No. 698,559. Patented Apr. 29, 1902.

C. ROSSLER.

SPEED VEHICLE.

(Application filed Sept. 9, 1901.)

(No Model.)

Fig. 1.

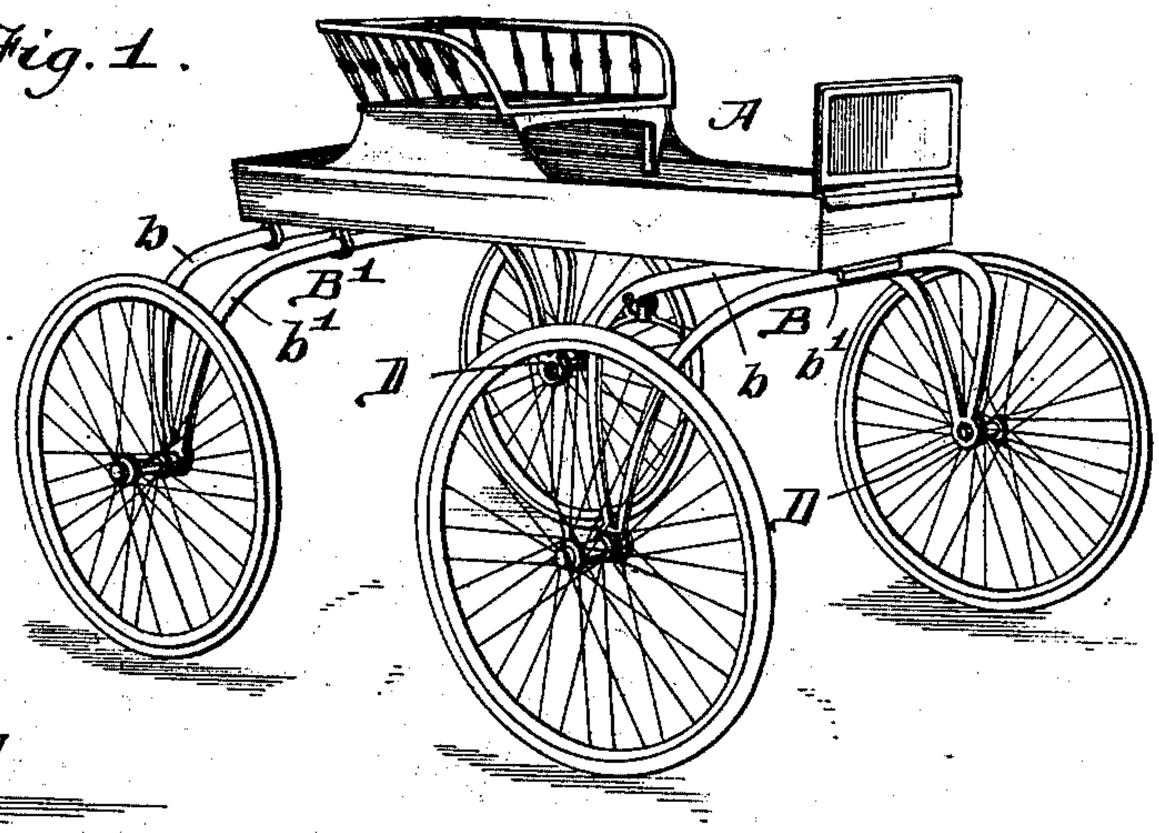

Fig. 2.

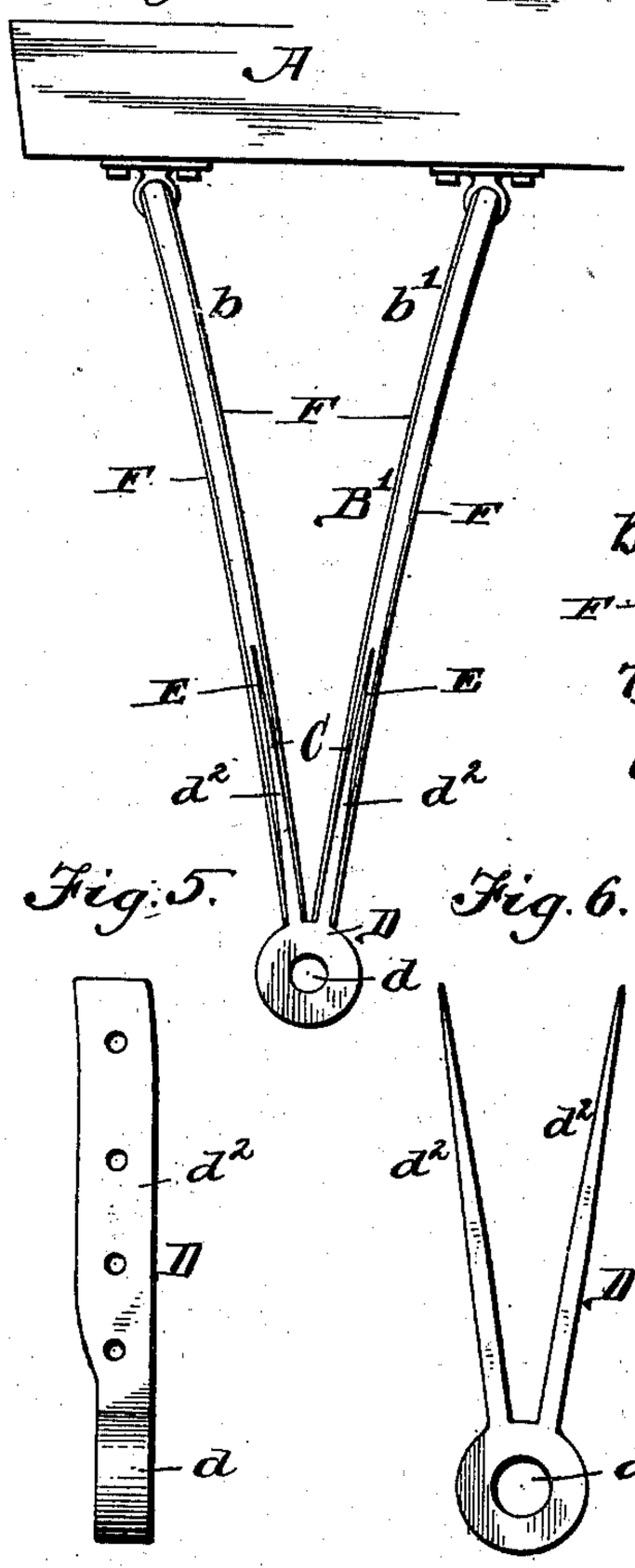

Fig. 3.

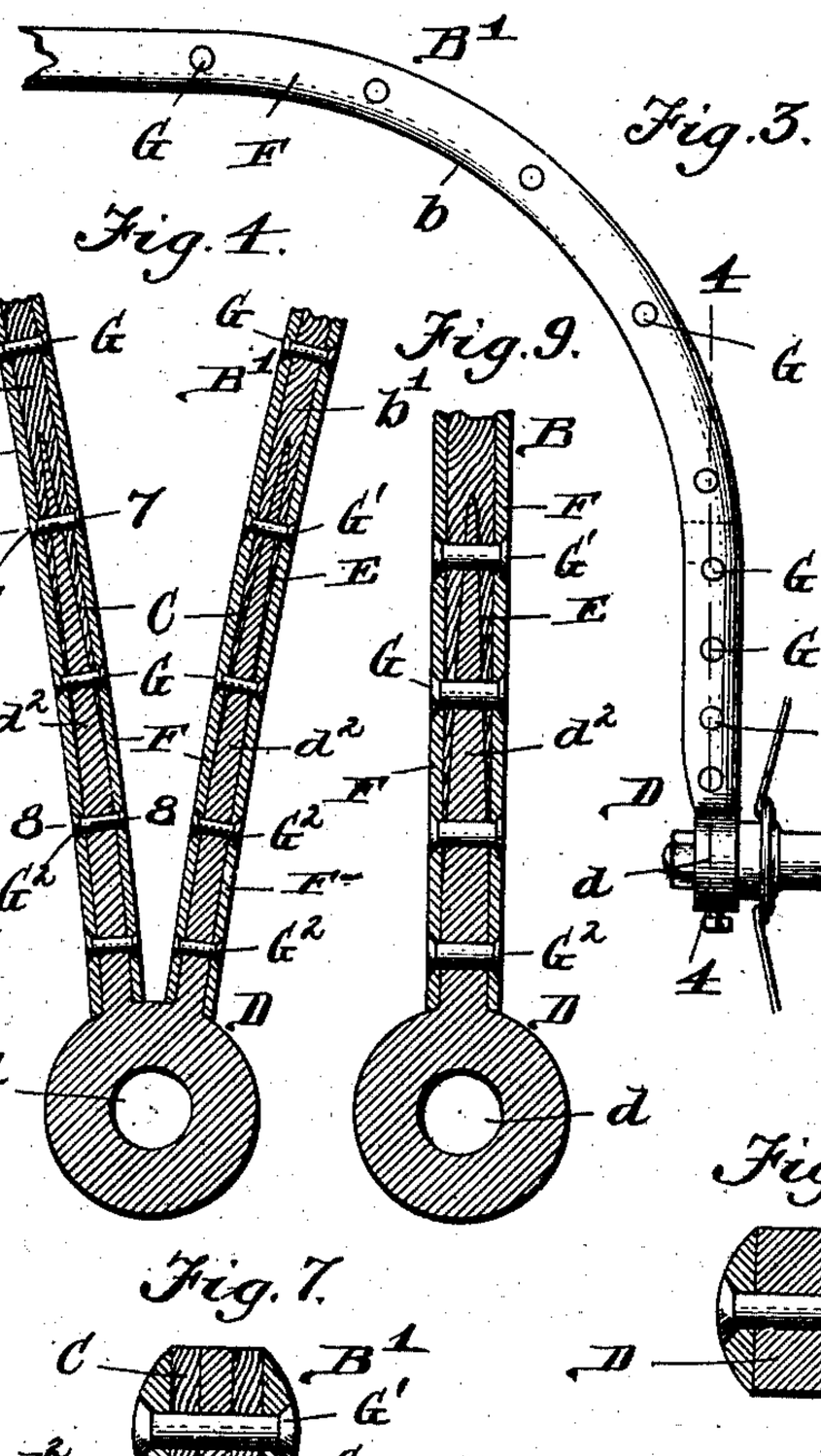

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Witnesses:
Joseph Harris.
R. P. Chamberlain.

Charles Rossler,
Inventor.
By Neuhart & Burkhart,
Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES ROSSLER, OF BUFFALO, NEW YORK.

SPEED-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 698,559, dated April 29, 1902.

Application filed September 9, 1901. Serial No. 74,747. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ROSSLER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Speed-Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to speed-vehicles, and more particularly to axles of the "arch" type, such as are usually employed on speed or on road vehicles.

The object of my invention is to produce a sightly axle of this type wherewith maximum lightness can be obtained without impairing its strength or rigidity and wherewith the difficulties usually encountered by the use of such an axle are entirely obviated, such as lateral deflection of the axle ends under the imposed weight of the driver and the twisting strain on the same under the resistance of the ground or by coming into contact with some obstruction.

A further object is to provide a strong and reliable connection between the two members of the axle, so as to bind them securely together.

The invention consists in the particular combination of elements or parts, as will be hereinafter described, and particularly pointed out in the appended claim.

Referring to the drawings, Figure 1 is a perspective view of a vehicle having arched axles which embody my invention. Fig. 2 is a side elevation of my improved axle, showing the same applied to the body of the vehicle. Fig. 3 is a rear elevation of one end of the axle. Fig. 4 is a vertical section, on an enlarged scale, taken on line 4 4, Fig. 3. Fig. 5 is a detached rear elevation of the forked spindle-holder. Fig. 6 is a side elevation of the same. Fig. 7 is a cross-section taken on line 7 7, Fig. 4. Fig. 8 is a similar section taken on line 8 8, Fig. 4. Fig. 9 is a modified form of my invention.

Referring to the drawings in detail, like letters of reference refer to like parts in the several figures.

The letter A designates the body of the vehicle, B the front and B′ the rear axles, which are exact counterparts. These axles are secured to the vehicle-body in any approved manner and consist of two arch members *b* *b′*, arranged on the same plane, their center portions being substantially horizontal and separated by a space and their end portions being curved downwardly and made converging, as at C.

D designates the metallic forked spindle-holders, which connect the ends of the two axle members together and each of which has an eye *d* at its lower end, in which the wheel-spindles *d′* are secured, and two upwardly-disposed diverging prongs d^2, which are tapered at their upper ends and designed to enter the V-shaped grooves or incisions E, formed in the lower ends of the axle members.

Placed on opposite sides of each axle member are metallic reinforcing-strips F, which extend beyond the ends of the same and lie on opposite sides of the prongs d^2, so as to bear with their ends against the eye *d*. These reinforcing-strips are secured to the axle members by rivets G. The metallic spindle-holders are held in place and firmly secured by rivets G′, which pass through the reinforcing-strips, the grooved portion of the axle members, and the inserted ends of the prongs d^2, thus securely binding the parts together. They are further secured to the lower ends of the reinforcing-strips by rivets G^2. It will be seen that by this novel structure a vehicle of fine and extremely light appearance is obtained which will lessen the liability of spreading the axle ends, owing to the reinforcing-strips, axle ends, and spindle-holders being firmly secured together, with the strain against the edges of the prongs and the reinforcing-strips, and which, owing to the connection of the parts, causes the lateral strain imposed under various conditions to be divided on the depending ends of the axle members the full length thereof, assuring a most substantial and very light appearing structure. It will also obviate the twisting strain, owing to the forked prongs of the spindle-holders trussing the parts firmly and rigidly.

In Fig. 9 the axle is shown as consisting of a single member, with the prong d^2, reinforcing-strips, and axle ends connected and riv-

eted together in the same manner described above.

Having thus described my invention, what I claim is—

An arched axle for vehicles comprising two members having downwardly-converging ends, each such end being formed with recesses, such recesses being relatively wide at the ends of the axle, and tapering to a point a considerable distance above such ends, spindle-holders provided with eye portions and radially-extending prongs, such prongs being adapted to fit snugly in the aforesaid recesses, reinforcing-plates secured to the converging ends of the axles for further strengthening the same, and rivets extending through the reinforcing-plates, the axle members and the radiating prongs for binding all such parts rigidly together, substantially as described.

CHARLES ROSSLER.

Witnesses:
CHAS. F. BURKHART,
EMIL NEUHART.