A. F. W. NEYNABER.

Steam Cooking Apparatus.

No. 51,208. Patented Nov. 28, 1865.

FIG. 1.

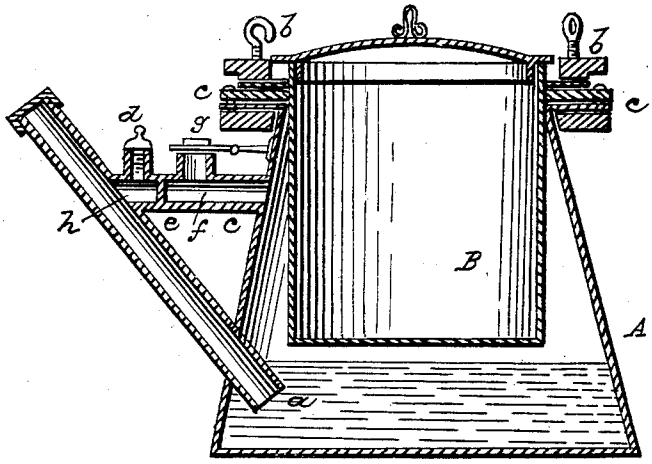
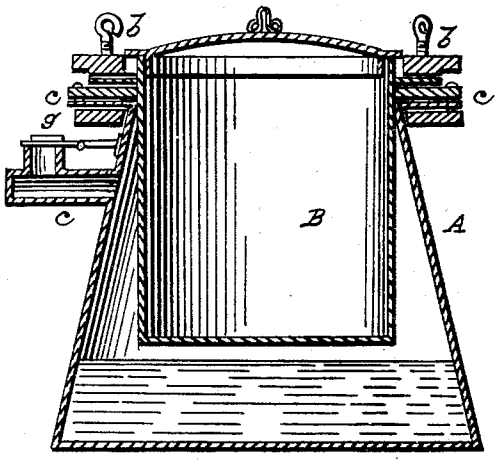


FIG. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

A. F. W. NEYNABER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STEAM-COOKING APPARATUS.

Specification forming part of Letters Patent No. **51,208**, dated November 28, 1865.

To all whom it may concern:

Be it known that I, A. F. W. NEYNABER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Steam-Cooking Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a portion of my apparatus in vertical section, to wit—the outer and inner boiler, with means provided for attaching a water-feeder, or an alarm-pipe, or both. Fig. 2 represents the boilers in a simplified condition. Fig. 3 represents the apparatus with a water-feeder and an alarm-pipe. Fig. 4 shows various vessels which accompany the apparatus.

The object of this invention is to produce a steam-cooking apparatus of simple construction, but with great results in economy of time and labor and completeness of operation. It consists, in general terms, of an outer and inner boiler, the supply of water to the outer boiler being maintained automatically, and its exhaustion below a certain level being indicated by an alarm apparatus.

A in Fig. 1 indicates an outer boiler, and B an inner boiler, whose rims are secured to each other by thumb-screws *b*, a ring-packing *c*, having first been interposed to make a steam-tight joint. A pipe, C, extends in a horizontal direction from the upper part of the boiler A. This pipe is divided into two parts, *f* and *h*, by a partition, *e*, the part *f* being in communication with the outer boiler and having a safety-valve, *g*, connected with it. The outer part, *h*, of the pipe C communicates with a pipe, *a*, which rises from the lower part of the boiler and has a branch, *d*, which is closed by a plug when it is not to be used. The lower end of the pipe *a* opens into the boiler a little below the line at which it is desirable that the water therein shall stand.

In Fig. 2 the pipe *a* is omitted, and the horzontal pipe C is not divided and is only used for the purpose of mounting a safety-valve thereon.

In Fig. 3 the apparatus has an alarm-pipe F, which is fitted to the branch pipe *d* of the horizontal pipe C. This alarm-pipe has an enlargement, F′, so as to make a chamber below the alarm-opening *j*. The alarm-pipe is held in a vertical position by means of a rod, *i*, which is connected to one of the legs of a tripod or chain, E, with an open top of circular form, in whose top is suspended a bottle neck downward. A pipe, D, flexible or rigid, as may be preferred, fitted in the cork or stopper of said bottle is carried downward through the pipe *a* to its mouth, being fitted air-tight where it enters the pipe *a*, and being of smaller diameter than said pipe *a* inside thereof, so as not to prevent free communication between the said pipe *a* and division *h* of the horizontal pipe C.

The operation and use of the apparatus (see Fig. 3) is as follows: Water having been supplied to the outer boiler, as shown in red, so as to cover the mouths of the pipe *a* and D, heat may be applied thereto, when the contents of the inner boiler, B, will become cooked by means of the heat of the steam from the water. An excess of steam-pressure is provided for by allowing the steam to escape through the valve *g*, which may be loaded to any desired pressure. When the water has evaporated to such an extent as to expose the mouth of the pipe *a*, steam will enter said pipe and will pass upward through division *h* of the pipe C, and through its branch *d* into the alarm-pipe F, making alarm by whistling in passing through the orifice *j*. The steam will also pass up the pipe D, if its mouth is exposed, and entering the bottle G will force water therefrom, which will descend through the pipe D and keep up the supply in the boiler. It is evident, also, that if the conditions of pressure will admit, air from the alarm-pipe F will enter the pipe *a* and pass up into the bottle through the pipe D, and so cause the water therein to be discharged into the boiler.

That part of the apparatus seen in Fig. 1 shows it as it will be when the alarm and feeding apparatuses are dispensed with, the pipe *a* being covered and the branch pipe *d* being closed by a plug or cork when the alarm-pipe is withdrawn. In Fig. 2 it is still more simplified by leaving off the pipe *a*, and the division *h* of pipe C.

The pots H, I, and J, Fig. 4, represent vessels or inner boilers of different forms or kinds for use with the outer boiler. H has a perfo-

rated bottom and is suitable for cooking potatoes and other articles which are best cooked in contact with steam. Its flange is perforated to allow the screw-rods *b* to fasten it to the rim of the outer boiler. The vessel I has a spout, and is suitable for boiling milk, and the vessel J is of porcelain and is suitable for cooking fruits. The vessel J has a rubber packing-ring fitted about it and secured to it by india-rubber cement, so as to enable one to make a steam-tight joint about it when the vessel is placed in the outer boiler. In order to make the rubber cement stick to the porcelain vessel and thereby attach the flange in a secure way, I leave an enlarged circular groove or ring about the vessel in or to which the cement will adhere.

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

The combination and arrangement, in a steam-cooking apparatus, of the feeder G D and alarm device *a* F, as and for the purposes set forth.

A. F. W. NEYNABER.

Witnesses:

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