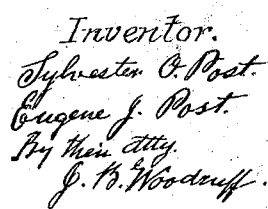


Axle.

Patented Nov. 11, 1862.



UNITED STATES PATENT OFFICE.

SYLVESTER O. POST, OF CHICAGO, ILLINOIS, AND EUGENE J. POST, OF VIENNA, NEW JERSEY.

IMPROVEMENT IN AXLES AND REACHES FOR VEHICLES.

Specification forming part of Letters Patent No. 36,914, dated November 11, 1832.

To all whom it may concern:

Be it known that we, SYLVESTER O. POST, of the city of Chicago, in the county of Cook, State of Illinois, and EUGENE J. POST, of Vienna, in the county of Warren, State of New Jersey, have invented new and useful Improvements in the Application of Material and in the Construction of Axles and Reaches for Vehicles; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to accompanying drawings, making a part of this specification, in which—

Figure 1 shows a side view of an axle for transportation. Fig. 2 shows the underside of a single corrugated axle. Fig. 3 is a top view of a very strong axle for light vehicles. Fig. 4 shows an axle and section of a reach for light-draft vehicles. Fig. 5 is an end view or section across Fig. 1. Fig. 6 is an end view or section across Fig. 2. Fig. 7 is an end view or section across Fig. 3. Fig. 8 is an end view or section across Fig. 4.

Our invention consists in the construction and application of corrugated sheet iron or steel to be used for axles and stretchers or perches for vehicles; also the manner of securing the arms to the same.

To enable others skilled in the art to make and use our invention, we will proceed to describe it more fully, referring to the drawings, and to the letters of reference marked thereon.

In order to get the greatest amount of strength and stiffness with the least weight of material, we make the bar or bolster A A, which connects the axle-arms *a a a a* together, of sheet metal, iron, or steel, the same being bent or corrugated in such a form, and put up and secured together in such a manner, as to support the greatest weight and strain possible in proportion to the weight of the axle.

The axle-arms, if desired, may be made of hard tough wood *b b* having a skein of iron, *c c*, let into them in the usual way, the same being secured to the corrugated bow A by bolts or rivets *e*, as seen at the left-hand end of Fig. 2; or they may be made of cast malleable iron, or wrought iron or steel, so swaged

and shaped as to form tenons *f f*, which fit in the openings *d d d* in the ends of the bars A left by the curving and shaping of the metal used for the purpose of axles. The arms *a a* thus fitted may be firmly secured in their places by bolts or rivets *i i i i* put through the whole.

The stretcher or perch B, or any of the other parts of the running-gear of land-vehicles, may be made of sheet corrugated metal, so constructed and shaped as to possess six times the strength and tenacity of any metal of the same weight in any other form. Thus it will readily be seen that by the application of our invention army-wagons, omnibuses, and other vehicles for heavy transportation, as well as coaches, buggy-wagons, and every description of pleasure-carriages, can be made at least one-third lighter, and possess more strength, elasticity, and consequently more durability, than any that have been before known or used.

Corrugated metal for all purposes where great strength and a certain amount of yielding is necessary has been found to possess the requisite qualities, and its adaptation to various purposes has been rightfully secured to those who have discovered and applied it, and there is not, perhaps, another place where its utility can be better tested than when applied to the running-gear of such vehicles as are required for heavy transportation over the rough and mountainous roads in this country.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The application of corrugated sheet metal to bars or bolsters for wagon-axles and the mode of securing the arms to the same, in the manner described, and for the purposes herein specified.

SYLVESTER O. POST.
EUGENE J. POST.

Witnesses:

EDM. F. BROWN,
J. B. WOODRUFF.