

7

the band blade **95** (see FIG. **9**), is preferably removably mounted to the frame **12** of the machine **10**. The slicing apparatus **70** is preferably attached by bolts (not shown) that extend through holes **200** and **201** (see FIG. **11**) in one sidewall of the frame **12** and into threaded apertures **200'** (see FIG. **9**) and **201'** (see FIG. **8**) in the bearing plate **80**. This is the fastening means near one end of the bearing plate **80**; similar fastening means are used near the opposite end of the bearing plate **80** to attach that leg of the bearing plate **80** to the frame **12**. Of course, other fastening means, such as clamps, rivets and pins mounted in aligned holes, can be substituted for the preferred fastening means. Additionally, in one embodiment, a conveyor can be placed through the gap formed between the blade guide **84** and the base **81**. In an alternative embodiment, a portion of a pendulum slicer can also pass through that same gap. The orientation of the slicing apparatus **70** is not critical, inasmuch as the slicing apparatus **70** can be mounted in the orientation shown in FIG. **6** (which is considered right side up), it can be mounted upside down, or at any angle in between.

A unique feature of the invention is that the components of the slicing apparatus **70** attach to the bearing plate **80**, and not directly to the machine **10**. Instead, the components attach to the bearing plate **80**, and only the bearing plate **80** attaches to the machine. Therefore, the entire slicing apparatus **70** can be attached to and removed from the machine **10** as a single unit without any need for disassembly of the components of the slicing apparatus **70**, and without affecting the relationships between the components of the slicing apparatus **70**. For example, the "straightness" of the blade guide **84** can be established prior to attachment of the slicing apparatus **70** to the machine **10**. Additionally, the tension and tracking of the blade can be adjusted prior to installation of the slicing apparatus **70** on the machine **10**. The slicing apparatus **70** can then be mounted to the machine **10** without modifying these settings.

Another feature of the invention is that it can be disassembled and re-assembled in a mirror image configuration to provide a machine that can work on the opposite side of a conveyor as the originally configured machine.

The slicing apparatus **70**, therefore, is a self-contained, operable unit that is the combination of the components that attach to the bearing plate **80** and are attached to and removed from the machine **10** without the need to disassemble the components. This feature makes the slicing apparatus **70** a "modular unit" that can be used in one or more slicing machines that can accommodate it, and this feature avoids the need for different slicing apparatuses in different machines.

While certain preferred embodiments of the present invention have been disclosed in detail, it is to be understood that various modifications may be adopted without departing from the spirit of the invention or scope of the following claims.

The invention claimed is:

1. A modular slicing apparatus comprising:

- (a) a bearing plate having a first leg member joined to a second leg member by a base;
- (b) a rotary motor mounted to one of said leg members;
- (c) a first pulley drivingly linked to the rotary motor;
- (d) a second pulley rotatably mounted to another of said leg members;
- (e) an elongated blade guide mounted at a first end to the first leg member and at a second end to the second leg member, the blade guide having a longitudinal slot for retaining a blade;

8

(f) a continuous loop blade extending around the first and second pulleys and through the slot in the blade guide, the blade having an exposed cutting edge, wherein the bearing plate, first and second pulleys, motor, blade and blade guide are connected as an operable unit;

(g) a first finger member interposed between the first end of the blade guide and the first leg member of the bearing plate;

(h) a first shaft extending between the first leg member and the first finger member for mounting the first leg member to the first finger member;

(i) an adjustment shaft extending between the first leg member and the first finger member, the adjustment shaft extending from rigid connection to one of said first members through an aperture in the other of said first members; and

(j) a cam nut rotatably mounted on said adjustment shaft and having an offset lobe inserted into said aperture, said lobe seating against an aperture sidewall and exerting a force against said sidewall upon rotation of the cam nut about the adjustment shaft for rotating the first finger member about the first shaft.

2. The apparatus in accordance with claim **1**, wherein the first shaft and the adjustment shaft are threaded.

3. The apparatus in accordance with claim **2**, wherein a pointed surface of the first finger member is disposed adjacent the first leg member to form a gap that, along with the pointed surface, facilitates movement of the first finger member relative to the first leg member.

4. The apparatus in accordance with claim **2**, further comprising:

(a) a second finger member interposed between the second end of the blade guide and the second leg member of the bearing plate;

(b) a threaded shaft extending between the second leg member and the second finger member for mounting the second leg member to the second finger member;

(c) an adjustment shaft extending between the second leg member and the second finger member, the adjustment shaft extending from rigid connection to one of said second members through an aperture in the other of said second members; and

(d) a cam nut rotatably mounted on said adjustment shaft and having an offset lobe inserted into said aperture, said lobe seating against an aperture sidewall and exerting a force against said sidewall upon rotation of the cam nut about the adjustment shaft for rotating the second finger member about the threaded shaft.

5. The apparatus in accordance with claim **4**, wherein:

(a) said second pulley is mounted to an axle that is pivotably mounted to a longitudinally displaceable rod for pivoting the second pulley about a pivot point;

(b) a block mounted to said bearing plate and having an opening through which said longitudinally displaceable rod extends for limiting lateral movement of said rod;

(c) means for displacing said longitudinally displaceable rod longitudinally for adjusting blade tension; and

(d) means for pivoting said axle for adjusting blade tracking.

6. The apparatus in accordance with claim **1**, further comprising means for mounting the bearing plate to a food slicing machine.

7. The machine in accordance with claim **6**, wherein the first leg, second leg and base of the bearing plate are integral.

* * * * *