W. H. GOODCHILD & S. F. HAY.

Apple-Paring Machines.

No. 199,903. **Patented Feb. 5, 1878.**

FIG. 3.

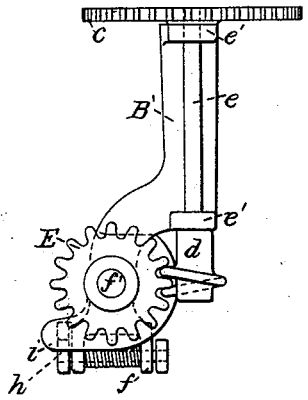


FIG. 1.

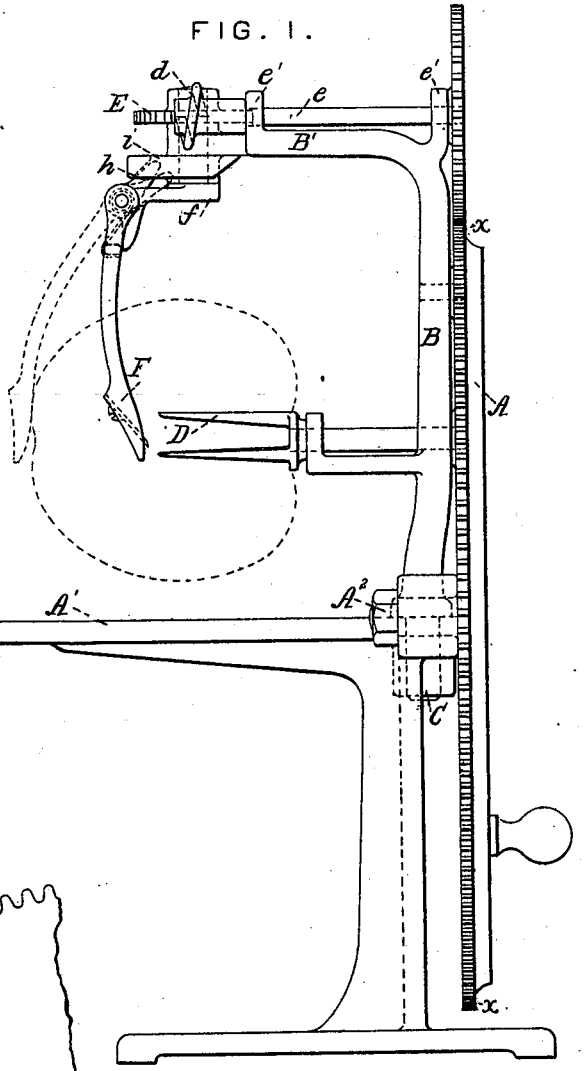
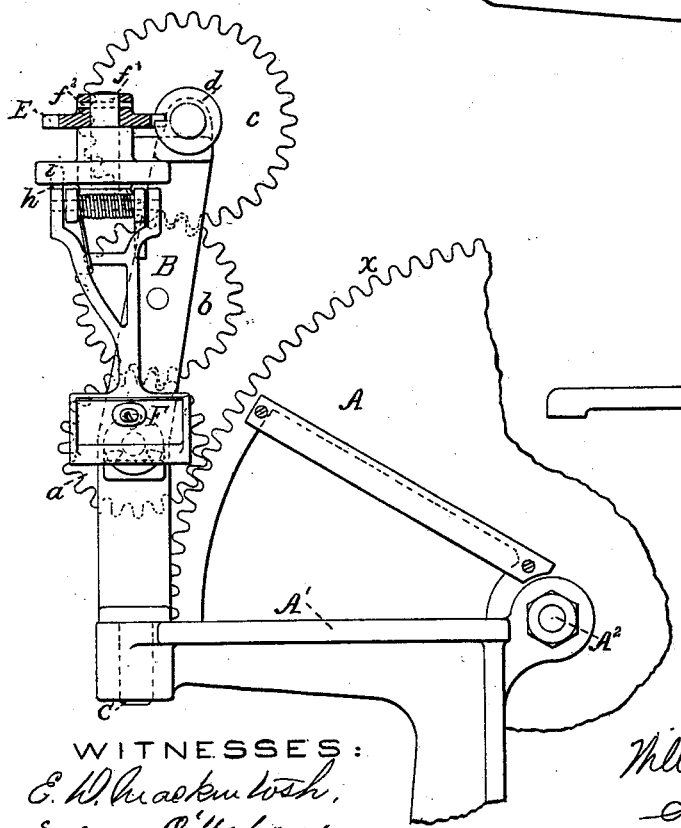


FIG. 2.



WITNESSES:

E. W. Mackintosh.

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UNITED STATES PATENT OFFICE.

WILLIAM H. GOODCHILD, OF NEW YORK, N. Y., AND SAMUEL F. HAY, OF METUCHEN, N. J.; SAID HAY ASSIGNOR TO SAID GOODCHILD.

IMPROVEMENT IN APPLE-PARING MACHINES.

Specification forming part of Letters Patent No. **199,903**, dated February 5, 1878; application filed September 30, 1876.

To all whom it may concern:

Be it known that we, WILLIAM H. GOODCHILD, of the city, county, and State of New York, and SAMUEL F. HAY, of the town of Metuchen, county of Middlesex, and State of New Jersey, have invented certain new and useful Improvements in Apple-Paring Machines; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

The object of this invention is to provide a feed-motion for an apple-paring machine which shall impart a continuous rotary motion to the paring-knife around the apple, the whole being more especially adapted to a paring-machine to be used in combination with a meat and vegetable cutter, its operating parts being driven by a gear formed upon the periphery of the cutter-wheel of the said cutter.

In the drawings, Figure 1 is a side elevation. Fig. 2 is a front elevation. Fig. 3 is a plan of the knife-actuating mechanism.

Similar letters of reference indicate like parts.

The standard B has an arm, B′, projecting from its upper end, and a pin, C, forms its lower end, by means of which latter the whole parer is connected with the frame or table A^1 of the meat and vegetable cutter, in such position as will gear the pinion *a* with the gear *x*, formed on the cutter-wheel A, and permit the fork D and wheel A to revolve in the same plane of motion. The wheel A is supported in the table A^1 on its shaft A^2.

To attach the parer to the cutter the ordinary back portion or fence of the cutter (not shown in the drawings) is removed from the bearing the pin C occupies. This pin C and its bearing may be formed square, as in the drawings, or may be round, and the standard held securely by stops of any suitable construction. This arrangement permits the use of the frame or table A^1 of the vegetable-cutter as a support for the apple-parer, which latter may be connected with the machine only at such times as it is desired to use it, and be at all other times laid away in the closet.

The gear-wheel *a*, which connects directly with the gear *x* on the cutter-wheel A, imparts motion, on revolving A, to the gear-wheel *c* through the idle-wheel *b*. The gear *c* revolves the worm *d* by means of the shaft *e*, which latter is guided in bearings *e′* upon the arm B′. The worm *d* acts to revolve the worm-wheel E and paring-knife F, which latter is rigidly connected therewith through the head-piece *f* by the pin f^2, which passes through the hub of the worm-wheel, and a pin, f^1, formed upon the head-piece *f*, the pin f^1 having its bearing in the head B′, as shown.

The proper proportionate speed of the fork D and knife F, secured by the above-mentioned gearing, insures the paring of an apple of any size placed upon the said fork.

Looking at Fig. 1, the operation of paring the apple is performed by the knife F as it moves half-way around it, from the standard B toward the left, on the farther side, the said knife being held to the apple by a spring, in the ordinary manner. On the completion of said outside half-revolution the knife F is raised from the pared fruit by the action of the elongated heel *h* of the knife-bar on the cam *i*, in the usual manner, and swung around clear of the fruit over the fork, when the pared apple may be removed.

This mode of operating the paring-knife by a worm and worm-wheel, geared up substantially as described, may be employed in a machine having its own drive-gear independent of the cutter-wheel of a vegetable-slicer, and thus be made a separate machine.

The direction of motion of the knife F around the apple may be reversed by reversing the thread of the worm-wheel *d*, and the paring of the apple may be performed at either half-revolution of the knife F by the adjustment of the cam *i* therewith.

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

1. The combination and arrangement, in the combined vegetable-cutter and apple-parer

herein shown and described, of the standard B, supporting a fork, D, and knife F, and their operating mechanism, substantially as set forth, with the table A^1 and driving-gear x, all substantially as and for the purposes herein specified.

2. The combination, substantially as herein described, of the fork D, the knife F, and the worm-gearing, and the spur-gearing, for the purpose specified.

WILLIAM H. GOODCHILD.
SAMUEL F. HAY.

Witnesses:
E. W. MACKINTOSH,
EUGENE O'MAHONY.

Correction in Letters Patent No. 199,903.

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,

Washington, D. C., April 8, 1884.

In compliance with the request of the patentee, Letters Patent No. 199,903, granted February 5, 1878, to William H. Goodchild, of New York, New York, for an improvement in "Apple-Paring Machines," is hereby limited so as to expire at the same time with the patent of the following-named having the shortest time to run, viz: English Patent, dated May 24, 1877, No. 2,032; and French Patent, dated June 8, 1876, No. 113,213.

It is hereby certified that the proper entries and corrections have been made in the files and records of the Patent Office.

This amendment is made that the United States Letters Patent may conform to the provisions of Section 4887 of the Revised Statutes.

[SEAL.]

BENJ. BUTTERWORTH,
Commissioner of Patents.

Approved:

M. L. JOSLYN,
Acting Secretary of the Interior.