Nov. 22, 1927. 1,650,442

H. GOLDSTEIN

PORTABLE POWER ATTACHMENT FOR SLICING MACHINES

Filed Oct. 28, 1925

Fig. 2.

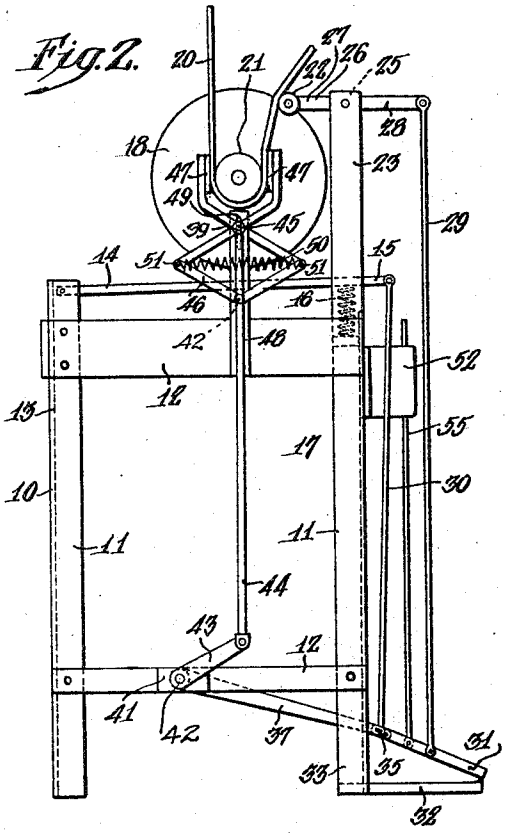


Fig. 1.

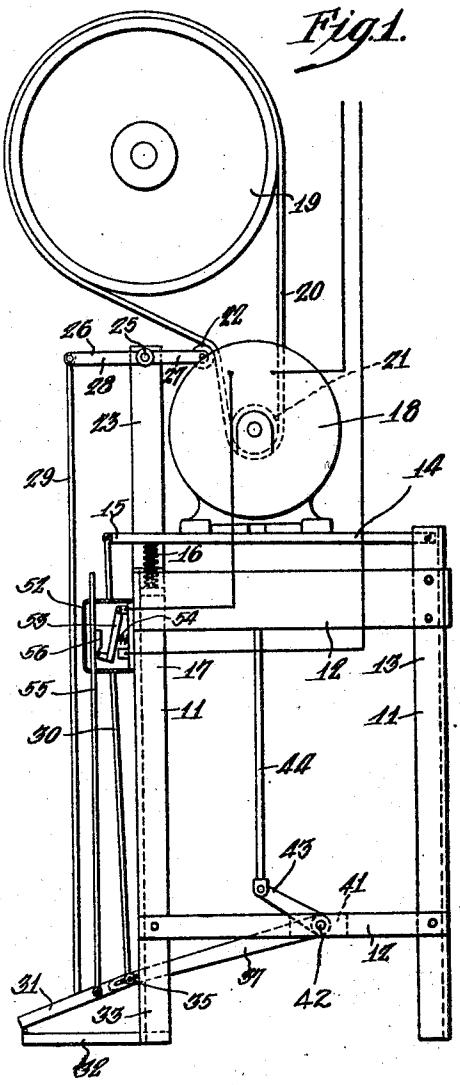
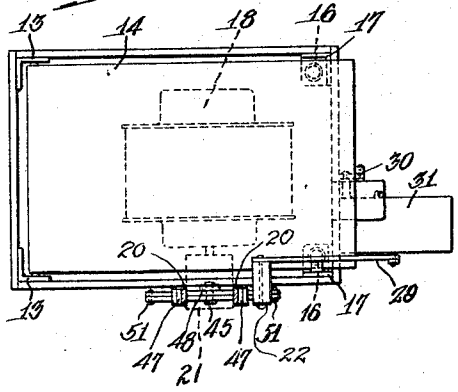


Fig. 3.



Herman Goldstein.
INVENTOR

BY Victor J. Evans
ATTORNEY.

Walter Chism.
WITNESS:

Patented Nov. 22, 1927. 1,650,442

UNITED STATES PATENT OFFICE.

HERMAN GOLDSTEIN, OF PHILADELPHIA, PENNSYLVANIA.

PORTABLE POWER ATTACHMENT FOR SLICING MACHINES.

Application filed October 28, 1925. Serial No. 65,456.

This invention relates to slicing machines, and more particularly to a portable attaching medium for converting a hand operated slicing machine into a power driven machine.

The object of the present invention is to provide a manually operated slicing machine with a belt-driven power attachment which embodies in combination idler means for controlling the frictional engagement of the belt, braking means for the prime mover, and an automatic switch control.

Another object of the invention is to provide an attachment as specified, which is adapted to be controlled by a foot pedal thereby leaving both hands of the operator free to handle the article to be cut.

Other objects of the invention will appear in the following detail description, and in the accompanying drawings wherein:

Figure 1—is a side elevational view of the device showing it attached to the hand wheel of a slicing machine, with the automatic switch structure partly in section.

Figure 2—is a view in elevation of the reverse side showing the brake mechanism and the supporting platform partly in section.

Figure 3—is a detailed top plan of the device showing the motor in dotted lines.

Referring more particularly to the drawing, the portable power attachment for slicing machines comprises a rectangular supporting stand 10 which is made up of a plurality of square legs 11, said legs being held together by means of a plurality of side or connecting members 12. Hingedly connected and adjacent to the upper ends of the two rear legs 13, is a carrying platform 14 which extends beyond the supporting stand as indicated at 15, and is supported in a yieldable manner by a pair of coiled springs 16 which are positioned upon the two front legs 17 and adapted to urge upwardly against the underside of the carrying platform 14 which has secured thereon, a prime mover in the form of an electric motor 18, which is adapted to transmit power to the hand wheel 19 of a slicing machine (not shown) by means of a belt 20 and the pulley 21. Said belt is of greater length than the distance between the centers of the hand wheel shaft and the motor shaft, giving a sufficient slack to the belt, so that a considerable amount of slippage is created for reducing the speed of the hand wheel 19 to a considerable extent. The play of said belt is controlled jointly by the springs 16, and an idler 22 which is supported by a vertical arm 23, said arm being fastened to one of the front legs 17 of the supporting stand 10, and has a clevis 25 formed at its upper end to receive the idler carrying arm 26, which is pivoted in said clevis 25 intermediate its ends 27 and 28. The latter end has pivotally attached thereto, a hinged link 29 which extends downwardly and is pivotally connected to one side of the foot pedal 31. Said pedal being hingedly disposed on a laterally extending member 32 which is secured to the bottom end 33 of one of the front legs 17, and adapted upon applying pressure to the pedal 31, to draw the motor carrying platform 14 downwardly against the springs 16, thereby lowering the motor and giving a more taut effect to the belt 20. Connected to the end 15 of the carrying platform 14 is a rod 30, which in turn is pivotally connected to the free end 35 of the foot pedal 31, so as to draw the carrying platform 14 downwardly when the pedal is depressed, as just previously stated.

Simultaneously with this movement, the braking mechanism generally shown, is released from contact with the belt portion passing around the pulley 21, said braking mechanism comprising a lever 37 which is pivoted to the free end 35 of the foot pedal 31, and extends inwardly to a point centrally between one of the front supporting legs 17 and one of the rear legs 13, the other end of the lever 37, being secured to one end of a rocking stud 38 which is mounted in a bracket 41. Said bracket is disposed and secured to the cross members 12. The other end of the stud has fixedly secured thereon, a crank bar 43 which has hingedly connected thereto, an upwardly extending rod 44. Said rod is pivoted, as at 45, to and controlling lazy tongs 46 which have secured thereto, the brake shoes 47 which normally contact on the outer periphery of the belt where it engages the pulley 21. The said lazy tongs 46 are supported by and pivoted as shown at 42 to a vertical arm 48, which has an elongated slot 49 near its upper end for movement therein of the upper pivot carried by the rod 44. The arm 48 is secured to the side of one of the side connecting members 12. A retractile spring 50 is secured to and between the outer pivoted points 51 of the lazy tongs 46, for maintaining the normal contact of the brake shoes 47 on the outer periphery of the belt at a point where

the belt engages around the pulley 21 after foot pressure on the pedal 31 has been released.

Secured to the front of the supporting stand adjacent the upper ends of the legs 17, is a knife switch box 52 housing a common type of knife switch 53, which is normally held in open position by a spring 54. Extending through said box is a rod 55 which extends downwardly to and is also pivoted to the foot pedal 31 and adapted to close the knife switch 53 by means of a cam block 56 which is secured to the upper end of the switch box enclosed portion of the rod 55 when the foot pedal 31 is forced downwardly. Similarly when the pressure on the foot pedal is released, the rod 55 will move upwardly and disengage the cam block 56 from the knife switch bar, thereby permitting the spring 54 to force the knife switch out of circuit closing contact.

From the foregoing, it will be readily apparent, that when the portable power device is attached to the hand wheel of a slicing machine, by means of a belt, a manually operated slicing is transformed into a variable speed power machine, which is controlled at all times, by a single foot pedal, leaving the hands of the operator free to handle the article to be sliced, as well as the slices, as they fall from the circular knife of the machine.

It is, of course, to be understood, that the invention may be constructed in various other manners and the parts associated in different relations, and therefore, I do not desire to be limited in any manner, except as set forth in the claims hereunto appended.

What I claim is:—

1. In a drive mechanism for machines to be operated, the combination with a frame having a driving apparatus including a driving shaft mounted thereon, a driving member on said shaft and provided with an endless element driven thereby, the element adapted to engage with and operate a device to be driven, of a platform pivotally supported on the frame and carrying said apparatus, yieldably expansible means for acting against the platform to create looseness of play in the endless element, an oscillatory member provided with means to engage with said endless element, and manually operated means with operative connections to the platform and the oscillatory member for actuating them simultaneously to regulate the looseness of play of said endless element.

2. In a drive mechanism for machines to be operated, the combination with a frame having a yieldably supported platform with a driving apparatus mounted thereon, the driving apparatus including a driving shaft and a drive member, of an endless element operated by the drive member and adapted for connections with a machine to be driven, the yieldably mounted platform acting to create looseness of play in the endless element, and manually operated means operatively connecting with the platform for adjusting it against its yieldability, for regulating the looseness of play of the endless element.

3. In a drive mechanism for machines to be operated, the combination with a frame having a driving apparatus including a driving shaft mounted thereon, a driving member on said shaft and provided with an endless element driven thereby, the element adapted to engage with and operate a device to be driven, of a platform pivotally supported on the frame and carrying said apparatus, yieldably expansible means for acting against the platform to create looseness of play in the endless element, an oscillatory member provided with means to engage with said endless element, manually operated means with operative connections to the platform and the oscillatory member for actuating them simultaneously to regulate the looseness of play of said endless element, and a brake mechanism cooperating with the driving member and being operatively connected to and actuated by the manual means for retarding the movement of the driving member.

4. In a drive mechanism for machines to be operated, the combination with a frame having a yieldably supported platform with a driving apparatus mounted thereon, the driving apparatus including a driving shaft and a drive member, of an endless element operated by the drive member and adapted for connections with a machine to be driven, the yieldably mounted platform acting to create looseness of play in the endless element, manually operated means operatively connecting with the platform for adjusting it against its yieldability, for regulating the looseness of play of the endless element, an oscillatory device with means to engage the endless element, and means operatively connecting said device and the manually operated means for simultaneous operation with the platform, to further assist in regulating the tension or looseness of play of the endless element.

5. In a drive mechanism for machines to be operated, the combination with a frame having a yieldably supported platform with a driving apparatus mounted thereon, the driving apparatus including a driving shaft and a drive member, of an endless element operated by the drive member and adapted for connections with a machine to be driven, the yieldably mounted platform acting to create looseness of play in the endless element, manually operated means operatively connecting with the platform for adjusting it against its yieldability, for regulating the looseness of play of the endless element, an

oscillatory device with means to engage the endless element, means operatively connecting said device and the manually operated means for simultaneous operation with the platform, to further assist in regulating the tension or looseness of play of the endless element, and a brake cooperating with the driving member and being in turn operatively connected to and operated by the manual means for retarding the action of the driving member.

In testimony whereof I affix my signature.

HERMAN GOLDSTEIN.