H. B. KERRUISH.

SMOKE CONSUMER.

APPLICATION FILED MAR. 13, 1912.

1,046,196. Patented Dec. 3, 1912.

Fig. 2.

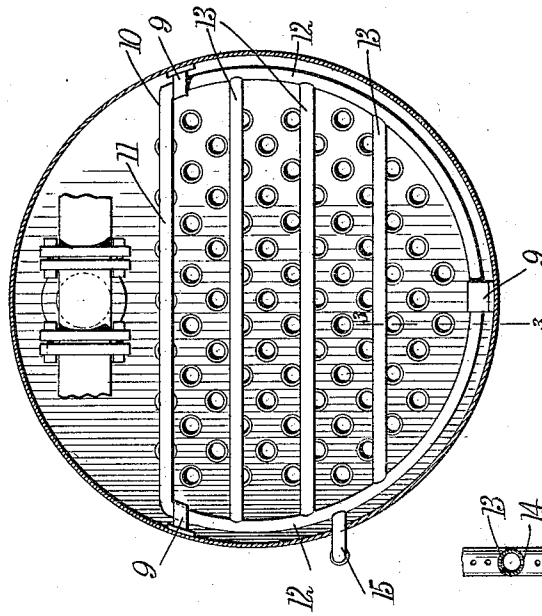


Fig. 3.

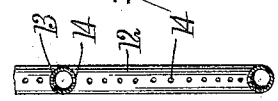
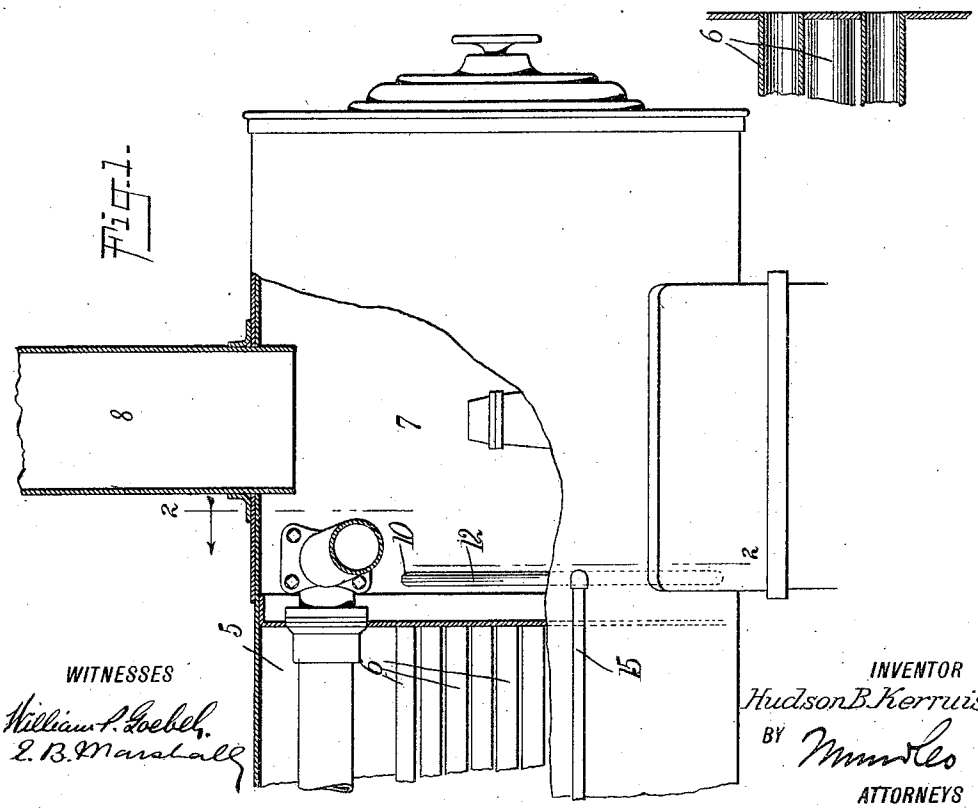


Fig. 1.



WITNESSES

William P. Goebel.

E. B. Marshall.

INVENTOR

Hudson B. Kerruish

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

HUDSON B. KERRUISH, OF SULLIVAN, MISSOURI, ASSIGNOR OF ONE-HALF TO HIMSELF, AND ONE-FOURTH TO WILLIAM BOYNTON AND ONE-FOURTH TO ROBERT H. SHERRY, OF ST. LOUIS, MISSOURI.

SMOKE-CONSUMER.

1,046,196. Specification of Letters Patent. **Patented Dec. 3, 1912.**

Application filed March 13, 1912. Serial No. 683,473.

To all whom it may concern:

Be it known that I, HUDSON B. KERRUISH, a citizen of the United States, and a resident of Sullivan, in the county of Franklin and State of Missouri, have invented a new and Improved Smoke-Consumer, of which the following is a full, clear, and exact description.

My invention relates to smoke consumers, and it has for its object to provide a flue boiler with pipes with openings at the front of the boiler, through which air may be carried to mix with the heated gases coming from the flues at the front of the boiler to complete the combustion.

Additional objects of the invention will appear in the following complete specification, in which the preferred form of the invention is disclosed.

In the drawings similar characters of reference indicate corresponding parts in all the views, in which—

Figure 1 is a sectional view showing the front of the boiler, supplied with my smoke consumer; Fig. 2 is a sectional view on the line 2—2 of Fig. 1; and Fig. 3 is a sectional view on the line 3—3 of Fig. 2.

By referring to the drawings it will be seen that I have shown my invention as applied to a boiler of the locomotive type, but it will be understood that the smoke consumer may be used on other types of boiler. The boiler 5 is supplied with the flues 6, the smoke box 7 and the smoke stack 8, all of the usual type. Disposed in and supported in the smoke box 7 by the collars 9 there is a pipe 10, which has a horizontal portion 11, disposed transversely of the smoke box 7, and side portions 12, which are curved to conform with the configuration of the sides of the boiler, and are spaced therefrom. These side portions of the pipe 10 are connected by transverse pipes 13. The pipes 12 have orifices 14, which are disposed inwardly, and away from the boiler tubes 6, the transverse portion 11 of the pipe 10, and the pipes 13, also being provided with orifices 14, which are disposed away from the boiler tubes 6. Air is supplied to one of the side portions 12 of the pipe 10 by a pipe 15, so that when the air is supplied to this pipe 15 either through the air reservoir by an air pump, fan blower or other means, the air will pass through the pipe 10, and through the pipes 13, and out of the openings 14, to mingle with the gases as they come from the flues 6 of the boiler to complete the combustion immediately, and clear the gases of all smoke.

It will be understood that while I have shown one form of my invention in the drawings, other applications of my invention may be used, since my invention includes all constructions in which air is admitted between the fire chamber and the smokestack, whether flue boilers are used and whether the boilers are stationary or of other types.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

In combination with a flue boiler, a pipe having side portions and disposed at the front of the boiler, with openings for directing jets of air inwardly to meet the heated gases passing from the flues, transverse pipes connected with the side portions of the first-mentioned pipe, and having openings for directing jets of air to meet the gases passing from the flues, and means for supplying the pipes with air.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HUDSON B. KERRUISH.

Witnesses:
JAMES B. FLAUGHER,
TRACY R. SHAFFER.