A. SELKIRK.

Carriage-Spring.

No. 50,209. Patented Sept. 26, 1865.

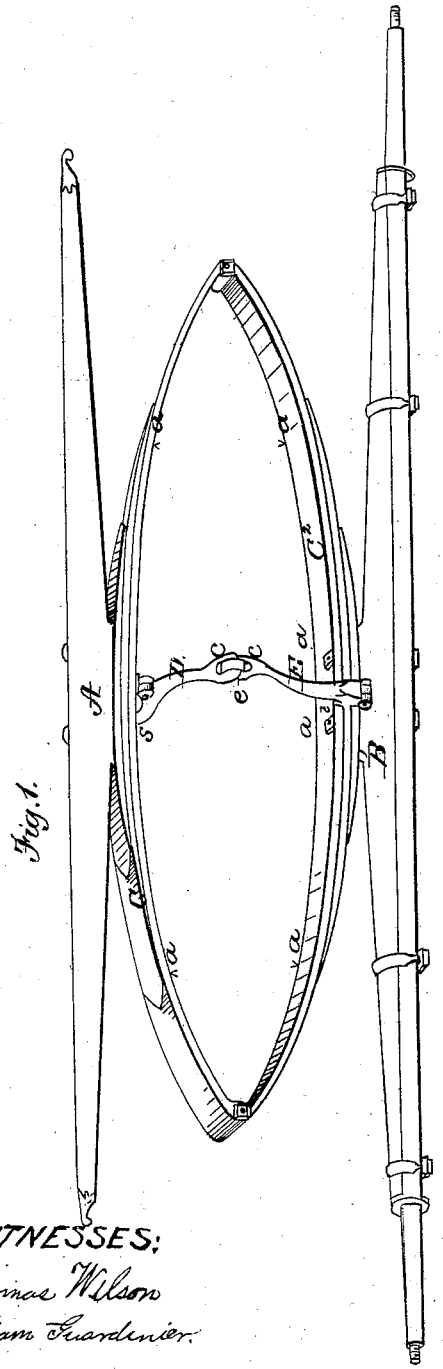

Fig. 1.

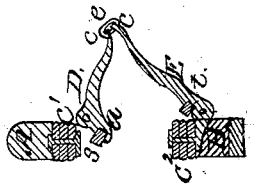

Fig. 3.

Fig. 2.

WITNESSES:

Thomas Wilson

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INVENTOR:

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UNITED STATES PATENT OFFICE.

ALEXANDER SELKIRK, OF ALBANY, NEW YORK, ASSIGNOR TO ELIZA J. SELKIRK, OF SAME PLACE.

IMPROVEMENT IN CARRIAGE-SPRINGS.

Specification forming part of Letters Patent No. **50,209**, dated September 26, 1865.

To all whom it may concern:

Be it known that I, ALEXANDER SELKIRK, of the city of Albany, State of New York, have invented a new and useful Improvement or Attachment to Elliptic Carriage-Springs; and I declare the following specification, with the drawings forming part thereof, to be a full and complete description of my invention.

Figure 1 represents, in perspective, a pair of elliptic springs with my invention attached. Fig. 2 represents, in cross-section, the springs uncompressed, and Fig. 3 the springs compressed, showing the operation of the attachment in each case.

Similar letters denote the same parts of the apparatus.

It is known to all persons employing carriages fitted with elliptic springs that upon the occurrence of heavy jolts there is a great strain brought upon them by the rebound of the carriage, and that if unprotected by some sort of check to the momentum of the upward movement the springs are sure to be badly strained and very often broken at the points indicated by the letters *a a*, Fig. 1. To prevent this it is usual to extend leather straps, attached by one end to the body of the carriage at or near the center of the spring-bar, and by the other end to the perch at a point nearly central between the front and rear springs. These straps are awkward and unreliable devices, and my invention is a substitute for them of a more permanent and serviceable character, and is as follows: A is the spring-bar; B, the bed-piece bar; C′ C², the springs.

My attachment consists of two metal arms or levers, D and E, of about equal length, and together extending the distance between the springs when they are uncompressed. The lever D is hinged to the center of the upper spring, C′, near its outer edge, and has projecting from its top a spur or arm, *d*, extending under the spring. The lever E is hinged to the center edge of the bar B, just below the spring C². The ends of these levers nearly touch each other half-way between the springs, and are formed into loops *c c*, by which they are connected together by metal links *e e*, as shown, or, if preferred, by leather straps.

To the upper lever there is fitted into the arm *d* a piece of india-rubber, *s*, which impinges against the lower side of the spring C′; also to the lower lever there is fitted into its face, near its hinge at *t*, so as to impinge against the edge of the spring, a piece of india-rubber. The object of these pieces of india-rubber, it will be seen, is as springs to reduce the shock which is consequent upon the sudden rise of the springs C′ C² and their check by the levers.

For most purposes it is best to apply—that is, to form and hinge—the levers of each pair used together, as described; but upon occasions the levers of each pair may be fitted alike—that is, in the manner in which lever D is formed and fitted to act upon and with spring C′, or in which lever E is formed and fitted to act upon and with spring C².

What I claim as my invention, and desire to secure by Letters Patent, is—

The levers D and E, formed as described, and fitted with india-rubber springs *s* and *t*, in combination with the elliptic springs C′ and C², substantially as set forth in the above specification.

ALEXANDER SELKIRK.

Witnesses:

THOMAS WILSON,

WILLIAM GUARDENIER.