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HAND STAMP TYPE-SETTING DEVICE

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1 Claim. (Cl. 101—109)

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This invention relates to a hand stamp type-setting device, and more particularly pertains to such in which type carriers, each holding removable type slugs, may be selectively moved individually to bring a selected type to a removing and replacing station to form at the same time a contextual line of type which can be picked up as a group by a special handle which is equipped with a type grip.

A receptacle is provided with slidable type carriers arranged in parallel and movable individually with respect to one another, the carriers having individually removable type slugs arranged at intervals along their length which is the direction of their movement. Midway of the course of movement of the carriers in the receptacle is the type slug removing and replacing station to which the selected type slug of each carrier is moved in a given operation. The type slugs so selected are in a line at said station and may be lifted as a group therefrom by a handle fitted with a spring-finger grip means. The whole line of type so lifted as a unit from the receptacle is used in the manner of a hand stamp. The type slugs may then be returned to the receptacle and released by means mounted in the handle. In the next operation the carriers are adjusted to bring to the removing and replacing station the next-wanted type slugs. Means are provided to index the carriers accurately for perfect alinement of the selected type slugs. Further, means are provided to latch the release means carried by the handle unless the fingers of the gripping means are in type removing or replacing position over the type carriers.

Therefore, it is an object of this invention to provide a type-setting device by which a selected group of type from a large assortment in a container may be gripped by a handle and removed as a group unit from the said container.

Another object of the invention is to provide indexable selecting means for bringing said selected type to a common replacing and removing station, where they are in contextual alinement.

A further object of the invention is to provide a handle with a grip by which the type selected may be removed and used as a unit type line hand stamp, together with means for releasing the type which is operable only when the type is in replacing position in the container.

With these and incidental objects in view, the invention includes certain novel features of construction and combinations of parts, a preferred form or embodiment of which is hereinafter described with reference to the drawing which accompanies and forms a part of this specification.

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Of the drawing:

Fig. 1 is a perspective view of the type-slug container with part of the casing broken away to show the type-slug carriers and indexing mechanism;

Fig. 2 shows an end of one of the type carriers in longitudinal section, and in particular shows the mounting of the type slug in a carrier and the indexing detent pin construction;

Fig. 3 is a vertical section through the combined handle and type grip;

Fig. 4 is an end elevation of the handle and type grip; and

Fig. 5 is a section on the line 5—5 of Fig. 3, showing the latching mechanism.

Referring to the drawing, 20 is the bottom of a rectangular box-like receptacle having a top cover 21 fitted thereover. The bottom is divided longitudinally by vertical fins 22 forming channels in each of which a type slug carrier, like carrier 23, is slidably mounted. The carriers are slightly more than half the length of the channels in which they slide. Each carrier has a plurality of type slug recesses 24 in which rest type slugs 25, printing face down. The preferred embodiment of the invention utilizes porous resilient rubber type slugs impregnated with ink, although hard non-porous type of rubber or metal, or hard porous type of type metal or other material may be used. Inasmuch as porous rubber is relatively soft and the squeezing of it causes loss of the ink, each type slug has a hard metallic sheath 26, of U-shape, covering two of its sides and its back, so that such slug may be gripped on the two sheathed sides without compressing the porous rubber. The face of the slugs bearing the type rest on shoulders 27 of their respective recesses so the type characters do not touch the bottoms thereof. In the preferred embodiment of the invention, shown, there are ten type slugs on each carrier, and they are arranged therein at equal intervals. The ten type slugs represent the digits 1 to 9, inclusive, and zero, but the type slugs may be made with any indicia desired and the receptacle and carriers may be made as long or as short as desired, as, for instance, it may be desirable to make one with 26 slugs in each carrier to represent the alphabet letters.

Each type slug is removable upwardly from its carrier. A removal and replacement station is defined at approximately the middle of the receptacle by the opening 28 extending across the middle of the top cover 21. The type to be selected are alined at this opening by selective movement of the corresponding carriers, which

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movement may be accomplished by finger-operation of detent pins 29, one being mounted in the end of each carrier and extending upwardly through an associated longitudinal slot 30 in the top cover 21. Each slot has a number of detent holes 31 corresponding in number to the number of type slugs in the carrier, spaced along the slot the same as the type are spaced along the associated carrier, and spaced relative to the opening 28 so that when a detent pin 29 is at a detent hole 31 a corresponding type slug is at the opening 28 defining the removing and replacing station.

Each pin 29 is mounted in a hole 32 in the carrier and is forced upwardly by a spring 33 until a tapered shoulder 34 either rides along the associated slot in the top cover or enters a detent hole therein to index the carrier so the type selected is alined at opening 28. To adjust a carrier the associated detent pin is depressed slightly and the carrier thus released may be moved back and forth as desired.

Inasmuch as the carriers are parallel and, when properly set, the selected type are alined at the removing and replacing station, coincident with opening 28, the said selected type may be lifted as a group unit by the special handle and grip to be described with reference to Figs. 3, 4 and 5.

A handle 35 has attached to it a plate 36 of a dimension to loosely fit into opening 28 with one end, which is bored with a hole 37, fitting over beveled pin 38, secured on the edge of the bottom of the receptacle and extending upwardly through slot 28. This pin serves to aline plate 36 across the opening. Upwardly extending flanges 39 and 40 of the top cover serve to aline plate 36 longitudinally of the top cover of the receptacle. Secured to the underside of the plate 36 is a U-shaped spring grip 41 extending across the plate a width corresponding to such of the total width of the receptacle as is occupied by the type carriers. This U-shaped spring grip has clearance slots 42 at intervals corresponding to the relative locations of the vertical fins 22 which form the type carrier channels. As the plate 36 is forced down into slot 28 the pairs of spring fingers engage and grasp the sides of the selected type slugs, which may then be withdrawn as a unit group from the receptacle. The handle and attached type slugs in the spring grip may then be used as a hand stamp.

To replace the type slugs they are positioned in the opening 28 and a release button 43 is pushed into handle 35. Release push button 43 is located in a counterbore 44 in a vertical hole 45 in the handle and plate 36 and is secured to a pushrod 46 which is secured at its lower end to a pusher plate 47 extending along the inside closed end of the U-shaped spring grip. A compressed spring 48a normally keeps the pusher plate 47 in the position shown in Figs. 3 and 4. When push button 43 is pressed in, any gripped type slugs are ejected from the spring finger grips.

To prevent button 43 from being pushed in while the handle and gripped type are away from the removing and replacing station a latch is provided which normally locks pushrod 46 against movement but permits such movement when alining pin 38 is in hole 37. The bottom face of plate 36 is hollowed out to receive a latch plate 48 having an oblong slot 49 through which a smaller diameter portion of the pushrod extends. A spring 50 pushes latch plate 48 in the direction of the alining hole and in contact with the smaller diameter portion of the pushrod 46. This pre-

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vents the pushrod from moving downwardly and hence locks the release means against action. In this condition the end of latch plate 48 which is away from the spring partially covers hole 37. As the beveled point of alining pin 38 enters the hole 37 as the plate 36 is moved into the slot 28, latch plate 48 is moved toward the spring sufficiently far so the edge of slot 49 clears the shoulder 51 of the pushrod, thus releasing the locking mechanism.

It is within the scope of this invention to use porous type impregnated with different colored inks, either the type slugs of a carrier having their own color of ink or the type slugs of a carrier individually having different colors.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form or embodiment herein disclosed, for it is susceptible of embodiment in various other forms.

What is claimed is:

A type-setting and handling device including, in combination, a receptacle having a plurality of slidable type carriers, each of said carriers having a plurality of individually removable type slugs spaced thereon at intervals in the direction of slide, said receptacle having a type slug removing and replacing station with reference to which the carriers may be individually indexed to bring into alinement at said station at the same time any selected type slug of each of selected ones of the carriers; and a portable handle having a grip by which the type slugs alined at the station may be lifted from the receptacle as a group and held while in use and during their return to the receptacle, said grip having opposed spring fingers which are attached to the handle, ends outwardly, said fingers, when pushed over the type alined at the station, spreading and holding the type by spring pressure, said grip having a release member between the opposed fingers against which the gripped type rest, said release member having a locking formation thereon and being movable toward the end of the fingers to dislodge the gripped type, said grip having a hole which cooperates with a pin mounted on the receptacle, as the grip is moved toward the station to aline the fingers and the type, and said grip having a spring-pressed latch movably mounted in the handle and normally resiliently held in one position in which it partially covers the hole but being resiliently moved therefrom by the entry of the pin therein, said latch when in the hole-covering position engaging the locking formation of the release member to lock it so that the held-type may not be dislodged thereby, and said latch in the moved position disengaging the locking formation and thus being ineffective to lock the release member.

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