

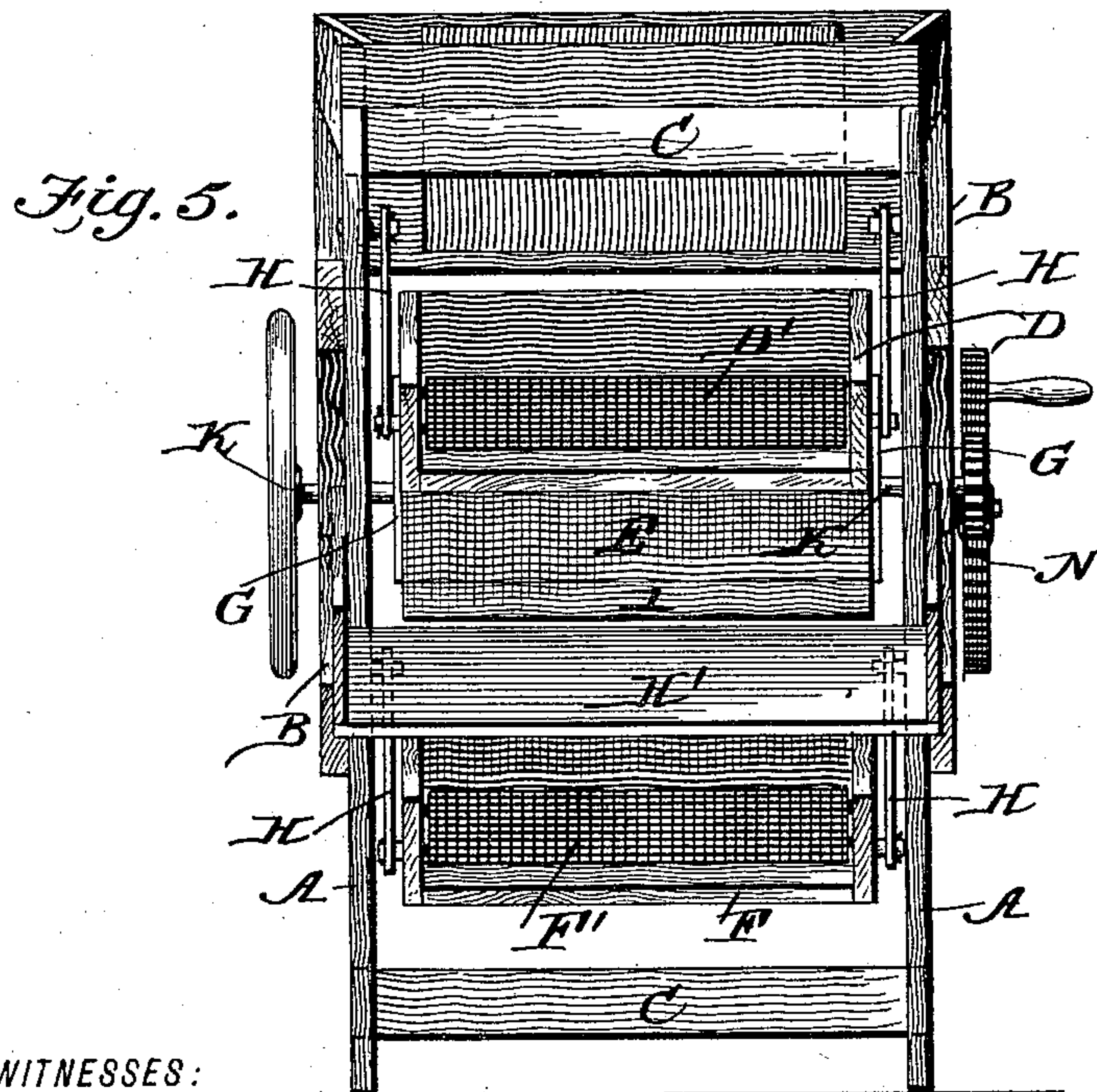
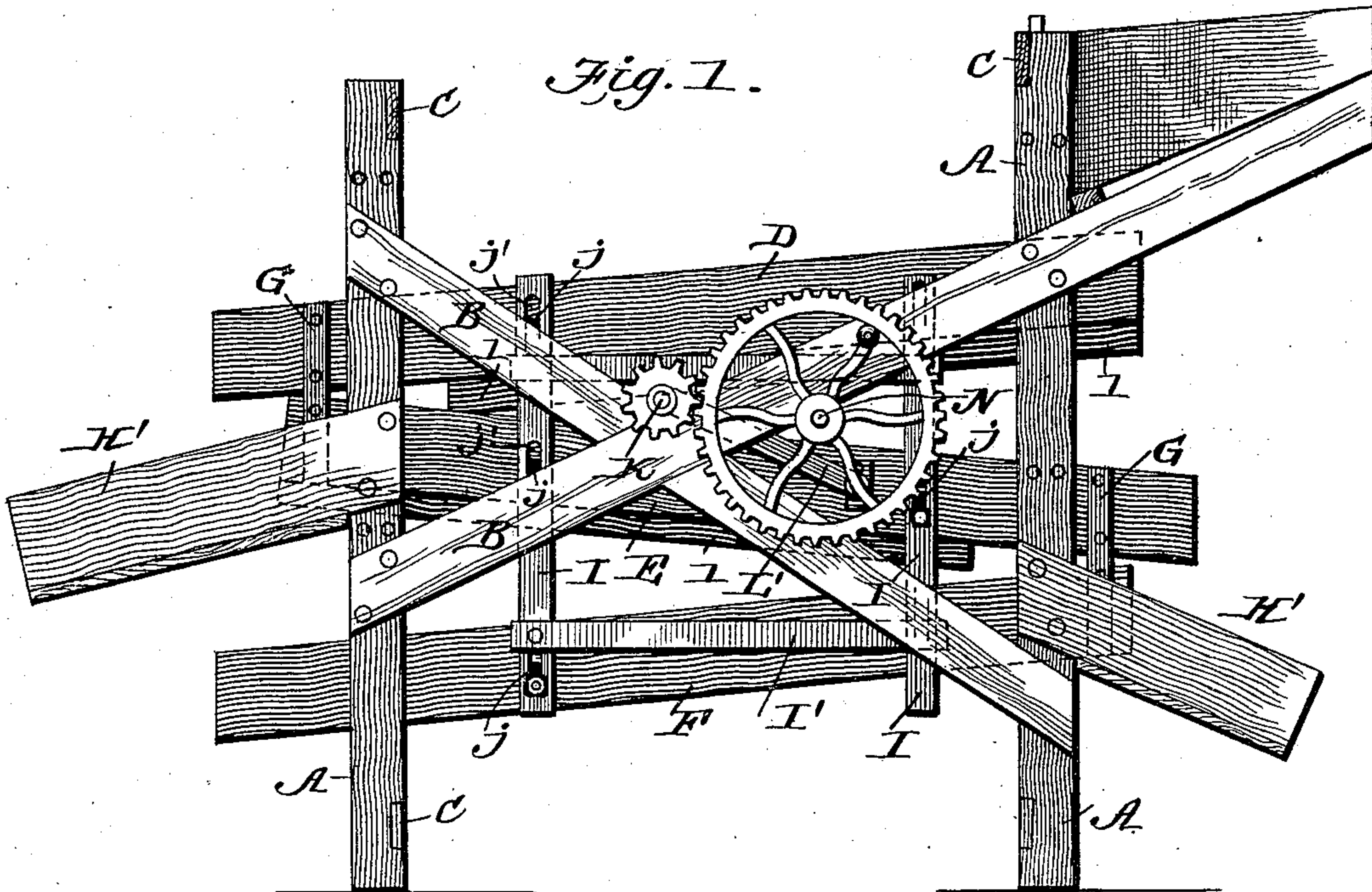
(No Model.)

2 Sheets—Sheet 1.

W. BROWN.  
FRUIT GRADER.

No. 577,353.

Patented Feb. 16, 1897.



WITNESSES:

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*P. B. Harper,*

INVENTOR

*Willis Brown.*

BY

*Munn & Co.*

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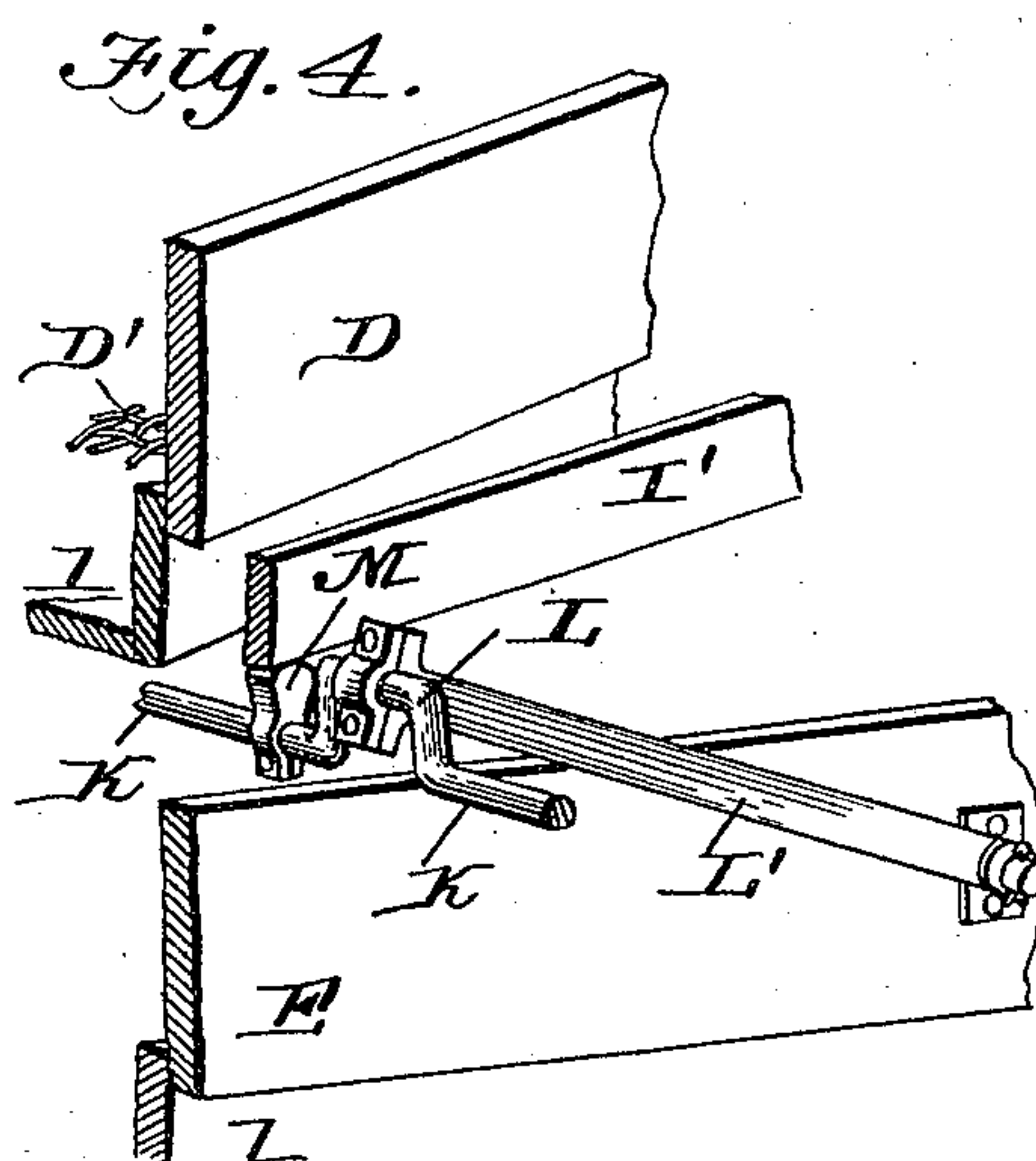
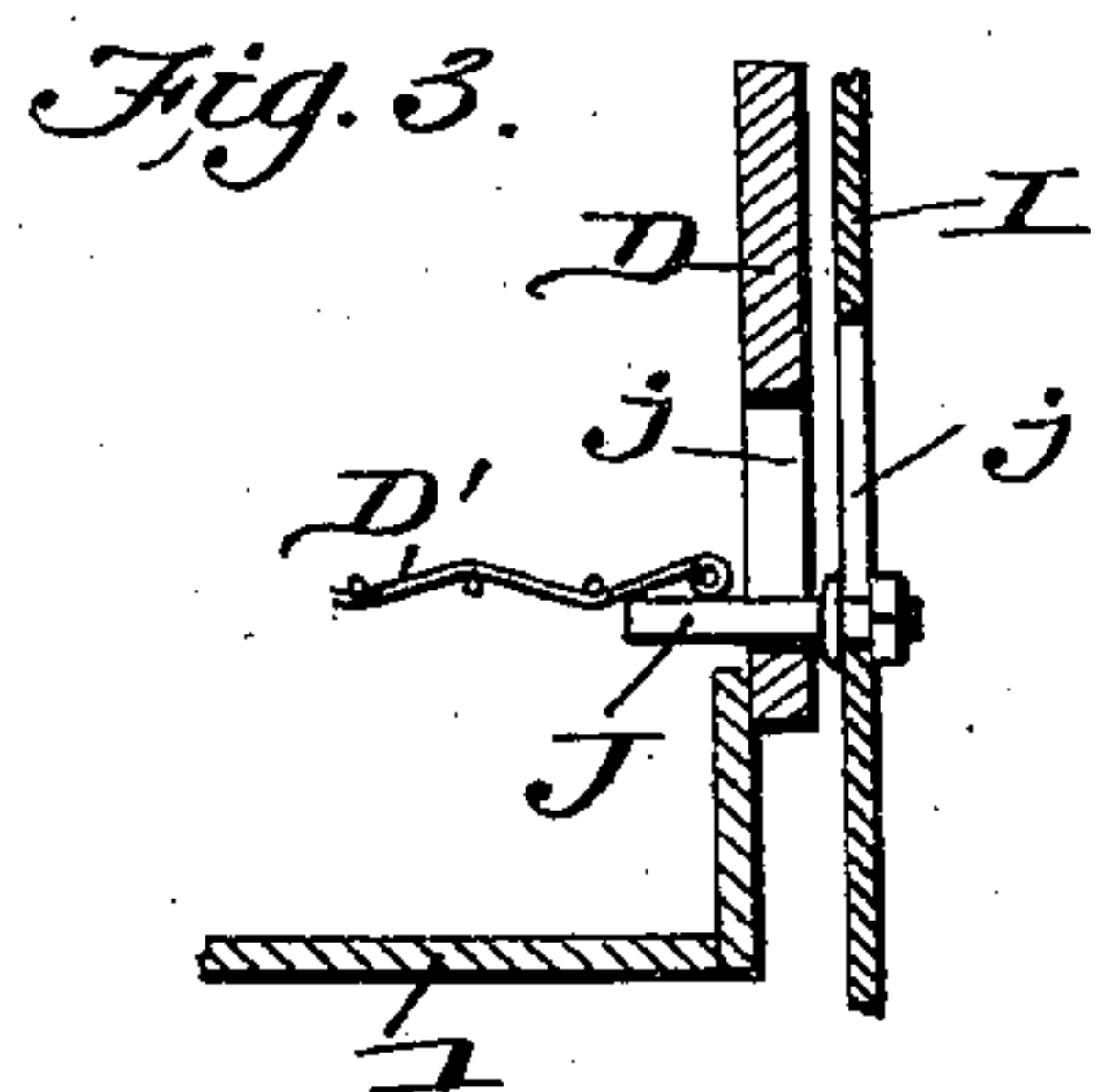
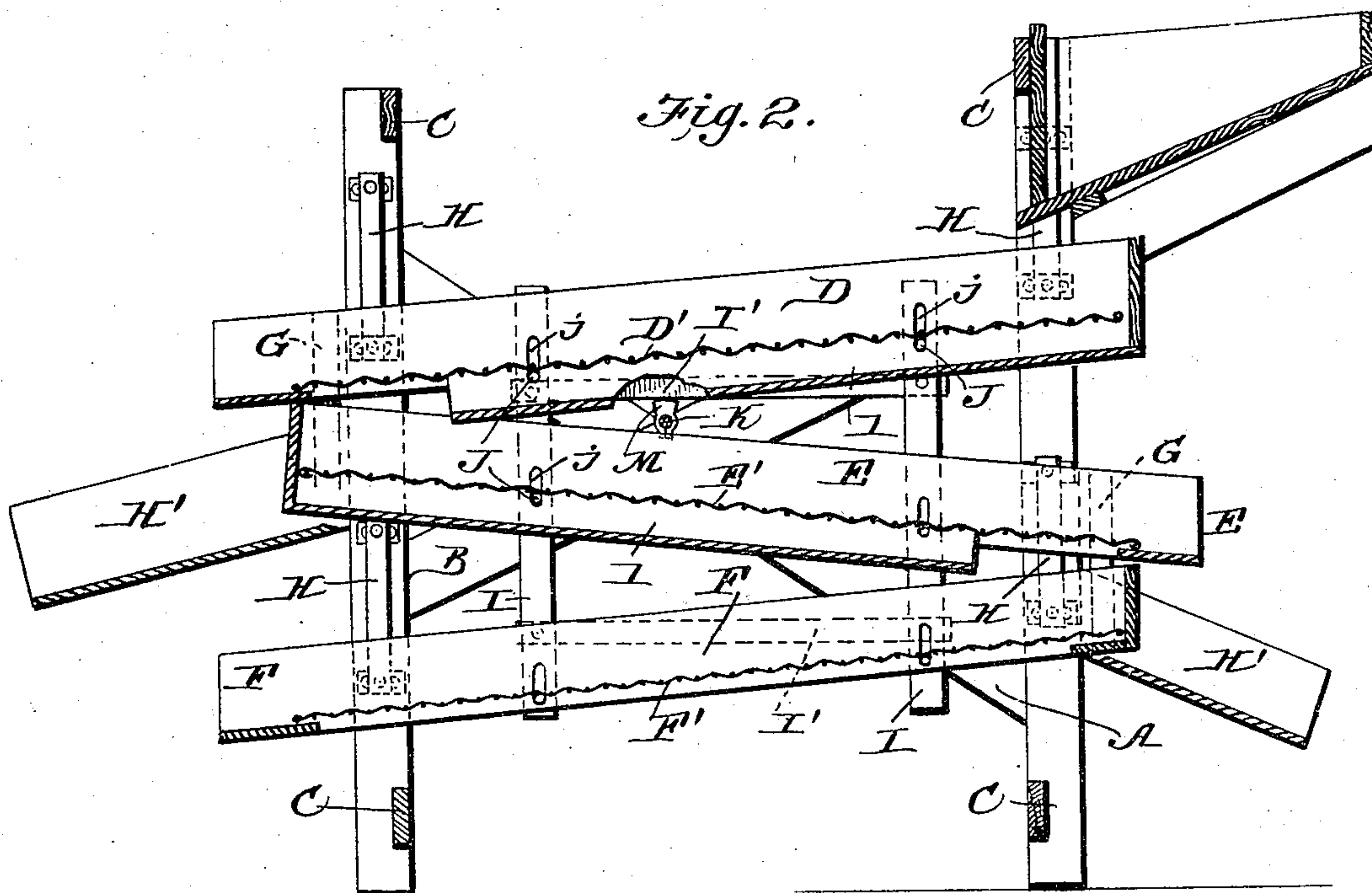
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2 Sheets—Sheet 2.

W. BROWN.  
FRUIT GRADER.

No. 577,353.

Patented Feb. 16, 1897.



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

WILLIS BROWN, OF PORTLAND, OREGON.

## FRUIT-GRADER.

SPECIFICATION forming part of Letters Patent No. 577,353, dated February 16, 1897.

Application filed January 8, 1896. Serial No. 574,709. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIS BROWN, of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Fruit-Graders, of which the following is a specification.

My invention is an improved fruit-grader intended especially for use in grading dried prunes; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side view, and Fig. 2 a vertical longitudinal section, of a machine constructed according to my invention. Figs. 3 and 4 are detail views, and Fig. 5 is an end elevation.

In carrying out my invention I provide a suitable frame having uprights A, longitudinal bars B, and cross-bars C, framed or secured together in any desired manner. In this frame I support the grading-frames D, E, and F, held together by straps G and suspended by the links H, which connect the upper frame D with the main supporting-frame. The said frames D, E, and F are alike except that the meshes of the screens are different, each screen having a smaller mesh than the preceding one.

Each grading-frame has a bottom I, which delivers to the upper end of the next lower frame, and above such bottoms I support the sieves D', E', and F', which are capable of a vertical movement within their respective frames and are formed of woven wire. The upper screen delivers at its discharge end to a chute or spout H', which delivers over the discharge end of lower screen. Manifestly the grading-frames may be increased or decreased without departing from my invention, and I do not desire to be limited to any particular number of such frames.

To jolt the screens, I provide on opposite sides of the machine side frames held to and sliding vertically along the grading-frames and composed each of upright bars I I and a connecting-bar I'. The upright bars I have attached pins J, which extend through slots j in the grade-frames and rest below the screens or sieves, so that as the said side frames are jolted the sieves or frames will be correspondingly jolted. The pins J may be adjusted in

relation to the side frames, being to such end provided with threaded shanks passed through slots j' in said side frames and secured by nuts, as shown.

To operate the grading-frames and effect a jolting of the screens or sieves, I provide the operating-shaft K, having cranks L, connected by pitmen L' with one of the grading-frames and crank projections M, which engage the side frames and swing them, and so jolt the sieves within their respective grading-frames.

The shaft K may be turned in any suitable manner. I have shown it as geared with a hand-driven shaft N.

In the operation of my invention, the largest screen being the first, the prunes passing over the end thereof are the largest or first-grade prunes, those passing over the second screen the second-grade, &c., while the prunes passing through the screens fall on the bottoms of the grading-frames and are delivered thereby to the next screen below.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A fruit-grader composed of the supporting-frame, the grading-frames, the sieves or screens, in said grading-frames the side frames having a sliding connection with the grading-frames and provided with portions engaging the sieves or screens the operating-shaft having crank projections engaging said side frames whereby to jolt the same and cranks and pitmen connecting said cranks with the grading-frame whereby to swing the latter substantially as and for the purposes set forth.

2. In a fruit-grader, the combination of the grading-frames arranged one above the other, the sieves or screens movable therein, the movable jolting devices extending between and adapted to jolt the screens of the several grading-frames and means for operating such jolting devices, substantially as set forth.

3. In a fruit-grader, the combination of the grading-frames, the screens or sieves movable in said frames, side frames having upright bars provided with inwardly-projecting pins engaging the screens or sieves and bars connecting such upright bars, and devices for operating such side frames, substantially as shown and described.

4. In a fruit-grader, the combination with the suspended grading-frames and the screens movable therein of the side frames held to and movable vertically along the grading-frames, and provided with inwardly-projecting pins engaged with the screens, and the drive-shaft having a crank connected with the suspended grading-frame and a jolting projection engaging the side frame all substantially as and for the purpose set forth.
5. The combination of a series of grading-frames one above the other, a screen in each

such frame and movable therein, the frames having vertically-elongated slots opposite their screens the side frames having uprights provided with pins projected inwardly through said slots and bearing beneath the screens, and means for operating such side frames substantially as shown and described.

WILLIS BROWN.

Witnesses:

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E. E. MILLER.