

S. S. AMMONS.

Improvement in Horse Powers.

No. 120,018.

Fig. 1.

Patented Oct. 17, 1871.

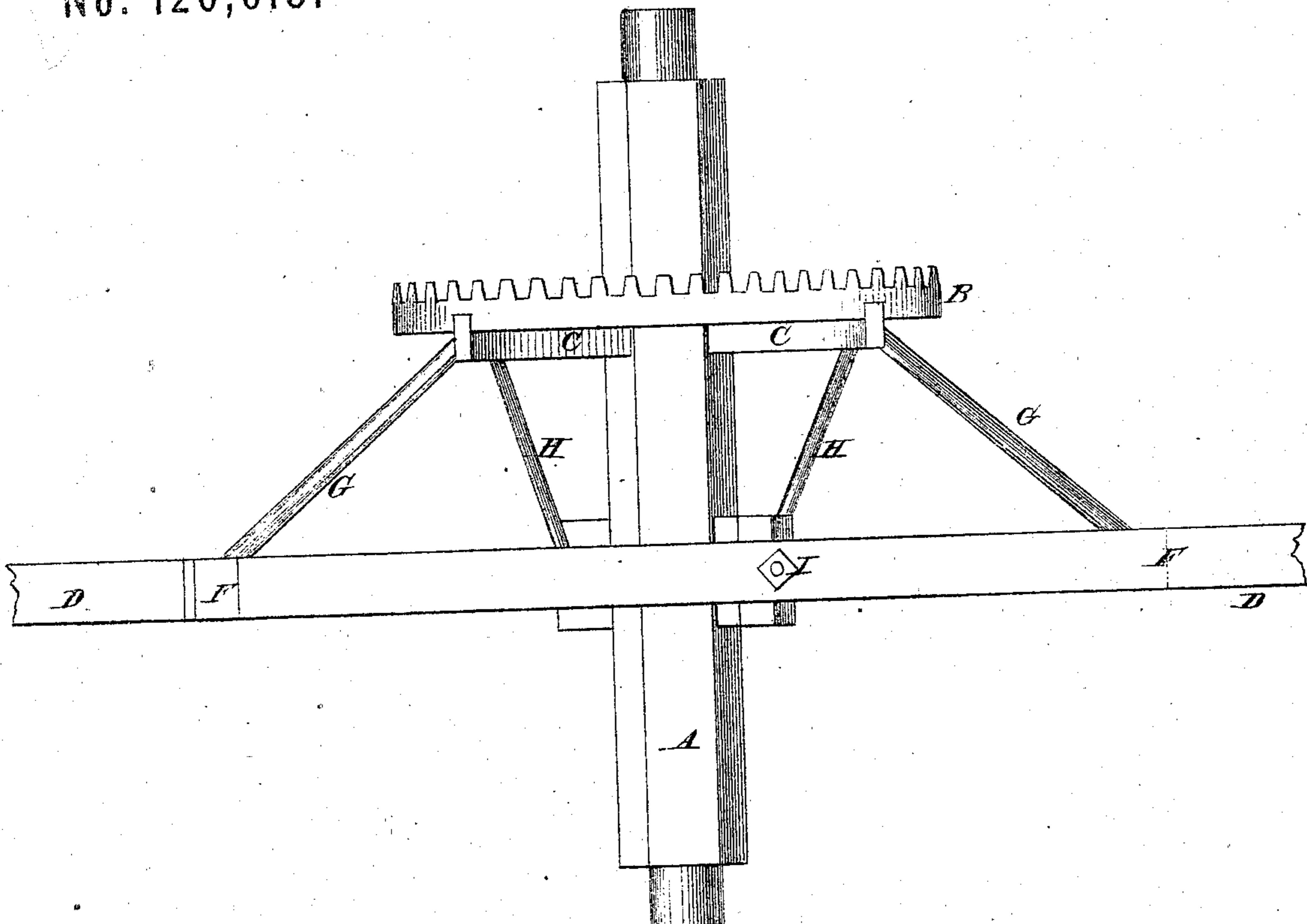
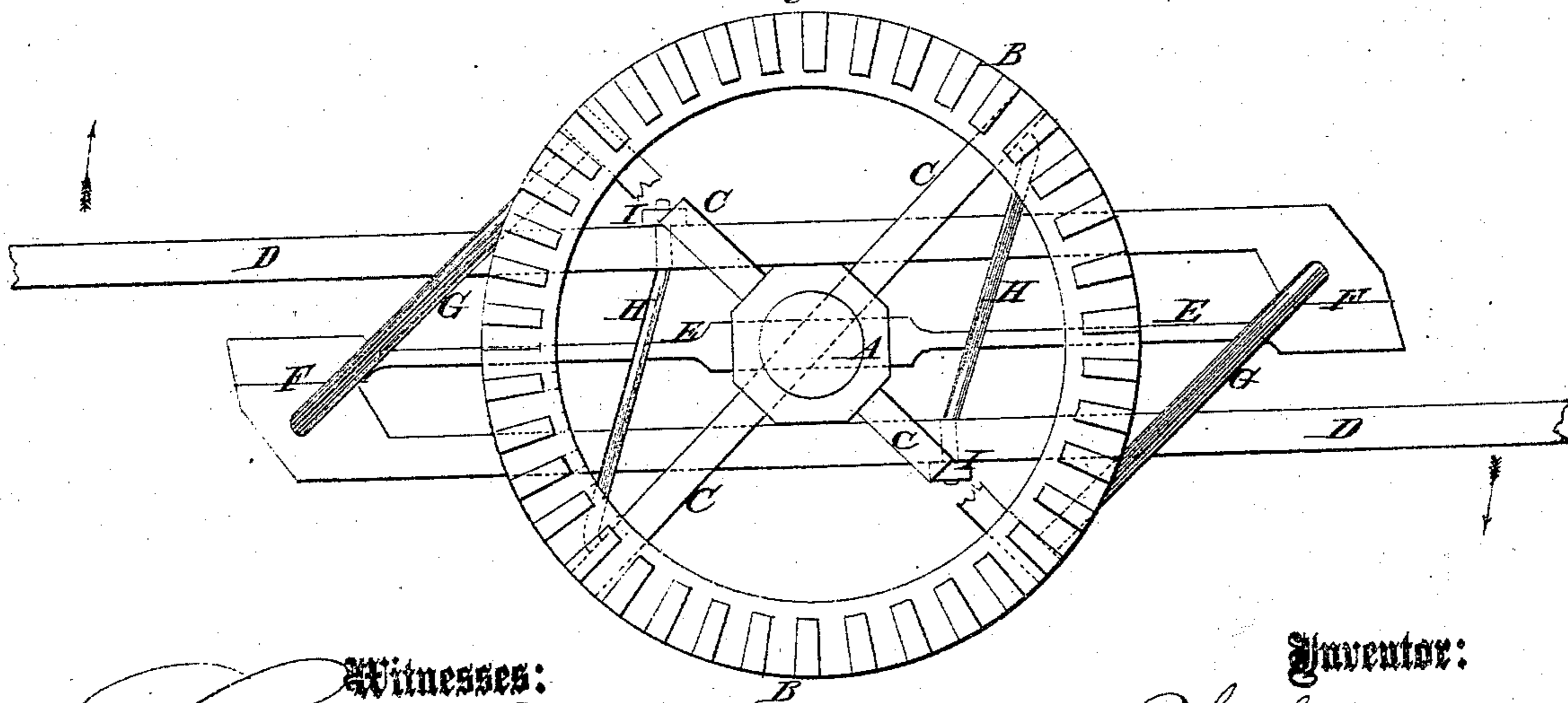


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

STARNS S. AMMONS, OF WINONA, MISSISSIPPI.

## IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. 120,018, dated October 17, 1871.

*To all whom it may concern:*

Be it known that I, STARNS S. AMMONS, of Winona, in the county of Montgomery and State of Mississippi, have invented a new and useful Improvement in Horse-Powers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

The object of this invention is to furnish an improved apparatus for the application of horse or mule-power for driving machinery, as, for instance, ginning cotton, thrashing grain, &c.; and it consists in the construction, combination, and arrangement of parts, as hereinafter more fully described.

In the accompanying drawing, Figure 1 is an elevation. Fig. 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

A is the driving-shaft, which is upright, supported at top and bottom ends by suitable framework, so as to be revolved in proper boxes. B is the driving-wheel, which is connected with the shaft by means of four, more or less, arms, C. Motion is taken from this wheel by means of a horizontal shaft with a pinion-wheel on its end, which meshes into cogs of the wheel. This driving-shaft and wheel are revolved by means of the two levers D D, to the outer ends of which the horses are attached. E is a spring bar, which passes through the shaft, the ends of which are attached by bolts to the inner ends of the two levers, as seen at F F. G G are rods, which extend from the connections F F to the under side of the driving-wheel at an angle of about forty-five degrees. The arms C project from the under side of the wheel, forming angles or corners, into which the ends of the rods are fitted. H H are two rods, which pass through the levers at the points I I, with screw-nuts on their ends. The upper ends of these rods extend up to, and are securely attached to, the rim of

the driving-wheel, standing at an angle with the wheel of thirty degrees, more or less. The screw-nuts on the ends of their rods are the fulcrums of the levers D D.

The power to the levers being applied as indicated by the arrows, it will be seen that the rods H H are draft-rods, and the rods G G are push-rods. The spring-bar E equalizes the power applied in this manner to the wheel. By this arrangement it will be seen that the power is applied directly to the wheel instead of to the shaft in the usual manner. The consequence is the apparatus is rendered much more strong and durable than it would otherwise be, and the wring and twist on the shaft is avoided, as well as the springing of the arms of the wheel. In applying the power to the shaft in the ordinary way a large percentage of the force applied is absorbed in keeping the arms sprung to the required tension to convey the necessary power from the wheel. By my arrangement this difficulty is obviated and a large amount of power is saved. The advantages of this arrangement and combination of parts are many, as has been found by thorough and repeated tests.

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

1. The arrangement of the levers D D, spring-bar E, rods G G and H H, in combination with the shaft A and wheel B, substantially as and for the purposes described.

2. The draft-rods H H and push-rods G G for applying horse-power to driving-wheels, substantially as set forth.

3. The spring-bar E, in combination with the levers of a horse-power, substantially as described.

The above specification of my invention signed by me this 1st day of August, 1871.

STARNS S. AMMONS.

Witnesses:

GEORGE W. MABEE,  
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(67)