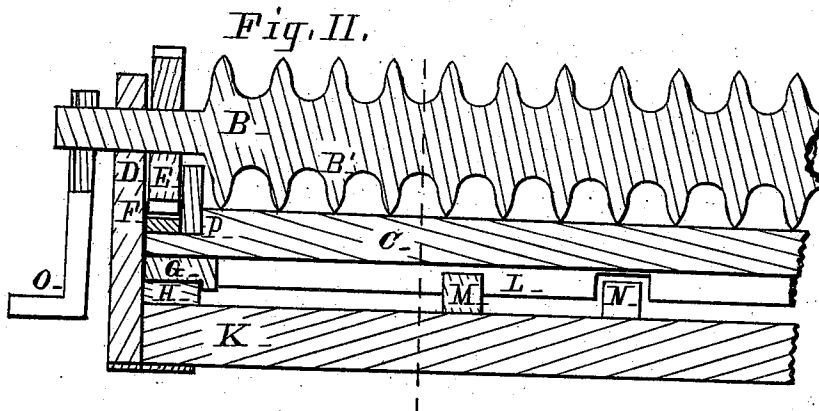
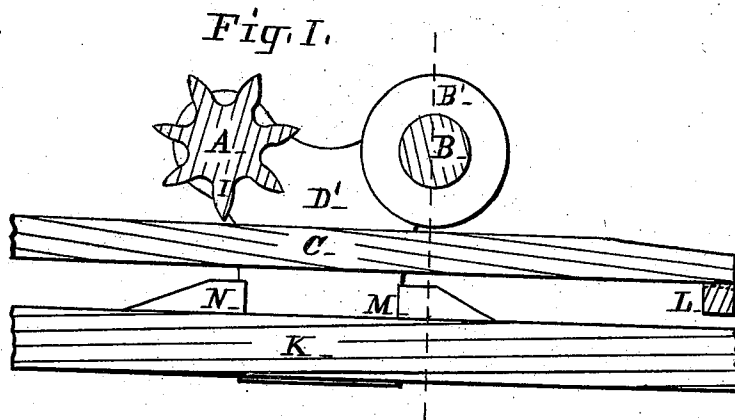
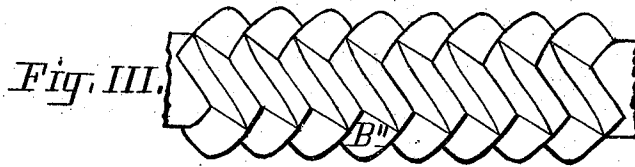


J. W. SMITH.
MEAT-TENDERER.

No. 173,142.

Patented Feb. 8, 1876.



Witness:
Geo. D. Patten
Joseph Wildman

Inventor =
John W. Smith
By *Samuel J. Wallace*
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UNITED STATES PATENT OFFICE

JOHN W. SMITH, OF KEOKUK, IOWA.

IMPROVEMENT IN MEAT-TENDERERS.

Specification forming part of Letters Patent No. **173,142**, dated February 8, 1876; application filed December 21, 1875.

To all whom it may concern:

Be it known that I, JOHN W. SMITH, of Keokuk, Lee county, Iowa, have made a new and useful invention of Improved Tenderer, which is made substantially as set forth hereinafter, referring to the accompanying drawings, in which—

Figure I is a vertical section of a portion of apparatus. Fig. II is a vertical section at right angles to Fig. I, each taken upon the dotted line shown in the other. Fig. III shows roller B, made with zigzag ribs B'.

This invention is intended for the usual use of tenderers in preparing food for cooking.

The invention consists principally in the combination and arrangement of two parallel rollers, A B, fixed in position with bearings in uprights D D', and having projecting ribs B' I, longitudinal in roller A and annular in roller B, with sharp-beveled edges arranged to bite into the material at suitable distances apart in lines across each other, with a moving table, C, upon which the material to be acted on is spread and run under the rollers back and forth till it is acted upon and tendered sufficiently.

The apparatus is operated by crank O attached to roller B. This roller bears at one end a gear-wheel, E. This meshes with a rack, F, attached to the table C, so as to move the table back and forth. The roller A bears a like gear-wheel, which meshes in like manner with rack F, so as to be driven thereby from crank O, and so that both rollers will turn in one direction and with the movement of the table C.

The table has a raised edge, P, to keep the material clear of the gearing, and a sliding bearing, G, on each edge, upon which it moves back and forth on fixed ways H over a station-

ary table, K, to which the uprights D D' are attached.

On table K are two fixed stops, M N, one on each side of the center, and out of line with each other. And the table C has stops L on each end, each of which has a passage-way cut in it to pass freely over one of the stops M N. These are arranged so that the table C may be run through from each side more than half way, so that the end will be stopped against the stop on that side while passing freely over the other. This enables the entire surface of the table to be run entirely under both rollers, and to free the material entirely from both.

The rollers are made, one or both, with zigzag ribs, although for simplicity I often make one or both with straight ribs. These zigzag ribs are arranged parallel, either around (as shown in Fig. III) or along the roller. These act so that, by changing the position of the material slightly on the table C, each time it is run through, the ribs indent not only in new places, but in lines across the previous ones. Either roller with zigzag ribs may be used alone and produce thus the desired result.

I claim—

The combination, in a tenderer, of the rollers A and B, ribbed longitudinally and annularly respectively, the sliding table C, having raised edge P, and the stationary table K, having stops M and N adapted to engage with recesses in sliding table C, substantially as set forth.

JOHN W. SMITH.

Witnesses:

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