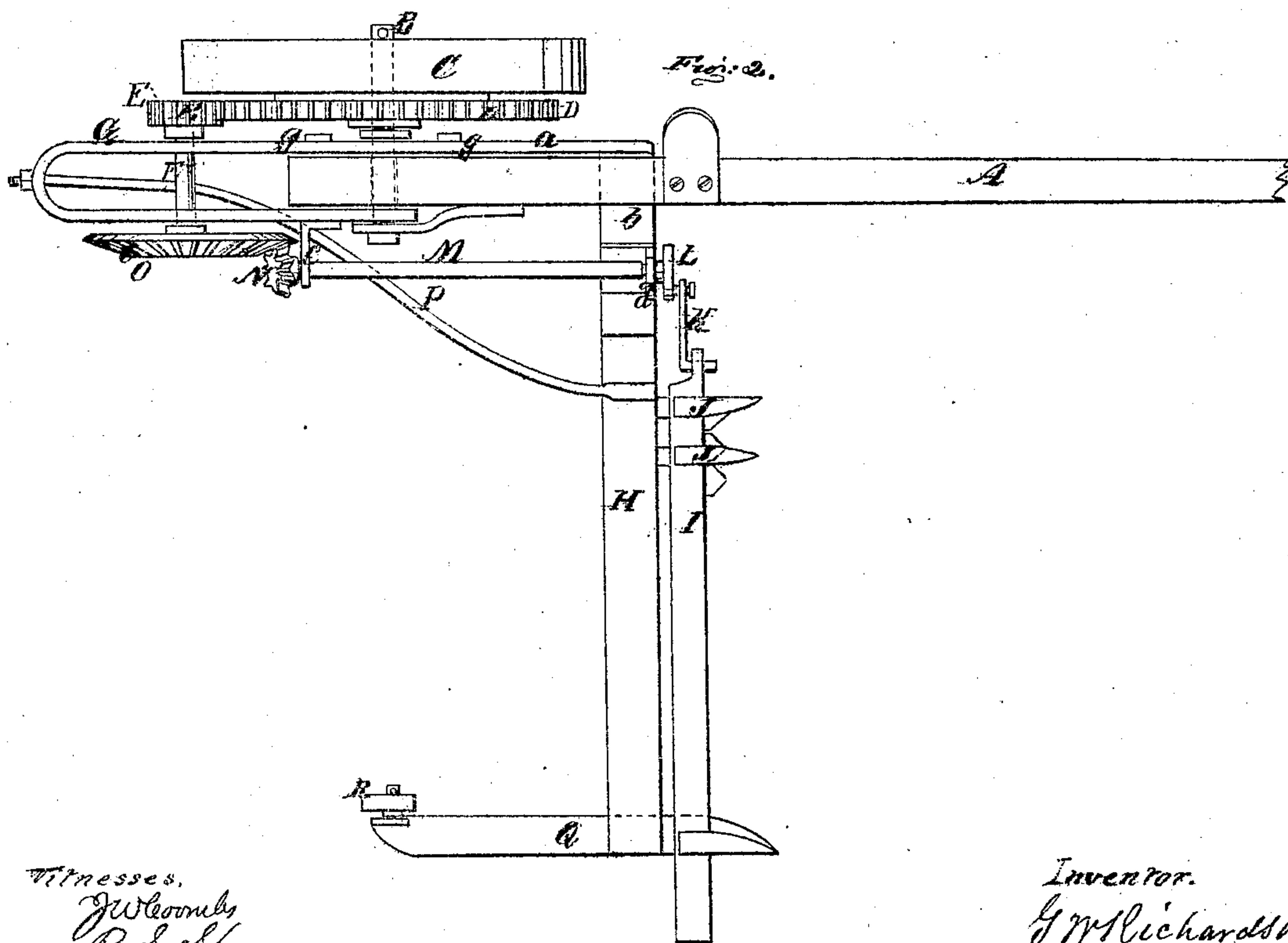
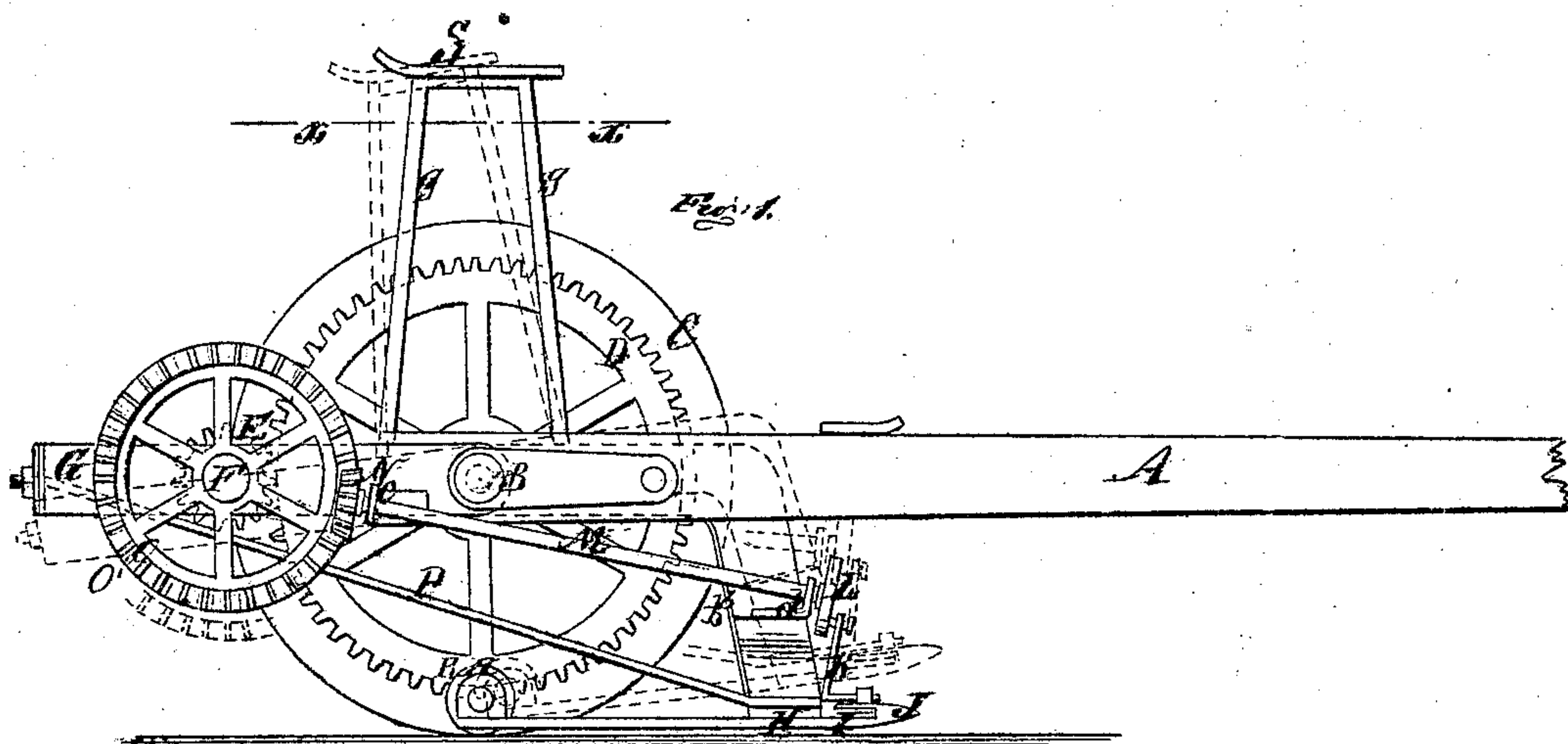


# G. W. Richardson, Mower.

N<sup>o</sup> 1,665  
32,669.

Patented June 25, 1861.



Witnesses,  
J. W. Coombs,  
R. S. Spencer

Inventor,  
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Attorneys

# UNITED STATES PATENT OFFICE.

GEORGE W. RICHARDSON, OF GRAYVILLE, ILLINOIS, ASSIGNOR TO HIMSELF  
AND ROBERT GLOVER, OF SAME PLACE.

## IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **32,669**, dated June 25, 1861.

*To all whom it may concern:*

Be it known that I, GEORGE W. RICHARDSON, of Grayville, in the county of White and State of Illinois, have invented a new and Improved Grain and Grass Harvesting Machine, more especially designed for a grass-harvester; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a plan or top sectional view of my invention, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a simple and efficient arrangement of parts, as hereinafter described, to render the draft of the machine as light as possible, and at the same time admit of a very ready raising and lowering of the cutting device.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the draft-pole of the machine, which is fitted loosely at its back end on the axle B of the driving-wheel C. To the inner side of the wheel C there is attached a toothed wheel, D, into which a pinion, E, gears, said pinion being on a shaft, F, which passes transversely through a bracket-frame, G. The frame G is constructed of a metal bar, bent in loop form at its back part, as shown clearly in Fig. 2, and having its left arm *a* bent downward and underneath the draft-pole, forming a shoulder, *b*, said arm then extending still farther and obliquely downward, and having a finger-bar, H, attached at right angles to its lower end. The sickle I is of the usual reciprocating kind, and works in the fingers J of bar H. The sickle is driven by a pitman, K, from a crank-pulley, L, the latter being on the front end of

a shaft, M, the back end of which has a bevel-pinion, N, on it, that gears into a bevel-wheel, O, on the shaft F. The bracket-frame G is hung loosely on the axle B, and the bearings *c d* of the shaft M are attached to said frame. The finger-bar H is braced from the frame G by a rod, P, and at the outer or grain end of the finger-bar there is attached at right angles a bar, Q, to the back end of which the grain-wheel R is placed, said wheel R having its axis in line with the axis of the driving-wheel C.

To the arm *a* of the bracket-frame G up-rights *g g* are attached, on the upper part of which is secured the driver's seat S, said seat being about over the axle B of the driving-wheel C. By this arrangement the machine is nearly balanced on the axle B, so that as the machine is drawn along, the driver, by slightly exerting himself in a backward direction, with a foot braced against the pole A, will cause the finger-bar to rise, as shown in red in Fig. 1, and in backing the machine the finger-bar will rise automatically. Thus the finger-bar may be adjusted—that is to say, raised or lowered—without any difficulty whatever, while an extremely simple device is obtained, and the driving-gear of the sickle not at all affected by the raising and lowering of the sickle.

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

The arrangement and combination of the bracket-frame G, draft-pole A, and driver's seat S with the gearing D E O N and shaft M, substantially as and for the purpose herein set forth.

GEORGE W. RICHARDSON.

Witnesses:

N. C. BURNS,  
C. R. HALL.