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A. K. LYTLE

CUTTING MACHINE

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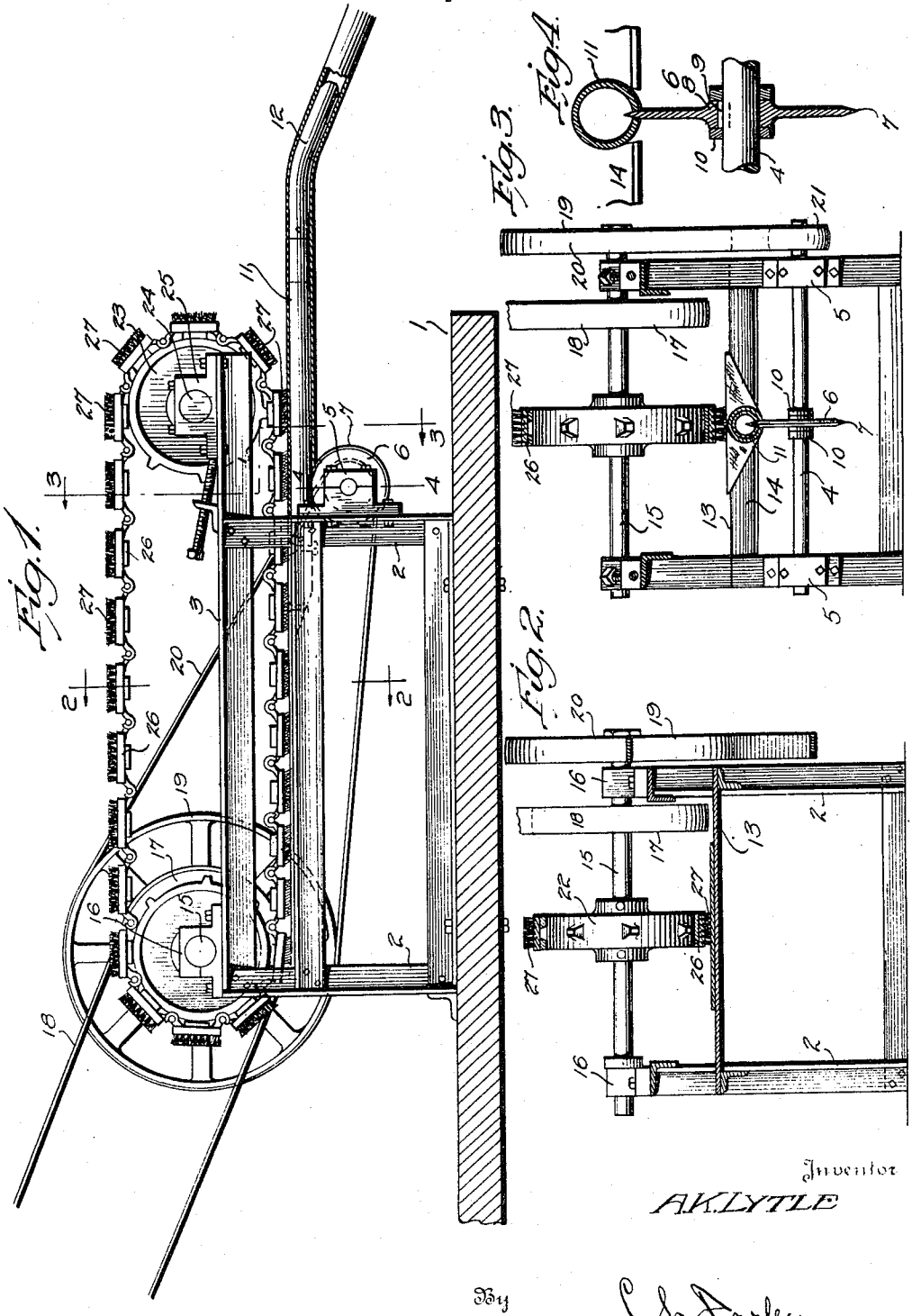


Fig. 1.

Fig. 3.

Fig. 4.

Fig. 2.

Inventor

A.K. LYTLE

By

Attorney

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ARCHIE K. LYTLE, OF CHICAGO, ILLINOIS, ASSIGNOR TO SWIFT AND COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CUTTING MACHINE.

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To all whom it may concern:

Be it known that I, ARCHIE K. LYTLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cutting Machines, of which the following is a specification.

This invention relates to cutting machines and more particularly to a machine for splitting beef middles and hog bungs used for forming casings for various products in packing houses.

An object of the invention is the provision of improved feeding mechanism for the material to be cut. More specifically the machine comprises a rotary knife having a tube or rod arranged above it over which the casings are slipped. A series of fiber brushes are arranged in an endless chain and are adapted to frictionally engage the casings on the rod, convey them over the knife and then convey the slit casings rearwardly over a table or drag plate.

In the accompanying drawings, I have shown one embodiment of the invention. In this showing:

Figure 1 is a side elevation of the machine,

Figure 2 is a vertical sectional view on line 2—2 of Figure 1,

Figure 3 is a vertical sectional view approximately on the broken line 3—3 of Figure 1, and,

Figure 4 is a detail sectional view on line 4—4 of Figure 1.

Referring to the drawings, the reference numeral 1 designates a base or suitable support on which the machine is mounted. A plurality of upright posts or standards 2 are secured to the base, and the upper ends of these posts are connected by longitudinal side members 3. As shown, the longitudinal side members extend forwardly of the front posts of the machine. A shaft 4 is mounted in suitable bearings 5 on the front posts 2 and this shaft is adapted to receive a suitable cutting knife 6. As shown, the knife is in the form of a disc having a sharpened or cutting periphery 7 and is further provided with a hub 8 adapted to receive the shaft 4. The knife is connected to the shaft by means of a key 9 to revolve therewith and suitable collars 10 are arranged on each side of the hub 8.

The materials to be cut are delivered to the knife by means of a guide consisting of a hollow tubular portion 11 and a solid end portion 12. The end portion may be slightly offset as shown in Figure 1 of the drawings to facilitate placing the casings on the guide. As shown in Figure 4 of the drawings, the tubular portion 11 extends over the knife and is provided with a slot for the reception of the cutting edge of the knife whereby the casings fed along the guide are slit. A table or drag plate 13 is arranged rearwardly of the knife and is provided with an inclined forward end 14 adapted to receive the slit casings.

Suitable means are provided for feeding the casings along the guide and the drag plate. As shown, a drive shaft 15 is mounted in suitable bearings 16 carried by the longitudinal side members 3 adjacent the rear of the machine. This shaft is provided with a pulley 17 adapted to receive a belt 18 connected to any suitable source of power. The shaft is further provided with a drive wheel 19 over which passes a belt 20. This belt also passes over a pulley 21 mounted on the cutter shaft 4 to revolve the knife. A sprocket wheel 22 is mounted on the drive shaft substantially centrally thereof and a similar sprocket wheel 23 is mounted on a shaft 24 supported in suitable bearings 25 at the front end of the machine. An endless chain consisting of links 26 is passed over these sprockets and each of the links is provided with bristles 27 on its outer face which are adapted to frictionally engage the casings as they pass along the guide 11 and the drag plate 13 to deliver them rearwardly as shown in Figure 1 of the drawings.

The operation of the device will be apparent from the foregoing description. When the machine is in operation, the knife 6 is driven from the drive shaft 15 and due to the arrangement of the cutting edge within the guide tube 11 as shown in Figure 4 of the drawings, it will cut casings passing over the guide. The sprockets 22 and 23 are driven in a clockwise direction carry-

ing the lower or operative flight of the chain rearwardly and the frictional engagement of the bristles 27 with the casing feeds them rearwardly along the guide and over the knife to slit them and then carries them rearwardly over the drag plate 13 to the rear of the machine.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

What I claim as my invention is:

1. In a device of the character described, a rotatable cutter, a guide arranged over said cutter, a drag plate arranged rearwardly of said cutter, and means for frictionally engaging casings on said guide and said drag plate and feeding them over said cutter.

2. In a device of the character described, a rotatable cutter, a guide arranged over said cutter, a drag plate arranged rearwardly of said cutter, an endless chain arranged above said guide and said drag plate, and brushes mounted on said chain and adapted to frictionally engage casings on said guide and said guide plate.

3. In a device of the character described, a cutter comprising a rotatable disc, a guide arranged above said cutter, a drag plate arranged rearwardly of said guide, and means for frictionally engaging casings on said guide to feed them over said cutter onto said drag plate.

4. In a device of the character described, a cutter comprising a rotatable disc, a guide comprising a tube extending over said cutter, a drag plate arranged rearwardly of said guide, an endless chain arranged over said guide and said drag plate, the links of said chain being provided with depending bristles adapted to frictionally engage casings on said guide and said drag plate, and means for driving said chain.

5. In a device of the character described, a cutter comprising a rotatable disc, a guide comprising a tube extending over said disc, a portion of said tube being provided with a slot for the reception of the cutting edge of said disc, a drag plate arranged rearwardly of said cutter, an endless chain arranged over said guide and said drag plate, and bristles carried by said chain adapted to frictionally engage casings on said guide and said drag plate to feed them rearwardly.

In testimony whereof I affix my signature in presence of two witnesses.

ARCHIE K. LYTLE.

Witnesses:
W. F. BUSHONG,
J. R. KITCH.