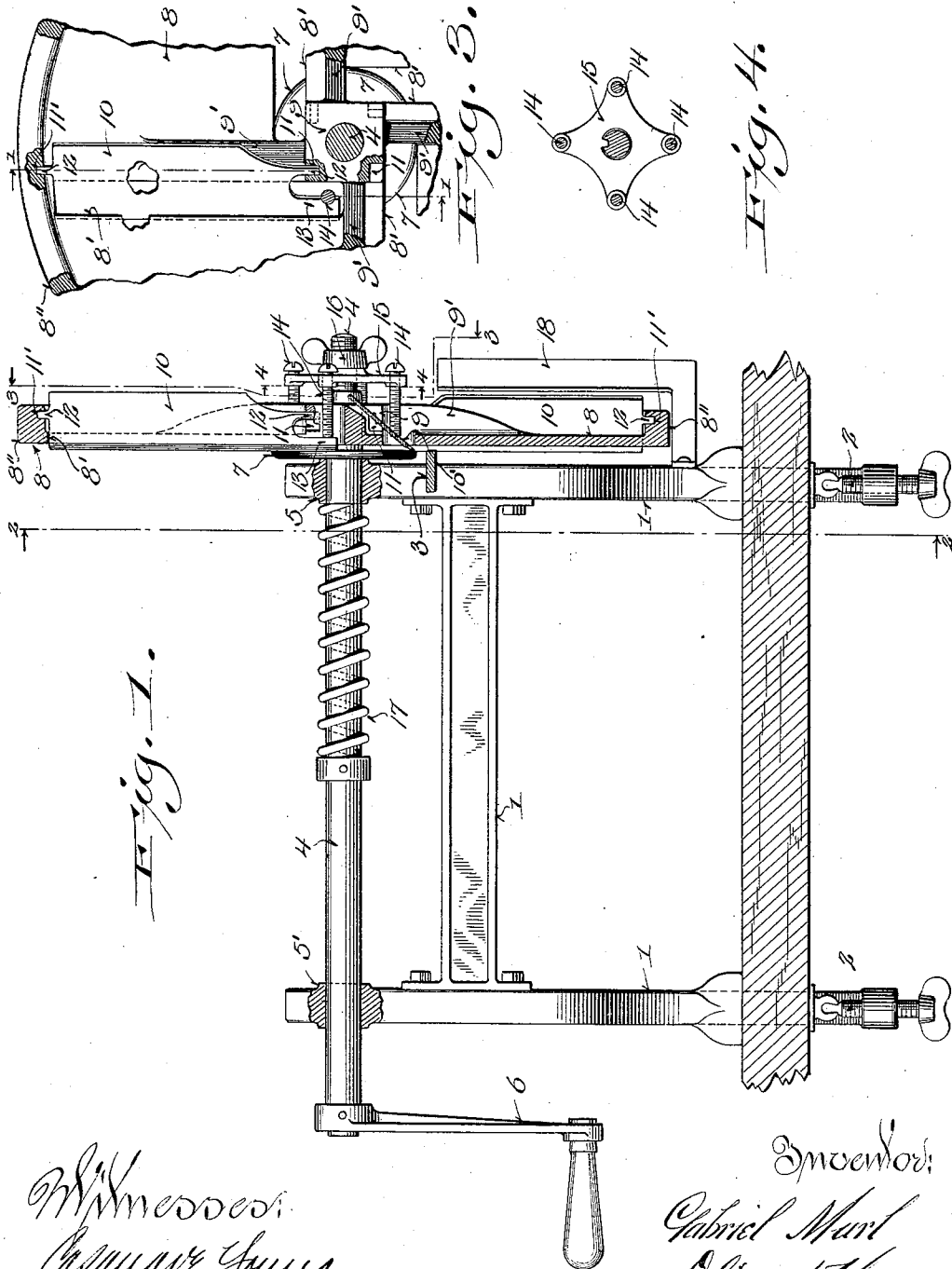


G. MURL.
SLICING MACHINE.
APPLICATION FILED APR. 1, 1913.

1,064,366.

Patented June 10, 1913.

2 SHEETS—SHEET 1.



Witnesses:
Casimir Young
May Downey

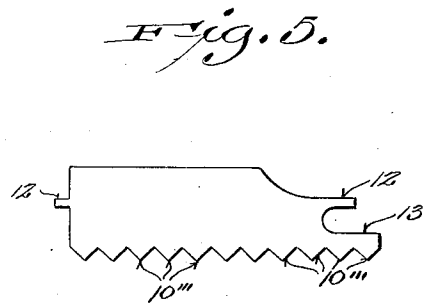
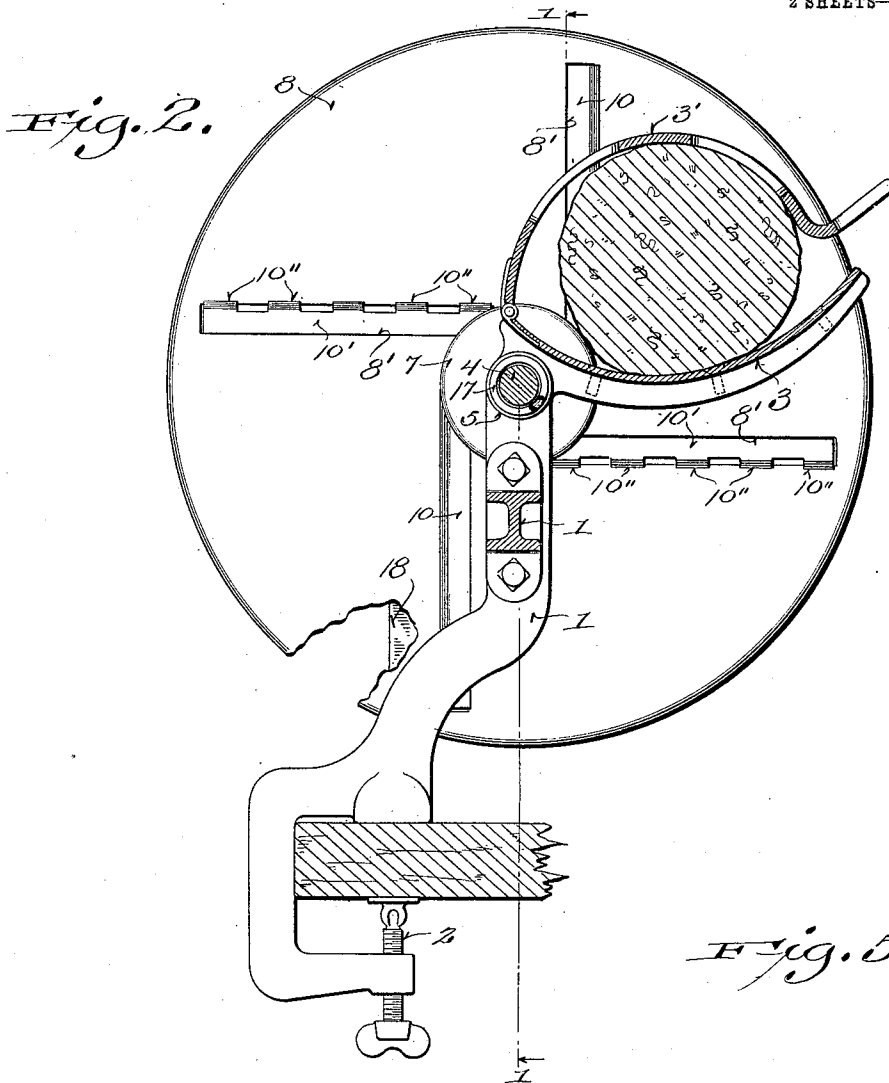
Inventor:
Gabriel Murl
By *Clifton Young*
Attorney.

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Witnesses:
Carroll Young
May Downey.

Inventor:
Gabriel Murl.
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UNITED STATES PATENT OFFICE.

GABRIEL MURL, OF MILWAUKEE, WISCONSIN.

SLICING-MACHINE.

1,064,366.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed April 1, 1913. Serial No. 758,164.

To all whom it may concern:

Be it known that I, GABRIEL MURL, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Slicing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention is to provide a simple, economical and effective slicing and shredding machine, its arrangement and construction being such that the cutting blades are interchangeable for accomplishing the certain classes of work mentioned.

With the above object in view the invention consists in certain peculiarities of construction and combination of parts as hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings Figure 1 represents a side elevation of a slicing machine embodying the features of my invention, the same being partly in section as indicated by lines 1—1 of Figs. 2 and 3; Fig. 2, an end sectional view of the same, the section being indicated by line 2—2 of Fig. 1; Fig. 3, a detailed sectional face view of the portion of a cutter-blade carrying disk and its connections, the section being indicated by line 3—3 of Fig. 1; Fig. 4, a detailed cross-section of a cutter-blade adjusting block, the same being indicated by line 4—4 of Fig. 1, and Fig. 5, a detached view of a form of cutter-blade utilized in connection with the machine when it is to be employed as a shredder.

Referring by characters to the drawings, 1 represents a frame provided with feet that are attachable to a table by means of clamping screws 2. The frame also carries a concave feed-trough 3, having a hinged cover 3', whereby the article to be sliced or shredded is held in position to be worked upon. Mounted in parallel relation with the feed trough is a rotary spindle 4, which spindle is journaled in front and rear bearing ears 5 and 5' respectively, the same constituting parts of the frame. The rear end of the spindle carries a hand-crank 6 and the forward end of the spindle extends through the bearing 5, at which point it is fitted with a loose collar 7, the same being in

abutting engagement with the bearing. Also secured to the spindle adjacent to the collar is a disk 8 having tangentially disposed knife-receiving slots 8', a rim-flange 8'', and an offset hub 9, from which hub there are extended radial ribs 9' that parallel the knife-slots and serve as backstops for pairs of cutter-blades 10 and 10', the said disk constituting a knife-carrying spider. The hub and flange of the disk are each provided with alined pairs of sockets 11, 11', for the reception of pivot-pins 12, which pivot-pins are extended from the opposite ends of the cutter-blades. Each hub socket 11 is, as shown, in the form of a bayonet-slot, whereby the cutter-blades can be conveniently fitted or detached from their seats by first inserting the outer blade pins into the flange sockets and thereafter swinging the hub pins into their seats through the mouths of the bayonet-slots. Each cutter-blade is cut away between its cutting edge and hub pivot-pin to form an engaging heel 13 for a gage adjusting plug 14. The series of plugs 14 are in threaded union with a head-block 15, which head-block is in spline connection with the end of the spindle 4, as best shown in Fig. 4. The terminal of the spindle is threaded for the reception of a wing-nut 16 that is adapted to engage the head-block, whereby the plugs are adjusted simultaneously in order to force the cutting edges of the two sets of blades through the disk slots to gage the cut, it being understood that the adjacent discharge edge of the feed-trough constitutes a shearing face for said blades and that their lower cutting ends or heels 13 are seated against the juxtaposed face of the collar 7, which face at all times is alined with the trough shearing edge as indicated in Fig. 1. The collar, as previously stated, abuts the spindle bearing 5 and the same is held thereagainst by pressure of the blade heels 13, which heels in turn are under constant yielding force due to the influence of a coiled spring 17 that draws the spindle and its connected parts rearwardly toward the bearing. The spring 17 is coiled about the spindle and is fitted between a fixed collar carried by said spindle and the rear face of the bearing 5.

As shown in Fig. 2, the alined set of cutter-blades 10' are provided with spaced

rectangular cutter-teeth 10'', whereby the stock worked upon is cut into ribbons, the ribbons being separated from the stock body by the uninterrupted cutting edges of the
5 blades 10.

Fig. 5 of the drawings illustrates a cutting blade the cutting edge of which is formed with V-shaped teeth 10''', whereby the stock is cut into correspondingly shaped shreds, each strand being severed by the uninterrupted blades 10 in the rotation of the spider or disk.

While the above described machine is designed to be fed by hand, it is obvious that
15 any standard type of automatic feed of the stock may be employed without departing from the spirit of my invention. Attention is also called to the fact that by the provision wherein the plugs 14 are adjustable independently, a fine set of the knives can be
20 accomplished and thereafter the entire group can be simultaneously adjusted by manipulation of the wing-nut 16, this adjusting pressure of the head-block 15 being
25 opposed by the coiled spring 17 and, while I have shown and described the collar 7 as being loosely mounted about the spindle, it is obvious that in some instances the said collar may be connected to the spider in a
30 manner whereby it is capable of longitudinal adjustment with relation thereto.

From the foregoing description it is also manifest that the knives can be interchanged for the different classes of work to which
35 the device is applicable and that said knives are held in yielding engagement with a shear edge of the trough by means of the coiled spring, thus insuring a clean and perfect cut under all conditions and also by this
40 arrangement the knives are rendered self-sharpening.

As shown in Fig. 1 a deflector-plate 18 is secured to the frame 1 and extends upwardly therefrom toward the spindle outside of the
45 disk or spider, whereby the slices of material that are discharged from the spider are interrupted in their tendency to throw off at a tangent and deflected downward upon a table or suitable receptacle.

I claim:

1. A slicing machine comprising a fixed bearing, a spindle mounted therein, a spider carried upon the spindle upon one side of its bearing, tangentially disposed cutter-
55 blades in pivotal union with the spider, a collar fitted between the spider and bearing about the spindle, the collar having lateral play, adjusting means in connection with the spindle for causing engagement of the
60 blades and collar, and means for adjusting the pivotal blades in opposition to the spindle adjusting means.

2. A slicing machine comprising a fixed bearing, a spindle mounted therein, a spider carried by the spindle upon one side of its bearing, blades in pivotal union with the spider, a longitudinally movable collar fitted between the spider and bearing about the spindle, a head-block in slidable union with said spindle, plugs carried by the head-block
70 for engagement with the blades, means for adjusting the head-block longitudinally of the spindle, a collar carried by the aforesaid spindle upon the opposite side of the bearing, and a spring fitted between the collar
75 and bearing.

3. A slicing machine comprising a fixed bearing, a spindle mounted therein, a spider carried by the spindle upon one side of its bearing, blades in pivotal union with the spider, a longitudinally movable collar fitted between said spider and bearing, an adjustable head-block revoluble with the spider, adjustable plugs carried by the head-block
85 for engagement with ends of the cutter-blades, means for locking the head-block in its adjusted position, and a spring adapted to hold the blades in engagement with the collar.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

GABRIEL MURL.

Witnesses:

GEO. W. YOUNG,
M. E. DOWNEY.