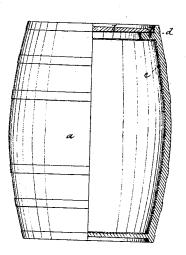
It. Futuani. It.,

Cast Iron Fairet.

No. 111,679. Fatential Feb. 7. 1871.



Witnesses:

Avet Pytnam 1.

Attorneys.

United States Patent

ABEL PUTNAM, JR., OF SARATOGA SPRINGS, NEW YORK.

Letters Patent No. 111,679, dated February 7, 1871.

IMPROVEMENT IN CAST-IRON BARRELS.

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

To all whom it may concern:

Be it known that I, ABEL PUTNAM, Jr., of Saratoga Springs, in the county of Saratoga and State of New York, have invented a new and improved Castiron Barrel; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which-

The figure is a sectional elevation.

This invention consists of a cast-iron barrel in combination with a porcelain lining.

Referring to the drawing—

a is the barrel, which is cast all in one piece, with the exception of the upper head b, which is cast separately, of the proper size, and secured to its place by screws, a rubber gasket, d, being interposed between the head and its annular seat, to prevent leak-

c is the porcelain lining of the barrel, said lining being applied in the same manner as to the interior of kettles and other vessels to which porcelain has

heretofore been fitted.

The cast-iron barrel thus lined is intended for hold-

ing mineral waters, and especially during the transportation of the same on ship-board or on land, an office which the strength and cheapness of the barrel and its protection against the chemical action of the mineral-water by means of the lining fit it peculiarly to perform.

 ${f I}$ am aware that it is no new thing either to construct a barrel of wrought iron, or to line a cast-iron vessel with porcelain; but wrought iron cannot be applied to this purpose, except in the form of staves, a shape by which its inherently greater expensiveness, as compared with cast-iron, is still farther increased; and, although kettles have been lined with porcelain, I am not aware that a barrel has been thus treated.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is-

As a new article of manufacture, a cast-iron barrel, combined with a porcelain lining, as specified.

A. PUTNAM, JR.

Witnesses:

Solon C. Kemon, CHAS. A. PETTIT.