H. LORING.

Extracting Oil from Fish.

No. 201,884. Patented April 2, 1878.

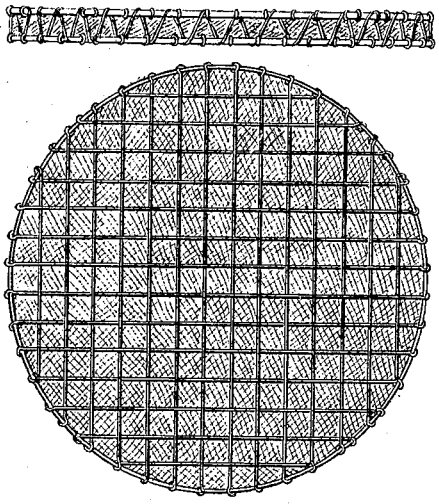

Fig. 1

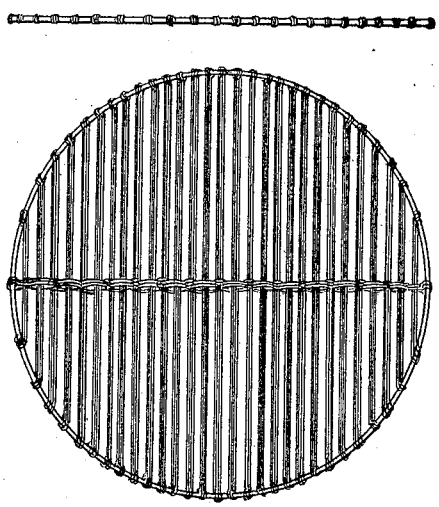

Fig. 2.

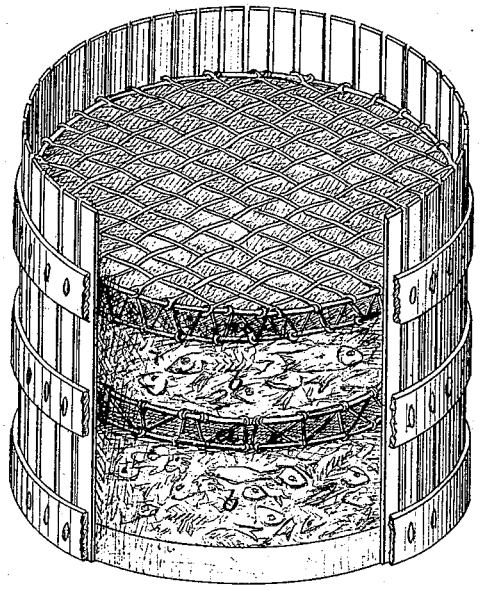

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

HARRISON LORING, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN EXTRACTING OIL FROM FISH.

Specification forming part of Letters Patent No. **201,884**, dated April 2, 1878; application filed January 21, 1876.

To all whom it may concern:

Be it known that I, HARRISON LORING, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in the Art of Extracting the Fluids from Fish and the like, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings.

My invention consists, mainly, in arranging the fish in layers in the curb of the press, such layers being separated from one another by means of mats made of wire or other strong material which will not be broken by, and yet will yield slightly under, the very great pressure used in expressing the oil and other fluids.

In carrying out my invention the best results will be obtained by putting in first a layer of fish, about five or six inches in depth, then a mat, then another layer of fish, and so on until the curb is filled. The pressure is then applied in the usual way.

In the drawings, Figures 1 and 2 show two forms of mats well adapted for use in my improved process; and Fig. 3 illustrates the mode of filling the curb with layers of fish, each separated by a mat from the one above and below it.

The mat shown in Fig. 1 is made of two hoops or rings of wire, each of which has cross-wires secured to it, as shown, and the two are secured together, with a layer of straw or other like material between them.

The mat shown in Fig. 2 is rather more expensive, and, although the same in principle, is more effective in operation. It is made of a hoop of wire, with bundles of wire, six or eight wires in each bundle, secured across it, and stayed in the middle by a single series of stays. The bundles of wire are also twisted, to make them still more effective.

As the pressure upon the "cheese" (as the contents of the curb are called) increases the parts of the mats move slightly in relation to each other, thus forming channels or courses for the fluids, and allowing them to readily escape from the cheese; and so, from time to time, as the pressure is increased, the parts of the mats continue to move relatively to one another, thus freeing the courses or channels for the fluids. These movable courses, composed of bunches or layers of metal wires, or of other like material, so arranged that in extracting liquids from fish or other like substances, pressure being applied and increased, the wires will, as the pressure increases, change their relative position to each other, thus freeing the courses between the wires and allowing the liquids to pass out readily, constitute the main feature of my invention.

By my improved process a degree of pressure can be applied greatly in excess of that which is practical in the old process, the mats not only aiding in the escape of the fluids by forming courses or channels which are kept free by the motions of the parts of the mats relatively to each other under the increasing pressure, but also aiding in holding the cheese in place in the curb, and preventing it from being forced out through the spaces between the straws of the curb. Consequently when my process is used the yield of fluids from a given amount of fish is nearly double that of the old process, and the scrap is, of course, much drier, which is also an advantage.

What I claim as my invention is—

1. The improved process for expressing the fluids from fish, consisting in filling the curb shown in Fig. 3 with a layer of fish, a mat of the kind described, another layer of fish, another mat, and so on, as above described, and subjecting the whole to heavy pressure, all substantially as set forth.

2. A mat made of bundles or layers of wire, so arranged that as the pressure is increased the individual wires will change their relative positions, thus freeing the courses or spaces between the wires and allowing the fluids to pass out readily, when used in combination with the curb in expressing fluids, all substantially as described.

HARRISON LORING.

Witnesses:
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