

(1) Number of pages 18
(2) Date of repair Sept
(3) Initials of the Referencer lcn

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Police. DEPARTMENT

G.O. No. B.P. No.	(76) (185-7)	Press. Mis.
Dated	25. 1. 1881.	197

V.B
Not to be folded or roughly handled

SPECIFICATION

Of a Steam Boiler and Furnace
or other Vegetable matter filed pursuant to

1859.

My invention is entirely
fuel and clearing out ashes or refuse
besides possessing the advantage of carrying
up steam very rapidly entirely dispensing
for stoking purposes. The boiler is either
a vertical or upright one with internal
to its size the furnace or furnaces being
one both containing

Products of combustion

These tubes (B) which lead to the
External Hue or Casing (D) which is
external shell of the boiler in order
This casing may be made either of iron
or casing (D) leads on the gases to the
with the chimney whence it escapes
upon a Baseplate or Frame (F)
castiron but which can if required
and is fitted with circular fire bar
converging towards the bottom

and is fitted with circular fire bar

converging towards the bottom

in the usual way through the Door
shown at (R) in the drawing by taking
closing the opening at (C) and allowing
out through the opening at (A) as
and useful.

Another modification of the

rate and means of

ON

of a Steam Boiler

mode of supplying

face of a boiler

the room and getting

with manual labour

operation is applied in

furnaces according

to the nature of the

there is a line

to go round the

the heating surface

the external Hue

which communicates

The boiler rests

the drawing is of

made of brickwork

spaces between them

in the chimney

is never, may be used

on the fire grate

prevention of first

heated gases to pass

and most convenient

of sloking (not shown) having another circular or machinery means the burnt husks or fixed grate below another. This grain is Hopper (A) or

The Fuel to give stiffness to at (M) the Hopper cock at (P) and at (S) in the drawing.

In working husk sawdust is

Hopper (A) a fire is power supplied from convenient.

Another a shut, Slide or Valve a fire in the furnace. Hopper (A) a slide or valve in A speed or quantity required.

The furnace is shown to

in the drawing) is a fixed circular grate or top of it, made to revolve by gear or machinery a self clearing one as much of would be allowed to pass through the over the openings come directly over one supplied with fuel either through the a door or doors as is shown at (K) and fixed

are introduced to promote circulation as well as force or internal flow. The supply Valve is shown (J) the Feed Water chest at (O) the Blow off cock at (R) and Teller gauge glass at (S) in the drawing.

Boiler (shown in the drawing) Fuel Vegetable matter is first supplied to the Hopper (A) a fire is lighted in the Furnace (H) with wood where sufficiently to heat the boiler or

small engine or by any other means most

working this Boiler and Furnace is having the bottom of the Hopper A and after kindling with wood, coals or other fuel, to open the shut, allowing it to fall by gravitation into H at a sufficient speed or quantity required.

The furnace is shown to

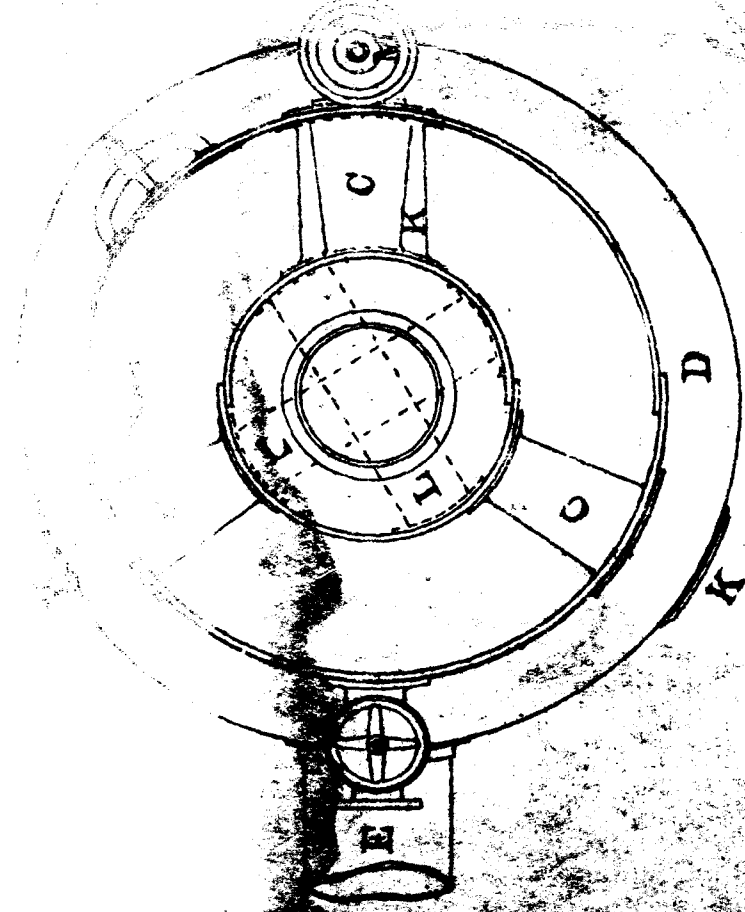
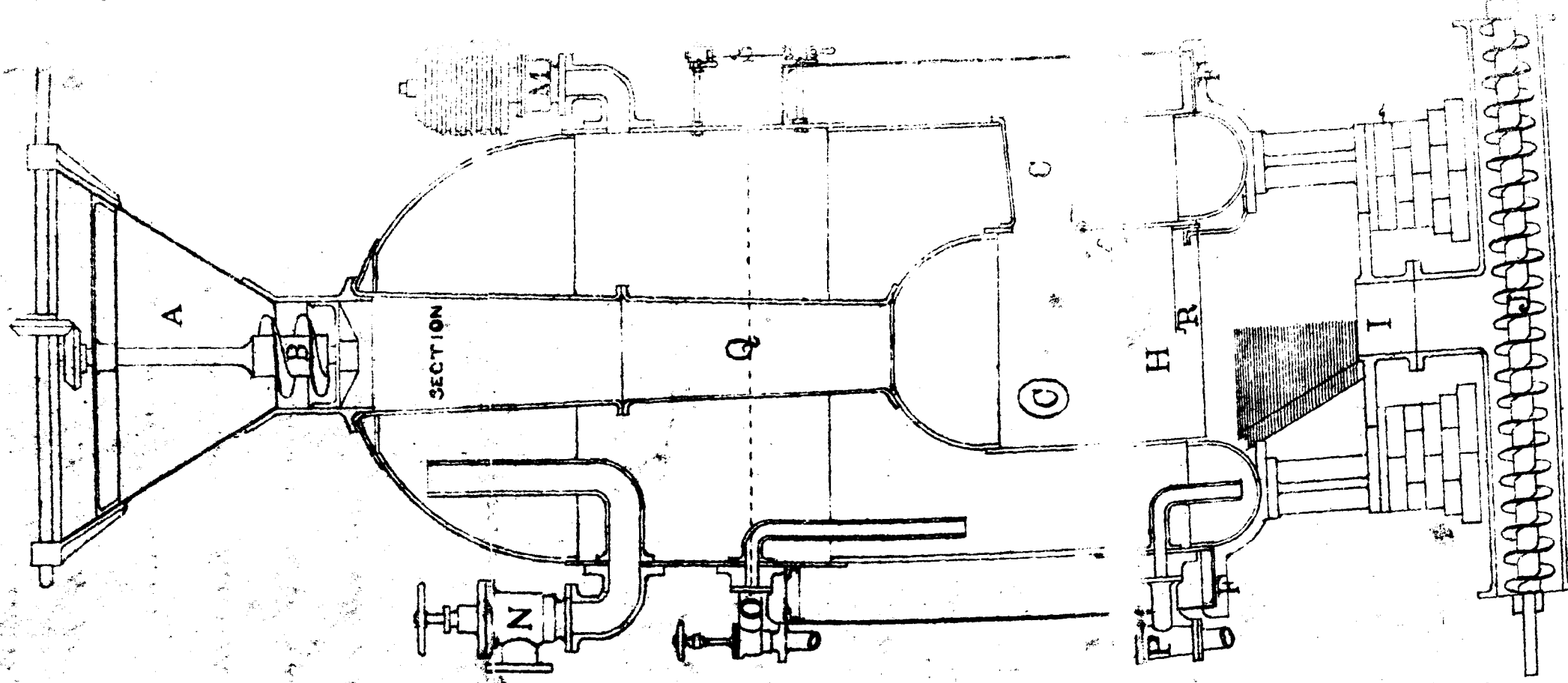
H, The latter method is adopted where power is not convenient to be had, or during the time that steam is being raised to drive the power which is to be used for the pump and cleaning gear.

Dated at London

the 31st day of June 1880

A. P. Russell

BOILER FOR BLENNING PADDY-HUSK SAW-DUST OR OTHER VEGETABLE MATTER



Scale 1/2 foot

each

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D

e

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5

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Public (1881) Dept
Specifications
Register No. 128 of 1880.

RECEIVED in the Office of the Secretary
Government of India in the Home, Revenue
Agricultural Department on the 5th of January
1881.

F. Danks

10/9/81

Secretary to the Govt. of India.

Recd 19 Jan 1881.

No: 1108.

No. 19

COPY forwarded to the Government of Fort
St. George in conformity with Section 10 of
Act XV. of 1859.

F. Danks

Secretary to the Govt. of Ind

FORT WILLIAM;
HOME, REV. & AGRI. DEPT.
(PATENTS),
The 14th of Jan 1881.

7 H
1881
1/15/81

Joseph Green Cooke Locomotive
and Carriage Superintendent Cude and
Nottingham Railway Locomotive do solemnly
and sincerely declare that I am in
possession of an invention for the application
of Carbonated Atmospheric air for lighting
or illumination purposes generally, and
particularly for lighting Railway Carriages
Stations, Signals, &c. which invention I
believe will be of public utility; that I
am the inventor thereof, and that the same
is not published, known or used in India
or in any part of the United Kingdom
of Great Britain and Ireland to the best
of my knowledge and belief; and that to the
best of my belief the instrument in writing
under my hand hereunto annexed particularly
describes and ascertains the nature of the
said invention, and in what manner the
same is to be performed.

The 8th day of January 1881
J. Green Cooke

5/18
Specification of an invention for the
Application of Carburetted Atmospheric
Air for lighting or illuminating purposes
generally and particularly for lighting
Railway Carriages, Stations Signals &c.

5/18
The invention consists in the
method or mode of producing a regular
and constant current of atmospheric air
at a required pressure and temperature, which
is afterwards carburetted and converted
into illuminating gas for lighting purposes
generally, and particularly for Railway
Carriages, Stations Signals &c. The
invention also includes a method for
supplying the kerosene or inflammable oil
or spirit for carburetting the air, in such
a manner as to effectually avoid and
prevent any waste of spirit or danger
from taking fire during the operation of
charging the apparatus with the inflammable
spirit.

The invention does not require drawings
to describe it, and the various parts may
be varied in form and design to suit
circumstances and localities. The manner
of producing the stream or current of air
is

6/5/21
is as follows:-

A vertical pipe or pipes of suitable length and diameter is or are placed vertically, the upper end or ends being slightly bell mouthed or conical and open to the air, the lower end or ends being below the level of water or other liquid in a closed airtight tank or receiver. In to the upper end or ends of the vertical pipe or pipes an intermittent or pulsating supply of water or other liquid is made to fall which drives before it downwards, the air contained in the vertical pipe or pipes, also the air which enters the pipe or pipes between the interruptions or pulsations of the water or other liquid.

In this manner the air and the water or other liquid pass downwards together into the airtight tank or receiver, the air being therein collected in the upper part behind the water or other liquid and the surplus water or other liquid above a certain required level, allowed to escape through an inverted syphon or other suitable org, i.e., to be pumped up to an upper tank and used over again or allowed to run to waste as circumstances may require.

The air thus collected is conducted by a suitable pipe to the gas burners where
by

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3)
by means of a suitable annular chimney or
chamber, or spiral coil of pipe over or surrounding
the gas jet or flame, it becomes heated, and
is conveyed from thence to a chamber filled with
some suitable absorbent material saturated
with Gasoline or other suitable inflammable
oil or spirit from which the air takes up the
vapour of the Gasoline or spirit and becomes
inflammable gas; the gas thus formed is
conducted in the ordinary manner to the
burners for illuminating purposes.

The manner of saturating the air
with the spirit of gasoline or other inflammable
oil or spirit as above described is not new,
and does not form part of the invention, but
the manner of charging the carbureting chamber
with gasoline or other inflammable oil or
spirit is new, and forms part of the invention
herein described and is as follows:- The
gasoline or other suitable spirit is put into
a drum or can of suitable material and
dimensions, the drum has a conical
top terminating in a stop cock and an
elbow pipe; the end of the elbow pipe is
fitted with a screw which fits into an
union nut tightly placed and attached
to another or to cock on the carbureting
chamber. To charge the chamber with gasoline
or other suitable spirit the can or drum is
screwed to the chamber by the union nut,
the drum is then inverted and both stop
cocks opened, at the same time; the gasoline
or

or other oil or spirit then flows by gravity into
the ~~carburettor~~ chamber saturating the
absorbent of ternal it contains with
the gasoline or spirit, the drum is then
reversed or brought back to its lower
or former position and the surplus gasoline
or spirit or that portion which has not
been absorbed in the carburettor chamber
finds its way back into the drum. The
stop cocks are then both closed and the
drum unscrewed from the union nut
and removed. The union nut as
described ~~is~~ as a swivel and allows
the drum or can to be inverted or
turned both in upwards and vice versa
at pleasure. In this manner the
vapour of the gasoline or other inflammable
air or spirit cannot escape and both
waste of material and risk of taking
fire during the operation of charging
are effectually avoided and prevented.

Lucas
Jan 24th 1881

J. H. Cooke

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7. *Chenopodium*

No: 119

Recd of 20/8/87

No. 24

Copy forwarded to the Government of Port
St. George in conformity with Section 10 of
Act XV. of 1859.

7. *Chenopodium*

Secretary to the Govt. of India.

PORT WILLIAM;
 HOME, REV. & AGRI. DEPT.
 (PATENTS).
 The [unclear] 182[unclear]

Public Department

PROCEEDINGS of the. M. P. RAS GOVERNMENT.

and the following endorsement of the ^{Under} Assistant Secretary to the Government of India, Home Department.

Here: 24 January 1881, No. 19124.

ORDER THEREON 25 January 1981 R. 76

The following No. will be published in the Gazette once.

Notice is hereby given that there have been received in the Office of the Chief Secretary to Government, where any of them may be inspected at all reasonable times, for payment of a fee of one Rupee, copies of the Specification of the inventions in which the following are brief descriptions

A Steam Boiler, Furnace for burning Paddy
Husk, Saw dust, or other vegetable matter.
Made by Mr. J. H. Small, Engineer, Rangoon.
For the application of Carburetted atmos-
pheric air for heating or illuminating
purposes generally, and particularly for light-
ing Railway Carriages, Station Signals &c.
Made by Mr. Joseph Cooke, Locomotive &
Carriage Engineer, & Rohilkund Railway, Lucknow.

in accordance with Section X,

Act XV of 1859.

Ag. 87. 21.1.81

Aug 25/1/81

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Public (1881) Sept
No 76 Min
dated 25th Jan'y /81