(No Model.)

J. ZIMMER.

MEAT TENDERER.

No. 266,576. Patented Oct. 24, 1882.

Fig. 2.

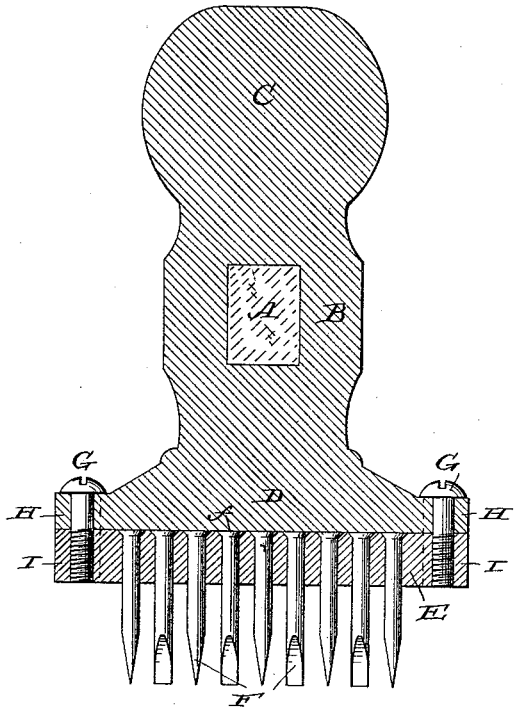


Fig. 3

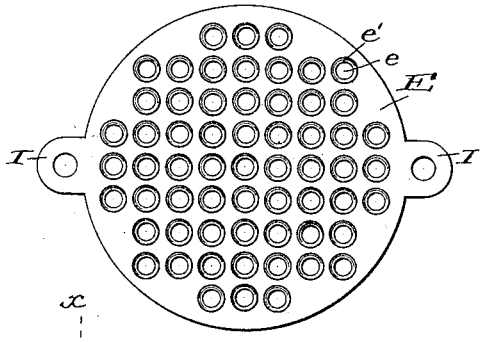
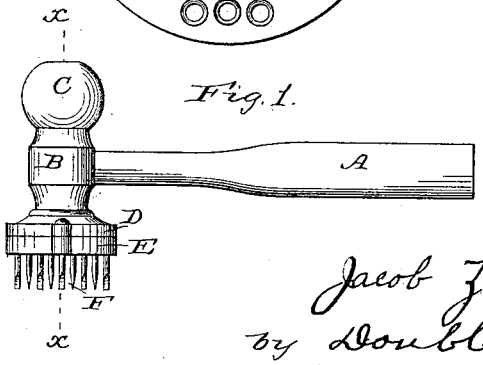


Fig. 1.



Witnesses:
A. S. Low
J. S. Barker.

Inventor:
Jacob Zimmer
by Doubleday & Bliss
Attys.

UNITED STATES PATENT OFFICE.

JACOB ZIMMER, OF BINGHAMTON, NEW YORK, ASSIGNOR OF ONE-HALF TO ALEXANDER S. PATTEN, OF SAME PLACE.

MEAT-TENDERER.

SPECIFICATION forming part of Letters Patent No. 266,576, dated October 24, 1882.

Application filed May 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB ZIMMER, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Meat-Tenderers, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation of a meat-mallet, on a reduced scale, embodying my improvements. Fig. 2 is a cross-section on the line *x x* of Fig. 1, on a scale substantially that of an ordinary working implement. Fig. 3 is a top view of the tooth-plate detached.

In the drawings, A is the handle of the mallet, fitted at right angles into the head, which latter is composed of a central part, B, an expanded head, C, and a tooth-supporting part, D, on the opposite side, the parts B, C, and D being preferably cast in one piece of metal. The lower face of the part D is plane or smooth, and against it is fitted the tooth-holding plate E. The last said plate is provided with perforations *e e*, of any suitable number. In these perforations the cutting-teeth F are inserted, each tooth having an expanded head, *f*, which is seated in a recess, *e'*, at the upper end of the aperture *e*, in which it is inserted, the upper surface of the plate E being countersunk to produce these recesses *e'*. The teeth are inserted into the plate E after the latter has been removed from the head, and after the teeth are in place the plate E is secured tightly against the under side of the head by means of screws or bolts G, preferably supported in ears H, carried by the head, and ears I, formed with the tooth-holding plate E.

The teeth may be of any preferred character, though I prefer the shape shown, each tooth having a wedge-shaped cutting-edge, the edges of the several teeth being arranged on any preferred lines relatively to each other, the best effects, however, being obtained by having them situated obliquely to each other to more effectually sever the fibers.

I am aware that meat-tendering mallets have been heretofore constructed with heads carrying cutting-teeth projecting therefrom; but in those constructions with which I am acquainted the teeth have been inserted by passing their round or heel ends inwardly from the lower face of the mallet, there being either a metal block or a wooden block arranged to receive them; but it has been found that serious disadvantages are met with in using tendering-mallets of the now ordinary constructions, in that when the teeth are broken or become dulled it is impossible, or a matter of great difficulty, to remove them for sharpening or to replace them with new ones. These objections I have succeeded in overcoming entirely by constructing the mallets in the manner shown and described. I can instantly withdraw any marred, broken, or dulled tooth and replace it with another, or reinsert it after sharpening or reshaping it, if necessary. This is permitted by the use of the perforated plate through which the teeth are passed from the inner face to the outer, and by providing the teeth with enlarged heads or retaining devices which prevent them from falling out when the plate is fastened in position, but at the same time allow them to be readily removed by withdrawing one of the clamping-bolts.

I am aware that in machines for perforating sheets of paper and other material use has been made of pins having expanded heads supported in countersunk plates, and I do not claim such devices as my invention; nor do I claim broadly pins or teeth supported in the manner which I have shown; but I am not aware of the fact that prior to my invention any one has devised a portable implement capable of performing the functions which can be performed by the one I have shown and described.

What I claim is—

1. In a portable meat-tendering implement, the combination of the weighted head, the handle connected to said weighted head, the plate D, carried by said weighted head, the removable perforated plate E below said plate D, the clamping devices G, and the teeth F F, adapted to be passed from the inner face to the outer of said plate, and having expanded heads which bear against plate D, the other parts of the teeth being free and unsupported between the plate E and their outer ends, substantially as set forth.

2. In a portable meat-tendering implement, the combination of the weighted head, the handle connected thereto, the ears H H, con-

nected to the head, a perforated plate, E, provided with countersunk recesses and with the ears I, the teeth F, removable by passing them upwardly through the plate E, and the screw-clamps G G, carried by the ears H and I, for detachably securing the plate E to the head, substantially as set forth.

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

JACOB ZIMMER.

Witnesses:
JAMES FLYNN,
JOS. DILLON.