R. DUNKEL.

STEAM GENERATOR.

APPLICATION FILED DEC. 7, 1909.

958,606.

Patented May 17, 1910.

Fig. 1.

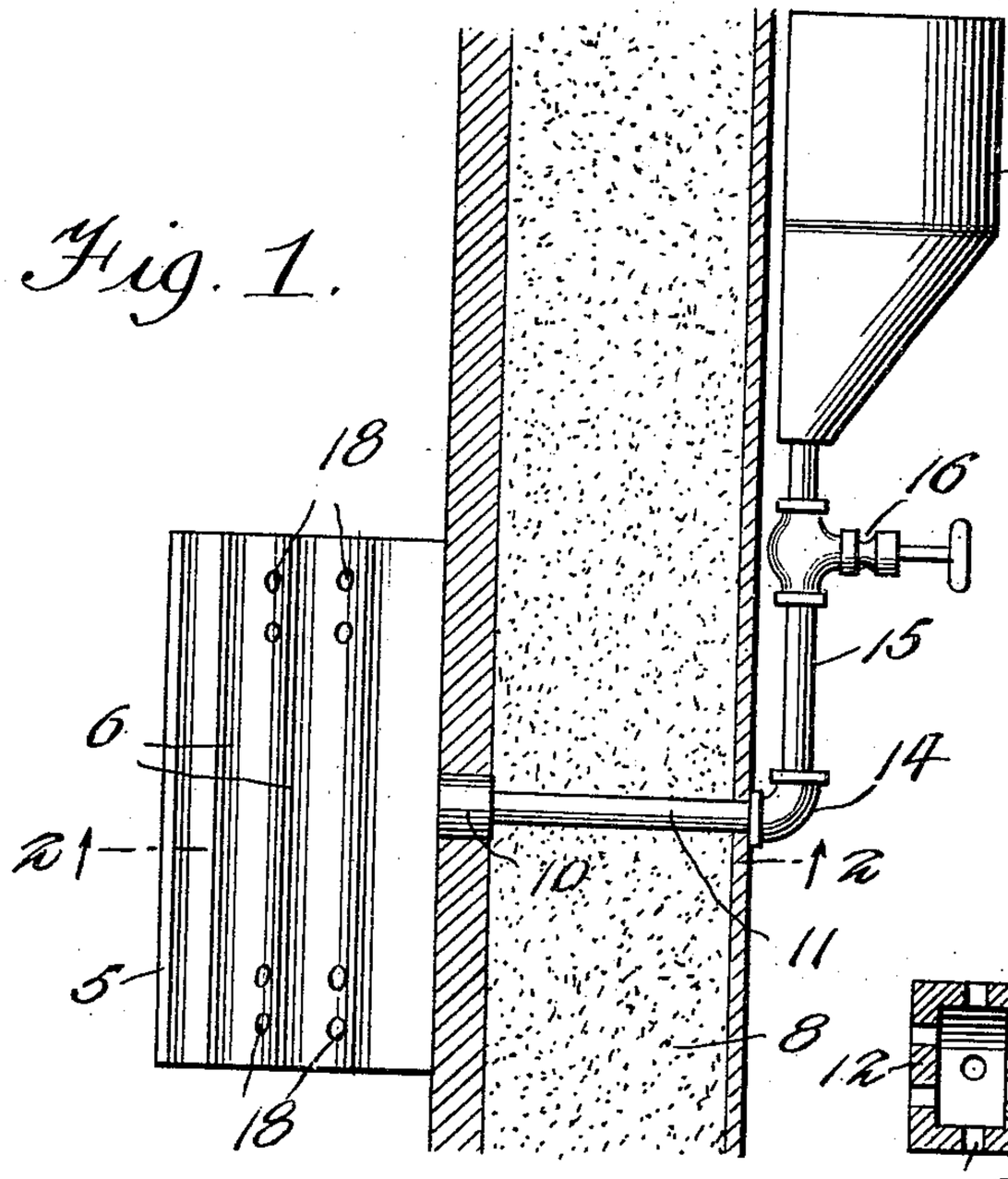


Fig. 3.

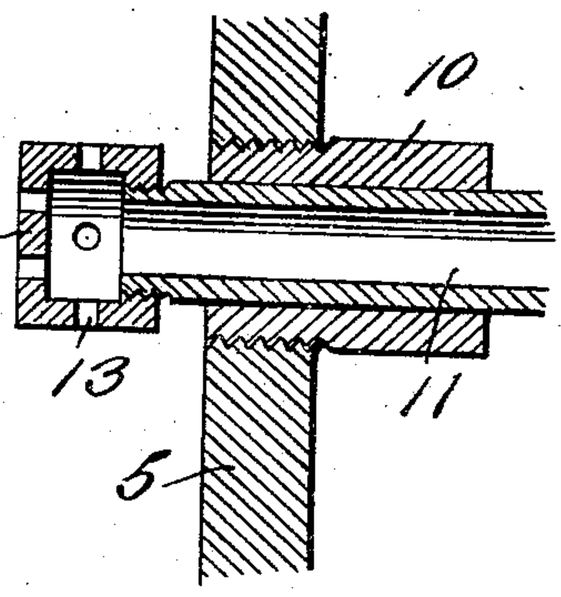
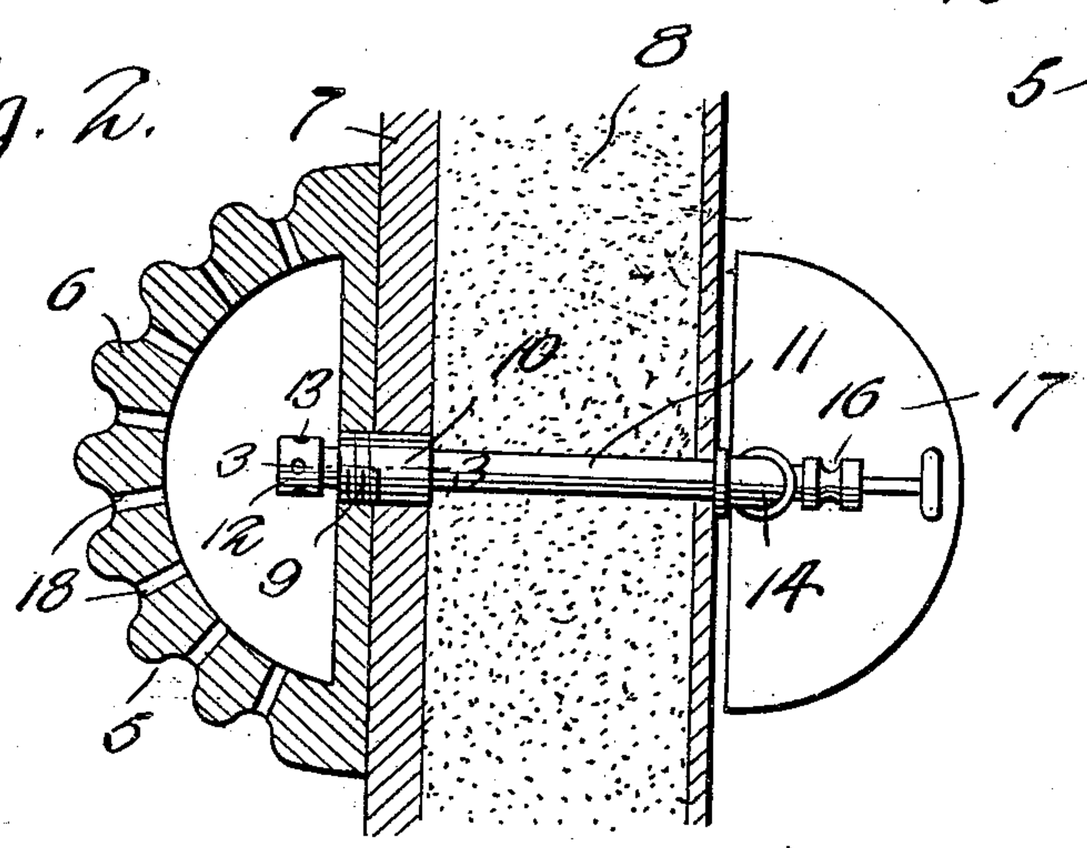


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

RUDOLPH DUNKEL, OF BOSTON, MASSACHUSETTS.

STEAM-GENERATOR.

958,606. Specification of Letters Patent. **Patented May 17, 1910.**

Application filed December 7, 1909. Serial No. 531,772.

To all whom it may concern:

Be it known that I, RUDOLPH DUNKEL, a citizen of the United States of America, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Steam-Generators, of which the following is a specification.

This invention relates to steam generators for bake ovens, and it has for its object to construct a device of this class which shall possess superior advantages in point of simplicity, durability and general efficiency, and which may be very readily and conveniently applied in position for operation upon a bake oven of ordinary construction for the purpose of applying moisture in any form of steam or vapor to the interior of the oven while the latter is in use.

A further object of the invention is to construct a device of the class described which may be very easily and conveniently assembled and applied in position for operation.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing,—Figure 1 is a sectional view taken vertically through the wall of a bake oven, and showing the improved device applied in position for operation. Fig. 2 is a sectional view taken on the plane indicated by the line 2—2 in Fig. 1. Fig. 3 is a detail sectional view, enlarged, taken on the line 3—3 in Fig. 2.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved device includes a hollow casting or casing 5 which may be of any suitable dimensions, the same being preferably made approximately semi-circular in cross section and with a fluted or corrugated outer face, as shown at 6, in order to provide a comparatively extensive heat surface, the back wall of the casing being flat so as to fit against the inner face 7 of the oven wall 8. The flat rear wall of the casing 5 is provided with an aperture 9 which is interiorly threaded for the reception of a correspondingly threaded collar 10 which may be secured by shrinking the same upon a pipe 11; the latter being provided at its inner end within the casing 5 with a cap 12 having numerous small perforations or apertures 13. The pipe 11 is provided at its outer end with an elbow 14, whereby it is connected by a feed pipe 15 having a valve 16 with a tank or reservoir 17 which is suitably elevated so that water may be fed by gravity from said reservoir to the casing, the flow being regulated by the valve 16. The fluted outer wall of the casing 5 is provided with apertures 18.

In applying the improved device to the wall of a bake oven, the latter is provided with an opening for the passage of the pipe 11 and the collar 10, which latter is of larger diameter than the cap 12 so that the latter will readily pass through the threaded aperture 9, thus enabling the casing 5 to be connected with that portion of the threaded collar 9 which extends within the oven, causing the flat rear wall of the casing to rest against the inner surface of the oven wall. The collar 14 with which the feed pipe 15 and tank 17 have been previously connected is now applied to the outer end of the pipe 11, said collar being screwed up tightly against the outer surface of the oven wall, thereby assembling the improved device with the oven wall and holding the parts securely in position for operation.

The tank is, in practice, to be filled with water, and after the fire has been started in the oven furnace and the casing 5 becomes sufficiently heated, the flow of the water may be started by opening the valve 16. The water will be discharged through the small apertures 13 of the cap 12 upon the inner surface of the wall of the casing, being thus quickly vaporized and the resulting steam being expelled through the openings 18. The quantity of steam discharged by the device may be readily regulated by controlling the flow of the feed water by means of the valve 16.

Having thus described the invention, what is claimed as new, is:—

1. In a device of the character described, an exteriorly corrugated casing, having dis-

charge apertures, a feed pipe connected therewith and provided within the casing with a perforated cap, a supply tank, and a valved feed pipe leading from the supply tank to the pipe connected with the casing.

2. In a device of the character described, a casing having a corrugated surface, and provided with discharge apertures, a flat back wall provided with a threaded aperture, a pipe having a threaded collar engaging said aperture and provided with an apertured cap of smaller diameter than the collar upon the end which extends within the casing, an elbow threaded upon the outer end of the pipe, a tank or reservoir, and a valved feed pipe connecting said tank with the elbow.

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

RUDOLPH DUNKEL.

Witnesses:
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