

J. S. SCHOFIELD.
Horse-Powers.

No. 153,381.

Patented July 21, 1874.

Fig 1

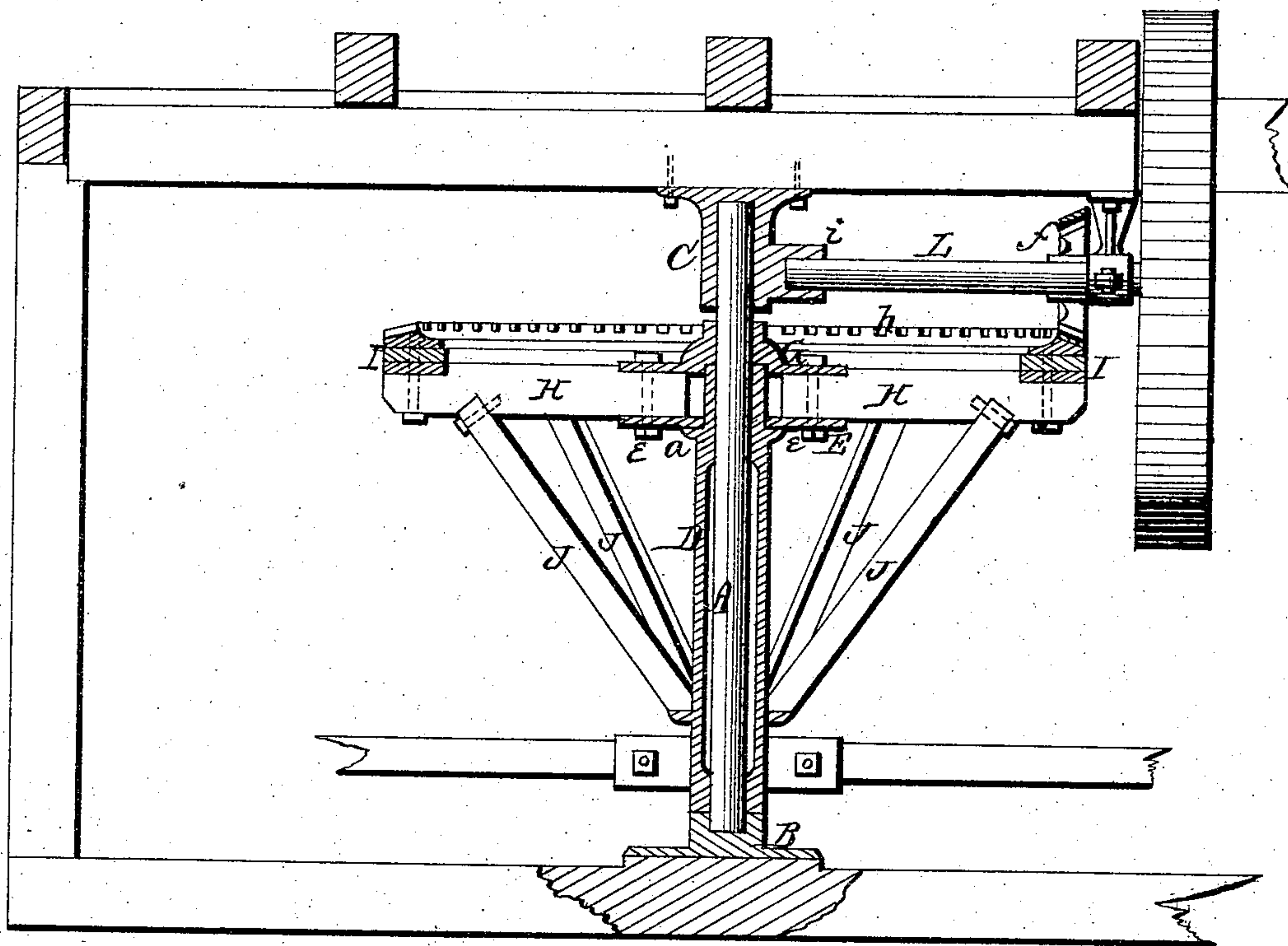
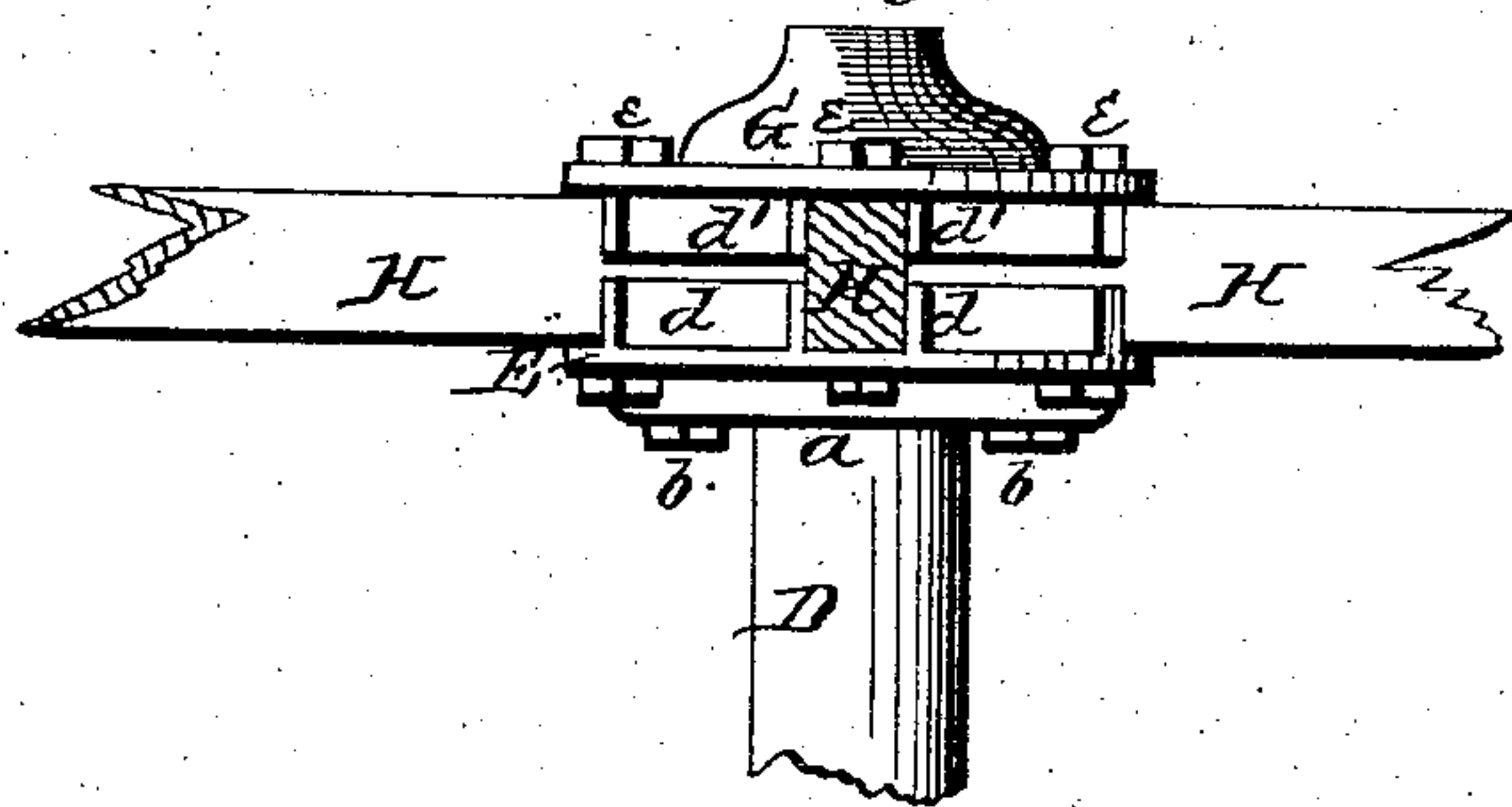


Fig 2



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN S. SCHOFIELD, OF MACON, GEORGIA.

IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. **153,381**, dated July 21, 1874; application filed July 1, 1874.

To all whom it may concern:

Be it known that I, JOHN S. SCHOFIELD, of Macon, in the county of Bibb and in the State of Georgia, have invented certain new and useful Improvements in Horse-Powers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

My invention is intended as an improvement upon the horse-powers for which Letters Patent No. 123,774 were granted to Luther R. Faught, February 20, 1872; and the nature of my invention consists in the construction of the devices whereby the large driving-wheel of the horse-power is secured to the hollow upright post or column. It also consists in constructing the bearings or supports for the upper end of the central support and for the inner end of the horizontal shaft of one piece, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of a horse-power embodying my invention, and Fig. 2 is a side view of a part thereof, showing the connection between the wheel and hollow upright column.

A represents the central support, which may be a solid post or tubular column, and is supported by its lower end in a socket in the step-plate B, constructed in such a manner as to keep the post from turning. The upper end of the post A is held in a casting, C, attached to the timbers of the floor above, so that the post A will form a support for the same. Around the central post A is placed a hollow shaft or column, D, which rests upon the step-plate B, the adjoining surfaces being made flat and chilled, so that the hollow shaft will revolve on the step-plate, and there being no liability of dirt getting in between the surfaces to wear them. The upper end of the hollow shaft D is made polygonal-shaped on

its outer circumference, and immediately below this part is formed a circumferential collar, *a*. E represents a plate placed over the end of the hollow shaft D and resting on the collar *a*, to which it is secured by bolts *b* passing through the collar and through ears projecting from the collar. On the upper surface of the plate E are situated flanges *d d*, arranged in pairs to form in connection with corresponding flanges *d' d'* on the under side of the top plate G, mortises or guides for the insertion of the inner ends of the arms H H of the wheel. The plate G is also made to fit the polygonal-shaped upper end of the hollow shaft D, and covers said end thereof. The plates E and G are fastened together by means of bolts *e e*, which also pass through the arms H H, and thus secure the whole together. The wheel, of which the arms H form a part, is constructed in the usual manner, with rim I and braces J J, and a cogged ring, *h*, attached to, or forming part of, the rim. The cogged ring *h* gears with a pinion, *f*, upon the horizontal shaft L. The bearing *i* for the inner end of this shaft L is formed in the casting C, which will insure said shaft being always in line.

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

1. The flanged plates E and G, in combination with the hollow shaft or column D, having collar *a* and made polygonal-shaped above said collar, the arms H H, and the bolts *b* and *e*, all substantially as and for the purposes herein set forth.

2. In a horse-power, the casting C, forming the upper rest for the central support A, having the bearing *i* for the inner end of the horizontal shaft L, formed therewith, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 1st day of July, 1874.

J. S. SCHOFIELD.

Witnesses:

W. T. JOHNSON,
J. M. MASON.