

H. W. MOORE.

Car Wheel.

No. 23,775.

Patented Apr. 26, 1859.

Fig. 1.

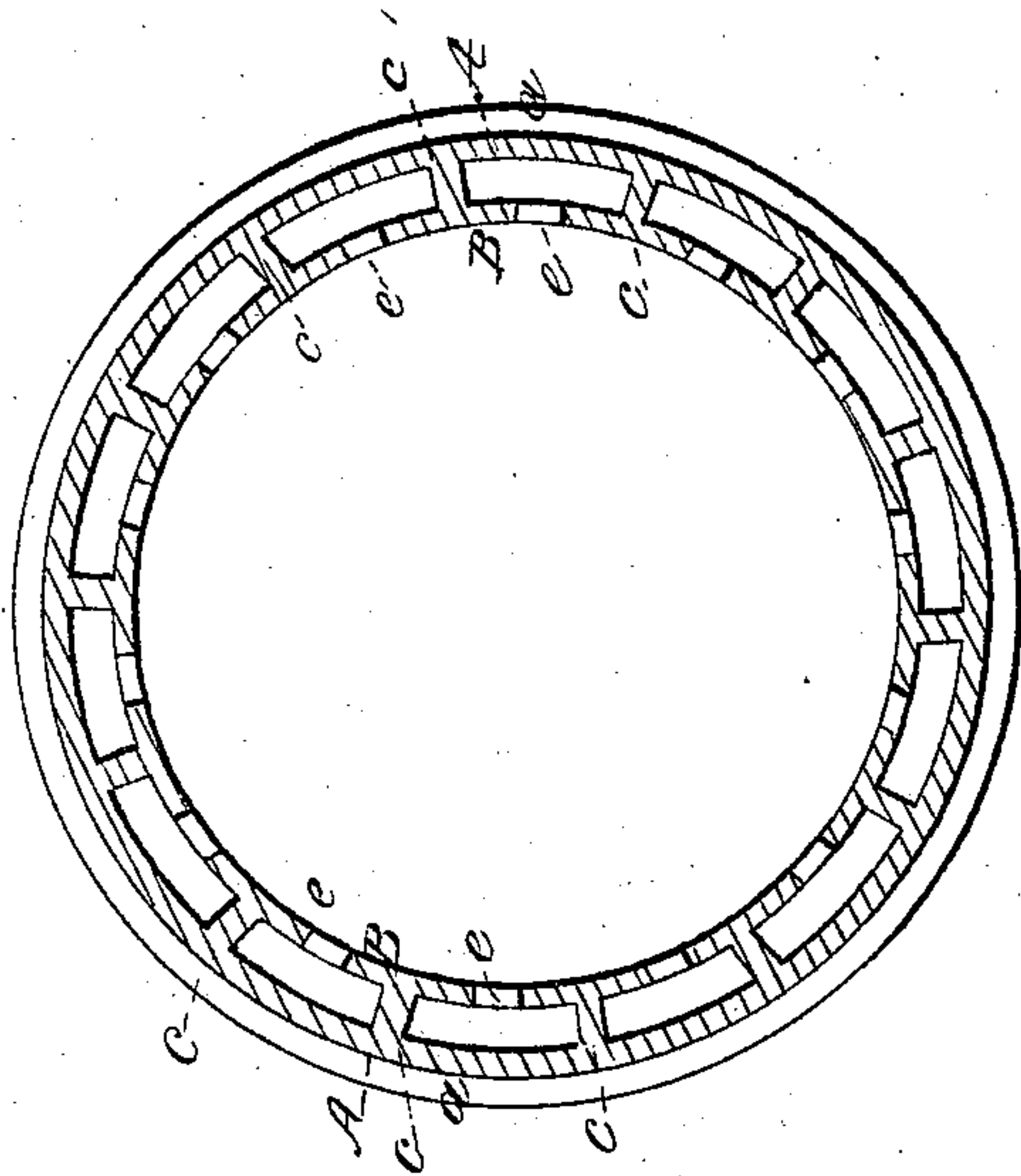
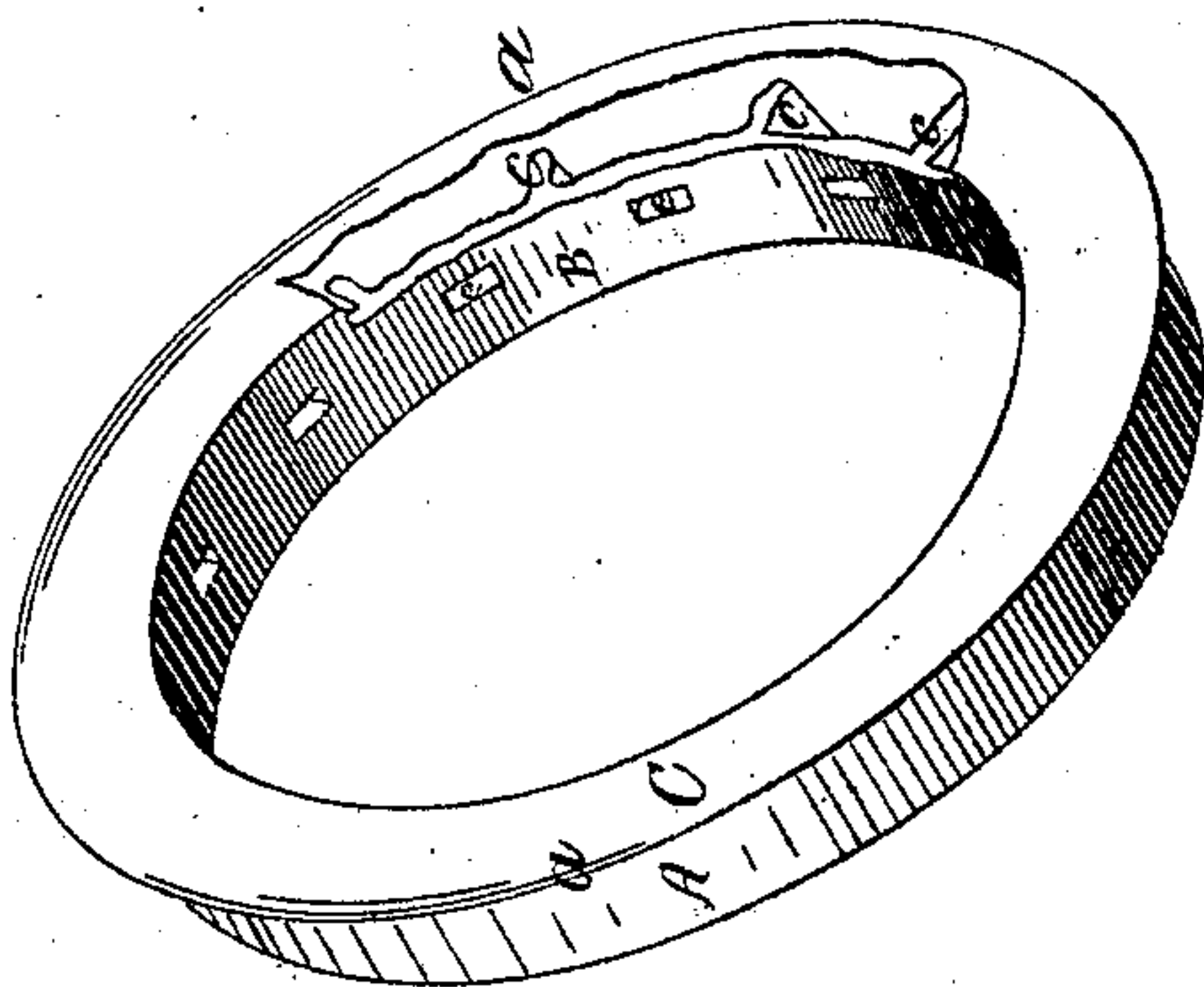


Fig. 2.



Witnesses:

*A. B. Stoughton*  
*Thos. D. Upperman*

Inventor:

*H. W. Moore*

# UNITED STATES PATENT OFFICE.

HIRAM W. MOORE, OF JERSEY CITY, NEW JERSEY.

MODE OF CHILLING RIMS FOR LOCOMOTIVE-WHEELS.

Specification of Letters Patent No. 23,775, dated April 26, 1859.

*To all whom it may concern:*

Be it known that I, HIRAM W. MOORE, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain  
5 new and useful Improvements in the Construction of Hollow Chilled Rims for Locomotive-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to  
10 the accompanying drawings, making a part of this specification, in which—

Figure 1, represents a perspective view of the rim, and Fig. 2, represents a section through the same taken in a plane with the  
15 face of the rim or wheel.

I am perfectly aware that chilled rims or tires have been heretofore made; and that a hollow chilled rim has been made. I am aware also that, an entire car wheel has been  
20 cast with a hollow rim, but these things do not embrace the object I have in view.

My invention relates solely to a rim or tire, and that made in a peculiar way, to give it the proper chill, and the proper strength.

25 In the hollow chilled rims heretofore made, the inner and outer rims have only been united at their sides, and without any interior bracing. The consequence of such a construction is that the rim will split or  
30 break in. If made heavy enough to resist the strain that it is subjected to, then it might as well be solid, so far as the chill is concerned for a good chill cannot be had, except in light or thin castings. I have  
35 therefore devised a plan to make the casting thin to get a good chill, but at the same time to make the rim strong enough to withstand the immense strain to which it is subjected on the drivers of locomotives. And my in-  
40 vention consists in fastening the inner and outer rings or bands of the tire or rim, not only by the side plates, but in addition to the side plates as fastenings, I interpose interior bracing, which unites both the inner  
45 and outer rings, and also the side plates, thus giving the parts the firmness almost of a solid rim while I have the lightness or thinness, so necessary to a perfect chill.

To enable others skilled in the art to make  
50 and use my invention, I will proceed to describe the same with reference to the drawings.

A, represents the outer, and B, the inner

rings of the rim. These two rings are united at their edges by the side plates, one of  
55 which C, terminates in the flange *a*, the other being a simple flat plate. Thus far there is nothing but what has been known and used in chilled rims, but when so made they  
60 break in two, or split, or crush down unless as before stated they are made heavy enough to resist all strain upon them, and there is so much metal as to make a good chill an impossibility. My invention begins, where  
65 those who have heretofore made hollow chilled rims leave off. I add to the rims as heretofore made, internal braces *c, c, c*, which not only unite the inner and outer rims, but also unite the side plates, thus making as  
70 it were a cast iron frame work or truss, braced at all points to resist the work it is designed for, while I retain the advantage of thin or light metal, for the chill. The braces  
75 *c, c, c*, may stand in radial or oblique lines, or in any way that will admit of their bracing or tying together of the four walls of the rim viz: the inner and outer rings, and the two side plates.

*e, e*, are the openings through which the  
80 cores are removed.

By this construction of hollow chilled  
85 rims, I have a light and strong rim, and with such proportions and disposition of metal, as to make the best chill on the tread of the wheel.

Having thus fully described the nature and object of my invention, I would state that, I do not claim a chilled rim; nor do I claim a hollow chilled rim; nor do I claim  
90 a wheel cast in one piece, as all these have heretofore been made; but

What I do claim as new and desire to secure by Letters Patent is—

A hollow chilled rim whose inner and outer rims are not only united at the sides  
95 or ends thereof, but also united throughout the annulus by means of braces extending from one to the other for the purpose of strengthening the tread of the wheel and prevent it from cracking or breaking in,  
100 substantially as herein described.

H. W. MOORE.

Witnesses:

A. B. STOUGHTON,  
THOS. H. UPPERMAN.