

No. 706,174.

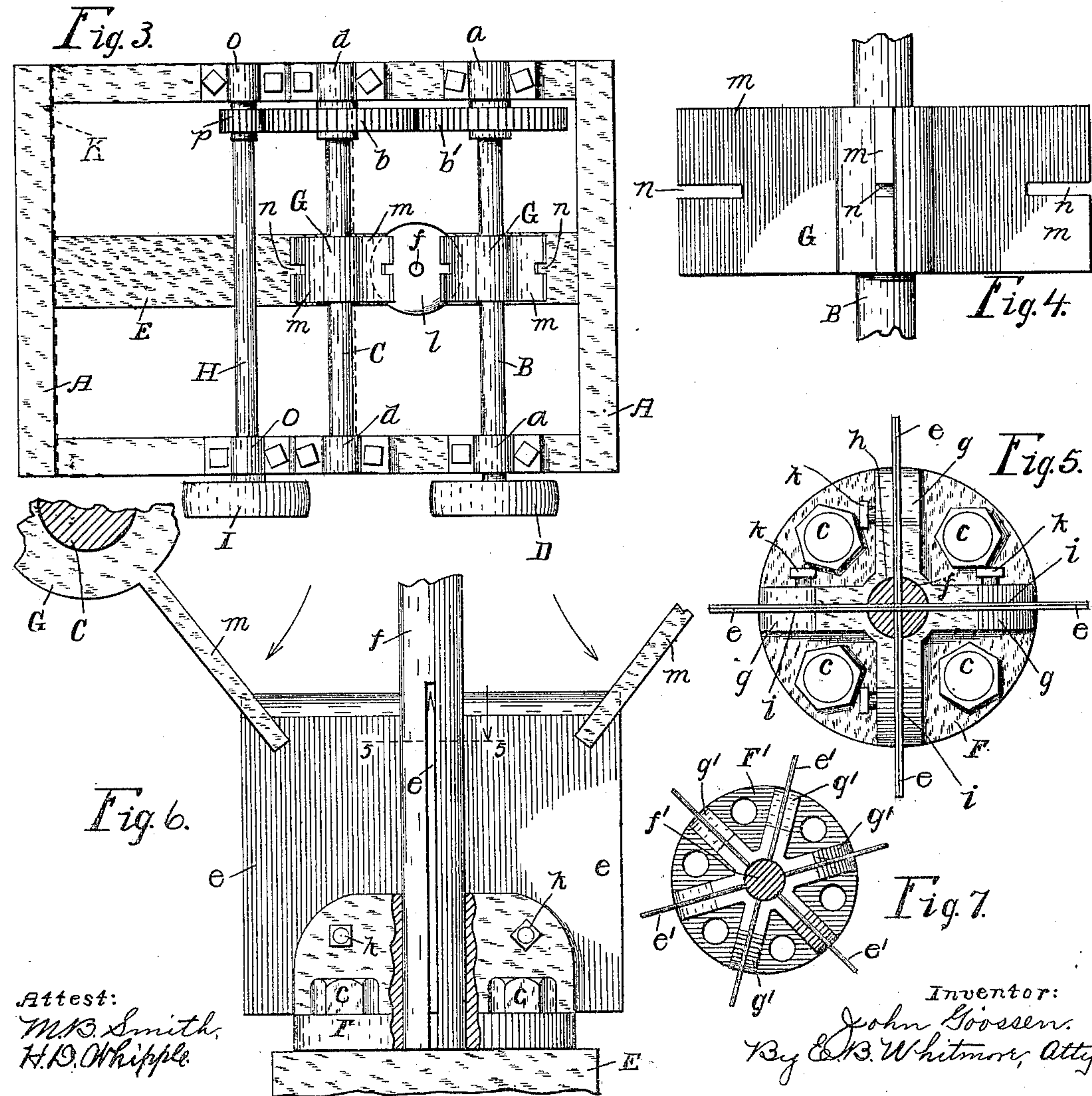
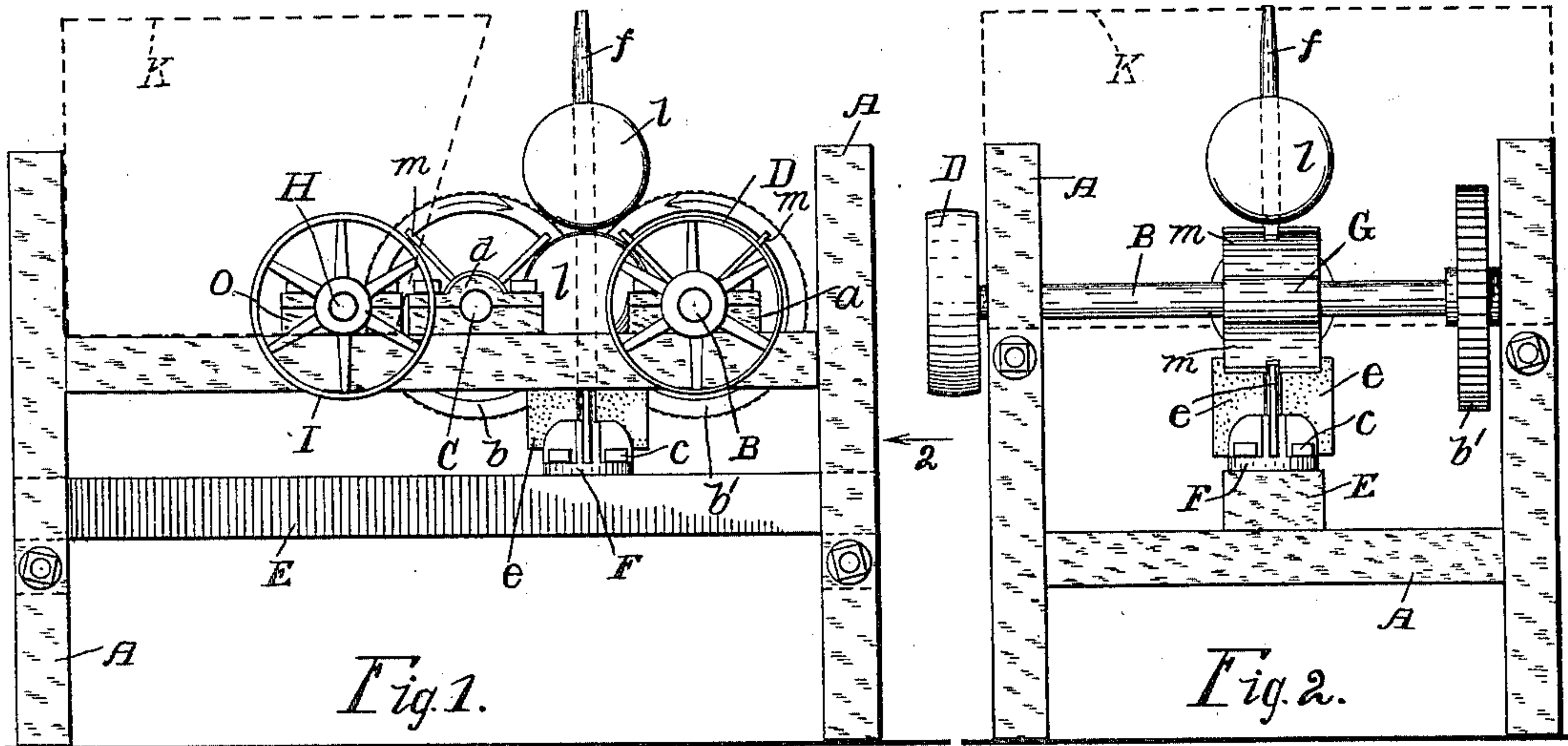
Patented Aug. 5, 1902.

J. GOOSSEN.

DEVICE FOR QUARTERING FRUIT.

(Application filed Mar. 1, 1902.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

JOHN GOOSSEN, OF MARION, NEW YORK.

## DEVICE FOR QUARTERING FRUIT.

SPECIFICATION forming part of Letters Patent No. 706,174, dated August 5, 1902.

Application filed March 1, 1902. Serial No. 96,318. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GOOSSEN, of Marion, in the county of Wayne and State of New York, have invented a new and useful Improvement in Devices for Quartering Fruit, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention is a machine or device for quartering or dividing apples and similar fruits, and also vegetables and the like, the same being hereinafter fully described, and more particularly pointed out in the claims, reference being had to the accompanying drawings, forming a part of this specification.

Figure 1 is a side elevation of the machine. Fig. 2 is an end view seen as indicated by arrow 2 in Fig. 1. Fig. 3 is a plan of the machine. Fig. 4 shows more fully one of the beaters. Fig. 5 is a plan of the knife-block and the knives, the needle being horizontally sectioned, as on the dotted line 5 5 in Fig. 6. Fig. 6 is a side elevation of the knife-block and knives with portions of the beaters, parts being broken away and sectioned. Fig. 7 is a plan of the knife-block, showing it formed to hold six knives. Figs. 4, 5, 6, and 7 are drawn to scales larger than that of Figs. 1, 2, and 3.

A in the drawings is a frame holding the operating parts of the machine.

B is a transverse main driving-shaft held in bearings *a a* near one end of the frame and provided with a belt-pulley D for receiving an ordinary driving-belt for operating the machine. C is a similar companion shaft, parallel with the shaft B, held in bearings *d d* on the frame, the two shafts being in a horizontal plane and connected by equal spur-gears *b b'*, respectively.

H is a second driving-shaft for slower speed, held in bearings *o o* on the frame, its axis being in the plane of the axes of the shafts B C. This shaft H is provided at one end with a pinion *p* to engage the gear *b* and with an overhanging belt-pulley I to receive the driving-belt removed from the pulley D when it is wished to change from fast to slow speed.

E is a lower central longitudinal bar or timber held by or forming a part of the frame, upon which bar is placed a circular knife-block F, made rigid in place by bolts *e*. This

block is formed with vertical radial walls or jaws *g g*, having an axial opening *h* at their intersection, Figs. 5 and 6, passing through the block downward to its base, in which to insert a vertical central rod or needle *f*, pointed at its upper end. The block is below the plane of the shafts B C and so placed that the needle *f* passes midway between said shafts, piercing the plane of their axes at right angles. The jaws *g g* are formed with vertical radial slots or openings *i*, in which are placed steel knives or blades *e* in vertical positions, meeting or intersecting at the axis of the block, with their upper ends reduced to cutting edges, as shown in Fig. 6. These knives are at the base of the needle and made rigid in the block by simple means, as set-screws *k*, the needle being central with the knives. The knives are preferably placed radially in the block, with their planes at right angles with the plane of the shafts B C. The planes of the knives meet in a line common to all, said line coinciding with the axis of the needle.

The apples or bodies *l* to be divided are passed by hand downward upon the needle *f* to the knives *e* at its base, one apple being pressed down against another. Upon each shaft B C is secured a beater G, formed with two or more wings *m*, the number of the wings being more or less as the character of the work may require, four for each beater being shown. These wings are adapted to bear down against the apples on the needle, as shown in Fig. 1, when the shafts carrying them are revolved and drive the apples in succession against the blades beneath.

Apples quartered or divided in this machine may be those treated at dry-houses or others having been previously pierced in the act of coring, or they may be apples directly from the bin or otherwise, as for feeding to stock.

The relative positions of the shafts B C and the knives are such that the wings of the beaters strike down near to or across the corners of the knives, as shown in Fig. 6, this relative nearness of the parts serving to better enable the wings to drive the fruit against the knives. Should the wings in any arrangement of the knives conflict with the latter, they are formed with openings *n*, Fig. 4, to clear the knives.



It is understood that for different kinds of work more or fewer knives may be employed, the holding-block being correspondingly formed, as at F', Fig. 7, (in this block six knives *e'* are held in jaws *g'*, the needle *f'* being centrally placed, as in the first instance,) and that beaters *G* having different numbers of wings may be employed, as may be found necessary. Also needles *f*, of different lengths and diameters, may be employed in the machine if found convenient for varying work.

With this machine a suitable hopper of some common form may be used, as shown by dotted lines K, the hopper resting upon the frame.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A machine of the kind described, comprising a frame, a pair of parallel shafts on the frame, with connecting-gearing, a series of radial blades, a needle central with the blades and piercing the plane of said shafts between the latter, parts extending from the shafts to coact with the needle and disposed to act upon the fruit upon opposite sides of said needle, and means for revolving the shafts, substantially as set forth and shown.

2. A machine for quartering fruit, comprising a frame, a pair of parallel shafts mounted for rotation in bearings on said frame, a needle supported by the frame for holding the fruit, a series of knives at the base of the needle, and means to act upon the fruit in proximity to the corners of the knives for moving the fruit along the needle and against the knives, substantially as and for the purpose specified.

3. A machine of the kind described, having a frame, a pair of parallel coacting oppositely-revolving shafts on the frame, a block or body on the frame having slots or narrow openings, knives in said openings in the block,

and a needle held centrally in the block, and arms reaching out from said shafts to press upon the fruit upon opposite sides of said needle and to coact with said needle and the knives and to strike down in proximity to the corners of the knives, substantially as shown and described.

4. In a machine for quartering fruit and vegetables a block having vertical radial jaws and axial opening at their intersection, a pointed needle held in said opening, radially-disposed knives seated in slots in said jaws, shafts in parallel relation at right angles to said needle above the plane of the knives, means for imparting rapid or slow revolution to said shafts and beaters on said shafts to act downwardly upon the fruit on opposite sides of said needle, as and for the purpose specified.

5. In a machine for quartering fruit and vegetables, a block having vertical radial jaws and axial opening at their intersection, a pointed needle held in said opening, radially-disposed knives seated in the slots in said jaws, shafts in parallel relation to each other at right angles to said needle above the plane of the knives, means for imparting rapid or slow revolution to said shaft, a series of beaters disposed about each shaft and arranged to bear down against the fruit on said needle as the shafts are revolved and drive the fruit in succession against said blades, said beaters being formed at their outer edges with openings in line with said knives, all substantially as and for the purpose specified.

In witness whereof I have hereunto set my hand, this 25th day of February, 1902, in the presence of two subscribing witnesses.

JOHN GOOSSEN.

Witnesses:

ENOS B. WHITMORE,  
MINNIE SMITH.