

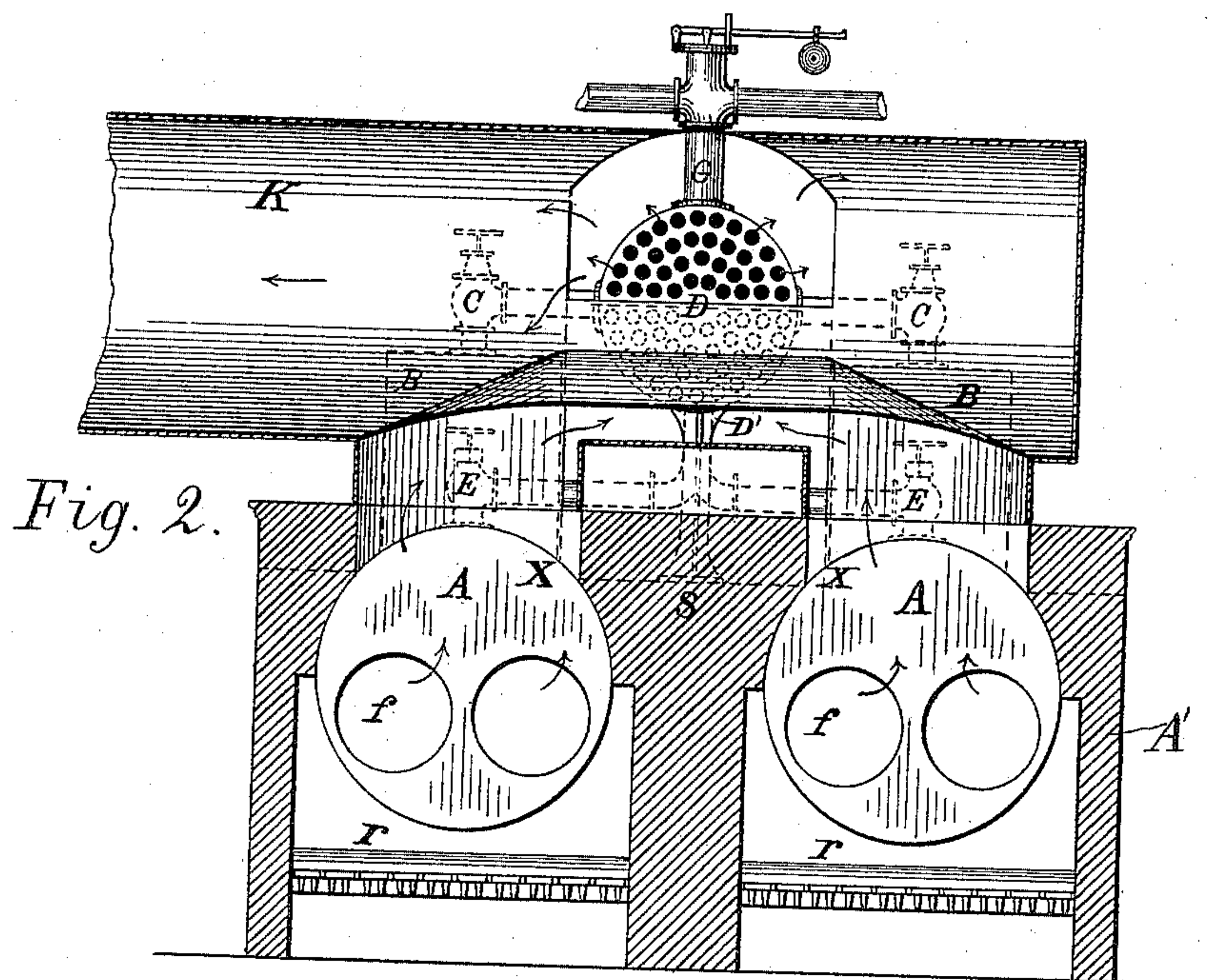
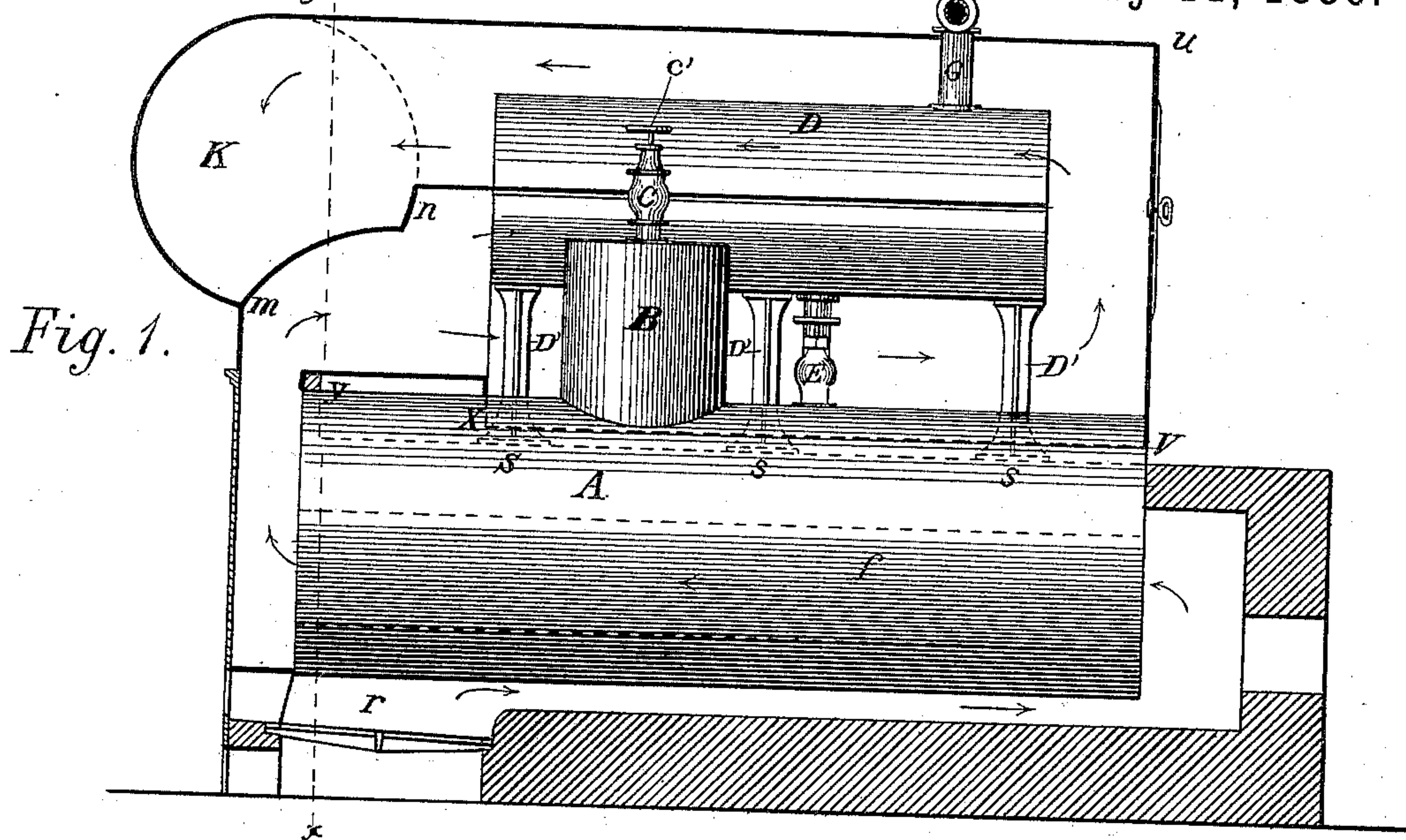
(No Model.)

E. HEITMANN.

STEAM BOILER.

No. 341,749,

Patented May 11, 1886.



WITNESSES:

E. G. Smith
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EDWARD HEITMANN, OF MILWAUKEE, WISCONSIN.

STEAM-BOILER.

SPECIFICATION forming part of Letters Patent No. 341,749, dated May 11, 1886.

Application filed June 20, 1885. Serial No. 169,329. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HEITMANN, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Superheaters; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to steam-boilers, and will be fully described hereinafter.

In the drawings, Figure 1 is a longitudinal section through the wall, boiler-casing, and smoke-bridge of a furnace embodying my invention, and Fig. 2 is a section on line *x x* of Fig. 1.

A are the boilers; A', the furnace-walls, and S a partition between the two boiler chambers. *r* are the grates, and *x x* is a dead-air chamber.

D is a superheater, that is supported upon stands D' above the boilers, and takes steam therefrom through the domes B and couplings C. The rear end of heater D is entirely open to the casing, while the lower half of the front end is closed by a partition, *m n*, from the smoke-bridge K, this partition extending back the entire length of said heater through its longitudinal center, so that the products of combustion, after passing beneath the boilers A and back from rear to front through them, must pass from front to rear through and beneath the lower half of the heaters, and then from rear to front through and above the upper half, and thence into smoke-bridge K, and thus the superheating is accomplished.

A coupling, G, leads to the distribution-pipes, and couplings E, which are suitably controlled by valves, serve to conduct the water of condensation back into the boilers.

By the use of my device great saving in fuel is accomplished, as a large portion of the heat that would otherwise be lost serves to do the superheating.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a steam-boiler and furnace, of a superheating-chamber arranged in the passage from the boiler to the smoke-bridge, and having an open rear end, a partially-closed front end, and a partition longitudinally extended through its center from front to rear, as set forth.

2. The combination, with a steam-boiler and furnace, of a horizontal superheating-chamber and a partition extended from the smoke-bridge and designed to partially close the front end of said chamber and extend through its longitudinal center from front to rear, whereby suitable passages are formed counter to those of the boiler, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

EDWARD HEITMANN.

Witnesses:

S. S. STOUT,
FRANK TOEPFER.