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G. G. GLENN.

TOMATO PEELER.

APPLICATION FILED SEPT. 3, 1903.

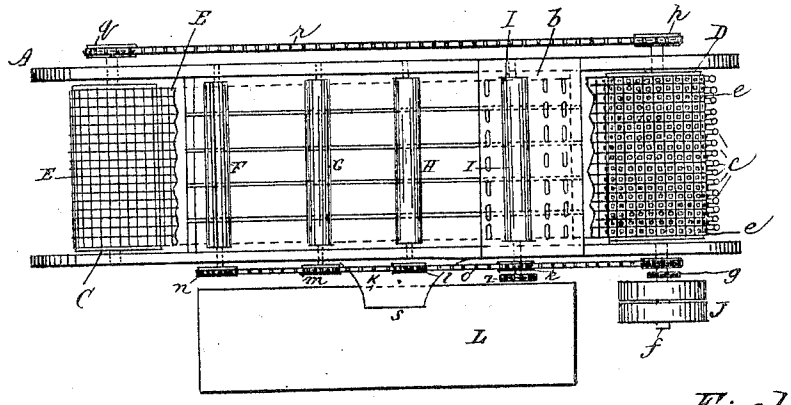


Fig. 1.

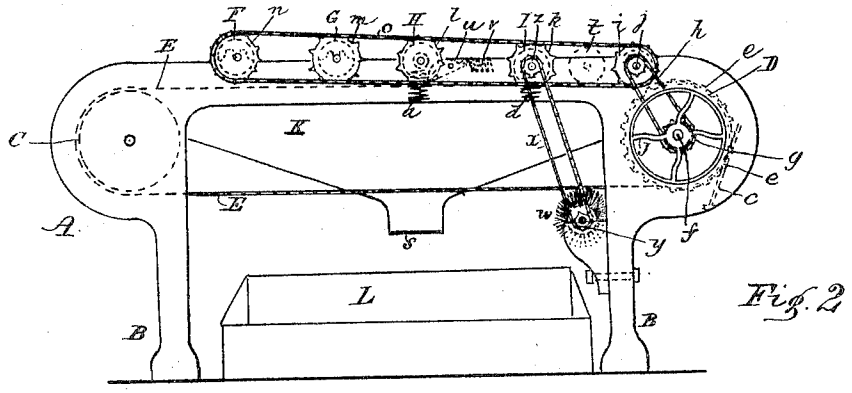


Fig. 2.

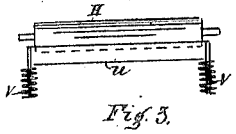


Fig. 3.

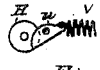


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE GRAHAM GLENN, OF HAMILTON, CANADA, ASSIGNOR OF ONE-HALF TO WILLIAM G. LUMSDEN, OF HAMILTON, CANADA.

TOMATO-PEELER.

No. 797,680. Specification of Letters Patent. Patented Aug. 22, 1905.

Application filed September 3, 1903. Serial No. 171,809.

To all whom it may concern:

Be it known that I, GEORGE GRAHAM GLENN, a citizen of the Dominion of Canada, residing at Hamilton, in the county of Wentworth, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Tomato-Peelers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

The object of the invention is to remove the skin from the tomatoes and also to remove the core and all green or unripe parts.

The invention consists, first, of a framework of wood and metal combined to carry all the working parts of the machine.

The frame may be about thirty inches wide and from five to eight feet long, more or less, according to the amount of work required. At each end of the frame a roller is journaled for the purpose of carrying an endless belt or separator of square wire mesh. A series of projections will be formed on the outside surface of one of the drums or end rollers, standing therefrom about one-quarter of an inch outward in rows around the drum, so as to engage into and project through the meshes of the wire belt or separator and assist to carry it around the rollers when the machine is in operation. The projections also clean the meshes of the wire belt. There is a supporting-frame affixed in the central portion of the frame consisting of two cross-pieces uniting the two sides of the frame and connected together with a series of metal rods about one inch apart for the purpose of supporting the belt or separator and the weight of the tomatoes upon it. There will be a series of wood rollers journaled on the upper part of the frame, placed at different heights above the separator, held down by springs on the axle of each, for pressing the tomatoes through the wire mesh of the separator. There is a perforated plate with a knife-edge made of perforated sheet-steel affixed to the top of the frame under the fourth roller for the purpose of cutting off the skins and cores from the crushed tomatoes. There will be a pan under the machine to receive the meat and juice of the fruit. The first and second rollers on the top of the machine have longitudinal strips of rubber or the equivalent affixed thereto for the purpose of facilitating the motion of the tomatoes under the rollers.

Reference being made to the annexed drawings, it will be seen that Figure 1 is a plan view of a machine embodying my invention. Fig. 2 is a side elevation. Fig. 3 is a plan view of cleaner under the third and fourth rollers; Fig. 4, an end view of roller and cleaner.

Similar letters refer to similar parts throughout the several views.

A represents a rectangular frame carrying the operating parts of the machine; B B, its legs or standards.

C D are two cylindrical drums journaled in the frame A, carrying an endless woven-wire belt or separator E, which is about the entire length of the machine and which carries the tomatoes under a series of rollers during the operation of removing the skins, &c.

F, G, H, and I are a series of rollers journaled on the upper part of the frame A, made to rotate at different heights above the wire belt or separator, F being the highest, about one and a half inches above the belt or separator E. The next roller G is about three-quarters of an inch above the said belt. The next roller H will touch the belt or separator and be held thereto by springs *a* on the axle connected to the frame A. The fourth roller I will rest on a perforated steel plate with a knife-edge *b*, which is affixed on the top of the frame A under the belt or separator E and below the said roller I and is for the purpose of cutting off the skins from the pulp of the tomatoes at the final separation as they approach under the said roller I, the juice and internal portion of the tomatoes being pressed through the meshes of the wire belt or separator E and the skins passing under the said roller I and carried over the drum D, where they are caught by a series of fingers *c*, which are fastened to the end portion of the frame A, where they drop into a receptacle placed to receive them. The said drum D is provided with a series of short projections *e*, which are affixed in the said drum around its entire circumference and calculated to enter the meshes of the wire separator E and drive it continuously to carry it around the two drums C and D to carry the tomatoes under the said rollers. The roller I has a spiral spring *d* affixed to the shaft of said roller and to the frame to keep the roller down to the wire belt E. The said roller is covered with a soft or yielding material, as rubber or equiva-

lent thereof, so as to give a uniform pressure underneath it as the final roller rotates over the tomatoes.

The rollers and wire-belt separator are driven by means as follows: J is a double driving-pulley on the shaft *f* of the driving-drum D, which receives motion through a belt from an engine and rotates the said drum D, and the endless wire carrier E and the rollers F G H I receive their rotary motion from the main shaft *f* by means of a sprocket-wheel *g*, keyed on the said shaft, over which an endless chain *h* is passed to a sprocket-wheel *i* on a shaft *j*, communicating motion thereto, which is transmitted to a sprocket-wheel *k l m n* on the shafts of the rollers F, G, H, and I, respectively, over which an endless chain *o* is made to run, giving thereby rotary motion to each of the said rollers. The opposite end of the driving-shaft *f* has a sprocket-wheel *p*, and the shaft of the drum C has a similar sprocket-wheel *q*, over which runs an endless chain or belt *r* to rotate the said drum C and facilitate the movement of the endless belt or separator E.

K is a receiving-pan under the machine, the bottom of which will be provided with a wire strainer *s* to strain the matter before it falls into the lower vat L, from which peeled and cleaned tomatoes and their juice can be removed for canning by means of an elevating device such as is commonly used for raising materials.

It will be observed that an additional pressure-roller may be added over the cutter-plate *b* and next to the roller I, if found necessary, as shown by dotted lines *t*. Alongside of the third and fourth rollers H I, respectively, there will be fixed a cleaner-plate *u*, regulated by a spiral spring *v*, fastened at each end of the cleaner and to the frame. As the said rollers H and I rotate they are cleaned of the tomato material sticking to them.

The operation of the machine may be described as follows: The tomatoes to be operated on are first scalded, then they are placed by hand, stem side up, on the left end of the endless-belt separator E, a slight forward movement being given each by the operator to start the breaking of the skin on the wire belt or separator E. The tomatoes get a slight squeeze under the first roller F. Then they are carried by the movable separator to the next roller G, which still further presses the internal portion of the tomatoes through the meshes of the said wire belt, and as they are carried forward to the third roller H the internal part of each tomato is pressed entirely through the meshes of the belt or separator. The fourth roller I holds the skin of each tomato while the stationary perforated plate with a knife-edge *b* separates the skin from the inside portion of each tomato. (A fifth roller over the perforated plate with a knife-edge *b* may be employed to assist.) The skins are then carried to and over the series of forks or fingers *c* to a receptacle placed to receive them and the cores and refuse, while the internal parts of the tomatoes and juice drop down into the receiving-pan K and from thence into the vat L, from whence they are elevated by an endless carrier to the canning-table to be canned in the usual way.

It may be mentioned here what should have been inserted hereinbefore that there will be a rotary brush *w*, journaled to the under part of the frame near the driving-drum and made to rotate by means of an endless chain *x*, made to pass over a sprocket-wheel *y* on the end of its shaft and over another sprocket-wheel *z*, attached to the shaft of the fourth roller I. This brush is for the purpose of removing any part of the matter that may be retained in the endless separator under the cutter-plate *b*.

Having thus described my device and its advantages, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for separating the skin, core and unripe portions of tomatoes, consisting of journaled drums carried on a driving-axle, in a suitable frame, an endless belt or separator made to rotate on the said drums, one drum constructed with a series of projections upon it to engage with the meshes of the belt or separator to drive it, a series of rollers journaled on the retaining-frame above the belt or separator at various heights above it, one or more rollers made to impinge on the belt or separator, a sheet-steel perforated plate with knife-edge attached to the frame under the belt or separator, sprocket-wheels attached to the axles of the rollers connected with an endless chain to the driving-axle, a series of forks or fingers attached to the frame in proximity to the driving-drum to receive and throw off the skins of the tomatoes after the inside is pressed out, springs attached to the axles of one or more of the rollers and to the frame for holding down the said rollers to the endless belt or separator, all constructed for the purpose specified.

2. A machine for separating the skin, core and unripe portions of tomatoes, consisting of a wire-mesh endless belt or separator made to be carried over two revolving drums on axles journaled in a suitable frame, a series of rollers journaled on the frame at different heights above the belt or separator, and operating mechanism to rotate them, a perforated sheet-metal plate with a knife-edge, attached to the frame under the belt or separator, to separate the skins from the tomatoes after being pressed by the rollers, a receiving-pan under the frame to receive the inside of the tomatoes, a strainer attached to the bottom of the receiving-pan means for holding some of the rollers down to the end-

less belt and perforated knife-edged plate, a belt-supporting frame attached to the main frame, under the belt or separator, a rotary brush attached to the main frame under the perforated knife-edged plate, and devices for rotating the brush, all constructed for the purpose specified.

Dated at Hamilton, Ontario, the 17th day of July, 1903.

GEORGE GRAHAM GLENN.

In presence of—
WM. BRUCE,
C. A. ROBINSON.