W. M. & C. W. Hardy,

Apple Parer.

No. 31,238. Patented Jan. 29, 1861.

Fig. 1.

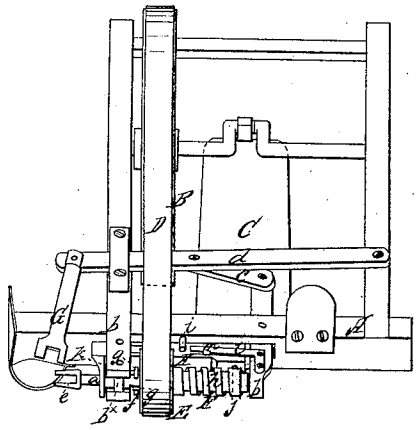
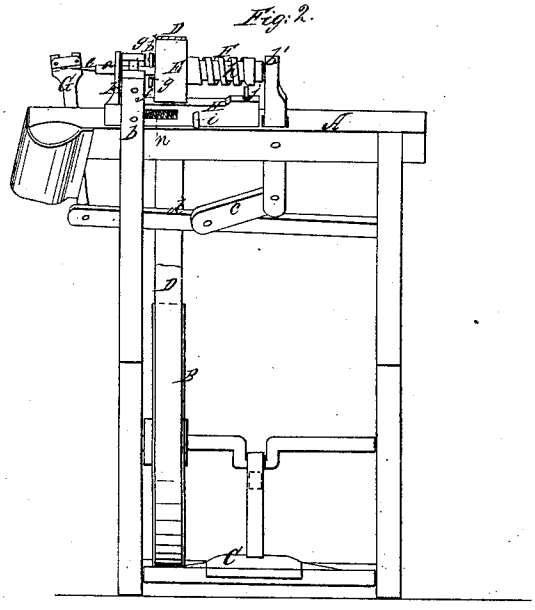


Fig. 2.



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UNITED STATES PATENT OFFICE.

WM. M. HARDY AND CHAS. W. HARDY, OF EAST STRONG, MAINE.

APPLE-PARER.

Specification of Letters Patent No. 31,238, dated January 29, 1861.

To all whom it may concern:

Be it known that we, W. M. HARDY and C. W. HARDY, both of East Strong, in the county of Franklin and State of Maine, have invented a new and Improved Apple-Parer; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a plan or top view of this invention. Fig. 2 is a side elevation of the same.

Similar letters of reference in both views indicate corresponding parts.

In apple-paring machines of the ordinary construction the knife is forced up against the surface of the apples to be pared by means of a spring, the tension of which varies only according to the larger or smaller diameter of different apples, or of different portions of the same apple. For this reason it happens that in some cases the peel is pared off very thick, and in other cases, especially where the apples have spots, the knife slides over their surface, and a portion of the peel is left remaining. In order to obviate this difficulty, we have arranged the knife on our apple-parer so that it is held up to the surface of the apple, simply by the pressure of the hand, and furthermore we have brought this knife in such relation to the arbor which produces the rotary motion of the apple, that on depressing the knife, the apple, after having been pared is thrown off by the action of the machine itself, and that the fork, which carries the apples, is rendered stationary and ready to receive a new apple, without being obliged to stop the motion of the treadle, through which motion is imparted to the working parts of our machine.

To enable those skilled in the art to make and use our invention, we will proceed to describe its construction and operation with reference to the drawing.

The frame A, which supports the working parts of our machine is placed in an inclined position for the sake of convenience and to throw the driving pulley B, far enough back to allow the operator to stand in front and operate the treadle C, without coming in contact with said pulley.

A belt D, which extends from the pulley B, to the pulley E, serves to impart motion to the working parts of our machine. The pulley E, is firmly attached to the sleeve F, which, together with said pulley, is placed loosely on the arbor *a*, and the end of which is fastened in the standard *b'*, in such a manner that it can rotate freely without being allowed to move in a longitudinal direction. The standard *b'*, is hinged to the top bar of the frame, and it connects by a link *c*, with the lever *d*, to which the knife G, is attached. These different connections are so arranged that by pulling the knife up, a horizontal motion in a forward direction is imparted to the pulley E, and sleeve, and by depressing the knife, said pulley and sleeve are drawn backward.

The arbor *a*, has one of its bearings in a box *b**, which is pivoted to the standard *b*, so that it can accommodate itself to the varying position of the sleeve and pulley, which form the other bearing of said arbor, and into which the same extends to about two-thirds of its length, more or less. The front end of this arbor forms the fork *e*, that receives the apples, and a dog *f*, inserted into the arbor and catching in two pins *g*, projecting from the front side of the pulley E, produces the rotary motion of said arbor. The position of the dog *f*, and pins *g*, is such, that the dog is disengaged and the pulley allowed to rotate independent of the arbor, if by depressing the knife, the upper end of the standard *b'*, with said sleeve and pulley are thrown backward. By raising the knife a little, the pins are made to catch the dog, and the arbor rotates with the pulley and sleeve.

The screw F, is furnished with a screw-thread *h*, extending from one end of the same to the other. This screw-thread serves to impart a longitudinal sliding motion to a slide H, which passes through a slot or mortise in the standard *b*, being guided by two pins *i* on the upper surface of the top bar of the machine. From the top of this slide a dog *j*, extends nearly to the surface of the sleeve, and an arm *k*, rises from the front end of said slide, having a hole in it, through which the arbor *a*, passes. This hole is large enough to allow the fork *e*, to rotate freely in the same. A small bell-crank lever *l*, secured to the hinged standard *b'*, and catching under a pin *m*, projecting from the side of the slide serves to raise the latter, whenever, by depressing the knife, the upper end of the hinged standard is thrown back, and as the slide is raised, the dog *j*, is forced

down on the ground of the screw thread on the sleeve F, and a longitudinal motion is imparted to the slide. By this motion the arm *k*, is carried out beyond the fork *e*, and the apple on the said fork is forced off. A small spring *n*, in the interior of the slide carries the latter back as soon as the apple has been thrown off.

The operation is as follows: The machine is set in motion by placing the right foot on the treadle, and the knife is held between the thumb and fingers of the right hand, while the elbow of the right arm rests on the support attached to the top bar of the frame, letting the belt of the machine pass under the curve of the arm at the wrist. A basket of apples is elevated to a convenient height near the left hand, and one of these apples being grasped by this hand is thrust upon the fork *e*, and the knife is slightly drawn up and applied to the apple. By this motion the pins *g*, are made to catch the dog *f*, and the arbor *a*, with the fork and apple are caused to rotate. By passing the knife over the apple, the latter is peeled neatly, the peelings falling on the floor in front of the machine, near the left foot; and after the apple is peeled the knife is slightly depressed, thereby throwing the dog *j*, in gear with the screw thread on the sleeve, and causing the slide to push the apple off. At the same time the dog *f*, is disengaged from the pins *g*, and the fork remains stationary, ready to receive another apple. By these means the motion of the treadle can be continued without interruption, and one apple after the other can be peeled in quick succession. The hands may be kept dry and clean, not having to touch the peeled apples; and the machine is durable and substantial, and its operation is very easy.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is:—

1. The arrangement and combination of the knife G, lever *d*, hinged standard *b'*, pulley E, pins *g*, dog *f*, and arbor *a*, as described so that by depressing or raising the knife the arbor *a*, is thrown out of or into gear, as may be desired, for the purpose specified.

2. The arrangement of the screw thread *h*, on the sleeve E, in combination with the spring slide H, dog *j*, arm *k*, and fork *e*, constructed and operating as and for the purpose specified.

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Witnesses:
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