

(No Model.)

E. DANFORD.

FELLY FOR VEHICLE WHEELS.

No. 333,732.

Patented Jan. 5, 1886.

Fig. 1.

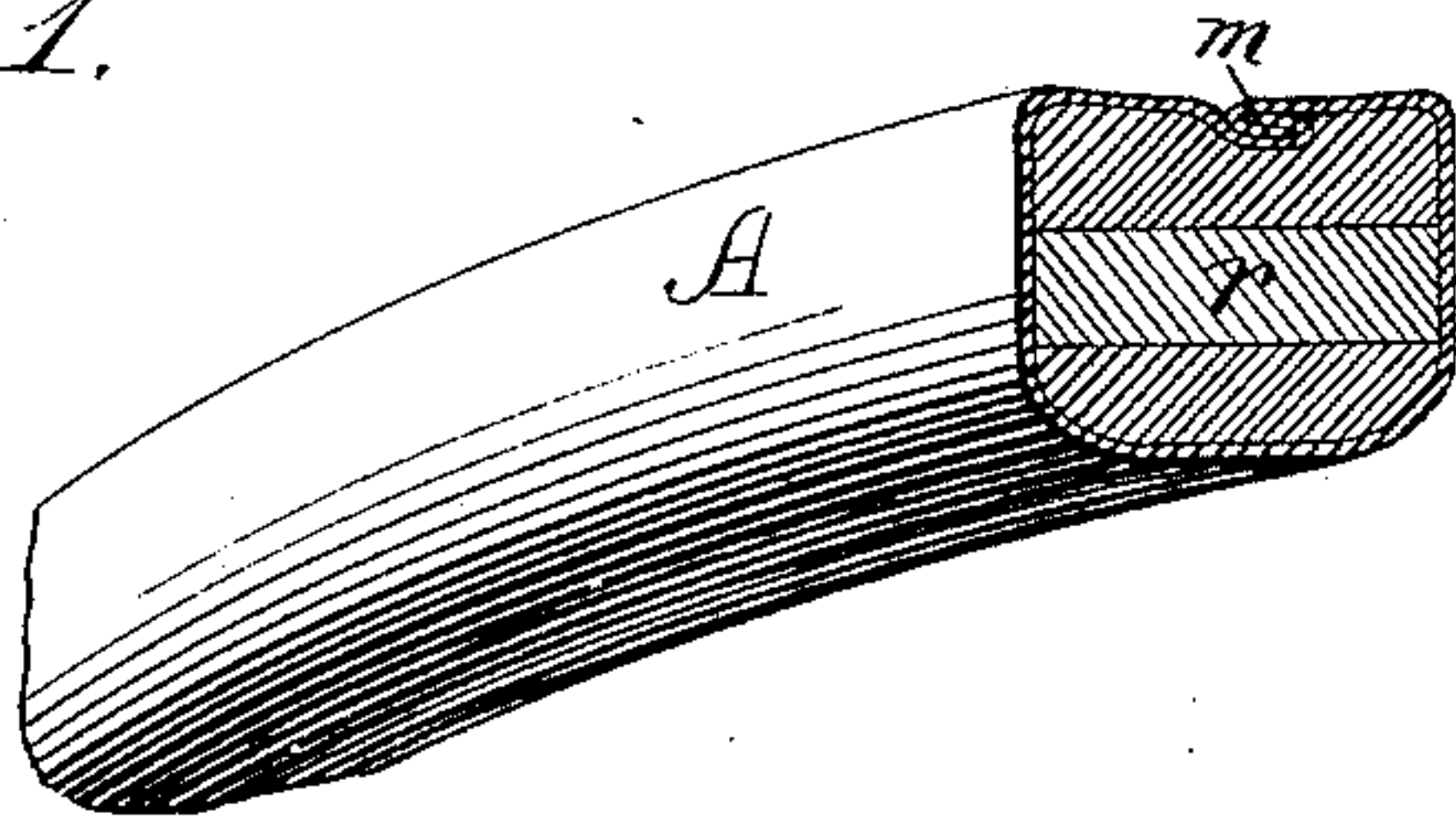


Fig. 2.

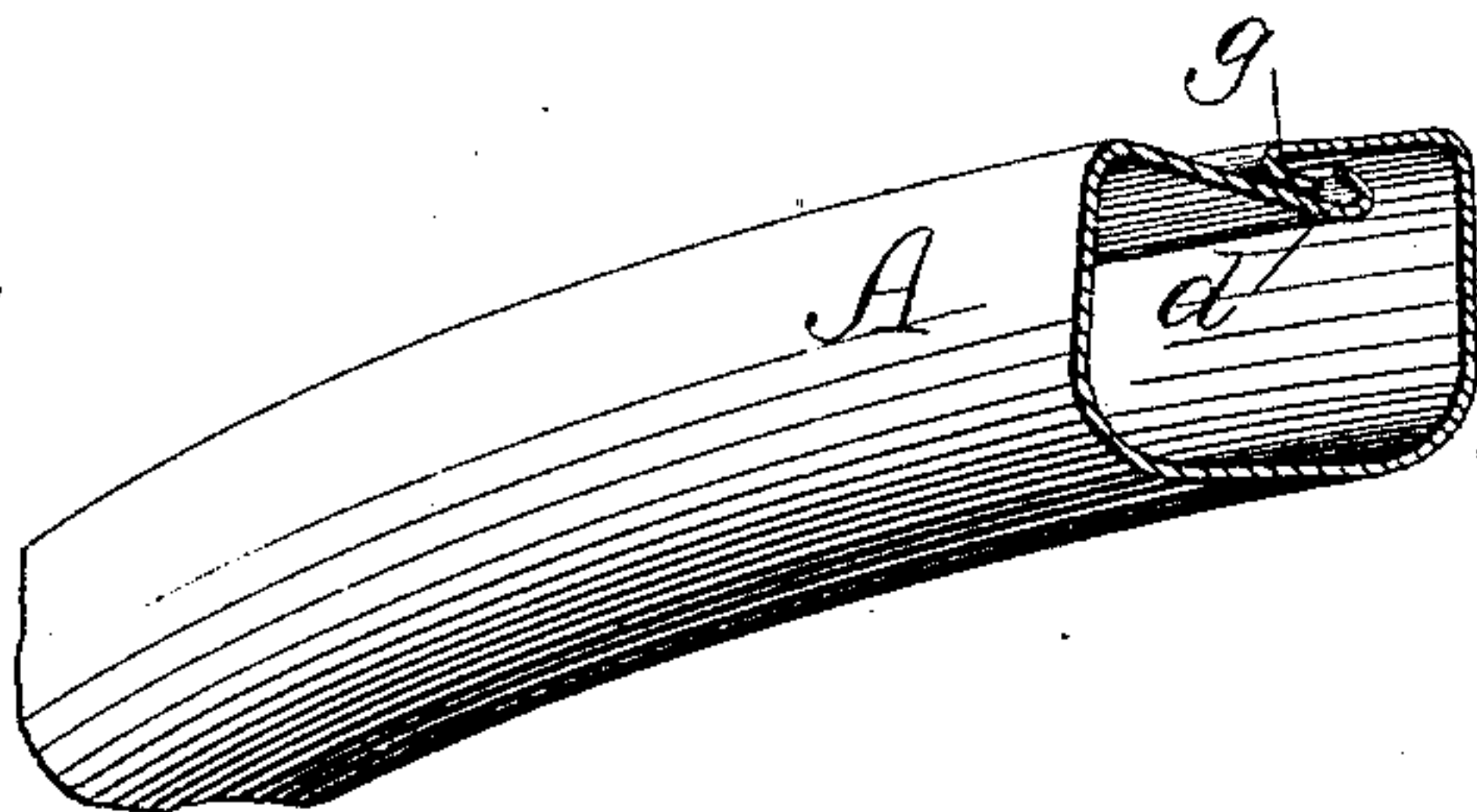
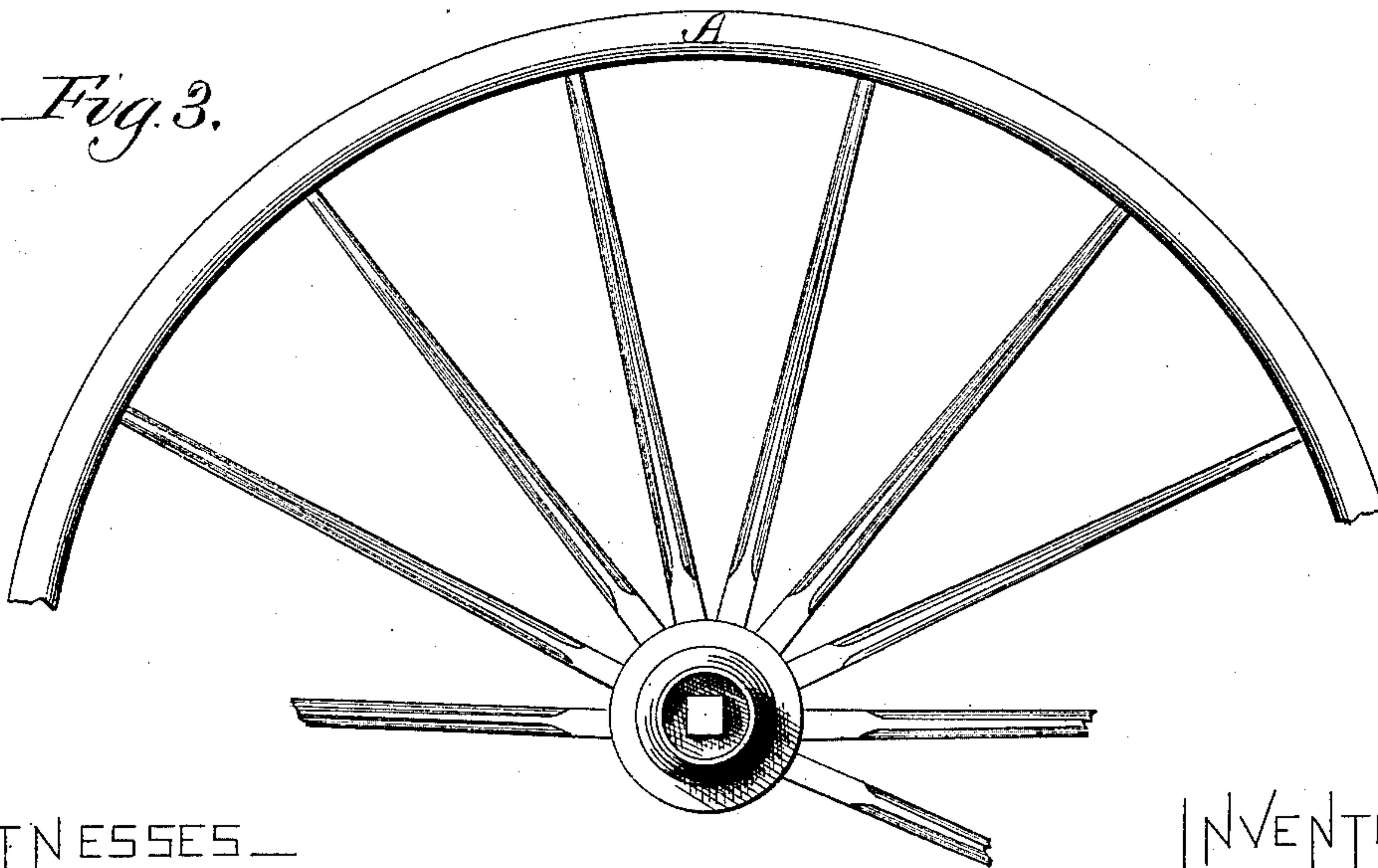


Fig. 3.



WITNESSES—

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FELLY FOR VEHICLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 333,732, dated January 5, 1886.

Application filed October 19, 1882. Serial No. 74,625. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER DANFORD, a citizen of the United States, residing at Geneva, in the county of Kane and State of Illinois, have invented a certain new and useful Improvement in Fellies for Light Vehicles, of which the following is a specification.

My invention relates to the making of a tubular or hollow metal felly, of metal of such light weight as not to admit of being welded together; and it consists in the use of a joint in the place of welding.

I have illustrated my invention in the accompanying drawings, in which Figure 1 is a cross-sectional view of a metallic felly of this construction. Fig. 2 is a view of the metallic outer wall of the felly with the opposite edges bent for the purpose of being jointed together. Fig. 3 is an elevation of a section of a wheel of this construction.

Like letters refer to like parts.

A indicates the metal outer wall of the felly. *d* and *g* indicate the turned edges, which, when united, form the joint or connection. *m* indicates the joint just referred to and formed in the manner shown. *r* indicates the filling of wood or other suitable material.

It will be readily seen that a hollow felly of this construction requires an interior filling, and that my invention relates to combination-fellies.

I secured Letters Patent of the United States for a hollow or tubular metal felly, bearing date October 24, 1876, and numbered 183,647. The construction therein described contemplated the use of an outer metal wall of sufficient thickness and strength to answer the purpose designed without requiring an interior filling. The use of combination-fellies having a metal exterior and an interior filling of wood or other suitable material has become so extended, and in particular has this construction been found to be so desirable and durable for carriages and light vehicles, that any improvement in the way of decreasing the weight of metal required without materially impairing the strength and durability of the felly has become a consideration of

importance in this department of manufacture.

It has been found that when well-seasoned wood or other material having corresponding strength and solidity is used for the filling of the felly the outer wall of metal may be made quite thin, a thirty-second part of an inch in thickness, when steel is used, being sufficient to answer all of the requirements. A vehicle-felly of this construction is preferably formed hollow, and the filling is then driven into the same while straight, the bending being done afterward by the use of rollers or other suitable means.

It will be apparent that light metal, such as I have referred to, cannot be readily or successfully welded together, and it is the uniting of the same by the use of a lock-joint or by an equivalent connection when the thinness of the metal used will not admit of welding which constitutes my invention.

I am aware that a metal exterior has been used to surround a wood interior for various purposes or, in other words, that the covering of wood with metal is not new. After much research, however, I am unable to ascertain that any one has ever formed the outer wall of a felly by the use of a joint when the metal used was not thick enough to admit of welding. I do not wish to confine myself to the precise joint or connection shown in my drawings, as the same may be varied somewhat, providing it so unites the parts as to be secure and unyielding. I do not deem it necessary to specify the manner or method of forming or shaping the metal exterior such as herein set forth.

It has been found that combination-fellies of this class are most desirable for vehicles in which lightness of weight is an important consideration, and that a thin metal exterior such as herein specified is both safe and durable when the interior filling possesses a high degree of compactness and strength. When a continuous and solid filling is used, it so supports the surrounding exterior that the same may be formed of light metal. The metal exterior, even when light, acts to protect the wood interior from the influences of

the weather, and contracts and expands uniformly with the tire, so that the same mutually strengthen and sustain each other.

Having thus described my invention, what
5 I claim, and desire to secure by Letters Patent, is—

A felly for vehicles, consisting of a filling of wood, paper, or other similar and appropriate

material bound in by a thin metal covering united by means of a joint formed by locking together the bent edges of the same, substantially as shown and described. 10

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Witnesses:

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