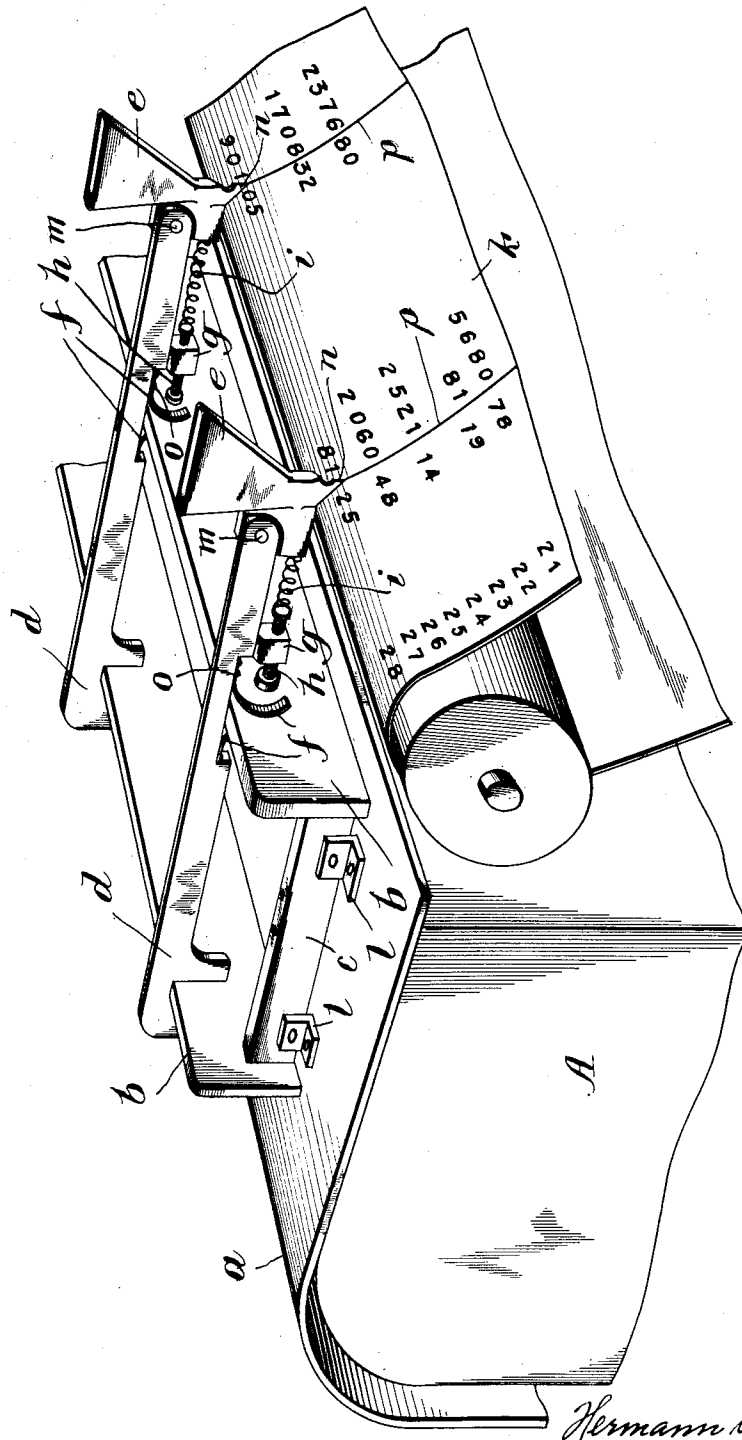
June 2, 1931. H. A. P. RÖTTKE 1,808,257

RULING DEVICE

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Inventor

Hermann A. Ph. Röttke

By his Attorney

V. Madison

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UNITED STATES PATENT OFFICE

HERMANN A. P. RÖTTKE, OF BERLIN, GERMANY, ASSIGNOR TO THE TABULATING MACHINE COMPANY, OF ENDICOTT, NEW YORK, A CORPORATION OF NEW JERSEY

RULING DEVICE

Application filed October 9, 1926, Serial No. 140,669, and in Germany December 12, 1925.

This invention relates to accounting machines and more particularly to a ruling device for accounting machines.

It is common practice on accounting machines, such as tabulating machines, adding machines and the like, to use unruled sheets of paper and it is also common practice to use ruled sheets of paper but in the latter case considerable time is wasted due to the fact that the paper must be put in the machine in a careful manner so that the figures will not be printed on the line or on the wrong side of the line and it is obvious that no matter how careful the operator may be it often happens that the figures are wrongly placed with respect to the line. Also even though the paper be inserted so that the first few lines of data printed are correctly placed with respect to the vertical lines the paper often creeps laterally so that the lines change their position with respect to the type, and characters being printed in a vertical row on one side of a line sometimes creep across the line to the other side thereof. This fault is very common and is difficult and ordinarily impossible to overcome.

An object of this invention is to permit the drawing of lines between certain columns of numerals during the operation of an accounting machine or the like.

Another object is to provide means for drawing as many lines as desired at one time and also of any specific color or colors.

My ruling device is attached to the printing section of an accounting machine and has a plurality of inking devices which rest upon the paper on the platen roll. As the platen roll is rotated step by step during the printing operation, the paper runs under the inking pens causing a short line to be drawn at each actuation of the platen roll. Obviously when the tabulating operation has been completed a complete line will have been drawn on the paper showing the correct relative position of the numerals printed thereon. Should the paper be put into the machine in a careless manner, the ruling on the paper will be straight with respect to the numerals listed. Such a result is very uncertain with ruled paper. The pressure of the inking device on the paper can be varied by means of a set screw and spring arrangement attached to the inking device.

The accompanying drawing illustrates the preferred form of my invention.

In the drawing a portion of an accounting machine is shown at A, having a cover *a* to which is rigidly fastened a pair of supports *b* extending across the top of cover *a*. Supports *b* may be strengthened by cross-bars *c* which are held in place by angle irons *l*. A pair of holders *d* or as many as may be desired extend horizontally across supports *b*. Said holders *d* are slotted at their rear ends to fit snugly onto supports *b*. At their front ends they are held in place by a spring clamping arrangement *f* which is affixed to holders *d* by screws or rivets *o*. This arrangement maintains the holders *d* rigidly against accidental lateral movement, thereby assuring straight lines and at the same time permitting the holders to be removed. Pivoted at *m* to each holder *d* is an ink reservoir *e* having affixed thereto a pen point or stylus *n*, which rests upon paper *k*. Attached to reservoir *e* is a spring *i* connected to set screw *h* reaching through block *g* connected to holder *d*. By turning set screw *h* the spring can be tensioned more or less and thereby the pressure of the writing device against the paper *k* can be varied so as to draw a light or heavy line as desired. As many holders *d* and writing devices *e* as may be desired can be put on this device to enable the operator to draw any desired number of lines. However, this is not essential as the spring clamping arrangement *f* has sufficient gripping power to eliminate any accidental movement of said holders due to the ordinary jarring of the machine. In the drawing paper *k* is disclosed as showing three columns of data being printed, two of which columns represent data in terms of dollars and cents. Lines *p* drawn by pens *n* differentiate between the dollars and cents columns according to ordinary bookkeeping practice.

While I have shown one specific form of my invention, I do not intend to be confined to this specific arrangement in the construction of the parts. In other words I have

shown an inking device for drawing the lines but it is obvious that any other suitable equivalent element capable of tracing a line may be employed instead of the inking device *e*.

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

1. In combination with a writing machine, a platen upon which a strip of paper is adapted to be mounted, a plurality of markers, means for supporting said markers in cooperative relation with said platen for tracing a plurality of parallel lines upon a strip of paper mounted on said platen, a reservoir for supplying ink to said markers, said markers being movably mounted upon the machine to adjust the distance between them, and means for individually maintaining and adjusting the pressure of each marker upon the paper.

2. In combination with a platen, a stylus for tracing a line on paper upon said platen, an arm to which said stylus is pivoted to swing perpendicularly to the axis of said platen, a supporting plate structure for removably carrying said arm, means for frictionally mounting said arm on said plate structure, means carried by said arm for normally urging the stylus to contact the paper, and means for adjusting the pressure of the stylus upon the paper.

In testimony whereof I hereto affix my signature.

HERMANN A. PH. RÖTTKE.