

(No Model.)

E. S. NEWTON.
MANUFACTURE OF SALT.

No. 244,923.

Patented July 26, 1881.

Fig. 1.

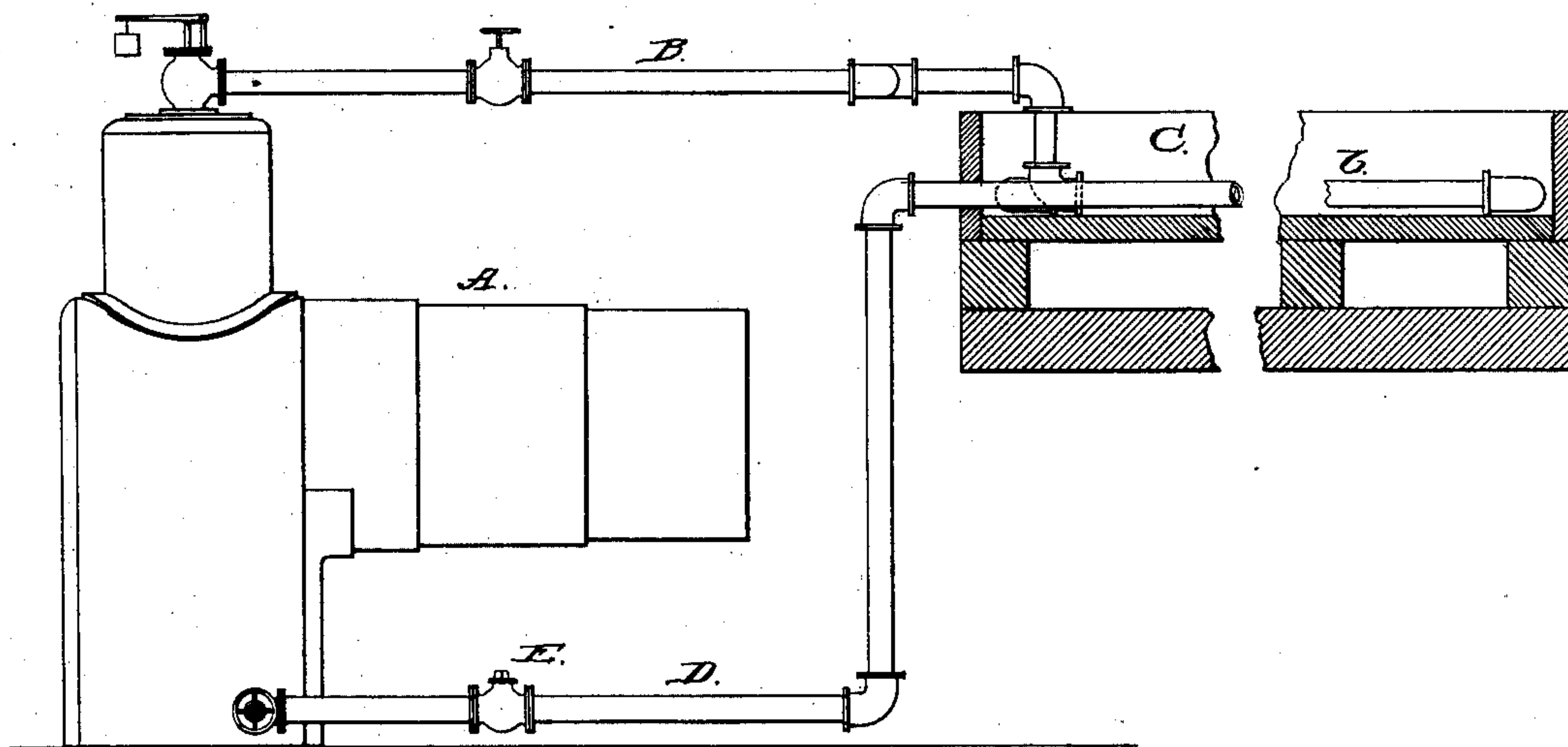
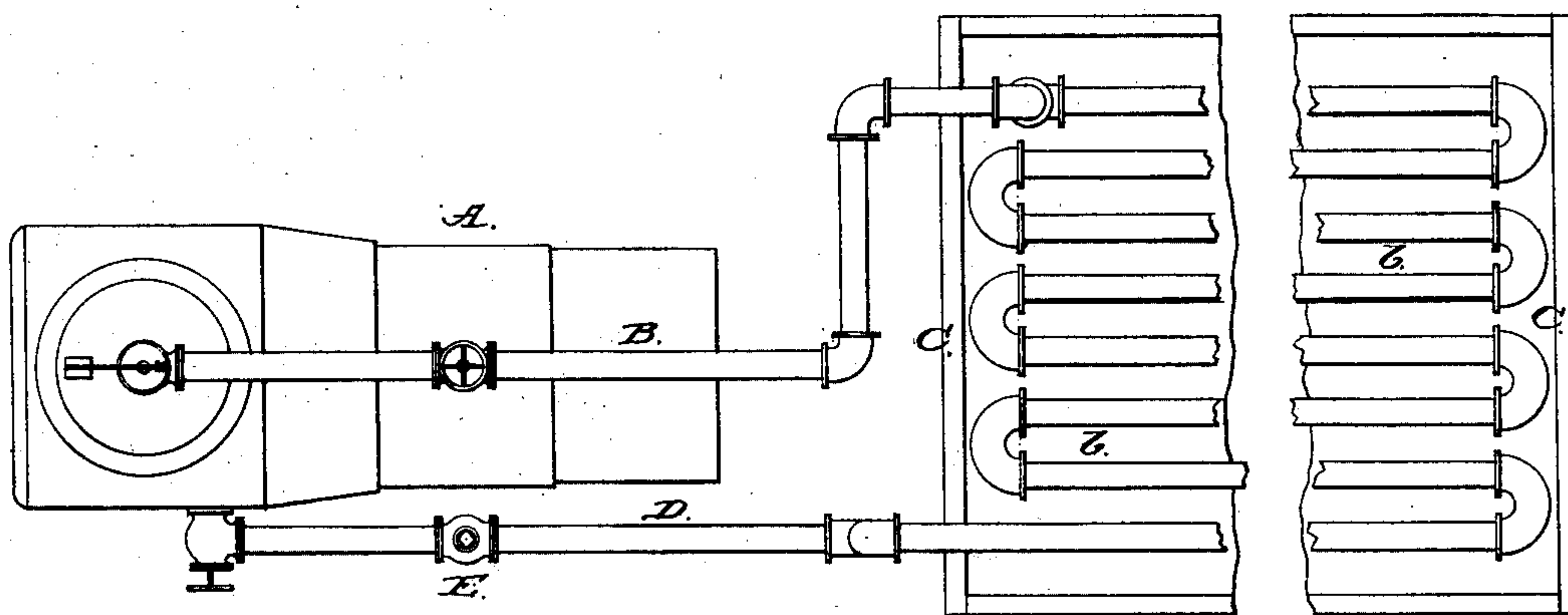


Fig. 2.



WITNESSES

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MANUFACTURE OF SALT.

SPECIFICATION forming part of Letters Patent No. 244,923, dated July 26, 1881.

Application filed March 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. NEWTON, a citizen of the United States, resident at East Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in the Manufacture of Salt; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a representation of a side view, partly in section; and Fig. 2 is a plan view.

This invention relates to improvements in apparatus used in the manufacture of salt.

The object of the invention is to use steam at a high temperature in the evaporation of water from brine.

Heretofore it has been customary to use steam-pipes open to the air at their ends away from the boiler, whereby only a temperature of 212° or thereabout could be obtained, and a precipitant was necessary to deposit the salt in comparatively fine crystals. It has also been customary to have the ends of these pipes closed; but I show a novel construction, from which better results are derived than may be had from either of the aforesaid constructions.

The present invention consists in a coil of pipe both ends of which are connected to the boiler, as hereinafter set forth, and particularly pointed out in the claim.

In the annexed drawings, A is the boiler, leading from which is the steam-pipe B, whose coils *b* are placed in the vat C containing the brine, and its other end, D, returned and connected to the boiler. In this way steam at any desired temperature can be forced through the pipe, and will produce a high degree of ebullition, whereby the salt will be precipitated in fine crystals.

Ordinarily the boiler will be placed below the vat; but if at any other degree of elevation, a steam-trap may be used to enforce circulation.

When no trap is used the pipes in the vat should have a slight incline to return the water of condensation to the boiler.

The return-pipe D has a check-valve, E, and both pipes the necessary stop-valves. In case of a sudden influx of cold brine, which would probably result in a temporary loss of pressure in the pipes, water from the boiler would be prevented from "backing up" by check-valve E.

I claim—

In salt-making, the combination of the boiler A, pipe B, slightly-inclined coil *b* in vat C, and the pipe D, having check-valve E, constructed and operating substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD S. NEWTON.

Witnesses:

HENRY M. NEWTON,
AGNES S. NEWTON.