Sept. 15, 1925. 1,553,437

W. J. DIEHL

PORTABLE TOILET SEAT

Filed Jan. 25, 1923

Fig. 1.

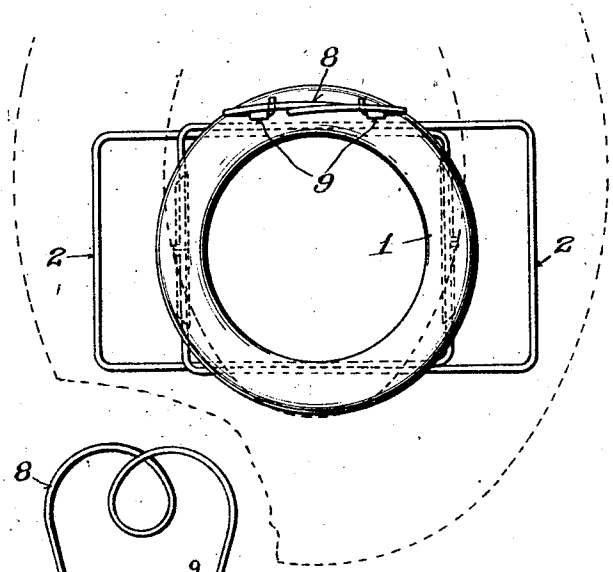


Fig. 2.

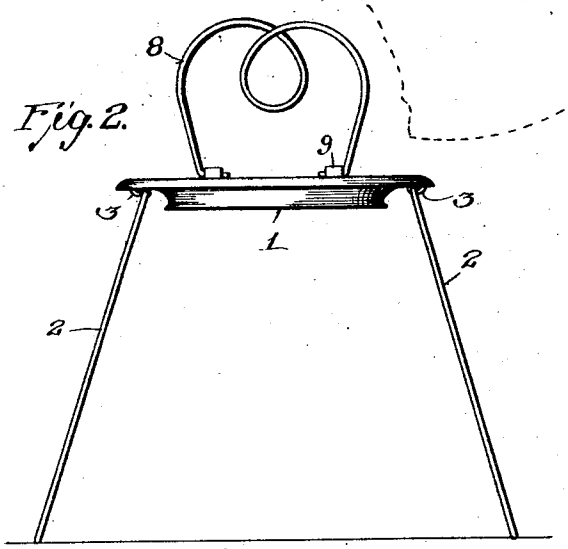


Fig. 5.

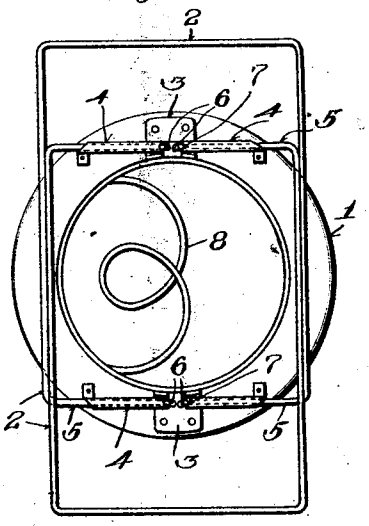
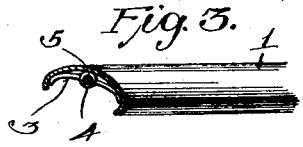


Fig. 3.



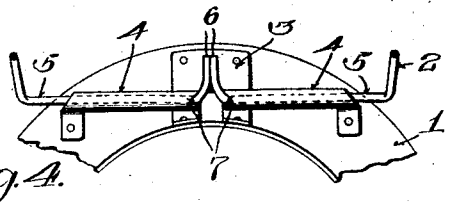


Fig. 4.

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UNITED STATES PATENT OFFICE.

WALTER J. DIEHL, OF ST. LOUIS, MISSOURI.

PORTABLE TOILET SEAT.

Application filed January 25, 1923. Serial No. 614,851.

To all whom it may concern:

Be it known that I, WALTER J. DIEHL, citizen of the United States, residing at St. Louis, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Portable Toilet Seats, of which the following is a specification.

This invention relates to a novel portable toilet seat of the character that may be used in the home or in traveling, the same possessing special utility for motorists use on account of its availability and convenient construction, permitting of packing into a small space and having a minimum number of parts.

A principal object of the invention is to carry forward, in a new construction, all of the desirable features and advantages of the invention shown in my former Patent No. 1,397,089 granted November 15, 1921, while at the same time providing additional functions, whereby the portable seat may be conveniently used as an auxiliary seat upon the ordinary stool, or employed independently in an upright position for use in other places as convenience may dictate. In these particulars the invention is of importance and utility for the use of children.

Another object of the invention is to provide a portable seat of the character referred to which will be simple and inexpensive and made of any suitable material.

The invention is susceptible of structural changes and modification without departing from the scope thereof, but a preferred and practical embodiment is shown in the accompanying drawings, in which:—

Figure 1 is a plan view of the invention showing the supporting frames arranged to support the seat ring upon the ordinary seat (dotted lines) of the usual stool.

Figure 2 is a side elevation of the device, showing the supporting frames swung downwardly and outwardly to constitute leg supports to hold the seat ring in an elevated position, as above the ground.

Figure 3 is a detail cross-sectional view of the seat ring showing a preferable manner of mounting the hinge plate for each of the supporting frames.

Figure 4 is a plan view showing the preferable construction and mounting of one of the hinge plates.

Figure 5 is a bottom plan view of the improved structure showing the supporting frames collapsed and nested one within the other to provide a horizontal support for the seat ring.

Like references designate corresponding parts in the several figures of the drawings.

The portable seat as an entirety primarily consists of three principal parts, namely the seat ring, designated by the numeral 1, and the folding supporting frames 2. These parts may be made of any suitable material without in any way affecting the invention, but for illustrative purposes there is shown in the drawings a seat ring 1 having an opening therethrough of sufficient size for all of the intended purposes and conveniently made of pressed or stamped sheet metal so as to have a comfortably rounded cross-sectional contour. In this form of the invention the seat ring may be said to be substantially concavo-convex in cross section so as to present a rounded top surface and to provide a housing for the opposite hinge plates designated by the reference numerals 3.

The hinge plates 3 are arranged, preferably, under and within the rim of the seat ring at diametrically opposite sides of the opening therethrough and each of said hinge plates is preferably constructed with a pair of axially aligned bearing sleeves 4, which rotatably receive the bearing spindles 5 constituting the bent end portions of one of the supporting frames 2. This construction is clearly shown in Figure 4 of the drawings, and it will also be seen that the terminal of each bearing spindle 5 is bent to provide a stop arm 6, the stop arms 6—6 of the adjacent aligned spindles 5 being preferably disposed in side by side relation to form a substantial stop member to hold the supporting frame against displacement outwardly when it is swung to an upright position to constitute one of the leg supports for the seat ring.

When the opposite supporting frames 2 are folded flat against the bottom of the seat frame, each of such supporting frames is preferably releasably locked in that position by having the inner end portions 6 of the bearing spindles 5 engage in locking notches 7 formed in the inner ends of the bearing sleeves 4. The opposite portions of each supporting frame 2 are constructed to have an outward spring so that when the supporting frame is folded flat onto the bottom of the seat ring the terminals 6 will spring

outwardly into the notches 7, thus effecting the lock referred to. However, the notches 7 are open notches so that when the frame 2 is swung downwardly to provide an upright leg support the terminals 6 will simply ride out of the notches 7 automatically

If preferred the seat may be provided with a suitable back-rest 8. Such rest may consist of a bent rod or wire of any suitable design and the same may be conveniently hinged as at 9 to the back portion of the seat ring so that the rest can conveniently be raised when in use as shown in Figures 1 and 2 or folded flat onto the top of the seat ring when not in use as shown in Figure 5.

It will now have been observed that one use of the invention is shown in Figure 1 of the drawings and in such use the two supporting frames 2, preferably made of bent wire or rod to provide rectangular frames are collapsed and nested in such positions, and being of greater length than the diameter of the seat ring they project beyond opposite sides of the latter forming supporting arms resting on an ordinary toilet seat or equivalent form of support. When swung downwardly to provide leg supports the seat ring is independently held in an elevated position.

Changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

I claim:—

1. A portable seat of the class described, consisting of a seat ring, supporting frames hinged to opposite sides of the ring and of greater length than the diameter of said ring whereby when the frames are folded in opposite directions in a flat plane the free ends thereof form supports lying in a horizontal plane to engage a seat of larger diameter.

2. A portable seat of the class described, comprising a seat ring and a pair of looped supporting frames respectively hinged to opposite portions of the ring at opposite sides thereof and of greater length than the diameter of said ring whereby when said frames are folded in opposite directions their free ends will extend beyond the limits of the ring to provide laterally projecting supporting means for the seat, and means for preventing the spreading of the free ends of said frames when arranged in a substantially vertical position.

3. A portable seat of the class described, consisting of a seat ring and a pair of looped supporting frames made of relatively stout wire and having the portions thereof adjacent the free ends hinged to the ring, and said free ends being bent to form stop projections to limit the movement of the frames in one direction.

4. A portable seat of the class described, including a seat ring, foldable supporting frames hinged to opposite sides of the ring thereby to form vertical legs for supporting the seat in one position, and said frames being of greater length than the diameter of the seat and when folded toward each other and nested in substantially the same plane as the seat, constituting laterally projecting supporting elements.

5. A portable toilet seat consisting of a seat ring, hinge plates fitted to opposite portions of the ring, and each of which plates is provided with separated aligned bearing sleeves, and a pair of hinged supporting frames, each of said frames having bearing spindles fitting in said sleeves and provided at their inner terminals with stop arm projections.

6. A portable seat of the class described, consisting of a seat ring, hinge plates fitted to opposite portions of the ring, and a pair of hinged supporting frames, each of said frames having bearing spindles fitted in said sleeves and provided at their inner terminals with stop arm projections.

In testimony whereof I hereunto affix my signature.

WALTER J. DIEHL.