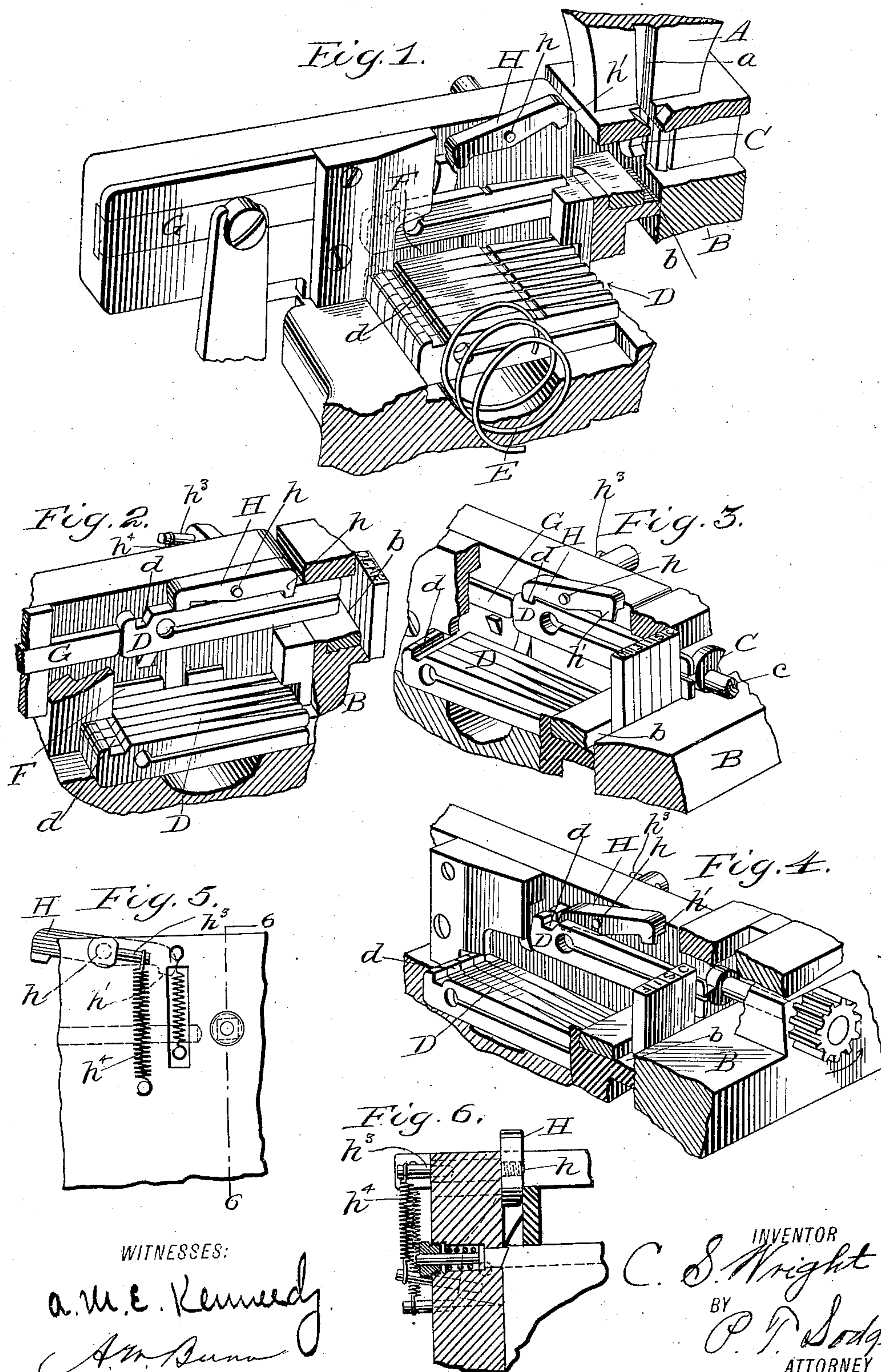


No. 845,287.

PATENTED FEB. 26, 1907.

C. S. WRIGHT.
TYPE SETTING MACHINE.
APPLICATION FILED JUNE 17, 1905.



UNITED STATES PATENT OFFICE.

CHARLES S. WRIGHT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

TYPE-SETTING MACHINE.

No. 845,287.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed June 17, 1905. Serial No. 265,729.

To all whom it may concern:

Be it known that I, CHARLES S. WRIGHT, of New Haven, county of New Haven, and State of Connecticut, have invented a new and useful Improvement in Type - Setting Machines, of which the following is a specification.

My invention has reference to that class of type setting and justifying machines wherein justifying-wedges have their thin ends inserted in the type-line in the course of composition, these wedges being thereafter advanced endwise to increase the spaces in the line and permit the insertion of the final spaces, after which the wedges are removed, as illustrated, for example, in United States Letters Patent No. 700,700 to Frank McClintock. In machines of this class the wedges are carried endwise across the type-line and thereafter carried laterally with the advancing line as composition progresses.

The invention has reference to improved means for properly holding and guiding the wedges during their insertion.

To this end it consists in an automatically-actuated dog or guide, which is set in position to control or guide the ingoing wedge endwise and thereafter released to permit the lateral travel of the wedge with the line.

In the drawings I have illustrated my invention as applied to the modified or improved form of the McClintock machine above referred to. The drawings are limited to those parts of the machine with which my improvement is immediately associated. It is understood that all the other parts may be of any ordinary or approved construction.

Figure 1 is a perspective view showing the devices by which the matrices are assembled in line and the wedges inserted, portions being broken away to expose the remaining parts. Figs. 2, 3, and 4 are perspective views of the same parts in various stages of their action. Fig. 5 is a rear view showing the controlling-springs and connections. Fig. 6 is a cross-section on the line 6 6 of the preceding figures.

Referring to the drawings, A represents a stationary throat or guide plate, having a central channel *a* through which the type descend endwise one after another from their magazines or holders in the order in which they are to be assembled in line.

B represents the main frame, which may

be of any suitable construction. It contains a groove or channel *b*, in which the type are received and supported on end.

C is a vertically and constantly rotating cam wheel or pusher mounted on a shaft *c*. The type are delivered through the channel *a* in an upright position in front of this cam, by which they are pushed forward laterally and assembled side by side in line in the groove or channel *b*, as shown in Figs. 3, 4, &c.

D D represent the series of justifying-wedges arranged horizontally side by side. They are supported normally in a channel in the main frame below the level at which the type are assembled.

E is a rotating spiral wire by which the spacers after being used in the line at the front of the machine are carried laterally backward in order to bring the one at the rear over the vertically-movable lifting slide F, by which it is raised in the manner shown in Fig. 1 to the assembling-level in front of the horizontal slide G, as shown in Fig. 2. The slide G pushes the wedge endwise until its thin forward end is carried across the rear end of the type-line between the last type and the pusher C, as shown in Figs. 3 and 4.

The foregoing parts are of essentially the same construction as in the patent above referred to.

In practice difficulty is experienced in properly guiding the forward end of the wedges as they are thrust across the type-line. In order to overcome this difficulty, I provide a latch H, secured at its middle on a horizontal rock-shaft *h*. This latch overlies the wedge when the latter is raised to the assembling-level, and is provided at its forward end with a depending lip or finger *h'*, adapted to extend it downward against the vertical face of the wedge, so as to prevent the latter from shifting sidewise—that is to say, toward the front of the machine. The shaft which carries the latch H is extended through the rear of the frame, as shown in Figs. 5 and 6, and provided at its outer end with an arm *h³*, connected to one end of a spiral spring *h⁴*, which latter is secured at its opposite end to the main frame. This spring connection tends to throw the forward end of the latch upward to an inactive position, as shown in Figs. 1, 3, and 4. When the wedge is raised to the assembling-level, as before described, it acts beneath the

rear end of the latch, as shown in Fig. 2, thereby causing the forward end of the latch to descend until its lip engages over the wedge, as before explained and shown in Fig. 2. Each wedge is provided near the rear end with a notch d in the upper edge, and when it is pushed forward in the required relation to the type-line this notch passes under the rear end of the latch H , which is thereby released, so that the spring h^4 throws its upper end and the lip thereon above the wedge, as shown in Figs. 3 and 4, thus leaving the wedge free to move laterally with the line as the latter is elongated by the addition of type thereto.

From the foregoing it will be understood that as each wedge is lifted to the assembling-level it acts upon and is engaged by the latch H , but when the wedge is advanced it releases the latch and is disengaged therefrom, the latch acting only to control the position of the wedge while it is being thrust across the type-line.

The essence of the invention lies in combining with the wedges and their operating devices a movable guide, adapted to laterally engage and release the wedges.

While I prefer to construct the guiding-latch in the form shown and to operate it by means of the wedges it is manifest that it may be modified in form and operated by any suitable moving part of the machine without passing beyond the limits of my invention.

What I claim as my invention is—

1. In a type-justifying mechanism, justifying-wedges and means for advancing them across the type-line, in combination with means independent of the wedge-advancing mechanism for engaging and guiding the

wedge during its advance and thereafter releasing the same.

2. In a type-justifying mechanism, the combination of wedges and means for thrusting the same endwise across the type-line, with a guide independent of the wedge-advancing mechanism acting against the side face of the wedge and means for retracting the guide after the wedge is advanced.

3. In a type-justifying mechanism, the combination of means for assembling type, wedges and means for lifting the wedges one at a time to the assembling-level, means for thrusting the wedges one at a time across the type-line, and an overlying guide actuated by and engaging with the wedges, substantially as described.

4. In a justifying mechanism, the combination of the wedges and means for advancing the wedges across the type-line, the pivoted guiding-latch arranged to be thrust into action by the ascending wedges, and a spring tending to throw the latch out of action.

5. In a type-justifying mechanism, the combination with means for assembling the type in line, of wedges, means for lifting the wedges to the assembling-level, means for advancing the wedges endwise across the line, a guiding-latch arranged to be thrown into action by the ascending wedges, and a spring acting to disengage the latch when released by the wedge.

In testimony whereof I hereunto set my hand, this 5th day of June, 1905, in the presence of two attesting witnesses.

CHARLES S. WRIGHT.

Witnesses:

FRANK J. ARMSTRONG,
CATHERINE ARMSTRONG.