

(No Model.)

3 Sheets—Sheet 1.

F. J. H. HAZARD.
BATH TUB.

No. 512,701.

Patented Jan. 16, 1894.

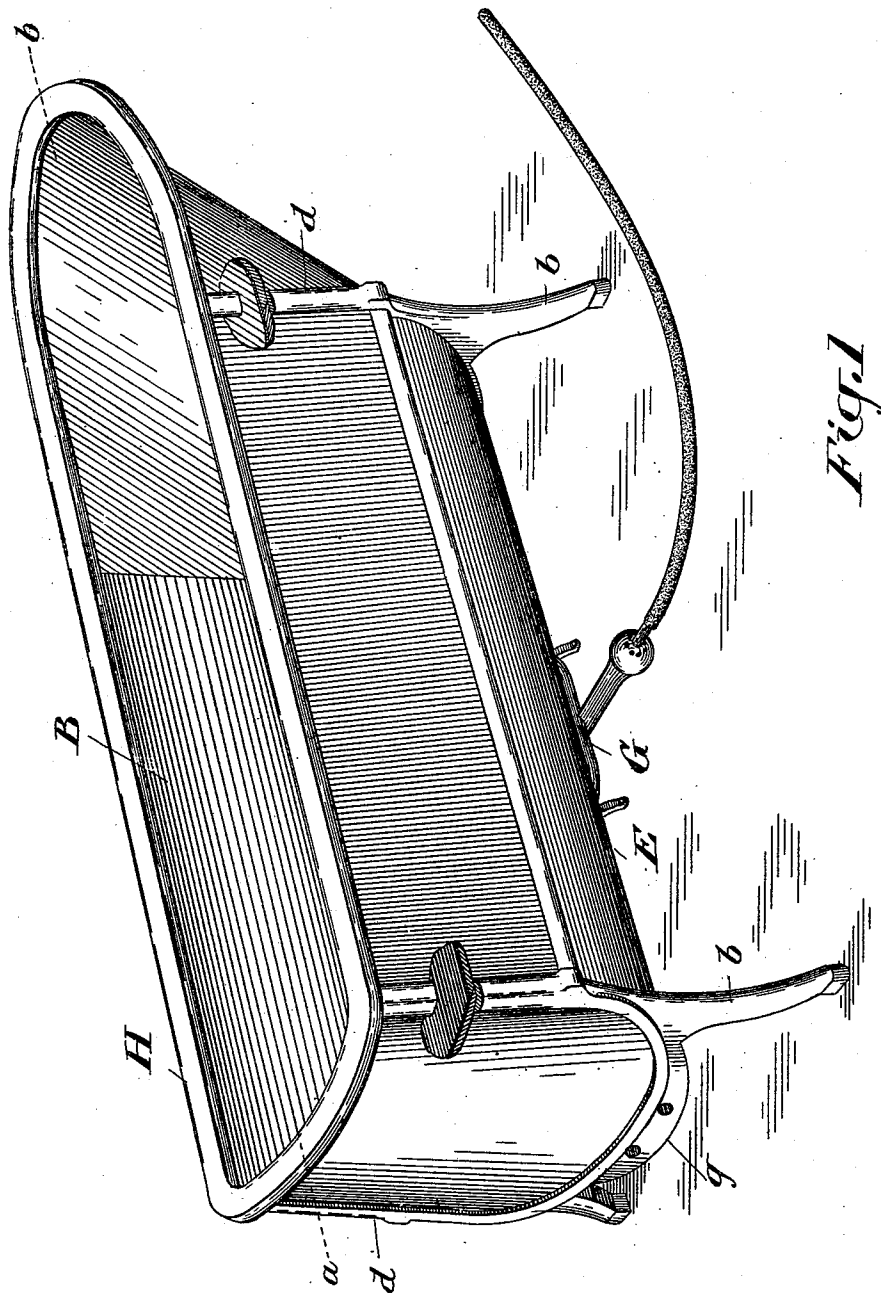


Fig. 1

Witnesses
W. J. M. Millan
J. Edw. Maybee

Inventor
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by Donald G. Ridout & Co.
Attys.

(No Model.)

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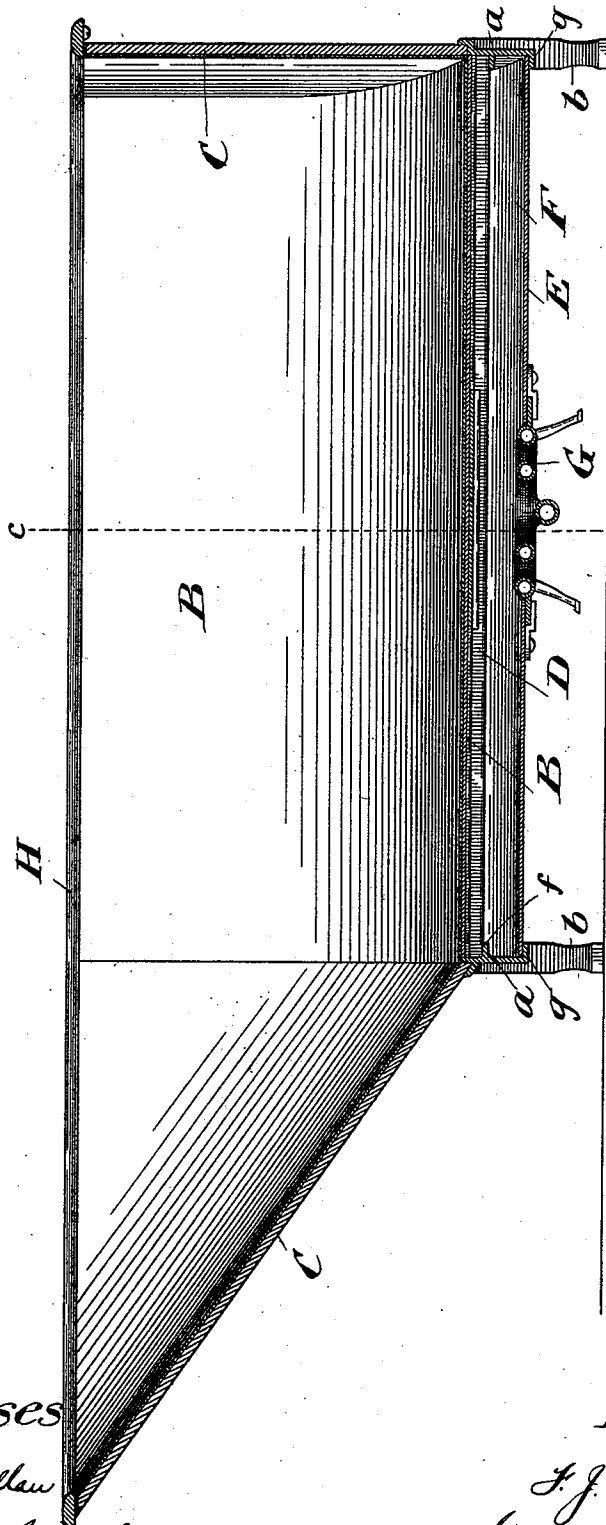


Fig. 2

Witnesses

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(No Model.)

3 Sheets—Sheet 3.

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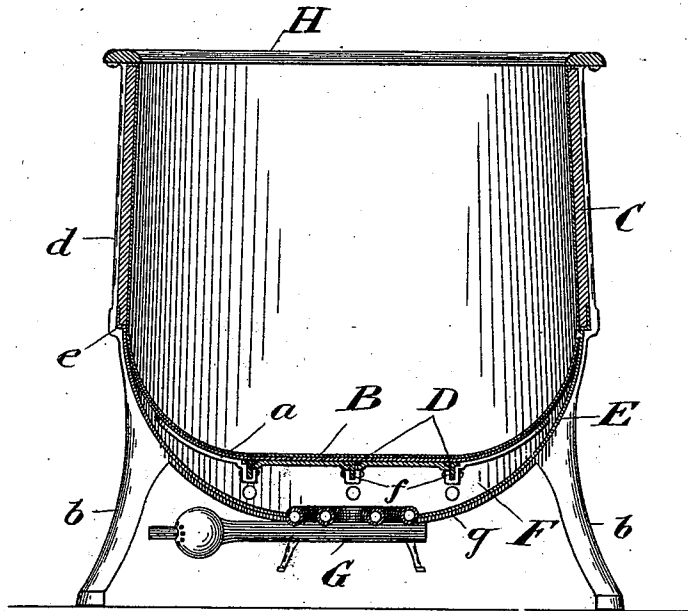


Fig. 3

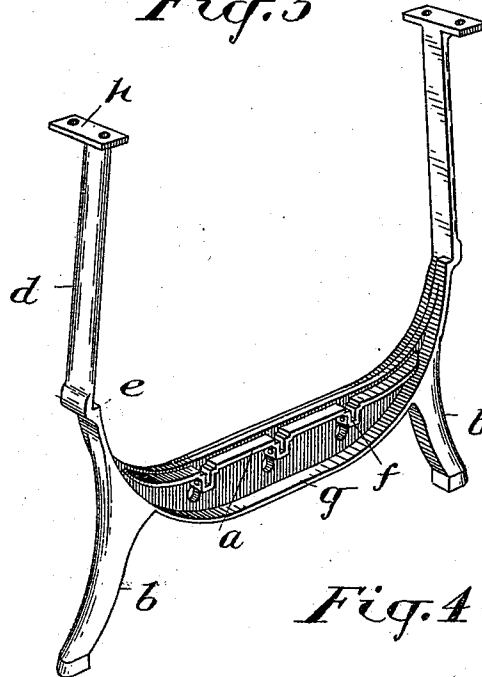


Fig. 4

Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK J. H. HAZARD, OF TORONTO, CANADA.

BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 512,701, dated January 16, 1894.

Application filed April 19, 1893. Serial No. 470,936. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK JAMES HAZARD, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented a certain new and useful Improvement in Bath-Tubs, of which the following is a specification.

The object of the invention is to construct a cheaply made and neat bath-tub capable of heating the water contained by it, and it consists, essentially, of a bath-tub having a metal lining strengthened by a wooden casing packed closely to the metal lining and held in position by fitting into recesses formed in a metal frame to which the metal lining is attached, a chamber being formed below the bottom of the bath-tub and heated by a gas stove or other suitable heating device, the whole being constructed substantially as hereinafter more particularly explained.

Figure 1, is a perspective view of my improved bath-tub partially broken away to expose its construction. Fig. 2, is a longitudinal section through *a-b*, Fig. 1. Fig. 3, is a cross-section through *c-d*, Fig. 2. Fig. 4, is a perspective detail of one of the metal frames.

At the end of the bath-tub I place a metal frame composed of the posts *d*, extending from the legs *b*. Between the posts *d*, I extend a curved flange *a*, designed to support the bottom of the inner lining B, the opposite end of the lining being supported by a similar frame. This lining may be made of a single heavy sheet of metal or preferably of a light sheet of copper resting upon a sheet of light steel. The posts *d*, are shaped to receive and hold in position the wooden side casing C, which is covered with metal lining B, as shown. On the outside of the posts *d*, I form a flange *e*, which forms a support for the wooden casing C, formed at the ends of the bath-tub.

In order to support the bottom of the metal lining B, I provide the girders D, each girder resting in a socket *f*, formed in a flange *a*, as indicated. As the flanges *a*, are carried by a frame located at each end of the straight portion of the bath-tub, the girders D, form a solid support for the bottom of the bath-tub. In order to form a chamber below the bot-

tom B, I provide a curved flange *g*, below the curved flange *a*, to constitute a support for a casing E, which casing forms a chamber F. In order to heat this chamber, I provide a gas stove G, or some other suitable heater preferably connected so that it may be readily removed and replaced as may be required.

The sides or ends of the casing E, are preferably perforated so as to admit the air necessary for the proper combustion.

On the top of each post *d*, I form a T-shaped flange *h*, on which a cap piece H, is securely fastened.

In order to protect the bottom of the bath-tub from the excessive heat of the stove, I prefer to reinforce it by an extra sheet of metal.

Should the bath-tub be made without a chamber F, I raise the flange *g*, closer to the flange *a*, just sufficient space being left to permit a casing of wood to be inserted around the bottom of the bath-tub similar to the casing C. This casing may be arranged between the girders D, or should it be found preferable to place the wooden casing in direct contact with the whole of the bottom, the sockets *f*, might be placed in the bottom of the flanges *g*, so that the girders D, shall be on the outside of the wooden casing formed around the bottom B.

What I claim as my invention is—

1. In a bath-tub, a metal frame for the end thereof, having a flange to receive and support the inner lining, a second flange to support a casing, said casing forming a chamber under the inner lining, and a burner placed in said chamber and adapted to heat the contents of the tub, substantially as described.

2. A metal frame for the end of a bath-tub and consisting of corner posts shaped to receive and hold the wooden side casing, a cross-flange to support the bottom of the wooden casing and a curved cross-flange to support the inner casing, substantially as and for the purpose specified.

3. A metal frame for the end of a bath-tub and consisting of corner posts *d*, shaped to receive and hold the wooden side casing, a cross-flange *e*, to support the bottom of the wooden casing, a curved cross-flange *a*, to support the inner casing, and a flange *h*, to sup-

port a cap-piece, substantially as and for the purpose specified.

4. A bath-tub composed of a metal frame at each end having flanges *a* and *h*, a metal lining B, resting at each end on the said flanges *a*, in combination with a wooden casing held by the posts *d*, and a cap-piece held by the

flanges *h*, substantially as and for the purposes specified.

Toronto, March 17, 1893.

FREDERICK J. H. HAZARD.

In presence of—

J. EDW. MAYBEE,

W. G. McMILLAN.