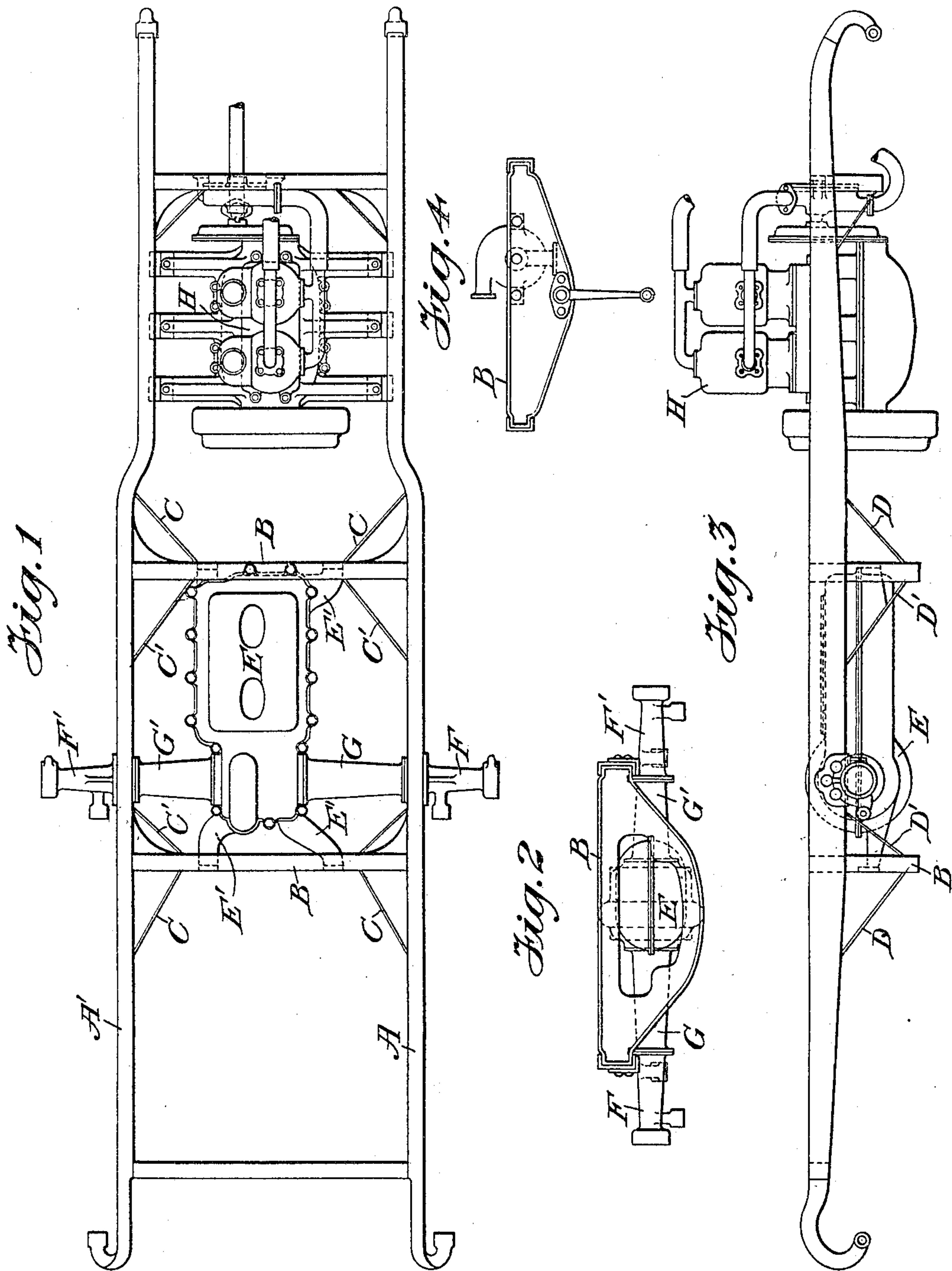


G. H. JONES.
VEHICLE RUNNING GEAR.
APPLICATION FILED AUG. 11, 1904.



Witnesses
Chas. Clagett
Chas. Wolf

Inventor
George Hill Jones
By his Attorney
Charles A. Stephens

UNITED STATES PATENT OFFICE.

GEORGE HILL JONES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
JONES-CORBIN AUTOMOBILE COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

VEHICLE RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 788,108, dated April 25, 1905.

Application filed August 11, 1904. Serial No. 220,304.

To all whom it may concern:

Be it known that I, GEORGE HILL JONES, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Vehicle Running-Gears, of which the following is a specification.

This invention relates to running-gear frames for motor-propelled vehicles, the object being to provide a framework which shall be simple in construction and at the same time possess sufficient strength and rigidity to withstand the uses to which this type of apparatus is put.

A further object of this invention is to provide a suitable support for the speed-gear case and its connected mechanism without adding to the number of parts, thus increasing the weight and cost of construction.

It is very desirable and, in fact, essential in the construction of motor-propelled vehicles that all the parts in connection therewith be made as simple as possible and with as little material as is consistent with the necessary strength. As the power-transmitting mechanism must be carried by the running-gear, it is important that suitable means be provided to hold this portion of the mechanism securely and rigidly in place.

In this device I have provided a housing or case for the speed-gear, which casing is held by suitable fastening to the running-gear frame by means of extending arms from said case, which arms are so arranged as to form braces, and so preserve the rigidity of the entire structure. It is thus seen that this case serves a twofold purpose. It provides a housing for the speed-gear mechanism and at the same time forms a very efficient brace for the running-gear frames. This results in a substantial reduction in the number of parts and consequent reduction of weight without the loss of rigidity.

My running-gear frame as designed consists of two parallel side reaches having one or more transverse trusses. At the point where these trusses join the side reaches pro-

vide a light web, forming a bracket on either side of these trusses. The construction of the truss itself is peculiar to this invention, and consists of joining together a number of pieces of sheet metal to form a brace which is deeper in the middle than on the ends, and so provides a very rigid connection between the reaches. The running-gear frame is supported by these trusses and forms of itself an additional truss or brace between the several parts, as already explained.

Referring now to the drawings accompanying this specification, Figure 1 is a plan view of a running-gear frame embodying my invention. Fig. 2 is an end view showing the relative position of the trusses and speed-gear case. Fig. 3 is a side elevation of Fig. 1. Fig. 4 is an end view of one of the trusses, showing the starting-handle.

At A and A' are shown two side reaches, and at B are shown the transverse trusses connecting these reaches.

At C and C' are horizontal brackets or webs abutting against said reaches and trusses and forming a brace, and at D and D' are shown similar vertical brackets which act as reinforcements and add materially to the rigidity of the structure.

At E is shown a speed-gear and casing, and at E' are shown extending arms from this casing, which act as supports and also as braces between the adjacent trusses B to preserve the rigidity of the structure.

At F and F' are shown sprocket-hangers, and at G and G' are shown conical-shaped casing forming projecting arms which connect rigidly the gear-case E and sprocket-hangers F and F' together, thus combining connections with the gear-case, sprocket-hangers, and side reaches or frame, thereby keeping the shaft in perfect alinement.

At H is shown a motor, which may be of any desired construction. In this illustration I have shown a two-cylinder gas-engine, which is supported by cross-braces between the reaches and which is preferably located at the forward end of the running-gear frame.

The speed-gear mechanism, with its series

of braces and supports, is preferably located at or near the middle of the running-gear frame shown in the drawings.

It is thus seen that the combination as presented, consisting of side reaches connected by cross braces or trusses, with reinforcing webs or brackets at the joints, together with the intermediate brace provided by the gear-case and projecting arms, all securely fastened together, forms a complete and rigid structure of a small number of parts and which is very substantial and yet as light as is consistent with the requirements of the portion of the vehicle.

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

1. In a vehicle running-gear frame, the combination with side reaches, of a plurality of transverse trusses, horizontal brackets abutting against said reaches and trusses, a speed-gear case carried by and rigidly attached to two adjacent transverse trusses, a pair of sprocket-hangers rigidly attached to said side reaches, a pair of projecting conical casings from said speed-case forming a bearing for a sprocket-shaft and being rigidly fastened to said speed-case and sprocket-hangers, substantially as described.

2. In a vehicle running-gear frame, the combination with side reaches of a plurality of transverse trusses, horizontal brackets abutting against said reaches and trusses, a speed-gear case carried by and rigidly attached to two adjacent transverse trusses by means of extending arms forming a series of braces to preserve the rigidity of the structure, a pair of sprocket-hangers rigidly attached to said reaches, a pair of projecting conical casings from said speed-case forming a bearing for a sprocket-shaft and being rigidly fastened to said speed-case and sprocket-hangers, substantially as described.

3. In a vehicle running-gear frame, the combination with side reaches of a plurality of transverse trusses, horizontal webs disposed at right angles on opposite sides of said trusses

at the point where said trusses are joined to said reaches, a speed-gear case carried by and rigidly attached to two adjacent transverse trusses, a pair of sprocket-hangers rigidly attached to said side reaches, a pair of projecting conical casings from said speed-case forming a bearing for a sprocket-shaft and being rigidly fastened to said speed-case and sprocket-hangers, substantially as described.

4. In a vehicle running-gear frame, the combination with side reaches of a plurality of transverse trusses, horizontal webs disposed at right angles on opposite sides of said trusses at the point where said trusses are joined to said reaches, vertical webs disposed at right angles on opposite sides of said trusses at the point where said trusses are joined to said reaches, a speed-gear case carried by and rigidly attached to two adjacent transverse trusses, a pair of sprocket-hangers rigidly attached to said side reaches, a pair of projecting conical casings from said speed-case forming a bearing for a sprocket-shaft and being rigidly fastened to said speed-case and sprocket-hangers, substantially as described.

5. In a vehicle running-gear frame, the combination with side reaches of a plurality of transverse trusses formed from sheet-metal members rigidly joined together and forming a cross-brace between said reaches and also forming a support for a speed-gear case, horizontal brackets abutting against said reaches and trusses, a speed-gear case carried by and rigidly attached to two adjacent transverse trusses, a pair of sprocket-hangers rigidly attached to said side reaches, a pair of projecting conical casings from said speed-case forming a bearing for a sprocket-shaft and being rigidly fastened to said speed-case and sprocket-hangers, substantially as described.

Signed at Philadelphia, in the county of Philadelphia and State of Pennsylvania, this 13th day of July, A. D. 1904.

GEORGE HILL JONES.

Witnesses:

FRANK JONES,
C. RIDGWAY ADAMSON.