

I. H. PALMER.

Evaporator.

No. 48,990.

Patented July 25, 1865.

Fig. 1

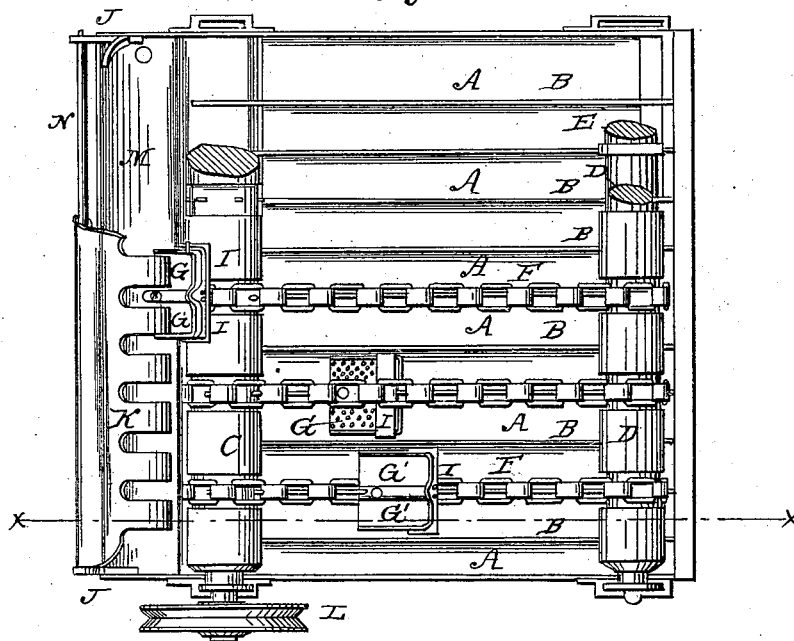
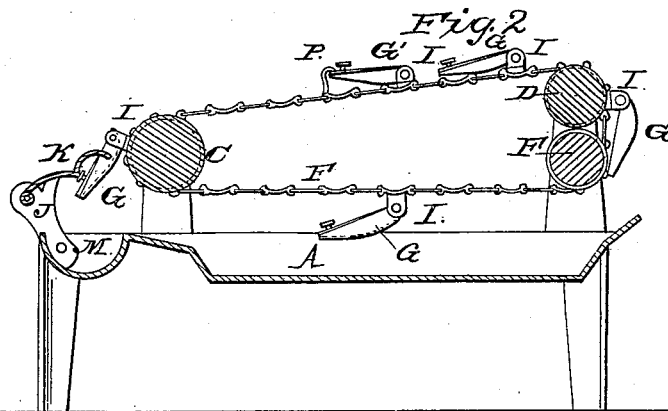


Fig. 2



witnesses
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UNITED STATES PATENT OFFICE.

ISAAC H. PALMER, OF LODI, WISCONSIN.

IMPROVED EVAPORATOR.

Specification forming part of Letters Patent No. 48,990, dated July 25, 1865.

To all whom it may concern:

Be it known that I, ISAAC H. PALMER, of Lodi, in the county of Columbia and State of Wisconsin, have made new and useful Improvements in Evaporators; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, reference being had to the accompanying drawings, which are made part of this specification, in which—

Figure 1 is a plan of my evaporator and attached appliances. Fig. 2 is a vertical section of the same on the line *x x*, Fig. 1.

The same letters refer to corresponding parts in the different figures.

My improvements consist of a skimming device with certain details of construction, which will be specifically described presently.

To enable one skilled in the art to which my invention appertains to construct and use the same, I will proceed to describe it.

A is an evaporating-pan mounted upon legs or walls, or in any other suitable manner, over the fire.

C D E are three rollers, disposed as shown in Fig. 2, and journaled upon pillars. The said rollers are encircled by chains F, and are simultaneously moved on application of power to the pulley L on the roller C.

Skimmers G are pivoted to the carriages or holders I, which are secured to the chains F. Each skimmer is partially divided by a groove, H, on its under surface, which straddles the partition B of the evaporating-pan. Thus each skimmer removes the scum from two adjacent subdivisions of the pan A, and moves freely upon its pivoted point in the holders I, the skimmers being supported, while making their effective stroke, by the subdivisinal plates B, and as they arrive at a point above the scum-trough M tipping so as to discharge their more fluid contents, the skimmers being wiped out by the fingers K, whose ends scrape the troughs, rising so as to allow the passage of the skim-

mers by vibration on the rod N, which connects the pillars J J.

In the operation of boiling, the scum collects more at certain times than at others, and whenever it may be desired to put any skimmer out of service it is fastened, as shown at G', by a hook, M, which prevents its coming in contact with the pan while making its revolution. The end of the screw R in the skimmer impinges upon the divisional plate or wire B and limits the depth of penetration of the skimmer.

The floor or bottom of the skimmers may be perforated, if desirable.

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

1. A revolving skimmer for removing the scum from the surface of the liquid.
2. The combination of the skimmer with the belt or endless chain and the rollers C and D E.
3. The skimmer, with its central divisional groove, H, in combination with the pan-division B, or wires upon which it traverses.
4. The screw in the said divisional groove, by which the depth of the skimming is regulated.
5. The cleaner, so placed as to wipe out the contents of the skimmer in the manner described.
6. The hook, in combination with the chain and skimmer, for retaining the latter in an operative position, when required.
7. The skimmer divided or otherwise hinged in a carriage or holder attached to the endless carrier belt or chain.

The above specification of my improvement in evaporators signed this 11th day of May, 1865.

ISAAC H. PALMER.

Witnesses:

ALEXR. A. C. KLAUCKE,
EDWARD H. KNIGHT.