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— JAMES MARSHALL'S —

— IMPROVEMENT IN HORSE POWER —

No. 119,279.

Patented Sep. 26, 1871.

Fig. 1.

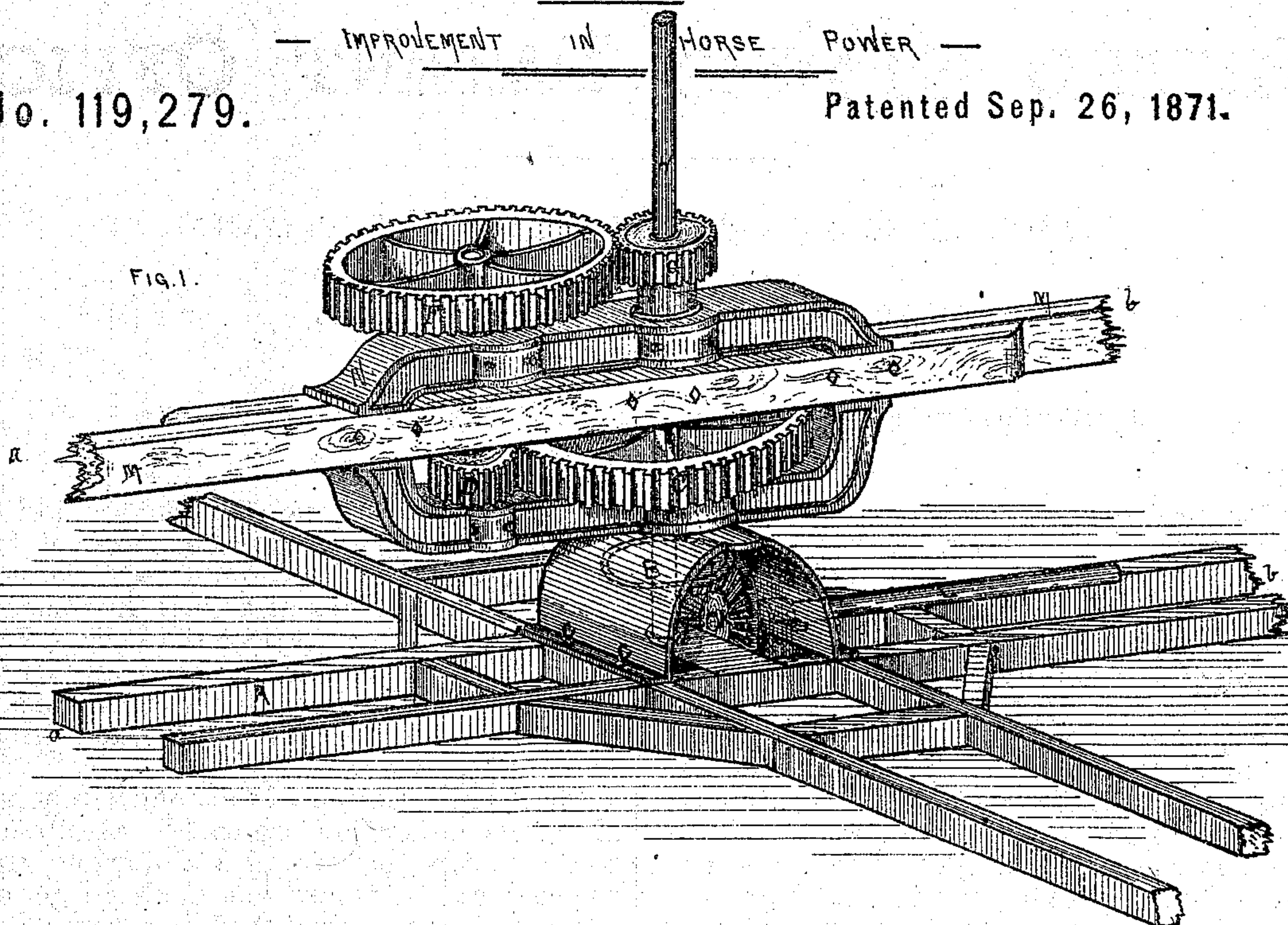
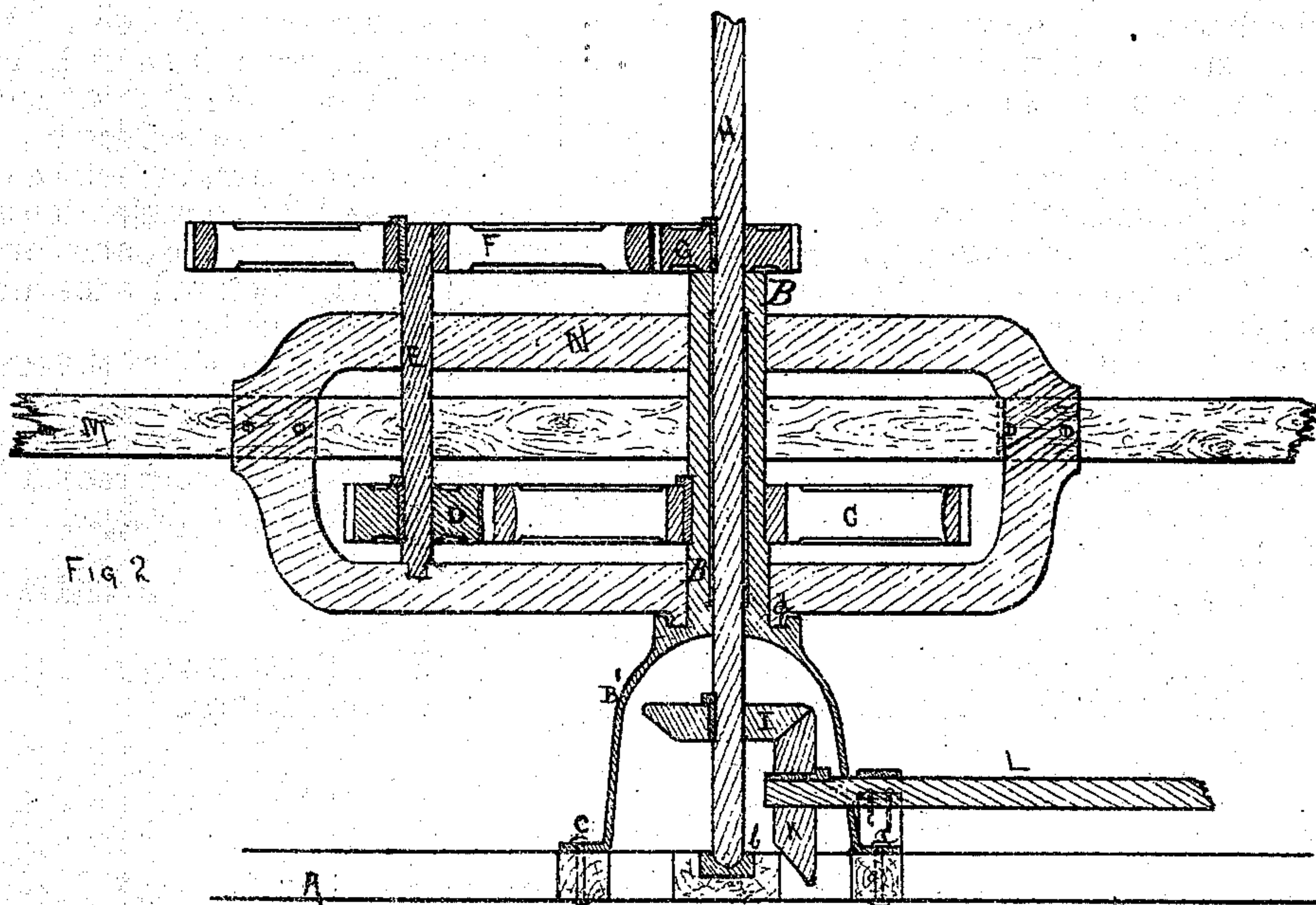


Fig. 2.



Witnesses

H. N. Perkins
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UNITED STATES PATENT OFFICE.

JAMES MARSHALL, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. 119,279, dated September 26, 1871.

To all whom it may concern:

Be it known that I, JAMES MARSHALL, of the city of New Orleans and State of Louisiana, have invented an Improved Horse-Power, of which the following is a full, clear, and exact description, when taken in connection with the drawing annexed, to which reference must be made as constituting a part thereof.

My improvement relates to horse-powers; and it consists in a peculiar construction and arrangement of parts, all of which will be more fully described in the annexed specification, reference being had to the accompanying drawing.

In the drawing like letters refer to like parts.

Figure 1 is a perspective view of my improvement complete and ready for use, with the exception of the ends of the levers and the driving-shafts, by which power is transmitted. Fig. 2 is a vertical cross-section of the same.

In the drawing, A represents a substantial bed-frame, constructed of timber in any desirable form or manner; or it may be secured to the floor of a building. An upright hollow column, B, having an enlarged saddle-base, B', is secured to the bed-frame A by means of bolts *c c*, and furnishes a bearing, *d*, for the driving-gear. To this hollow column B is firmly keyed the large spur-wheel C, around which the pinion D revolves while simultaneously revolving upon its own axis, thereby imparting motion to the stud-shaft E, which is stepped in the casting N at its lower end and journaled therein at its upper end. Upon the upper extremity of shaft E is keyed the spur-wheel F, gearing into pinion G, by which motion is communicated to the vertical driving-shaft H. This shaft has its bearings in the step *b* on the bed-frame A, and passes through the hollow column B. On shaft H is keyed a bevel-wheel, I,

meshing into the bevel K upon the horizontal shaft L, which is carried under the track to any desired place, and from a pulley at its outer end motion may be communicated to any machinery to be driven. The vertical shaft H is furthermore provided, at or near its upper extremity, with a pulley or gearing for driving machinery such as is used for ginning cotton, grinding, thrashing, sawing, &c.

The great advantages of my improvement over all others hitherto in use will be readily understood, as it is very strong and durable, as well as compact. It is also not liable to get out of order, and can be furnished at a very small expense.

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

1. The combination, in a horse-power, of the large stationary gear-wheel C upon the column B with the pinion D, shaft E, gear-wheel F, pinion G, and shaft H, all arranged substantially as and for the purpose set forth.

2. The fixed upright hollow column B having saddle-base B', in combination with the shaft H, gear-wheel C, frame N, and levers M M, all constructed and operated substantially as and for the purpose specified.

3. The arrangement of the column B, frame N, gear-wheel C, pinion D, shaft E, gear-wheel F, pinion G, shaft H, bevel-wheels I K, and horizontal shaft L, all constructed and arranged for operation as shown and described, for the purposes set forth.

JAMES MARSHALL.

Witnesses:

L. I. OLMSTEAD,
H. N. JENKINS.