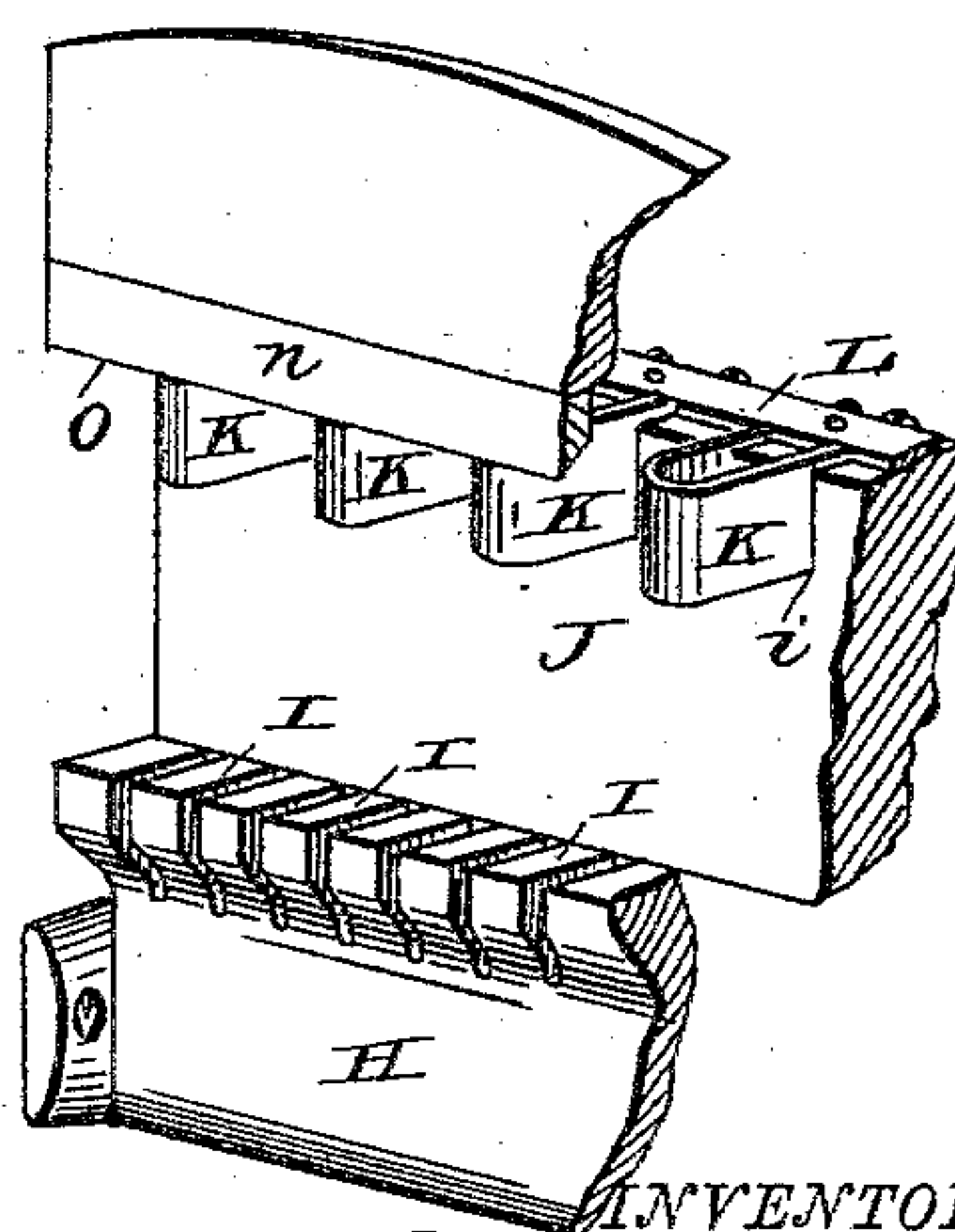
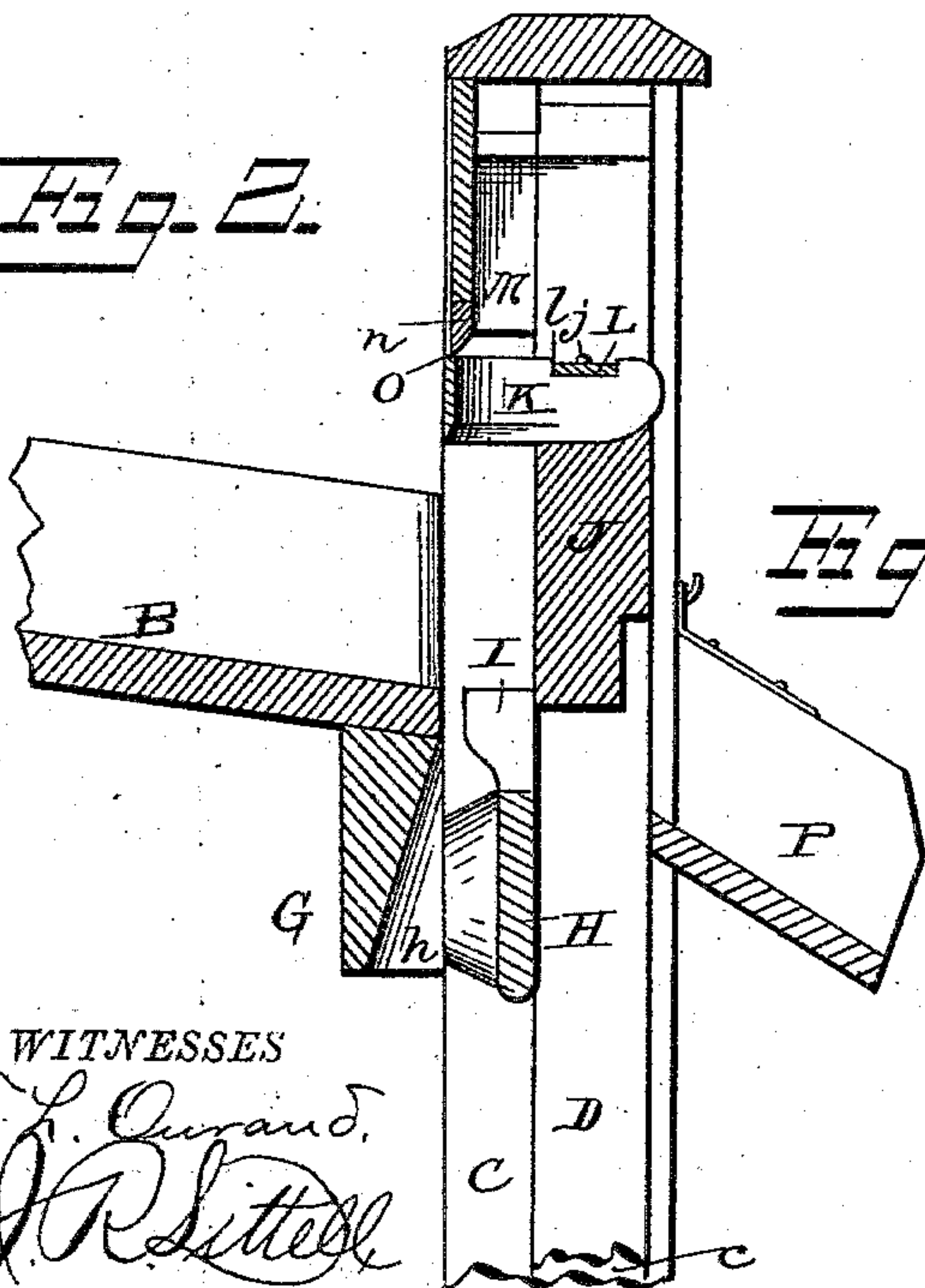
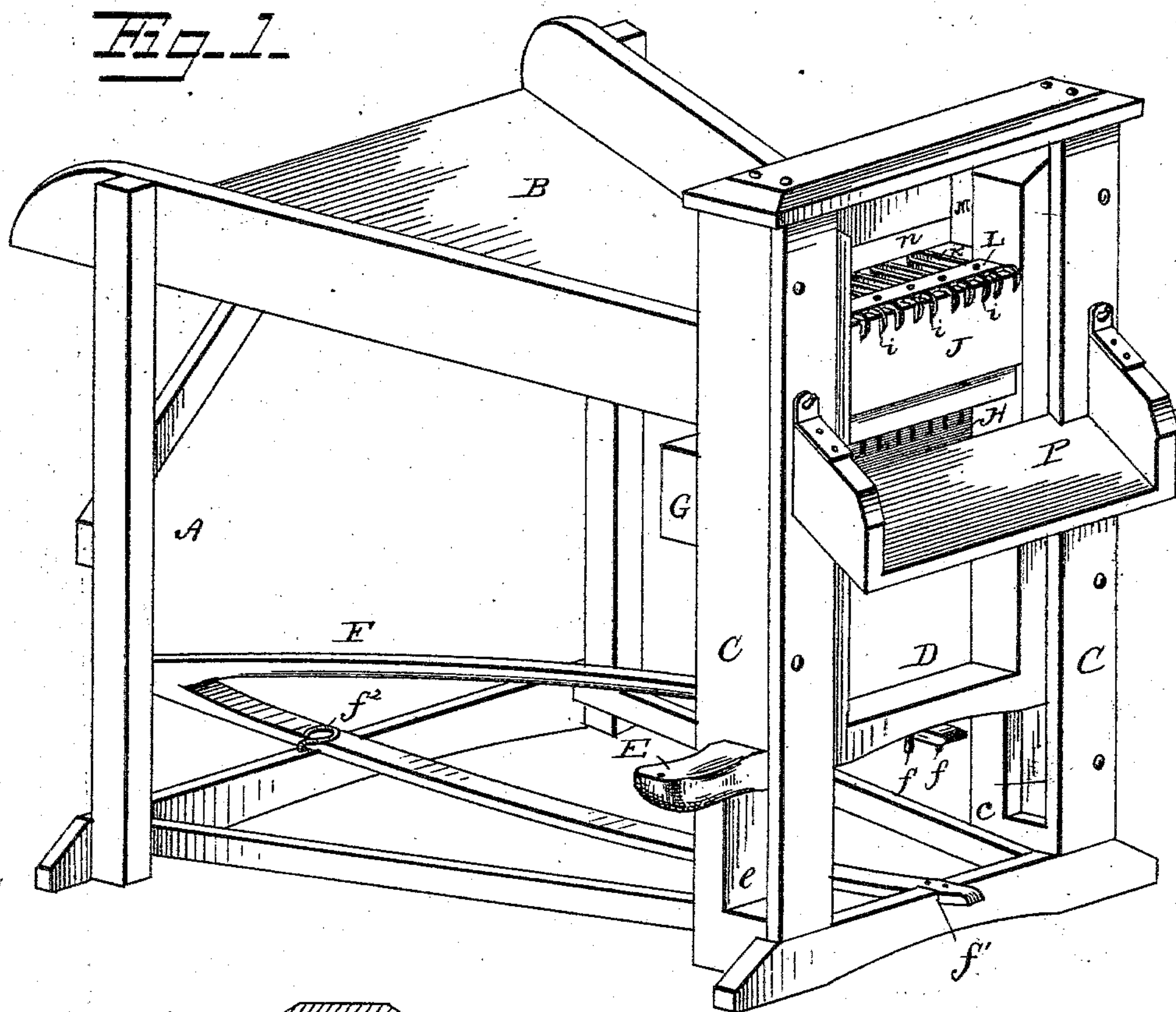


(Model.)

E. L. BYRON.
VEGETABLE CUTTER.

No. 283,466.

Patented Aug. 21, 1883.



WITNESSES

F. L. Curran &
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INVENTOR

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UNITED STATES PATENT OFFICE.

EDWARD LOW BYRON, OF COMPTON, QUEBEC, CANADA.

VEGETABLE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 283,466, dated August 21, 1883.

Application filed June 6, 1883. (Model.)

To all whom it may concern:

Be it known that I, EDWARD LOW BYRON, a subject of the Queen of Great Britain, residing at Compton, in the county of Compton, in the Province of Quebec, Dominion of Canada, have invented a new and useful Vegetable-Cutter, of which the following is a specification, reference being had to the accompanying drawings.

10 My invention relates to machines for chopping or cutting roots, the object being to provide a machine of this character adapted to be operated by foot-power, thus allowing the operator the free use of both hands for the feeding and manipulation of the roots being cut.

15 A further object of the invention is to provide the machine with cutting-knives of improved construction.

20 The invention consists in the features of construction and combinations of parts hereinafter fully described, and pointed out in the claims.

25 In the drawings, Figure 1 is a perspective view of a machine constructed in accordance with my improvement. Figs. 2 and 3 are detail views illustrating the cutting-knives and their securing devices.

A represents the frame of the machine, supporting an inclined trough or hopper, B.

30 The standards C C of the frame are formed on their inner sides with grooves or guideways *cc*, within which moves the cutter-frame D, the lower cross-bar of the latter being extended laterally to form a treadle, E, projecting through an elongated slot, *e*, formed in the lower end of the adjacent standard C.

35 The lower end of the cutter-frame D is formed with two depending lugs, *ff*, adapted to receive the end of one arm of a bifurcated spring, F, the other arm of said spring being secured at one end in a slot, *f'*, of the lower cross-bar of the frame A, while the opposite end of said arm is secured by a loop-catch, *f''*, at the rear end of the frame.

40 G represents a cross-bar secured to the rear side of the standards C C of the frame, beneath the trough B. This cross-bar is recessed to form, in conjunction with a metallic plate, H, secured between the standards C C, a discharge-passage, *h*. The metallic plate H is vertically slotted, as shown, to form a series of ejectors, I.

J represents a plate or cross-bar secured between the sides of the cutter-frame D, near the upper end of the latter, and having its upper edge formed with a series of vertical slots, *i*, adapted to receive the forward ends of horizontally-arranged U-shaped cutters K, said cutters being secured within the slots *i* by means of a metallic strap or plate, L, which fits within the slots *l* of said cutters, and is removably secured to the upper edge of the plate J by a screw, *j*, or otherwise.

45 M M represent blocks secured to the rear sides of the upper ends of the side bars of the cutter-frame D. To these blocks is secured a cross-plate, *n*, having a cutting-edge, O, which rests upon the rear upper edges of the U-shaped cutters K.

P represents an inclined discharge-spout secured to the forward side of the frame, adjacent to the slotted metallic plate H, as shown.

50 The operation of the machine is as follows: The operator feeds the roots forward in the trough until they abut against the rear cross-bar, J, of the vibrating cutter-frame D, when, by depressing the said frame D by means of the treadle E, the U-shaped knives cut into the roots and become filled with sections thereof, while the spaces between said U-shaped knives are likewise filled by means of the edged cross-plate *n*, also cutting into the roots, when the further downward movement of the vibrating frame causes the spaces filled with the sections of roots or vegetables to be occupied by the ejectors *i*, which cause the said roots or vegetables to be discharged from the front of the machine over the cross-bar J, while the juice and fine particles pass through the passage *h*.

55 It will be apparent that by the spring arrangement hereinbefore described for operating the vibrating cutter-frame the spring can be readily applied for operation without necessitating the employment of rigid retaining devices.

60 It will further be obvious that the machine herein described is susceptible of many modifications and changes without departing from the spirit of my invention; hence I do not limit myself to the precise construction shown and described.

65 Having fully described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a root-cutting machine or its equivalent, of a trough, vertical
5 guideways, between which plays the frame carrying the cutter-knives, and a treadle formed by an extension of the cutter-frame, substantially as set forth.

2. The combination, in a root-cutting machine, of a trough or its equivalent, vertical
10 guideways, a frame carrying the cutter-knives playing between said guideways, a treadle for operating said cutter-frame, formed by an extension of the lower portion of said frame, and
15 a bifurcated spring secured detachably to the rear of the frame, and having its two branch sections respectively retained by the lower part of the cutter-frame and base of the forward part of the machine, substantially as set
20 forth.

3. The combination, in a root-cutting machine, of a vibrating cutter-frame having a cross-bar notched to receive the ends of a series of U-shaped cutters, a cross-plate secured to the cutter-frame and provided with a cutting-
25 edge bearing on the forward portions of the U-shaped cutters, and a series of ejectors, arranged in the forward part of the machine, and adapted to enter the spaces between the inner and outer sides of the U-shaped cutters
30 when the cutter-frame is depressed, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EDWARD LOW BYRON.

Witnesses:

A. G. CLARK,

G. H. F. PIERCE.