April 18, 1961 W. W. GILES 2,979,834

INDEXING DEVICES

Filed May 19, 1959

FIG. 1.

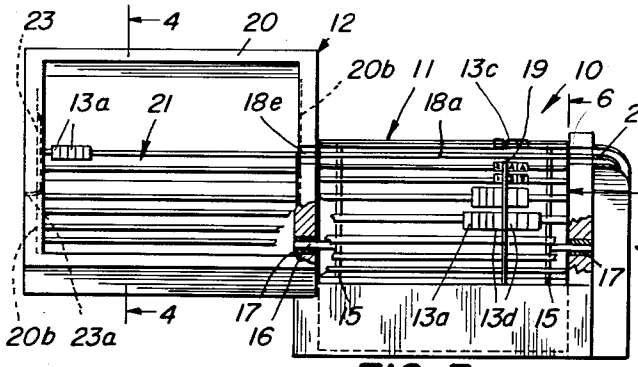


FIG. 2.

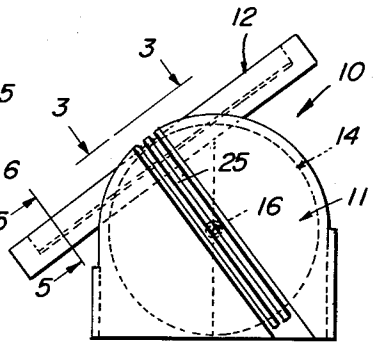


FIG. 3.

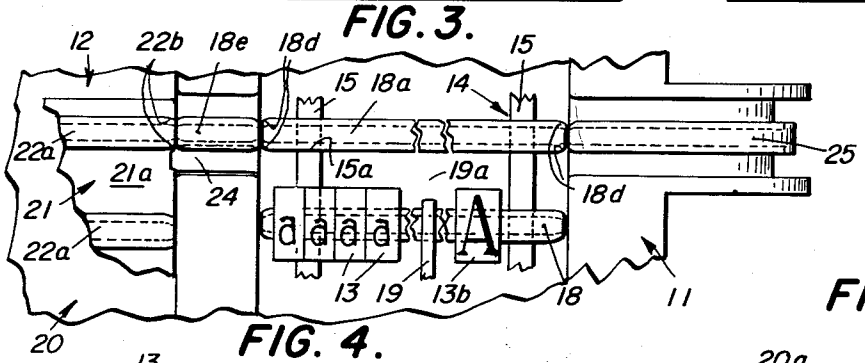


FIG. 4.

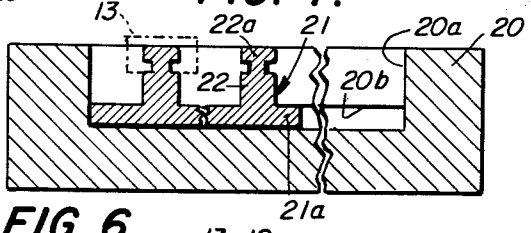


FIG. 5.

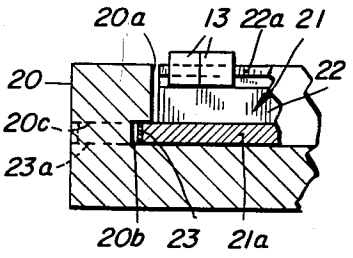


FIG. 6.

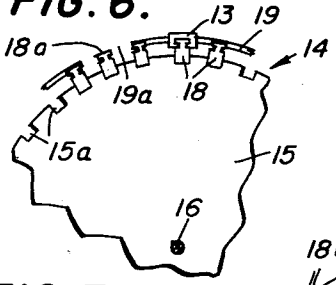


FIG. 7.

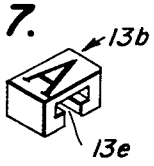
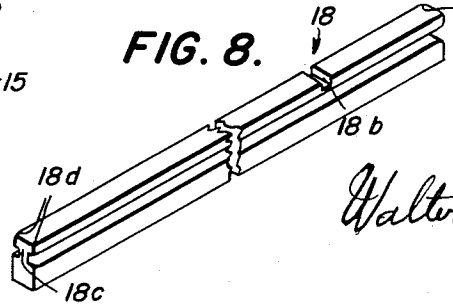


FIG. 8.



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INDEXING DEVICES

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1 Claim. (Cl. 35—73)

This invention relates to a device for the index selection from a magazine of blocks bearing letters and symbols and facilitating their arrangement in parallel textual lines.

An object of the invention is to familiarize learners with the alphabet and afford a means of practicing spelling and sentence construction.

Another object of the invention is to provide manual occupation for children while stimulating their interest in letters and reading.

Other objects and advantages of the invention will be readily apparent from the following description and drawings forming a part thereof and in which:

Fig. 1 is a front elevation of the device with parts broken away,

Fig. 2 is an end elevation,

Fig. 3 is fragmentary plan on line 3—3 of Fig. 2,

Fig. 4 is a fragmentary section on line 4—4 of Fig. 1,

Fig. 5 is a fragmentary section on line 5—5 of Fig. 2,

Fig. 6 is a fragmentary section on line 6—6 of Fig. 1,

Fig. 7 is a perspective of the symbol block for capital letters, and

Fig. 8 is a perspective of the T-rail **18** of Fig. 3.

Referring to the drawings, basically the device **10** consists of a rotatable magazine **14** supported by bearings **17**, **17** in a trunnion frame **11**, and joined to a rectangular structure **12** having a recessed cavity in which is slidably positioned a panel **21**.

The rotatable magazine **14** is a squirrel-cage assembly consisting of two circular end parts **15**, **15** and multiple longitudinal T-rails **18**, chamfered at the ends as in **18***d* and having a cross-section **18***c*, affixed thereto in notches **15***a*. Each of the circular end parts **15** has a trunnion **16** supported by a bearing **17** in the trunnion frame **11**. Symbol blocks **13***a*, **13***b*, and **13***c*, printable on one face and channelled with T-shaped passages **13***e* are locked slidably on the T-rails **18**. A ring segment **19** is fixed in notches **18***b* to the outer surface of the T-rails **18** and separates lower case letters from capital letters in the magazine. Symbol blocks **13***d*, indicating the letters stored on a particular T-rail, are fixed on both sides of the ring segment. A blank T-rail **18***a* passes through the ring segment **19** in the gap **19***a*.

The rectangular structure **12** is joined to the trunnion frame **11** and has a rectangularly recessed cavity within a frame **20**.

The panel structure **21** consists of a base plate **21***a* to which are fixed the textual T-rails **22**, identical in cross-section with the T-rails **18** and **18***a*, with chamfers **22***b* and having upper faces **22***a* co-planar with the upper face of a bridge T-rail **18***e* positioned in a recess of the frame **20**. The panel structure is closely but slidably positioned within the cavity **20***a* and is retained in grooves **20***b* by the pressure of a spring **23**, the bent end of which **23***a* is retained in a hole **20***c* in a side of the frame **20**.

A bridge T-rail **18***e*, in the same plane with, and parallel in alignment to, the T-rails **22**, and mounted in the gap **24** provides a bridging means for transferring symbol blocks from the magazine T-rails **18** to the T-rails **22** mounted on the panel base plate **21***a*.

In operating the indexing device, symbol blocks **13** are slid from the magazine T-rails **18**, across the bridge T-rails **18***e*, and thence to T-rails **22** for textual arrangement. When a capital letter is required in the text, a symbol block bearing a capital letter is slid from the portion of a T-rail **18** on the right-hand or capital-letter side of the divider ring segment **19** onto the sidetrack T rail **25**; the magazine **14** is then rotated till the transfer T-rail **18***a* is in alignment with the sidetrack T-rail **25** and the bridge T-rail **18***e*; whereupon, the symbol block bearing the capital letter may be slid across the tranfser T-rail **18***a*, onto the bridge T-rail **18***e*, and thence onto a textual T-rail **22**.

Inasmuch as various changes may be made in the form, location and relative arrangement of the several parts without departing from the essential characteristics of the invention, it will be understood that the invention is not to be limited except by the scope of the appended claim.

What is claimed is:

In an indexing device the combination of: a rotatable magazine consisting of two circular, parallel and trunnioned end members positioned perpendicularly to an axis line traversing their centers, a plurality of symmetrically spaced T-rails affixed at their ends to the circumferential peripheries of the said circular end members and parallel to the centerline axis thereof, a plurality of symbol blocks, printable on their upper faces, slidably mounted on said T-rails, said blocks having T-shaped channels excised therethrough for locking said blocks to said T-rails, a divider ring segment embracing transversely all but one of the said plurality of T-rails, said ring segment comprising means for segregating upon the T-rails said symbol blocks, a trunnion support frame consisting of a horizontal base and two uprights with bearing means for supporting the trunnions of the rotatable magazine; a rectangular panel frame, grooved on the inner edges of two parallel sides, and joined externally to one upright of the trunnion support frame, with the two grooved sides of the panel frame parallel to the circular end members of the magazine; a rectangular panel structure consisting of a flat base having its edges slidable in the grooved inner edges of the panel frame and slidably positioned therein, said panel base having affixed to its upper surface a plurality of T-rails identtical in cross-section with the T-rails of the magazine spring means for retaining the panel structure in the frame, the upper surface of the said panel base T-rails being positioned in the same plane as the upper surface of a bridge T-rail; longitudinally parallel to the centerline axis of the magazine and positioned in a recess in a side of the panel frame adjacent to an end of the magazine, so that the magazine T-rails can by rotation of the magazine be brought into joinable alignment with the T-rails mounted on the panel base, said bridge T-rail providing means for transferring symbol blocks, from T-rails of the magazine to T-rails of the panel base; a sidetrack T-rail, curved at one end and fixed on the upright of the trunnion support frame at the end of the frame remote from the panel frame, the curved end of said sidetrack T-rail being positioned adjacent to an end of the magazine, providing means for temporary reception of symbol blocks as they may be selected and removed by sliding from the T-rails of the magazine; the T-rail mounted on the circular end members of the magazine and traversing the interruption of the divider ring segment, providing means for transferring symbol blocks from the sidetrack T-rail to the bridge T-rail.

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