

W. W. CRANE.

Lubricating Car-Wheels.

No. 133,418.

Patented Nov. 26, 1872.

Fig. 1.

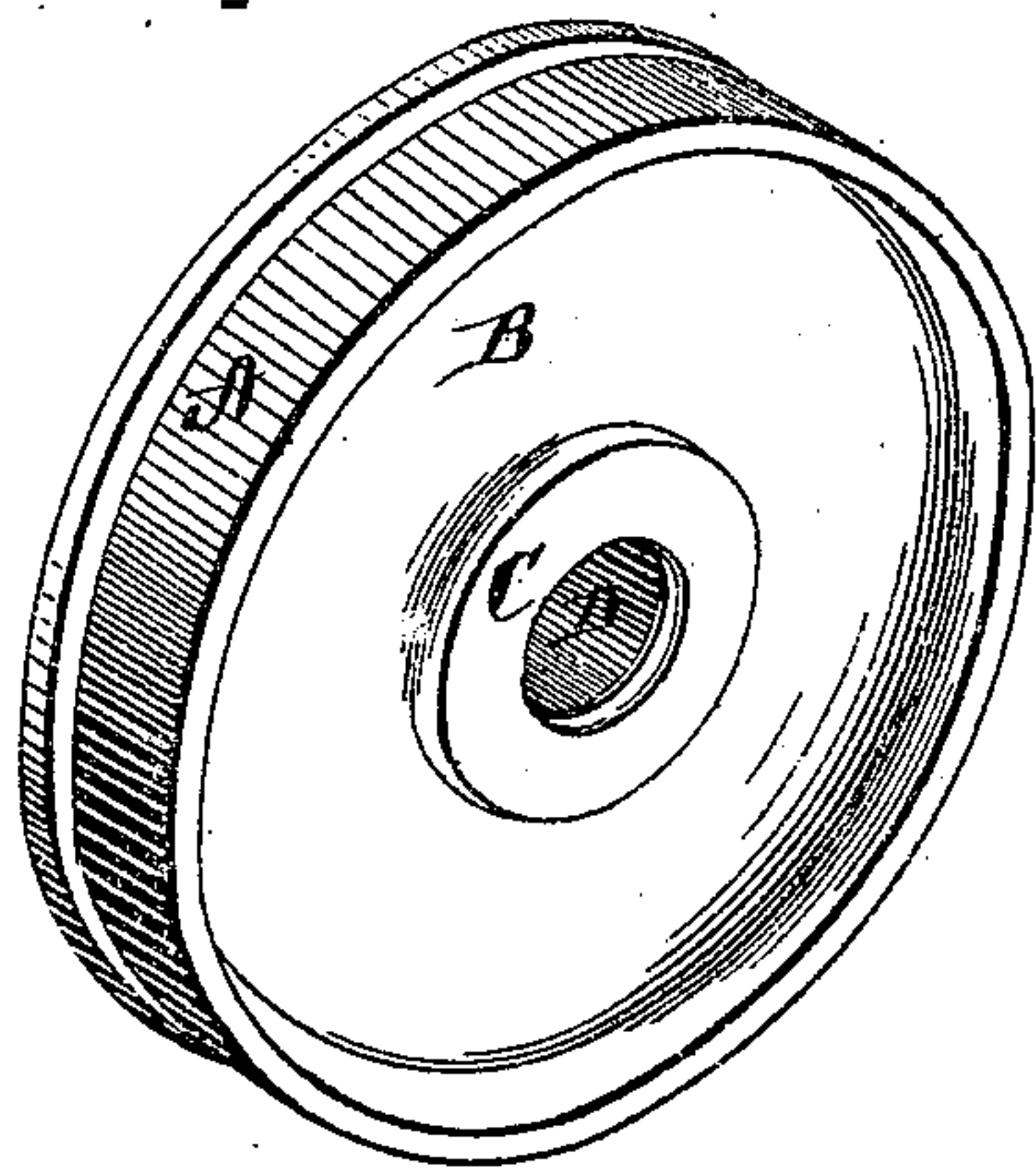
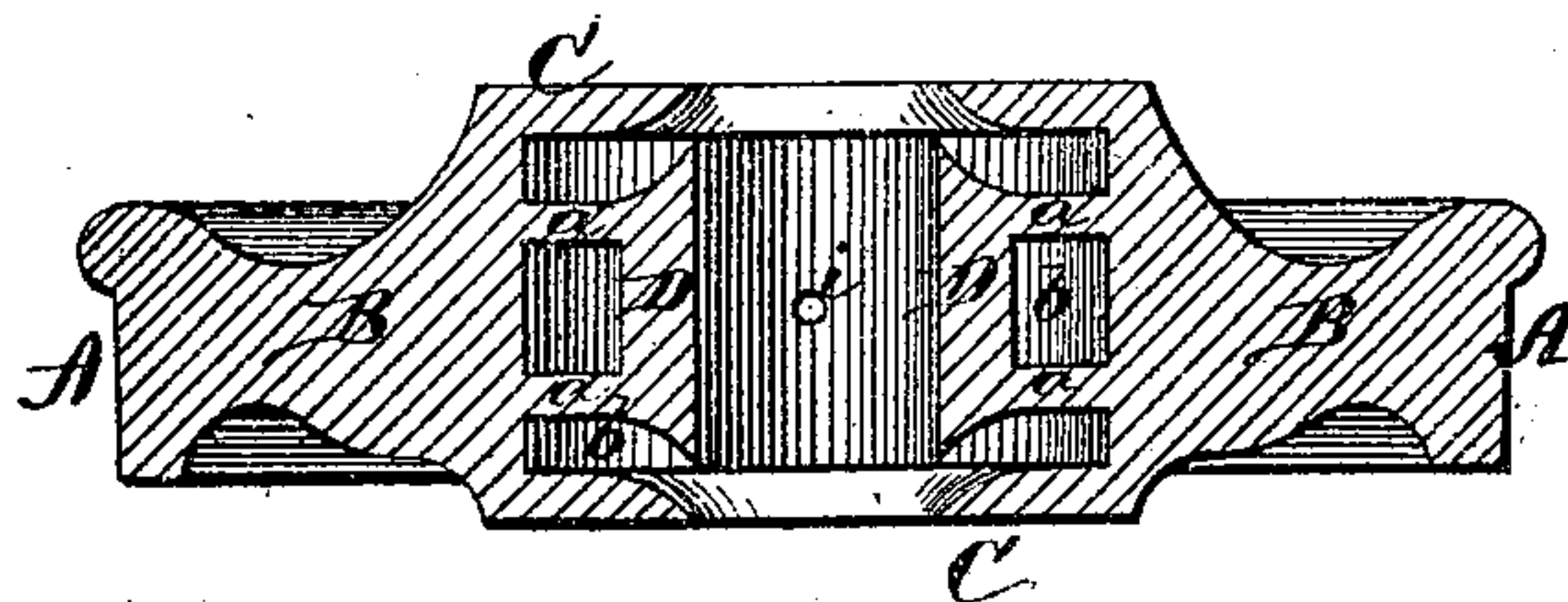


Fig. 2.



Witness:  
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# UNITED STATES PATENT OFFICE.

WELLSLY W. CRANE, OF AUBURN, NEW YORK.

## IMPROVEMENT IN LUBRICATING CAR-WHEELS.

Specification forming part of Letters Patent No. 133,418, dated November 26, 1872.

*To all whom it may concern:*

Be it known that I, WELLSLY W. CRANE, of Auburn, in the county of Cayuga and in the State of New York, have invented certain new and useful Improvements in Self-Lubricating Car-Wheel; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a self-lubricating car-wheel, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view, and Fig. 2 a longitudinal section of my car-wheel.

My self-lubricating car-wheel is intended to run loose on the axle or shaft, and is especially applicable to street-railroads, but can be used with equal advantage on any railroad cars.

A represents the tread of the wheel; B, the web; and C, the hub of the same. The hub C is made hollow, and within the same is an interior box, D, connected with the exterior hub by arms *a a*. The entire wheel with the interior box and arms are all cast in one piece. The hub C and box D form between them an oil-chamber, *b*, into which oil is poured through one or more suitable openings in the exterior

hub C. These openings are to be closed oil-tight, so that no oil can escape through the same in any way. In the interior box D are one or more openings, *i*, through which the oil passes from the chamber *b* onto the axle. The inner edges of the exterior hub C, as well as the ends of the interior box D, are feathered or beveled, as shown in Fig. 2, around the axle, for the purpose of preventing the oil from escaping around the same.

It will be seen that whenever the wheel is standing the oil will settle down into the lower portion of the chamber *b*; but when in motion the oil will be uniformly distributed entirely around said chamber. This operation of stopping and starting has the effect to keep the external surface of the interior box covered with oil, and this is constantly working its way through the interior box to the axle at the apertures *i i* and at the ends of the interior box.

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

The box D, cast in the eye of a car-wheel and forming a part of the same, when an oil-chamber is formed between the wheel and the box and the edges of both are beveled so as to cause the oil to remain in the chamber, as is herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of October, 1872.

Witnesses:

A. N. MARR,  
EDM. F. BROWN.

W. W. CRANE.