

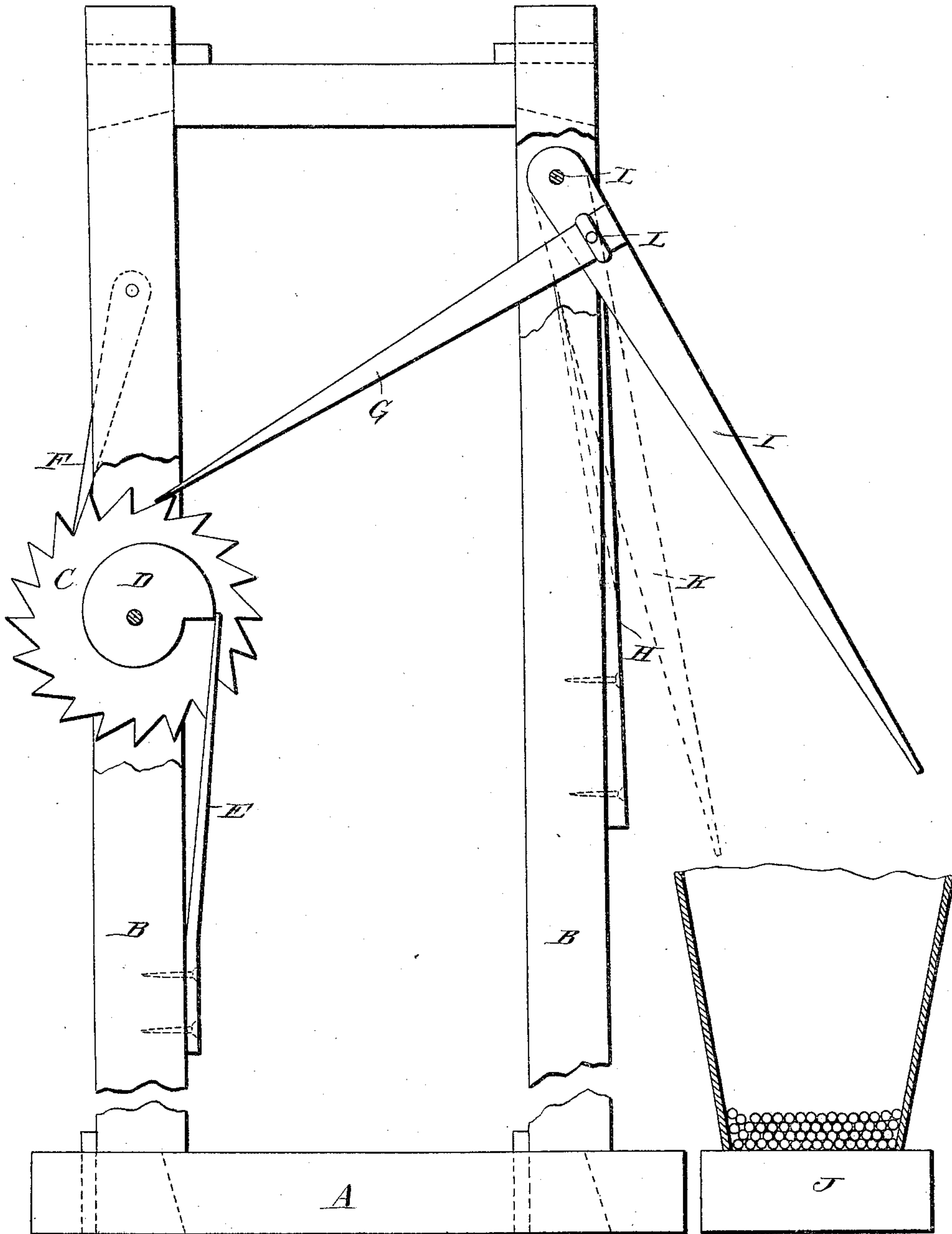
(No Model.)

F. M. KIDDER.

MACHINE FOR COUNTING GRAPE CUTTINGS, GRAPE ROOTS, &c.

No. 526,493.

Patented Sept. 25, 1894.



*J. L. Telford*  
*Charles E. Randall*  
*Witnesses*

*Francis Miles Kidder*  
*Inventor*

# UNITED STATES PATENT OFFICE.

FRANCIS MILES KIDDER, OF FREDONIA, NEW YORK.

## MACHINE FOR COUNTING GRAPE-CUTTINGS, GRAPE-ROOTS, &c.

SPECIFICATION forming part of Letters Patent No. 526,493, dated September 25, 1894.

Application filed December 23, 1890. Serial No. 375,650. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS MILES KIDDER, a citizen of the United States, residing at Fredonia, in the county of Chautauqua and State of New York, have invented a new and useful Machine for Registering or Counting Grape-Cuttings, Grape-Roots, or other Small Nursery Stock, of which the following is a specification.

My invention relates to a machine for counting grape cuttings, grape roots, and cuttings of other small fruits, and consists of a ratchet wheel with numbered teeth, lever, eccentric and springs, placed and adjusted upon a frame or base as shown and illustrated in the accompanying drawing, in which the figure is an elevation, parts being broken away.

The mechanism is illustrated in the accompanying drawing, in which—

A is the base of the machine; B, B, the upright part of the machine; C, a ratchet wheel with twenty or more notches in said wheel, up to one hundred notches, in said wheel; D, an eccentric attached firmly to ratchet wheel, with a notch projecting so that when it passes the spring E, the spring snaps to the smallest diameter of the eccentric to indicate that the ratchet wheel has made one revolution.

F holds the ratchet in position while the arm G is drawn back by the spring H bearing against the lever I, and as the cuttings or roots are brought down against the lever I, to place, in position for being tied in rack J, the

lever I is moved to dotted lines K, moving the lever G so as to move the ratchet one notch.

The spring E serves a double purpose, first, it acts as a brake on the concave or eccentric to prevent the ratchet wheel C from moving more than one notch should the lever I receive a very quick movement; second, on the revolution of the wheel, it acts as a snap to indicate that the wheel has made one revolution.

L, is a slot or succession of holes in the lever I to perfectly adjust the movement of the arm G to its exact position to move the ratchet one notch. The rack J, holds the cuttings, roots, &c., and when the machine registers one hundred they are tied and removed leaving the machine ready to commence the registry of another bundle.

The springs E and H, may be made spiral springs and may be fastened with screws or bolts at any convenient point and adjusted so as to modify the elasticity of the springs.

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

The combination, in a machine for registering or counting grape cuttings, grape roots, or other small nursery stock, of the ratchet C, eccentric D, arm G, lever I, dog F and springs E and H, all as substantially set forth.

FRANCIS MILES KIDDER.

Witnesses:

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