J. HOMER.

CAR-BRAKE,

No. 174,529. Patented March 7, 1876.

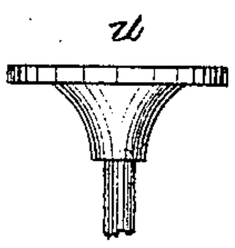


Fig. 1

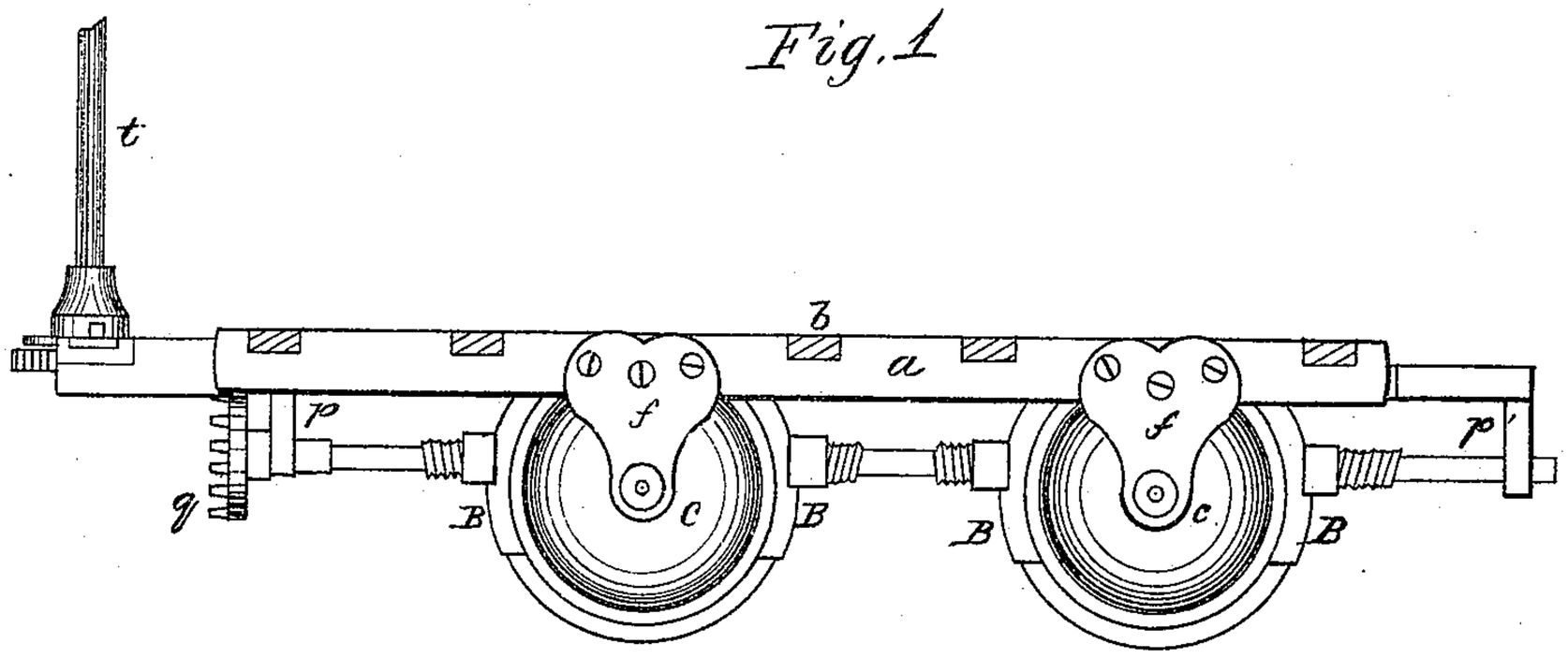


Fig. 2

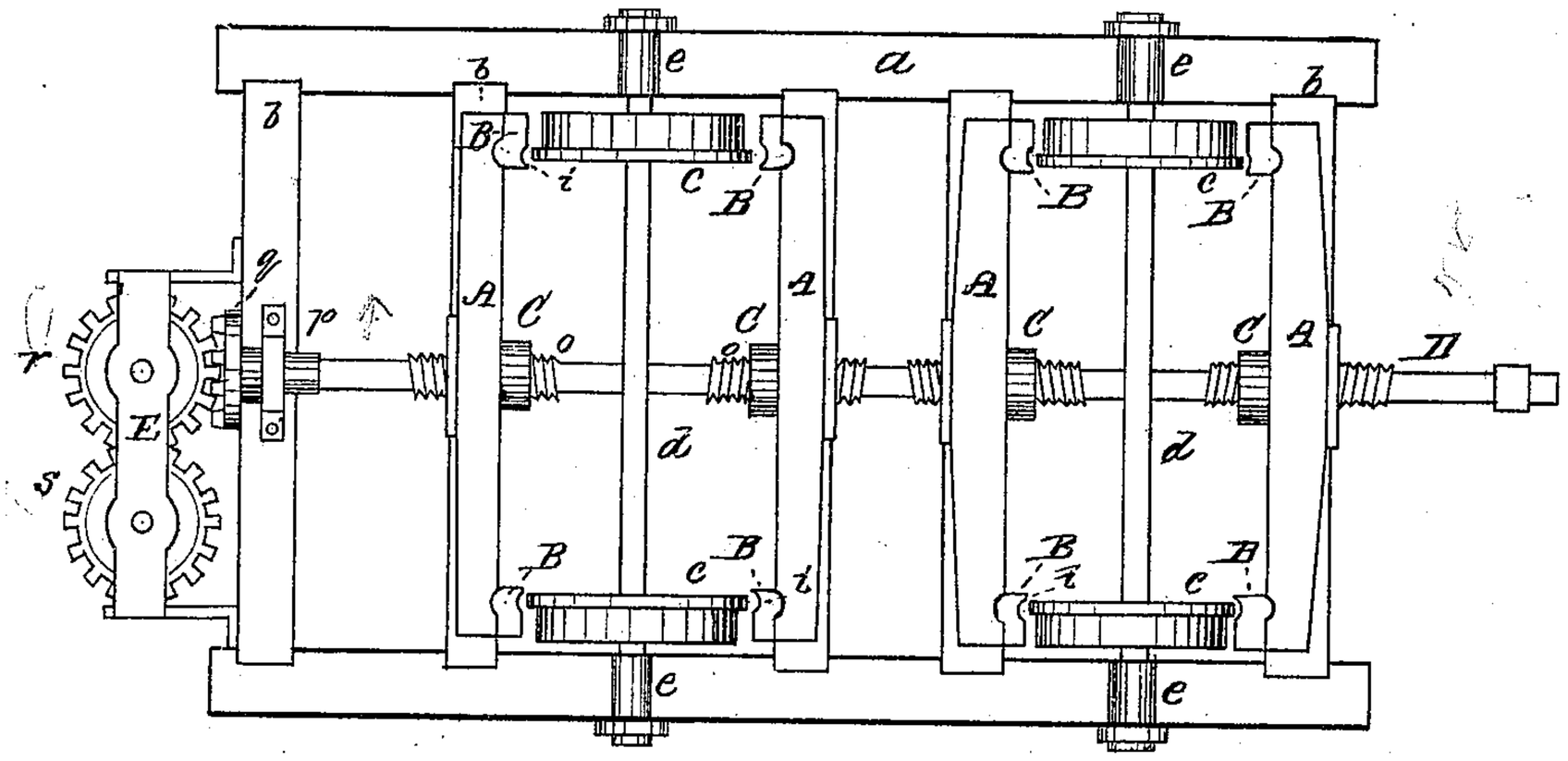


Fig. 3.

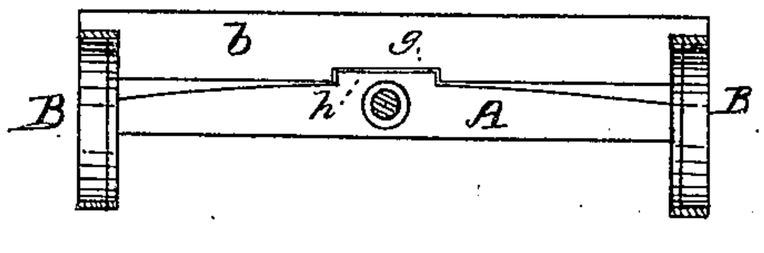
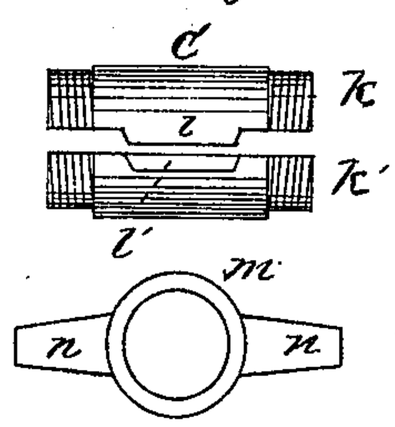


Fig. 4



WITNESSES:

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JOHN HOMER, OF DUNDEE LAKE, NEW JERSEY.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **174,529**, dated March 7, 1876; application filed August 2, 1875.

To all whom it may concern:

Be it known that I, JOHN HOMER, of Dundee Lake, in the county of Bergen and State of New Jersey, have invented a new and valuable Improvement in Car-Brake; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my invention. Fig. 2 is a plan view of the under side. Fig. 3 is an end view of one of the cross-pieces composing the frame with the bar and sectional box. Fig. 4 is a detached view of the box and clamping-sleeve on an enlarged scale.

This invention has relation to that class of car-brakes operated by a right and left hand screw-rod passing through sectional boxes. The objection heretofore experienced in this class of invention, wherein a sectional box was employed, has been the displacement of the sections, caused by the continued strain thereon of the screw-rod in operating the brake. To obtain a perfect operating-brake of this character the interior screw-threads of the respective sections must necessarily meet each other and perfectly register, and if any displacement of either section should occur from any cause it would render the entire brake wholly inoperative. Great difficulty has also been experienced in the proper adjustment of the sections, and retaining them in position while being permanently secured together so that the screw-threads would register in order to insure the perfect operation of the screw-rod. In accomplishing this object it has required a nicety of adjustment that has rendered it exceedingly difficult to retain the sections, after being placed together upon the screw-rod, in their proper relative position while being secured together by riveting.

This nicety of adjustment which has been heretofore required, as well as the danger of the displacement of the sections by the continued strain thereon of the operating screw-rod, are entirely removed by my invention, which consists, in connection with a right and left hand screw-rod for operating the brakes, of a sectional box formed with lips or flanges which nicely fit in corresponding recesses, the ends of each section having screw-threads thereon, over which are screwed clamping plates or sleeves for securely holding the box together. By forming the boxes with lips and recesses there is no particularity or nicety required in placing them together to insure the screw-threads properly registering, and the clamping-plates, together with the lips and recesses, prevent any possibility of displacement of the sections, and thereby producing a more perfectly-operating car-brake.

In the drawings, *a* represents the side pieces, and *b* the cross pieces, composing the frame, upon the inner sides of which are wheels *c*, of the usual form and construction, their shafts *d* being supported in boxes *e* secured to the outer sides of the frame by plates *f*. The cross-pieces *b* are cut away upon their under side, forming guides *g* for the bars A, which are also formed with a central shoulder, *h*. At each end of these bars are secured friction-blocks B, with grooves *i*, which fit over the inner flanges of the wheels, so that when the blocks are brought up against the periphery of the wheel they will press upon the entire width, making the blocks more effective to their purpose. Through the center of the bars are formed annular openings to receive boxes C, composed of two sections *k k'*, section *k* having lips or flanges *l* fitting into corresponding recesses *l'* in section *k'*, the ends of each section having screw-threads thereon to receive clamping-sleeves *m*, with flanges *n*, by which they may be secured to the sides of the bars after being screwed upon the ends of the box, to retain the sections together. These several boxes have interior screw-threads to correspond with the right and left screw-threads *o* upon the rod D, which passes through said boxes, the ends of the rod being supported in suitable boxes *p p'* in the end cross-pieces *b* of the frame, and has secured to one end a crown-wheel, Q, by means of which the rod is operated through the medium of the gear-wheels *r s*, the latter having secured thereto a vertical rod, *t*, with hand-wheel *u*, by which the brakes may be controlled. These wheels *r s* are supported in a suitable frame, E.

Boxes of this form may be easily manufactured, as they can be cast with the screw-thread, and, when fitted, only requiring a tap worked through it to make it perfect.

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

The bars A, carrying friction-blocks B, and the boxes C, composed of sections *k k'*, with flanges *l*, and recesses *l'*, and the clamping-sleeves *m*, in combination with the operating right and left hand screw-rod D, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JOHN HOMER.

Witnesses:
BENJA. D. DOREMUS,
JOHN SHAW.