2 Sheets—Sheet 1.

J. SANGSTER.

MEAT-CUTTERS.

No. 194,730. Patented Aug. 28, 1877.

Figure 1

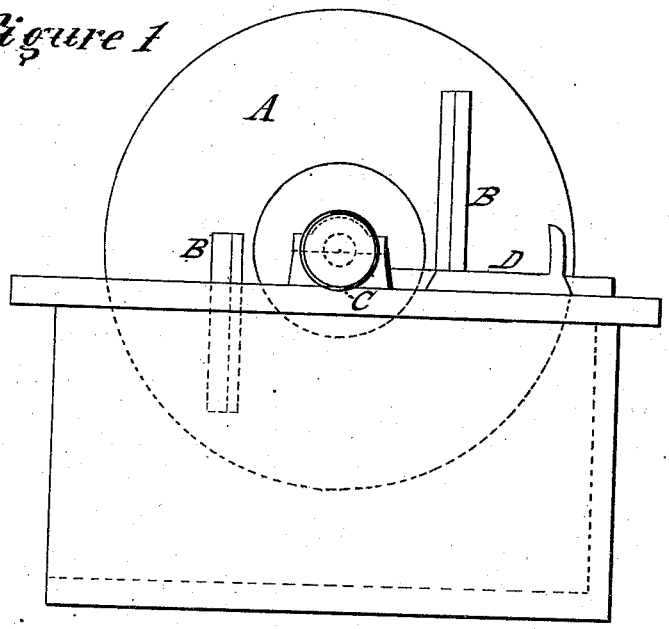
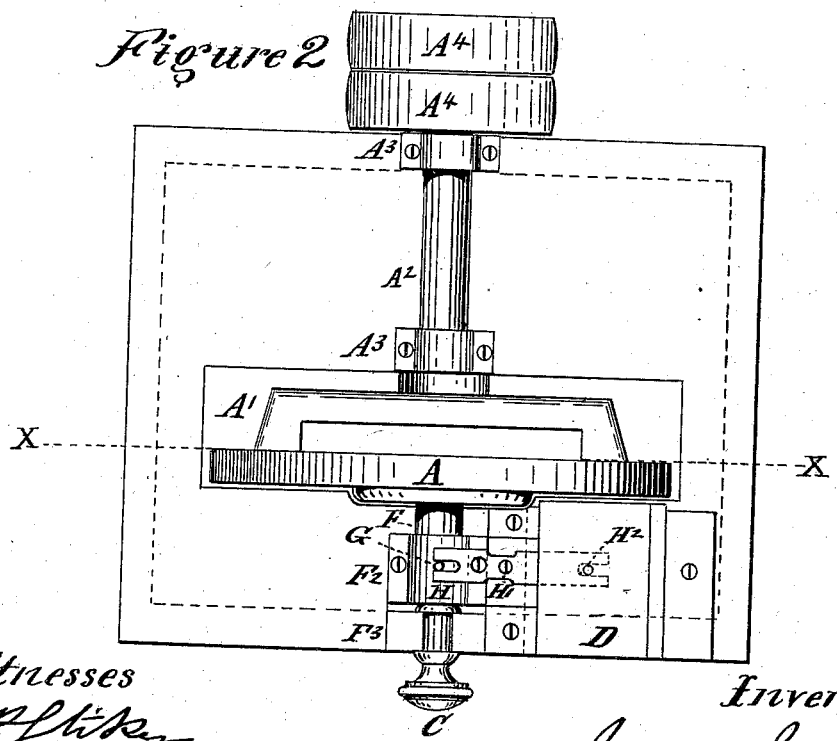


Figure 2



Witnesses
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Wm. L. Grosvenor

Inventor.
James Sangster

2 Sheets—Sheet 2.

J. SANGSTER.

MEAT-CUTTERS.

No. 194,730. Patented Aug. 28, 1877.

Figure 3.

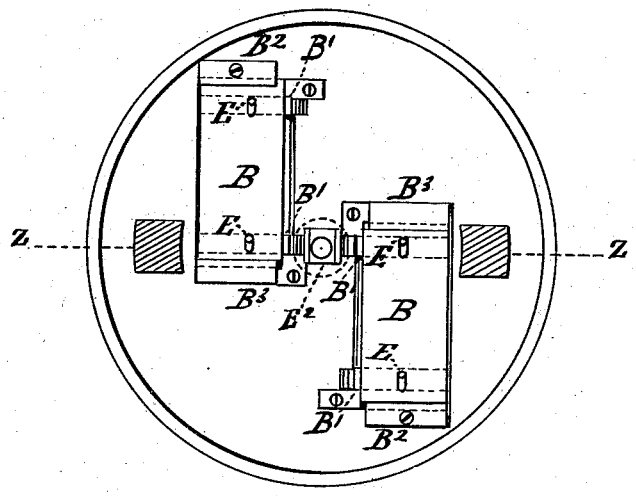


Figure 4

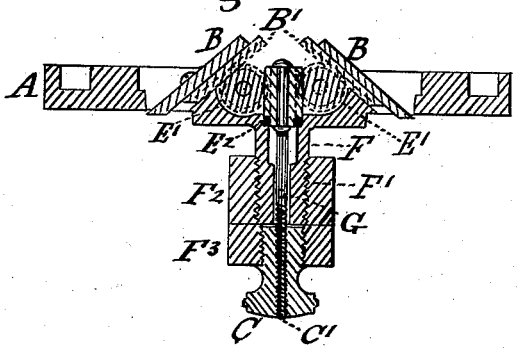
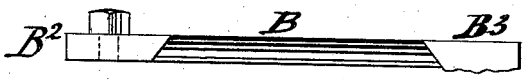


Figure 5



Witnesses.

J. P. Stiker

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UNITED STATES PATENT OFFICE.

JAMES SANGSTER, OF BUFFALO, NEW YORK, ASSIGNOR TO EDWARD M. JEWETT, OF SAME PLACE.

IMPROVEMENT IN MEAT-CUTTERS.

Specification forming part of Letters Patent No. **194,730**, dated August 28, 1877; application filed February 1, 1877.

To all whom it may concern:

Be it known that I, JAMES SANGSTER, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Machines for Cutting Fibrous Material, which improvements are fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front elevation; Fig. 2, a plan view; Fig. 3, a section through line X X, Fig. 2, showing also a back view of the cutter-disk; Fig. 4, a section through line Z Z, Fig. 3; and Fig. 5 represents a front view, enlarged, of one of the cutters, showing the manner of fastening them in place on the disk.

The object of this invention is to afford the means for cutting thin shavings of wood, dried beef, or other similar material.

It is an improvement on the invention for which Letters Patent No. 184,912 were granted to me November 28, 1876; and it consists in the combination of a revolving disk, two or more cutters made adjustable in the direction of their cutting-edge, a thumb-screw, and a number of racks and pinions for adjusting the cutters while the machine is in motion.

The second part of my invention consists in a machine for cutting fibrous and other material into thin slices or chips, the combination of a gage-board with the adjustable cutters, arranged so as to be easily adjusted by hand, or readily made self-adjusting through the action of suitable mechanism by the operation of adjusting the cutters, as will be more clearly hereinafter described.

The object is to prevent the gage-board from coming in contact with the cutters, and so that the said board may be made to move back and forth as the cutters move, and within a specified distance of them.

In said drawings, the letters A represent the cutter-disk. It is fastened to the shaft A^2 by means of the yoke A^1, thereby leaving the central part of the back of the disk clear for the arrangement and operation of the cutting mechanism. The shaft A^1 is placed in suitable bearings A^3, Fig. 2, and is operated by the ordinary tight and loose pulleys A^4.

The letters B represent the cutters, which are fastened to the back of the disk by means of the permanent pieces B^3 and removable pieces B^2. (Shown in Figs. 3 and 5.) The pieces B^2 are easily removed by unscrewing the bolt which holds them, as shown, so that the cutters may be quickly taken off from the racks B^1, or put on.

The racks B^1 are provided with pins E, which project up through the cutters, as shown. E^1 are pinions, which engage with the racks B^1, and also with the center-piece E^2, which is provided with racks to engage with said pinions. F represents a hollow shaft, projecting from the front of the disk, in a line with the shaft A^2. It is provided with a series of parallel grooves, F^1, which fit into corresponding grooves in the box F^2, which should be made in one piece with the box F^3. C is thumb-screw grooved and fitted into the other end of the box. These grooves, while they allow the parts to turn easily, will prevent any longitudinal movement. Of course, one or more such grooves may be used.

C^1 represents a rod, which passes through the center-piece E^2, and is so connected with it, as shown in Fig. 4, as to turn easily, but not to move lengthwise within it. The opposite end is provided with a screw, which works in the thumb-screw C.

The rod C^1 is provided with a pin, G, which passes up through a hole in the top of the box F^2, so that it can be moved in the direction of its length, but cannot turn, while the disk and center-piece E'' turn freely on it.

It will be readily seen that by turning the thumb-screw C the rod C^1 will be moved longitudinally, carrying E^2 along with it, and thereby move the cutters through the action of the racks and pinions. At the same time the pin G, by its connection with lever H, (shown in Fig. 2,) causes it to move on the center H^1, thereby moving the gage-board D by means of the pin H^2, so that as the cutters move the gage-board moves in either direction.

The pin H^2 should be made adjustable a short distance lengthwise of the gage-board D. By this means the gage-board is prevented

from injuring the cutters, while at all points of adjustment it is kept sufficiently near them for the purposes of cutting, and the cutters may be easily adjusted whether the machine is in motion or not.

I claim as my invention—

1. In a machine for cutting fibrous material, the combination of the disk A, cutters B, racks B^1, pinions E^1, rod C^1, and thumb-screw C, for the purposes specified.

2. The thumb-screw C, rod C^1, provided with a pin, G, in combination with the arm or lever H, arranged substantially as specified, and gage D, as and for the purposes specified.

JAMES SANGSTER.

Witnesses:
F. P. STIKER,
WM. S. GROSVENOR.