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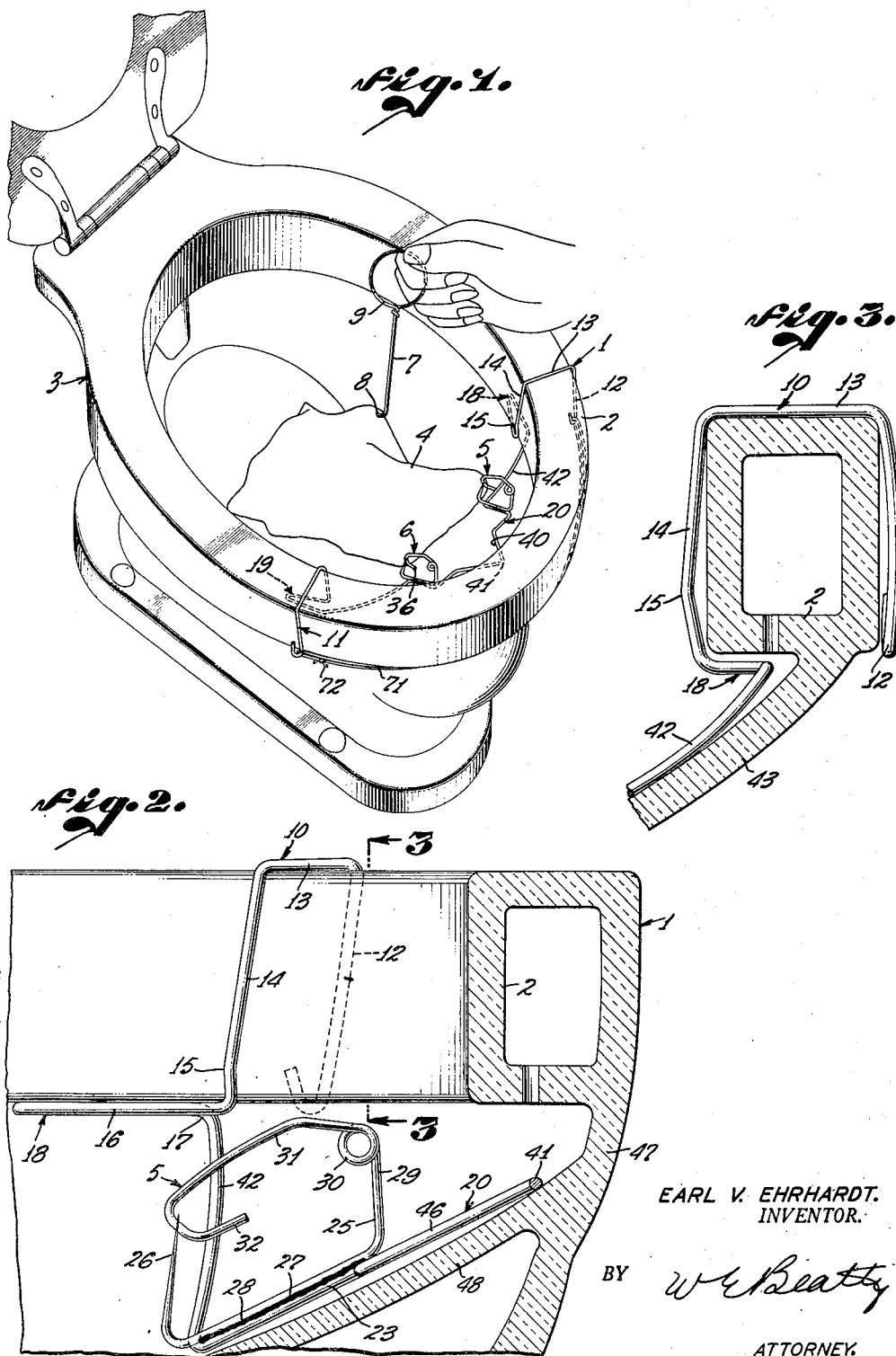
E. V. EHRHARDT

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HOLDER FOR FABRIC, NAMELY DIAPERS

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2 Sheets-Sheet 1



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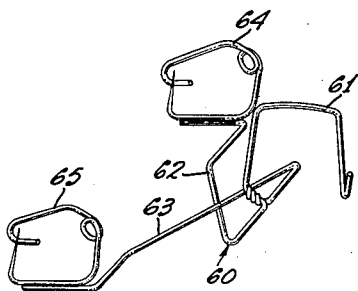
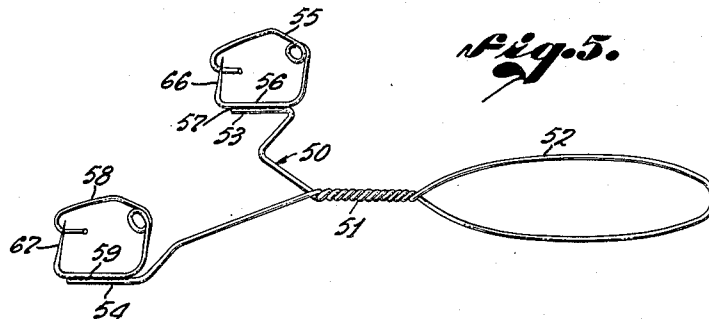
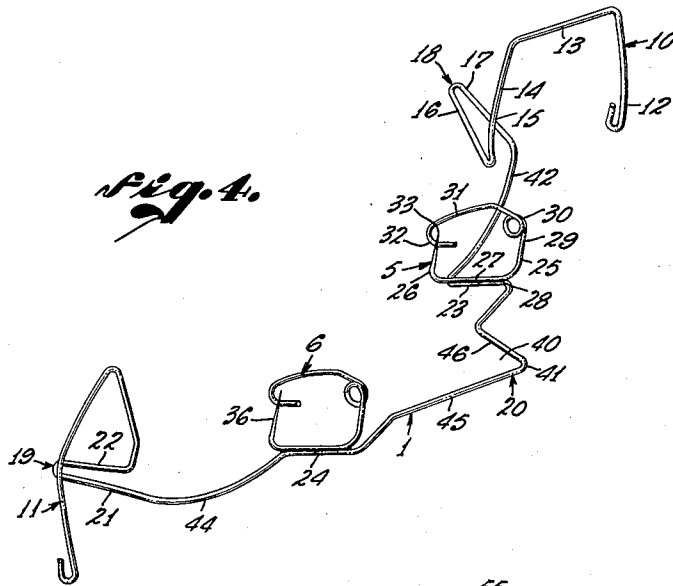
E. V. EHRHARDT

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2 Sheets-Sheet 2



EARL V. EHRHARDT.
INVENTOR.

BY

W E Beatty

ATTORNEY.

UNITED STATES PATENT OFFICE

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HOLDER FOR FABRIC, NAMELY DIAPERS

Earl V. Ehrhardt, Altadena, Calif.

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7 Claims. (Cl. 24—85)

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The invention relates to a holder for fabric, viz., diapers.

It is customary to wash or rinse diapers in a toilet bowl, the washing action being accomplished by holding one edge of the diaper while subjecting it to the stream of water which flows when the bowl is flushed. The flow of water provides a very strong pull on the diaper and if it should pull loose from the hand of the operator, it will probably form an obstruction in the waste pipe. Occasionally the diapers are left to soak in the bowl and through inadvertence, if the bowl is later flushed before the diapers are removed, the diaper is washed down the drain pipe and forms an obstruction.

An object of the invention is to provide a holder which reduces the handling of the fabric, provides a safeguard against its accidental release, and serves as a storage rack for diapers to drain. The holder is useful for other types of fabrics and for other operations thereon, such as dyeing or processing of cloth or the like. The preferred form of the invention, however, relates to a holder which is particularly designed to facilitate the washing and rinsing of diapers in a toilet bowl and, as to this aspect of the invention, an object is to provide a bracket having flexibility in a number of different directions so that it will fit or can be fitted to flush rims of various sizes and contours and so that the bracket can be mounted into position on the bowl to form a sturdy holder for the garment.

A further object of the invention is to provide a holder of the character described wherein the holder and its parts are arranged close to the flush rim of the bowl to be concealed by the rim of the seat, whereby the holder may be left in position in the bowl without interfering with the normal use thereof.

The invention provides a modified type of holder having a simplified arrangement for supporting the same on the flush rim, as well as a further modification wherein the holder is adapted to be held in the hand.

A further object of the invention is to provide an improved guarded pin or hook device to facilitate impaling the fabric thereon and to facilitate its removal therefrom by pulling on the fabric without the necessity of operating a clasp. In fact such removal may be effected by an auxiliary tool without touching the fabric with the hand. All forms of the invention make use of this improved guarded pin or hook device.

For further details of the invention, reference may be made to the drawings wherein

Fig. 1 is a perspective view of a fabric holder according to the present invention, showing the holder mounted in position on the flush rim of a bowl, this figure also showing the auxiliary hand tool which may be employed to remove the fabric after it is washed or rinsed.

Fig. 2 is an enlarged central vertical sectional view through the holder and bowl of Fig. 1, with parts broken away.

Fig. 3 is an enlarged sectional view on line 3—3 of Fig. 2 looking in the direction of the arrows, the figure showing one end of the holder.

Fig. 4 is an enlarged perspective view of the holder of Fig. 1.

Fig. 5 is a perspective view of a modification wherein the holder is simplified and provided with a handle.

Fig. 6 is a perspective view of a further modification wherein the simplified holder of Fig. 5 is provided with a hook to hang the holder on the flush rim.

Referring in detail to the drawings, the holder 1 is a flexible unitary wire bracket shown in position on the flush rim 2 of a toilet bowl 3, for holding a diaper indicated at 4. The diaper 4 is held by two spaced guarded pins or hook devices indicated at 5 and 6. After the washing or rinsing operation, the diaper 4 may be stacked on the open rack provided by the body portion 20 and guarded pins 5, 6 so that the diaper will drain, and later the diaper may be removed. The diaper may be thus stacked and removed from the holder by means of a hook 7 having a handle 9 and a curved point 8 to catch the fabric.

The holder 1, for example, may be made of spring brass wire, chromium plated and it, as well as hook 7 may have a suitable diameter such as .1 inch.

The opposite ends of the holder 1 terminate in downwardly facing or inverted U-shaped hook portions 10 and 11. The hook 10 has an outer leg 12 which extends over the outside of the rim 2, a bight 13 which extends across the top of the rim 2 and an inner leg 14 which extends across the inner face of the rim 2. The leg 14 is preferably convex as indicated at 15 to provide spring action between the bight 13. The leg 14 extends outwardly in a leg 16 reversely bent to form a leg 17, the legs 16 and 17 forming a V-shaped catch 18 extending crosswise of the plane of the hook 10 to engage under the rim 2. The legs 14 and 16 form a vertical V to provide resilience in a vertical direction so that the catch 18 will hold the hook 10 on rims like 2 of slightly different heights. The legs 16 and 17 may be spread apart

more or less to provide flexibility between the hook 10 and the safety pin device 5 so that the hook 10 may assume different angles with respect to the leg 17, as required when sliding the hooks 10 and 11 forwardly on rim 2 to rigidly jam the bracket 1 in position, as shown in Fig. 2 and described later.

The leg 17 extends toward the center of the holder which might be termed a body portion 20, namely, the portion between the spring catch 18 provided by the legs 16 and 17 and the spring catch 19 provided by the similar legs 21, 22 which project outwardly to form a horizontal V to accommodate different heights of rims as above described, both the hooks 10 and 11 being similar in construction, and catches 18 and 19 being alike.

The intermediate or body portion 20 of the holder has spaced substantially horizontal, parallel, transverse straight portions 23, 24 which similarly support the guarded pin devices 5 and 6 respectively. The guarded pin devices 5 and 6 are both alike, substantially parallel, and each comprises a spring brass wire bent into a substantially U-shaped hook member like 25, the inner leg of the U comprising an upwardly extending elongated sharp pin 26, the bight 27 of the U comprising a support and being soldered as indicated at 28 to the supporting portion 23, the outer leg 29 of the U terminating at its upper end in one or more coils 30 forming a spring, the wire of the guarded pin continuing from the spring 30 as indicated at 31 to extend between the legs 26 and 29, the outer end of the portion 31 having an inwardly extending end 32 which bears against the pin 26 by spring action, so that the portion 31 will form a guard for the point 33 of the hook. The end 32 of the guard is rounded and the guard extends both inwardly and outwardly beyond the point of the pin 26 when the guard is unflexed, being movable in opposite directions along the pin beyond its point to expose the point of the pin. The guarded pin device 6 is spaced from the guarded pin device 5, so that the garment can be grasped at corresponding spaced points and pushed against the action of the guards like 31 to impale the fabric at spaced points on the hook 25 and on the corresponding hook 36 of the other guarded pin device 6. The lower or inner portion of the rounded end 32 of the guard facilitates the removal of the fabric by pulling on the fabric. The end of member 32 points away from the band of fabric leaving the pin 26 and hence does not interfere with removal of the fabric.

The body portion or intermediate portion 20 of the holder between the guarded pin devices 5 and 6 has a broad convex portion in the form of a V 40 having an apex 41 at the center of the holder. The apex 41 extends forwardly of a line between the hooks 10, 11.

The support portions 23 and 24 and the V 40 lie substantially in the same plane which is tilted to bring the hooks like 25 at a lower level than the point 41 for ready access. Also the pins like 26 are at a lower level than the catches 18 and 19, see the upper portion of Fig. 4 by reason of the fact that the inner end of the leg 17 continues downwardly in a concave portion 42, see also Fig. 3, to substantially match the curvature of the adjoining front portion 43 of the bowl, whereby the body 20 may be supported by the bowl. The hook 11 and the spring provided by the legs 21, 22 likewise extend

downwardly and inwardly in a concave portion 44 to lie against its adjoining portion of the bowl. The V 40 has legs 45, 46 which provide spring action in a general direction around the rim of the bowl whereby the holder may be rigidly jammed into position on the bowl by placing the hooks 10 and 11 in position on the rim, as shown in Fig. 1, with the V 40 underneath the rim, and by pulling both of the hooks 10 and 11 toward each other around the rim, to jam the point 41 against the front wall 47 or shelf 48 of the bowl as indicated in Fig. 2. When the holder 1 is unflexed, removed from the bowl, the apex 41 is somewhat farther below the catches 18, 19, as shown in Fig. 2, wherein the body portion 20 is urged down against the bowl by spring action due to twisting action of the concave portions 42, 44. The body portion 20 is thus braced against the bowl for various differences in bowl shape.

The guarded pin devices 5 and 6 may be made of wire of smaller diameter than that used for the remainder of the holder 1. The completed holder 1 is a unitary spring wire bracket, the same piece of wire being bent to form the hooks 10 and 11, catches like 18, the downwardly extending portions 42, 44, the supporting portions 23, 24 and the V 40, preferably chromium plated.

In the modification shown in Fig. 5, the main portion of the holder 50 also comprises a single piece of wire, the intermediate portion of which is suitably twisted together as indicated at 51 to form a handle 52, the outer ends of the wire diverging and terminating in substantially parallel portions 53, 54. A guarded pin device 55 similar to that previously described, has a straight portion 56 secured to the portion 53 in a suitable manner, for example, by means of solder 57 as described above. The guarded pin device 58 is similar to the one just described and is similarly soldered to the straight portion 54 as indicated at 59. The pins 66 and 67 extend substantially parallel to each other and transversely of the longitudinal axis of the holder 50. The holder portions 51 to 54 lie in a plane and portions 53, 54 can be placed on a suitable support to resist the push when impaling a fabric on the pins 66, 67.

In the modification shown in Fig. 6, instead of using a handle 52 to be held in the hand, the holder 60 has a U-shaped hook 61 somewhat similar to either of the hooks 10 or 11 except that the hook 61 is arranged at the middle of the holder. The holder 60 has outwardly extending leg portions 62 and 63 here shown as being crossed, carrying spaced guarded pin devices 64, 65 similar to those above described.

Not all bowls have a shelf like 48 to support the apex 41 and, in that case, hooks 10 and 11 may be moved forwardly around the rim 2 until the apex 41 is braced against the front wall of the bowl. Also, some bowls have a front wall more vertical than the conventional shape shown in Fig. 2, and also some bowls have rims narrower than as indicated. In order to fasten the holder 1 in position in such cases, use may be made of a tie string or the like 71, see Fig. 1, which passes around the outer leg 12 of the hook 10, around the front of the bowl and around the outer leg of the hook 11, being tied or fastened in a suitable knot or otherwise as indicated at 72.

The holder shown in Figs. 1 to 4 is somewhat universal in its application, in that it has been applied to about a dozen different makes of

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bowls and the holder shown in Figs. 1 to 4 successfully fits all of them, substantially as above described.

Various other modifications may be made in the invention without departing from the spirit of the following claims. For example, various articles other than fabrics may be held by the holders. Also material other than wire, viz. plastic, may be used for the holder, the safety feature of the garment pin or hook may be omitted, and various forms of garment pins or hooks may be used. Also fastening means other than solder may be used.

I claim:

1. A holder comprising a unitary wire guarded device having a supporting portion, a pin angularly extending from one end of said supporting portion, the other end of said supporting portion having a coil spring remote from said pin and a guard extending from said spring to said pin, said guard having portions spaced inwardly and outwardly respectively from the point of said pin when said guard is unflexed by said spring, said spring supporting said guard for movement of said guard along said pin in opposite directions beyond the point of said pin to expose the point of said pin when said guard is flexed in either direction along said pin, and a holder fixed to said supporting portion.

2. A holder for fabric, said holder comprising a unitary wire member having a supporting portion, a unitary wire guarded pin device comprising a substantially U-shaped hook member whereof one leg of the U comprises an elongated pin, the bight of the U comprising a body portion fixed to said supporting portion with said pin extending transversely of said supporting portion and a spring guard extending from the other leg of said U, said guard being movable in opposite directions along said pin beyond the point of said pin, said guard having portions spaced inwardly and outwardly respectively from the point of said pin when said guard is unflexed and being operable by pressure of fabric on said guard to expose the point of said pin when said guard is flexed in either direction along said pin to impale or release the fabric.

3. A holder for fabric, said holder comprising a unitary wire member having a plurality of spaced supporting portions, a corresponding plurality of unitary wire guarded pin devices each comprising a substantially U-shaped hook member whereof one leg of the U comprises an outwardly extending elongated pin, the bight of the

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U comprising a body portion, each of said body portions being fixed to one of said supporting portions, the other leg of each of said U's comprising a spring guard movable inwardly and outwardly along said pin beyond the point of said pin, each of said guards guarding the point of its respective pin when unflexed and exposing the same by pressure of fabric applied to said guard lengthwise of its pin in either direction along the pin.

4. A holder according to claim 2 wherein said pins extend substantially parallel to each other.

5. A holder according to claim 2 wherein said holder terminates in an upright inverted U-shaped hook.

6. A holder according to claim 2 wherein said holder terminates in a handle.

7. A holder for fabric, said holder comprising a unitary wire member having a plurality of spaced supporting portions, adapted to fit the flush rim of a toilet bowl, a corresponding plurality of unitary wire guarded pin devices each comprising a substantially U-shaped hook member whereof one leg of the U comprises an outwardly extending elongated pin, the bight of the U comprising a body portion, each of said body portions being fixed to one of said supporting portions, the other leg of each of said U's comprising a spring guard for its pin, each of said supporting portions having inner and outer leg portions substantially in a plane and fitting the inner and outer upright faces of the rim and an intermediate portion fitting the top of the rim, each inner leg portion having a re-entrant portion extending crosswise of said plane and fitting the bottom of the rim of the bowl.

EARL V. EHRHARDT.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
587,306	Greenfield	Aug. 3, 1897
621,662	Hareff	Mar. 21, 1899
873,701	Adams	Dec. 17, 1907
981,924	Hanson	Jan. 17, 1911
1,129,388	Guerrant	Feb. 23, 1915
1,179,656	Rosenstein	Apr. 18, 1916
1,221,664	Boyer	Apr. 3, 1917
1,268,028	Luettschwager	May 28, 1918
1,480,159	Fennelly	Jan. 8, 1924
1,950,244	Hoyer	Mar. 6, 1934
1,989,473	Costigan	Jan. 29, 1935
2,296,449	Meisenheimer	Sept. 22, 1942