Jan. 4, 1966 D. J. LYNCH 3,227,082

TYPE RETAINING MEANS IN STAMP HANDLES

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FIG. 1

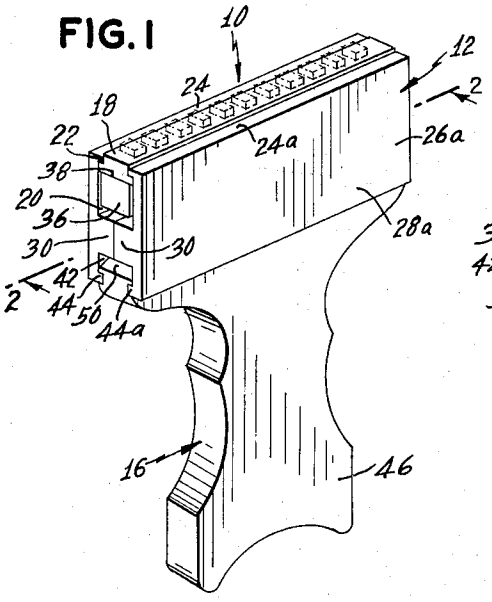


FIG. 2

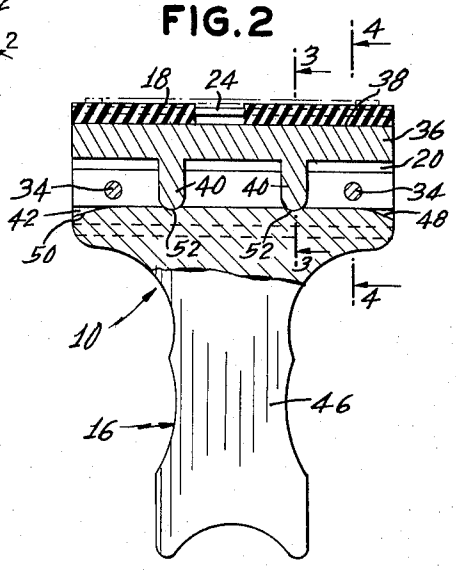


FIG. 5

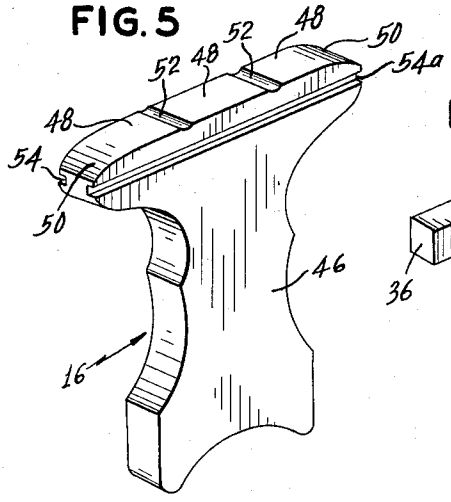


FIG. 6

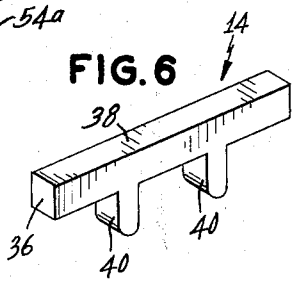


FIG. 3

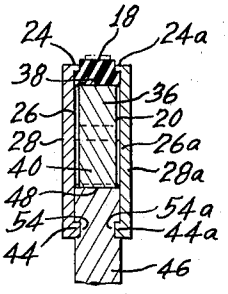


FIG. 4

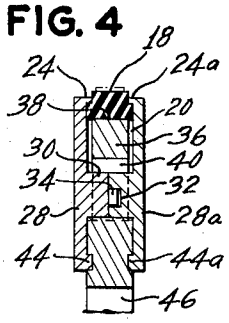
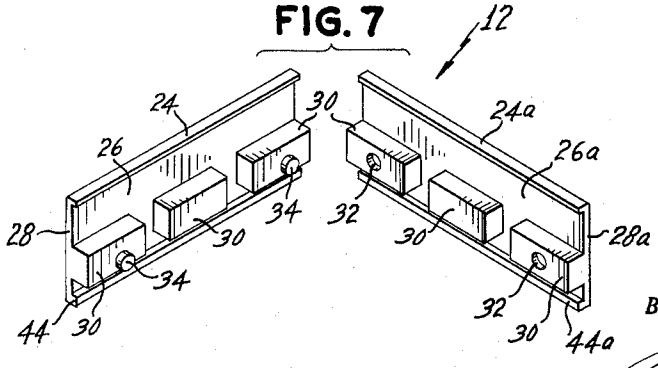


FIG. 7



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FIG. 8

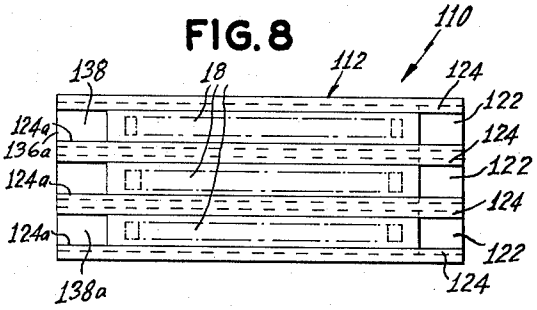


FIG. 9

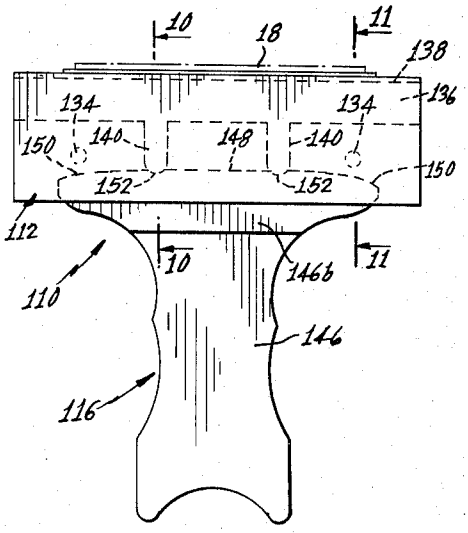


FIG. 10

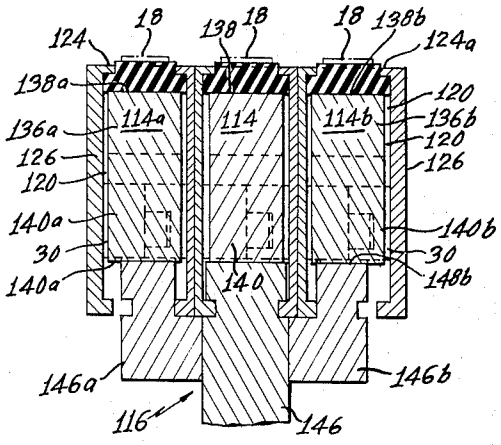


FIG. 12

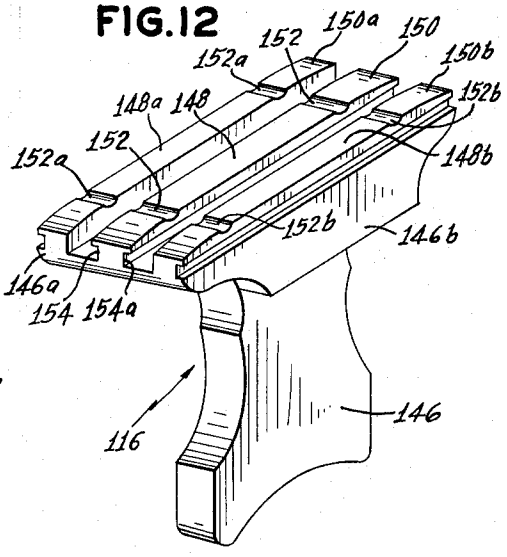
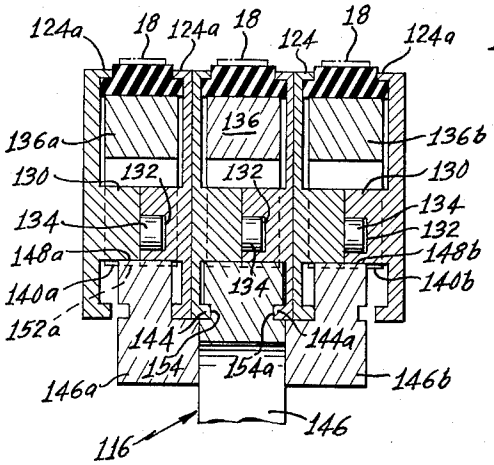


FIG. 11



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3,227,082

TYPE RETAINING MEANS IN STAMP HANDLES

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Filed Apr. 30, 1964, Ser. No. 363,800
6 Claims. (Cl. 101—405)

This invention relates to stamp holders and more particularly of the kind that enables the clamping retention of a plurality of type elements together for hand stamping.

An object of the present invention is the provision of a stamp holder that is so simple in construction its component parts may be manufactured inexpensively so it may be assembled and disassembled quickly and easily.

Another object of the invention is to provide a stamp holder that can be operated without effort and without the requirement of any special mechanical aptitude. In this connection, another object and feature of the invention resides in its simplicity of details that enables parts of one stamp holder of the present invention to be used interchangeably with parts of another similarly constructed stamp holder, thus providing for unusual versatility.

Other features and objects of the invention are found in the arrangement and construction of the details of the invention that enable it to be assembled to form a multiple line or single line hand stamp.

Other and further objects of this invention reside in the structures and arrangements hereinafter more fully described with reference to the accompanying drawings in which:

FIG. 1 is a perspective view of a hand stamp constructed according to the invention,

FIG. 2 is a cross-section of FIG. 1 taken along lines 2—2,

FIG. 3 is a partial cross-section of FIG. 2 taken along lines 3—3,

FIG. 4 is a partial cross-section of FIG. 2 taken along lines 4—4,

FIG. 5 is a perspective view of the hand grip,

FIG. 6 is a perspective view of the pressure plate,

FIG. 7 is a composite perspective view of the main supports,

FIG. 8 is a top view of a modification of the hand stamp,

FIG. 9 is a front elevational view of the stamp in FIG. 8,

FIG. 10 is a partial cross-section of FIG. 9 taken along lines 10—10,

FIG. 11 is a partial cross-section of FIG. 9 taken along lines 11—11, and

FIG. 12 is a perspective view of the modification.

Referring to the drawings and, in particular, to the stamp holder shown in FIGS. 1 to 7, the same is generally identified by the numeral 10. It comprises a housing member generally identified by the numeral 12, a presser member generally identified by the numeral 14 and a handle generally identified by the numeral 16.

The stamp holder 10 shown in FIGS. 1 to 7 is intended to support a plurality of type elements in a single row for hand stamping. For convenience, the type elements 18 may be of the kind disclosed in applicant's United States Letters Patent No. 3,118,680, dated January 21, 1964. These type elements are constructed of resilient material and are substantially T-shaped but inverted with the head of the T being adapted to fit within a chamber 20 defined in the housing member 12 and the body of the type elements 18 fit within an elongated track 22 defined along one side of the chamber 20. The track 22 results from a separation provided between laterally directed, but relatively spaced toes 24 and 24a. The toes 24 and 24a are perpendicularly directed relative to their respective legs 26 and 26a.

The details of the housing member 12 are more fully illustrated in FIG. 7 wherein the same is formed by a pair of substantially mirror-hand image sides 28 and 28a. Each side 28 and 28a is formed substantially identically and may, in fact, be molded or extruded as a single strip of material. When so made, desired lengths may be cut from a single strip of material to form the sides of the housing member 12. The sides 28 and 28a each are provided with laterally protruding bosses or bodies 30 that are adapted to rest or abut against each other when they are placed in facing relationship. The bosses 30 on the side 28a may be provided with holes 32 while corresponding bosses 30 on the side 28 may be provided with aligning connecting pins 34. The pins 34 may be inset into holes similar to the holes 32 or they may be formed as protrusions on their respective bosses 30. In either event, when the sides 28 and 28a are placed in facing relationship, the bosses 30 on each of them mate with the other and the connecting pins 34 lock tightly in the holes 32. An adhesive or cement may be used to enhance this locking engagement.

The chamber 20 extends between the height of the bosses 30 and the toes 24 and 24a with the track 22 defining one side of the chamber. The opposite ends of the chamber 20 and the opposite ends of the track 22 are open to provide an entrance and an exit to the track and also to the chamber for the type elements 18. This enables the type elements 18 to be slid along the track to enter one end thereof and to exit from the other end.

Positioned within the chamber 20 is the presser plate member 14 shown in greater detail in FIG. 6. The presser plate member 14 has an elongated body 36 that is of substantially the same length as that of the chamber 20 and the track 22. The presser plate 14 has a type element engaging surface 38 along one side thereof that is substantially the same length as the chamber 20 and track 22. This surface 38 is adapted to support the type elements 18 during their movement in the chamber 20 and the track 22 and, therefore, defines an adjustable one side of the track 22. Thus, it may be said that the surface 38 defines the extent of the depth of the chamber 20 in which the type elements 18 move.

The presser plate member 14 moves toward and away from the track 22 and is guided during such movement by a plurality of feet 40 that extend in a direction away from the surface 38. The feet 40 fit in the spaces between the abutting bosses 30 on the sides 28 and 28a of the housing member 22 and thus are prevented from endwise movement relative to the housing member by the encompassing bosses. The feet 40 extend downward beyond the extent of the bosses 30 to project into a handle receiving pathway 42 therebelow. The pathway 42 is defined at one side by the abutting bosses 30 and at its opposite side by laterally directed toes 44 and 44a defined on the lower ends of the legs 26 and 26a respectively. The laterally directed toes 44 and 44a are spaced laterally from each other to provide a track or engageing means to releasably engage with and hold the handle 16 and housing member 12 together.

The handle 16 is elongated in height and curved along the sides of its body 46 conforming to the contour of the fingers of the hand to enable the same to be grasped and held easily in the fingers of a hand during use of the hand stamp 10. The handle 16 is more clearly shown in FIG. 5 wherein the same is provided at its one side with an actuating cam surface 48. The cam surface 48 is curved downward at its entering or opposite ends 50. The length of the surface 48 is interrupted by laterally directed re-

taining notches or detent means 52 equal in number and spacing to that of the feet 40 extending from the presser plate body 36 for engagement therewith. Defined along the faces of the handle body 46 are oppositely directed indented track surfaces or engaging means 54 and 54*a*. The engaging means 54 is adapted to engage with the toe 44 of the housing member 12 while the surfaces of the engaging means or track 54*a* are adapted to engage with the corresponding details of the toes 44*a* of the leg 26*a*.

In operation, the stamp holder 10 is permitted to receive a single row of a plurality of type elements 18 in its chamber 20 and its track 22. This is permitted by first sliding the handle 16 outward from an end of the housing member 12 and permitting its engaging means 54 and 54*a* to become disengaged from the similar engaging means 44 and 44*a* of the housing member. When the handle is disengaged and removed from its connection with the housing member 12, the presser plate member 14 is permitted free sliding movement within the chamber 20 toward and away from the track 22, thus releasing the type elements 18 for movement.

Any desired number of type elements 18 may be introduced into or removed from the chamber 20 and its track 22, depending upon the length thereof. After the desired type elements have been positioned in the chamber 20 and between the track 22, while resting on the presser surface 38 of the presser plate 14, they may be clamped or locked in the track 22 from movement relative to the chamber 20. This is accomplished by aligning the track surfaces or engaging means 54 and 54*a* with the corresponding engaging means 44 and 44*a* respectively. The actuating cam surface 48 is then positioned to be slid or moved into the receiving pathway 42 of the housing member 12.

During the relative movement of the handle 16 and housing member 12, one of the entering curved ends 50 of the surface 48 rides against and relative to the feet 40 of the presser plate 14 raising the same while the surface 48 rides under the feet 40. This actually results from the movement of the surface 48 relative to the feet 40 that are permitted lengthwise movement or movement perpendicular with respect to the direction of movement of the surface 48. As the surface 48 is moved along and under the feet 40, the retaining notches or detent means 52 become aligned with the rounded ends of the feet that then engage in the retaining notches or detent means and thus restrainingly lock with the same. This cooperation between the ends of the feet 40 and the detent means 52 provides a slight restraint against further movement of the handle 16 relative to the housing member 12.

At this time, the surface 48 has raised the surface 38 of the presser member 14 to squeeze and immovably clamp and hold the type elements in the chamber 20 and within the track 22. The resiliency of the type elements 18 similarly applies an urging force opposing the clamping action of the presser plate member 14. This resilient force of the type elements is transmitted through the toes 40 of the presser plate member 14 to the engaged detent means 52 and thus aids in applying a restraining force at the detent means to resist the accidental sliding movement of the handle 16 relative to the housing member 12, thereby preventing its accidental displacement.

It will be recognized from what has been described that the present invention has great versatility. Although the present embodiment of the stamp holder 10 illustrates the clamping and retention of a single line of type elements 18, it is possible that a multiplication of the disclosed details will enable the preparation of a stamp holder that is capable of holding a plurality of lines of the same type elements 18. This modification of the invention is illustrated in FIGS. 8 to 12 wherein, to prevent the complete description of already described elements, like details of structure will be referenced with numerals in the 100 series. The tens digits of such identifying numerals will correspond to like details of structure already described with respect to the stamp holder 10. Hence, a new description of such elements may be obviated.

Referring now to FIGS. 8 to 12 inclusive, the stamp holder thereshown is generally identified by the numeral 110. The stamp holder 110 comprises a plurality of housing members generally identified by the numeral 112, the details of which are exactly the same as the housing member 12 previously described. As many of the housing members 112 may be secured in side by side relationship to each other as there may be lines of type to be provided on the stamp. In the present invention, three such housing members 112 are illustrated secured together to demonstrate the versatility of the invention. Since the details of the housing members 112 are exactly the same as the housing member 12 described in the previous embodiment, a further description of the same is deemed unnecessary.

Each housing member 112 has a presser plate member 114 positioned in the chamber 120 thereof for operation in the same manner as previously described. Hence, the present embodiment distinguishes from the prior stamp holder 10 in that the present handle 116 comprises a plurality of actuating cam surfaces 148, 148*a* and 148*b*. The actuating cam surface 148 and its attendant handle body 146 is exactly the same as the like details of the stamp holder 10. However, the additional actuating bodies 146*a* and 146*b* eliminate the need for the elongated handle and are secured directly to the opposite sides of the handle body 146 which is used as a single handle for all of them. The surfaces 148, 148*a* and 148*b* each are adapted to engage feet 140, 140*a* and 140*b* respectively in each of the respective ones of the plurality of housing members 112.

In practice, the composite handle 116, including the central handle body 146 and the two shorter handle bosses 146*a* and 146*b*, is initially disengaged from the plurality or composite of the plurality of relatively secured housing members 112. The type elements 18 are then positioned in their desired relationship within the chambers 120 of the respective housings 112 to extend up and out and beyond the confines of the tracks 122 thereof. The type elements are then clamped and held in their desired relationship by sliding or moving the composite handle 116 into engagement with the composite housing members 112 in the same manner as described with respect to the stamp holder embodiment 10.

In this instance, the track surfaces or engaging means 154 and 154*a* are aligned with the corresponding engaging means 144 and 144*a* on the centrally positioned housing member 112. The handle 146 and the composite housing member 112 are then moved relative to each other with the curved portion 150, 150*a* and 150*b* of the corresponding cam surfaces 148, 148*a* and 148*b* riding beneath the feet 140, 140*a* and 140*b* respectively of the presser plate members 114, 114*a* and 114*b*. As the composite handle 116 and housing members 112 move relative to each other, the feet of the presser plate members are raised by their respectively engaged cam surfaces 148, 148*a* and 148*b*. This squeezes and forces the resilient type elements 18 tightly into engagement with the defining walls of the tracks 122 to clamp the same and immovably hold them from movement relative to the tracks.

During continued relative movement of the handle and housing members, the feet of the presser plate members finally drop into and engage with the defining walls of the detent means on each of their actuating cam surfaces. The resiliency of the type elements is thus transmitted to the presser plate members through their respective feet 140, 140*a* and 140*b* and to the engaged walls of the detent means of the surfaces 148, 148*a* and 148*b* to apply a restraint against the movement of the handle 116 relative to the composite housing member 112, thereby preventing their accidental displacement or disengagement from each other. However, a slight finger force applied to the com-

posite housing member **112** and the handle **116** will overcome the force of engagement of the feet **140** in their respective notches or detent means on the cam surfaces **148**, **148***a* and **148***b* respectively to enable the disengagement of the handle from the composite housing member and the release of the type elements for their removal or realignment or insertion of new ones.

While there have been shown and described and pointed out the fundamental novel features of the invention as applied to several preferred embodiments thereof, it will be understood that various omissions and substitutions and changes in the form and details of the devices illustrated and in their operations may be made by those skilled in the art, without departing from the spirit of the invention. It is the intention, therefore, to be limited only as indicated by the scope of the claims appended hereto.

I claim:

1. A stamp holder for holding type elements comprising a type supporting housing of elongated length including means spaced to define an opening in which type elements are adapted to be received, an elongated presser plate movable in said housing toward and away from said spaced means to hold the type elements therebetween, and a handle, said handle having cam engaging means thereon directed toward said spaced means and being movable relative to said housing for engagement with said presser plate, said presser plate having depending engaging means thereon directed away from said spaced means for cooperative engagement with said cam engaging means whereby movement of said handle moves the presser plate toward said spaced means and is disengageable from said presser plate to enable the same to move away from said spaced means, and means on said handle engaging means cooperable with said engaging means on said presser plate to restrain said handle from movement relative to said presser plate.

2. A stamp holder for holding a plurality of type elements comprising a housing having a chamber and a type receiving track defined along one side thereof, a presser plate movable in said chamber toward and away from said track, said presser plate extending substantially the full length of said track and including feet thereon directed away from said track, and a handle separable from said housing and movable relative to said housing and engageable therewith to engage said feet to move said presser plate toward said track to hold a plurality of type elements in said track and from movement relative to said stamp holder, said handle being movable out of engagement with said housing and said feet to enable said presser plate to move away from said track.

3. A stamp holder as in claim 2, said handle and housing having means thereon engageable to retain said handle in engagement with said feet, and a cam surface on said handle engageable with said feet to move said presser plate progressively toward said track.

4. A stamp holder for holding a plurality of type elements comprising a housing having a chamber defined along one of its sides by a pair of relatively spaced legs each of which has a toe directed laterally toward but spaced from the other to define a track in which the type elements may be received, said chamber being open at its opposite ends to provide an entrance and exit to said track, a presser plate movable in said chamber toward and away from said track and of substantially the same length as said track and having a surface thereon to engage and hold said type elements against said toes and immobile in said track, a plurality of feet on said presser plate extending in a direction away from said surface, and

a handle movable into and out of engagement with said housing, said handle and housing each including releasably engageable means to guide said handle when the same moves into engagement with said housing to enable said handle to move relative to said feet to engage and move the same in one direction to move said surface toward said track and to disengage the same to enable said presser plate to move away from said track.

5. A stamp holder for holding a plurality of type elements comprising a housing having a chamber defined along one of its sides by a pair of relatively spaced legs each of which has a toe directed laterally toward but spaced from the other to define a track in which the type elements may be received, said chamber being open at its opposite ends to provide an entrance and exit to said track, a presser plate movable in said chamber toward and away from said track and of substantially the same length as said track and having a surface thereon to engage and hold said type elements against said toes and immobile in said track, a plurality of feet on said presser plate extending in a direction away from said surface, and a handle, said handle and housing each including releasably engageable means to engage said handle to move relative to said feet to engage and move the same in one direction to move said surface toward said track and to disengage the same to enable said presser plate to move away from said track, said handle having a cam surface engageable with said feet to move said presser plate in response to the shape of said cam surface, and detent means defined on said cam surface engageable with said feet to apply a restraint on said cam surface and handle from movement relative to said feet.

6. A stamp holder for holding type elements comprising

a type supporting housing of elongated length,

said housing including means spaced to define an opening therebetween in which type elements are adapted to be received,

an elongated presser plate movable in said housing between said spaced means toward and away from said opening to secure the type elements in said opening between said presser plate and said spaced means,

a cam surface movable in said housing transverse to the movement of said presser plate and engageable with said presser plate during said transverse movement to move the presser plate to secure the type elements in said housing opening between said presser plate and said spaced means,

and said means having said cam surface being movable to disengage from said presser plate to enable said presser plate to move away from said opening,

and said means having said cam surface having further means formed thereon cooperable with said presser plate to restrain said cam means from said transverse movement when the type elements are secured.

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