No. 694,567. Patented Mar. 4, 1902.

# J. R. MOORE.

## FRAME FOR VELOCIPEDES.

(Application filed Apr. 29, 1901.)

(No Model.)

Fig. 1.

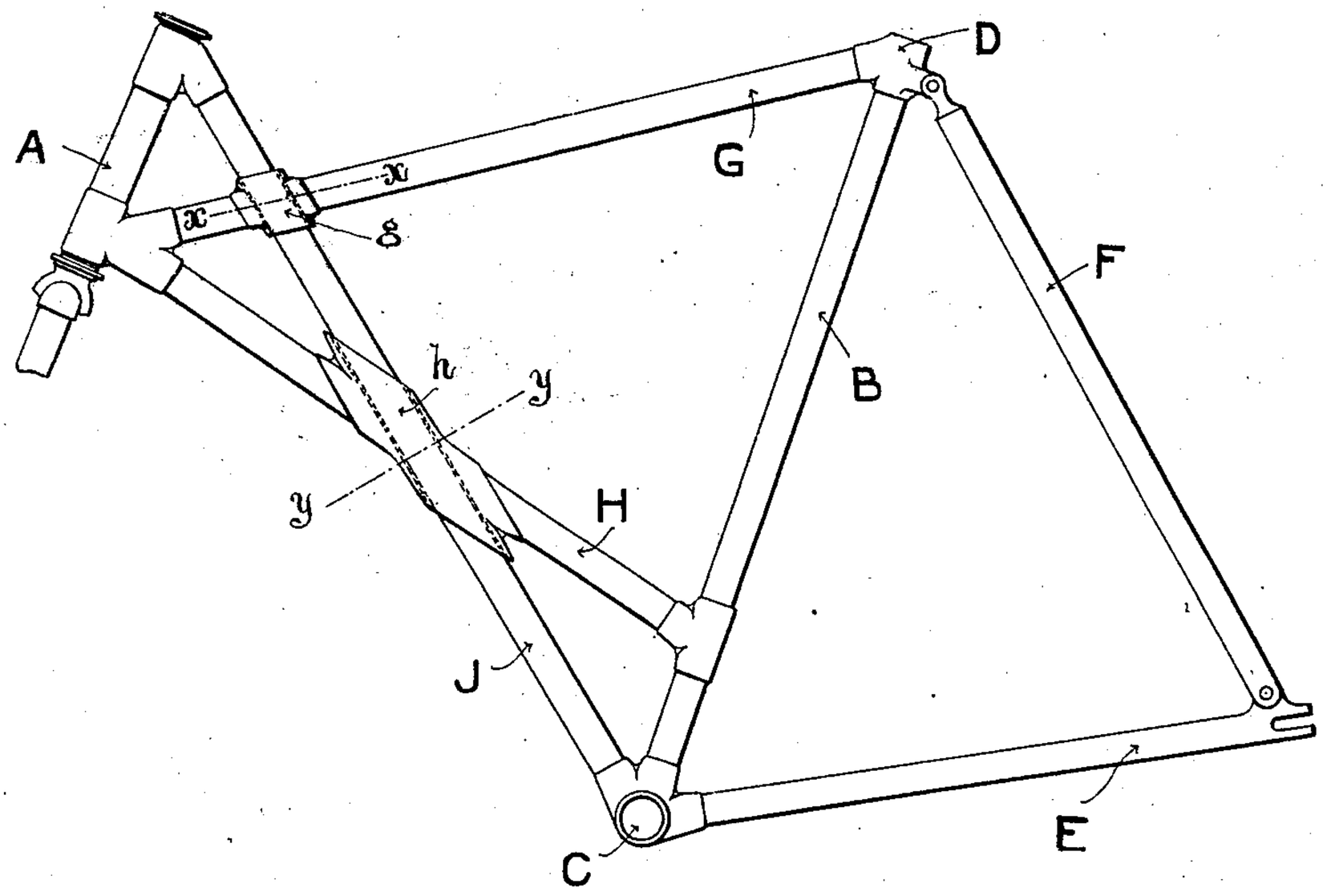



Fig. 2.

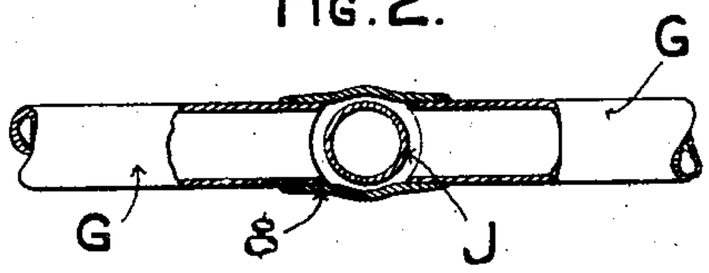
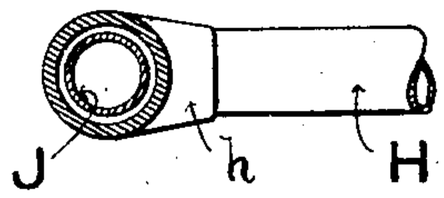



Fig. 3.




WITNESSES.

A. J. Knight. Broad.

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INVENTOR.

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# UNITED STATES PATENT OFFICE.

JAMES ROBERT MOORE, OF NEWCASTLE-UPON-TYNE, ENGLAND.

## FRAME FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 694,567, dated March 4, 1902.

Application filed April 29, 1901. Serial No. 58,065. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES ROBERT MOORE, engineer, a subject of the King of Great Britain, residing at 57 Forsyth road, Newcastle-upon-Tyne, in the county of Northumberland, England, have invented a new and useful Improvement in Frames for Velocipedes, (for which I have applied for Letters Patent in Great Britain, No. 1,587, bearing date the 23d of January, 1901,) of which the following is a full and complete specification.

This invention relates to the frames of velocipedes, particularly to those of that type known as "rear-driving safety-bicycles," and it consists in connecting the steering head or socket with the usual diagonally-arranged member extending from the pedal-crank-axle bracket to the seat-pillar bracket by three single tubular members arranged in such a manner that one of the said members crosses the other two, the arrangement being such that the said tubular members, although all in alinement, are not connected at their points of intersection, by which construction a certain amount of longitudinal elasticity is obtained without impairing the lateral stiffness of rigidity.

In the accompanying drawing, which illustrates, by way of example, one method of carrying this invention into effect, Figure 1 is a view in side elevation; and Figs. 2 and 3 are broken views, on an enlarged scale, in plan on lines *x x* and *y y*, respectively, showing the details of construction.

Similar letters refer to similar parts throughout the several views.

The steering head or socket A, the diagonal member B, carrying at its lower end the pedal-crank-axle bracket C and carrying at its upper end a socket D, adapted to receive the seat-pillar, the lower bottom fork E, and the upper back fork F are all of the usual construction and present no novel features. The lower end of the steering head or socket A is connected with the socket D at the upper end of the diagonal member B by a single tubular member G and with the said diagonal member B at a convenient distance from the pedal-crank-axle bracket C by a single tubular member H. The upper end of the steering head or socket A is connected with the pedal-crank-axle bracket C by means of a single tubular member J. In the tubular members G and H are formed sockets *g* and *h*, respectively, of such an internal diameter as will allow the tubular member J a free passage through the members G and H.

As an alternative construction sockets may be formed in the tubular member J to allow the tubular members G and H to pass freely through the said member.

The sockets may either be formed by putting a liner over the tubular member and then cutting it and expanding it or by cutting the tubular member in two and connecting it by means of a socket-piece, as illustrated in the accompanying drawing; but I do not limit myself to any particular construction of these sockets.

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

A frame for velocipedes, comprising a socket for the steering-head a diagonal member carrying the pedal-crank-axle bracket at its lower end and supporting the seat at its upper end, and three single tubular members connecting the socket of the steering-head with the diagonal member one of the said three members connecting the top of the socket of the steering-head with the lower end of the diagonal member, another connecting the bottom of the socket of the steering-head with the top end of the diagonal member and the third connecting the lower end of the socket of the steering-head with the lower end of the diagonal member, the two members connecting the lower end of the socket of the steering-head with the diagonal member being provided with sockets through which the member running between the top of the socket of the steering-head and the lower end of the diagonal member passes so that it has a certain amount of free longitudinal movement with respect to the other two members, as and for the purpose set forth.

JAMES ROBERT MOORE.

Witnesses:
A. KNIGHT CROAD,
HERBERT A. MARSHALL.