Nov. 24, 1925. 1,563,236

L. F SMITH

PORTABLE TOILET SEAT

Filed Feb. 19, 1925

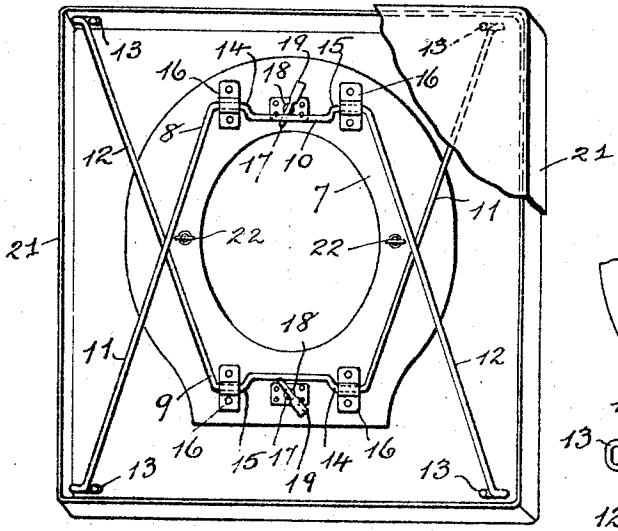


Fig. 1.

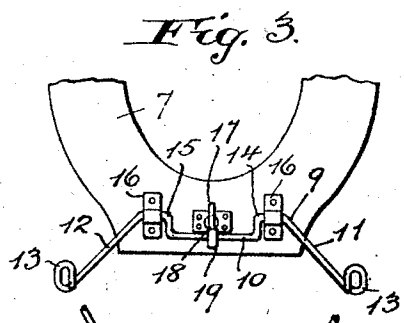


Fig. 3.

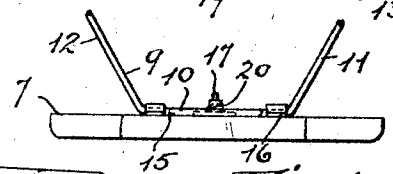


Fig. 4.

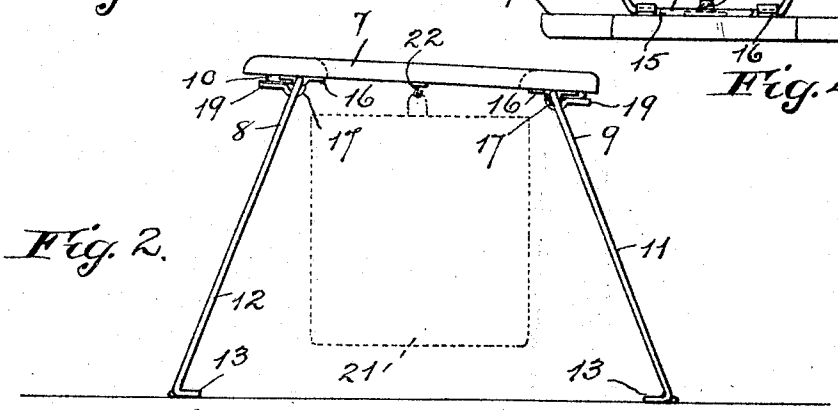


Fig. 2.

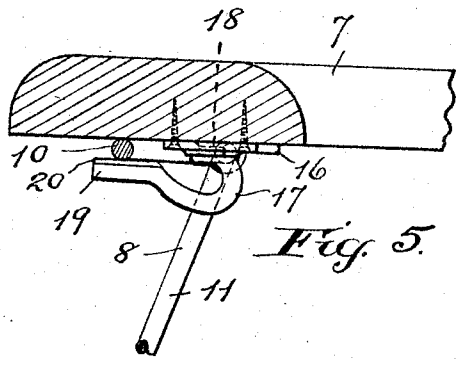


Fig. 5.

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UNITED STATES PATENT OFFICE.

LAYTON F. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

PORTABLE TOILET SEAT.

Application filed February 19, 1925. Serial No. 10,212.

To all whom it may concern:

Be it known that LAYTON F. SMITH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, has invented certain new and useful Improvements in Portable Toilet Seats, of which the following is a specification.

This invention relates to improvements in portable toilet seats and while it is especially designed for the convenience of tourists and campers, it may be used under various conditions and circumstances.

The object of the invention is to provide a novel construction of seat and support whereby the same may readily be set up or collapsed, and which, when collapsed, may be packed in a small space and readily carried from place to place, for example by the tourist or camper.

The invention is illustrated in the accompanying drawing, wherein,—

Fig. 1 shows the complete device in the collapsed or folded condition and placed in a receptacle in which it is carried,—a portion of the receptacle being broken away to show the device therein.

Fig. 2 illustrates the device in side elevation set up and in readiness for use.

Fig. 3 shows an inverted or bottom view of the seat with the legs at one side thereof spread and held in the spread condition.

Fig. 4 illustrates a similar inverted view of the device, and

Fig. 5 shows an enlarged vertical sectional detail through a portion of the seat taken on a vertical line between two of its supports with the latter locked in the unfolded or upright position.

Referring to the drawing the numeral 7 designates the toilet seat, which may be of any of the well-known constructions, and to which I apply my novel construction of support.

To the under surface of the seat, I attach my improved supporting means which latter are formed of two rods or bars 8 and 9, each having a construction like the other so that a description of one will apply with equal force to the other.

Each support is formed from a single metal rod or bar and comprises an intermediate portion, which I term a stop and brace portion, 10, and diverging legs 11 and 12 respectively which legs diverge and spread outwardly as they extend from the opposite ends of the said intermediate portion.

Each diverging leg, in this instance, has its extreme end bent into the form of a coil 13 which serves as a foot to rest upon the ground as will presently more fully appear.

Between each end of the intermediate portion 10, and the diverging legs 11 or 12, each support has an offset bearing portion 14—15 which offset portions extend through and are engaged by spaced-apart bearing-brackets 16 that are secured against the bottom surface and on opposite sides of the seat adjacent to the opening therein which bearings provide pivots for the bar supports. The entire supporting structure therefore is pivoted intermediate its ends to the under surface of the seat by means of the two spaced bearing-brackets 16.

It is to be particularly noted that the intermediate portions 10 of each support are bent at an acute angle with respect to the diverging legs 11—12 so that when said legs are swung downwardly below and away from the seat, to the inclined position shown in Figs. 2, 3 and 5 of the drawing, the said intermediate portion 10, between the bearing brackets, will extend horizontally beneath the seat and form a crosswise bottom brace at the under side of said seat which brace crosses a line extending centrally in a direction fore and aft with respect to the seat and its opening.

When these supports 8 or 9 are swung down until the intermediate or brace portion strikes the under side of the seat, said brace or intermediate portion will prevent a further fore and aft spreading movement of said legs and at this time the legs will have a downwardly and outwardly inclined position beneath the seat, as clearly shown in Fig. 2.

By again referring to Figs. 2 and 3 of the drawing, it will be seen that the support 9 at the rear of the seat will have its legs 11—12 inclining downwardly and rearwardly from the seat as well as diverging as they extend down, while the support 8 at the front of the seat will have its legs 11—12 inclining downwardly and forwardly from the front of the seat as well as diverging in an outwardly direction.

It is well-known to observers that the weakest point in regulation toilet seats is on a fore and aft center line through the

seat-opening, and that splitting or cracking of the seat often occurs on this line. To meet this weakness, I form the intermediate brace portion 10 so it will extend crosswise under and in supporting contact with the under side of the seat and thus I brace the seat in a direction crosswise of its weakest central point.

By thus spreading the legs fore and aft and providing the intermediate brace-portion 10, the greater the weight placed upon the seat the greater will be the bracing-force of the stop-portion 10 because any tendency of the legs to spread fore and aft will cause the stop-portion to press upwardly under the seat with greater force.

Between the two bearing-brackets 16, I secure pivoted locking-catches 17 to the under side of the seat at both the front and rear. These catches are pivoted at 18 and have an arm 19, that may be swung under the stop-portions 10, to press the latter up against the under side of the seat so that the entire seat and its spread supports may be bodily lifted without the legs swinging during such lifting operation.

The arms 19 of the locking-catches may have their upper contact faces beveled as at 20 in Fig. 4, whereby to form a cam-like face which will more firmly engage the stop-portions 10.

It is also to be noted by reference to Fig. 2, that the legs 11 and 12 of the rear frame 9 are shorter than those of the front frame 8, whereby to sustain the seat 7 in a slightly inclined position with the rear end of the seat somewhat lower than the front end thereof. This is done for comfort.

The structure is such that the two supporting frames 8 and 9 may readily be folded under the seat and the entire device may then be placed in a telescoping receptacle 21, in which it may readily be stored or carried.

In case it is desired to sustain a receptacle beneath the seat 7, I provide the latter with means by which a receptacle may be engaged. In this instance simple hooks 22 are shown for this purpose.

In many instances a camper will merely dig a hole in the ground and place the seat over that hole in which case a receptacle such as 21, will be unnecessary, and by reason of the forwardly and rearwardly-inclined legs, ample space will be provided between the lower ends of the legs for a hole in the ground of sufficient size.

Having described my invention, I claim,—

A portable toilet seat having an opening therein and provided with spaced bearings on the under surface and at opposite sides of the seat adjacent to said opening, in combination with supports for the opposite ends of said seat each comprising a bar having an intermediate portion which extends crosswise beneath and in close proximity to the under side of the seat between certain of said bearings, said bar at the opposite ends of said intermediate portion having off-sets to said intermediate portion which are engaged by two of said spaced bearings, and extend therethrough to provide pivots for the bar; the free ends of said off-sets diverging and spread apart to form legs which extend away from the said bearings, said legs being bent at an angle with respect to the portion that lies between said bearings, so that when said free ends of the bar are swung outwardly away from the under side of the seat to operative position below the seat, when forming a support for the latter, the position of the intermediate portion of the bar between the spaced bearings will form a crosswise bottom brace against the under side of the seat between said bearings, whereby to brace the seat at its under side adjacent said opening.

In testimony whereof he affixes his signature.

LAYTON F. SMITH.