J. GARDINER.

Portable Furnace and Swine Scalder.

No. 219,933. Patented Sept. 23, 1879.

Fig. 1.

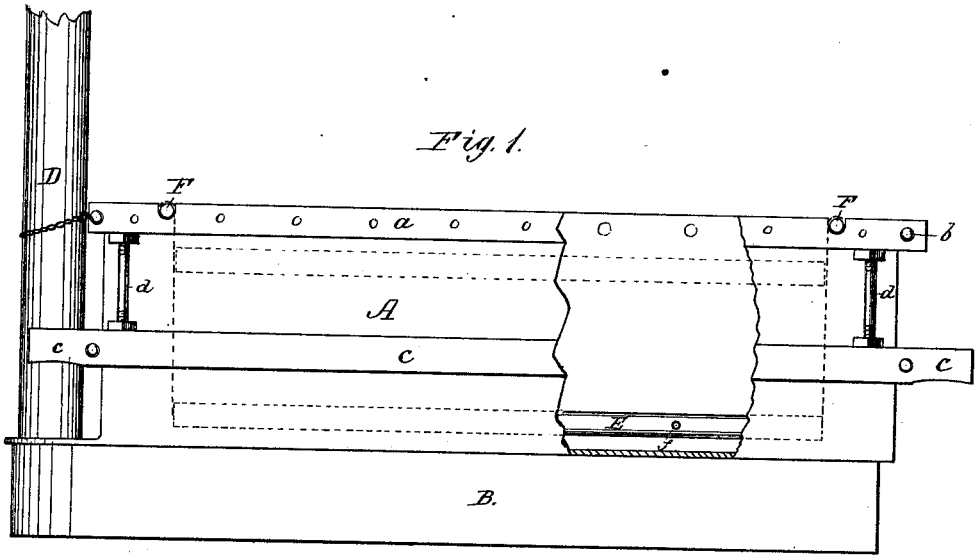


Fig. 2.

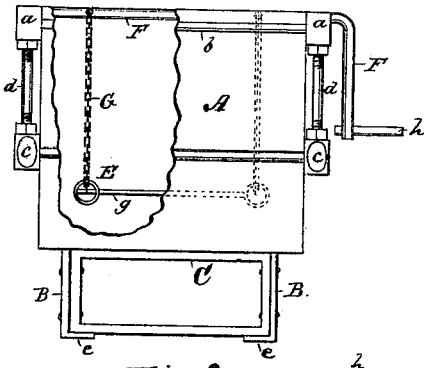
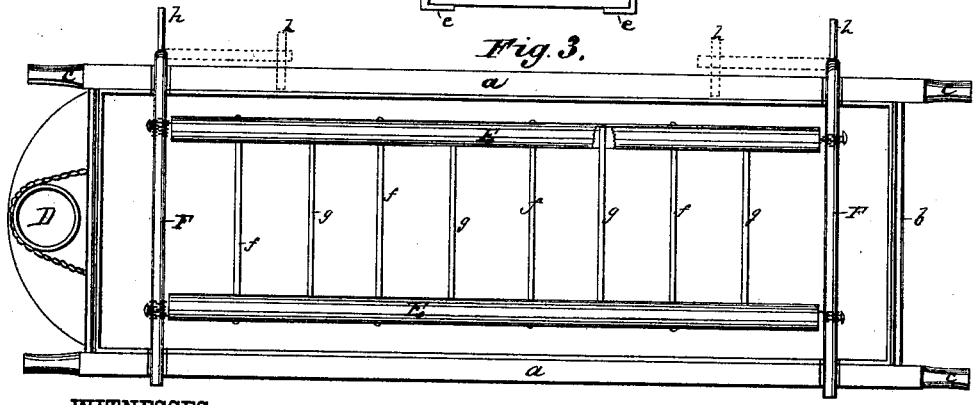


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES GARDINER, OF MANTUA, NEW JERSEY.

IMPROVEMENT IN PORTABLE FURNACE AND SWINE-SCALDER.

Specification forming part of Letters Patent No. **219,933**, dated September 23, 1879; application filed April 25, 1879.

To all whom it may concern:

Be it known that I, JAMES GARDINER, of Mantua, in the county of Gloucester and State of New Jersey, have invented a new and Improved Portable Furnace and Swine-Scalding Tub and Appliances; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention is an improvement in the class of portable apparatus for use in scalding swine which consists of a tub or boiler having appliances for raising and lowering the carcasses of swine, and a furnace or fire-box on which the tub rests.

My invention consists in the construction and arrangement of parts, as hereinafter described and claimed.

The details of construction are as hereinafter described, reference being had to accompanying drawings, in which—

Figure 1 is a side elevation, part being broken away. Fig. 2 is an end elevation, part being broken away. Fig. 3 is a plan view.

The tub or boiler A has an oblong rectangular form, and is constructed of riveted boiler-iron plates.

Wooden or metal bars *a*, connected by transverse rods *b*, are bolted, riveted, or screwed to the sides of the tub at its upper edge, to give the same due rigidity. With these bars *a* other bars, *c*, are connected by vertical rods *d*, and arranged along the middle of the sides of the tub parallel to the upper bars, *a*. The ends of said lower bars *c* are extended to form handles for use in transporting and setting the tub.

The support and furnace of the tub are constructed of two narrow parallel plates, B B, of boiler-iron, and transverse connecting and stay bars C, which are of angular form and riveted to the sides of said plates. The latter also have a bottom flange, *e*, which not only prevents them entering the ground when the apparatus is placed on the same, but serves also to strengthen the support. The fire-box formed by said parts B B C may be left open at each end, or be provided at one end with a door, and at the other end with a chimney, D.

By the above-described construction the boiler and its furnace constitute a light, portable, and cheap apparatus for heating water for use in scalding swine or for other purposes; also for cooking food for stock, &c.

When used for the first-stated object the apparatus and the table on which the swine is to be scraped for the purpose of removing hair and bristles are placed side by side. The boiler A is then partly filled with water. When the latter has become heated to the requisite degree, the carcass of the swine is lowered into it. The means for doing this consist of a horizontal rack and windlasses.

The rack is composed of two tubes, E E, arranged parallel and connected by transverse rods *f g*.

Each alternate rod *f* passes through the tubes; but the other rods, *g*, are shorter, and do not pass through the tubes. Thus the bars *f* act as tension devices, while the bars *g* act as stays, tending, respectively, to hold the tubes E E together and apart.

The rack is supported from the crank-shafts F by means of chains G, and the shafts have their bearings in the upper edges of the tub A.

By rotating the crank-shafts in one direction the carcass of the swine resting on the rack will be lowered into the water, and by then rotating them in the opposite direction the carcass will be raised out of the water.

To lock the shafts, so that they cannnot rotate, and thus hold the rack elevated and stationary while the carcass is being placed on the rack and removed from it, I provide the cranks of the shafts with sliding handles *h*, so that by pushing the handles in they will project over the edge of the tub, as shown.

I am aware stay-bars have been employed for walls of furnaces, and do not claim such application of them.

What I claim is—

1. The improved portable fire-box or furnace for a scalding-tub, the same being constructed of the parallel iron plates B B, having horizontal bottom flanges, and the right-angular bars C, which connect said plates, being rigidly attached thereto by means of rivets, as shown and described.

2. The combination of the sliding handles with the crank-shafts, chains, rack, and tub, as and for the purpose described.

3. In combination with the parallel tubes of the rack, the tension and stay rods *f g*, alternating as specified.

JAMES GARDINER.

Witnesses:

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SOLON C. KEMON.