

No. 863,442.

PATENTED AUG. 13, 1907.

W. P. QUENTELL.  
TYPE SETTING MACHINE.  
APPLICATION FILED DEC. 31, 1906.

Fig. 1.

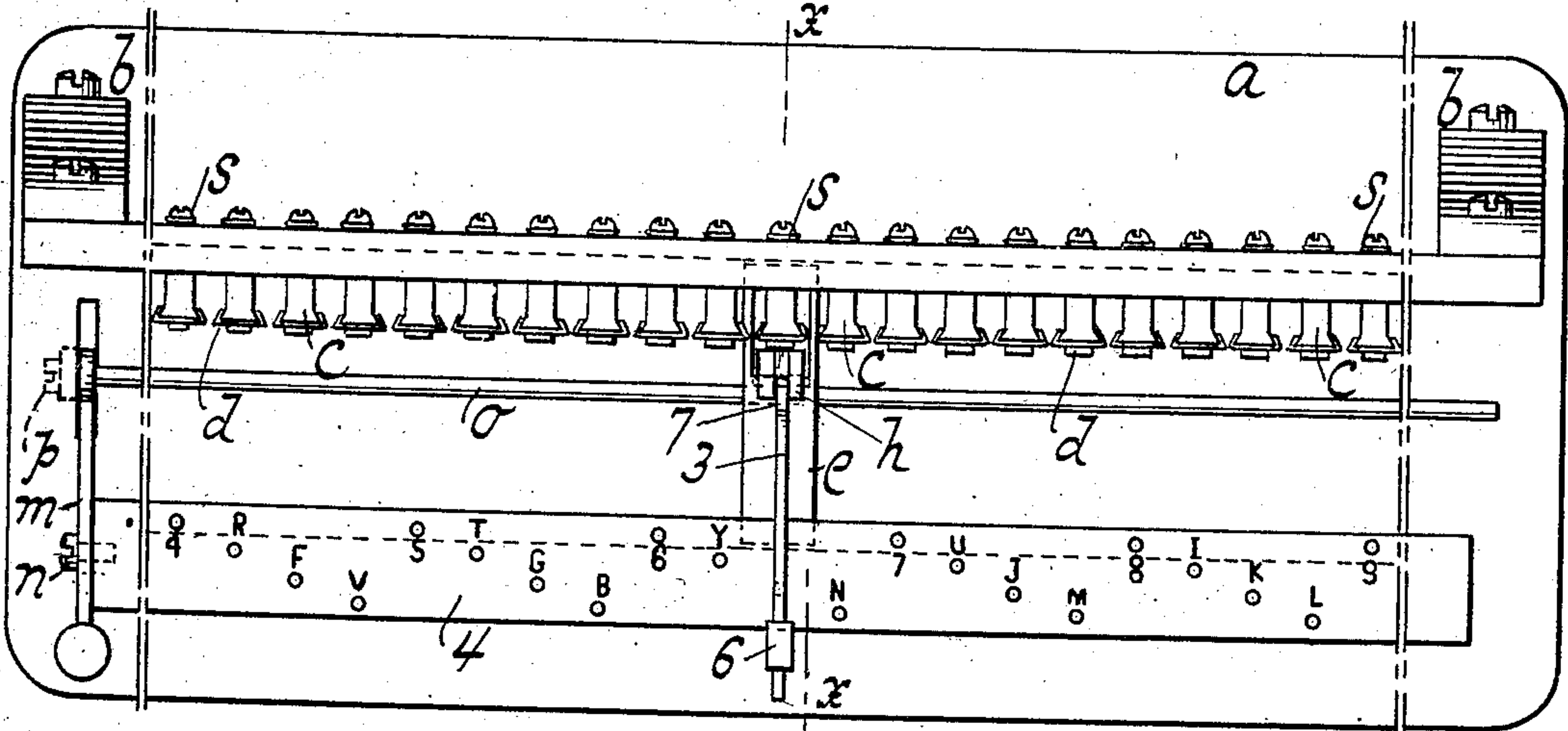


Fig. 3.

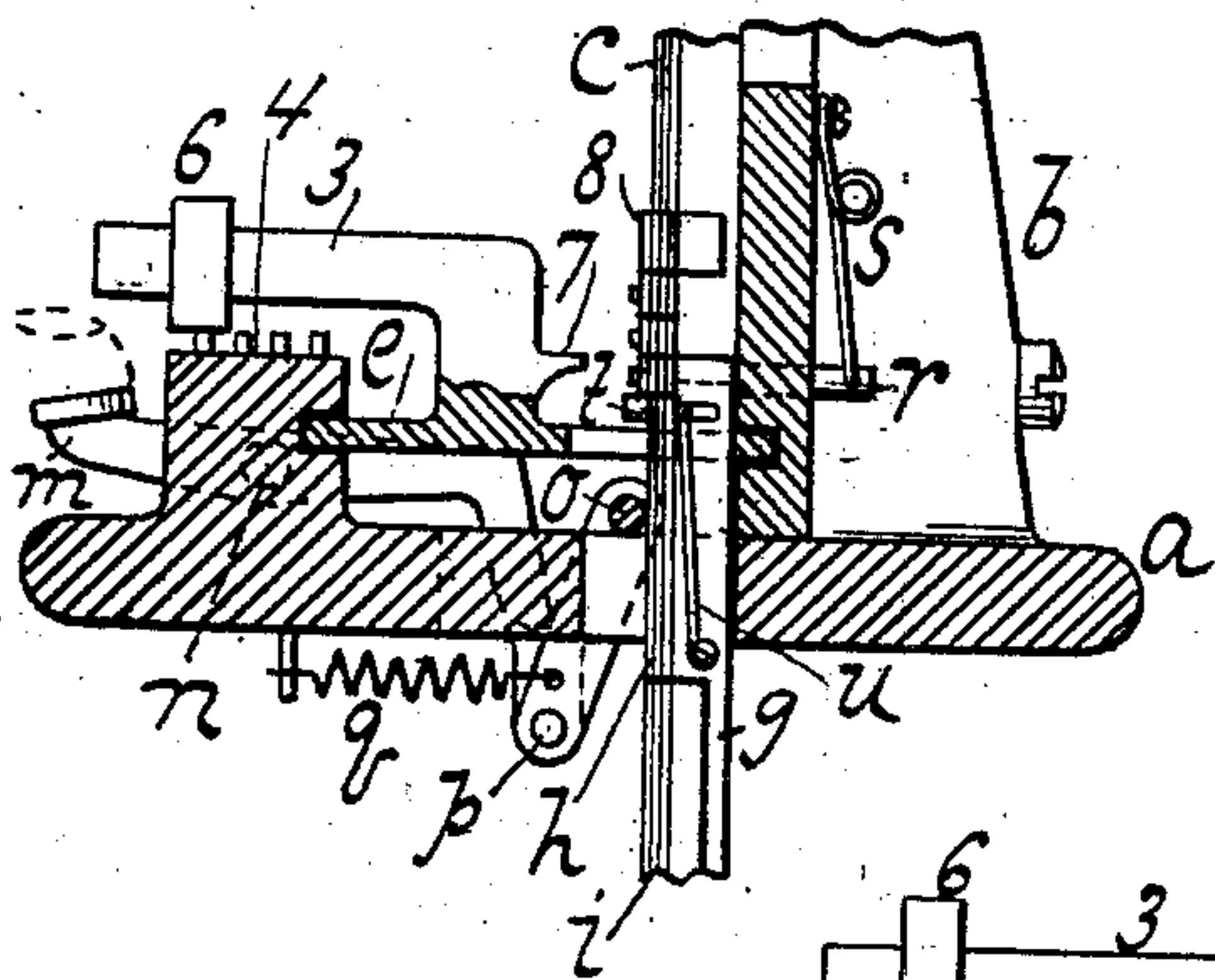


Fig. 2.

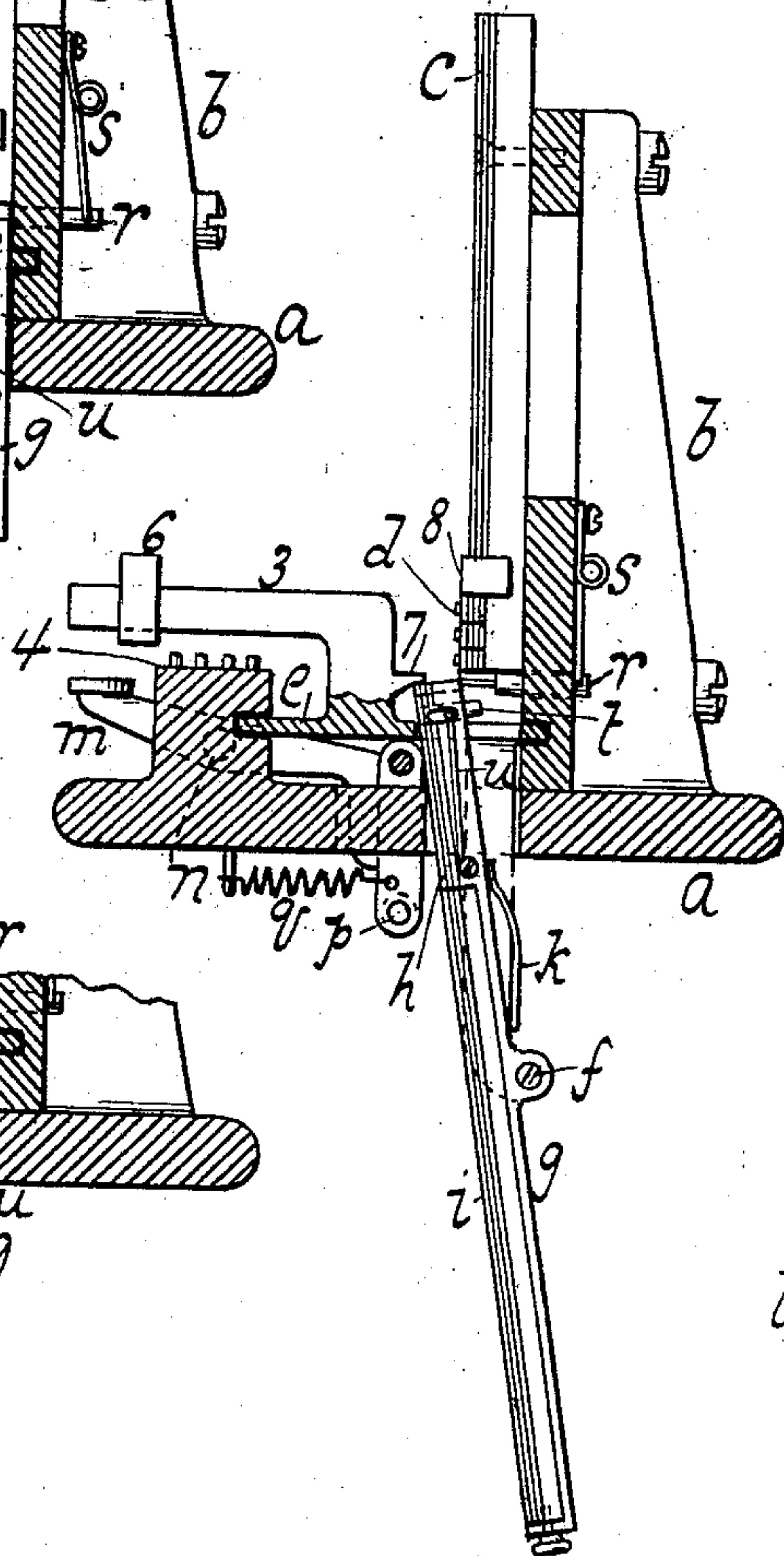


Fig. 4.

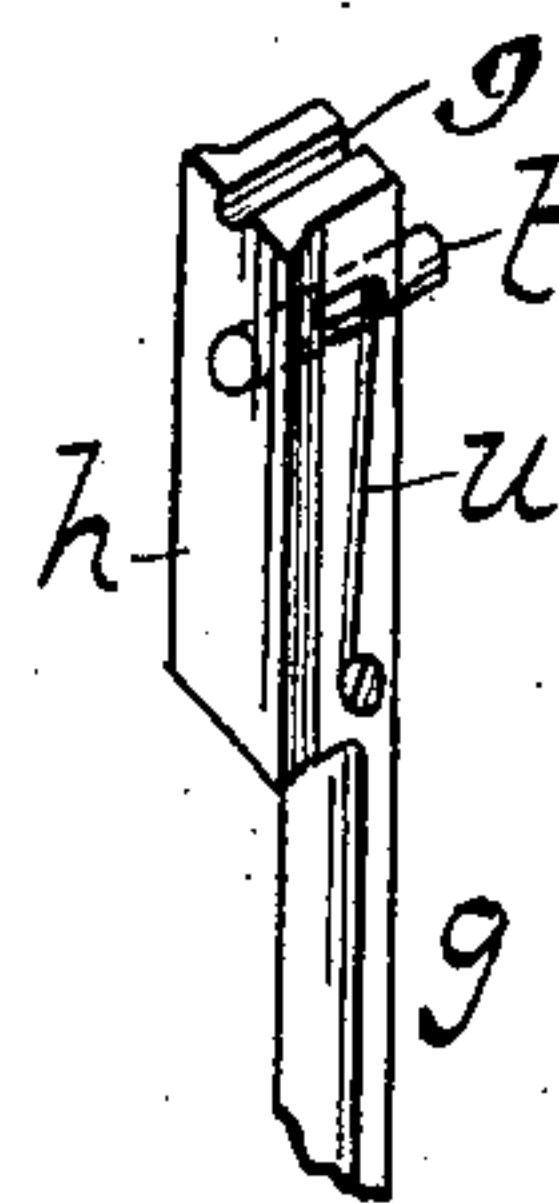
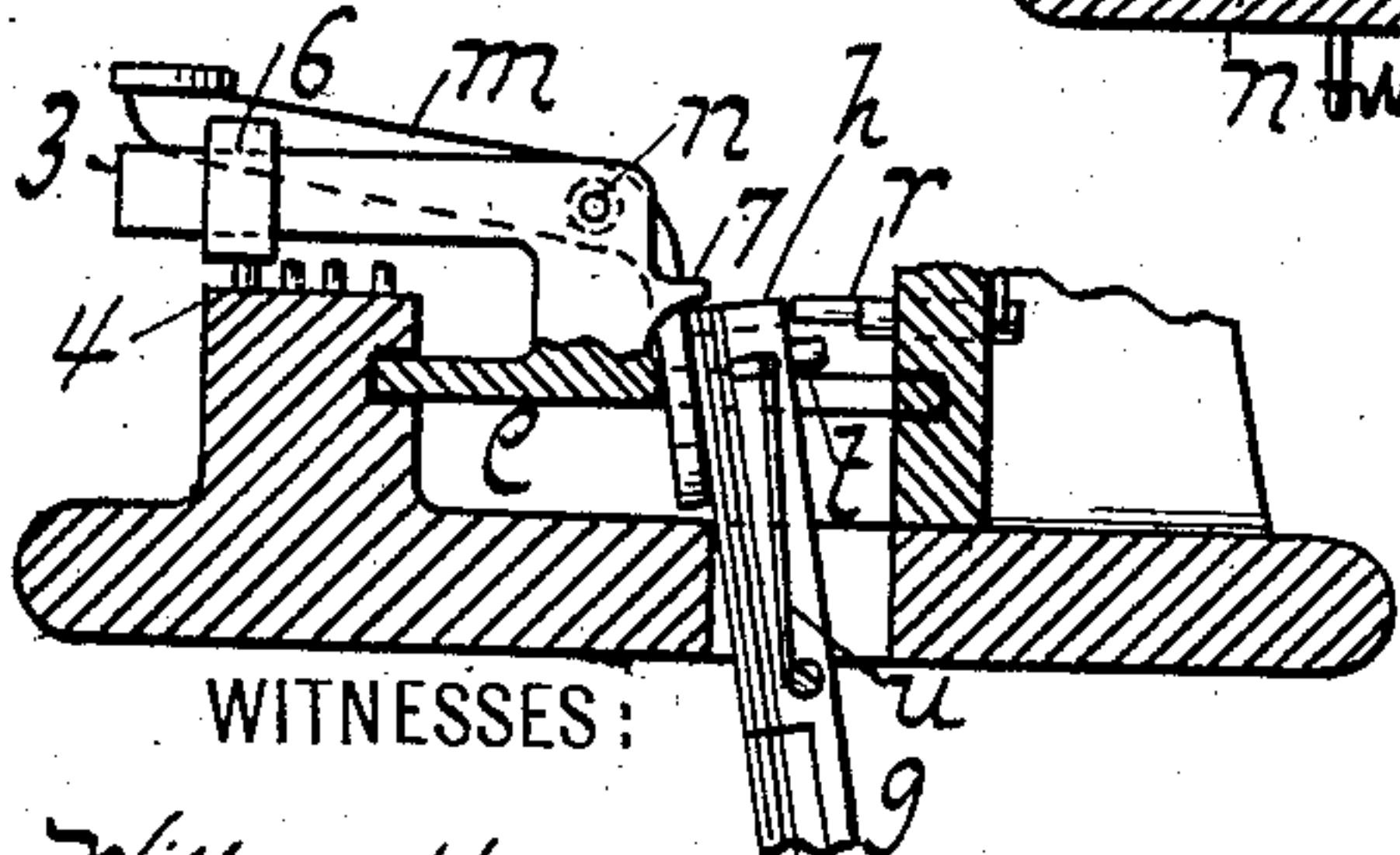


Fig. 5.



Fig. 6.



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# UNITED STATES PATENT OFFICE.

WILLIAM P. QUENTELL, OF NEW YORK, N. Y.

## TYPE-SETTING MACHINE.

No. 863,442.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed December 31, 1906. Serial No. 350,225.

To all whom it may concern:

Be it known that I, WILLIAM P. QUENTELL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Type-Setting Machines, of which the following is a specification.

This invention provides means by which selected type can be rapidly and accurately taken from a magazine and delivered to a type rod or holder.

10 This invention resides in certain novel features of construction set forth in the following specification and claim and illustrated in the annexed drawing, in which:

Figure 1 shows a plan view of a machine embodying this invention. Fig. 2 is a side elevation of the device 15 of Fig. 1 in section along line *xx* Fig. 1. Fig. 3 shows parts in a different position than in Fig. 2. Fig. 4 is a perspective view of a type guide. Fig. 5 shows a weight. Fig. 6 shows a modification.

In this drawing is shown a support or platform *a* with 20 risers or frame *b* carrying a series of magazines *c* for type *d*. Each magazine carries types of one letter. The selection from different magazines is made as presently explained.

To a slide or shuttle *e* or rather a depending arm or 25 bracket fixed to this shuttle is fulcrumed at *f* a lever or rod *g* having a type guide *h* and means for detachably holding a type rod *i*. This part *e* is called a shuttle as it is slid back and forth to one point or another as required for selecting a specific type or magazine. As 30 the slide with type guide is moved back and forth in selecting type or magazines, said guide is held by spring *k* away or out of register with the magazines. When at a selected magazine or letter the type guide is moved or swung to line or register with a magazine by 35 a finger lever *m* fulcrumed at *n*. This finger lever actuates a bail *o* fulcrumed at *p* so as to move the type guide toward a magazine and against the action of the returning spring *k*. Such bail as seen at *o* in Fig. 1 extends across the machine in front of the type guide 40 Fig. 3 for the type guide or rod as it is carried back and forth by the slide *e* to move between this bail and the magazines. As bail *o* swings toward the magazines such bail presses or swings the type guide *h* in the same direction, such type guide or its rod *g* as already noted 45 being swingingly supported at point *f* and in contact with but not connected to the bail *o*. The function of the bail in each case is to swing the type guide to a magazine *c*. When released the spring *k* returns the type guide or swings it away from the magazines. It 50 need not be specially stated that springs are applied where needed as for example to return the bail or finger lever or for other purposes. Such details are under-

stood in machines of this kind. A returning spring for the bail is shown at *q*.

Each magazine has a stop to prevent premature or 55 improper discharge or loss of type. This stop *r* located at the bottom or outlet of its respective magazine is shown in form of spring plunger, the spring *s* holding the stop in the way of the type.

The type guide *h* secured to or cast on the upper part 60 of the swinging support *g* has a stop *t* which is normally held retracted by spring *u*. As the type guide swings to a magazine such guide strikes a stop *r* to move it out of the way. Also the projecting heel or rear part of stop *t* coming against a supporting block or other part 65 carrying the magazine is projected or pressed forward so that its front extends out beyond the face of the type guide. As the stop *r* recedes and the stop *t* comes into action a type *d* slips or falls off the lower end of the magazine and is arrested by projected stop *t*. Upon 70 the return of the type guide the stop *r* following outward returns to the stopping position to prevent the following types from coming off the lower end of the magazine until again pressed out of the way.

As the type guide moves away from the magazine the 75 stop *t* is at the same time retracted by its spring *u* and the type which had been taken from the magazine and come to rest on stop *t* slips by its weight along the guide and onto the type rod *i*. The types and guide as also the magazines and the type rod are so formed 80 that the types will hold to them and slide along the same without coming off between the ends, one such shape of construction being indicated in Fig. 1 at *c* and *d*, while another form is shown in Quentell U. S. Patent No. 834,164, Figs. 6 and 7. The form of maga- 85 zine shown in Fig. 1 is of dove tail shape in cross section which has been found effective and easily constructed. The type fitting outside of or clasping the magazine can easily slip onto and along the same and maintain hold thereon until they drop from the bottom end of 90 each magazine. As the stops alternate under successive swings of the type guide one type after another is taken and comes to rest on the type rod. The type rods can be suitably mounted on the lever *g* adapted to act as a type rod carrier and when a type rod is filled 95 it can be removed and a new one supplied. In Fig. 2 a screw is shown in the support *g* at the lower end of the type rod, while the upper end of such rod can have a dowel projecting into a hole in the guide *h* and on loosening or removing the screw the type rod can be 100 pulled out of place.

The slide *e* has a handle or finger piece 3 by which it can be moved to a selected character on a letter board 4 having suitably placed stops at which letters or char-



acters are placed. The handle has a stop piece 6 formed as a slide or loop which can be raised to pass over the stops and allowed to drop so as to be arrested against a stop. Any suitable stopping arrangement 5 could be employed to enable the slide to be held firmly and accurately at a point selected for the type guide to take a certain type or character from a magazine. A starter or scraper 7 in shape of an inclined face or arms can be provided against which the type guide 10 would strike the type and start it to the type rod if any such type should stick at the upper part of the type guide. The upper part of rod or support *g* is slotted and the stop *r* engaged by said slotted or forked part acts also as a guide pin to insure accurate registering 15 of the type guide and magazine. As the support *g* swings toward the starter 7 the inclined lower face or edge of this part 7 comes into the groove seen in Fig. 4 at the top of the support *g* and guide *h*, and if a type should stick at such upper end portion of the guide *h* 20 such type coming to the inclined lower surface of starter 7 would be pressed downward and started toward the rod *i*. The slot 9 shown in Fig. 4 at the top of the rod *g* on the swinging of the rod or support *g* co-acts with the guide pin *r* to insure accurate registry of the type 25 guide and magazine when said parts are in operative relation to one another. The parts *g*, *h* and *i* move in the machine as though they were one part and for convenience of designation these parts might be collectively called a rod which collects the type on its part *i* which 30 at suitable times is removed and replaced since the expression type guide necessarily includes the type rod supporting such guide.

A weight 8 can be applied to the magazine supply of type so as to insure their descent or proper feed. Different rows of stops are shown on the key board 4 and the stop 6 can be slid on the handle 3 to engage a stop of any selected row. This handle 3 is attached to the slide or carriage *e*.

The operation of the device is readily understood. 40 The type guide being brought to a selected stop on the letter board is swung to the corresponding magazine and the alternating stops are actuated to allow one type to come to rest on the guide *t* while the other types stay in the magazine. The stops *r*, *t* being suitably 45 spaced or the width of the type suitably gaged but one type at a time is cut off from the pile or taken by the type guide. The stops *r*, *t* are called alternating because as either one of these stops moves out of action the other comes into action. As the support *g* moves 50 or swings to the magazine or to the frame back *b* said support *g* engages stop *r* and pushes it back out of operative position. At the same time such support butts the stop *t* against the frame *b* and projects such stop to active position as seen in Fig. 3 so that the column of 55 type on the respective magazine slips down to come to rest on the stop *t*. As the rod *g* returns or swings back to the position shown in Fig. 2 the type resting on stop *t* is carried away from the magazine, and this stop *t* moves out of action to let this type slide to rod *i*, 60 while stop *r* again moves into action. The column of type remaining in the magazine rests on top of the rod *g* as it swings away from the magazine and on the

stop *r* which follows this rod *g* as it swings away. On the return of the type guide such type slips or falls to the type rod. The slide or movable support *e* brings 65 the type guide in front of a magazine, and the key *m* or the key actuated bail *o* and spring *k* move the guide to and from contact with the magazine. The type guide thus has a longitudinal and a transverse or forward and back movement. The shuttle and moving 70 parts can be made light so as to avoid wear and allow easy movements. The finger lever *m* could be fulcrumed on shuttle *e* and the bail *o* in such case dispensed with and the finger lever made to directly engage the type carrier (Fig. 6). 75

What I claim is:—

1. A type-setting machine comprising a magazine, a stop at the outlet of the magazine, a spring for holding the stop in action, a movable type guide, a stop on the receiving end portion of the type guide, and a spring for normally retracting the stop on the type guide, and means for moving the type guide to and from the magazine to retract the stop at the magazine while projecting its own stop. 80
2. A type-setting machine comprising a magazine, a stop, a spring for holding the stop in action, a movable type guide, a stop on the type guide, and a spring for normally retracting the stop on the type guide, and means for moving the type guide to and from the magazine to retract the stop at the magazine while projecting its own stop 85 said stop on the guide being placed at the end portion of the guide which lies toward the magazine so as to allow but one type at a time to pass from the magazine to the stop as the guide moves to the magazine.
3. A type-setting machine comprising a magazine with 95 suitable support, a stop at the outlet of the magazine, a spring for yieldingly holding the stop in active position means for actuating said stop, a type guide movable to and from the magazine, a spring retracted stop on the type guide, and means for moving the type guide to and from 100 the magazine and for bringing the stop on the type guide to contact with the support of the magazine to project said stop beyond the face of the guide.
4. A type-setting machine comprising a magazine, a letter board, a type guide between the magazine and board, a slide by which the type guide is transported and on which the type guide is pivotally mounted so that it can swing, a key, and a bail actuated by the key and made to move the type guide. 105
5. A type-setting machine comprising a magazine, a longitudinally and transversely movable type guide, and stops on the guide and magazine. 110
6. A type-setting machine comprising a magazine and a type guide, and means for transferring type from one to the other, said means comprising a longitudinally and transversely movable type guide, a stop for limiting the number of type to be transferred, and a stop for preventing type from unduly leaving the magazine. 115
7. A type-setting machine comprising a series of magazines and vibrating type guide, a shuttle or slide for carrying the type guide in front of a magazine and means for bringing the type guide into register with a magazine. 120
8. A type setting machine comprising a magazine with a type stop, a guide mounted to swing and guided by said stop, a slide and key for moving the guide to and from a magazine, and a stop on the guide made to act alternately with the stop at the magazine. 125
9. A type-setting machine comprising a series of magazines, a swinging type guide, a spring for normally holding the guide away from the magazine, a finger key for moving the guide to the magazine, a slide or shuttle for supporting the guide, a key board and an arm with a stop for engaging the key board. 130
10. A type-setting machine comprising a series of magazines and vibrating type guide, a shuttle or slide for carrying 135



rying the type guide in front of a magazine and means for bringing the type guide into register with magazine and a scraper or starter for the type which has been taken from the magazine.

- 5 11. A type-setting machine comprising a series of magazines and vibrating type guide, a shuttle or slide for carrying the type guide in front of a magazine and means for bringing the type guide into register with a magazine and means for transferring a type from the magazine to the  
10 type guide.

12. A type-setting machine comprising a series of maga-

zines, a type guide movable to the magazine, a key board with rows of stops and an arm for moving the type guide, said arm provided with a stop adapted to be moved to and from the several rows of stops to engage a selected type. 15

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM P. QUENTELL.

Witnesses:

EDWARD WIESNER,  
W. C. HAUFF.