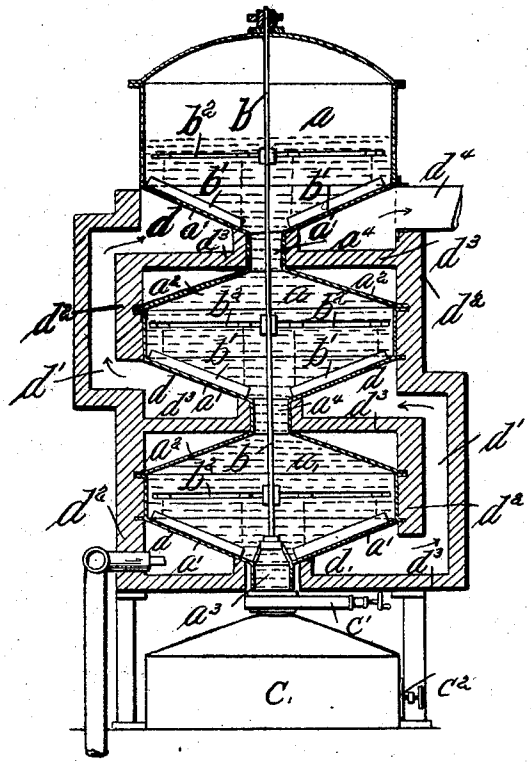
No. 609,128. Patented Aug. 16, 1898.

# H. TEE.

## SALT PAN.

(Application filed Apr. 29, 1898.)

(No Model.)

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# UNITED STATES PATENT OFFICE.

HARRY TEE, OF LIVERPOOL, ENGLAND.

## SALT-PAN.

SPECIFICATION forming part of Letters Patent No. 609,128, dated August 16, 1898.

Application filed April 29, 1898. Serial No. 679,260. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY TEE, a subject of the Queen of Great Britain, residing at Liverpool, England, have invented certain new and useful Improvements in Salt-Pans, of which the following is a specification.

The invention consists in the combination and arrangement of parts hereinafter described, and particularly pointed out in the claim.

The drawing represents a central vertical section of the apparatus.

The apparatus comprises a plurality of superposed vessels $a$, with conical bottoms $a'$ and roofs $a^2$, and connected together at their centers by necks $a^4$. These vessels are inclosed at the sides by walls $d^2$, the spaces $d'$ within constituting flues, while partition-walls $d^3$ prevent the gases from acting on the roofs $a^2$. The lowermost of the vessels is heated below by solid fuel (or gas) in the furnace-space $d$, and the gases of combustion after acting on the bottom of this vessel pass up into the flues $d'$ between the lower and second vessels, then up into the upper chamber $d$, and finally away by the chimney-flue $d^4$. When the boiler or pan is gas-fired, the whole quantity of gas may be burned in the bottom furnace or chamber $d$, or partly here and partly in those above. The uppermost vessel $a$ constitutes both an evaporating vessel and a steam vessel, the upper part of which constitutes a steam-dome. The bottoms of these vessels $a$ are scraped by rakes $b'$, operated from a common central rotating shaft $b$, which moves the salt centripetally to the central openings $a^4$, as in the pan above described. Below the lower vessel $a$ there is a salt-depositing chamber $c$. The connection $a^3$ between it and the salt-pan above is controlled by a valve $c'$, while the salt is removed from this chamber through the door $c^2$. The salt made in the upper vessels $a$ passes into the lowermost vessel $a$, and thence into the vessel $c$, the valve $c'$ being normally open. To remove the salt from $c$, the valve $c'$ is closed, and $c$ being then cut off from the door $c^2$ can be opened, the pressure in $c$ being first removed.

What is claimed in respect of the herein-described invention is—

In combination, a series of chambers $a$ arranged one above the other and having inclined bottoms and openings axially in line, the necks between the said chambers, the shaft common to all the chambers and extending through the necks, the scrapers connected with the said shaft, the heating-flues $d'$ and the partitions $d^3$ between the chambers, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HARRY TEE.

Witnesses:

JOHN H. WALKER,

JOHN W. BROWN.