

(No Model.)

2 Sheets—Sheet 1.

C. WOOD.
STEAM FEED COOKER.

No. 532,131.

Patented Jan. 8, 1895.

Fig. 1.

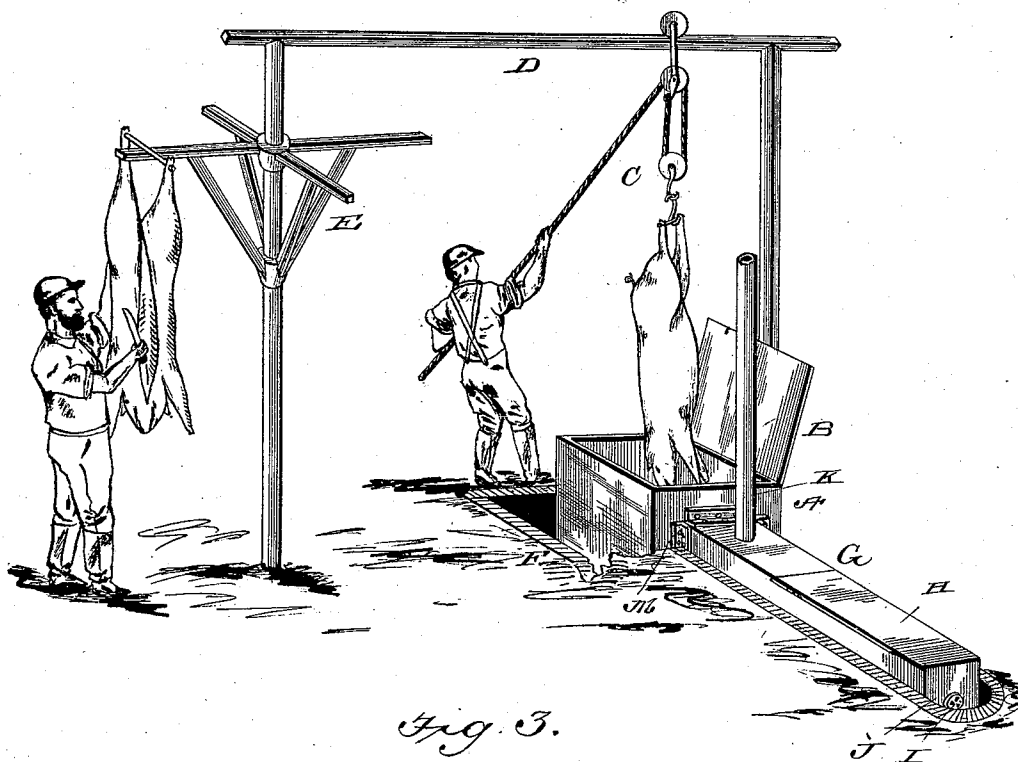
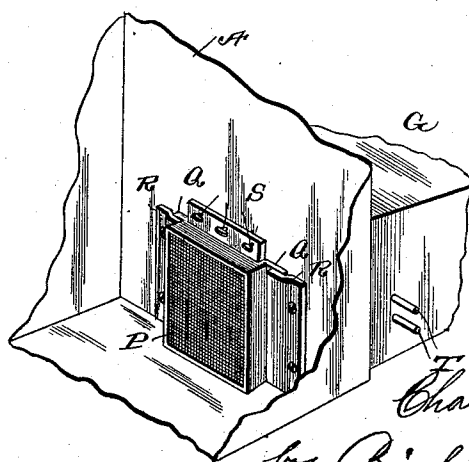


Fig. 3.



Witnesses

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(No Model.)

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Fig. 2.

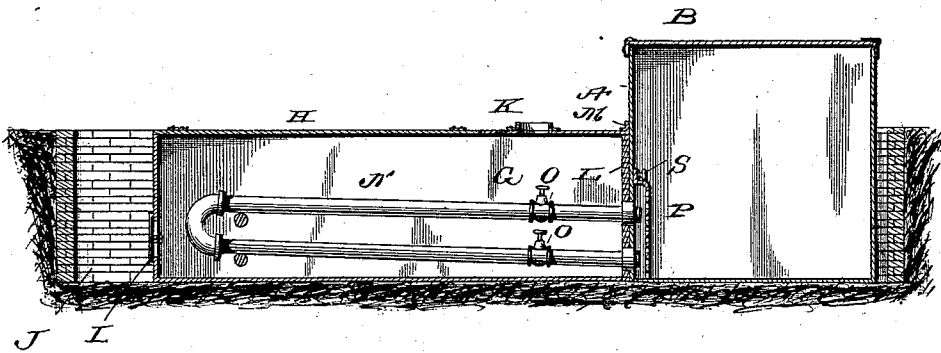
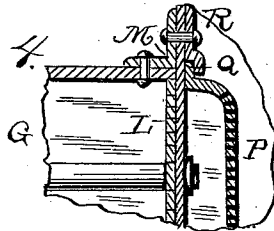


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES WOOD, OF JACKSONVILLE, ILLINOIS.

STEAM FEED-COOKER.

SPECIFICATION forming part of Letters Patent No. 532,131, dated January 8, 1895.

Application filed September 14, 1894. Serial No. 522,980. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WOOD, a citizen of the United States, residing at Jacksonville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in Steam Feed-Cookers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My present invention is an improved apparatus for scalding hogs and cooking feed for stock and it consists in certain novel features hereinafter described and claimed.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a perspective view of the complete apparatus for scalding hogs. Fig. 2 is a longitudinal section of the furnace and tank. Fig. 3 is a detail perspective view of the screen or guard plate, and Fig. 4 is a detail view of the connection between the tank and the furnace.

Referring particularly to the drawings by letter, A designates a water-tight tank which is partially buried in the ground and is provided with a thin metallic swinging lid B as shown. When it is desired to scald hogs, the water is heated in this tank, as will be hereinafter fully described, and the hogs are lowered into the hot water through the top of the tank. The hogs are suspended from a pulley C running on a beam D which is arranged over the tank so that they can be easily handled. From the tank they are carried to a rotary holder E to be cleaned. The tank, as before stated, is partially buried so that the hogs will not have to be raised very high to be immersed in the tank. An open space F is formed in the ground at one side of the tank in which the attendant may stand in order to conveniently remove cooked feed from the tank.

Adjacent to one side of the tank is the furnace G which is buried in the ground as shown. The furnace may be constructed with a bottom but the ground may be utilized for that purpose. The greater portion of the top of the furnace forms a swinging lid H, so

that fuel may be fed into the furnace and ashes removed therefrom as will be readily understood. The front or outer end of the furnace is provided with a damper I to regulate the draft and an open space J is formed in the ground around the front end of the furnace to permit a draft therethrough. The inner end of the furnace is formed by the tank and the smoke pipe K rises from the furnace near the tank so that the draft is toward the tank and the heat consequently is thrown against the same.

In order to prevent the side of the tank being heated to such a degree as to be burned through, I provide a partition, L, of fire-brick or similar material between the tank and the furnace.

The furnace may, if so desired, be lined throughout with fire-brick.

The furnace is connected with the tank by means of angle irons M and suitable fastening bolts inserted through the branches of said angle irons and the walls of the tank and furnace respectively.

Within the furnace, I arrange a series of longitudinal return water tubes N which open into the tank and are provided near their inner ends with the valves O so that they may be properly drained and the flow of water cut off to prevent the bursting of the pipes in cold weather while the apparatus is not in use.

In order to prevent the feed from passing into and choking the water tubes, I provide the screen or guard plate P within the tank against the side of the same and over the ends of the pipes. This screen or guard plate is dished so as to set off from the side of the tank and thereby prevent the water currents carrying the feed through its perforations. The screen or guard plate is provided with flanges Q at its side and top edges, the side flanges engaging under cleats R which are secured on the side wall of the tank by the same bolts which secure the angle irons as shown most clearly in Fig. 4. The screen can thus be quickly and easily removed when it is necessary to clean or repair the tank. In order to prevent the screen being lifted by the pressure of the steam when the device is in use, set screws or bolts S are inserted through its top flange into the wall of the tank.

T designates a water tube which may be

arranged in the furnace and passed through the side of the same to convey hot water to a distant tank.

In practice, the tank is filled with water and the grain to be cooked, and a fire is kindled in the furnace. The water in the tank will flow into and through the water tubes and will consequently be heated and converted into steam, as the fire plays directly on the said tubes. The steam and hot water rising through and acting on the grain quickly cooks the same and brings it into proper condition for feeding stock. The cold water enters the lower branch of the water tube and the steam is discharged from the upper branch of the same and rises to the thin metallic sliding lid which, being in direct contact with the atmosphere, has a low temperature and consequently condenses the steam. The loss of steam is thus reduced to a minimum and the feed thoroughly cooked. The tank and furnace being buried as shown and described, the heat is retained for a long period and fuel is economized.

Having thus described my invention, what

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

The combination of the tank, the furnace having one end formed by the side wall of the tank, return water tubes arranged longitudinally in the furnace and having their ends opening into the tank through the side wall of the same, vertical cleats on the inner face of the side wall of the tank, angle irons secured to the furnace and bearing against the side wall of the tank, securing bolts inserted through the angle irons, the wall of the tank and the cleats, a screen extending over the open ends of the water tubes, engaging under the cleats and adapted to slide vertically thereon, and thumb screws mounted in the upper end of the screen and adapted to secure it in the tank.

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

CHARLES WOOD.

Witnesses:

CHARLES A. BARNES,
M. FOX.