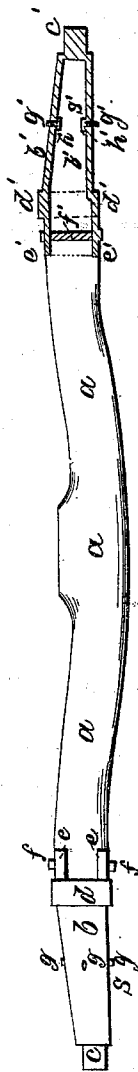


A. COMBS
Axle-Skein.

No. 7,363.

Patented May 14, 1850.



UNITED STATES PATENT OFFICE.

ABEL COMBS, OF FARMINGTON, OHIO.

CONNECTING SKEINS WITH AXLES.

Specification of Letters Patent No. 7,363, dated May 14, 1850.

To all whom it may concern:

Be it known that I, ABEL COMBS, of Farmington, in the county of Trumbull and State of Ohio, have invented a new and useful Mode of Constructing Skeins for the Axles of Wagons and Carriages; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawing, forming part of this specification, representing a carriage axletree made of wood and furnished with my improved skeins, one end of the axletree being represented in section to show the shape of the inside of the skein.

The corresponding parts of the axletree and skein are in the plan marked with the same letters, the letters referring to the end shown in section being accented for the sake of distinction.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and application.

In the drawing *a*, *a*, represents a wooden axletree of the ordinary construction, *b* *b*¹ represent the skeins made of cast iron, in the shape of a frustum of a cone, and hollow throughout excepting the tip *c* *c*¹ on which the nut is usually screwed. The skein is of the uniform thickness of about a quarter of an inch throughout.

The band *d*, *d*¹ is cast in one piece with the skein (instead of being, as is usually the case where iron skeins are used, a separate band of wrought iron put on over the skein). The band being no thicker than the rest of the skein, and its diameter slightly greater, it forms a shoulder, both inside and out where it connects with the skein. The arms *e* *e*, *e*¹ *e*¹ projecting on opposite sides of the band *d* are also cast in one piece with the other parts of the skein.

The ends *s*, *s*¹, of the wooden axletree are shaped so as to fit exactly in the interior of the skein and band, and the arms *e* *e*, *e*¹ *e*¹ are let into the axletree so as to lie even with its surface. A bolt *f*, *f*¹, passes through the end of the axletree *s*, *s*¹, from one arm to the other of each skein, and thus secures the skein in its place.

To obviate the difficulty of the skein becoming loose and unsteady from the shrinking of the ends *s*, *s*¹, of the axletree, each skein is furnished with three or four screws, placed around the skein and about equidistant from either end of it. These screws *g*, *g*¹, are of uniform thickness throughout and without any heads, so that they may be screwed down their whole length. These work in female screws cut in the side of the skeins and press against small plates of iron *h*, *h*, *h*¹ *h*¹ which are inserted for that purpose in the ends *s*, *s*¹ of the axletree so as to be under the screws when the skein is put on. As the axle tree ends *s*, *s*¹ shrink from the skein, these screws are each turned sufficiently to keep the skein firm, and keep it properly adjusted.

Having thus described my improved skein, what I claim as my invention and desire to secure by Letters Patent is not the making of iron skeins to be put on wooden axletrees, because that is commonly done, but

What I do claim as my invention is—

The combination with the skein of the screws *g*, *g*¹, for the purpose of tightening the skein on the axletree as set forth in the foregoing specification.

ABEL COMBS.

Witnesses:

A. A. GOFF,
CHARLES MCVAY.