

No. 637,768.

Patented Nov. 28, 1899.

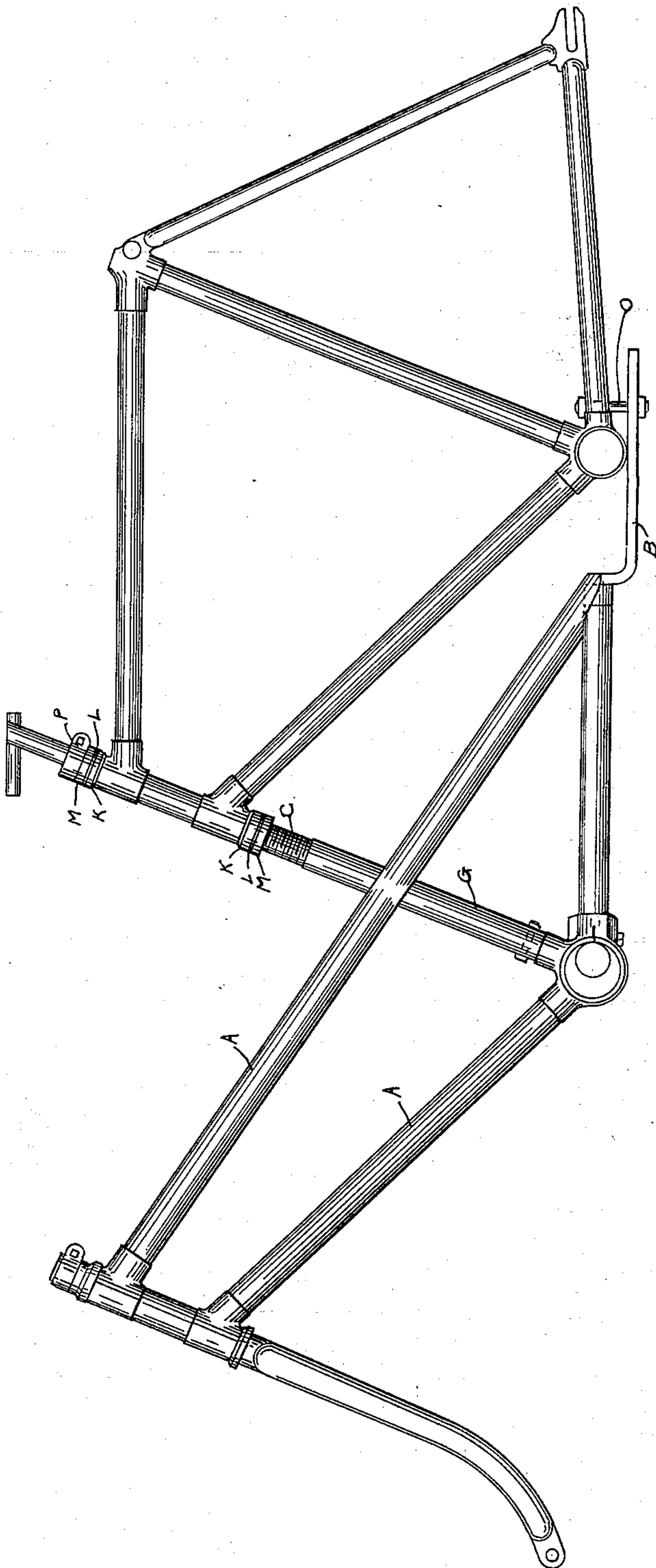
T. J. H. DERMODY.
TANDEM ATTACHMENT FOR BICYCLES.

(Application filed Mar. 24, 1899.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1



WITNESSES,
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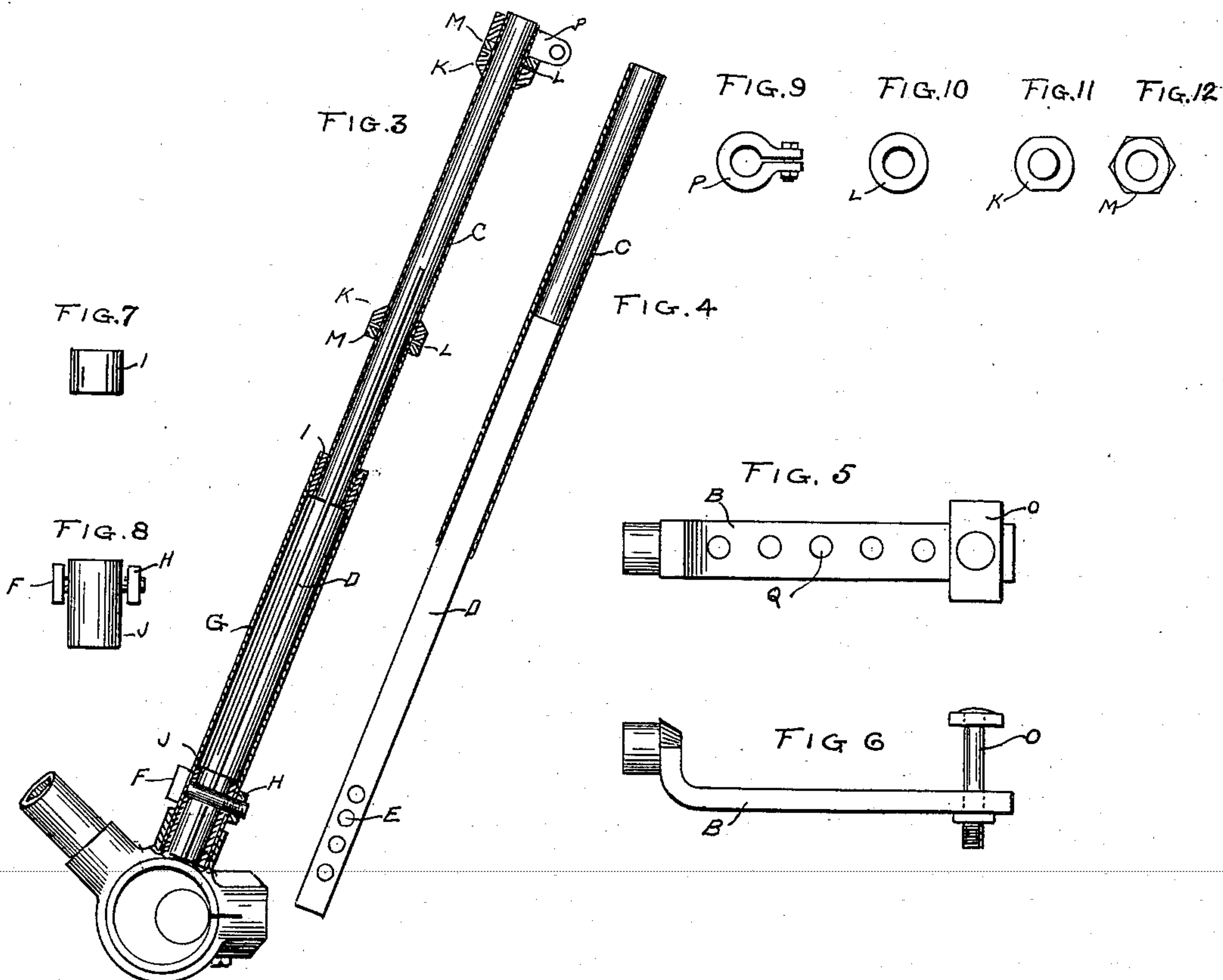
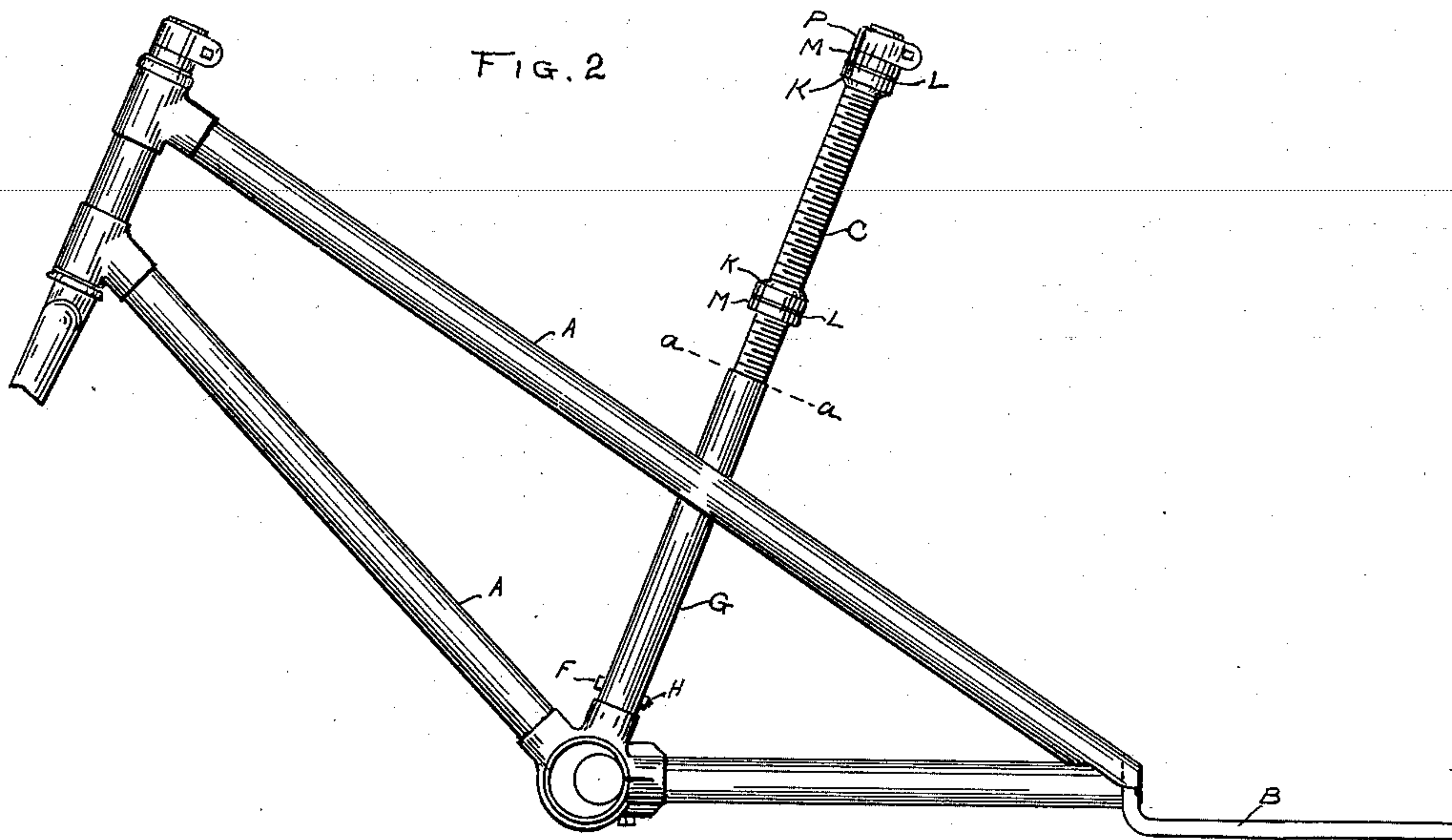
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THOMAS J. H. DERMODY, OF CHICAGO, ILLINOIS.

TANDEM ATTACHMENT FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 637,768, dated November 28, 1899.

Application filed March 24, 1899. Serial No. 710,401. (No model.)

To all whom it may concern:

Be it known that I, THOMAS JOSEPH HENRY DERMODY, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Tandem Attachment for Bicycles, of which the following is a specification.

My invention relates to the conversion of bicycles from a given carrying capacity to a higher carrying capacity.

My object is to provide a bicycle attachment having adjustable parts, allowing it to be applied to frames of usual construction and of varying heights and lengths.

In the accompanying drawings, which illustrate my invention in connection with a single-wheel frame for converting the same to a tandem frame, Figure 1 is a view in side elevation of the bicycle-frame provided with the attachment; Fig. 2, a view of the attachment detached; Fig. 3, a broken vertical section of the cross strut or brace and attendant parts of the attachment; Fig. 4, a sectional view of an adjustable upward extension of said brace; Figs. 5 and 6, respectively, plan and side views of the rear extension of said attachment adapted to be fixed to frames of varying length; and Figs. 7 to 12, inclusive, details of the parts combined in Fig. 3.

In the preferred construction the attachment comprises forwardly and upwardly inclined rigid tubular members A A, connected at their front ends by a suitably-disposed steering-head journal-bearing and at their rear ends by a substantially horizontally-disposed tubular bottom chord or member; a tubular strut or cross-brace G, formed integrally with or firmly secured to the members A A; a journal-box or hanger-shell at the junction of the cross-brace, the lower inclined member A, and the horizontally-disposed member mentioned; a rearward extension B at the junction of the horizontal member and the upper inclined member A, adapted to pass beneath the hanger of the bicycle-frame, to which the attachment is applied, and to be clampingly secured thereat; an upward extension of the brace G composed of tubing C and a bar D extending within the same and brazed thereto, which bar is provided toward its lower end with a series of perforations E for receiving a bolt F, secured by a nut H,

thus forming means for adjustably securing the tube C to the brace-tube G, within which the tube C extends, and internally-threaded adjustable cones K, washers L, and lock-nuts M for firmly securing the stem C within steering-heads of varying sizes.

Bushings I and J within the upper and lower ends, respectively, of the cross-brace tube G afford close-fitting guides for the tubular stem C and the bar D. These bushings may be brazed or otherwise rigidly secured to the interior of the tube or socket G.

The bolt F passes through a perforation in the tubing G and bushing J and through the proper perforation of the bar D to cause the front end of the bicycle-frame to be supported at the desired height. The cones K fit into the upper and lower cups or race members of the steering-head and are firmly clamped thereto.

In Fig. 1, P represents a clamp for securing the front seat-post shown to the upper end of the stem C. For this purpose the upper end of said stem may be split, if desired, in the usual manner, though it is not so shown. The rear handle-bars may be secured either to the front seat-post or to the upper chord or member of the bicycle-frame proper, as is well understood.

The extension-bar B, which should be brazed or otherwise fixedly secured to the meeting tubular parts with which it connects, is provided with a series of perforations Q for receiving a clamp O. The bar B passes beneath and affords a rest for the adjacent hanger-shell of the main frame. Where the rear lower forks of the bicycle-frame extend from the hanger-shell in their bifurcated form the bolt of the clamp passes between the forks and the clamping block or head, bridges the space between the forks, and bears upon the upper surfaces thereof. Where a different form of rear fork is used, however, the form of clamp employed will be varied to suit the new conditions.

It appears from the foregoing description that the cones K are adjustable on the stem C to accommodate varying lengths of steering-heads, that the stem C is adjustable in the combined brace and socket G to accommodate frames of varying heights, and that the clamp O is adjustable on the extension-

bar B to accommodate frames of varying lengths. The forms of the several parts may be variously modified without departure from my invention so long as these important features are retained.

It is understood, of course, that where the preferred conditions are present the stem of the front-wheel fork is adapted to fit either of the steering-heads shown, or, in other words, that the two steering-heads are alike.

What I claim as new, and desire to secure by Letters Patent, is—

1. A frame attachment of the character described, provided with an adjustable stem for attachment to the steering-head of a bicycle-frame, and with adjustable connecting means at its rear lower portion for attachment to the bicycle-frame adjacent to a hanger-shell, whereby the attachment may be applied to frames of varying height and length, substantially as and for the purpose set forth.

2. A frame attachment of the character described, provided with an adjustable stem adapted to pass through a steering-head of a bicycle-frame and supplied with adjustable means for engaging the upper and lower ends of said steering-head, and further provided with a rearward extension having adjustable means for connecting it with the frame adjacent to a hanger-shell, whereby the attachment is suited to bicycles of varying length of steering-head and of varying height and length of frames, substantially as and for the purpose set forth.

3. A frame attachment of the character described, comprising suitable rigid members supplied with a steering-head and a hanger-shell, means for securing the attachment to a bicycle-frame steering-head, a rearward extension affording a rest for the adjacent hanger-shell of the bicycle-frame, and means for securing said rearward extension to the bicycle-frame, substantially as and for the purpose set forth.

4. A frame attachment of the character described, comprising suitable rigid members supplied with a steering-head and a hanger-shell, means for securing the attachment to a bicycle-frame steering-head, a rearward extension affording a rest for the adjacent hanger-shell of the bicycle-frame, and means for clampingly securing said extension to the lower forks of the bicycle-frame in the rear of said hanger, substantially as and for the purpose set forth.

5. A frame attachment of the character described, comprising suitable rigid members supplied with a steering-head and a hanger-shell, means for securing the attachment to a bicycle-frame steering-head, a rearward extension affording a rest for the adjacent hanger-shell of the bicycle-frame, and an adjustable clamp connected with said extension for securing it to the bicycle-frame in the rear

of said hanger-shell, substantially as and for the purpose set forth.

6. A frame attachment of the character described, comprising suitable rigid members, provided with a steering-head and a hanger-shell, means for securing the rear end of the attachment to the lower portion of the bicycle-frame, a tubular socket, a tubular stem projecting upwardly therefrom and adjustably connected therewith, and means for securing said stem to the steering-head of the bicycle-frame, substantially as and for the purpose set forth.

7. A frame attachment of the character described, comprising suitable rigid members, provided with a steering-head and a hanger-shell, means for securing the rear end of the attachment to the lower portion of the bicycle-frame, a tubular socket, a tubular stem projecting upwardly therefrom and adjustably connected therewith, and adjustable cones on said stem for engaging the upper and lower cups of the steering-head of the bicycle-frame, substantially as and for the purpose set forth.

8. A frame attachment of the character described, comprising suitable rigid members, provided with a steering-head and a hanger-shell, means for securing the rear end of the attachment to the lower portion of the bicycle-frame, a tubular socket, a tubular stem projecting upwardly from said socket provided with a rigid bar extending downwardly from its lower end, perforations in said bar, and bolt connection between bar and socket, substantially as and for the purpose set forth.

9. A frame attachment of the character described, comprising suitable rigid members, provided with a steering-head and a hanger-shell, means for securing the rear end of the attachment to the lower portion of the bicycle-frame, a tubular socket, a tubular stem projecting upwardly from said socket provided with a rigid bar extending downwardly from its lower end, perforations in said bar, bolt connection between bar and socket, and internally-threaded cones on said stem for engaging the cups of the steering-head of the bicycle-frame, substantially as and for the purpose set forth.

10. An attachment of the nature described, comprising members A A, a suitable steering-head and hanger-shell, substantially horizontal bottom chord, a rearward extension B provided with clamping means, a tubular combined cross-brace and socket G, an adjustable stem C connected with said socket, and means for securing the stem to the steering-head of the bicycle-frame, substantially as and for the purpose set forth.

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Witnesses:

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