

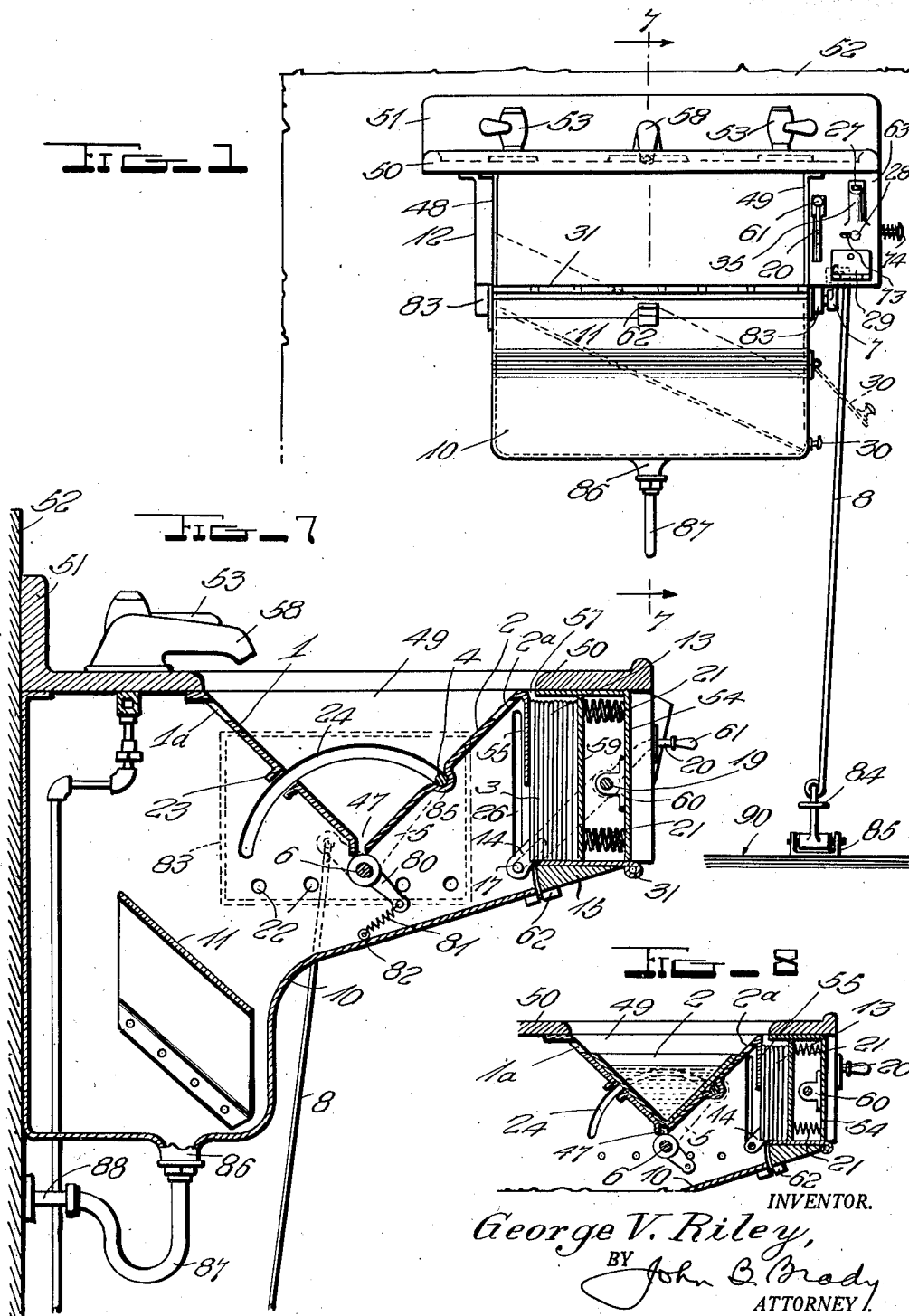
Feb. 16, 1937.

G. V. RILEY

2,071,000

COIN CONTROLLED AUTOMATIC SANITARY INSERT BASIN

Original Filed April 18, 1935 2 Sheets-Sheet 1



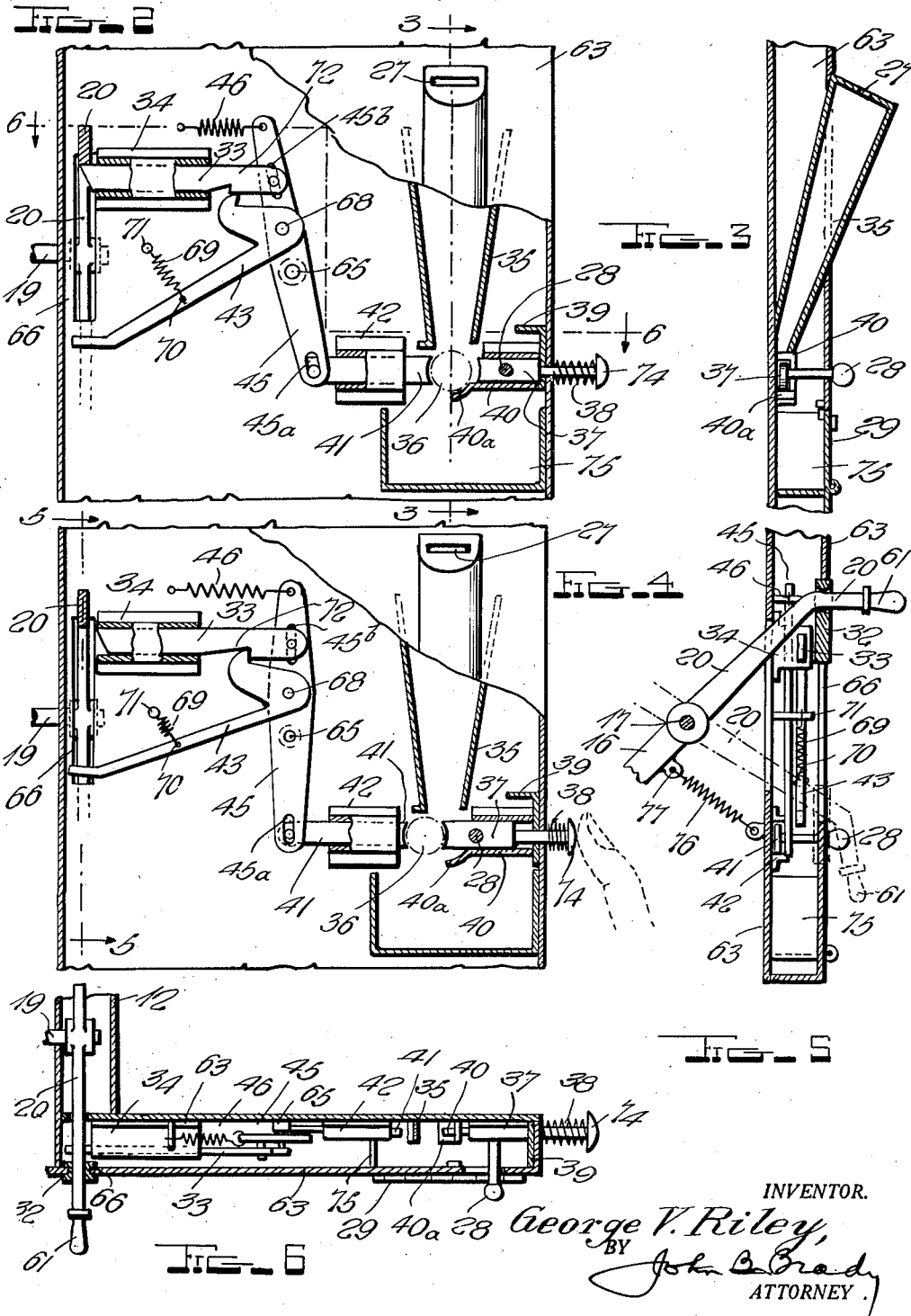
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## UNITED STATES PATENT OFFICE

2,071,000

COIN CONTROLLED AUTOMATIC SANITARY  
INSERT BASIN

George V. Riley, Washington, D. C.

Original application April 18, 1935, Serial No.  
17,096. Divided and this application October  
31, 1935, Serial No. 47,676

7 Claims. (Cl. 194—55)

My invention relates broadly to sanitary basins and more particularly to a coin actuated mechanism for controlling the supply of sanitary inserts to basins.

This application is a division of my application Serial No. 17,096, filed April 18, 1935, for Automatic sanitary insert basin, which has matured into Patent 2,043,264.

One of the objects of my invention is to provide a construction of coin control mechanism for governing the successive feeding of sanitary liners or inserts to basins.

Another object of my invention is to provide means for effectively blocking the feed operation of sanitary liners to basins until a coin of proper denomination is deposited in a coin actuating mechanism.

Still another object of my invention is to provide a construction of coin operating mechanism for controlling the feeding of sanitary liners to basins in which a coin of proper denomination must be deposited in the coin operating mechanism as a precedent to the operation of the sanitary liner feeding mechanism.

A further object of my invention is to provide a construction of coin control mechanism for governing the successive feeding of sanitary liners to basins in which a deposited coin serves as a thrust transmission member in cooperation with the movement of a displaceable actuating member.

A still further object of my invention is to provide a linkage system operatively connected with a thrust bar adapted to be shifted to either of two limiting positions under control of a displaceable actuating member when a coin is inserted in a position engaging the displaceable actuating member.

Other and further objects of my invention reside in the construction and arrangement of parts in a coin control mechanism for feeding sanitary liners to basins as set forth in the following specification and referred to in the accompanying drawings in which:

Figure 1 is a front elevation of the housing enclosing the coin control mechanism of my invention as applied to the mechanism for supplying sanitary liners to basins; Fig. 2 is a side elevation partially in section showing more particularly the coin control mechanism for controlling the supply of sanitary liners to the basin; Fig. 3 is a transverse, vertical section taken on line 3—3 of Fig. 2; Fig. 4 is a similar view to Fig. 2, but showing parts as they appear when a coin has been deposited and the thrust bar actuated; Fig. 5 is a transverse, vertical section taken on line 5—5 of Fig. 4; Fig. 6 is a horizontal section taken on line 6—6 of Fig. 2; Fig. 7 is a central vertical transverse, sectional view on an enlarged scale taken on line 7—7 of Fig. 1 and showing the

sanitary liner supply magazine and the association of the coin control mechanism therewith in a position prior to actuation; and Fig. 8 shows the sanitary liner in position in the basin after an operation of the coin control mechanism of my invention.

My invention is directed to a coin control mechanism for operating a sanitary liner feed mechanism for basins.

Where it is desired to employ the sanitary liners for wash basins in public places, such as hotels, comfort stations, railroad trains, etc., I arrange a coin control mechanism whereby, upon the insertion of a coin and the actuation of a lever, a liner may be moved into position within the basin.

Referring more particularly to the accompanying drawings, I have illustrated a wash basin having a rear wall 1 and a front wall 2 angularly inclined toward each other at substantially acute angles. A drain opening 47 is provided intermediate the lower edges of the rear wall 1 and front wall 2 of the basin. The walls 1 and 2 forming the basin are connected at their opposite ends by closures 48 and 49. The basin is supported beneath the top section 50 which is provided with an upwardly extending rear section 51 adapted to be secured to a suitable supporting surface 52. The plumbing fixtures constituted by valves 53 and faucet member 58 are mounted with respect to the top section 50 in conventional manner. Hot and cold water connections are made through the valves 53 with the faucet 58 through conventional plumbing taps. The basin formed as illustrated is shaped to receive a sanitary liner 3. The sanitary liners 3 are stored in manifolded relation as indicated at 13 in a magazine carrier 54 located directly beneath the front of the top section 50 of the fixture constituting the basin as illustrated. The magazine carrier 54 supports the liners in manifolded relation as indicated at 13 in a position in which the liners 3 may be successively fed to the basin by a vertically upward movement. The liners 3 are fed to the basin in a vertical direction intermediate the end plate 55 and the edge 56 of the top section 50 and through the slot 57 formed in the upper portion of the magazine carrier 54. The sanitary liners 3 are continuously urged in the direction of plate 55 by means of springs 21 acting between the inside face of the magazine carrier 54 and the follower plate 59. The feed mechanism for the sanitary liners 3 includes the liner pickup fingers 14 carried by a laterally extending bar member 17. The pickup bar member 17 is mounted to move with a slight amount of lost motion in the ends of the pickup bar arms 16 so that the liner pickup fingers may follow each sanitary liner successively for insuring the delivery of each sanitary liner in a vertical path. The pickup bar arms 16 are

carried by a pivoted bar 19 which is journaled in bracket members 60 mounted on the rear surface of the magazine carrier 54. An operating lever 20 is connected with the pivoted bar 19 and to the pickup arms 16 and has an end grip 61 thereon which may project beyond the front of the top section 50 in a convenient position and manually gripped for angularly shifting the liner pickup fingers 14 and effecting the ejection of each successive sanitary liner 3. The pickup bar 17 is adapted to slide vertically within limits defined by the pickup bar guide slot 26 formed in the vertically extended portions of the end closures of the basin indicated at 49 in the cross-sectional view, Fig. 7. I provide a box-like enclosure 12 for housing the end of the pickup bar 17, pickup bar arms 16, and the end of the pivoted bar 19 for the pickup bar 17. A similar box-like enclosure 12 is provided over the opposite end of the pickup bar 17 and pivoted bar 19 and pickup arm 16 as illustrated in Fig. 1.

The lever 20 is normally maintained in an extreme upper position illustrated in Figs. 5 and 7 by means of a suitable coil spring 75 connected between a point 77 on lever 16 and housing 63. With each successive actuation of lever 20, the coil spring 76 returns lever 20 to its extreme uppermost position ready for its successive operation.

In order to replenish the supply of sanitary liners in the magazine carrier, I provide a refill door 15 hingedly mounted at 31 to allow sanitary liners in manifold relation to be inserted into the compartment as the liners are used from time to time. A suitable lock 62 is provided for preventing unauthorized access to the magazine carrier. In order to open the refill door 15, the lock 62 is unlocked, the sanitary liners in manifold relation inserted in the compartment and the successive feeding of the sanitary liners thus continued.

The coin mechanism is enclosed within the housing 63 in the front of which there is arranged a coin slot 27 for introducing coins of suitable denomination in the coin chute 35. The coin chute 35 serves to guide coins shown generally at 36 successively into the position by which the coin is employed as a thrust member in coaction with a coin thrust bar 37 under control of a coin thrust bar spring 38. The coin thrust bar 37 is mounted for reciprocal movement in a coin thrust bar guide 40 secured by a suitable bracket mounting 39 to the interior wall of the housing 63. The coin thrust bar guide 40 has a projection 40a thereon adapted to arrest the gravitation of a coin, such as 36, in its downward path of movement in coaction with the receiving thrust bar 41. The receiving thrust bar 41 has its end face shaped to conform with the contour of a coin for imparting angular movement to the lever 45, as illustrated in Figs. 2 and 3. The lever 45 is pivoted with respect to housing 63 at the fulcrum 65 and forms a connecting linkage between the receiving thrust bar 41 and the lever locking bar 33. The lever locking bar 33 is shiftable horizontally within the lever locking bar guides 34 in a path which normally obstructs the movement of operating lever 20.

Operating lever 20 projects through slot 66 in housing 63 and through a keeper 32 which prevents tampering with lever locking bar 33. Keeper 32 is vertically shiftable in slot 66. The lever locking bar 33 is normally maintained in a position which obstructs the movement of operating lever 20 by means of a spring 46 which tends to

maintain lever 45 in the position illustrated in Fig. 2. Lever locking bar pawl 43 is pivoted at 68 on lever 45 and is normally tensioned by means of spring 69 secured at 70 to the lever locking bar pawl 43 and at 71 to the housing 63. The lever locking bar pawl 43 operates to engage in notch 72 in lever locking bar 33 in the position shown in Fig. 4 for removing any obstruction to the operation of lever 20. The receiving thrust bar guides 42 control the path of movement of the receiving thrust bar 41. It will be observed that there is a lost motion connection 45a between lever 45 and receiving thrust bar 41, and a lost motion connection 45b between lever 45 and lever locking bar 33.

The coin thrust bar 37 has an operating member 28 terminating in a release knob projecting through a slot 73 in housing 63 which allows manual control of coin thrust bar 37 independently of the thrust member 74. Thrust member 74 is normally maintained in an extreme projected position by means of spring 38, as illustrated in Figs. 2 and 6, subject to inward thrust by which coin thrust bar 37 imparts horizontal movement to receiving thrust bar 41 if a coin 36 is located in the path of the coin thrust bar 37 and receiving thrust bar 41. As shown in Fig. 2, the coin 36 when deposited in coin slot 27 will be normally arrested in its downward movement and lodged between projection 40a and receiving thrust bar 41, whereby pressure imparted to thrust member 74 is transferred through receiving thrust bar 41 for angularly rocking lever 45. In the event that no coin is inserted in the slot 27, repeated thrusts on member 74 will have no influence at all on receiving thrust bar 41 or lever 45, as under this condition, there is no medium by which to transfer the applied thrust.

I provide a coin receiving receptacle 75 within the housing 63 to which access may be had from time to time through the locked door 29 in the housing 63.

The basin is constructed with a perforate side wall 1 and perforate end walls 48 and 49. Side wall 1 is provided with a laterally extending slot 23 through which used liners may be ejected by operation of the liner ejector bar 4. The ejector bar 4 is carried by ejector bar arms 5 which connect with the laterally extending pivoted bar 6 which is journaled at opposite ends in brackets 78 and 79 carried by projecting portions of end plates 48 and 49 of the basin. The laterally extending pivoted bar 6 has an arm 80 connected intermediate the length thereof which arm connects to one end of spring 81, the other end of which is secured in position 82 to a central portion of the drain housing indicated generally at 10. The ejector bar arms 5 are wholly enclosed at opposite ends of the basin by housings 83 as shown more particularly in Fig. 1. An ejector bar 4 is connected with the extremities of the arms 5. An ejector bar treadle connecting rod 8 connects with the end of ejector bar operating crank 7 and provides a connection to a foot treadle 84. The foot treadle 84 is pivoted in bracket member 85 mounted on the floor or other support indicated at 90. By depressing the foot treadle 84, connecting rod 8 is drawn downwardly which operates ejector bar crank 7 turning ejector bar shaft 6 and angularly moving ejector arms 5 to shift the liner ejector bar 4 in an annular path. Ejector bar 4 is free to move in an annular path by reason of the ejector bar guide slots 24 which are formed in the end closure plates 48 and 49.

In order to avoid overflowing of the basin, the

rear wall 1 and the front wall 2 of the basin are each provided with laterally extending apertures represented at 1a and 2a respectively through which fluid may pass into the drain housing 10 to prevent seepage into the magazine carrier or overflowing.

The upper edge of the side wall 2 and the laterally extending plate 55 which connects therewith are provided with vertically extending slots which allow the liner pickup fingers 14 to shift vertically for the purpose of feeding a sanitary liner to the basin.

The locking mechanism is provided to prevent tampering with the sanitary insert feed mechanism unless the proper coin is deposited. Inasmuch as the basin has perforated walls, the basin in itself will not hold fluid. Inasmuch as the ejecting mechanism is operative independent of the coin control mechanism, a sanitary liner after having been used in the basin may be readily disposed of, leaving the basin with its perforate walls incapable of holding fluid. It, therefore, becomes essential to condition the coin control mechanism by the insertion of a coin for permitting a fresh sanitary insert to be supplied to the basin. The lever locking bar 33 cannot be removed from its position obstructing the path of the lever 20 until a coin is positioned between the coin thrust bar 37 and the receiving thrust bar 41. The sanitary insert which is supplied under control of the coin actuating mechanism may be applied to basins of various descriptions for medicinal, dental, chemical, and other purposes.

While I have described my invention in one of its preferred embodiments, I desire that it be understood that modifications may be made and that no limitations upon my invention are intended other than are imposed by the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. Coin controlled mechanism comprising in combination with an operating member, a coin guide chute, a coin retaining means adjacent the end of the chute, a coin thrust bar adjacent the end of the chute for shifting a coin engaged by said coin retaining means in a direction substantially normal to the path of travel of a coin through the coin chute, a receiving thrust bar disposed in the path of the said coin and engageable thereby, a locking bar, guide means for said locking bar, a lever member interconnecting said locking bar and said receiving thrust bar for withdrawing said locking bar from the path of said operating member for allowing an operation of said operating member, a pawl pivoted on said lever member and adapted to engage a portion of said locking bar to retain said locking bar in withdrawn position in said guide means, and means connected with said pawl and engageable by said operating member for releasing said locking bar.

2. Coin control mechanism comprising an angularly shiftable lever, a locking bar projectable into or adapted to be withdrawn from the path of movement of said lever, motion transmitting means connected with said locking bar, a receiving thrust bar connected with said means, a coin thrust bar disposed in alignment with said receiving thrust bar but spaced therefrom, means

for delivering a coin intermediate said coin thrust bar and said receiving thrust bar for transmitting an actuating movement from said coin thrust bar to said receiving thrust bar and to said locking bar for shifting said locking bar out of the path of said shiftable lever; means connectible between said locking bar and said motion transmitting means, being pivoted on the one and engageable with the other, for holding said locking bar withdrawn from the path of said lever; and means connected with said holding means and engageable by said lever for releasing said locking bar.

3. Coin controlled mechanism comprising in combination with a manually operable lever, means normally locking the lever against movement, coin controlled means for effecting a release of said lever, means for holding the coin controlled means in its adjusted position comprising a pawl member mounted on said coin controlled means and differentially movable together with said locking means, said locking means including a notch engageable by said pawl member.

4. Coin controlled mechanism comprising in combination with a manually operable lever, means normally locking the lever against movement, coin controlled means for effecting a release of said lever, means for holding the coin controlled means in its adjusted position comprising a pawl member mounted on said coin controlled means and differentially movable together with said locking means, said locking means including a notch engageable by said pawl member, and means for effecting a release of the coin controlled means incident to the operation of said lever.

5. Coin controlled mechanism comprising in combination with a manually operable lever, means normally locking the lever against movement, coin controlled means for effecting a release of said lever, means for holding the coin controlled means in its adjusted position comprising a pawl member mounted on said coin controlled means and differentially movable together with said locking means, said locking means including a notch engageable by said pawl member, said pawl member having an extension thereon engageable by said lever incident to the operation thereof, whereby said pawl is disengaged from said locking means for effecting a release of the coin controlled means.

6. Coin controlled mechanism comprising in combination with a manually operable lever, means normally locking the lever against movement; coin controlled means operable to release said locking means; means connectible between said locking means and said coin controlled means, being pivoted on the one and engageable with the other, for holding said locking means in released position; and means connected with said holding means and engageable by said lever for freeing said holding means.

7. In a coin controlled mechanism, in combination with a manually operable lever, means normally locking the lever against movement, coin controlled means operable to release said locking means, and means mounted on one of said means and engageable with the other of said means for holding said locking means in released position.

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