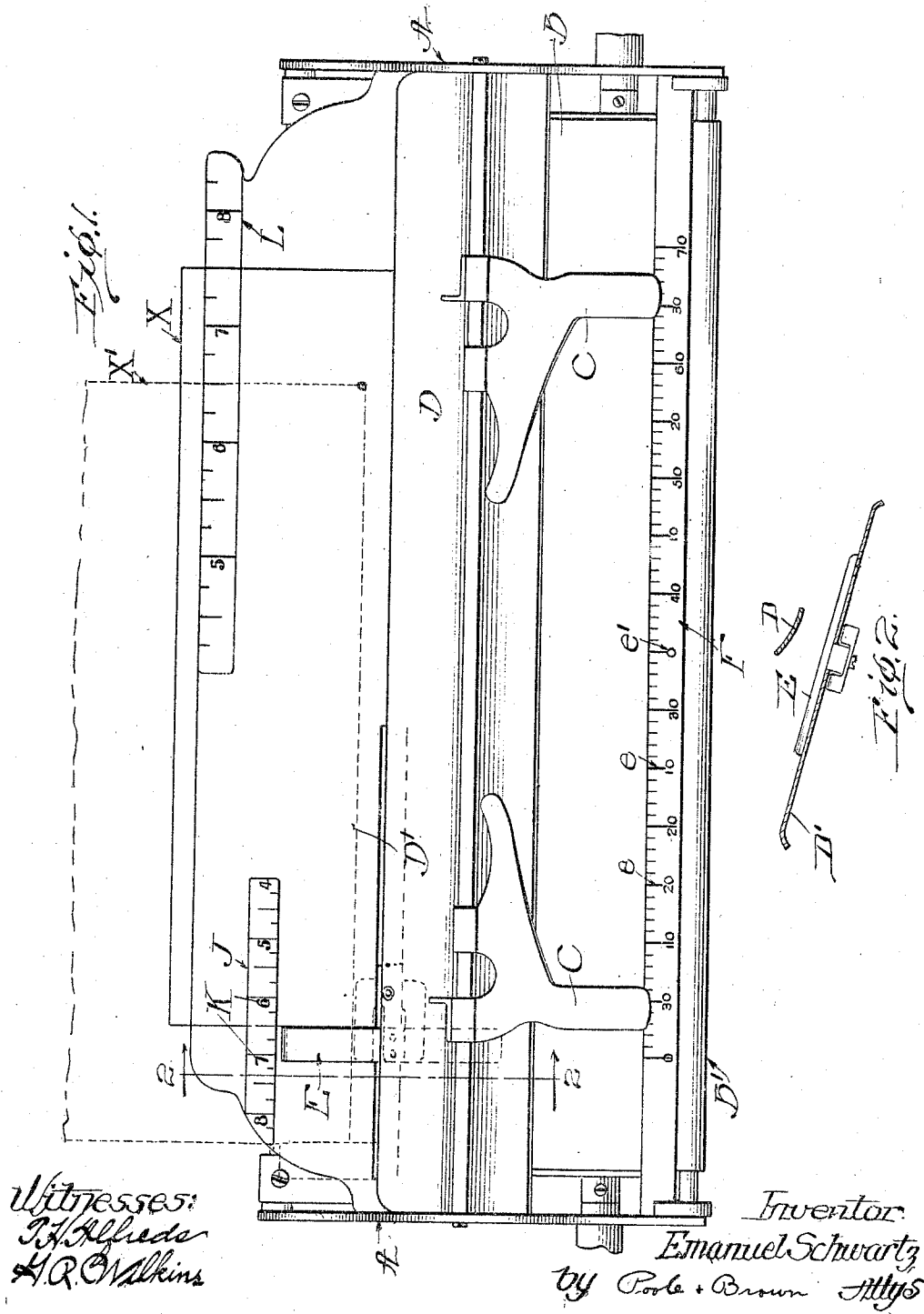


E. SCHWARTZ.
 DEVICE FOR CENTERING TYPE WRITTEN HEADINGS.
 APPLICATION FILED DEC. 19, 1910.

1,005,892.

Patented Oct. 17, 1911.



UNITED STATES PATENT OFFICE.

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DEVICE FOR CENTERING TYPE-WRITTEN HEADINGS.

1,005,892.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed December 19, 1910. Serial No. 598,152.

To all whom it may concern:

Be it known that I, EMANUEL SCHWARTZ, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Devices for Centering Type-Written Headings; 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 device applied to the paper-carriage of a typewriting machine for centering typewriter headings and consists of the matters hereinafter described and more particularly pointed out in the appended claims.

In the drawings, Figure 1 represents a top plan view of a paper-carriage of a typewriting machine provided with my improvements. Fig. 2 is a view representing a cross section through the paper guide plate, on the line 2—2 of Fig. 1.

I have shown my invention herein as applied to the paper-carriage of a typewriting machine known as the "Oliver" but it will be apparent that it may be readily applied to other typewriting machines.

As shown in the drawings, A A indicate the end members of the paper-carriage which are connected by front and rear longitudinal members (not shown) in the usual manner.

B indicates the platen and B¹ one of the presser-rolls for pressing the paper against the platen.

C C indicate adjustable, marginal guides for guiding the paper around the upper side of the platen.

D D¹ indicate the upper and lower guides or shields located at the rear of the platen or at the entering side of the carriage, said shields extending between and being attached to the end plates of the carriage. The carriage frame is provided in front with the usual scale F which has graduations numbered from left to right, each graduation representing the movement of the carriage for one letter space.

E designates a left-hand margin paper-guide applied to the upper face of the lower paper shield or guide plate D¹. Said marginal guide consists of a narrow plate or bar

extending at right angles to the axis of the platen, and attached to the shield D¹ by means permitting it to be adjusted longitudinally of the carriage to accommodate the carriage to sheets of different widths while maintaining the guide in its position at right angles to the axis of the platen. Said guide-bar is made of some thickness so that the left-hand margin of the paper will always strike the same when being inserted in the carriage.

The parts thus far referred to are of familiar construction and are substantially identical with those described in Letters Patent No. 829,093, granted August 21st, 1906, to A. A. Anderson.

On the lower shield or guide-plate D¹ adjacent the rear end of the left-hand margin paper-guide E, is a scale J, which extends parallel to the longitudinal axis of the platen B. This scale is formed by measuring on the shield or guide-plate from a point which corresponds with, and is in vertical alinement above the middle point of the letter-space scale F, which point, in this case, is the graduation thereon, indicated on the scale as 35. Said scale J is graduated into units and parts thereof, in this case halves and quarters, each unit being equal to one-half of a unit of length as, for example, an inch and is provided with numerals K numbering the units and reading in numerical order from right to left. Any point on this scale J will thus be indicated as being a certain number of units or parts thereof to the left of the middle of the paper-carriage, which number is exactly twice the number of full lineal units, in this case inches, that said point is distant to the left of the middle point of the letter-space scale F. Thus, if a sheet of paper is eight and a half inches wide and it be placed in the paper-carriage with its left-hand marginal edge upon the graduation reading eight and a half on the scale J, it is apparent that the left-hand edge of the paper is actually one-half of eight and a half inches, or four and one-quarter inches to the left of the middle point of the letter-space scale, so that the middle line of the sheet coincides with the middle point of the letter-space scale,—in other words, the sheet is centered in the paper-carriage.

In order that the sheet may be readily and quickly placed in the paper-carriage

with its left-hand margin adjusted so as to coincide with the proper graduation mark on the scale J, the guide-bar E is first moved toward the right until its right-hand edge comes into line with said graduation mark of the scale. The sheet of paper is then placed in the paper-carriage with its left-hand margin against the right-hand edge of the guide-bar in the usual manner, which centers the sheet in the carriage.

L indicates a second scale constructed on the lower paper shield or guide D¹ to the right of the first named scale and to the rear of the same, said scale representing actual lineal units, in this case inches, measured from the right hand edge of the guide-bar E when the same is in its normal position at the extreme limit of its movement to the left as indicated by dotted lines. This scale is for convenience in determining the actual width of a sheet of paper that is to be centered in the paper-carriage.

In addition to the usual numbering on the letter-space scale F, the middle point of said scale, in this case, the graduation mark corresponding to the number "35", is indicated by a zero mark *e*¹ and there are provided on said scale F auxiliary numerals *e*, numbering said graduations and reading from said zero mark to the right and to the left thereof. By means of the auxiliary numerals *e*, it is possible to center a heading or other typewritten line on a sheet which has been centered in the paper-carriage, by counting the number of letters and spaces in the heading or other line and then beginning to write at a point on the scale E to the left of the zero point *e*¹ indicated by the auxiliary numbering *e* thereof corresponding to one-half that number. The line or heading when written will be accurately centered.

My improved construction is used as follows: The sheet X is placed on the paper-carriage with its left-hand edge against the right-hand edge of the guide E, which, in the first instance, is in the position indicated in dotted lines at the extreme left-hand limit of its movement. The point where the right-hand edge of the sheet falls on the scale L is then read which reading gives the exact width of the paper. The position of the sheet shown in dotted lines, X¹, shows the paper when being measured in this way. In the example illustrated the sheet measured is 6½ inches wide. The guide bar E is then moved to the right until its right-hand edge comes in line with the graduation reading 6½ on the scale J and the sheet X is then placed in the paper-carriage with its left-hand edge in engagement with the right-hand edge of the guide-bar G and inserted in the carriage in the ordinary manner. The paper is thus accurately centered in the carriage without the trouble of

calculating or dividing the width of the paper and this, no matter what the fraction of the lineal unit, in this case an inch, indicated on the large scale L, since it is only necessary to make the left-hand edge of the paper fall on a fractional graduation of the same reading on the scale J. The paper being now placed in the machine the marginal guides C are adjusted to engage the margins in the usual way. A line or heading may now be centered by the use of the auxiliary numbering *e* of the scale F as above described.

It will be apparent that the scale L may be dispensed with as it is simply for the purpose of convenience in measuring the width of the sheet. Said width may be measured in any other convenient manner as by means of an ordinary rule.

Manifestly the scale J may be graduated so as to be capable of use in connection with a scale for determining the paper width which is graduated into any lineal units, it being only necessary that the units of the scale J bear the relation described to the measuring scale.

I claim as my invention:—

1. In a typewriting machine, in combination, a paper carriage, a guide plate adapted for guiding a sheet of paper thereinto a letter space scale located on the carriage, an auxiliary scale associated with said guide plate, arranged parallel to the longitudinal axis of the paper carriage and graduated into units measured from a point in vertical alinement with a predetermined point on the letter space scale, said units being numbered from said point toward one end of the paper carriage, the length of each unit of the auxiliary scale bearing the same ratio to the length of a predetermined unit of linear measurement that the number of letter spaces on the letter space scale on the same side of said predetermined point thereon as the auxiliary scale bears to the total number of letter spaces.

2. In a typewriting machine, in combination with the paper-carriage, a guide plate adapted for guiding a sheet of paper thereinto, a scale associated with said guide plate, said scale being arranged parallel to the longitudinal axis of the paper carriage and being graduated into units measured from a transverse median line of the carriage, said units being numbered from said median line toward one end of the paper carriage, and each unit of the scale being equal to one-half of a predetermined unit of linear measurement.

3. In a typewriting machine, in combination with the paper-carriage and a guide plate adapted for guiding a sheet of paper thereinto, a marginal guide bar adjustable in a longitudinal direction, having an edge facing toward a transverse median line of

the paper-carriage and extending at right angles to the longitudinal axis of the carriage, and a scale located on said guide plate, said scale being arranged parallel to the longitudinal axis of the paper-carriage and being graduated into units measured from said median line of the carriage, said units being numbered from said median line toward said marginal guide bar, and each unit of the scale being equal to one-half of a predetermined unit of linear measurement.

4. In a typewriting machine, in combination with the paper-carriage, a guide-plate adapted for guiding a sheet of paper thereinto and a letter-space scale located on said carriage, an auxiliary scale located on said guide plate, said scale being arranged parallel to the longitudinal axis of the paper-carriage and being graduated into units measured from a point in vertical alinement above the middle graduation of said letter-space scale, said units being numbered from said point toward one end of the paper-carriage and each unit of the scale being equal to one-half of a predetermined unit of linear measurement, and said letter-space scale being provided with a zero mark at its middle graduation and with numerals reading in either direction from said zero point.

5. In a typewriting machine, in combination with the paper-carriage, a guide plate adapted for guiding a sheet of paper thereinto, and a letter-space scale located on said

carriage, a marginal left hand guide bar adjustable in a longitudinal direction toward the right and extending at right angles to the longitudinal axis of the carriage, an auxiliary scale located on said guide plate, said scale being arranged parallel to the longitudinal axis of the paper-carriage and being graduated into units measured from a point in vertical alinement above the middle graduation of said letter-space scale, said units being numbered from said point toward the left hand end of the paper-carriage, and each unit of the scale being equal to one-half of a predetermined unit of linear measurement, said letter-space scale being provided with a zero mark at its middle graduation and with numerals reading in both directions from said zero point, and a third scale located on said guide plate and graduated into lineal units from the right hand edge of said left-hand guide bar when in its extreme left hand position, said lineal units being numbered from left to right.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 10th day of December A. D. 1910.

EMANUEL SCHWARTZ.

Witnesses:

L. TANENBARRY,
I. TRACHTENBERG.