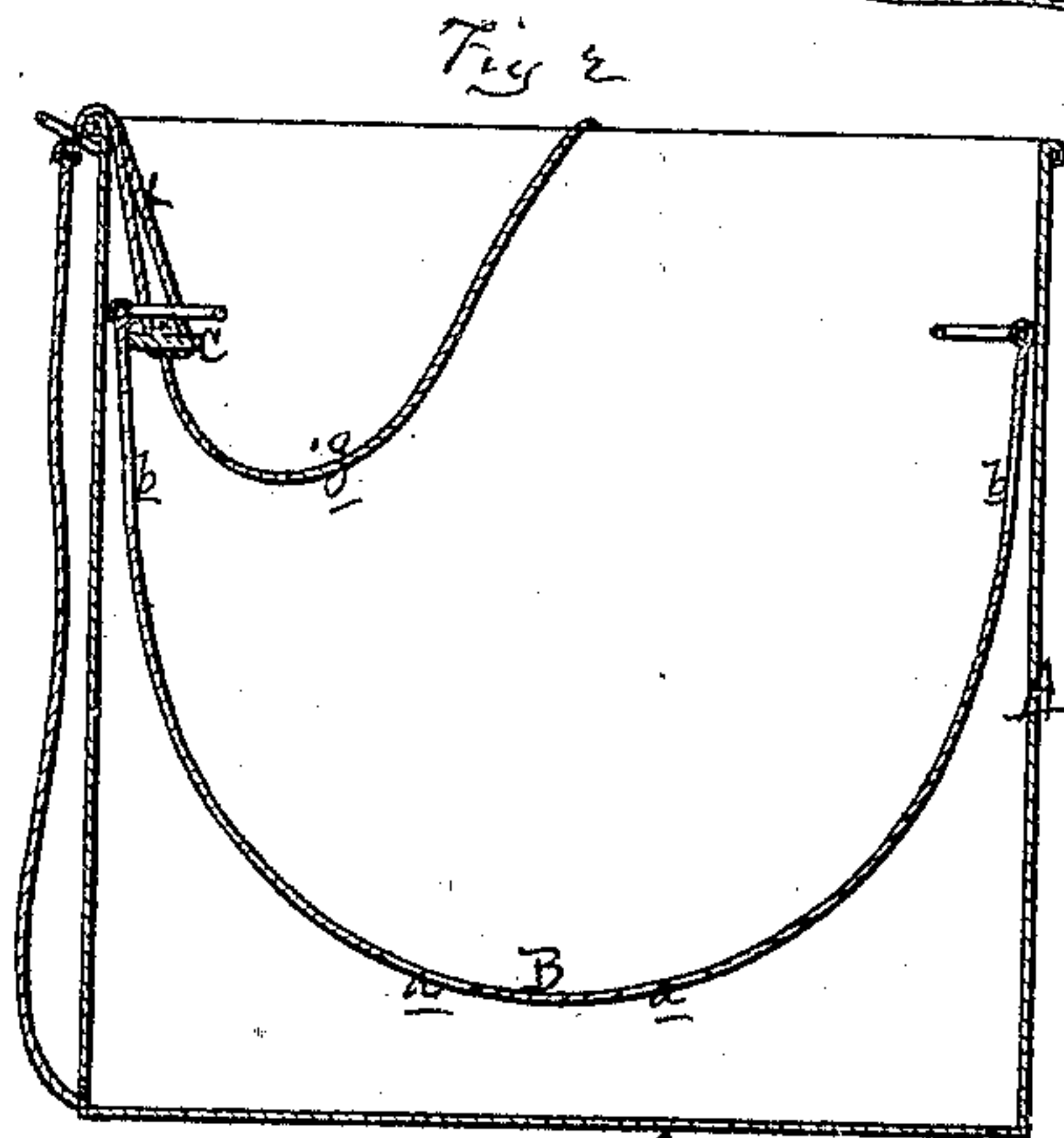
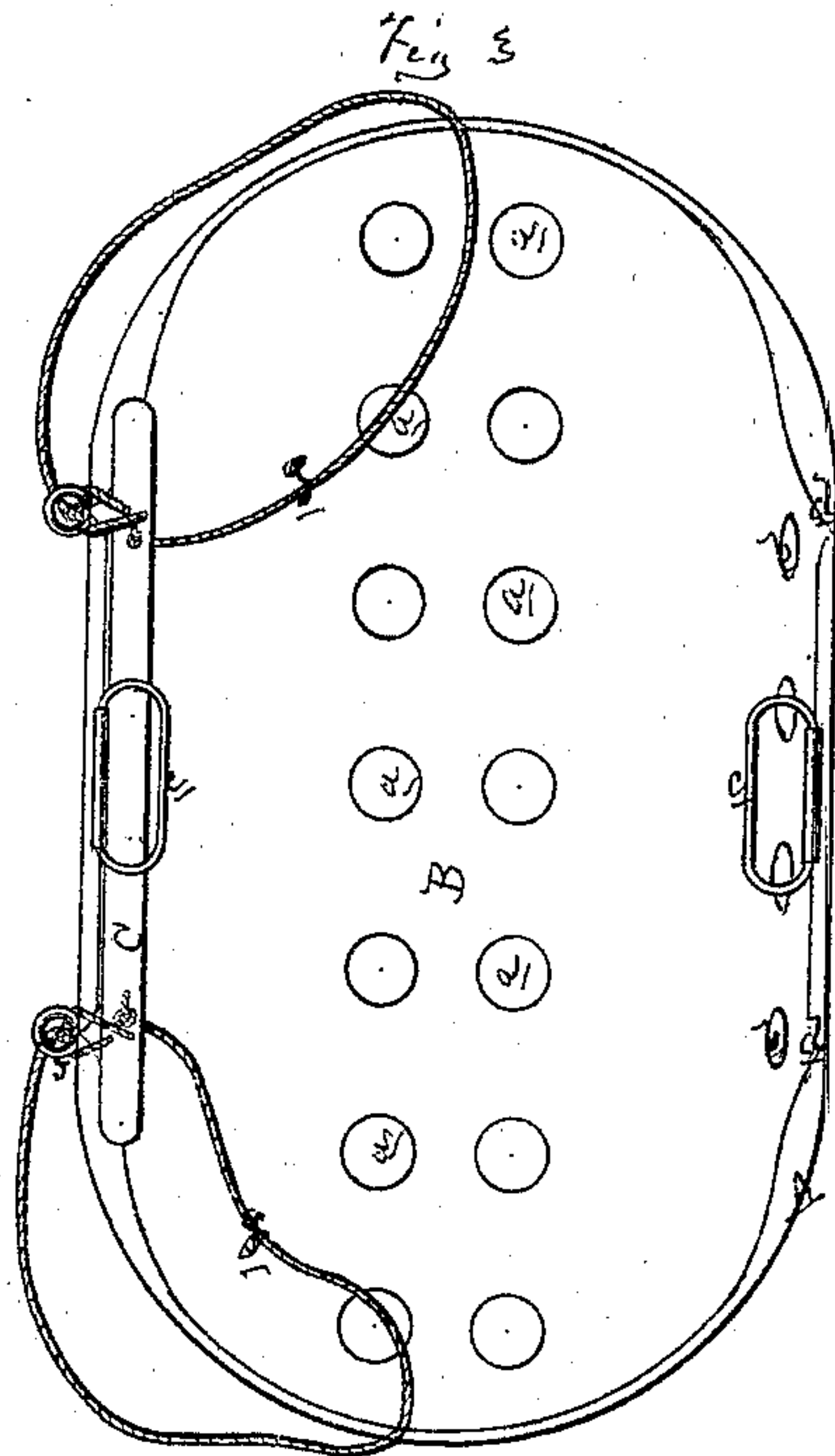
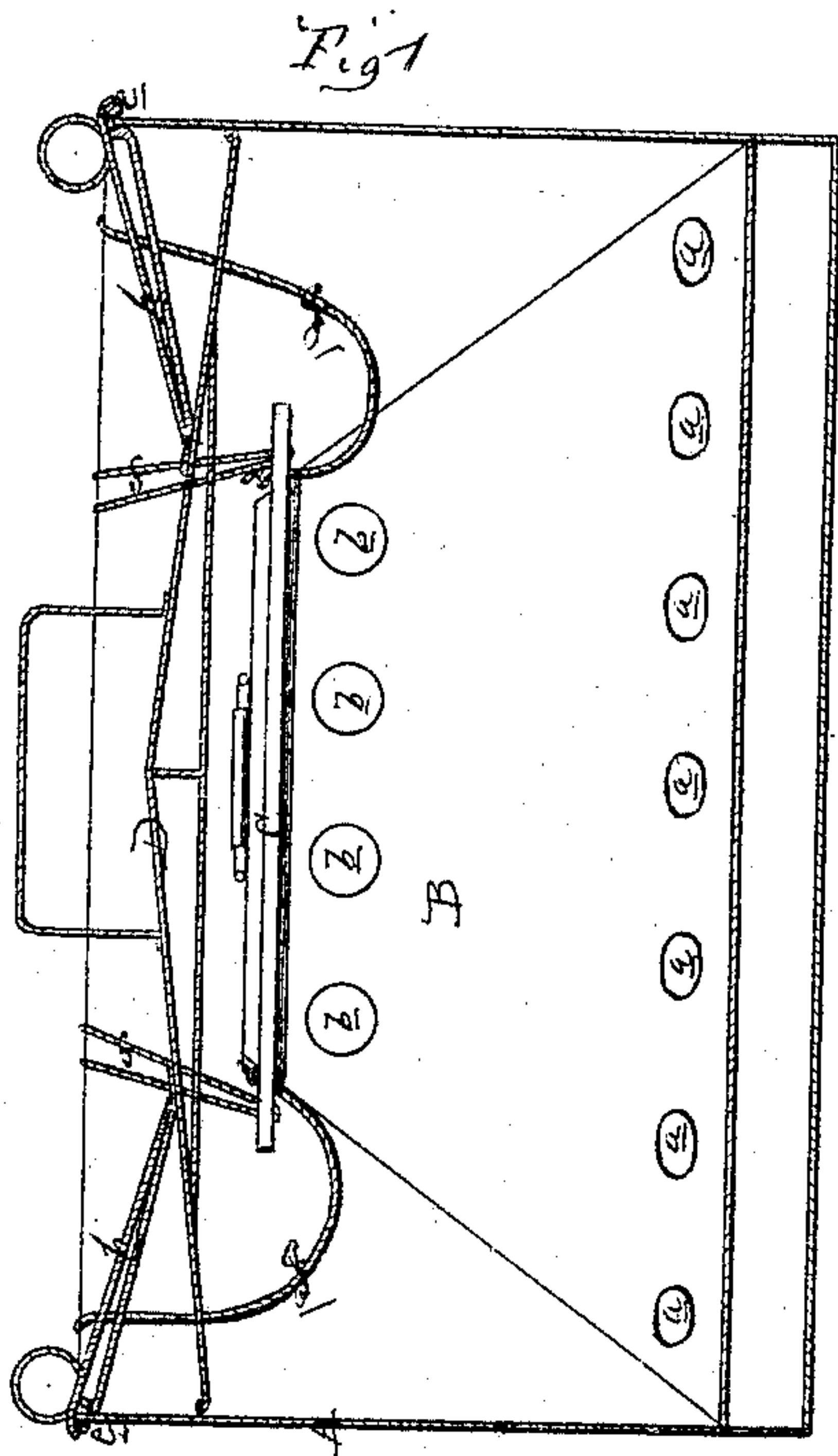


C. J. Blinn,

Wash Boiler.

No. 99753.

Patented Feb. 15, 1870.



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CHARLES D. BLINN, OF PORT HURON, MICHIGAN.

Letters Patent No. 99,753, dated February 15, 1870.

IMPROVEMENT IN WASH-BOILERS.

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

To whom it may concern:

Be it known that I, CHARLES D. BLINN, of Port Huron, in the county of St. Clair, and State of Michigan, have invented a new and useful Improvement in Clothes-Cleaning Apparatus; 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, in which—

Figure 1 is a vertical longitudinal section through the centre of the boiler and its attachments;

Figure 2 is a transverse section through the same; and

Figure 3 is a plan of the cradle and boiler.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improvement in those devices known as automatic wash-boilers, wherein the cleansing of the fabrics is effected by forcing through them currents of hot suds.

It consists in the arrangement, within an ordinary wash-boiler, of a peculiarly-constructed cradle of sheet-metal, surmounted by a cover, inserted in the boiler, and so arranged as to retain the dirt deposited by the scum overflowing it in the process of boiling.

Also, the arrangement of a device within the cradle for turning the clothes which are laid therein in horizontal folds, so that the folds will stand in a vertical position, allowing the water to pass more freely down through them to the bottom of the boiler through perforations in the cradle provided for that purpose.

In the drawings—

A represents a wash-boiler of ordinary construction.

B is a cradle, of sheet-metal, constructed in the form shown, inserted within the boiler, perforated with one or more rows of holes, *a*, in its lowest part, said holes being disposed in the direction of its length.

The sides of the cradle are perforated with a row of holes, *b*, near the top.

Handles, *c*, are attached to the cradle, for conveniently handling it.

It will be noticed that the upper corners, *d*, of the cradle are turned outward and rest against the walls of the boiler, so as to leave a water-space between the straight sides of the cradle and the adjacent walls of the boiler.

e are a pair of lugs or hooks, secured to the top of the boiler on the outside of either of its straight walls.

C is a bar or strip of wood or other material, suspended by loops or cords *f*, from the lugs *e*, so that it will rest on top of the clothes at one side.

A cord, *g*, is attached to each end of the bar, and is laid on the bottom of the cradle, with the fabrics to be cleansed resting on it, folded flat.

D is a cover, of less width than the boiler in which it is inserted, resting on the cradle. It has hinged to

its upper side, near each end, the hook *h*, having a transverse socket at the end, which embraces the edge of the boiler and thus locks the cover in place.

The operation of the device is as follows:

In the bottom of the boiler is placed a small quantity of soap, sliced thin. The cradle is then placed in position and water filled in until it rises an inch or two above the bottom of the cradle. The bar C is then suspended in place, as described. The clothing to be washed is then laid in the cradle, folded smoothly, in layers. The loops *f* are then cast off from the lugs *e*. Then, by drawing on the cord *g*, the mass of clothes is turned until the folds or layers stand vertically. The cover is then inserted in the boiler and locked in place. Heat is now applied to the bottom of the boiler. The water soon expands and rises in the spaces between the walls of the boiler and the sides of the cradle, when it pours through the holes *b*, over the upper surface of the mass.

By the expulsion of a portion of the water from below the cradle, a partial vacuum is formed in the bottom of the boiler, which causes the water on the surface of the mass of clothing to be drawn down through it and the holes *a* of the cradle into the bottom of the boiler, carrying with it the dirt extracted from the clothes.

As the ebullition and circulation of the water proceed, a large portion of this dirt and filth is again carried up by the water; but, as the holes *b* are not of sufficient capacity, being of less area than the passageway between the sides of the cradle and walls of the boiler, to permit the passage of the water through them as fast as it is forced up, a part of the water, particularly the scum or froth, containing the lighter portions of the dirt extracted from the fabrics, overflows the cover and deposits thereon said dirt, while the remainder of the water, being comparatively clear, is forced through the holes *b*, and over the clothes, the circulation being continued as already described.

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

1. In automatic wash-boilers, the bar C, provided with loops *f* and cords *g*, operating as and for the purpose set forth.

2. In combination with the bar C provided with loops *f* and cords *g*, the cradle B provided with apertures *a* and *b* and projecting corners *f*, when constructed and arranged to operate as and for the purpose set forth.

3. The wash-boiler above described, composed of the boiler A, the cradle B, the bar C, and the cover D, when each of said parts is constructed and all are combined and arranged to operate as and for the purpose set forth.

CHARLES D. BLINN.

Witnesses:

JAS. I. DAY,
R. C. SMITH.