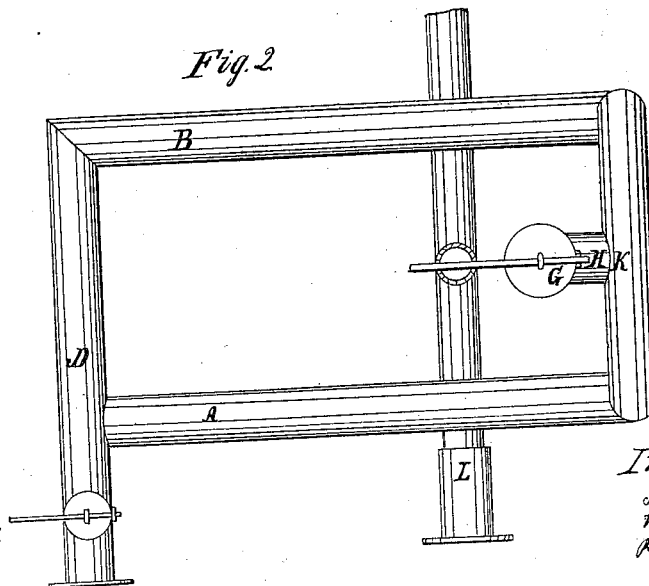
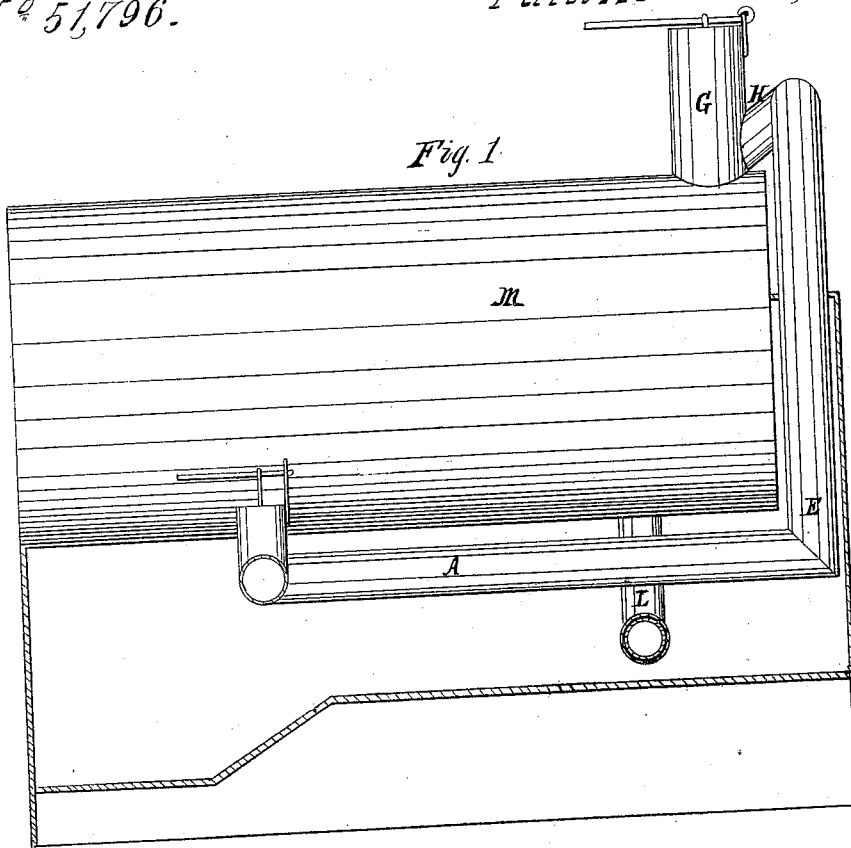


Brown & Gregg,
Steam-Boiler Superheater,
Patented Jan 2, 1866.
N^o 51,796.



Witnesses

John P. Jacobs
Wm. H. Anderson

Inventor

N. Weston
H. B. Gregg
R. T. H. Alexander atty

UNITED STATES PATENT OFFICE.

NEWTON BROWN AND H. B. GREGG, OF GRATIS, OHIO.

IMPROVEMENT IN DEVICES FOR SUPERHEATING STEAM.

Specification forming part of Letters Patent No. **51,796**, dated January 2, 1866.

To all whom it may concern:

Be it known that we, NEWTON BROWN and H. B. GREGG, of Gratis, Preble county, in the State of Ohio, have invented certain new and useful Improvements in Apparatus for Superheating Steam; and we hereby declare that the following is a true and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of our invention consists in the arrangement of certain mechanical devices for raising the temperature of steam before introducing it into a common steam-cylinder.

Figure 1 in the annexed drawings represents a side elevation of the boiler and steam-pipe attached, with a portion of the furnace removed. Fig. 2 represents a plan view of steam pipes or heaters with the boiler removed.

The letters A and B designate two pipes running lengthwise of the boiler M. The pipes A and B extend about two-thirds of the length of the boiler M, and are placed in the furnace a few inches below M. The ends of pipes A and B nearest to the door of the boiler are connected with the transverse pipe D, which extends at its outer end beyond the furnace to convey the superheated steam to the cylinder. The opposite ends of the pipes A and B form a connection with the vertical pipes E, the pipes E being connected together by the cross-pipe K.

G represents a pipe placed at the top of boiler M, near its end. From G to the cross-pipe K extends the short connecting-pipe H, through which the steam from the boiler M enters into the cross-pipe K, and from thence is conveyed through the vertical pipes E into the horizontal pipes A and B, and from thence into the transverse pipe D, from which it is discharged into the cylinder.

L designates the pipe used for cleaning the boiler.

We are aware that the process of superheating steam is not new; but we claim that the construction of ours is a great improvement, inasmuch as there is much greater surface of pipe exposed to the heat of the furnace than in the devices hitherto used, and a consequent increase of the temperature of the steam before it enters the cylinder.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The arrangement of the pipes A and B, the transverse pipe D, the vertical pipes E, the cross-pipe K, and the pipes H and G, the whole constructed as and for the purpose herein set forth.

NEWTON BROWN.
H. B. GREGG.

Witnesses:
N. B. COOPER,
A. STIVERS.