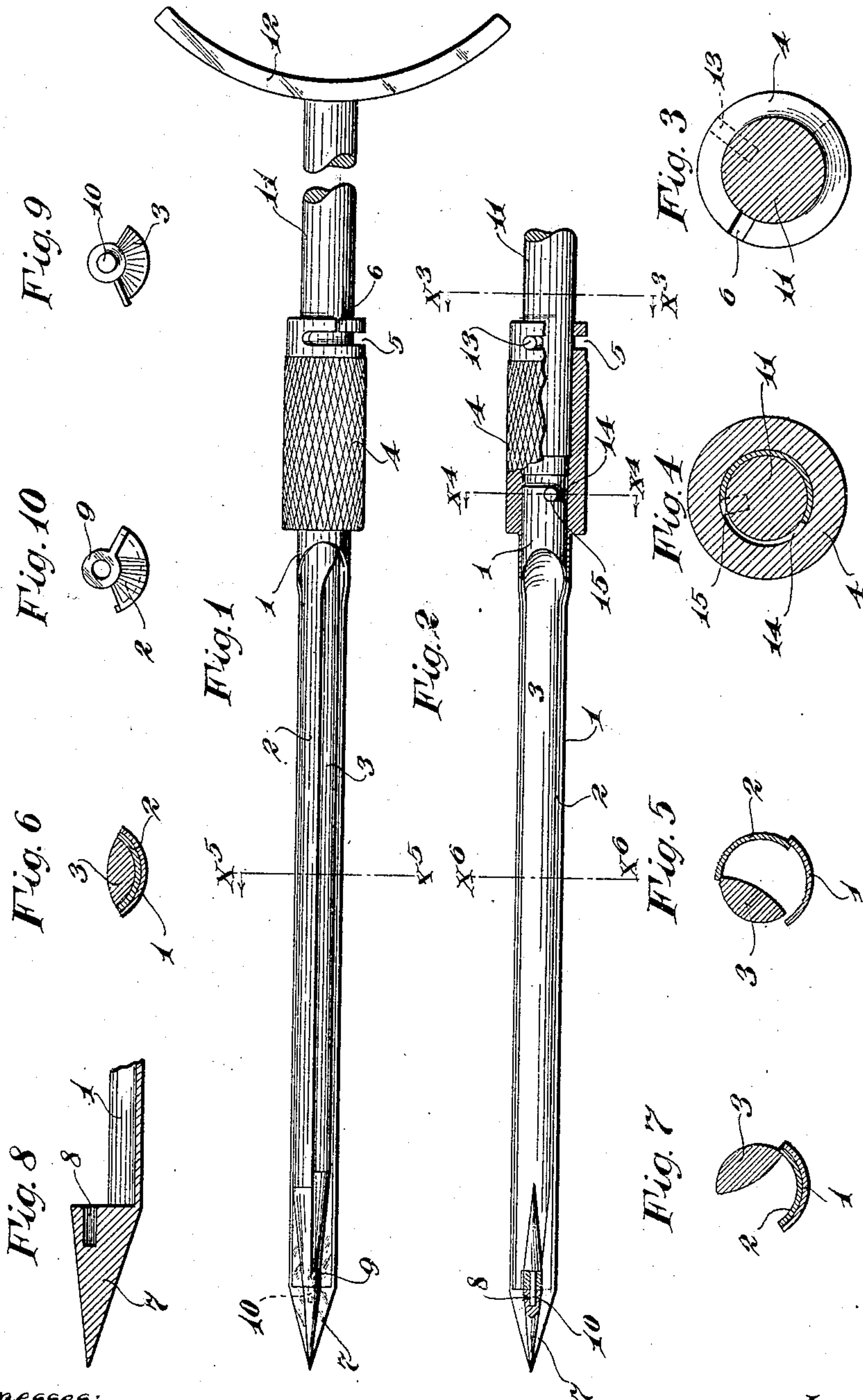


916,441.

Patented Mar. 30, 1909.



Witnesses:  
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Harry Opsahl.

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By his Attorneys:  
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# UNITED STATES PATENT OFFICE.

FREDERICK HACHMANN, OF ST. PAUL, MINNESOTA, ASSIGNOR OF TWO-THIRDS TO WALTER W. WHITMAN, OF ST. PAUL, MINNESOTA, AND ONE-EIGHTH TO JOHN R. BAILEY, OF MINNEAPOLIS, MINNESOTA.

## HAM-SALTER.

No. 916,441.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed April 16, 1908. Serial No. 427,469.

*To all whom it may concern:*

Be it known that I, FREDERICK HACHMANN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Ham-Salters; and I do hereby 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.

My invention has for its object to provide an improved ham salter adapted for use to inject salt into hams; and to this end it consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a plan view of the improved salter, some parts being broken away. Fig. 2 is a plan view of the salter, with some parts broken away, and with the tube sections in different adjustment from that shown in Fig. 1. Fig. 3 is a section taken on the line  $x^3 x^3$  of Fig. 2. Fig. 4 is a section taken on the line  $x^4 x^4$  of Fig. 2. Fig. 5 is a section taken on the line  $x^5 x^5$  of Fig. 1. Fig. 6 is a section taken on the line  $x^6 x^6$  of Fig. 2. Fig. 7 is a section taken on the same line as Figs. 5 and 6, but showing the parts of the injector barrel in different positions. Fig. 8 is a vertical section showing the conical end of the outer barrel section. Fig. 9 is an end view of the so-called ejector blade of the device; and Fig. 10 is an end elevation of the inner segmental section of the injector barrel.

The barrel of the device is made up of segmental tube sections, of which there are preferably two, the outer or main tube section being indicated by the numeral 1 and the inner or supplemental tube section being indicated by the numeral 2. The two tube sections 1 and 2 in themselves make up an incomplete barrel and, to complete the barrel, a so-called ejector blade 3 is fitted within the inner segmental tube 2. This ejector blade 3 is double convex in cross section, while the sections 1 and 2 are, of course, both concavo-convex in cross section. The three tube forming elements 1, 2 and 3 are mounted for rotary movements, the one

with respect to the other. The outer segmental tube 1 has rigidly secured to one end a heavy knurled sleeve 4 that affords a convenient hand-piece; and, at its outer end, this sleeve is provided with a segmental retaining slot 5 that extends two-thirds of the way around said sleeve and at its intermediate portion is provided with an entrance notch 6. At its other end this outer segmental tube 1 is provided with an approximately semi-conical tip 7. The said point 7 is a true semi-cone except for a central tapered rib that alines with the tapered point of the tube forming element 2, as best shown in Fig. 1. The tip 7 is provided with a trunnion seat 8 located at the axis of the barrel. The inner segmental tube 2 is tapered at its outer end and provided with a perforated hub 9 that alines with the trunnion seat 8. The ejector blade 3, at its corresponding end, is tapered and is formed with a projecting trunnion 10 that is adapted to be inserted through the hub 9 and into the seat 8, and to pivotally connect the extended ends of the said parts 1, 2 and 3. In the vicinity of the serrated hand-piece 4 the two so-called segmental tubes 1 and 2 take complete tubular form and the ejector blade 2 is there joined to or formed integral with an operating shaft 11, which, as shown, at its outer end, has a transverse head 12. The shaft 11 is provided with a radially projecting lock pin 13 that is adapted to be passed through the notch 6 and to work within the segmental slot 5 of the hand-piece 4. The inner tube section 2 terminates within the hand-piece 4 and is provided with a segmental notch 14, best shown in Figs. 2 and 4, the extremities of which are adapted to be engaged by an operating pin or projection 15 carried by the shaft 11.

When the shaft 11 is turned so as to bring the pin 13 into registration with the notch 6, it, together with the ejector blade 3, may be withdrawn from the tube sections 1 and 2 and thereafter the inner tube section 2 may be withdrawn from the outer tube section 1. When the parts are put together as shown in the drawings and are turned into the position shown in Fig. 7, the salt may be readily introduced into the barrel. Then the shaft 11 should be rotated so as to turn the parts into the position shown in Fig. 5, thereby completely closing the barrel with the salt



contained therein. This barrel should then, while closed, be inserted into the ham or other meat to be salted and when it is completely inserted the shaft 11 should be rotated so as to turn the parts of the barrel into the position shown in Fig. 6, by reference to which it will be noted that all of the salt is positively forced out of the barrel and the barrel is, as it were, turned inside out, and, while the parts are in this position, the barrel should be withdrawn, leaving all of the salt deposited in the ham.

It will be understood that the notch 14 in the upper end of the inner segmental tube 2 should be of such length that the ejector blade 3 may be turned from the position shown in Fig. 7 into the position shown in Fig. 6, or vice versa, without causing the pin 15, by engagement with the extremities of said notch 14, to move the inner segmental tube 2. Any further rotary movement of the blade 3, however, causes the pin 15, acting on one or the other extremity of the notch 14, to move the said inner segmental tube 2 with the said blade 3.

In actual practice this device has been found efficient for the purposes had in view and it has been found that it will inject and leave deposited within the ham or other thing being salted all of the salt with which the barrel is loaded before insertion. A pair of concavo convex segmental tubes will not, in themselves, efficiently accomplish this result because a large amount of salt will remain deposited in the channel of the inner segmental tube in withdrawing the device. For the purposes of cleaning the device the

sections thereof may, as already indicated, be easily and quickly separated.

What I claim is:

1. A ham salter comprising a multiplicity of segmental tube sections and an ejector blade coöperating to form a barrel and having rotary movement in respect to the other parts to open and close the barrel, substantially as described.

2. A ham salter comprising a multiplicity of segmental tube sections and an ejector blade that is double convex in cross section, the said parts being mounted for concentric rotation and coöperation to form the injector barrel, substantially as described.

3. In a ham salter, the combination with inner and outer segmental tube sections mounted to rotate, the latter within the former, the said outer tube section having a sharp point at one end and a sleeve-like hand-piece at its other end, of an ejector blade rotatively mounted in said inner segmental tube section and having a projecting operating shaft with a hand-piece at its extended end, of a connection between said shaft and said inner segmental tube section, permitting a limited movement on the former with respect to the latter, but operating under continued rotary movement to cause the said two parts to rotate together, substantially as described.

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

FREDERICK HACHMANN.

Witnesses:

H. D. KILGORE,  
MALIE HOEL.