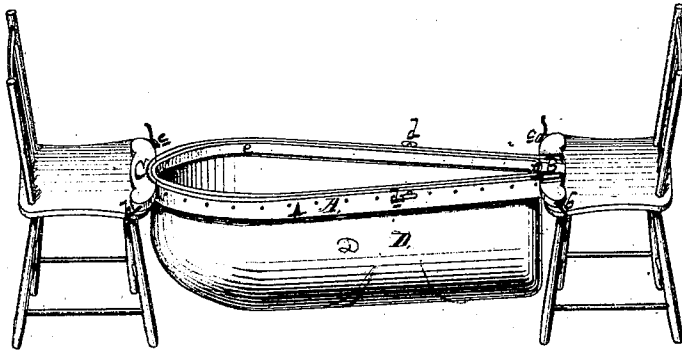


E. J. Knowlton.

Bath Tub.

No. 100,297.

Patented Mar. 1, 1870.



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E. J. KNOWLTON, OF ANN ARBOR, MICHIGAN.

Letters Patent No. 100,297, dated March 1, 1870.

IMPROVEMENT IN PORTABLE BATHS.

The Schedule referred to in these Letters Patent and making part of the same

To whom it may concern:

Be it known that I, E. J. KNOWLTON, of Ann Arbor, in the county of Washtenaw, and State of Michigan, have invented a new and useful Improvement in Baths; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, and being a part of this specification.

The object of this invention is the construction of a bath which will be economical to build, can be easily adapted to a variety of uses, such as taking a bath in a recumbent position, a hip bath, a sitz and a foot-bath, which will take up but little room when not in use, and which will be found useful in every family, especially adapted to use in a sick-room, and where it is inconvenient to obtain a permanent bath-room.

The invention consists in a bent rim, in one piece of timber, to which is secured a sack, made of any suitable material, but preferably of rubber cloth, of the proper shape, said rim being provided with proper cleats at head and foot, and cords and belaying-pins, for the purpose of securing the bath to chairs, or any other proper article, when required for use, and in the peculiar construction and arrangement of all its parts, as more fully hereinafter described.

In the accompanying drawings—

A represents the rim, made of a stick of tough timber, one by two inches, and fourteen feet long, bent in the form of an ox-bow, or of a line extending from the foot on one side, touching the shoulders and head, to the foot on the other side of the human body. The ends of the bow may be joined at the foot, as shown at *a* in the drawings, or they may be allowed to project beyond the feet, where they may be secured about four inches apart, and connected by a cross-tie, B, matched and screwed onto the under edge of the ends of the bent timber, thereby completing the rim, and forming a suitable projection, and wider base for resting on a chair, and at the same time acting as a spout or apron for emptying water out of the bath.

This cross-tie should be about three-quarters of an inch thick, three inches wide, and fifteen inches long, and should be secured to the foot of the rim, if the ends thereof are bent toward and secured to each other.

A similar cross-tie or piece, C, is fastened in any convenient manner to the opposite end of the rim, for a similar purpose for resting on another chair.

To one end of each of these cross-pieces B and C are fastened strong cords, *b*, and at the other ends of the cross-pieces are secured belaying-pins *c*, by means of which and the cords *b* the whole is securely fastened to the chairs, as shown in the drawings.

Opposite each other, and about two feet from the foot of the bath, other belaying-pins, *d*, are rigidly fastened to the rim, for the purposes hereinafter described.

The rim being thus made, is then turned bottom upward, and while in that position the sack should be nailed to the inner and upper edge of the rim, under a round-edged cleat, *e*; then turn the rim over and the sack right side out.

The sack D should preferably be made of strong white rubber cloth, seventy-six inches long, seventeen inches deep at the foot, twenty-two inches deep at the shoulders, and fifteen inches deep at the head, the top edge being straight, the irregularities in depth are all on the bottom.

I do not wish to be confined arbitrarily to the exact sizes or form I have given, but may vary the sizes or forms to suit circumstances.

To form a submergent bath for an adult, place the two ends on the front edge of common chairs, pass the cords around the front legs, draw closely, and make fast to the belaying-pins *c*.

To form a small bath for a child, a cord may be drawn across under the sack, and securely fastened to the belaying-pins *d*, thus contracting the water-space.

To form a sponge bath, fasten the cross-tie, as in a small bath, and slip the head of the bath close up against the chair-back, to which it may be secured, if desired, and drop the foot to the floor. The upper end of the sack will then rest upon the chair-seat, when one may sit thereon, with feet in the sag of the sack, just in front of the chair, on the floor, and sponge from head to foot, in the most comfortable position imaginable, while the water all gathers around the feet.

To form a hip-bath from the position last described, raise the foot of the bath six or eight inches, and secure it to a chair-round, and sit in the sag of the sack, putting the feet into the sag in the foot of the bath, below the cord and belaying-pins *d*, and if need be, put water of a different temperature at the feet, and a pillow on the opposite chair for the head.

I believe that no other form of hip bath yet known presents so many advantages as this, especially in the treatment of spinal and rheumatic complaints. For ease and comfort it cannot be surpassed. By the employment of pillows and other pliable fixtures under the sack any desirable modification and conformation of the cavity may be obtained, and the pain occasioned by the pressure of feeble and diseased parts against an unyielding substance avoided.

To empty the bath, set the foot on a common bucket, raise the head, and pour out the water. When empty, wipe, turn inside out, and hang up by the rim in a cool, dry place.

I am aware that there are full or submerged baths, with a pliable sack in use, but they either have inflated double sides, held in place by a sort of basket framework, or, if suspended from the top edge, the support is usually of mortise and tenon joinings, and not in any way resembling a simple rim, and I utterly disclaim any

part thereof in this application. I believe that the only previous approximation to a rim-support is found in my own patent of January 28, 1868, and is not claimed there on account of being a simple rim-support, but on account of its adjustable hinge articulations of the several pieces constituting the outer support, differing from the rim-support in this application, the latter not being hinged.

It is obvious that legs may be hinged or otherwise attached to this bath, by means of which the chairs may be dispensed with, and that other supports may be improvised.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A bath constructed of pliable material, pendent from a frame formed or sprung into shape as a hoop.

2. A pendent bath of pliable material, as described, partitioned into sectional baths for varying uses, whether for parts of the person, for the position of the person, or for adaptation for children, substantially as shown and described.

3. The arrangement of cords and means for their adjustable attachment, by which the described partitions may be formed, substantially as shown.

4. The combination of a pendent bath, having rounded parts, with a chair, in such a manner as to afford a seat within the chair, for uses as a sponge-bath or foot-bath.

5. The combination of a pendent bath with the seat of one chair and the rounds or horizontal braces to the legs of another chair, in such a manner as to form a hip or sitz-bath, by means of a single contraction of the pliable material, as described.

6. A transverse bracing support at each end of the described frame, by means of which a rest is obtained upon chair-supports, and attachment to the chairs may be secured.

E. J. KNOWLTON.

Witnesses:

JAS. I. DAY,
G. FRENCH.