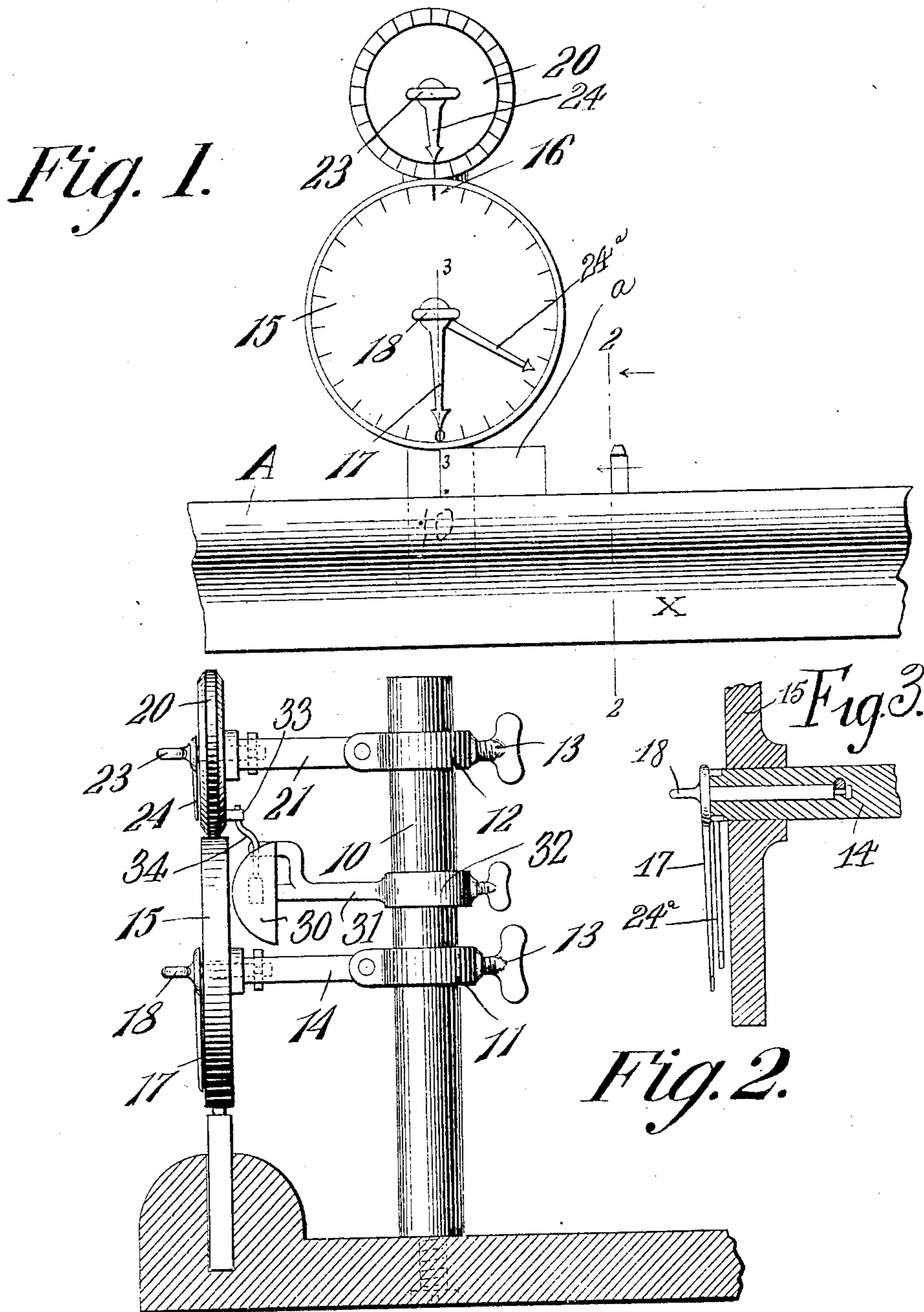


No. 871,902.

PATENTED NOV. 26, 1907.

J. T. WILSON.
GAGE FOR TYPE SETTING MACHINES.
APPLICATION FILED JULY 13, 1906.



WITNESSES:

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JAMES THOMAS WILSON, OF CYNTHIANA, KENTUCKY.

GAGE FOR TYPE-SETTING MACHINES.

No. 871,902.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed July 13, 1906. Serial No. 326,132.

To all whom it may concern:

Be it known that I, JAMES THOMAS WILSON, a citizen of the United States, residing at Cynthiana, in the county of Harrison and State of Kentucky, have invented a new and useful Gage for Type-Setting Machines, of which the following is a specification.

This invention relates to devices for gaging or indicating the length of lines of type or matrices set on any of the commercial type-setting machines, and has for its principal object to provide a gaging and indicating device which is independent of the key board, and receives its movement from the type or matrices set up.

A further object of the invention is to provide a gage and indicator which receives movement directly from the type or from a member that receives movement from the type.

A still further object of the invention is to provide a gage or indicator which will accurately show the length of the line set up without regard to the number of letters or other characters or spaces of which the line is composed.

A still further object of the invention is to provide a device of this class in which the operator may be informed of the approach of the end of a line so that, where necessary, hyphens may be inserted, and a still further object is to provide an indicating means to be used in connection with tabular work, so that the operator may readily determine the point where numeral bearing type are to be set.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a front view of a gage or indicator for a typesetting machine constructed in accordance with the invention. Fig. 2 is a vertical section of the same on the line 2—2 of Fig. 1. Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Similar numerals of reference are em-

ployed to indicate corresponding parts throughout the several figures of the drawing.

The device forming the subject of the present invention is intended for use in connection with any of the commercial machines employed in setting up type or matrices, such, for instance, as the Simplex type-setting machine, manufactured by the Unitype Co., where the different type are allowed to pass from the packer into a channel or type way, having been assembled into a long line of type.

In the drawings A indicates a portion of an assembler or "type way" or channel or other element into which the type or matrices are fed, the type or matrices moving along in the direction indicated by the arrow.

At a suitable point on the frame of the machine is secured a post or standard 10, which carries a pair of clamps, 11 and 12, said clamps being vertically adjustable on the post or standard, and being locked in adjusted position by suitable clamping screws 13.

To the lowermost clamp 11 is pivoted a non revoluble spindle 14, which carries near its outer end a revoluble indicating disk 15, which may turn freely on the spindle, the periphery of said disk having a covering of leather, rubber or other similar material for engagement with the successive type or matrices, so that as the line of type or the line of matrices shall pass thereunder, the disk will be revolved. This disk is provided on its front face with graduations which may be provided with numerals, the entire series of graduations representing say twenty-six ems, and the graduations being preferably divided by more prominent indicating marks 16, into two sections, each section representing thirteen ems, these two lengths of lines being more general in ordinary commercial use, although the graduations may be increased or decreased in number, and the size of the disk increased or decreased, to represent lines of any length. Reasoning from the above, it will be understood that when disks 15 are to be used for indicating measures of twenty six ems only their diameters will vary as the size of type or matrix to be measured, for example, when used for measuring type of pica size, the periphery of the disk will travel twice the distance as when measuring nonpareil type, the same letters and spaces being used in both cases, therefore, a disk for measuring pica must be

twice as large as one for measuring non-pareil.

Secured to the outer end of the spindle is a stationary hand or pointer 17, which is carried by an adjustable knob 18, so that the said pointer may be turned either forward or backward when desired. As an example, when setting twenty-six ems the pointer 17 will remain in the position shown; as the disk rotates the numbered graduation which was beneath the hand or pointer will travel with it and as soon as it again passes under the hand the full number of ems have been measured. When thirteen ems are to be measured the hand may remain in its lowest position and measure the number of ems when the 13 graduation reaches the hand, or the hand may be turned upward half a revolution and mark the measure when the bottom graduation reaches the hand. When an irregular number of ems are to be measured the graduation zero is placed at the bottom and the hand or pointer 17 turned until it reaches the graduation number indicating the required number of ems to be measured.

In setting up the usual measures, say thirteen and twenty-six ems, only the disk 15 and the pointer 17 are necessary, but for other measures a secondary indicating disk 20 is employed, the size being regulated in accordance with the length of the line desired to be set up, this disk being also provided with a peripheral cover of leather, rubber or other material, and being supported on a non-revoluble spindle 21, that is pivoted to the clamp 12. As above stated the secondary disk 20 is used for measures other than those marked on the disk 17, as for instance, eighteen ems. The diameter of the disk 20 will be so proportioned to the disk 15 that it will make one revolution while the disk 15 has only turned through the space of eighteen graduations or eighteen twenty-sixths of a revolution. The disk 20 will in this case contain but eighteen graduated points. These sizes are only given as an example, as the proportions between disks 15 and 20 are innumerable. On the outer end of the spindle 21 is mounted a knob 23, carrying a hand or pointer 24, which may be adjusted either forwardly or backwardly over the graduations of the disk.

The gage is secured to the assembler A a short distance to one side of the extreme throw X of the type or matrix feeder (not shown in the drawing). To bridge this space so that the first type or matrix brought forward by the feeder will be registered, a strip *a* of some substance, as leather, is placed in the type or matrix channel way. The strip *a* is type high and of a length exactly equal to the distance between the zero mark on the disk 15 when in its lowest position and the forward limit X of the type

feeder. As soon as the first type or matrix enters the assembler or channel, it is carried forward by the feeder until it strikes against the rear edge of the leather strip and the latter is fed or moved forward to an extent equal to the width of the type or matrix. The entrance of a second type or matrix again results in forward movement of the leather strip, and each of these movements is transmitted to the disk 15, the latter receiving a step by step rotative movement until the type proper or the matrices come into engagement with the disk 15, and then the disk receives movement direct from the type or matrices.

A secondary pointer 24^a which is similar to, and likewise adjustable as, the primary pointer 17, is especially valuable in tabular or figure work, and may be used on either of the disks. If the figure column is to contain six figures, the secondary pointer 24^a is set to the sixth figure mark on the scale or dial, the primary pointer 17 remaining in its usual downward position over the unit mark. Then when the disk 15 has revolved until the unit mark on the scale has reached the secondary pointer 24^a, the time has arrived to begin setting the numeral type and there is just enough space left in the line to hold six numeral type. In case five or seven or any other number of figures are to be set in the figure column, the secondary pointer is correspondingly adjusted so that the operator may be informed when the time arrives to start setting the numeral bearing type.

When the secondary disk is being used the lower or primary disk may be taken off and reversed, turning the scale away from the operator and out of sight, so as not to get it confused with the scale which is being used on the upper disk.

The operator may be notified when nearing the end of a line by a small bell 30 which is attached to an adjustable arm 31, the arm being attached to a clamp 32 which is screwed to the post 10, similar to clamps 11 and 12. A small pin 33 on the rear of either disk 15 or 20 moves against a tapper arm 34 which, on being released by the pin, swings against or strikes the bell.

I claim:—

1. A type gage or indicator comprising a graduated revoluble disk adapted to be operated by direct contact with a line of movable type or matrices, a non-rotatable spindle carrying said disk on one end and supported at the other end on a horizontal pivot, and a non-rotatable manually adjustable pointer carried by said spindle.

2. A type gage or indicator comprising a graduated revoluble disk adapted to be operated by direct contact with a line of movable type or matrices, a vertically swinging non-rotatable spindle carrying said disk, and two independent non-rotatable manu-

ally adjustable pointers carried by said spindle.

3. A type gage or indicator comprising a graduated disk adapted to be intermittently
5 rotated by direct contact with a line of type or matrices, a vertically swinging non-rotatable spindle carrying said disk, two independent non-rotatable pointers carried by the spindle, and an adjustable clamp pivotally
10 supporting said spindle.

4. A type gage or indicator for typesetting machines comprising a standard, a pair of clamps carried thereby, non-revoluble spindles having their inner ends pivoted to

the clamps, disks mounted on said spindles, 15 and in engagement with each other, the lowermost disk being arranged to receive movement from a line of type or matrices, and adjustable pointers carried by said spindles and coacting with the disks to indicate the length 20 of the line of type.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES THOMAS WILSON.

Witnesses:

W. S. VAN DEREN,
H. K. TAYLOR.