July 1, 1930. E. D. PUTT 1,769,714

DEVICE FOR GUIDING FLASH MOLDED STRIP MATERIAL OR THE LIKE INTO MACHINES FOR OPERATING THEREON

Filed Nov. 5, 1925 2 Sheets-Sheet 1

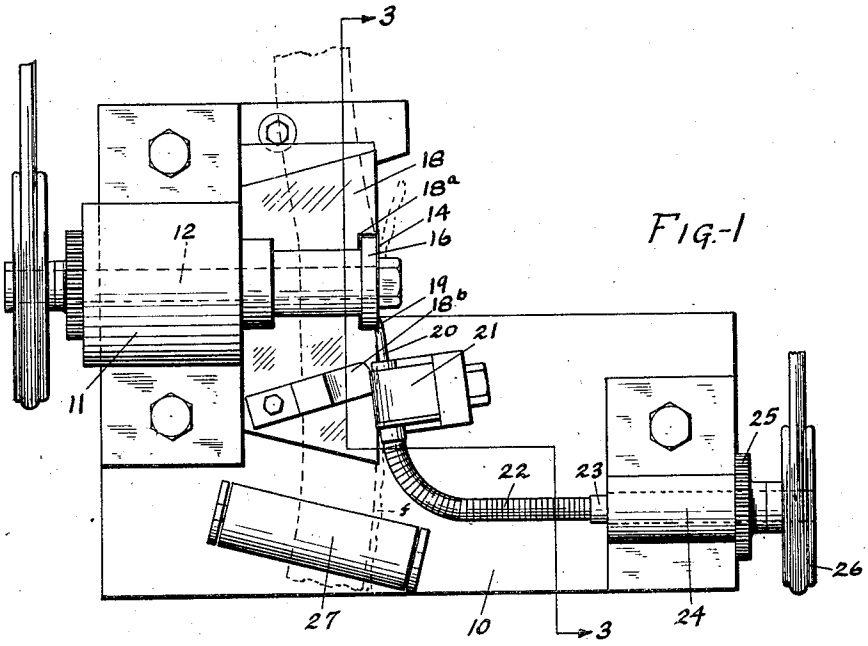


FIG.-1

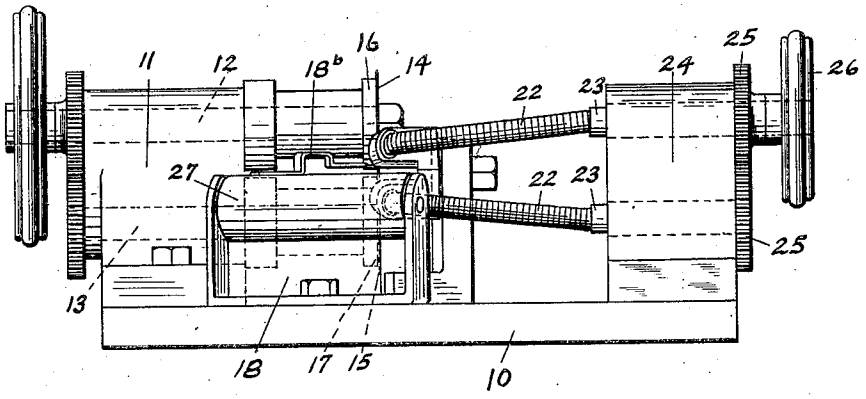


FIG.-2

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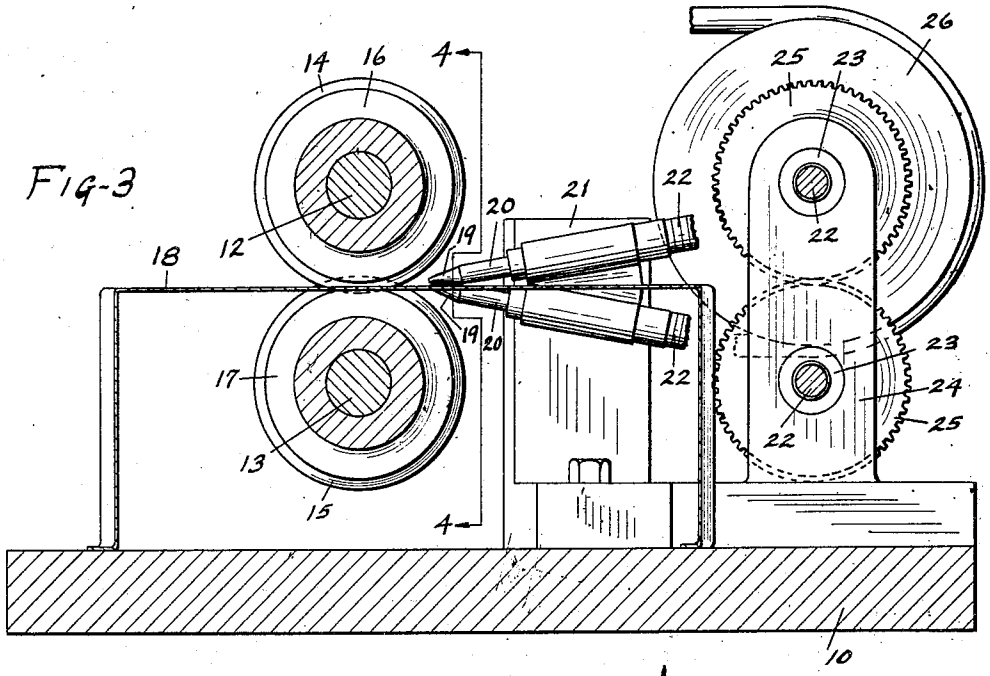
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FIG-3



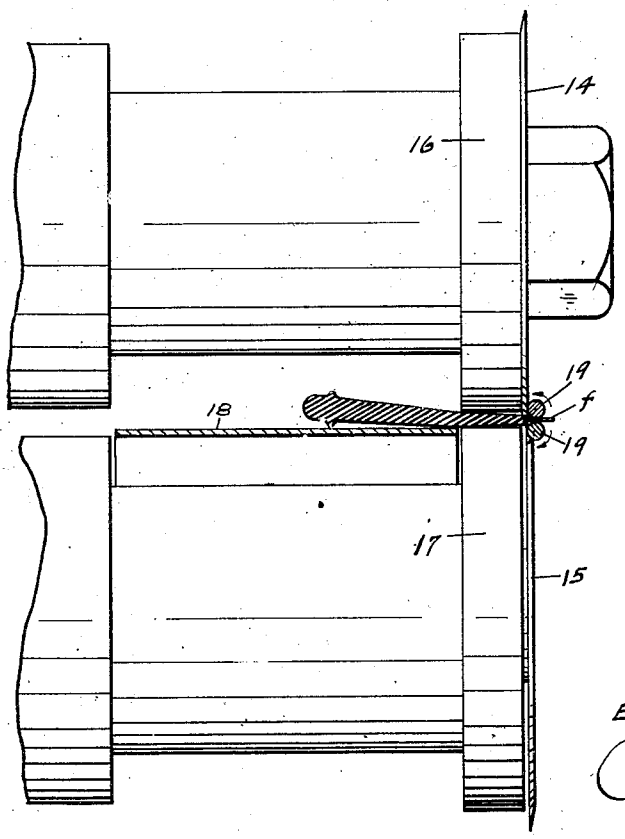


FIG-4

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UNITED STATES PATENT OFFICE

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DEVICE FOR GUIDING FLASH-MOLDED STRIP MATERIAL OR THE LIKE INTO MACHINES FOR OPERATING THEREON

Application filed November 5, 1925. Serial No. 67,127.

This invention relates to guiding devices such as may be used, for example, to feed flash-molded strip material, such as molded rubber, to a machine for treating the same, such as a flash-trimming machine.

In the production of flash-molded strip material, such as rubber strips used for windshield wipers or the like, it has heretofore been necessary to trim the flash by hand for the reason that there is no edge on the strip by which it may be mechanically guided or positioned by known devices into proper relation to the trimming knives of ordinary trimming machines.

The chief object of the invention is to provide a guiding device for flash-molded strip material adapted to accurately guide the strip to a machine for operating thereon.

Another object of the invention is to provide in combination with a rotary trimmer of means for feeding flash-molded strip material thereto to accurately trim the flash from the edge thereof.

The foregoing and other objects are obtained by the construction illustrated in the accompanying drawings and hereinafter described. It is to be understood that the invention is not limited to the construction shown, nor is the guiding device limited in its application to trimming machines or for treatment of flash-molded material.

Of the accompanying drawings:

Figure 1 is a plan of a machine embodying the invention;

Figure 2 is a front elevation thereof;

Figure 3 is a section on line 3—3 of Figure 1; and

Figure 4 is a section on line 4—4 of Figure 3.

Referring to the drawings, the numeral 10 designates a supporting base having mounted thereon a bearing bracket 11 in which are journaled spindles 12 and 13 extending therefrom and having secured thereon cooperating disc trimming knives 14 and 15 against the backs of which are secured cooperating material feeding rollers 16 and 17.

A platform 18 is mounted on base 10 so as to extend between spindles 12 and 13 to provide a support for the strip material to be trimmed, the platform 18 being cut away as at 18^a to clear rollers 16 and 17 and having an arm 18^b thereon adapted to project over the strip material passing thereover to hold the same thereon.

Arranged adjacent the outer edge of platform 18 is a strip guiding device comprising a pair of rotary conical elements 19, 19 arranged at angles so as to have a horizontal nip or bight therebetween aligned with knives 14 and 15, and into which the flash of the strip to be trimmed, indicated at *f*, may extend, the elements 19 being formed on spindles 20, 20 adapted to drive the elements in the direction of the arrows in Figure 4, the elements 19 being closely spaced so as to draw the strip against themselves by action on the flash and to guide the strip by engaging the thicker molded edge thereof into proper relation to the trimming knives 14 and 15.

Spindles 20 are journaled in a bracket 21 on base 10 and are connected by flexible shafts 22 to spindles 23 journaled in a bracket 24, geared together by gears 25 and one of which is driven by a pulley or other suitable means 26.

In order to facilitate the guiding action of elements 19 on the strip by engagement with the flash *f*, a roller 27 is journaled onto base 10 in such a manner as to guide a strip drawn thereover by rollers 16 and 17 at a slight angle toward the guiding elements.

In operation, spindles 12 and 13 and 20 are continuously driven, one end of the strip to be trimmed is passed over roller 27, is placed on platform 18 under arm 18^b and the flash *f* at said end is inserted between elements 19 which will draw the strip therebetween until the thicker molded edge of the strip is drawn into the nip thereof. The strip is then fed between rollers 16 and 17 which thus draw the strip over roller 27, over platform 18, under arm 18^b, past the elements 19 which hold the molded edge thereof in the nip in line with trimmers 16 and 17, and finally through these trimmers which accurately trim the flash *f* from the strip.

It will appear from the foregoing that a flash-molded strip guiding device of simple and effective construction has been devised.

It will also appear that such a device has been so combined with a trimmer as to provide means for accurately trimming the molded edge of such a strip.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. Apparatus of the class described comprising a trimming machine having cooperating rotary knives, rollers for drawing material through the knives, and means for guiding flash-molded strip material into trimming relation to said knives, said means comprising a platform for supporting the strip, a pair of conical rotary elements so arranged as to provide a nip aligned with said knives and into which the flash of a strip on said platform may be engaged, means for guiding said strip onto said platform at an angle toward the nip between said elements, an arm on said platform to overlie the strip thereon, and means for driving the elements in such a manner as to draw the molded edge of the strip into the nip thereof as it is drawn through the trimmer by action of said elements on said flash.

2. Apparatus of the class described comprising a trimming machine having cooperating rotary knives, means for drawing flash-molded strip material therethrough, and means for guiding said strip material into trimming relation to said knives by action on the flash thereof, said means comprising cooperating reversely rotating elements engageable with said flash, the line of contact of said elements being in the plane of said knives.

3. Apparatus of the class described comprising a trimmer, means for drawing flash-molded strip material therethrough, and means for guiding said strip material into trimming relation to said trimmer by action on the flash thereof, said means comprising cooperating reversely rotating elements engageable with said flash, the line of contact of said elements being in the plane of said trimmer.

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