J. H. FARRELL.

BUGGY.

No. 193,497. Patented July 24, 1877.

Fig. 1.

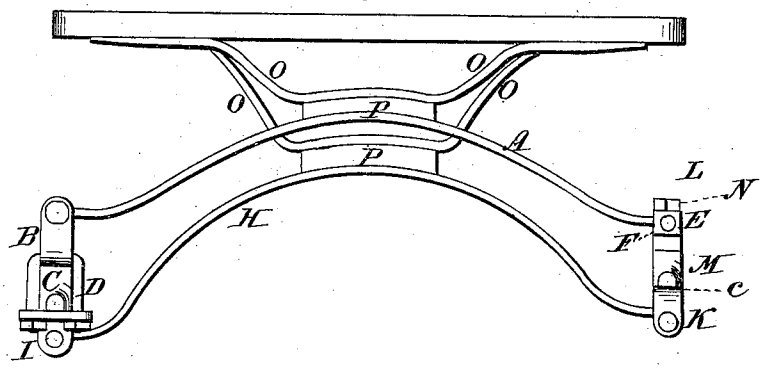


Fig. 2.

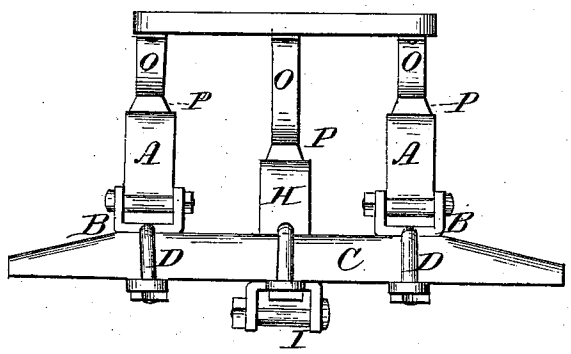
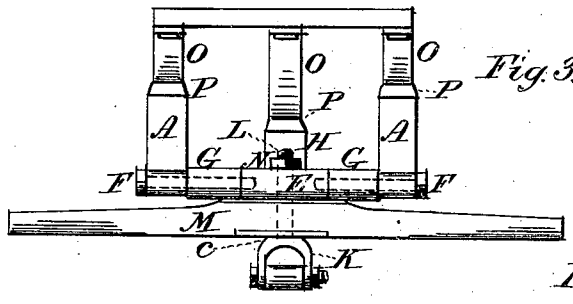


Fig. 3.



Attest.

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UNITED STATES PATENT OFFICE.

JOHN H. FARRELL, OF DUSHORE, PENNSYLVANIA.

IMPROVEMENT IN BUGGIES.

Specification forming part of Letters Patent No. **193,497**, dated July 24, 1877; application filed June 28, 1876.

To all whom it may concern:

Be it known that I, JOHN H. FARRELL, of Dushore, in the county of Sullivan and State of Pennsylvania, have invented certain new and useful Improvements in Buggies, which improvements are fully set forth in the following specification and accompanying drawings.

My invention relates to that class of vehicles in which three upturned springs are employed to support the body, the supplemental or middle one of which serves as the reach, and all are attached to the rear axle; the front ends of the side springs being attached to the cross-bar or head-block.

My improvements relate to certain connections of the forward ends of the springs and to a king-bolt of peculiar construction, in combination with the head-block or cross-bar and the front axle, which will be specifically pointed out in the claims.

Referring to the drawings, Figure 1 represents a side view of the springs of a buggy, and their connections with the body and axles; Fig. 2, a rear view, and Fig. 3 a front view.

The side springs A are secured by clips B to the top of the hind axle C, said clips having yokes D, which embrace the axle and are fastened by screw-nuts and cross-plates beneath said axle. The front ends of these springs are secured to the head-block E by means of end bearing-bolts F screwed into the ends of the head-block, and iron-bound by bands G for strength and durability.

The middle spring H is secured to the under side of the rear axle by a clip, I, and yoke; while its front end is secured to the lower arched end K of the king-bolt L, which unites the head-block E and the front axle M and forms a bearing, *c*, for said axle, and is secured by a nut, N, on the upper end, the wearing-surface being faced with steel plates.

This forked or arched king-bolt takes the place of the usual fifth-wheel, answers the purpose well, and is much less expensive.

The usual way of mounting the body upon cross-pieces produces a sort of drumming noise or sound when running. This objection I avoid by having rockers O cushioned upon the springs by leather or other cushions P, and securing the rockers, springs, and cushions together by clips and center-bolts. The rockers may be of any desired form, and may raise the body any suitable height; and the cushions must be of such length and thickness as will give the proper bearing and seats for the body-rockers upon the springs.

The head-block bands G are about five inches long, and are driven on the solid ends, which are subsequently bored a depth of about six inches to receive screw-threaded and headed bolts F, about seven inches long and five-eighths of an inch thick, giving a bearing for the eye of the spring of about two inches.

I claim—

1. The king-bolt L, having the lower forked or arched end K for the middle spring, and the bearing *c* for the axle, in combination with the head-block E, the axle M, and the middle spring H of a buggy, substantially as and for the purpose set forth.

2. The head-block E of a buggy, having the iron-bound end bearing-bolts F, in combination with the side springs A, secured upon and by said end bearing-bolts, as set forth.

JOHN H. FARRELL.

Witnesses:

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B. S. COLLINS.