

W. BURNS.  
Sausage Machine.

No. 8,936.

Patented May 11, 1852.

Fig. 1

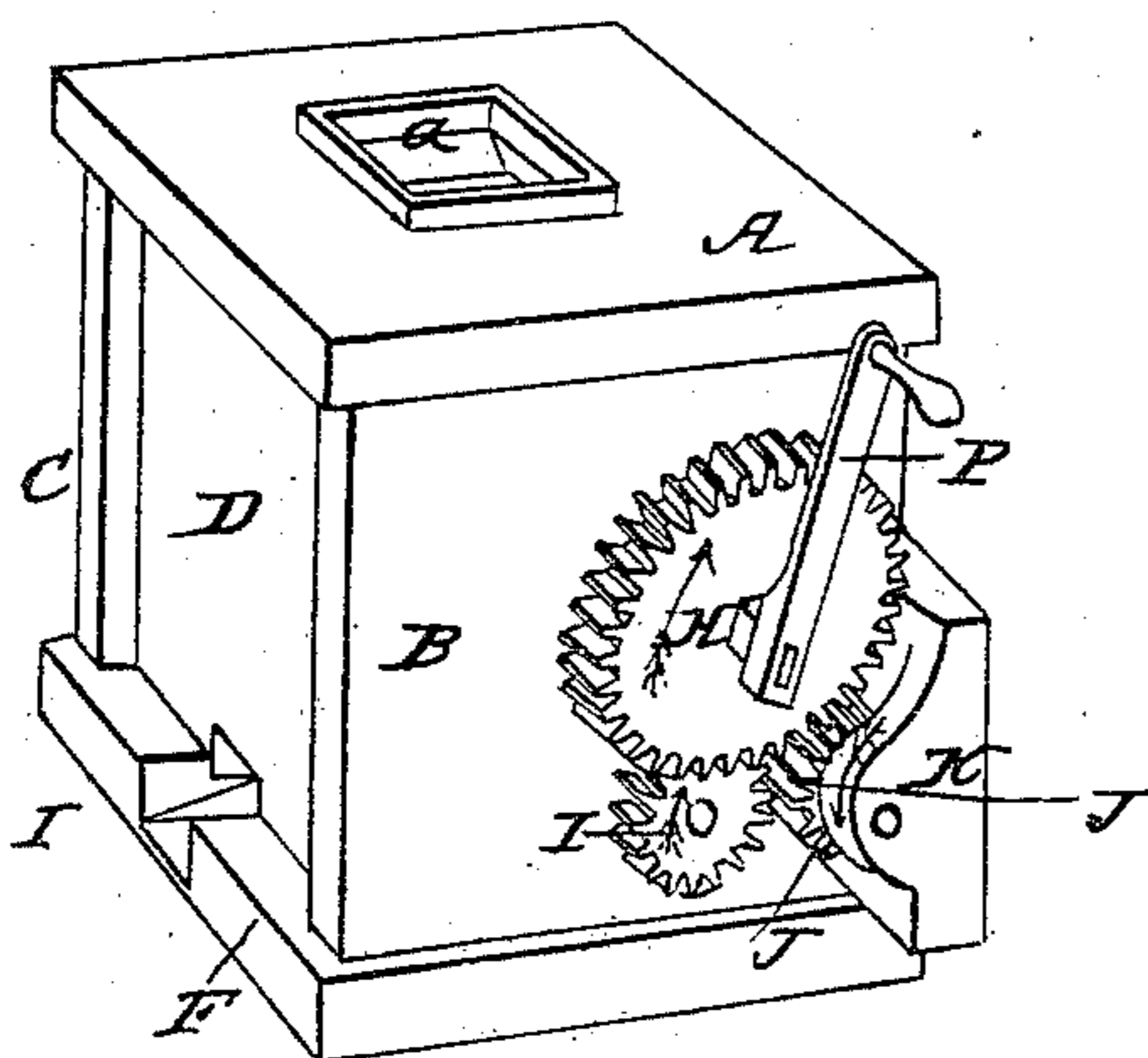


Fig. 2

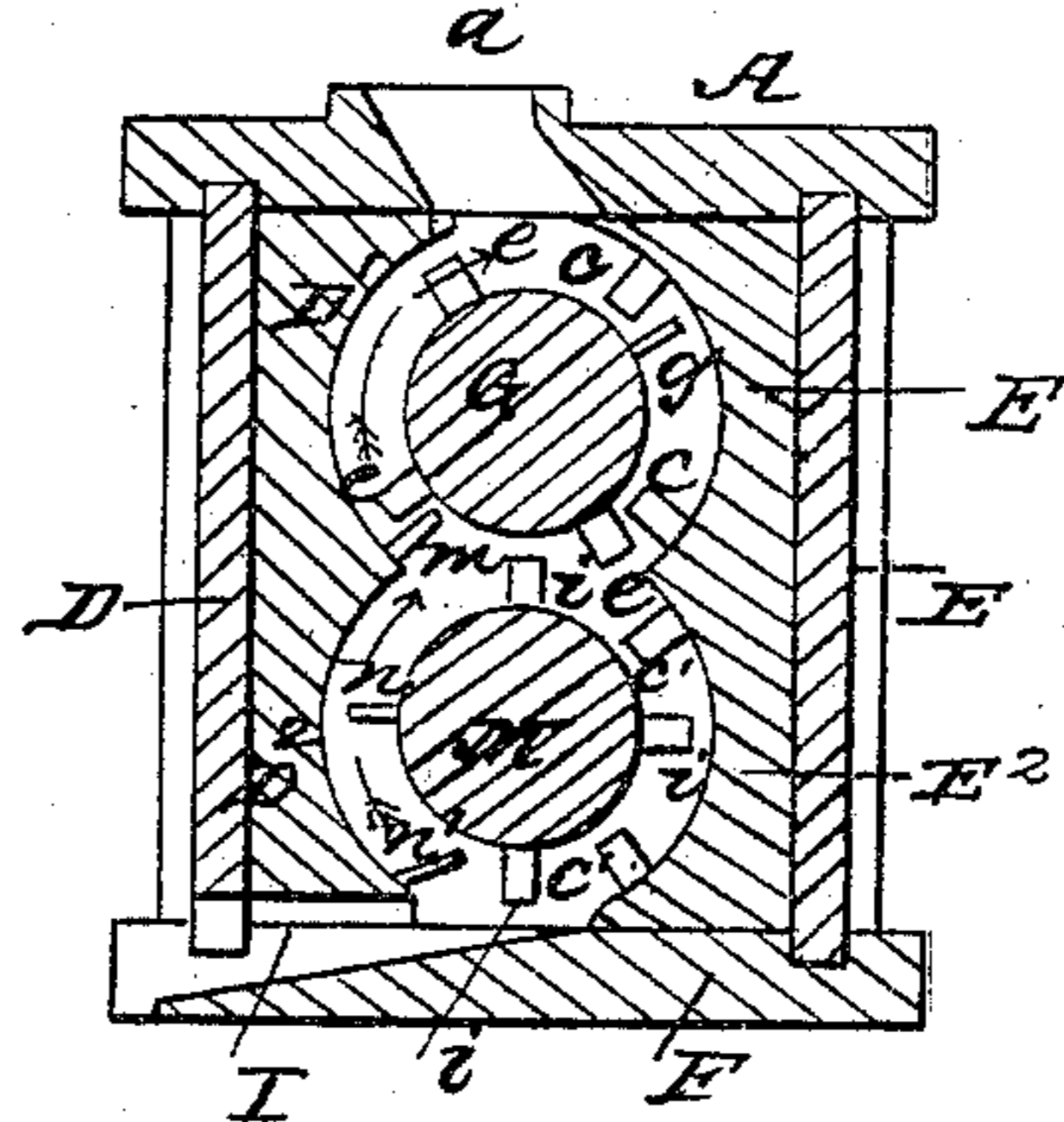


Fig. 3

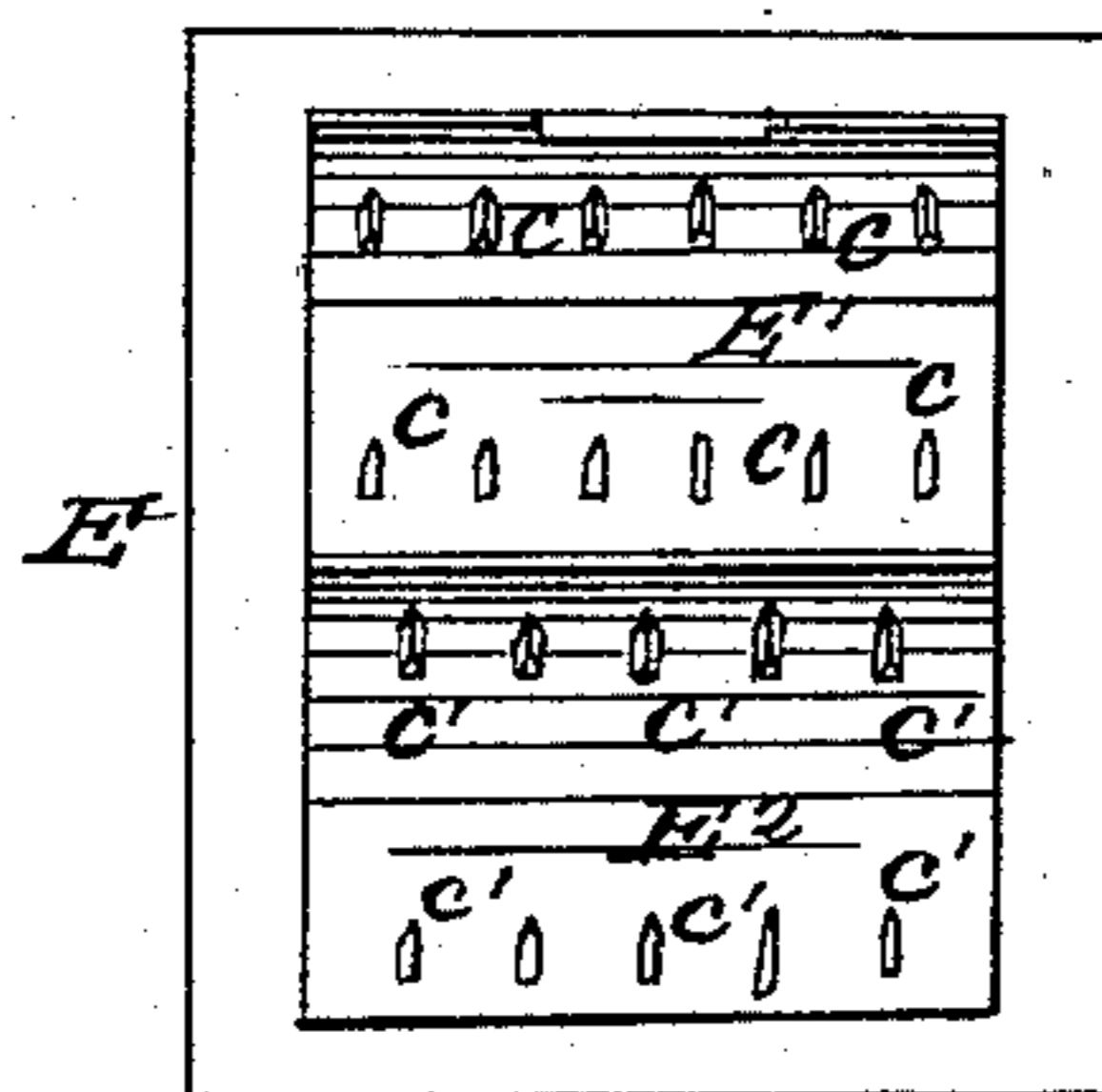


Fig. 4

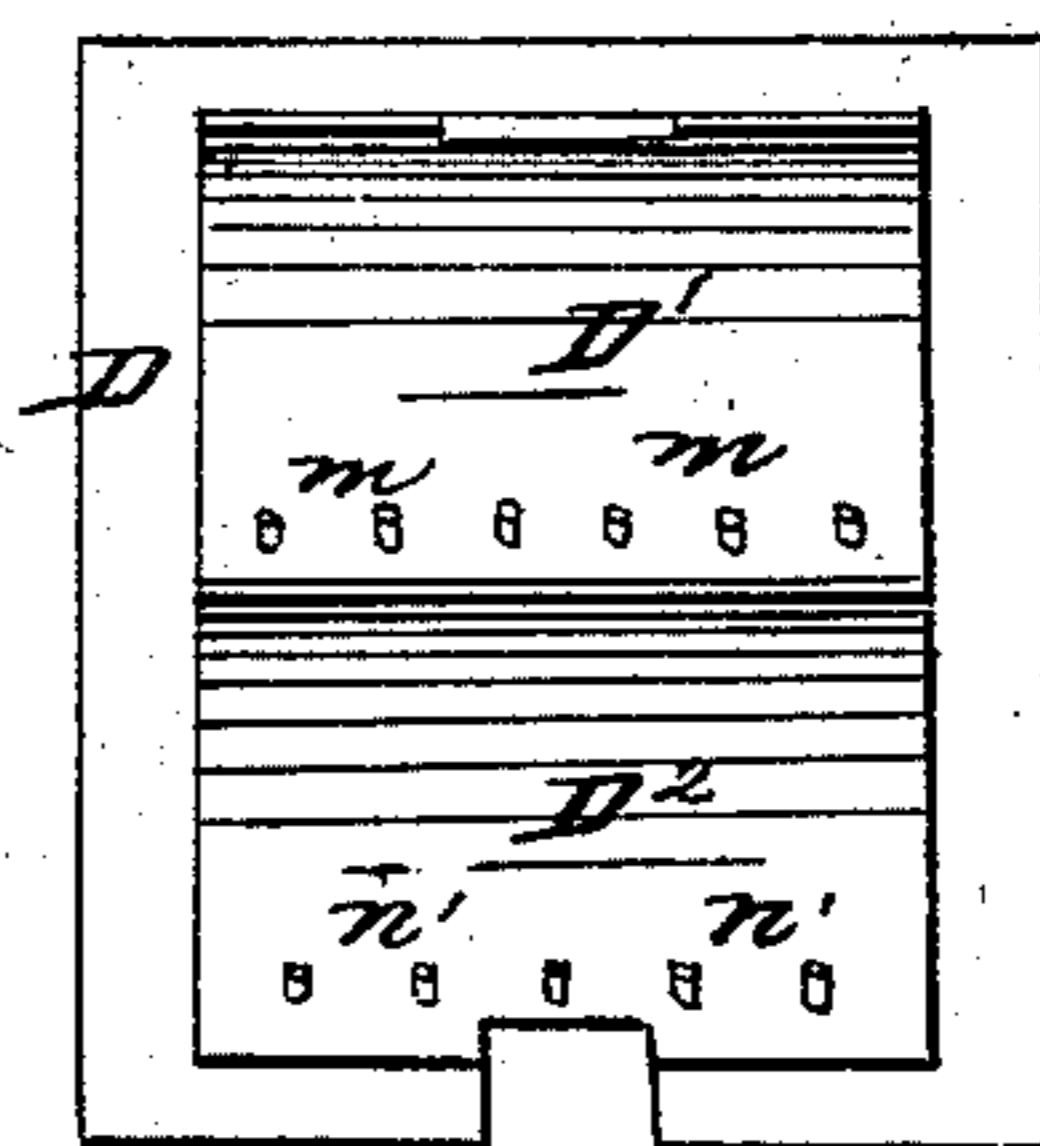


Fig. 5

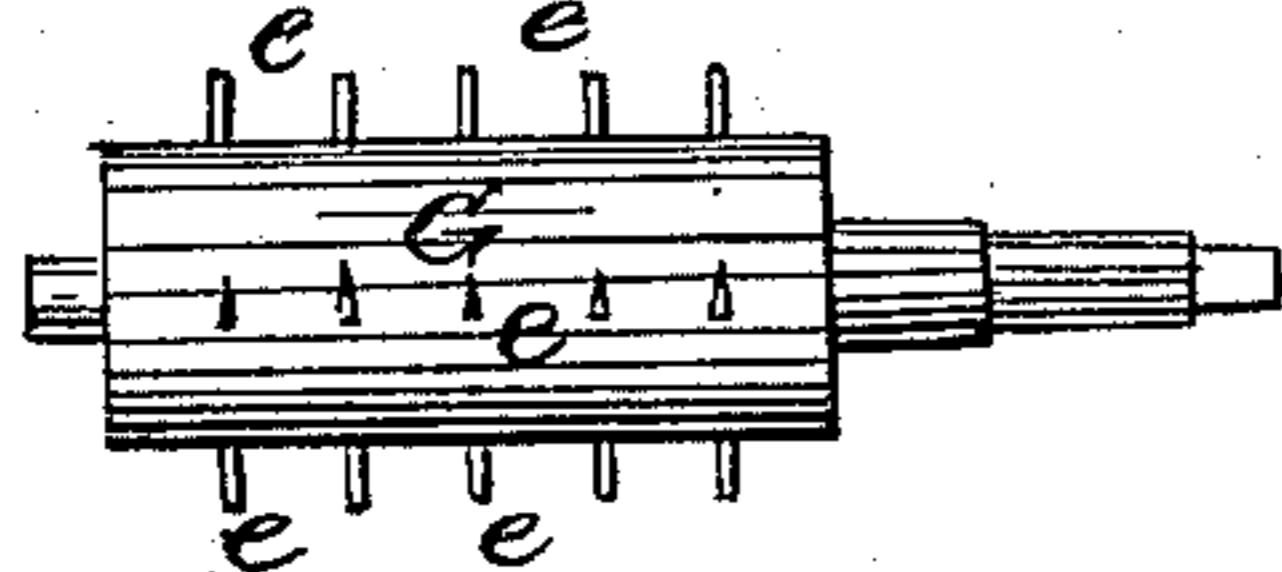
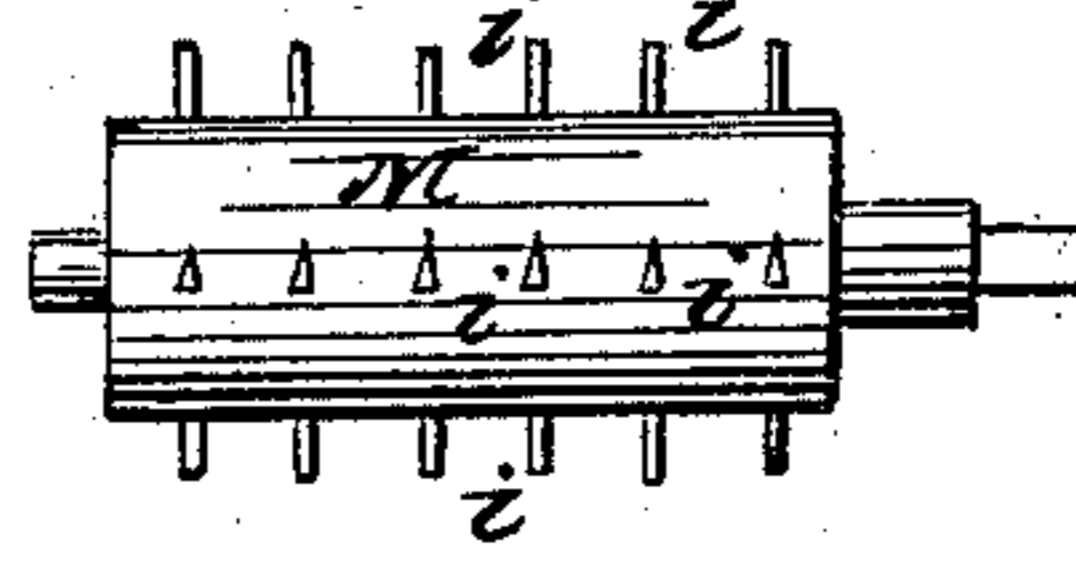


Fig. 6



# UNITED STATES PATENT OFFICE.

WM. BURNS, OF ROME, OHIO.

## MEAT-CUTTER.

Specification of Letters Patent No. 8,936, dated May 11, 1852.

*To all whom it may concern:*

Be it known that I, WILLIAM BURNS, of Rome, in the county of Richland and State of Ohio, have invented a new and useful  
5 Improvement in the Machine for Mincing Sausage-Meat; and I do hereby declare the following to be a full and clear description thereof, reference being had to the annexed drawings, forming part of this specification,  
10 in which—

Figure 1, is a view in perspective, of the box, and the propelling gearing. Fig. 2, is a vertical section, showing transverse sections of the cylinders and concaves. Fig.  
15 3 is an interior elevation of the double concaves furnished with knives. Fig. 4, is an interior elevation of the double concaves furnished with pins. Fig. 5, is a view of the upper cylinder, and Fig. 6, is a view of  
20 the lower cylinder.

The same letters occurring on the several figures, denote corresponding parts.

The nature of my invention and improvement consists, in arranging in separate con-  
25 caves, maintaining vertical positions, armed with pins on one side, and knives on the other side, two cylinders, the one, above the other, armed with knives, and pins, and so operating that the upper cylinder will re-  
30 ceive the meat and partially mince it between the knives of the concave, and allow it to descend to the lower cylinder, by which it is minced to the required fineness, and dis-  
35 charged;—and my improvement furthermore consists in, so disposing the knives, and pins, on the cylinders, and in the con-  
caves, that the pins on the cylinders shall serve to clear the knives in the concaves, while the pins in the opposite concaves serve  
40 to prevent the ascent of the minced meat with the rotation of said cylinders, and act as cleavers to the latter.

The box or case consists of a top board A, provided with a feed opening (*a*) and a bot-  
45 tom board F, provided with a discharge channel I, through which the minced meat passes,—and two side boards B, C, grooved to receive the edges of two other boards D, E. The top and bottom boards are also  
50 grooved to receive the boards B, C, D, E, whereby the case is held together.

The upper cylinder G, is mounted in bearings in the boards B, C, and having on one of its axles a cog wheel H, matching with a  
55 long pinion J. This cylinder is furnished with three rows of cutters *e e e* five in each

row, arranged in straight lines at equal distances apart, and a row of pins *g* of the same number.

M is the lower cylinder mounted in bear- 60  
ings in the boards B, C, and having on one of its axles a pinion L, also matching with the long pinion J, whereby the motion of the lower cylinder, is caused to be about  
65 three times greater than that of the upper cylinder, by reason of the increased size of the cog wheel H. This lower cylinder, is in like manner to cylinder G, armed with knives *i i i* six in each row, and one row  
70 of pins *n* of like number, arranged so as to pass between the knives, and pins, of the upper cylinder.

To the boards D, E, (and nearly embrac-  
ing the upper cylinder) are fixed concaves D' E' which are concentric with said cyl- 75  
inder, one of which E' at the upper and lower portion thereof, is provided with a row of radial knives *c c* six in number, and the op-  
posite concave D' at the lower portion there- 80  
of, has a row of pins *m* of like number; these cutters, and pins, are so disposed as not to interfere with those on the cylinder. The concaves E<sup>2</sup> D<sup>2</sup> unite with the concaves  
85 of the upper cylinder, and are in like manner furnished with knives *c' c'* and pins *n'* but of a number one less than the upper con-  
cave, and are so arranged as not to interfere with the knives, and pins, on the lower cyl-  
90 inder. The meat is minced by the knives on the cylinders, and in the concaves, and the pins, on each cylinder is designed to keep the knives of the concaves free or clear  
of the minced meat, while the pins *m n'* in the lower part of the concaves D' D<sup>2</sup>, serve  
95 to clear the knives on the cylinders, and prevent the minced meat being carried upward by the rotation of the cylinders.

The discharge channel I, inclines down-  
ward from the lower part of the concave E<sup>2</sup> 100  
to allow the free egress of the minced meat, which is effected by the rotation of the knives and pins on the lower cylinder. The board D, has an opening in it corresponding with the discharge channel I. The pinion  
105 J, is mounted in bearings in a frame K, and the rotation thereof is effected by a crank handle P, on the axle of the upper cylinder, as shown in Fig. 1.

The cylinders revolve in the same direc-  
tion as shown by the arrows in Fig. 2, ef- 110  
fected by the arrangement of gearing afore-  
said. From the foregoing description of the

arrangement and construction of the several parts of my machine, it will be seen that by putting the meat into the feed opening *a* when the cylinders are in motion, the knives and pins of the upper cylinder take hold of the meat and carry it immediately in contact with the knives *c c* in the concave *E'* where it is cut into pieces, and delivered on the lower cylinder which has a quick motion, whereby the meat is carried around through the knives *c' c'* in the lower concave, and thence gradually discharged through the channel *I*, free from being bruised, or its preserving qualities otherwise injured.

I am aware that most of the parts contained in this description of my improved sausage machine, are not in themselves, separately considered novel, but that they are singly, or more, or less connectively in similar machines been employed, or patented, such as a cylinder, armed with knives, and rotating within a concave, the frame having a feed opening *a*, and a discharging channel *I*, and the gearing for imparting to the cyl-

inders a rotary motion. I therefore do not claim as new any of these parts separately considered, or irrespective of the manner, or arrangement, in which I propose in combination, to apply them, for the purposes, and to produce the advantages specified, but

What I do claim as new, and desire to secure by Letters Patent, is—

Arranging in separate concaves, maintaining vertical positions, and uniting with each other, two cylinders, the one above the other, the upper one operating to partially mince the meat, and deliver it upon the lower cylinder, revolving at a greater speed, for reducing it to the required fineness as described.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

WILLIAM BURNS.

Witnesses:

JAMES M. BARNARD,  
ASHBEL M. BROWN.