

REFERENCES TO LETTERS ON THE DIAGRAM.

A.—Stone or brick foundation.

B.—Double brick wall $\frac{1}{2}$ brick thick with hollow space between G—for circulation of air which enters through the holes.

O.—And when warmed communicates with the hot air flues H by small perforations R.

J.—Through headers to bind the double brick casing.

F.—Fire box.

M.—Door to fire box. P.—Ash pit. N.—Door to ash pit.

E.—Entrance channels for pure air from outside.

D.—Air chamber where the air is heated by contact with and radiation from the tubes.

T.—Through which the products of combustion pass.

I.—soap stone or fire brick lining to fire box.

K.—Front smoke box door for cleaning out the tubes. C.—rear smoke box doors.

V.—Openings in the top plate of air channels for sub-dividing the air previous to its entrance into the air chamber D where the arrows show its direct vertical direction towards the hot air flues H.

The arrows in the smoke boxes S and in the tubes T show the direction of the products of combustion.

N. B.—Scale $\frac{1}{2}$ inch to a foot.