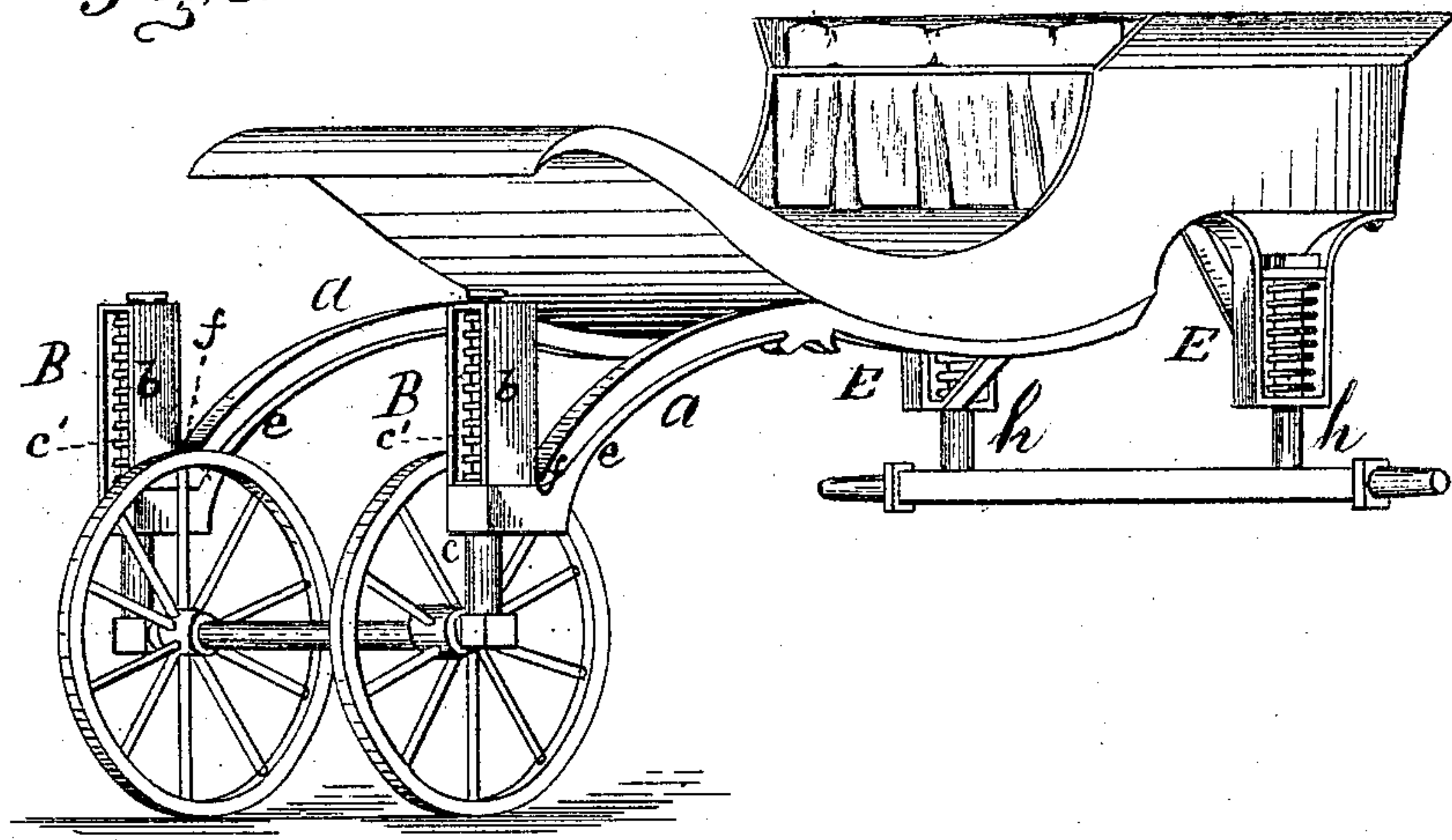


**J. N. HAZELIP.**  
**Children's Carriages.**

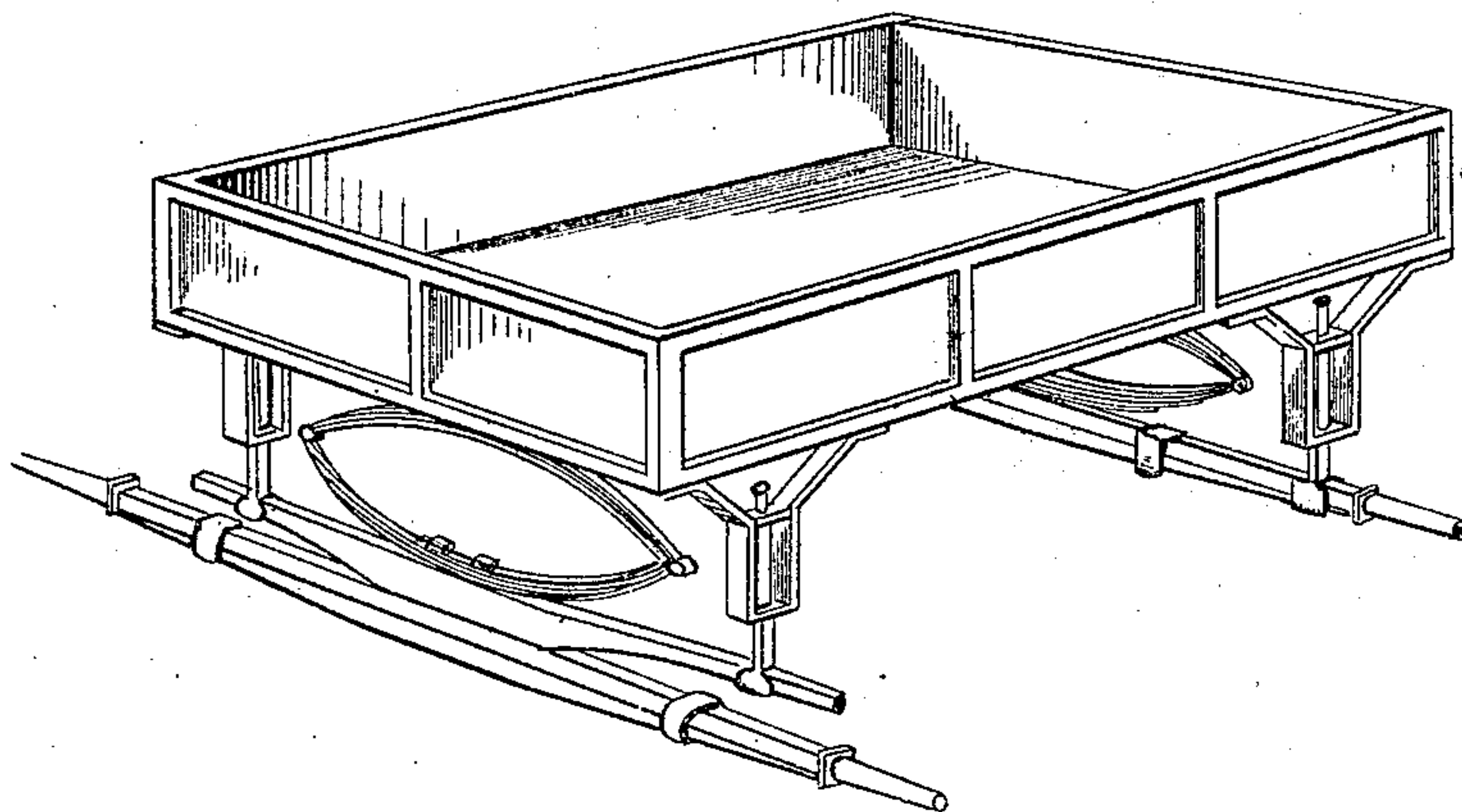
No. 145,298.

Patented Dec. 9, 1873.

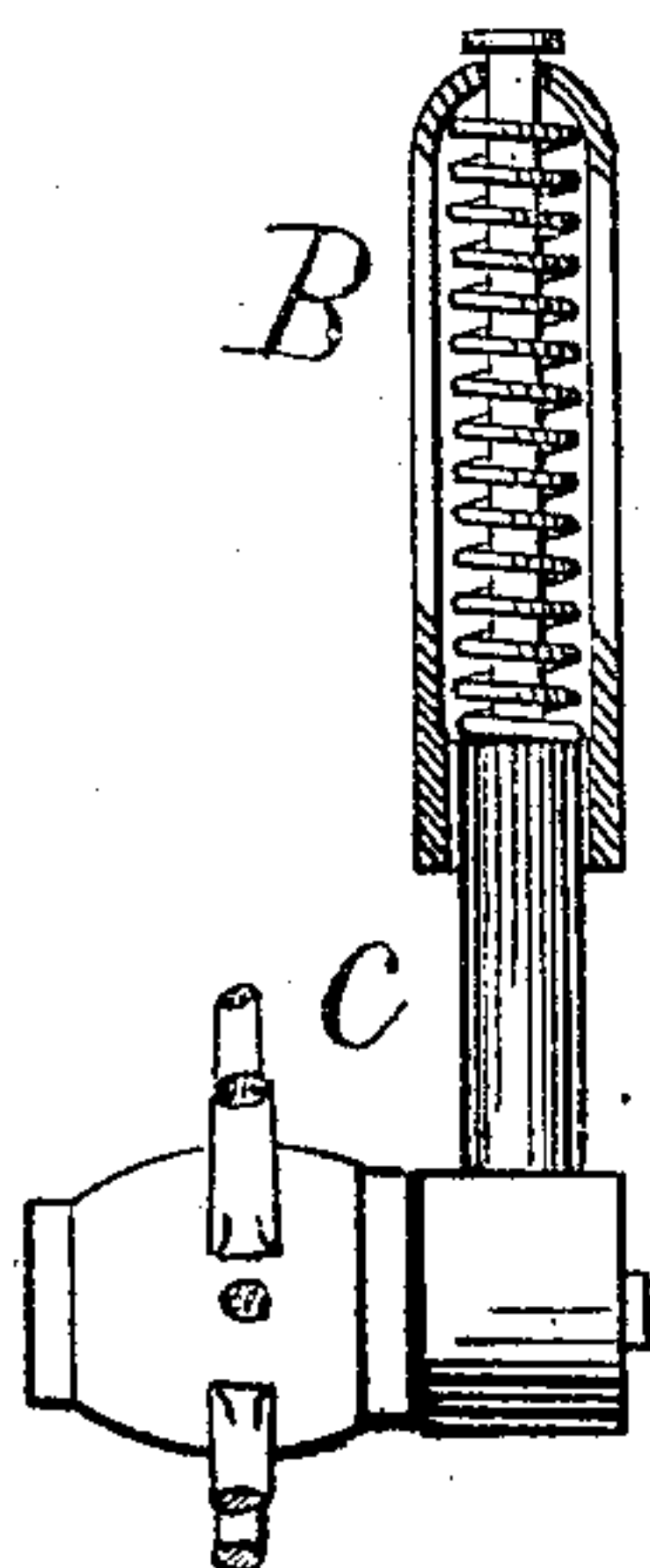
*fig. 1:*



*fig. 2:*



*fig. 3.*



*Witnesses.*

*Max Wagner,*  
*Wm. A. Bayzand*

*Inventor:*

*Joseph N. Hazelip.*



# UNITED STATES PATENT OFFICE.

JOSEPH N. HAZELIP, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN CHILDREN'S CARRIAGES.

Specification forming part of Letters Patent No. **145,298**, dated December 9, 1873; application filed August 26, 1873.

*To all whom it may concern:*

Be it known that I, JOSEPH N. HAZELIP, of the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Carriages and other like vehicles, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to carriages and other spring vehicles, but more particularly to children's perambulating carriages, and has for its object furnishing a cheap, simple, and desirable method of attaching the bodies and arranging the springs to the running-gear of said vehicles; and my invention consists of a separate metallic bracket-piece, having also a vertical box, for receiving the spring and the axle-bearing stem, and these, being independent of the curved carriage-brackets, are manufactured and sold to the trade as carriage hardware, and, being a complete device, require only to be screwed onto the under side of the carriage-brackets and the axle inserted into the bearing-stems to make the attachment, without cutting into the bracket ends for the spring and bearing-seats, which not only increases the expense, but renders the curved brackets weak, and constantly liable to be broken off at the ends; whereas the separate casting forms a firm seat for the carriage-brackets, and renders the carriage stronger and cheaper than hitherto made.

In the accompanying drawings, Figure 1 is a perspective view of a child's perambulating carriage with my improvements attached. Fig. 2 is a modification of my invention, showing the manner of hanging the body to the running-gear when elliptical springs are used without the aid of perch-coupling. Fig. 3 is an enlarged view of the spring-coupling used upon the front axle of child's carriage.

In Fig. 1, *a a* are wooden brackets or arms, for coupling the body of the carriage to the front axle. Heretofore the front axle, with its wheels attached permanently, has been coupled rigidly and without springs to the arms or brackets *a a*, while the hind axle has been arranged to the body with springs. The front coupling at the axle, being unprovided with springs, causes the carriage, which is propelled from behind, to have a rough jolting motion, while the action of propelling it from behind de-

presses the body of the carriage upon its springs irregularly, and cants it to one side, causing one or the other of its front wheels to ride up off the ground almost continually. To avoid these and other objections to the usual mode of constructing this kind of carriage, I provide the wooden brackets or arms *a a* with box-spring coupling *B B b b*, as shown in Fig. 1. These box-spring couplings serve the purpose of springs as well as that of securing the front running-gear to the carriage-body.

It will be observed that one of these couplings is connected to each end of the front axle, and forms a spring-bearing for its journals, the connection being made through means of spring piston-rod *c*, as seen in Figs. 1 and 3. It will also be seen that spring piston-rod *c* is provided with and operated by a spiral spring, *c'*, confined within a case surrounding its upper end, and both the spring *c'* and rod *c* are acted upon by the motion of front wheels and axle. Now, the front axle being provided at its ends with a separate spring to act upon each of its wheels independently, the tendency, hereinbefore referred to, of the front wheels being suspended above the ground by canting of the carriage-body upon its hind springs, is removed, and the rough jolting of the carriage-body by the front wheels avoided.

In the construction of this box-spring coupling, either spiral, rubber, volute, or other suitable springs may be used to operate its piston-rod.

It will, of course, be understood that my method of coupling the front running-gear can be readily used in connection with any of the usual modes now in use for attaching the hind spring and axle to the body of the carriage.

My method of securing the hind running-gear to the body of the carriage may be readily understood by reference to Fig. 1. *E E* are iron frame stays or brackets bolted securely to the bottom of the carriage-body. Each of these stays or brackets is so constructed as to receive guide-rod *h*, which passes through it vertically, and having a movement like that of a piston-rod. These guide-rods are for the purpose of coupling the hind axle of the carriage to the stays or brackets *E E*, the construction and arrangement of the brackets and guide-rods being such as to allow the body of



the carriage to act vertically upon its springs, at the same time preventing it from having a forward or lateral movement, which would tend to upset or rupture them.

The springs may be arranged to the carriage by placing them within the rectangular opening in the stays or brackets *E E*, as in Fig. 1, where they are secured to and operated by the guide-rod. This arrangement of the springs is a cheap and efficient one, particularly for children's carriages; but where it is desirable, the elliptical springs may be attached after the manner shown in Fig. 2, where, it will be observed, it is accomplished without the aid of the perch-coupling in general use.

The casting for the spring is made in one piece, with a curved branch, *e*, for attachment to the under side of the carriage-bracket *a*, and

a vertical box, *B b*, within which the spring and bearing-stem *c* are made, and between these a seat, *f*, is formed for the end of the bracket *a*, which renders the attachment of the independent casting *B* conveniently and quickly made, and protects the carriage brackets from being broken off.

Having thus described my invention, what I claim is—

The cast-iron bracket *e* and box *B b*, in combination with bearing-stem *c* and spring *c'*, for attachment to and to form seats for the curved brackets *a* of children's carriages, as and for the purpose set forth.

JOSEPH N. HAZELIP.

Witnesses:

C. H. SLICER,

WM. H. BAYZAUD.