(No Model.)

D. M. MEFFORD.

PIE PLANT CUTTING MACHINE.

No. 545,432. Patented Aug. 27, 1895.

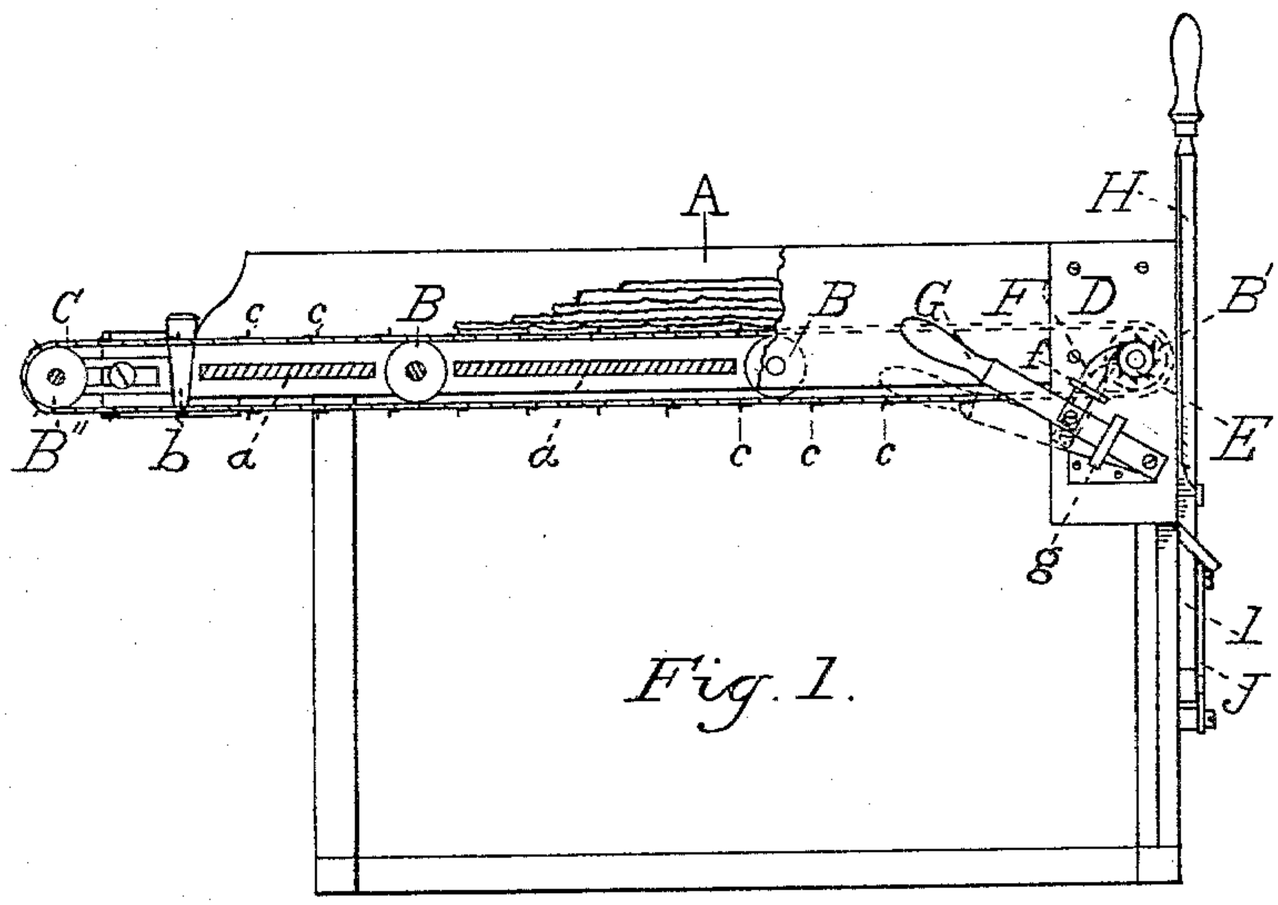

Fig. 1.

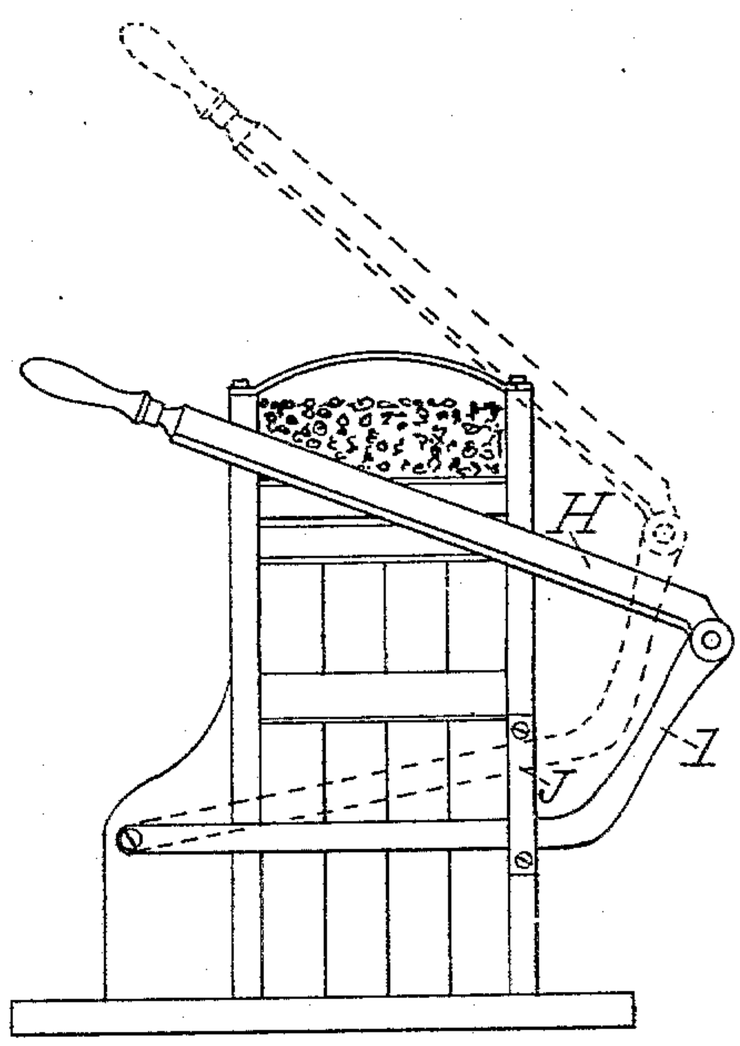

Fig. 2.

WITNESSES:
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DAVID M. MEFFORD, OF TOLEDO, OHIO, ASSIGNOR TO FRANK W. CHAMBERLAIN, OF SAME PLACE.

PIE-PLANT-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 545,432, dated August 27, 1895.

Application filed July 28, 1894. Serial No. 518,877. (No model.)

To all whom it may concern:

Be it known that I, DAVID M. MEFFORD, a citizen of the United States, residing in the city of Toledo, county of Lucas, and State of Ohio, have invented a new and useful Pie-Plant-Cutting Machine, of which the following is a specification.

My invention relates to improvements in pie-plant-cutting machines, in which a single long straight knife is employed which is not worked automatically, instead of the curving knives affixed to rollers or cylinders working automatically, as in the case of hay and straw cutting machines; and the objects of my improvements are, first, to provide for certain and positive movement of all the pie-plant in the box of the machine; second, to secure this movement in intervals of absolute uniformity, so that the pie-plant can be cut in equal lengths. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevated vertical section of the entire machine. Fig. 2 is a vertical elevation of the front face of the machine as it appears in the operation of cutting or slicing the pie-plant or rhubarb.

Similar letters refer to similar parts throughout the views.

The box A, which in Fig. 1 has one of its side boards cut or broken away, so as to show its interior arrangement, consists of side boards and bottom. The side boards are held together by means of sections of short boards *a a*, to which they are nailed or secured, and in the intervals between the ends of these short bottom boards, and in line therewith, and journaled into the side boards, are the antifriction or carrying rollers B B, and driving-rollers B′ at the front end, though not shown in the drawings, except the end of its journal, to which the ratchet-wheel E is secured.

The belt C is one of the main features of the invention. It consists of rubber-covered textile fabric, known as "packing," and being impervious to water it will not swell or shrink, and should be thick enough for strength and durability. It should be about as wide as the inside of the box at the bottom. Across its face or exposed surface are riveted narrow cleats *c c c*, about five or six inches apart. These are preferably made of thin sheet metal, bent longitudinally in the shape of angle-iron. When riveted to the belt, an edge about one-eighth of an inch high rises above the face or surface of the belt. This device prevents the belt from slipping under the pie-plant, and insures its forward movement with the belt. The belt C should be held taut by the rollers B′ and B″, so as to insure its movement with no lost motion of the driving-roller B′. In order to accomplish this the journals of B″ should have their bearings in movable blocks, sliding in grooves or ways, which can be forced out rearward by the keys *b*, so that any desired tautness can be given to the belt C.

The mechanism which propels the driving-roller B′ is situated on a board D, which is secured to the right-hand side board of the box in Fig. 1, and consists of a ratchet-wheel E, pawl F, and lever G. The lever is pivoted at its lower end to the board, and the pawl F is pivoted at its lower end to the lever G. They both have guards over them to steady their movements and limit the space properly through which they can move correspondingly with the teeth of the ratchet-wheel.

The knife H, more plainly shown in Fig. 2, is pivoted to its arm I at its lower end, and the other end of the arm is pivoted to the frame of the machine.

The guard J has a slot between it and the frame of the machine, in which the arm I is confined, holding it and the knife H to the face of the machine, so as to cut off all the pie-plant that protrudes beyond the face of the machine at each stroke. The dotted lines in Fig. 2 show the position of the knife when raised to make a shear or cut. The plain lines show the position of the knife after the cut is made. The left hand handles the lever G, the right hand the knife H, and the hands thus working alternately cannot fail in doing first-class work, even when operated by an inexperienced employé, as by the arrangement of parts he is enabled to easily control at will both the feed and the cut.

Having fully described my invention, what

I claim, and desire to secure by Letters Patent of the United States, is—

The combination of the feed box A, roller B′ B″, cleated belt C, ratchet wheel D, the hand lever G, the pawl F, and the hand operated knife H; the lever G, and the knife H being both within reach of a single operator whereby he is enabled to operate and control both the feed and the cut.

DAVID M. MEFFORD.

Witnesses:
HARRIET E. DELUDE,
CAIUS K. SOUTHARD.