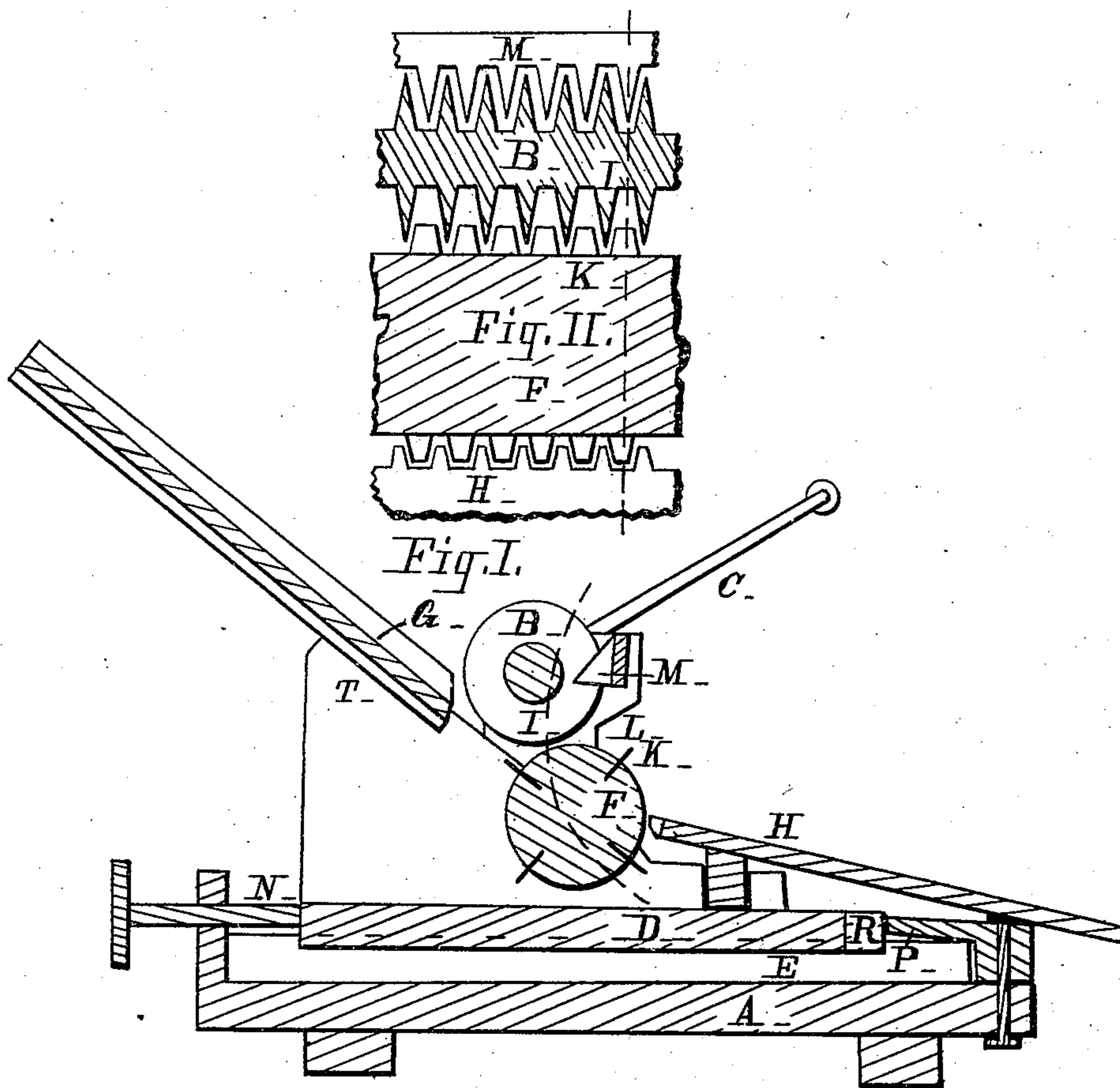


J. W. SMITH.  
MEAT-TENDERER.

No. 183,273.

Patented Oct. 17, 1876.



Witness:  
F. M. Tate  
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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. **183,273**, dated October 17, 1876; application filed August 22, 1876.

*To all whom it may concern:*

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

Figure I is a vertical cross-section of apparatus; Fig. II, a detail of portions of same.

This invention consists in an improved tenderer, having the features hereinafter set forth.

The table A bears a cylinder, B, turned by a hand-crank, C, and a movable table, D, sliding back and forth on ways E, and bearing a cylinder, F, and aprons G H. The cylinder B has cutters I projecting as rings around it at suitable distances. These act upon the material, passing between the two cylinders in the manner of rolling cutters. The cylinder F has a plain wood surface, and teeth K to draw the material between the rollers. The teeth are formed like saw-teeth on strips of steel set into the cylinder longitudinally, so the teeth match with cutters I alternately. The cylinders are connected by pinions at one end, so as to turn together. When the cylinder F is directly under the other the cutters bear on it, so as to cut the material into strips. By moving the table D sidewise, the distance of the cylinders apart can be regulated to any degree required. The aprons G H are suitably inclined. The material to be acted on is placed on apron G and fed between the cylin-

ders. It is received onto apron H, which has a suitable receiving-edge against the cylinder F, with spaces for the teeth to pass. These aprons are removable for cleaning, &c.

The standards L bearing the cylinder B bear a rake, M, having teeth entering between the cutters I, to clear them as they turn. The movable table D is held in any position by set-screw N on one side, and cam P on the other. The cam bears against a thick, soft rubber cushion, R, which gives elasticity to let the cylinder F spring sidewise, to avoid choking and strain. The apron G slides down in and is held by grooves at its edges in the table D, so as to be removable. It has a spring at one side at T to bear on the groove, so as to hold it at a suitable distance from the wheels or rollers, adjustable as they are changed.

I claim—

1. In a tendering-machine, the combination with the feeding-board G and table H, the cutting-roll B, having annular cutting-blades I, and the feeding-roll F, having the longitudinal series of teeth K, as and for the purpose substantially as set forth.

2. The combination of tables A D, cylinders B F, and tables G H, arranged to act together, substantially as set forth.

JOHN W. SMITH.

Witnesses:

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