

P. S. SANFORD.

Tire-Tightener.

No 43,343.

Patented June 28, 1864

Fig. 2.

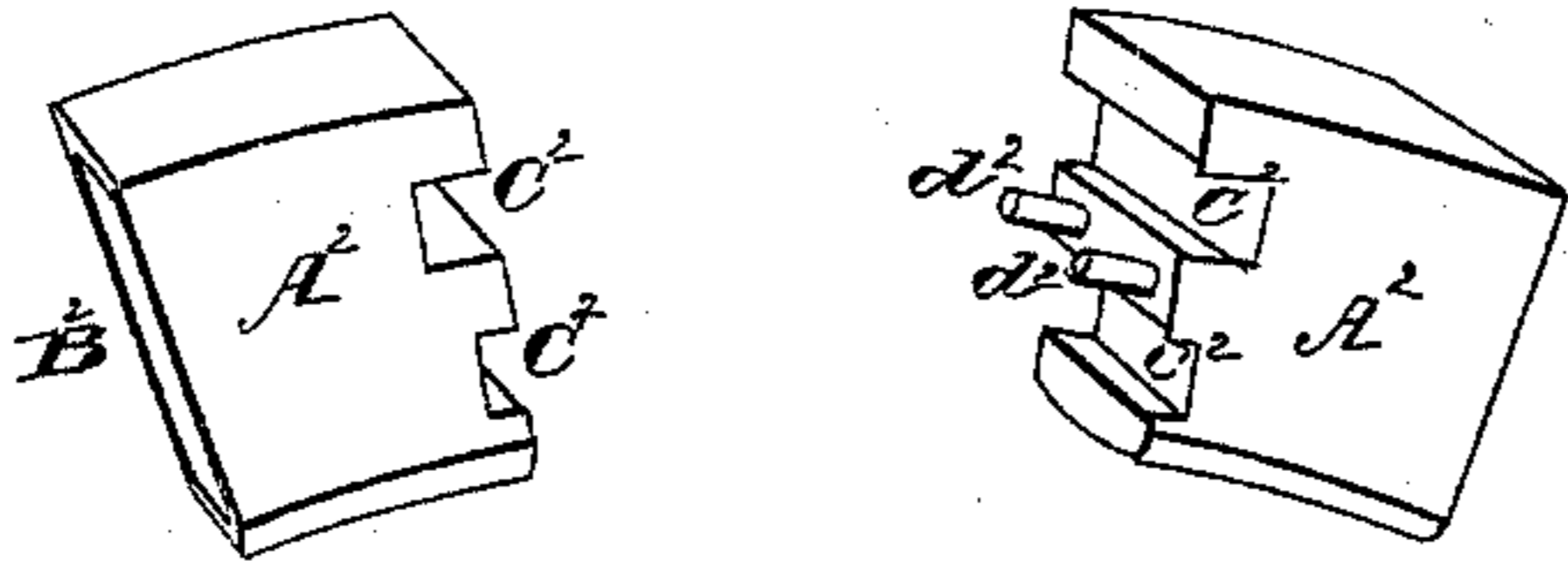


Fig. 3

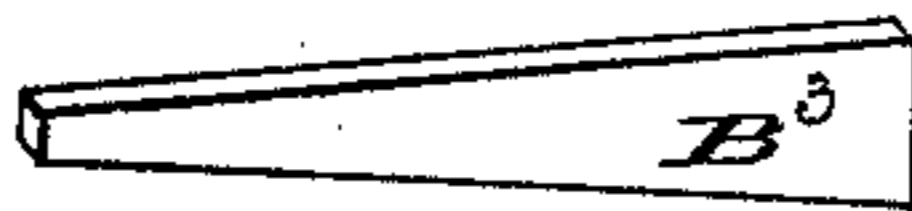
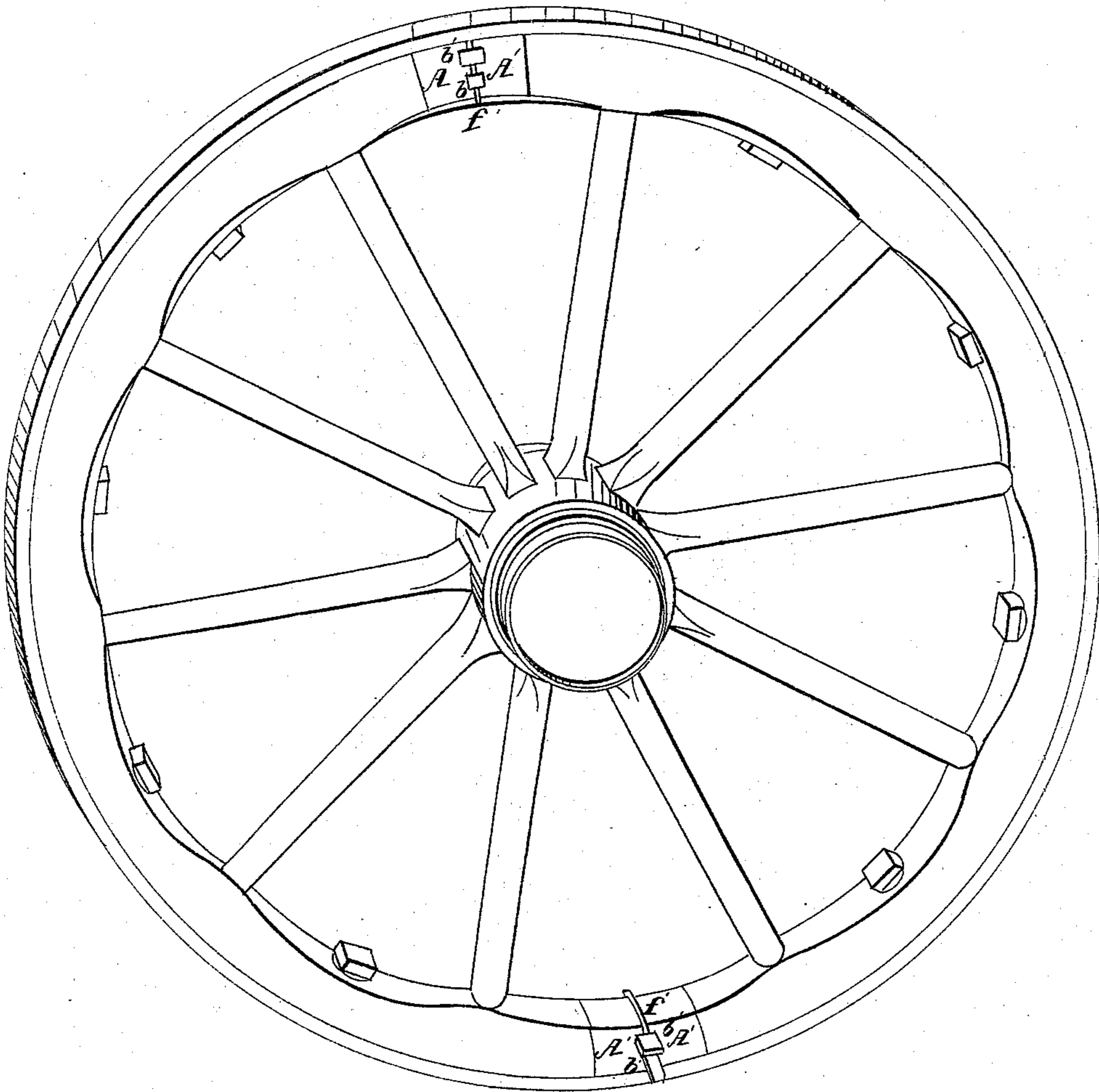


Fig. 1



Witnesses.  
Isaac D. Earle.  
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# UNITED STATES PATENT OFFICE.

PELEG S. SANFORD, OF WESTPORT, MASSACHUSETTS.

## IMPROVEMENT IN TIGHTENING TIRES OF CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 43,343, dated June 28, 1864.

*To all whom it may concern:*

Be it known that I, PELEG S. SANFORD, of Westport, in the county of Bristol and State of Massachusetts, have invented a new and Improved Mode of Tightening Tires on Carriage-Wheels, thereby obviating the necessity of contracting them; and I do hereby declare that the following is a clear and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The novelty of my invention consists in providing the ends of the fellys of carriage-wheels with metallic couplings, affixed to the fellys like ferrules. By expanding the couplings with keys the circumference of the wheel is enlarged and rendered tight against the tire.

Figure 1 is a perspective view of a carriage-wheel with my invention affixed to it. Fig. 2 is a perspective view of my invention removed from Fig. 1. Fig. 3 is a key.

In Fig. 1, A' A' A' A' are the couplings, cast about two inches long and the size of the ends of the fellys. The ends of these couplings which are fitted to the fellys are hollow. They are fastened to the fellys with dowel-pins. (These dowel-pins are not shown in the drawings.) They also have dowel-pins affixed in them, which admit of their being separated at *f'* by means of keys *b' b' b' b'*.

In Fig. 2, A<sup>2</sup> A<sup>2</sup> is the coupling. (Shown by

A', &c., in Fig. 1 removed from Fig. 1, and separated to illustrate more clearly its construction.) B<sup>2</sup> is the hollow end, which is fitted to the end of the felly with dowel-pins. (Not shown.) Each wheel is provided with two or more of these couplings, as shown in Fig. 1. One-half of each coupling is provided with two dowel-pins, *d<sup>2</sup> d<sup>2</sup>*, which guide them when separated by the keys. C<sup>2</sup> C<sup>2</sup> C<sup>2</sup> C<sup>2</sup> are grooves in the ends of the couplings, into which the keys are driven. (See *b'*, &c., Fig. 1.)

In Fig. 3, B<sup>3</sup> is a key, and needs no specification.

The two parts of the within-described coupling are constructed as herein shown and affixed to the fellys as herein specified, the keys being inserted transversely in the grooves. The fellys are caused to adhere to the tire by driving the keys, thereby separating and expanding the periphery of the wheel. The keys are secured in the couplings by riveting them.

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

Tightening the tires of carriage-wheels by separating the fellys with keys, as set forth and described.

PELEG S. SANFORD.

Witnesses:

CHARLES CRAM,  
GEO. A. COBB.