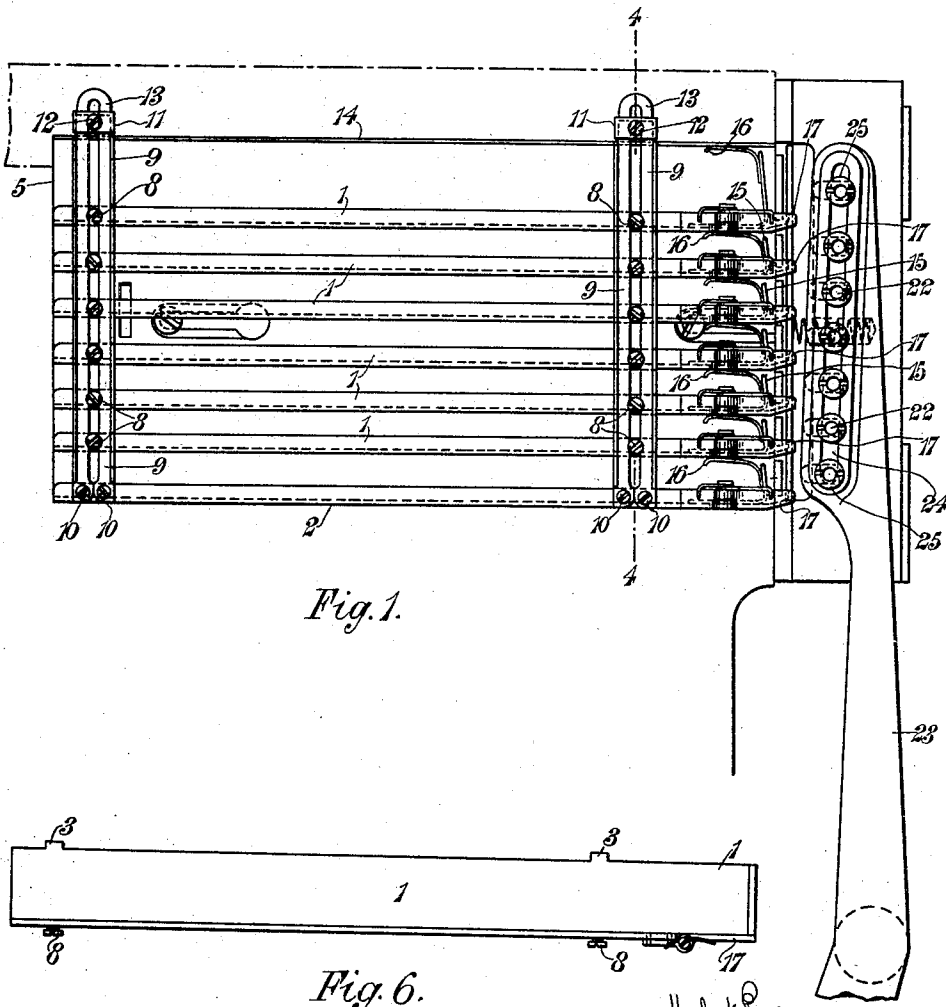
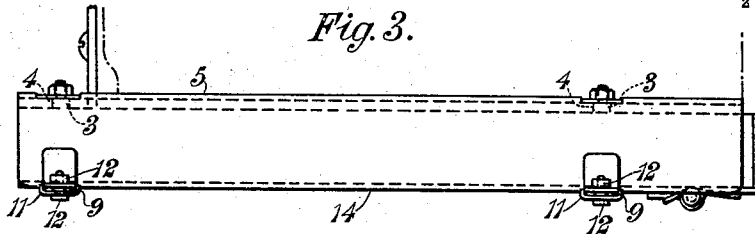


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 GALLEY MECHANISM FOR TYPOGRAPHICAL COMPOSING MACHINES.
 APPLICATION FILED MAY 11, 1908.

935,543.

Patented Sept. 28, 1909.

2 SHEETS—SHEET 1.



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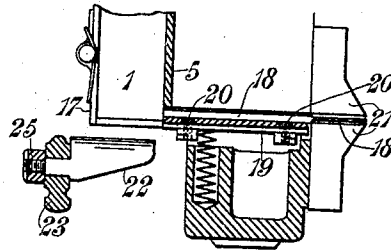


Fig. 5.

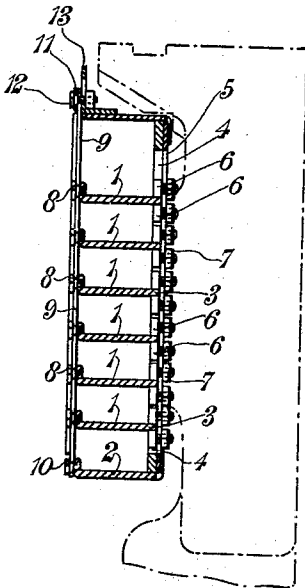


Fig. 4.

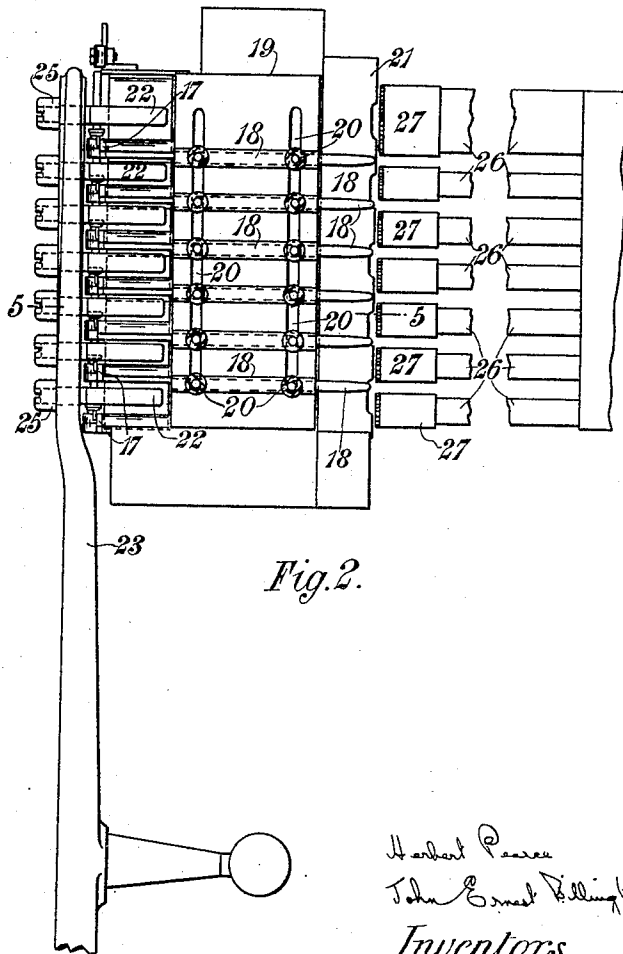


Fig. 2.

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UNITED STATES PATENT OFFICE.

HERBERT PEARCE AND JOHN ERNEST BILLINGTON, OF BROADHEATH, ENGLAND.

GALLEY MECHANISM FOR TYPOGRAPHICAL COMPOSING-MACHINES.

935,543.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed May 11, 1908. Serial No. 432,235.

To all whom it may concern:

Be it known that we, HERBERT PEARCE and JOHN ERNEST BILLINGTON, subjects of the King of the United Kingdom of Great Britain and Ireland, and residing at Linotype and Machinery Works, Broadheath, in the county of Chester, England, have invented new and useful Improvements in the Galley Mechanism of Typographical Composing-Machines, of which the following is a specification.

This invention relates to improvements in typographical machines such as linotype machines, and, for convenience of illustration, it is hereinafter described in connection with a linotype machine of the class described in the specification of Letters Patent No. 436532.

Since the date of the just named patent, means have been devised for adapting the linotype machine, at each cycle of its operations, to cast a series of disconnected short measure linotypes of relatively variable measures and suitable for the printing of tabular matter, and it is to machines thus or similarly operating that the present invention particularly applies. In this last-named class of machine, no provision has heretofore been made for enabling the said machine to be adjusted for keeping apart, that is to say, preventing the "pieing" of, the linotypes of the several relatively variable measures which the machine may be called upon to cast.

The present invention aims at overcoming the aforesaid difficulties by providing the galley with a series of adjustable galleries or shelves; the spring-pressed linotype guide plate, between the trimming knives and galley, with a corresponding number of adjustable shelves or guides; and the linotype lever with a corresponding number of adjustable pushers or fingers. By these means the several shelves, guides and pushers may be adjusted to suit any desired series of linotypes which the machine may cast at each of its cycles.

The invention will be best understood by reference to the accompanying drawings which are to be taken as part of this specification and read therewith.

In these drawings:—Figure 1 is a front elevation of apparatus constructed according to the present invention; Fig. 2 is an elevation as seen from the right-hand side of

Fig. 1, but with part of the apparatus removed; Fig. 3 is a plan of part of the apparatus shown in Fig. 1; Fig. 4 is a vertical section on the line 4—4 of Fig. 1, looking from the right hand side of that figure; Fig. 5 is a horizontal section of part of the apparatus, taken about on the line 5—5 of Fig. 2; and Fig. 6 is a plan of one of the adjustable shelves detached from the galley.

In carrying the invention into practice in the manner represented in the drawings, each of the shelves 1, other than the lowest shelf 2 (which latter is the normal fixed one) is provided with two rearward extensions 3, Fig. 6, capable of sliding in vertical slots 4, Figs. 3 and 4, in the back plate 5, and capable of being secured in any such position of vertical adjustment by two clamps 6 one above and the other below the said rearward extension, the clamps 6 being themselves secured in position by screwing the nuts 7 thereof, tightly against the back of the plate 5. The front upturned edge of each shelf 1 is provided with two screws 8 in sliding engagement with two vertically slotted standards 9. These standards are preferably formed, each in two parts or two symmetrical vertical halves pivoted to the lowest shelf 2 by screws 10, and capable of being moved apart (by being turned upon these screws as axes) so as to release the screws 8, for enabling the shelves to be removed from, and placed in position in, the galley, to provide for the reception of less or more short-measure linotypes. The two separable parts of each standard 9 are normally held together by a clamp 11 which is slid over or caused to embrace the upper ends thereof, and is retained in such position of engagement by a screw and nut 12 which secure it to a bracket 13 fast to the top plate 14 of the galley. The brackets 13, as shown in Fig. 1, are slotted so that when the screws 12 are loosened, the clamps 11 may be raised out of engagement with the upper ends of the standards 9 to enable the two separable parts of each of the latter to be moved apart or brought together as before mentioned.

Each of the shelves 1 and 2 is preferably provided with a resistant 15 suitably consisting of a piece of metal having a bent-up end. The horizontal or base portion slides along in contact with the shelf, while the bent-up end is presented to the incoming

linotypes. A blade spring 16 is fixed to the bent-up end and when free, extends upwardly and rearwardly, but when inserted beneath the shelf next above that upon which the base portion slides, it lies about parallel with said base portion. This resistant serves for supporting the linotypes in a vertical or nearly vertical position, and is pushed along the respective shelf as the linotypes accumulate thereon, the necessary resistance to the sliding movement of the resistants 15 being provided by the springs 16 attached to the latter and bearing against the underside of the shelf 1 next above it or, in the case of the uppermost of such resistants 15, against the underside of the top plate 14. Each of the shelves 1 and 2 may moreover be provided with a spring-controlled gate 17 at its receiving end which, like those hitherto provided for the purpose, would yield in the event of a linotype, entering the galley, engaging the rear edge of another one already on the galley. The gates 17 are in effect hinged end portions of the front upturned edges of the shelves, springs being employed for normally alining such hinged portions or gates with their respective upturned edges.

The horizontal shelves or guides 18 secured to the before-mentioned spring plate 19 are attached to it by screw and slot connections 20 which readily admit of the said shelves being detached therefrom and vertically adjusted thereon; these shelves or guides 18 extend rearwardly between the trimming knives 21 to keep the respective linotypes apart while they are being forced between the said knives, these rearward extensions being of reduced thickness, as compared with the parts directly attached to the spring plate 19, as shown best in Fig. 5, so as to present no hindrance to the movement of the said plate when the latter is pressed back by the linotypes moving past it. The pushers or fingers 22 are attached—with a capacity for ready detachment from an adjustment on—the linotype lever 23, for which purpose the said lever may be formed with a slot 24 and each pusher 22 be adapted to traverse the said slot and be secured at any part thereof by a nut 25.

26, Fig. 2, is the ejector which is slotted or divided to avoid contacting with the shelves or guides 18 (and which forms no part of the present invention), and 27 are a series of linotypes represented as being acted upon by the said ejector and just about to be pushed between the trimming knives 21.

We claim,

1. In a typographical machine, a galley shelf, a set of vertical front supporting guides for said shelf, a set of vertical rear supporting guides for said shelf, adjustable clamping means adapted to grip one side of said shelf and hold it to one of said sets of

guides, and adjustable rests for the opposite side of said shelf adapted to be clamped to the other of said sets of guides.

2. In a typographical machine, a series of galley shelves, a set of front supporting guides for said shelves, a set of rear supporting guides for said shelves, adjustable clamping means adapted to grip one side of said shelves and hold them to one of said sets of guides, adjustable rests for the opposite sides of said shelves adapted to be clamped in desired positions on each member of the other of said sets of guides, and means on said shelves adapted to engage said rests.

3. In a typographical machine, the combination with a galley adapted to receive linotypes, a plurality of shelves adjustable thereon, each adapted to receive a short-measure linotype, means whereby the said shelves may be raised and lowered and secured in any such adjusted position, and a linotype lever adapted to swing in front of the galley shelves, of a plurality of linotype pushers adjustably attached to the linotype lever and each adapted to push one of the short-measure linotypes along its respective galley shelf.

4. In a typographical machine, the combination of a galley adapted to receive linotypes, a plurality of shelves adjustable thereon, each adapted to receive a short-measure linotype, means whereby the said shelves may be raised and lowered and secured in any such adjusted position, linotype trimming knives, a spring-pressed plate between the trimming knives, a plurality of shelves adjustably attached to the said plate, and adapted to keep apart the several short-measure linotypes during their passage between the trimming knives and from the said knives to the galley.

5. In a typographical machine, the combination of a galley adapted to receive linotypes, a plurality of shelves thereon, each adapted to receive a short-measure linotype, linotype trimming knives, a plate between the trimming knives adapted to guide the linotypes, and a plurality of shelves on the said plate, adapted to keep apart the several short-measure linotypes during their passage between the trimming knives and from the said knives to the galley.

6. In a typographical machine, the combination of a galley adapted to receive linotypes, a plurality of shelves thereon, each adapted to receive a short-measure linotype, linotype trimming knives, a plate between the knives adapted to guide the linotypes, a plurality of shelves on the said plate, adapted to keep apart the several short-measure linotypes during their passage between the trimming knives and from the said knives to the galley, a linotype lever adapted to swing in front of the galley shelves, and a

plurality of linotype pushers on the linotype lever, each adapted to push one of the short-measure linotypes along its respective galley shelf.

- 5 7. In a typographical machine, the combination of a galley adapted to receive linotypes, a plurality of shelves adjustable thereon, each adapted to receive a short-measure linotype, linotype trimming knives, a spring-pressed plate between the trimming knives, a plurality of shelves adjustable to guide the linotypes, a plurality of shelves adjustably attached to the said plate, adapted to keep apart the several short-measure linotypes during their passage between the trimming knives and from the said knives to the galley, a linotype lever adapted to swing in front of the galley

shelves, a plurality of linotype pushers adjustably attached to the linotype lever and each adapted to push one of the short-measure linotypes along its respective galley shelf, and means whereby the galley shelves, the shelves on the spring-pressed plate and the pushers may be raised and lowered and secured in any such adjusted position on their respective supports. 20 25

In witness whereof we have hereunto set our hands in the presence of two witnesses.

HERBERT PEARCE.

JOHN ERNEST BILLINGTON.

Witnesses:

GEO. G. DAVISON,
A. C. FRYER.