

(No Model.)

H. BRUNN & F. LONGTIN.
DRAFT GEAR FOR VEHICLES.

No. 599,033.

Patented Feb. 15, 1898.

Fig. 1.

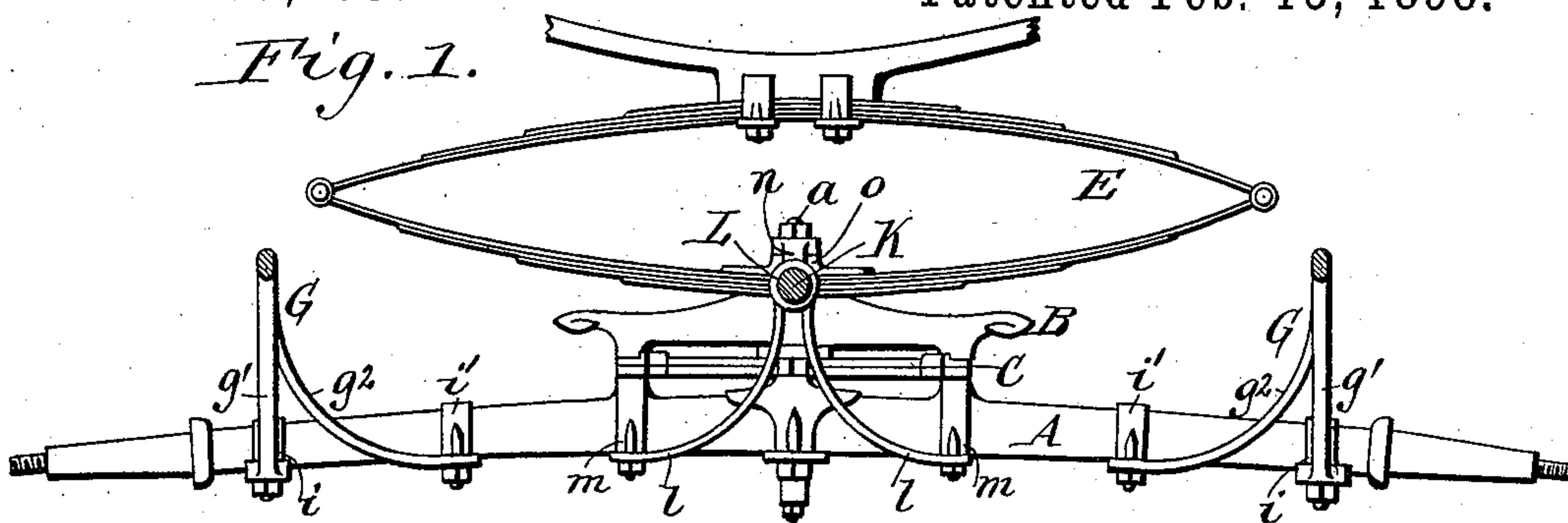


Fig. 2.

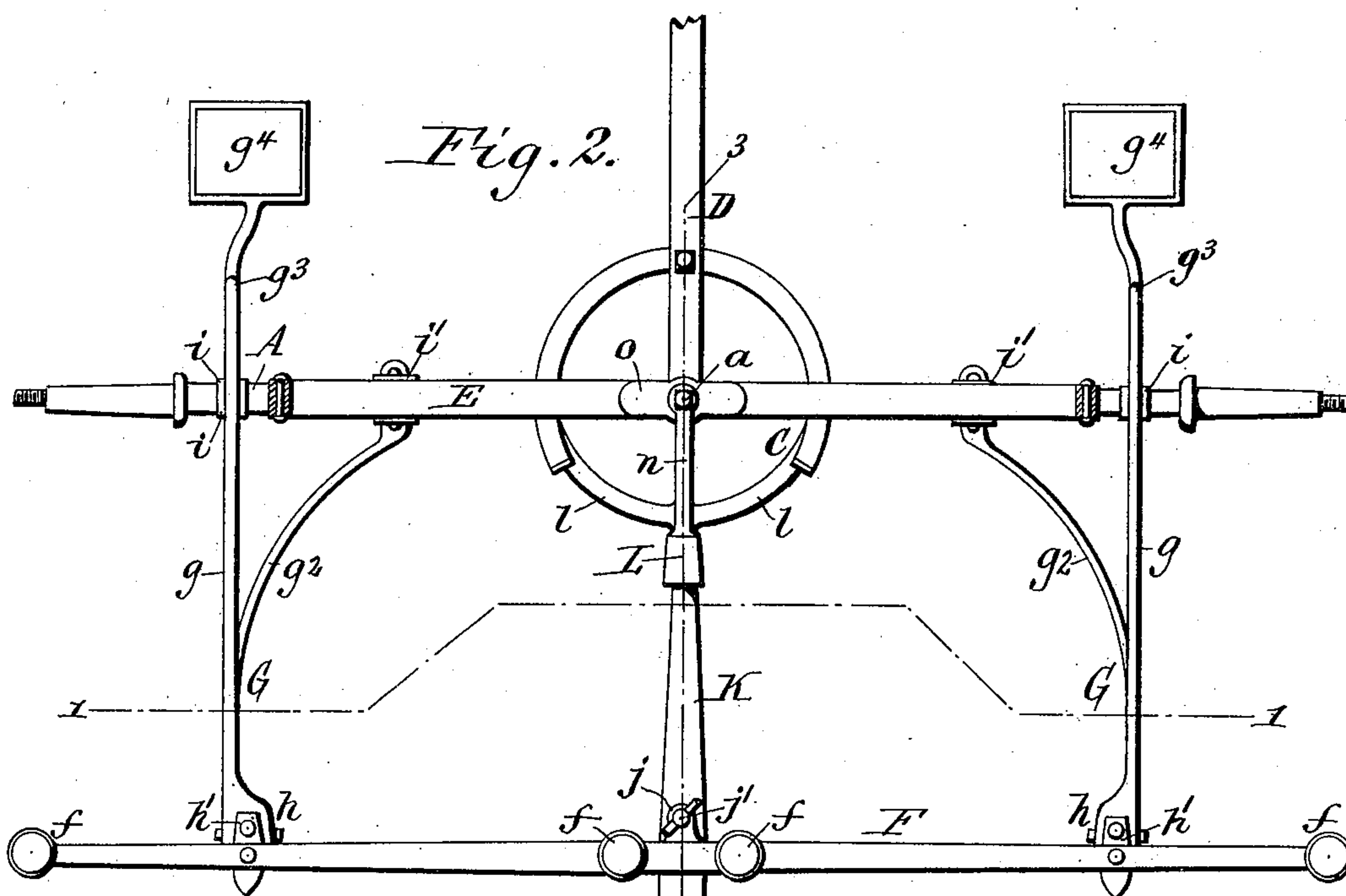


Fig. 4.

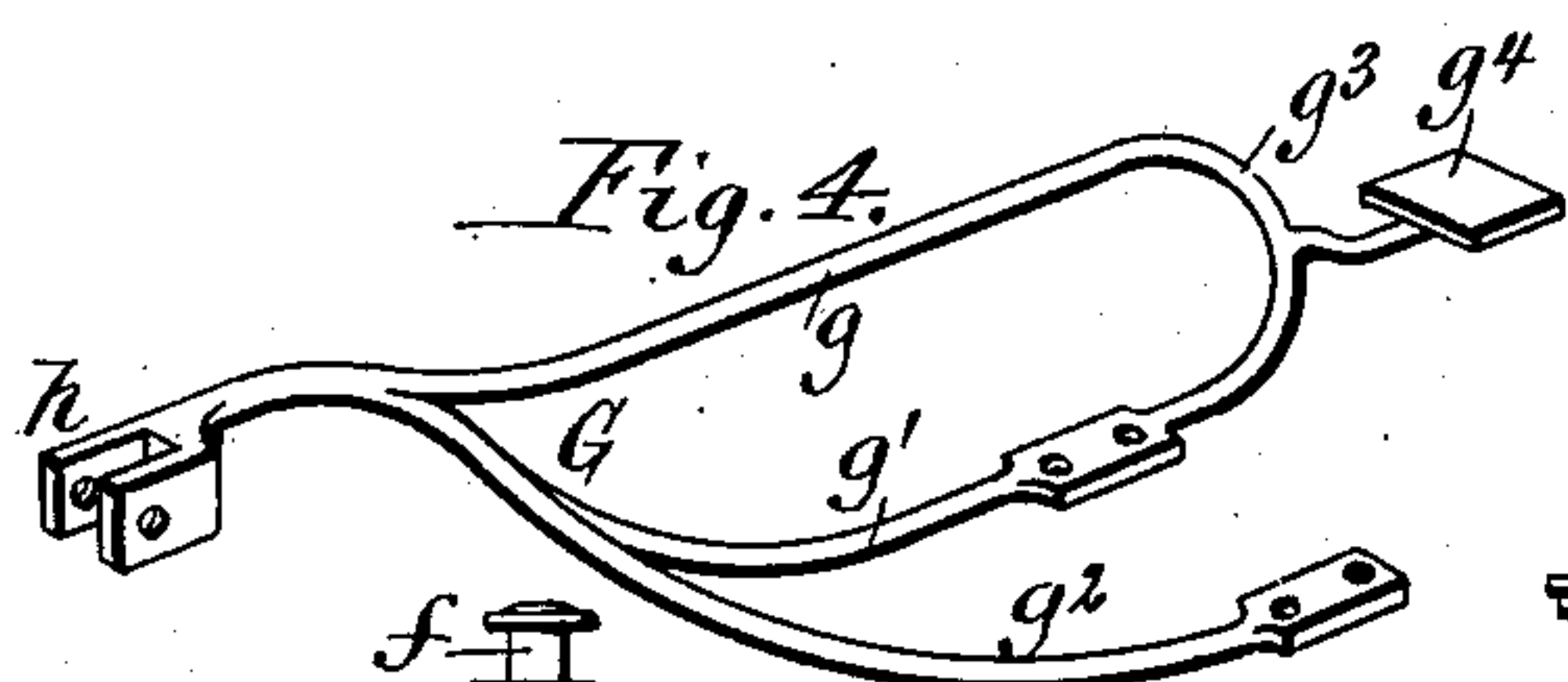


Fig. 5.

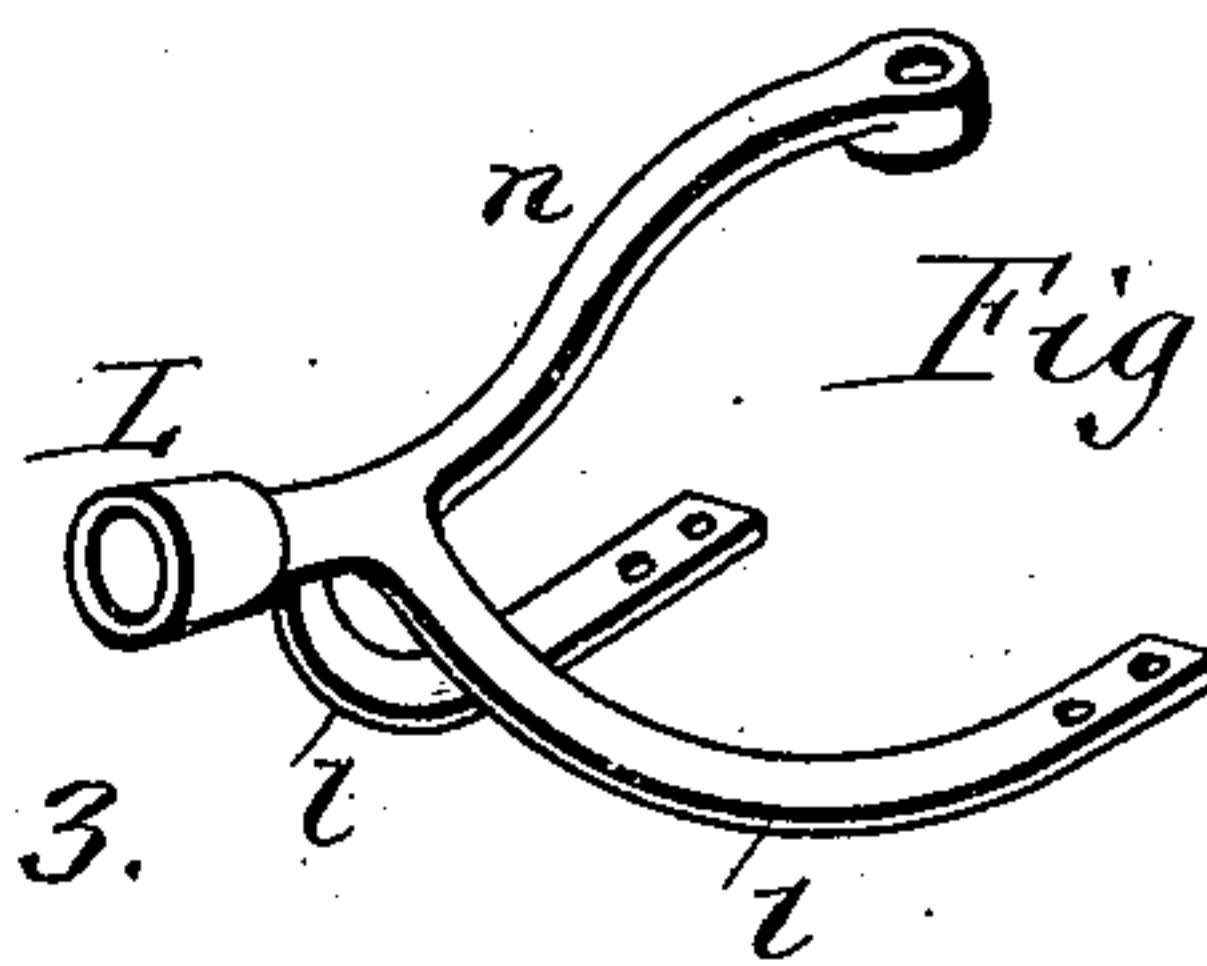
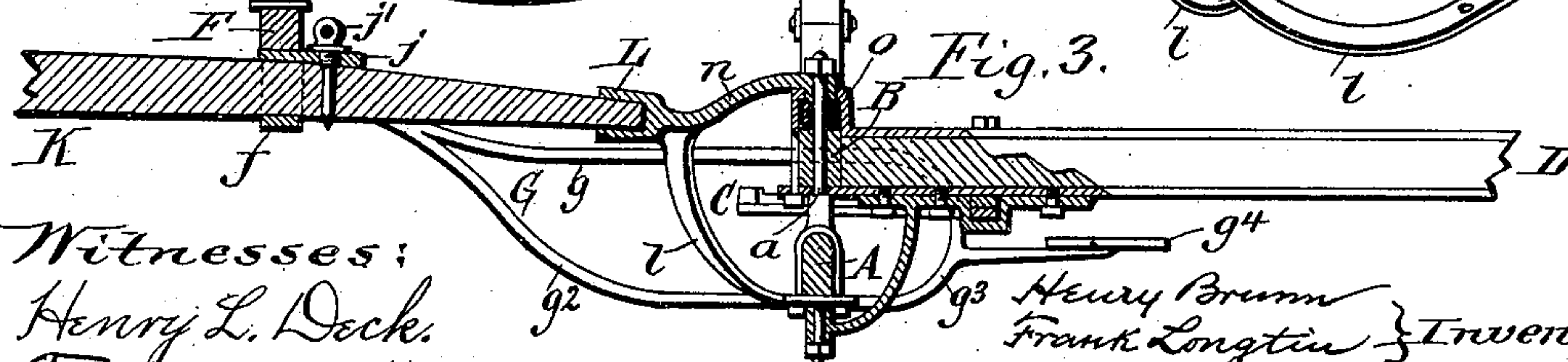


Fig. 3.



Witnesses:
Henry L. Deck.
F. Gräter. Wilhelm.

Henry Brunn
Frank Longtin } Inventors
By Wilhelm & Bormer
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY BRUNN AND FRANK LONGTIN, OF BUFFALO, NEW YORK; SAID
LONGTIN ASSIGNOR TO SAID BRUNN.

DRAFT-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 599,033, dated February 15, 1898.

Application filed September 16, 1897. Serial No. 651,869. (No model.)

To all whom it may concern:

Be it known that we, HENRY BRUNN and FRANK LONGTIN, citizens of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Draft-Gears for Vehicles, of which the following is a specification.

This invention relates to the draft-gears of four-wheeled vehicles, and has the general object of providing that class of vehicles in which the front axle is connected with the rear axle by a reach, perch, or similar means or in which the body is supported on three springs with a straight pole which is rigidly secured to the axle and which can be inserted and removed like an ordinary carriage-pole.

Heretofore it has been common to connect the pole rigidly with the platform of a carriage-gear above the front springs. In vehicles of this kind the pole moves bodily up and down with the body of the carriage on the springs, which is severe on the horses, especially on rough roads.

One object of our invention is to secure the pole rigidly to the front axle, so that it does not move up and down with the vehicle-body, and to so construct the means of attachment that an ordinary substantially straight pole can be used.

Another object of the invention is to connect the splinter or whiffle bar with the front axle by attachments which are light and neat in appearance and at the same time strong and secure.

In the accompanying drawings, Figure 1 is a front elevation of our improved draft-gear, partly in section, the plane of section being indicated by the line 1-1, Fig. 2. Fig. 2 is a top plan view of the draft-gear, partly in section. Fig. 3 is a central longitudinal vertical section in line 3-3, Fig. 2. Fig. 4 is a perspective view of one of the draft-irons. Fig. 5 is perspective view of the pole-socket.

Like letters of reference refer to like parts in the several figures.

A represents the front axle of a buggy or other three-spring or reach vehicle; B, the front bolster arranged over front axle; C, the fifth-wheel arranged between these parts, and a the king-bolt which connects the same.

D represents the reach, which is secured

with its front end to the fifth-wheel and bolster.

E represents an elliptic front spring which is secured upon the bolster.

F represents the transverse splinter or whiffle bar, which is arranged in front of the axle and bolster and parallel with the former. This draft-bar is provided with studs *f* or other suitable means for attaching the traces, and it is rigidly secured to the axle by longitudinal draft or side irons G. Each of these draft-irons consists of a vertical elongated loop, which is composed of an upper longitudinal bar *g*, a lower longitudinal bar *g'*, united at its front end to the upper bar, and a semi-circular or curved rear portion *g³*. This loop carries at its front end a socket *h*, which receives a tongue *h'*, projecting rearwardly from the splinter-bar F. This tongue is detachably secured in the socket by a bolt or otherwise, so that the splinter-bar can be detached, if it should be desired to use a pair of thills instead of a pole. The lower bar *g'* of each loop is provided underneath the front axle with a flattened portion, as shown in Fig. 4, which is rigidly secured to the under side of the axle by a clip *i*, the axle passing transversely through each loop. A side brace *g²* is united at its front end to the lower loop-bar *g'* and is secured with its flattened rear end to the under side of the axle by a clip *i'*. A step *g⁴* is preferably welded to the curved rear portion of the loop. As the loop is rigidly secured with its lower bar or member to the axle, it supports the splinter-bar not only by the lower member but also by the upper member, which extends from the point of attachment below the axle rearwardly and upwardly and then forwardly over the axle to the front end of the loop. This forms a very strong support for the splinter-bar and permits the members of the loop to be made light and slightly.

J represents the strap or loop, which is secured to the under side of the splinter-bar F for supporting the draft-pole K. This strap is provided with a rearwardly-projecting ear *j*, which is arranged above the pole and through which passes the pin *j'*, which holds the pole in place.

L represents the socket, which receives the

rear end of the pole. This socket is arranged above the front axle and in front of the same and directly in rear of the strap on the splinter-bar, so that an ordinary straight pole can be inserted into the strap and socket. This socket is rigidly connected with the axle by two arms *l*, which diverge from the socket downwardly and rearwardly and which are secured with their lower ends to the under side of the axle by clips *m*. This socket is preferably further supported by a central brace *n*, which extends from the socket rearwardly and which is connected at its rear end with the king-bolt. This brace rests with its rear end upon the strap *o*, which is secured to the reach and bolster and holds the lower part of the front spring *E*, and the upper part of the king-bolt passes through this spring and through the brace, the latter having at its rear end a boss, as shown in Fig. 5, which is seated in the front portion of the strap *o*, as shown in Fig. 3, whereby the strain on the king-bolt is greatly reduced.

The pole-socket is rigidly secured to the front axle by its arms and brace in such a position that an ordinary straight pole can be used.

We are aware of Patent No. 148,224, dated March 3, 1874, in which a socket is secured to the under side of the axle for the reception of the rear end of a bent pole. Such a construction of parts is essentially different from that here claimed, because it involves the use of a special form of pole which, furthermore, is liable to twist at its inner end owing to its crank-like form.

We claim as our invention—

1. The combination with the front axle and

the splinter-bar rigidly secured thereto and carrying a pole-strap, of a pole-socket arranged in front of and above the front axle and in line with the pole-strap on the splinter-bar and provided with downwardly and rearwardly diverging arms which are rigidly secured to the axle, whereby an ordinary straight pole can be arranged in said strap and socket, substantially as set forth.

2. The combination with the front axle and the splinter-bar rigidly secured thereto and carrying a pole-strap, the bolster, the fifth-wheel and king-bolt, of a pole-socket arranged in front of and above the front axle and in line with the pole-strap on the splinter-bar and provided with downwardly-extending arms which are rigidly secured to the axle and with a central brace which extends rearward and is connected with the king-bolt above the bolster, substantially as set forth.

3. The combination with the front axle and the splinter-bar arranged transversely in front of the same, of side irons, each consisting of a vertical elongated loop through which the axle passes transversely and which is rigidly secured with its lower member to the under side of the axle, said lower member being united at the front to the upper member and the loop being provided at its front end with a socket to which the splinter-bar is connected, substantially as set forth.

Witness our hands this 15th day of September, 1897.

HENRY BRUNN.
FRANK LONGTIN.

Witnesses:

CARL F. GEYER,
THEO. L. POPP.