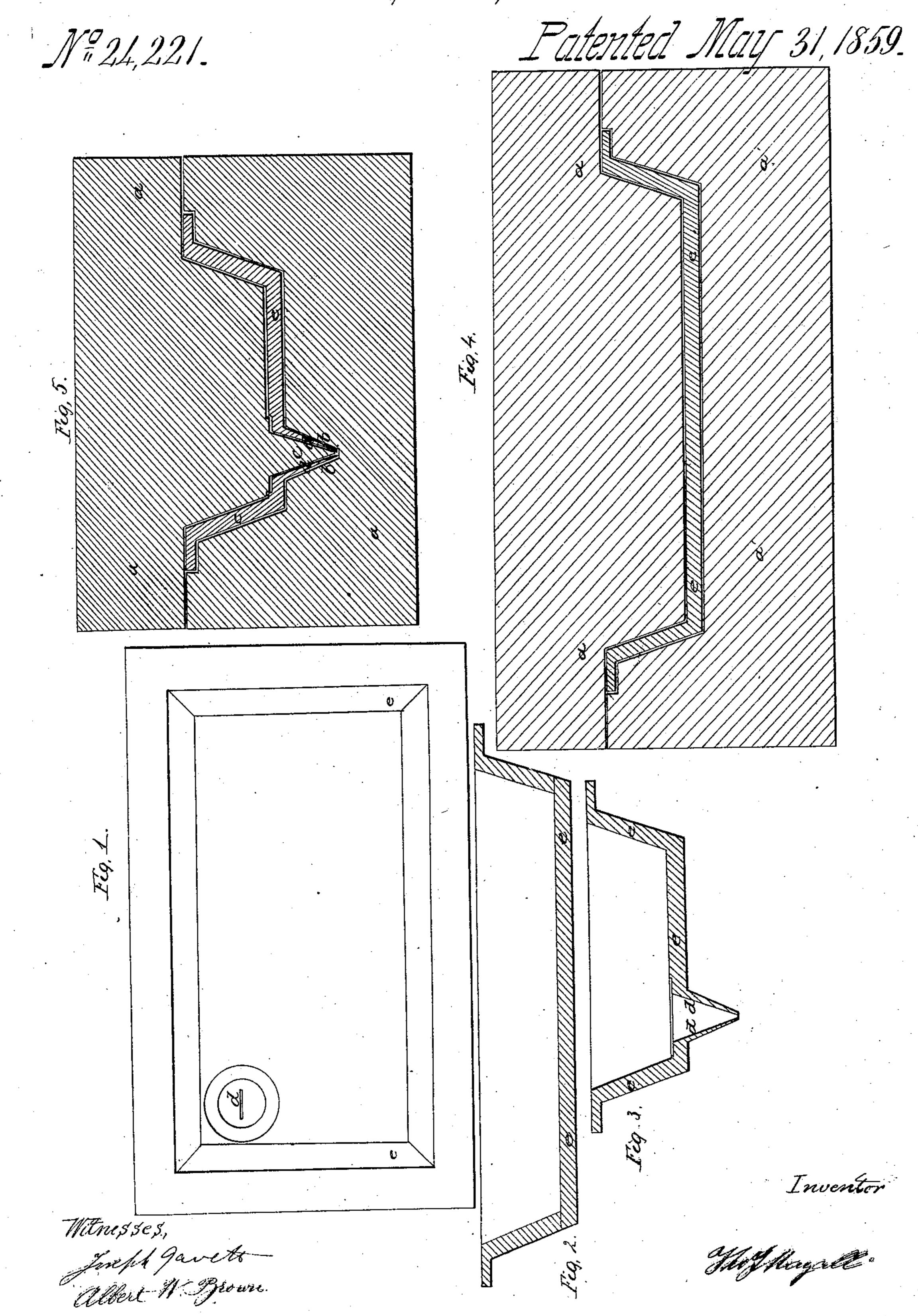


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UNITED STATES PATENT OFFICE.

THOMAS J. MAYALL, OF ROXBURY, MASSACHUSETTS.

WATER-TIGHT SINK.

Specification of Letters Patent No. 24,221, dated May 31, 1859.

To all whom it may concern:

Be it known that I, Thomas J. Mayall, of Roxbury, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in the Making of Water-Tight Sinks, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact description of the same, wherein I have set forth the nature and principles of my improvements by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a plan or top view of a sink. 20 Fig. 2, is a central longitudinal, vertical section of same. Fig. 3 is a transverse vertical section. Figs. 4 and 5 are sectional views showing the sink in its molds.

My invention consists of a new method of making water-tight sinks. To accomplish this result I have after various experiments found desirable compositions of gutta percha and india rubber and other substances, and a method of forming them into sinks, which I will describe.

I make a composition in the following proportions; viz; one half pound of the rubber rags or clippings which are very well known among rubber manufacturers, being the shreds of cloth coated with rubber, one half pound of india-rubber or gutta-percha, six ounces of litharge, six ounces of sulfur, half an ounce of carbonate of magnesia and mix them thoroughly together. This composition is to form the body of the sink. To form the drainage pipe, I use a different composition which is designed to be highly elastic and is formed of any of the well known elastic compositions of vulcanized in-dia rubber.

The composition for the body of the sink is placed in an iron mold formed in two parts, the bottom being a cavity of the shape of the outside of the sink, tub, or bowl and the top being in the form of a die or follower, which presses the soft rubber or gutta percha into the cavity and at the same time impresses upon it the desired shape of the inside of the sink and the flange at the top.

In the lower part of the mold a a' there is

a cavity b with a corresponding follower c. In this part of the mold a' I place the elastic composition which is designed to form the elastic drain pipe d of the sink e. The whole 60 is then heated in any suitable heater and at a temperature of 200° for four hours.

In forming the drainage pipe I make it round at the top, where the diameter varies according to the size of the sink,—its length 65 varies as desired, but the usual length is about four inches. In order to allow the water to flow through and at the same time to prevent large substances from being carried down, as well as to make a scent trap to 70 stop the foul air from ascending from the drains, I make this drain pipe in a form gradually changing from a circular hole at the top to a wedge shape at the bottom, where the water is allowed to pass through a 75 slit in the wedge. The elasticity of the rubber at the bottom of the pipe keeps the slit closed when water is not passing through.

The composition of gutta-percha or indiarubber and the degree of heat to be used, ad- 80 mit of great variations, and I do not particularly limit myself to any particular composition or degree of heat but have described the best.

The best consistency for the sink, is, of the 85 hardness of hard sole leather, but harder or softer compositions can be used with good results.

The mode of making these compositions harder or softer is well known and need not 90 be described.

In making the sink, the inside of it can be made hard and the outside soft or the reverse if desired, either by modification of the composition or by applying different de- 95 grees of heat to the upper and lower sides of the mold, in modes well known among rubber manufacturers. When the sink is very thin, it can be stayed or strengthened by ribs of rubber running across the lower side of 100 the sink. The sink can be made of any desired thickness, and the molds will regulate the thickness, but for ordinary purposes, an eighth of an inch is sufficient on account of the remarkable strength and tenacity of vul- 105 canized india-rubber and gutta-percha, compounded as described. The sinks may be made of any desired size or shape, and the drain pipes and outlets can be varied at will. When a metallic outlet or drain of a hard 110 rubber or other kind of strainer is desired, it can be placed in the mold and firmly fixed

in its place, in the process of vulcanization or it can be placed in the sink afterward.

By the means above described, I am enabled to form sinks without a joint or crack, which are not in danger of being broken and which do not absorb the fluids passing through and which prevent the dishes which are used in them, from being broken.

Having thus fully described the nature of my said improvement and the manner in which the same is or may be carried into effect, I would observe that I do not intend in this application to claim the elastic drainage pipe terminating in a wedge shape as this

will constitute the subject matter of a sepa- 1s rate application for patent, but

What I do claim as my invention and de-

sire to secure by Letters Patent is—

The production, as a new article of manufacture, of watertight sinks formed from 20 vulcanized india rubber or gutta percha, substantially in the manner and for the purposes above set forth.

THO. J. MAYALL.

Witnesses:

JOSEPH GAVETT, ALBERT W. BROWN.