

(No Model.)

2 Sheets—Sheet 1.

G. VALENTINE.

DRAG SAW.

No. 294,096.

Patented Feb. 26, 1884.

Fig. 1.

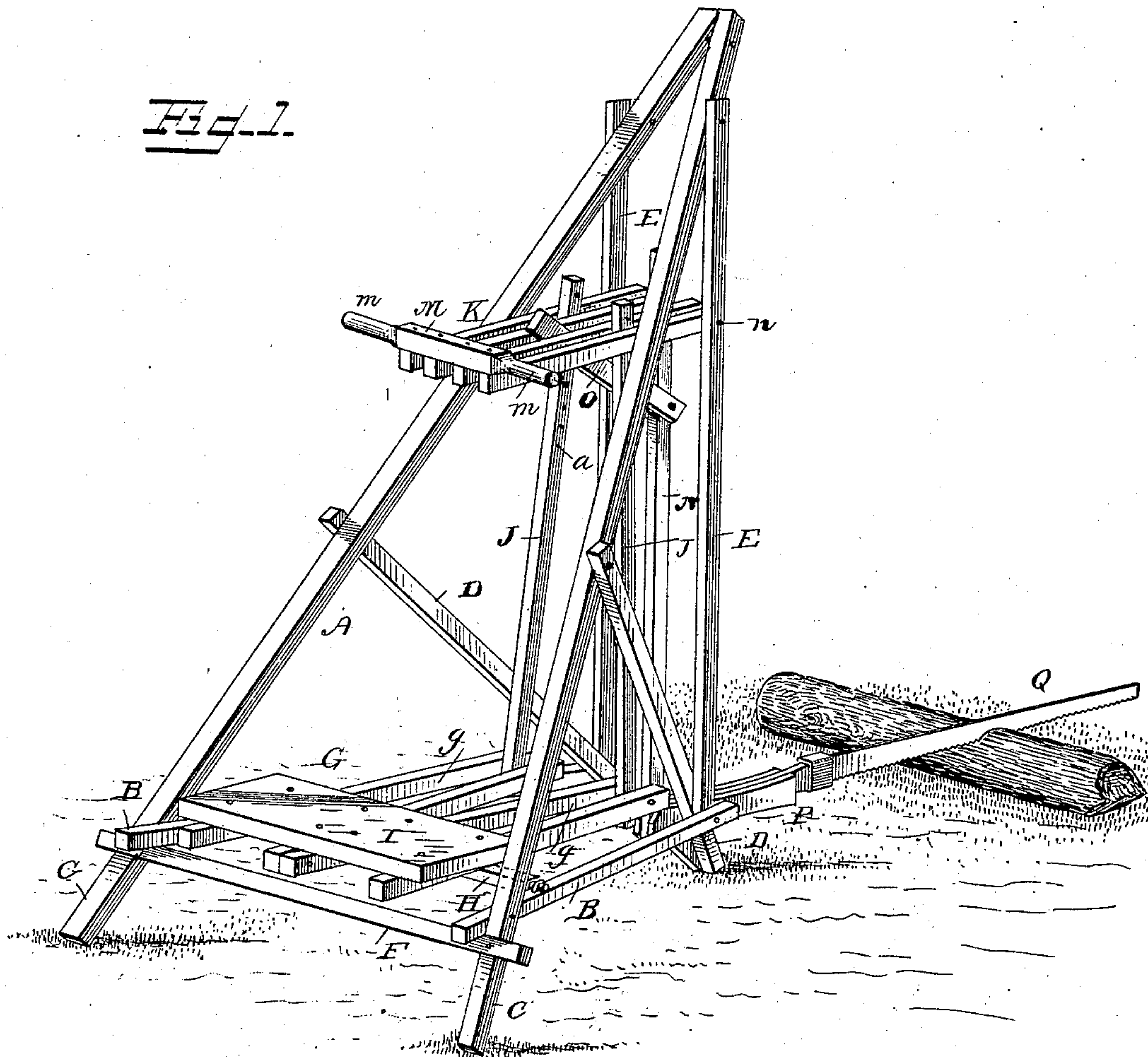
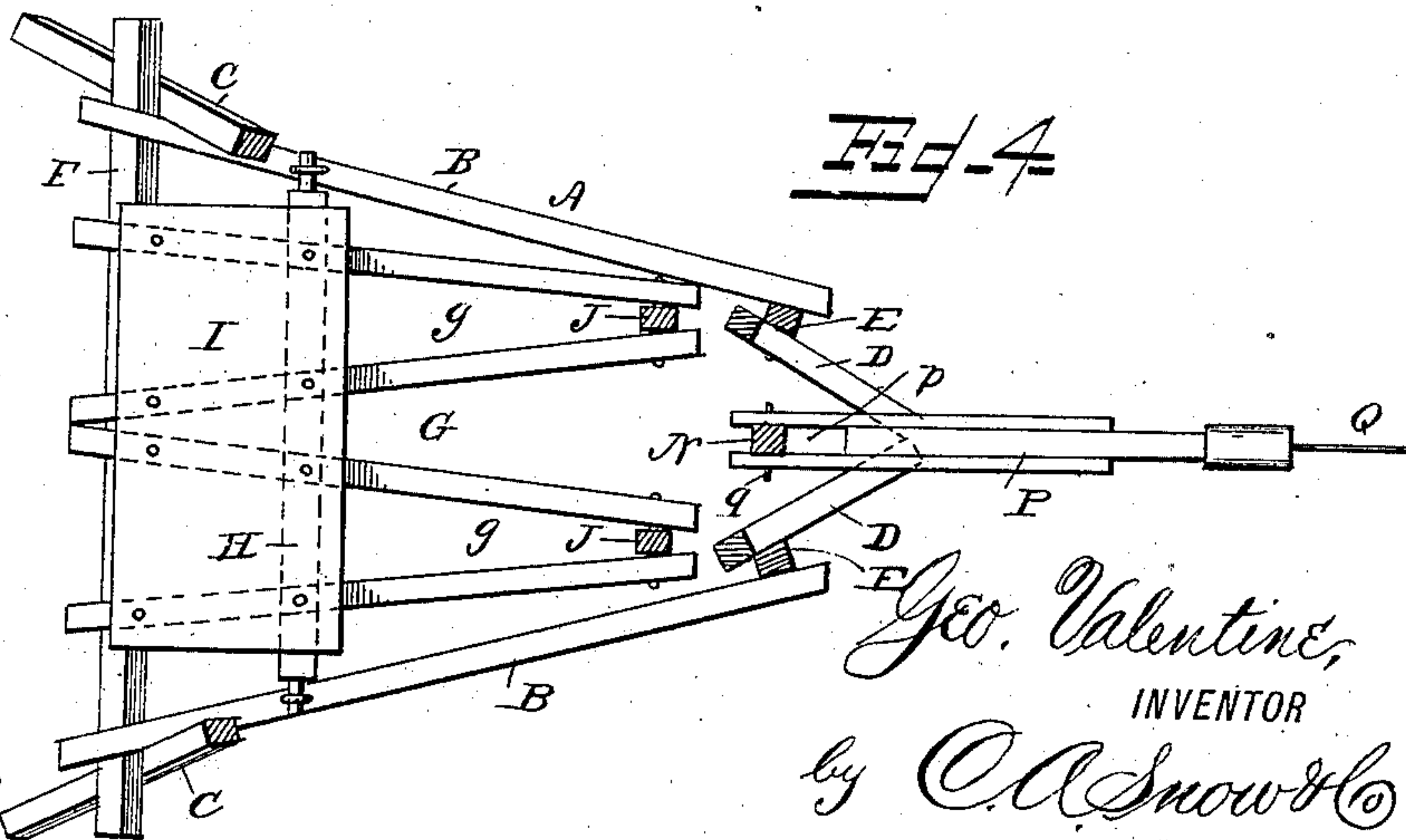


Fig. 4.



WITNESSES

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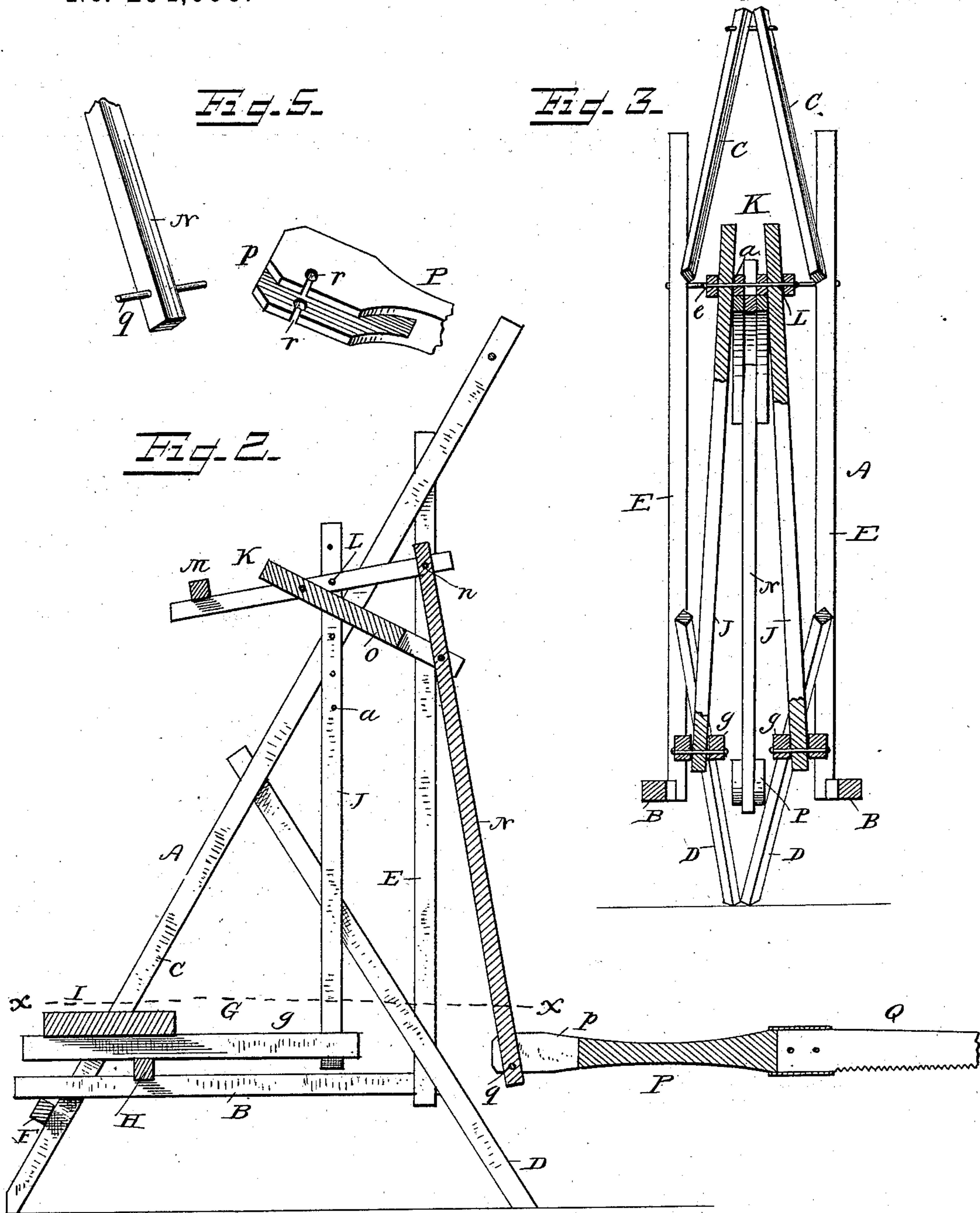
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UNITED STATES PATENT OFFICE.

GEORGE VALENTINE, OF MONTICELLO, ILLINOIS.

DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 294,096, dated February 26, 1884.

Application filed November 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE VALENTINE, a citizen of the United States, residing at Monticello, in the county of Piatt and State of Illinois, have invented a new and useful Drag-Saw, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to drag-saws, and it has for its object to provide a cheap, light, durable, and efficient machine, which will be run by the weight of the operator, who can stand straight and work the treadle back and forward, as desired.

A further object of my invention provides means for varying the height of the operating-lever to suit the height of various persons.

With these objects in view the said invention consists in certain details of construction and combination of parts, as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved drag-saw. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a horizontal transverse sectional view on the line *x x*, Fig. 2. Fig. 5 is a detail view illustrating the attachment of saw-handle.

Like letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the frame of the machine, which consists of horizontal converging beams B B, having legs C C at their rear ends, legs D D being attached to the legs C and extending or converging downward, and secured to the uprights E, which connect the upper ends of legs C to the front ends of the beams B. The rear ends of the said beams are secured to a cross-bar, F, which is attached to the legs C, so that the frame will be constructed in a strong and convenient manner.

G designates a platform-treadle, having a bar, H, secured to the under side thereof, said bar being journaled in the beams B, so as to allow the free oscillating movement of the treadle. The said treadle is formed in two parts, *g g*, and is provided with foot or treadle boards I, the front ends of each part *g* being

attached to connecting-rods or pitmen J, secured at their upper ends within slots or passages of an oscillating frame, K. The connecting-rods or pitmen J are provided with a series of openings, *a*, through any one of which a rod or bolt, L, may be passed, so as to connect with a similar transverse passage, *e*, in the said frame. By means of this construction the connecting-rods may be adjusted farther upward or downward, for the purpose herein- after explained.

At the rear end of the frame K is attached a bar, M, provided with handles *m* at each end, a connecting-rod, N, being secured to the outer end of the frame by means of a bolt, *n*, which also serves as a pivot for the said frame in its oscillating movements. Brace rods or bars O connect the frame K with the connecting-rod N, and serve to hold the latter at the proper angle of inclination.

Q designates the saw, which is constructed of any suitable size or shape, the handle P of said saw being slotted at its rear end, as at *p*, to embrace the lower end of the connecting-rod N, which is provided with pins *q* on each side, engaging with vertical recesses *r* in the slotted end of the saw-handle. This construction affords means for readily detaching the saw-handle from the connecting-rod by simply lifting or raising the handle out of engagement with the pins *q*, and then drawing the handle outward, when the saw can be sharpened or repaired, or a new one inserted in its place, as desired.

The operation of my invention can be readily understood from the foregoing description, taken in connection with the annexed drawings. The pitmen J may be adjusted to suit the size of the operator, in order that the handles *m* may be in a convenient position for operation. The operator stands upon the platform-treadle G, and by his weight, and also by moving the treadle up and down, the frame K is caused to oscillate so as to move the connecting-rod N with the saw backward and forward. He also grasps the handle *m* of the frame with his hands, so as to steady his position and give force to the movements of the frame. As will be seen, the connecting-rod carrying the saw moves backward in the space

between the two extended parts *g* of the treadle, and in its forward movement causes the saw to travel over the log in a slightly-inclined line.

5 My machine is simple and durable in its construction, and is more readily operated than any one of its class. It is run by the weight of the operator upon the treadle, in connection with the handles of the frame K,
10 said handles steadying the position of the operator, and also arranged to give additional force to the movements of the saw. By changing the pivot or fulcrum of the treadle it can be adapted to the weight of the operator, and
15 by adjusting the pitman vertically the handles *m* may be arranged to suit the height of the operator.

In my machine the operator can stand straight while working it, and does not have to climb
20 up and down from a seat, as in most cases where the weight of the operator works the saw. In most machines of this class the end of the saw rests upon the log, so as to throw the operator in a different position for the various sizes of
25 logs, while my machine works independent of the log, the size of which does not affect the efficient operation of the saw. Other advantages are apparent; but they need not be recited here.

30 Various modifications may be resorted to in the construction of the foregoing without departing from the spirit or scope of my invention.

Having described my invention, I claim—

1. In a drag-saw, the frame comprising converging beams B, converging legs C, legs D, attached to said legs C and converging downward, uprights E, connecting the legs C D to the beams B, in combination with the treadle G, oscillating frame K, saw-handle P, and connecting-rod N, as set forth. 35 40

2. In a drag-saw, the treadle, formed in two parts, *g*, in combination with an oscillating frame, K, above the treadle, a connecting-rod attached to one end of said frame and provided with a detachable saw-handle, and a handle, M, at the other end of the frame, and pitmen connecting the oscillating frame and treadle, as and for the purpose set forth. 45

3. In a drag-saw, the combination, with saw and saw-handle, a connecting-rod, N, oscillating frame K, comprising a series of bars connected together, a handle, M, at rear of said frame, brace-bars O, connecting the frame with the rod N, a treadle formed in two parts, *g*, between which the saw-handle works, and pitmen connecting the frame and treadle, arranged and operating for the purpose set forth. 50 55

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses. 60

GEORGE VALENTINE.

Witnesses:

ROBERT MORRIS LOWRY,
FRANK PITTMAN.