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PATENTED DEC. 8, 1903.

A. FLAGENDORF.  
APPARATUS FOR MANUFACTURING SOAP.

APPLICATION FILED SEPT. 5, 1903.

NO MODEL.

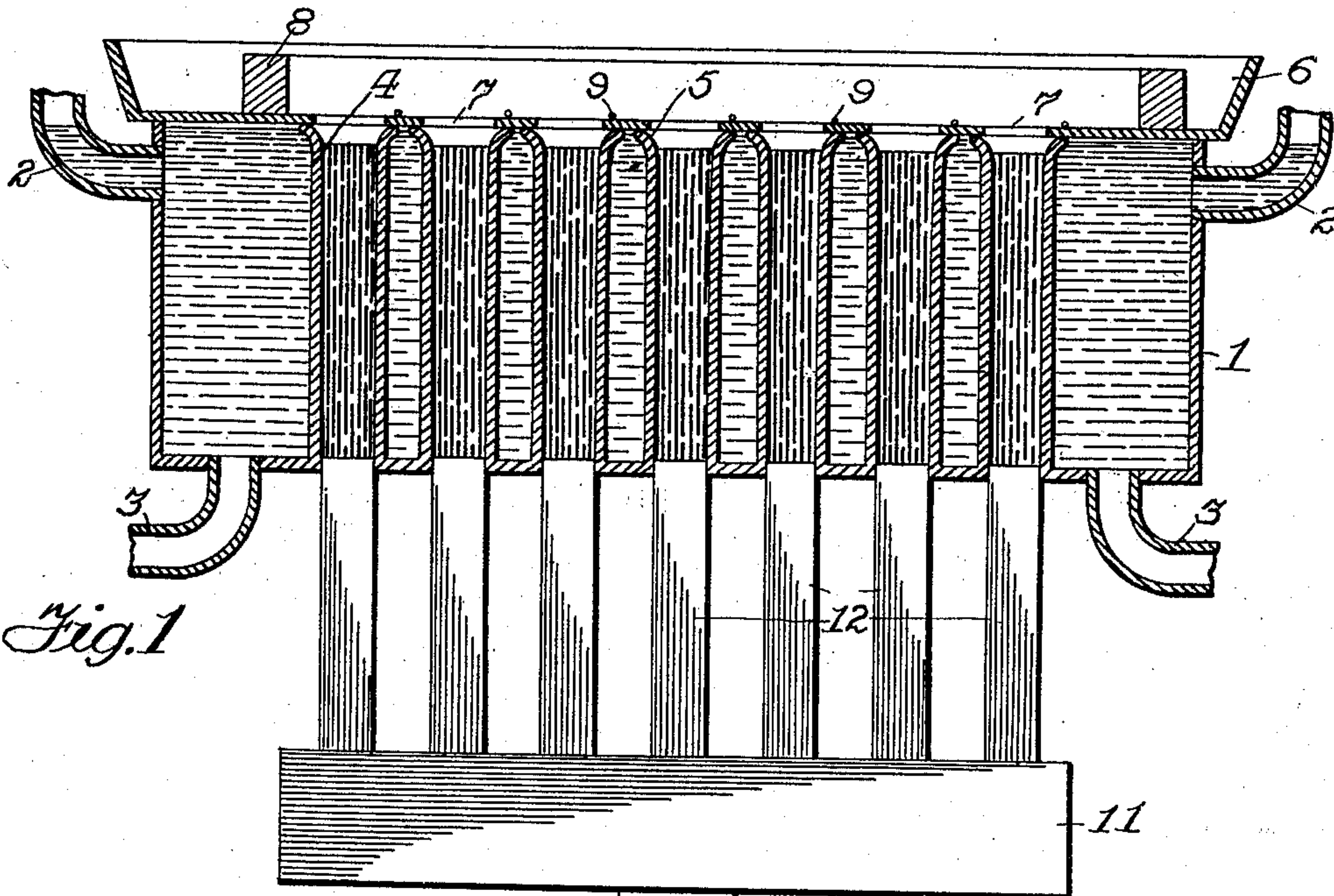
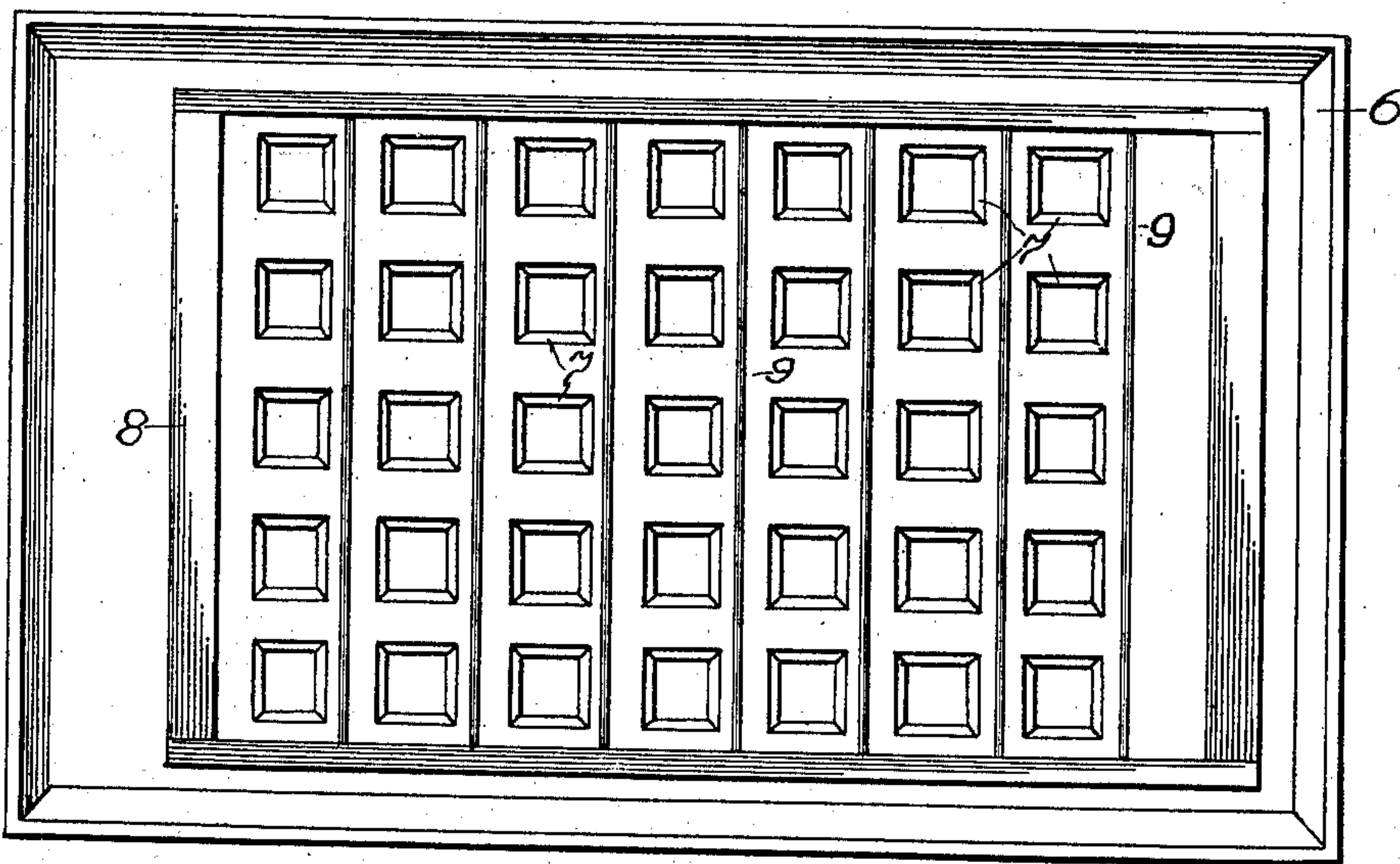


Fig. 1

Fig. 2



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ALFRED FLAGENDORF, OF PITTSBURG, PENNSYLVANIA.

## APPARATUS FOR MANUFACTURING SOAP.

SPECIFICATION forming part of Letters Patent No. 746,484, dated December 8, 1903.

Application filed September 5, 1903. Serial No. 172,130. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED FLAGENDORF, a subject of the Emperor of Austria-Hungary, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Manufacturing Soap, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in the apparatus for the manufacture of soap, and has for its object the provision of novel means whereby soap can be manufactured in several hours, it requiring days to manufacture soap by the old process.

The present invention has for its still further object to provide an apparatus that will be extremely simple in its construction, strong, durable, comparatively inexpensive to manufacture, and one that is highly efficient in its use.

My invention further aims to construct an apparatus wherein the soap is formed, cooled, and cut to the proper size and dried.

With the above and many other objects in view the invention finally consists of the novel construction, combination, and arrangement of parts to be hereinafter more particularly described and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout both views, in which—

Figure 1 is a vertical longitudinal sectional view of my improved apparatus. Fig. 2 is a top plan view thereof.

In the drawings reference-numeral 1 represents a suitable reservoir, having inlets 2 2 and outlets 3 3. Said reservoir has formed therein a large number of square tubes, forming molds 4. These molds are provided at their upper extremities with flaring mouths or funnel-shaped extensions 5.

The reference-numeral 6 represents a removable funnel, which is placed above and rests upon the reservoir 1, said funnel having square openings 7 formed therein, which correspond and register with the tubes 4. These openings 7 are also preferably square. In the

funnel 6 is arranged a frame 8. This frame is provided with strands of wire 9 or other suitable material for the purpose of cutting the soap into cakes of proper size.

The reference-numeral 10 represents the hydraulic piston, carrying a piston-head 11, upon which are the rigidly mounted fingers 12. Said fingers are also square in cross-section and are adapted to fit into and extend through the tubes or molds 4.

The operation of my improved apparatus is as follows: After the greases, fat, and acids have been boiled to the proper consistency the reservoir 1 is filled with hot water of a high temperature, and the hot substance forming the ingredients of the soap is poured into the tubes or molds and permitted to remain therein for a period of about ten minutes. The hot water is then drained through the outlets 3 and replaced by ice-water, with which the reservoir is filled. The latter will tend to cool the soap within twenty minutes and serve to solidify the soap within the tubes or molds. The hydraulic piston is then operated a short distance, the fingers 12 forcing the soap upwardly through the tubes and funnel. The cutting-frame is then operated, the wires serving to cut the soap in proper cakes. The cakes are then placed upon a truck and conveyed into the drying-chamber. The hydraulic piston is again operated a sufficient distance to obtain another cake of soap through each of the tubes or molds, when the cutting operation is again repeated, and in this manner the piston is intermittently operated until all the soap is forced out of the tubes or molds. The funnel and cutting-frame are then removed from the reservoir and placed upon a like reservoir for the purpose of a continuous operation, the entire time consumed for the manufacture of soap with my approved apparatus being less than three hours.

The many advantages obtained by the use of my improved apparatus will be readily apparent from the above description, taken in connection with the accompanying drawings, and it will be noted that various changes may be made in the construction of my improved apparatus without departing from the general spirit of my invention.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a soap-making apparatus, the combination of the reservoir, suitable inlets and  
5 outlets communicating with said reservoir, square tubes or molds rigidly secured in said reservoir, a piston, fingers rigidly secured upon said piston, operating in said tubes, a removable funnel secured upon said reservoir, a  
10 frame carrying wire strands secured in said funnel, substantially as described.
2. In a soap-making apparatus, the combi-

nation of the reservoir, having suitable inlets and outlets, tubes forming molds secured in said reservoir, a piston carrying fingers adapted to move in said tubes, and a cutter arranged above said reservoir. 15

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

ALFRED FLAGENDORF.

Witnesses:

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