

ROBERT FREELAND.

Improvement in Apparatus for Making Soap.

No. 126,798.

Patented May 14, 1872.

Fig 1

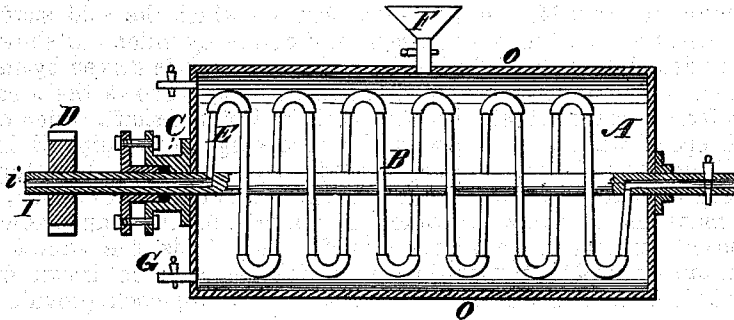
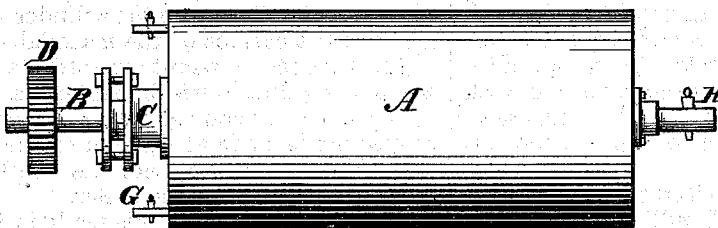


Fig. 2.



Witnesses:

Isaac Coleman,
Isaac Harington?

Inventor:

Robert Freeland

UNITED STATES PATENT OFFICE

ROBERT FREELAND, OF MONTREAL, CANADA.

IMPROVEMENT IN APPARATUS FOR MAKING SOAP.

Specification forming part of Letters Patent No. 126,798, dated May 14, 1872.

To all whom it may concern:

Be it known that I, ROBERT FREELAND, of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented a new and Improved Apparatus for Making Soap; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

My invention has for its object an improved apparatus for making soap so that great economy, both in time and materials, is realized. The nature of my invention consists in making a cylinder or other suitable vessel in which the materials for soap are placed, and in which are placed revolving or rotating steam-pipes, connected with steam-shaft in such a manner that the steam enters the said revolving steam-pipes within the cylinder through the shaft at one end of the cylinder and is conducted through the length of the cylinder within the said pipes and may be discharged at the opposite end, if desired; but this opening is designed more for the purpose of discharging the water from the pipes made from condensed steam. By means of these steam-pipes the material for soap is brought to a desired degree of heat, and by the revolving steam-pipes, which act as agitators and heaters combined, two purposes are served at the same time. It further consists in the combination and arrangement of a steam-jacket upon the outer surface of the cylinder, in combination with the revolving steam-pipes, for the purpose of affording a greater degree of heat to the material, if required.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure I represents a longitudinal vertical sectional elevation of my improved apparatus for making soap. Fig. II is a side elevation of the same.

Letters of like name and kind indicate like parts in each of the figures.

A represents a cylinder or vessel, that may be made of any suitable materials and of any desired dimensions or capacity, and may be varied and set in any desired or convenient position either horizontal or vertical. The space *o*, in Fig. I, indicates an annular steam-chamber or jacket, provided as an auxiliary to the steam-pipes for heating the materials

from which the soap is made. B represents a shaft, made hollow at each end and passes through and revolves or rotates in suitable bearings in the cylinder. C represents a stuffing-box, through which the said shaft passes at each end of the cylinder. D shows a pulley, by which the shaft is driven by any of the well-known powers. *i* shows the steam-way, within each end of the shaft, which connects with the revolving steam-pipe E, in which any amount of pressure may be attained. F represents the induction-pipe or funnel, through which the material for the soap is admitted to the cylinder, and G is the eduction-pipe, through which the soap is drawn from the apparatus. H is a stop-cock, provided for the purpose of withdrawing the water made from steam condensed in the pipes.

The operation of my improved apparatus is simple, cheap, and easy; and consists in first filling the cylinder with the material and putting the shaft in motion. At the same time steam is admitted into the shaft from the generator, through which it passes into the steam-pipes, which agitates the material at the same time it is being heated from the revolving pipes.

If these said pipes do not impart a sufficient degree of heat steam may be admitted in the annular steam-chamber *o*; or it may be admitted directly within the cylinder and mingle with the surface of the material.

S is a faucet, to admit air into the cylinder while being filled with the materials.

It will be understood that a proper steam connection is made at the end of the shaft at I, where the steam enters the shaft, with a pipe connecting with the boiler.

By this apparatus soap is made in the most perfect and rapid manner.

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

1. The combination of the revolving shaft B and steam-pipes E with the cylinder A, substantially as herein shown and described.

2. As an auxiliary to the steam-pipes E, the annular steam-jacket *o*, substantially as and for the purposes set forth.

ROBERT FREELAND.

Witnesses:

ISAAC COLEMAN,
CHAS. ROGERS.