No. 779,928. PATENTED JAN. 10, 1905.

C. R. S. J. HALLÉ.

WHEEL FOR VEHICLES.

APPLICATION FILED AUG. 8, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

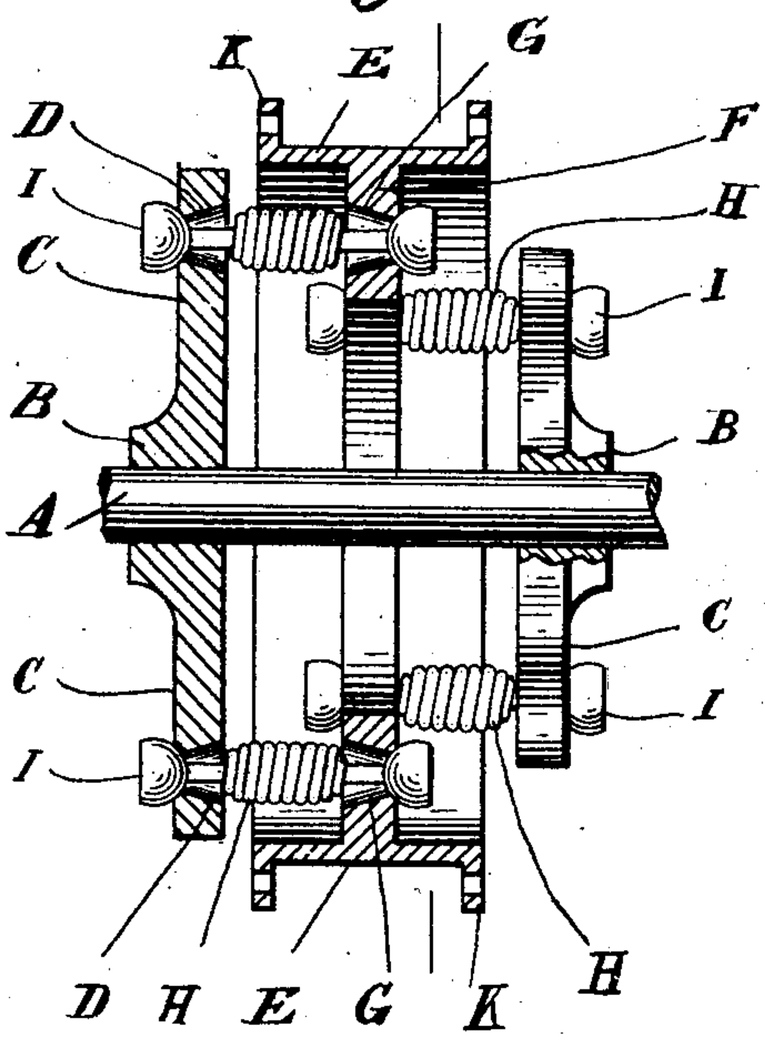


Fig. 2.

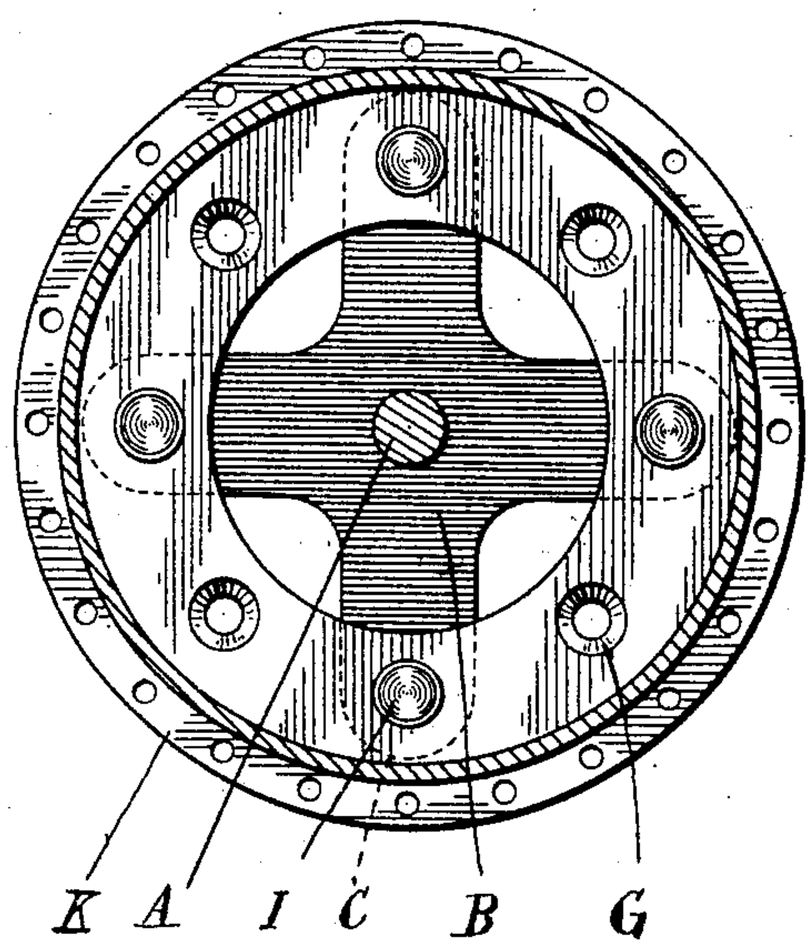
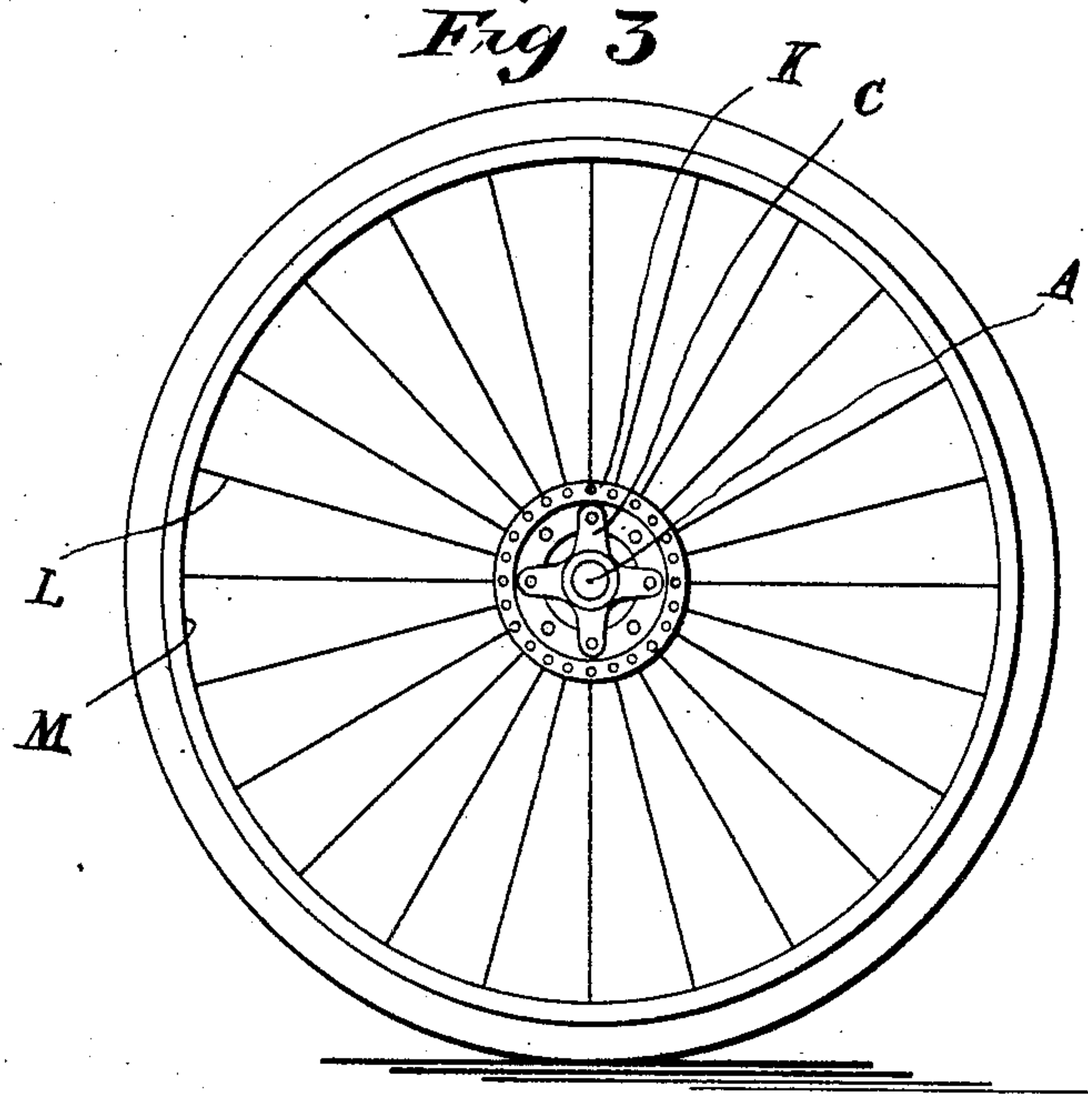


Fig 3



Witnesses:

James L. Norris, Jr.

C. D. Kesler.

Inventor

Clifford R. S. J. Hallé

By James L. Norris.

Attys.

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2 SHEETS—SHEET 2.

Fig. 4.

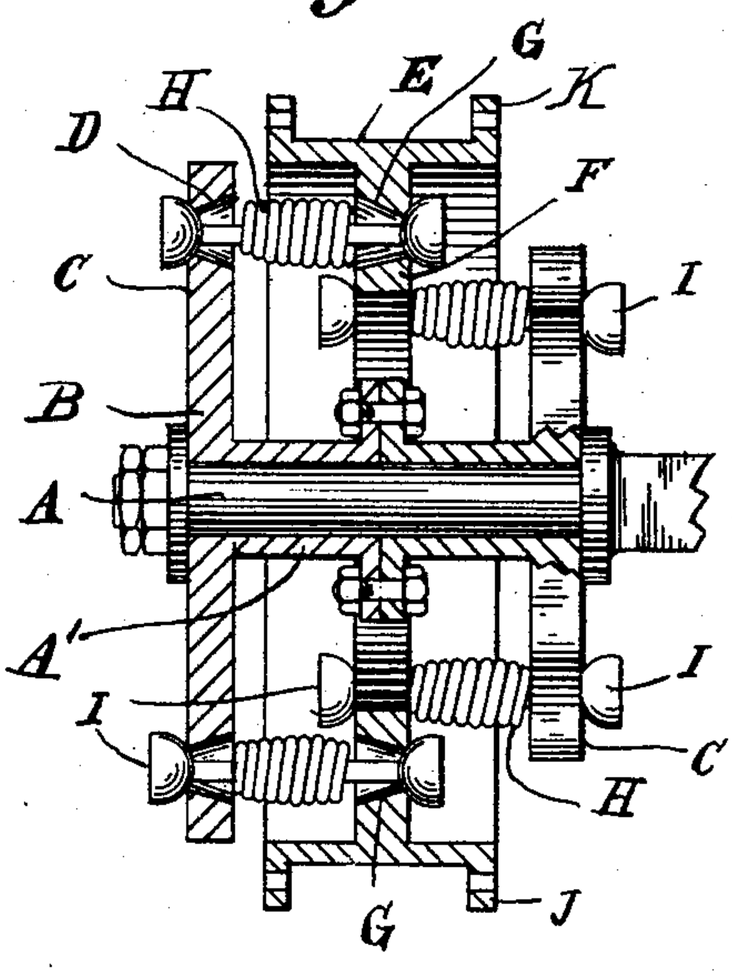

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PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 779,928. Patented January 10, 1905.

UNITED STATES PATENT OFFICE.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ, OF LONDON, ENGLAND.

WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 779,928, dated January 10, 1905.

Application filed August 8, 1904. Serial No. 219,985.

To all whom it may concern:

Be it known that I, CLIFFORD ROBERT STEPHEN JOHN HALLÉ, a subject of the King of Great Britain, residing at 204 Cromwell road, South Kensington, London, England, have invented certain new and useful Improvements in Wheels for Vehicles, of which the following is a specification.

The object of my invention is to provide a cheap and durable wheel for any kind of vehicle which will in itself have spring against shocks and jars.

The great difficulty in spring-wheels hitherto constructed has been to guard against side play in wheels which are partly constructed of springs. In such wheels the usual course has been to place the spring either between the outer and the inner rim of the wheel or around the hub, but always acting in the direction of the plane of the wheel, and in such cases where side play is guarded against this is done by sliding supports, which supports have a tendency to jam when pressure is put on one side of the wheel, and consequently annul the utility of the springs.

My invention entirely does away with the possibility of any side play, while leaving the wheel proper free to spring on the axle, the action of the springs being at right angles to the plane of the wheel, the object being to provide a serviceable spring hub or wheel and to do away with side play and also with the necessity of driving through springs and further relying for my resilience entirely on springs that have a tension in a lateral direction to the plane of the wheel and not in the plane of the wheel, as is usual.

My invention will be clearly understood from the following description, aided by the accompanying drawings.

Figure 1 is a section of a hub and its supporting appliances, in which the axle revolves. Fig. 2 is a vertical cross-section; Fig. 3, a side elevation of a wheel. Fig. 4 is a section of a hub and its supporting appliances and in which the axle is a fixture.

In this construction the axle A carries rigid side plates B, these being formed with arms C, having conical holes D. Situate between the rigid side plates B is the hub E proper, this having an inwardly-arranged flange F, also provided with conical holes G, the flange F being at a distance from the axle A, so as to allow of free movement around same. The hub, and consequently the wheel, is held suspended between the arms C by springs H; the ends passing the conical holes in flange and plates terminating in spherical heads I, situate outside the arm C and flange F alternately, and when a weight is placed on the axle A it becomes depressed and the movement of the wheel will allow the spherical heads to act with the conical holes as universal joints.

In Fig. 4 the plates B and arms C are connected together by tube A′ and revolve around the axle A; otherwise the construction and action is the same as in the other figures.

The hub is shown with two flanges K K for connecting the spoke L to the felly M; but any construction of hub and wheel may be employed, the flange F always being employed.

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

1. A spring-wheel composed of an axle, two sets of rigid arms carried thereby, a hub situate between the rigid arms, a flange projecting from the inner portion of said hub and having a space between it and the axle, coiled springs universally connected at one end to the flange and at the other end to the rigid arms, and spokes connecting the hub with the felly substantially as set forth.

2. A spring-wheel composed of a tube revoluble on a fixed axle, rigid arms projecting from said tube, a hub situate between the rigid arms, a flange projecting from the inner portion of the hub and having a space between it and the tube, coiled springs universally connected at one end to the flange and at the other end to the rigid arms, and spokes connecting the hub with the felly substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ.

Witnesses:
PERCY E. MATTOCKS,
WM. O. BROWN.