(No Model.)

C. N. SCHEETZ & J. RINGLE.

SUPERHEATER.

No. 500,514. Patented June 27, 1893.

Fig. 1.

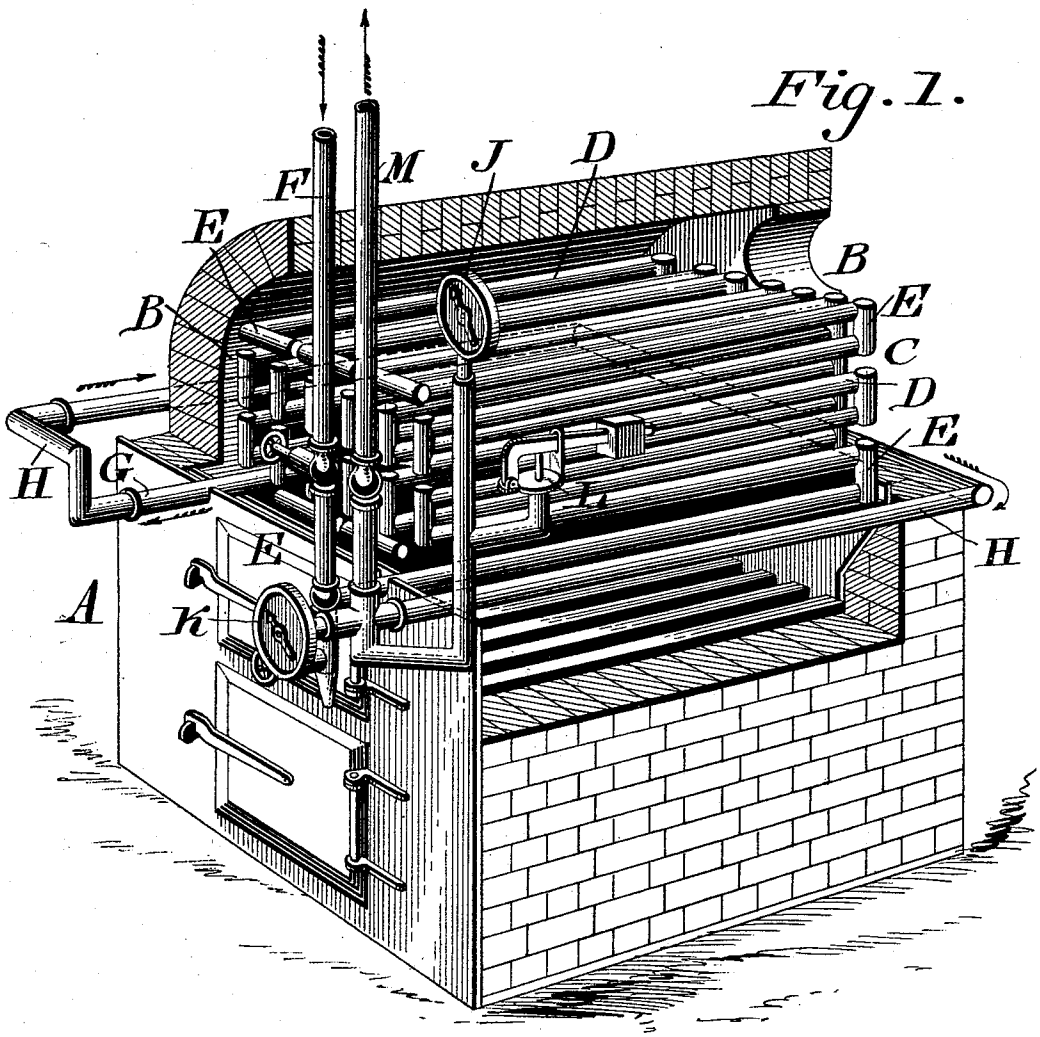
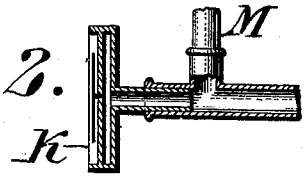


Fig. 2.



WITNESSES:

C. H. Hagle.

L. Donville.

INVENTORS

Charles N. Scheetz

Jacob Ringle,

BY John A. Wiedersheim

ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES N. SCHEETZ AND JAKOB RINGLE, OF PHILADELPHIA, PENNSYLVANIA.

SUPERHEATER.

SPECIFICATION forming part of Letters Patent No. 500,514, dated June 27, 1893.

Application filed October 31, 1892. Serial No. 450,512. (No model.)

To all whom it may concern:

Be it known that we, CHARLES N. SCHEETZ and JAKOB RINGLE, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Superheaters for Steam, which improvement is fully set forth in the following specification and accompanying drawings.

Our invention consists of a superheater for live or exhaust steam, formed of parts as will be hereinafter set forth and pointed out in the claims.

Figure 1 represents a perspective view of a superheater for steam embodying our invention, the masonry of the furnace therefor being partly cut away. Fig. 2 represents a section of a detached portion thereof.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings:—A designates a furnace within the combustion chamber B of which is the superheater C, which is formed of pipes D, which are connected by bends E, extending in horizontal and vertical directions, forming a zig-zag coil, said pipes and bends being exposed to the products of combustion in said chamber B. Connected with one of the pipes of the coil at the inlet, is the supply pipe F, and with another pipe, as an outlet, is the discharge pipe G, the latter having attached to it the pipe H, which extends around the furnace, and is provided with the steam gage J, pyrometer K, the safety valve L, and the conveying pipe M. It will be seen that the steam to be superheated enters the coil of pipes at one end of the same, then circulates through the several pipes in the various directions of the zig-zag form of the coil, so that as said coil presents a large or long surface of pipe to the products of combustion, thus the superheating is effectively accomplished. When the discharge pipe G of the coil is uncoupled from the conveying pipe H, the entire coil may be withdrawn from the furnace chamber B, leaving said pipe H with the pyrometer, gage and safety valve undisturbed. The pyrometer K is located at the base of the service pipe M, so as to indicate the temperature of the steam as near the place of service as possible, said pyrometer being also removed from the combustion chamber, so as not to be materially affected by the heat thereof.

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

1. A superheater for steam, consisting of a zig-zag coil, and a furnace containing the same, a supply pipe connected with one end of said coil, a discharge pipe connected with the other end thereof, and a conveying pipe connected with the discharge pipe and extending around said furnace, substantially as described.

2. A superheater for steam consisting of a heating pipe, and a furnace containing the same, a supply pipe connected with one end of said coil, a discharge pipe connected with the other end thereof, a converging pipe connected with the discharge pipe and extending around said furnace, a service pipe, and a pyrometer intermediate of said discharge and service pipes, said parts being combined substantially as described.

CHARLES N. SCHEETZ.
JAKOB RINGLE.

Witnesses:
JOHN A. WIEDERSHEIM,
A. P. JENNINGS.