G. YETTER.

RUNNING-GEAR.

No. 184,277. Patented Nov. 14, 1876.

Fig. 1.

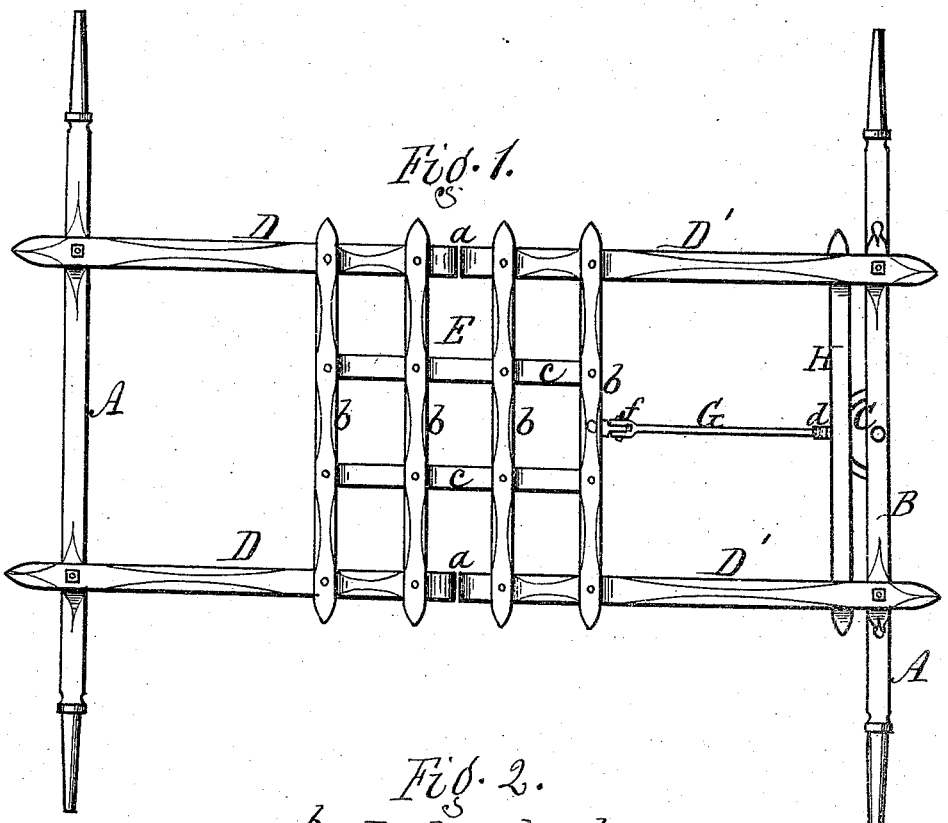


Fig. 2.

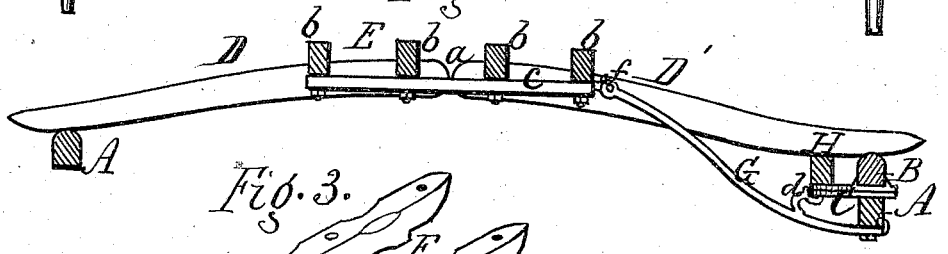
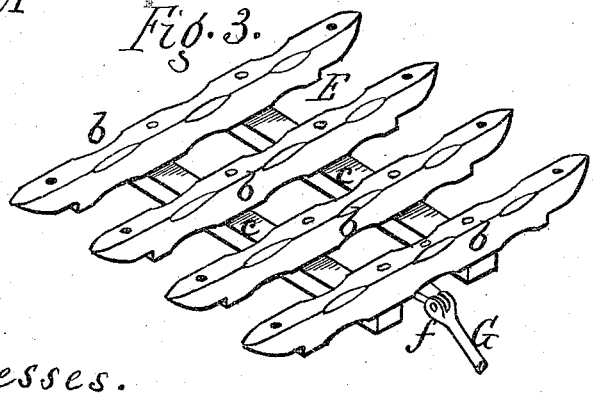


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE YETTER, OF SENECA FALLS, NEW YORK.

IMPROVEMENT IN RUNNING-GEARS.

Specification forming part of Letters Patent No. **184,277**, dated November 14, 1876; application filed October 7, 1876.

To all whom it may concern:

Be it known that I, GEORGE YETTER, of Seneca Falls, in the county of Seneca and State of New York, have invented a certain new and useful Improvement in Running-Gear for Carriages; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of my improvement. Fig. 2 is a longitudinal section of the same. Fig. 3 is a perspective view of the spring-platform and jointed brace.

My improvement relates to the running-gear of light wagons, and is applicable either to skeletons or to bodied carriages.

The invention consists in the combination of a spring-platform and a jointed brace, with divided side bars, as hereinafter more fully described and specifically claimed.

A A are the axles. B is the bolster or head-block. C is the fifth-wheel. D D and D′ D′ are the side bars. No separate springs are employed, but the body of the gear forms its own spring. The side bars D D′ are each made in two halves, clipped, bolted, or otherwise secured at the outer ends to the axle and bolster, and meeting at the inner ends, but leaving a clear joint, *a*, between the ends. This is shown in Figs. 1 and 2. The side bars are made of wood. E is a spring-platform. It is composed of a series of stiff wooden bars, *b b b b*, placed crosswise of the carriage, and resting at opposite ends upon the side bars D D′. Four of these bars are preferably used—two on each side of the joint *a*. These bars are bolted fast to two or more spring-bars, *c c*, which are sufficiently thin to form springs to the platform. G is a brace extending from the center of the platform E to the front axle, to which it is bolted on the under side. It has an arm, *d*, which turns up and forms a bearing to the fifth-wheel at the rear. It is also provided with a joint, *f*, near the platform, the object of which will presently be described.

In skeleton wagons, the above forms the whole running-gear, with the exception of a seat mounted over the platform E, and a cross-bar, H, in front, which forms a foot-rest. For bodied wagons, a body is mounted on top the platform E, but no separate springs are used, the gear forming its own spring.

The side bars D D′ are curved, and stand higher in the center than at the ends, thus forming an arch, and, being divided in the center, they easily spring downward, but are stayed and governed in their action by the platform E. The pressure upon the platform causes tension upon the spring-bars *c c*, and the latter, being light, allows the necessary degree of elasticity without undue sagging of the body of the gear. This springing action is in the direction of the length and not the width, the stiff bars *b b* preventing transverse spring, while the stretchers *c c* allow longitudinal spring.

Ordinary skeletons, which consist simply of longitudinal spring-bars, sag in the center below the bed, and do not retain place properly, depressing more at one point than another laterally.

The platform E, by covering the ends of the divided side bars, both sides of the joint, produce the necessary stiffness to keep the side bars in the upright position, yet allow the desired degree of elasticity, which is divided throughout the gear. The platform E is made separately, and bolted upon the ends of the side bars.

The joint *f* of the brace G allows proper vibrations of the gear without strain. It also forms a connection of the platform with the front axle, so that the draft is divided between the side bars and the platform. It furthermore keeps the front axle from rolling or twisting. A stiff brace would not allow the proper vibration of the gear.

What I claim herein as new is—

1. The combination, with the divided side bars D D′, of the separate spring-platform E and jointed brace G, as and for the purpose specified.

2. The platform E, consisting of the bars *b b*, extending transversely, and the bars *c c*, extending longitudinally, the bars *b b* forming stiff connections between the side bars, and the bars *c c* forming spring-stretchers, which impart elasticity in the direction of the length of the running-gear, as herein shown and described.

3. In a carriage having divided side bars and no springs, the combination of a separate spring-platform resting upon the side bars, and a jointed brace connecting the center of the platform with the front axle, as herein shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE YETTER.

Witnesses:
R. F. OSGOOD,
JACOB SPAHN.