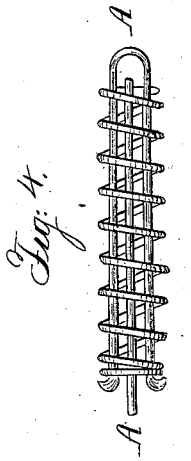
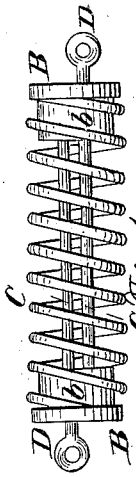
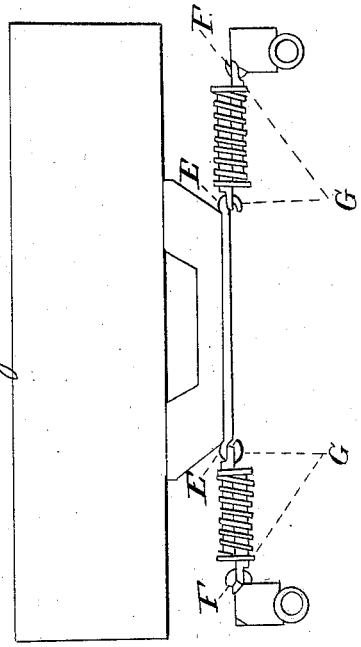
J. BACON.

Carriage-Spring.

No. 2,484. Patented Mar. 9. 1842.







UNITED STATES PATENT OFFICE.

JONATHAN BACON, OF BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN CARRIAGE-SPRINGS.

Specification forming part of Letters Patent No. **2,484**, dated March 9, 1842.

To all whom it may concern:

Be it known that I, JONATHAN BACON, of Bedford, county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Carriages, which is described as follows, reference being had to the annexed drawings, making part of this specification.

Figure 1 represents a side view of the carriage; Fig. 2, one of the springs on a large scale. Fig. 3 is another construction of rods for the springs; Fig. 4, the employment of loops as a substitute for the rods.

Take a spiral spring A, Fig. 2, and place it between two heads or buttons B B, having rods C C, with eyes D D, one rod passing through an aperture in the head of the opposite rod. The greater diameter of the button B is about equal to that of the spring. The core of the button at *b* is made of smaller diameter, so as to enter the inner diameter of the spring to prevent a displacement of the spring from the button. One of these springs is arranged near each corner of the carriage in about a horizontal position, hinged to the frame of the carriage, as at F, Fig. 1, and hinged to the body, as at E, to sustain the body. Suppose the distance between the eyes when properly strained to be nine inches and the open spring six inches long, capable of being contracted two inches, to bring the coils close by any sufficient force applied to the body in any direction. It will vary the relative position of the spring with the body and carriage about thirty-five degrees, as at the dotted line G. Let this force be applied round in a circle in a latitudinal direction when the spring is down to G. It would strike the complete form of a cone, whose base would be nearly twelve and one-half inches, forming the point at F. The lower half or segment is all that is necessary to occupy—that is, below the horizontal line—to give the body free access to play in all directions needed for ease and comfort. The springs may be sheathed with leather or any suitable substance. Two parallel rods F, Fig. 3, may be substituted, forming a rectangular loop fastened to one of the heads outside the spring instead of one of the rods, passing through the inner diameter of the spring.

Fig. 4 is another construction, two loops A passing through the inner diameter of the spring, the ends of the loops being bent over the opposite ends of the spring, having the same action on the spring as the rods and buttons, and to be hinged as above described; or leather straps may be employed instead of the loops and the spring wound in the form of an ellipsis, the flexibility of the leather answering as a substitute for hinging.

I am aware that helical springs have been employed in carriages to sustain the body of the carriage; but to my knowledge they have always been placed vertically or horizontally and having no play deviating from such positions relatively to the frame or body of the carriage, and therefore I do not claim the mere employment of helical springs in carriages; but

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

The arrangement of the springs, heads, and rods or loops, in combination with the frame of the carriage and body—that is to say, having the rods that are attached to the heads or loops hinged to the frame and body of the carriage, for the purpose and in the manner herein specified.

JONA. BACON.

Witnesses:
WM. KIPLEY,
JEROME A. BACON.