

F. W. FOX & W. EDWARDS.

Apparatus for Injecting Brine into Meat.

No. 151,693.

Patented June 9, 1874.

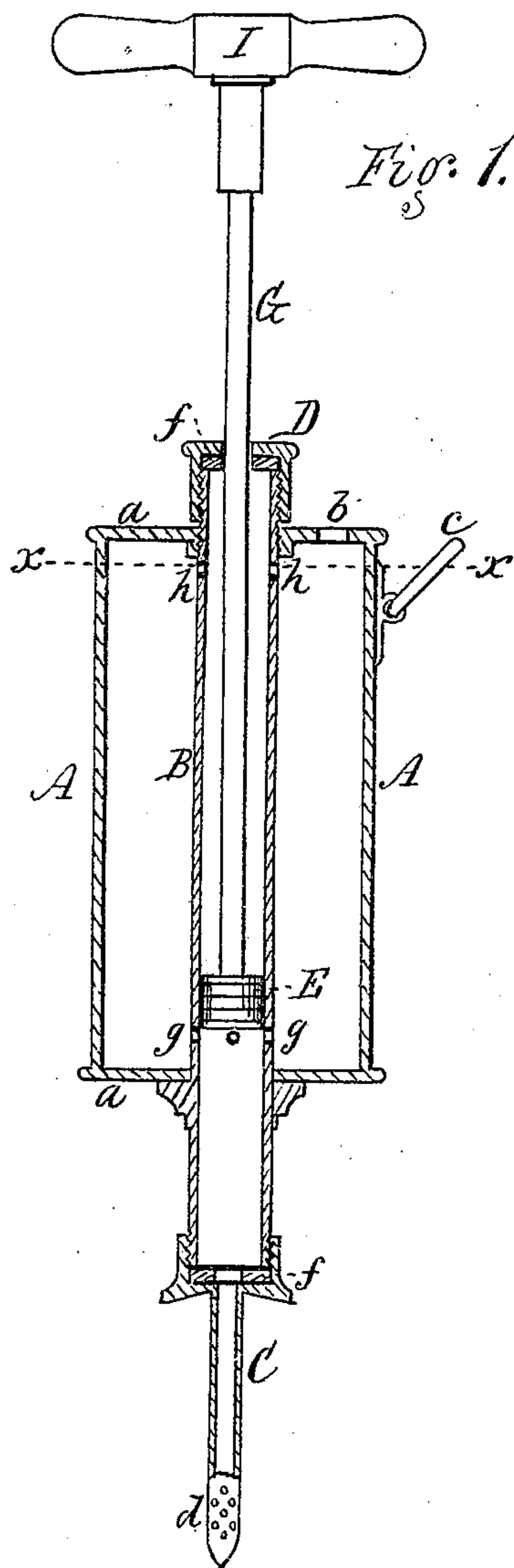


Fig. 1.

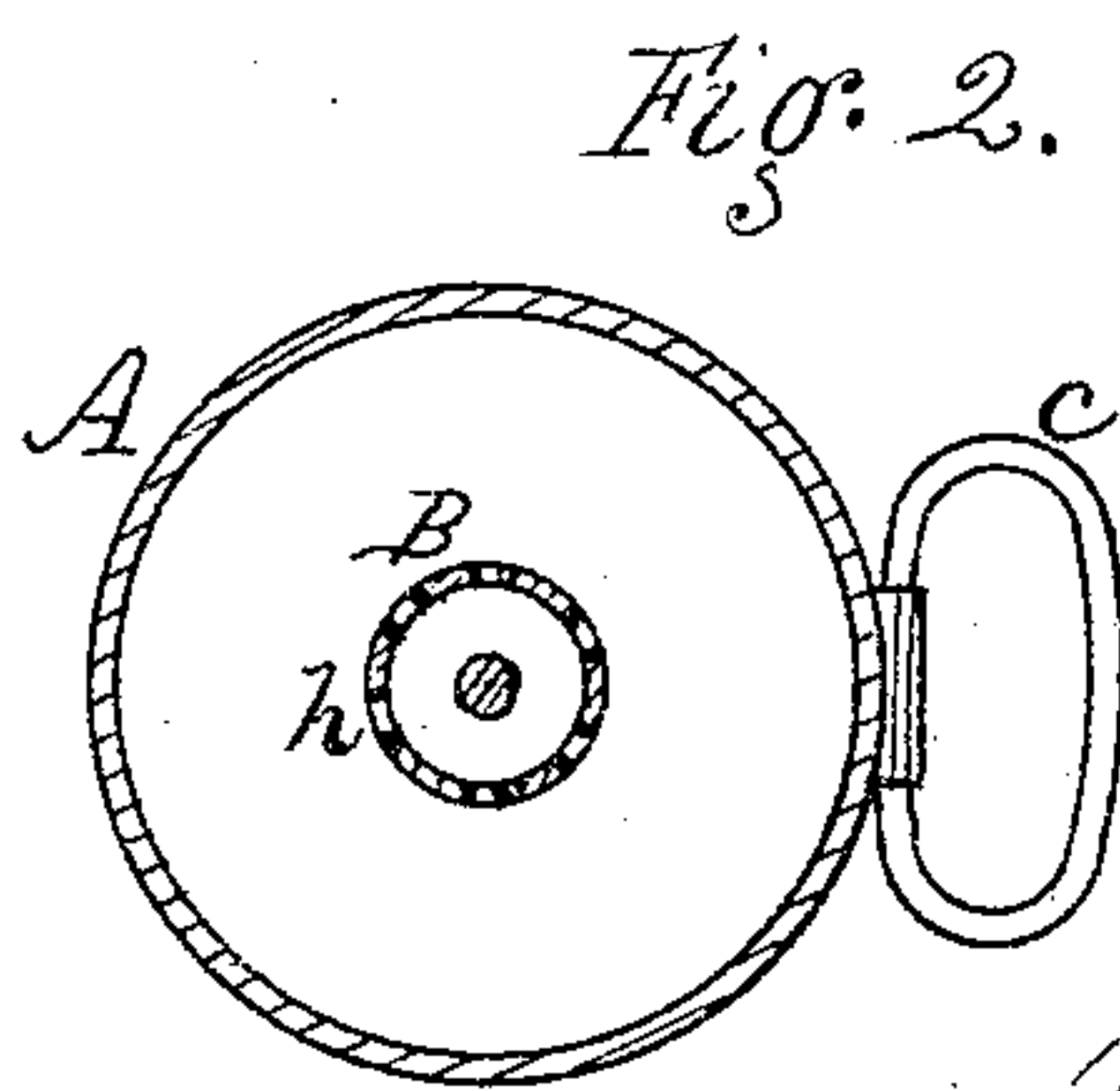


Fig. 2.

Witnesses.
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att'y.

UNITED STATES PATENT OFFICE.

FRANKLIN W. FOX AND WALTER EDWARDS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN APPARATUS FOR INJECTING BRINE INTO MEAT.

Specification forming part of Letters Patent No. 151,693, dated June 9, 1874; application filed November 18, 1873.

To all whom it may concern:

Be it known that we, FRANKLIN W. FOX and WALTER EDWARDS, both of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Brine-Injectors; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

Our invention consists of a portable or hand brine-injector for forcing brine into meats under pressure, and is composed of a closed hollow cylinder, provided with a centrally-located hollow barrel, having openings at each end, and carrying a piston, a plunger, and a nozzle, the brine-receptacle, barrel, and plunger being arranged within a single cylinder, whereby is produced a brine-injector specially adapted for being carried in the hand from point to point, and which, in its simplified construction, dispenses with all flexible tubes, and the necessity of connecting a brine-receptacle with the piston-cylinder by pipes, as is now the custom, and is constructed and arranged as follows:

In the drawings, Figure 1 is a vertical section. Fig. 2 is a cross-section in the line *x x* of Fig. 1.

The instrument is in the nature of a force-pump, but is made portable, so as to be carried from one point to another, consisting essentially of a brine-receptacle, a barrel, and a plunger.

A is the cylinder or brine-receptacle, having two heads, *a a*, and being of a capacity to hold sufficient liquid to inject a number of hams without refilling. It is supplied with the brine through the opening *b*, and it has a loop, *e*, by which it is held. B is an inner tube, which forms the pump-barrel. It extends entirely through the cylinder, and projects at each end, as shown. On the lower end is screwed a nozzle, C, made pointed at the extremity, and filled with numerous perforations, *d d*. At the upper end it is provided with a stuffing-box, D. Packings *f f* are inserted between the ends of the tube and the connecting parts to make a water-tight joint. *g g* are a series of holes through the sides of the tube near the bottom, and *h h* a similar series of holes near the top, both within the cylinder. E is the solid plunger, which plays in the barrel, and G its rod. The rod passes through the stuffing-box, and has a cross-head, I, at the top.

The operation is as follows: The cylinder is filled with the brine through the opening *b*, and contains a sufficient quantity to impregnate several hams. The nozzle C is then inserted in the ham, and the plunger is forced down. When the plunger passes below the lower series of holes *g g*, the passage between the cylinder and barrel is cut off, and the quantity of liquids in the barrel below the plunger will then be forced into the ham. The size of this end of the barrel is graduated to hold the desired quantity of brine to be forced into a single ham. When the plunger is forced fully down, the nozzle is removed from the ham, and the plunger is then drawn back to allow the lower end of the barrel to fill again, when the operation is repeated.

It will be noticed as a special feature of novelty in the case, that the two series of holes *g h* are essential to produce a proper action of the device; for, as the plunger is forced down below the holes *g*, the holes *h* allow the filling of the barrel above the plunger, thereby preventing the forming of a vacuum.

By this means a portable injector is formed, which carries its own supply of liquid, sufficient to impregnate a series of hams, thereby preventing the necessity of connecting with an outside supply, and yet the reciprocating action is such that only the requisite amount of the liquid is discharged at once, and no impediment is presented by vacuum to the plunger.

Having thus described our invention, we do not claim, broadly, injecting brine into meats under pressure; but

We claim—

A portable brine-injector composed of the closed hollow cylinder A, provided with the centrally-located hollow barrel B, having openings *g h* at each end, and carrying the piston E, plunger G, and nozzle C, all constructed and combined to operate in the manner and for the purpose specified.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

FRANKLIN W. FOX.
WALTER EDWARDS.

Witnesses:

R. F. OSGOOD,
E. B. SCOTT.