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BOX FOR STORING MATRICES

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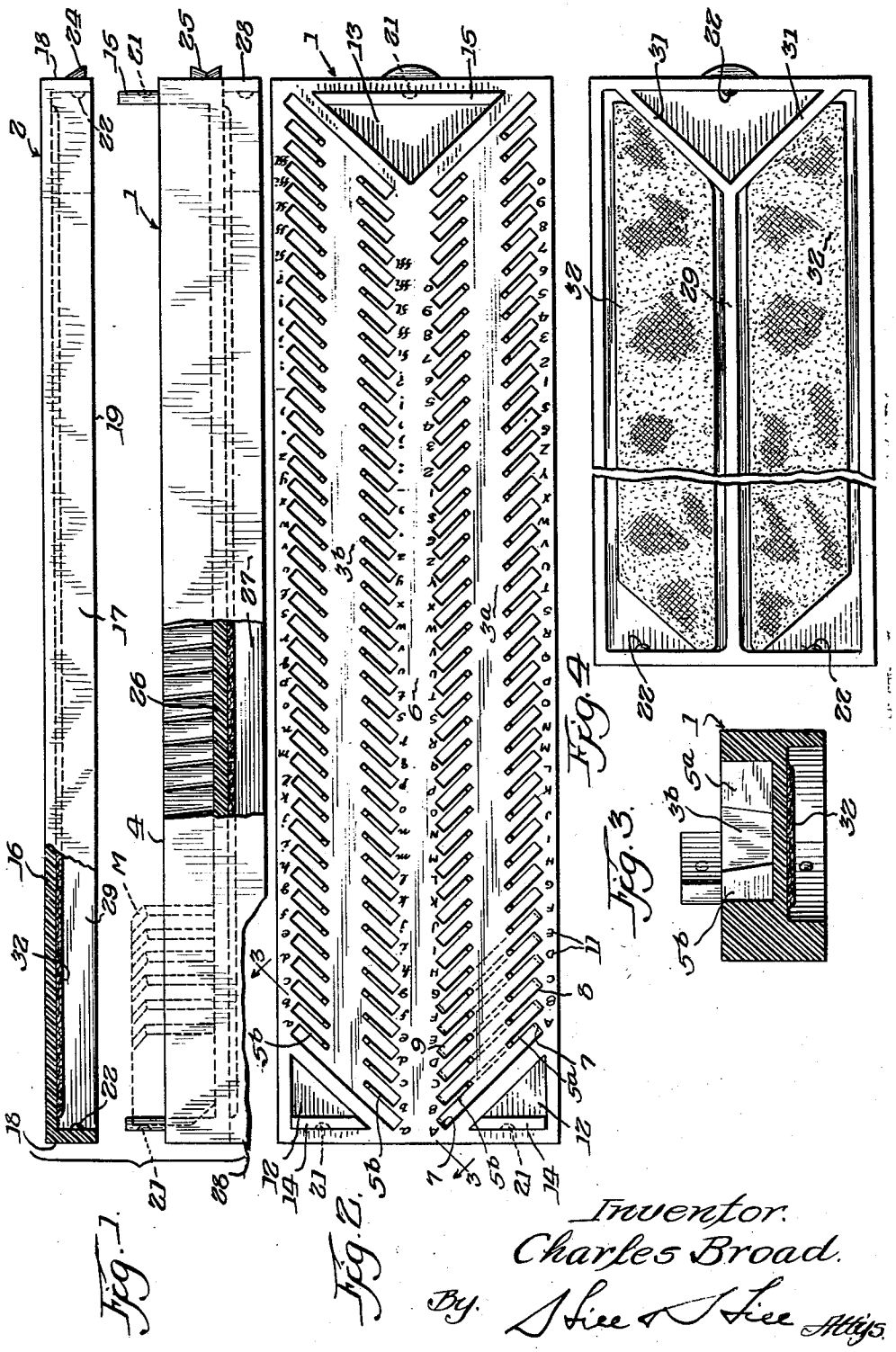


Fig. 1.

Fig. 2.

Fig. 4

Fig. 3.

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BOX FOR STORING MATRICES

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6 Claims. (Cl. 276—44)

The invention relates generally to containers, and more particularly to a box or container for storing "monotype" matrices, or other similar objects.

In the past, "monotype" matrices have been stored in boxes or containers which usually have been made of light wood, cardboard, and/or other similar materials, the completed box being the assembly of a large number of small pieces which must be assembled and secured together by gluing, nailing, etc. Boxes heretofore used for this purpose have been arranged to store the matrices, which—for example, may be substantially one and one eighth inches long, three-fourths of an inch wide, and three thirty-seconds of an inch thick, in two parallel rows, with the matrices standing on end, and the corresponding matrices of the two rows lying in common planes extending at right angles to the longitudinal axis of the box. Thus, the corresponding edges of the matrices in each longitudinal row lie in parallel planes. Such containers normally are designed to store approximately seventy-two to eighty-four matrices divided into two rows of from thirty-six to forty-two; and, as a result of the relatively thick side walls and partition members employed, the latter being of thin wood, the average container for matrices of the above size is approximately eight and five-eighths inches long, two and three-fourths inches wide, and one and one-half inches high. Likewise, as the matrices are arranged in alignment in parallel planes, they are relatively close togther, being spaced approximately one-sixteenth of an inch, making it difficult to grasp a single matrix from a row and withdraw the same from the container, particularly as a pair of diagonally opposite corners of each matrix are diagonally cut, such cut also being at an inclination with respect to the faces of the matrix.

The present invention therefore has among its objects the production of a container for storing "monotype" matrices which may be considerably smaller in size than present containers, at the same time housing an equal number of matrices, and in which a number of containers may be stacked in interlocking relationship whereby a number of fonts of matrices may be stored in a space of considerably less volume than if contained in a like number of present type containers.

Another object of the invention is the production of such a container which is so designed that the spacing between the adjacent stored matrices may be reduced to a minimum and, at the same time, provide greater accessibility to the matrices for removal from and insertion into the container.

Another object of the invention is the production of such a container in which the indicia for identifying the stored matrices is incorporated as an integral part of the container, such indicia being very legible and clearly associated with the matrix which it identifies.

Another object of the invention is the production of matrix containers which will withstand the usual handling, shipping, transporting, and other forms of rough handling with greater resistance against breakage and other damage, and which may be readily and easily cleaned with usual cleaning fluids found in establishments normally using "monotype" matrices, thereby maintaining better legibility of the identifying indicia of the stored matrices.

A further object of the invention is the production of such a container which is readily adapted for fabrication as a molded, plastic article, and which is so designed that the relatively thin partition walls dividing adjacent matrices are reinforced by integral portions of the container, whereby stresses and shocks received by the matrices are at least in part transmitted to reinforced portions of the container, and not solely to the partitions.

A further object of the invention is the production of such a container in which a single member may be employed which serves as a receptacle for one font of matrices and, at the same time, forms a cover for another font thereof.

Many other objects and advantages of the construction herein shown and described will be obvious to those skilled in the art from the disclosure herein given.

To this end, my invention consists in the novel construction, arrangement, and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the drawings, wherein like reference characters indicate like or corresponding parts:

Fig. 1 is a side elevational view with portions in section, of a matrix container and cover therefor embodying the present invention;

Fig. 2 is a top plan view of the receptacle illustrated in Fig. 1;

Fig. 3 is a sectional view taken approximately on the line 3—3 of Fig. 2; and

Fig. 4 is a bottom plan view of one end portion of the cover structure.

The present invention contemplates the production of a receptacle for "monotype" matrices which may be constructed as a base which forms a receptacle for the matrices, and cover therefor whereby each container would house a single font of matrices, or in which the receptacle receiving the matrices is also provided on the bottom thereof with means which form a cover for a similar receptacle positioned therebelow. Thus a number of individual containers may be stacked, one upon the other, with each successive container forming the cover means for the one therebelow, a suitable cover being provided, if desired, for the uppermost container. The present invention contemplates the positioning of the matrices in the container, with the matrix resting on one side edge so that the effective height of the stored matrix of the size heretofore referred to is only three-fourths of an inch as compared with matrices stored in prior containers, wherein the matrix is supported on an end edge, with the effective height being one and one-eighth inches. At the same time, in my construction the plane of the matrix is positioned at an acute angle with respect to the longitudinal axis of a row of such matrices, so that the width of a comparable container designed in accordance with the present invention is less in width than prior containers, even though the matrices are resting on their long edge. This feature also has the advantage that even though adjacent matrices lie in planes which are relatively closely positioned, greater accessibility to individual matrices is achieved, as will hereinafter be apparent.

Referring to the drawings, and particularly to Figs. 1, 2, and 3, the reference numeral 1 indicates the body portion of the receptacle or container with which may be associated a cover member, indicated generally by the numeral 2. The body member 1 and cover 2, in

the embodiment illustrated in Fig. 1, are shown as being constructed as individual, molded, plastic members. As clearly shown in Fig. 2, the body member 1 is provided with a pair of longitudinally extending compartments, indicated generally by the numeral 3, of a depth to position the matrices M indicated in dotted lines in Fig. 1, with approximately one-third thereof positioned above the upper surface 4 of the member 1. Extending angularly with respect to the longitudinal axis of the box is a plurality of pairs of partition walls 5*a* and 5*b*, with respective series of partition strips 5*b* extending outwardly from the central dividing bar 6 which divides the compartments 3, with partition walls 5*b* in the compartment 3*a* extending transversely to the partitions 5*b* in the compartment 3*b*. The partition walls 5*a* of each compartment respectively lie in common planes with their corresponding partition walls 5*b*. It will be noted that the partition walls 5*a* and 5*b* divide each compartment into a plurality of parallel matrix receiving chambers, and that the end walls 7 of each chamber so formed extend at substantially right angles to the adjacent partition walls. Consequently, the end edges of stored matrices will not lie in a common plane, as in the case of prior containers, but will follow parallel planes spaced a distance greater than the thickness of the matrices, and the effective spacing between the ends of adjacent matrices, particularly the outermost corner edges thereof, are spaced apart a relatively large distance to provide a maximum degree of accessibility for grasping the side edges of an individual matrix between the thumb and forefinger, and withdrawing the same or inserting the same from or into the container. It will also be noted that, due to the offsetting of the end walls 7 of each compartment, each matrix is supported at one side and both ends by a solid or reinforced portion of the container, as indicated at 8 and 9, so that the partition walls 5*a* and 5*b* will not receive all the stress to which the side walls of the chambers may be subjected during handling of the container. Consequently, the partition walls 7 may be made relatively thin, thereby permitting the matrices to be closely positioned without danger of breakage of the partition walls. A further advantage of the staggered relation of the matrices is that adequate space is provided at the ends of each matrix chamber for the identifying indicia 11 along the edges of the containers and the dividing walls 6, the indicia being positioned directly adjacent the end of the matrix which it identifies, eliminating any possible confusion as to which matrix the particular indicia is associated with. While I have illustrated the partition of the walls between the respective matrices as being formed in two sections 5*a* and 5*b*, if desired, a single continuous wall could be employed, the present construction, however, offering advantages in a cast or molded container. Likewise, if desired, the container could be designed with three or more rows instead of merely the two illustrated, where it is desired to have the container of more equal transverse dimensions.

The body member 1 is also provided with a pair of small, triangularly shaped compartments 12, and a large compartment 13 at the ends of the container which may be utilized for the storage of miscellaneous additional matrix equipment, such as line standards, etc. Extending upwardly from the top surface 4 of the member 1 adjacent the compartments 12 is a pair of generally rectangular shaped blocks 14, and in like manner, positioned at the opposite end of the container adjacent the compartment 13, is a generally rectangular shaped block 15. The top of the member 1 and the matrices stored therein may be closed by a suitable cover member 2 having a top wall 16, side walls 17, and end walls 18, the exterior, lateral dimensions of the cover being the same as that of the body member 1, and the depth of the cover being sufficient to permit the bottom edges 19 thereof to seat on the face 4 of the member 1. Suitable means may be provided for detachably connecting the cover member 2 to the body member 1, as for example, recesses 21 on the blocks 14 and 15, and complementary projections 22 on the inner face of the end walls 18 of the cover, the material from which the members are constructed having sufficient resilience to permit engagement of the projections 22 with the respective recesses 21. Similarly, if desired, suitable projections 24 and 25 may be provided on one end of the cover and body member, respectively, to facilitate removal of the cover from the body member.

In the embodiment of the invention illustrated in Figs. 1, 2, and 3, the body member 1 includes an integral cover portion which may be utilized with another body member whereby two like body members may be stacked one upon the other, with the cover portion of the upper body member cooperating with the lower member to completely enclose the matrices stored in the latter. Thus extending downwardly from the bottom 26 of the member 1 is a pair of side walls 27 and end walls 28 which are of the same internal dimensions as the walls 17 and 18 of the cover member 2. Both the cover member 2 and the cover defined by the side walls 27, end walls 28, and bottom 26 are provided with a longitudinally extending partition strip 29, corresponding to the dividing strip 6, which is connected at the end adjacent the compartment 13 by a pair of intersecting walls 31, the latter defining a chamber having substantially the same lateral dimensions as the chamber 13, so that articles of the same height as the matrices may be positioned in the compartment 13 without interference. Extending inwardly from the inner faces of the end walls 28 are projections 22 adapted to engage the recesses 21 in a container positioned therebelow. The inner surfaces of the top of the cover, whether formed as a part of the body member 1 or an individual member 2, may be covered with a fabric sheet 32, such as plush, or other suitable material such as rubber, or the like, which may lightly engage the top edges of the matrices to prevent excessive movement of the matrices in the container.

The present invention enables production of a matrix container embodying merely a body member and separate cover member, excluding the integral cover member, of considerably less volume than previous containers for the same purpose. For example, such a container constructed in accordance with the present invention may be produced having the following approximate dimensions: nine inches in length, two and seven sixteenths inches in width, and one inch in height, as compared with prior containers which are approximately eight and five eighths inches long, two and three fourths inches wide, and one and one half inches high. It will be apparent that while the length of my box is slightly longer than prior boxes, the width and height as well as the total volume thereof is materially reduced. Likewise, when the construction illustrated in Figs. 1, 2, and 3 is employed wherein the body member includes a cover portion integrally formed therewith, each additional, stacked container will increase the height of the total stack by only seven eighths of an inch which is only one eighth inch greater than the height of the matrices. Thus, eight containers embodying applicant's invention could be stacked one upon the other, with the top one being closed by a separate cover, with the total stack being only seven and seven sixteenths inches high including the unused cover portion of the bottom container; whereas a like number of the present containers would produce a stack approximately twelve inches high. At the same time, with applicant's invention, all of the stacked containers are interlocked to prevent the containers from falling off of the stack, which would not be the case with present containers.

It will be apparent from the above description that I have not only provided a container which is small and compact, but at the same time, I have provided a container in which ready access to the individual matrices therein is

achieved so that a single matrix may be readily grasped and withdrawn therefrom. It will also be noted that the present invention readily adapts itself to molding techniques, whereby the container may be made as a single, integral, molded structure of plastic, or other suitable material, with the matrices so positioned in the container that the container body provides a portion of the lateral support for the matrices whereby the relatively thin partition strips or walls are not subjected to the entire stress of the stored matrices, thus reducing the possibility of breakage and damage to such partition walls. Likewise, a container embodying the present invention may be constructed from suitable materials which will facilitate clearing of the container and provide a durable receptacle for matrices and the like, capable of withstanding relatively hard treatment and providing adequate protection for the contents stored therein.

Having thus described my invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of my invention; hence, I do not wish to be understood as limiting myself to the exact form, construction, arrangement, and combination of parts herein shown and described, or uses mentioned.

What I claim as new and desire to secure by Letters Patent is:

1. A container for "monotype" matrices and the like for stacking one container on another and comprising a one piece container body of a suitable plastic including side walls and a bottom and a plurality of cooperable vertically extending and angularly arranged partition elements integrally formed with said body and operatively dividing the container interior into a plurality of vertically extending and angularly arranged compartments, each adapted to complementally receive a "monotype" matrix, said container body being so shaped that both side edges of matrices positioned therein extend above the body side walls, indicia means positioned on the upper face of the body and integrally formed with the latter providing identifying means for the elements in the respective compartments, and said side walls and bottom of the container complementally formed to provide a cover for a similarly formed container and to receive the upper portion of matrices contained in a contiguously stacked container.

2. A container for "monotype" matrices and the like, comprising a one piece elongated hollow container body of a suitable material having a longitudinally extending wall therein dividing the container into two sections, a plurality of pairs of partition walls in each section, one wall of each pair extending from said dividing wall and the other wall of each pair extending from the adjacent side wall, each pair of walls being positioned in a common vertically extending plane, the planes of the walls in each section extending parallel to one another and at an acute angle to the longitudinal axis of the respective sections, and indicia means extending along the upper edges of the longitudinal side walls and said dividing wall, said upper edges being disposed below the top edges of matrices positioned in said container whereby the upstanding edges of each matrix may be manually engaged to effect removal thereof from the container.

3. A container such as that defined in claim 2, wherein the inner face portions of the side and dividing walls between adjacent partition walls each extend at right angles to the planes of said partition walls.

4. A container such as that defined in claim 2 in combination with a cover member having depending longitudinal side and end walls and a longitudinally extending rib adapted to overlie the upper edge of the dividing wall of the container body.

5. A container for "monotype" matrices and the like for stacking one container on another and comprising a one-piece container body of a suitable plastic having a bottom and side and end walls, and a plurality of cooperable partition elements integrally formed with said body and operatively dividing the container interior into a plurality of compartments each adapted to receive a "monotype" matrix, the depth of said compartments and corresponding height of said side walls being less than the corresponding dimension of the matrices to be positioned therein whereby the side edges of such matrices as positioned in the compartments extend above the adjacent portions of said container side walls, said side walls and bottom of the container complementally formed to provide a cover for a similarly formed container and to receive the upper portion of matrices contained in a contiguously stacked container, and means formed on the underneath face of the bottom of the container to resiliently engage the upper edges of matrices in a contiguously stacked container positioned therebelow.

6. A container for "monotype" matrices and the like for stacking one container on another and comprising a one-piece container body of a suitable plastic having a plurality of co-operable partition elements integrally formed with said body and operatively dividing the container interior into a plurality of compartments each adapted to receive a "monotype" matrix with the latter extending upwardly above the body, a cover member for said body adapted to receive and cover the upper portions of matrices contained therein, said body having a plurality of portions adjacent the ends thereof extending upwardly therefrom above the matrices positioned therein and engageable with the cover member, said container body comprising side walls and bottom complementally formed to provide a cover for a similarly formed container and to receive the upper portion of the matrices contained in a contiguously stacked container, and means formed on the underneath face of the cover member and bottom of said container body to resiliently engage the upper edge of the matrices in a contiguously stacked container.

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