

(No Model.)

N. M. GEORGE.

DUST GUARD FOR CAR AXLE BOXES.

No. 285,994.

Patented Oct. 2, 1883.

Fig. 1.

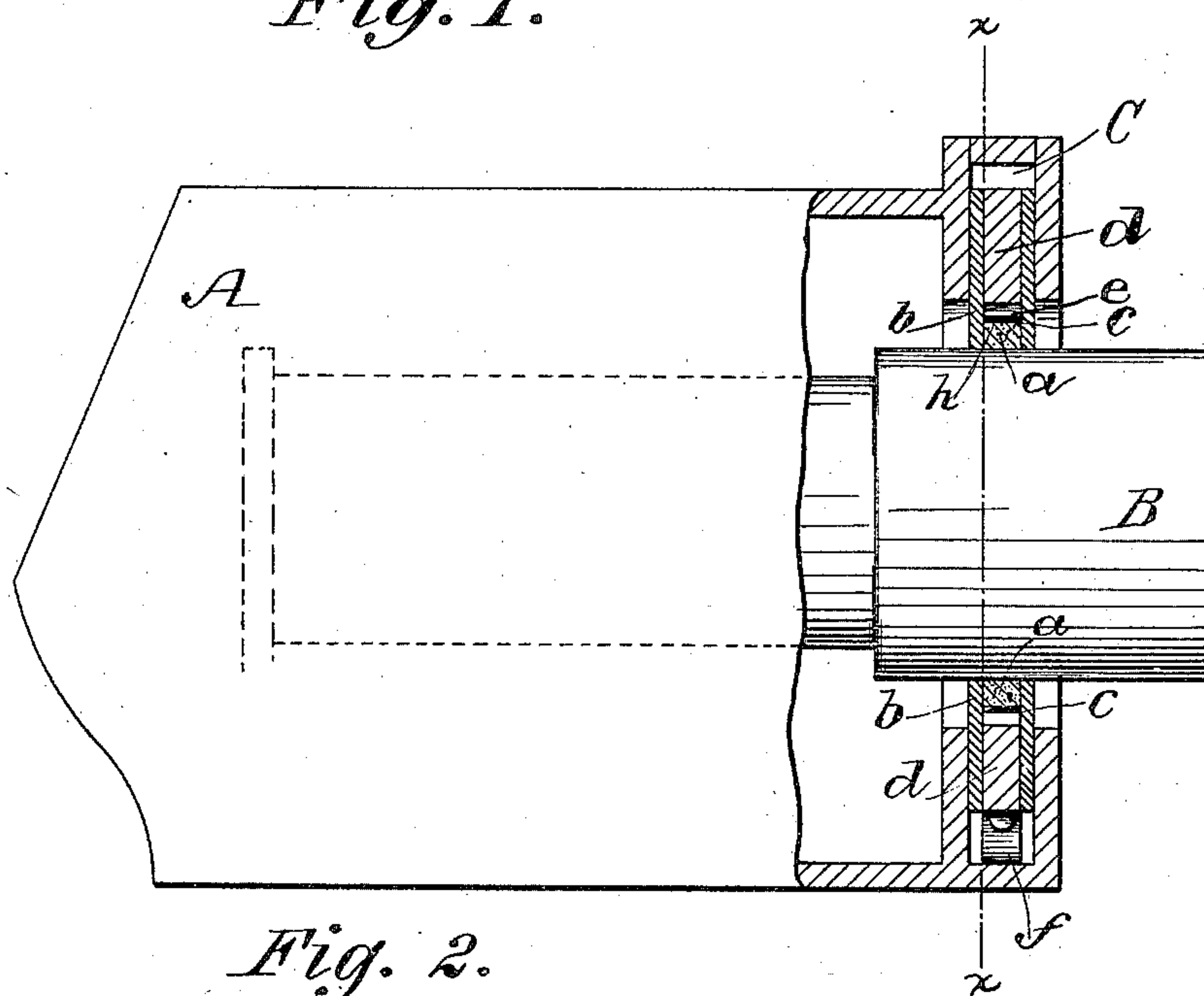


Fig. 2.

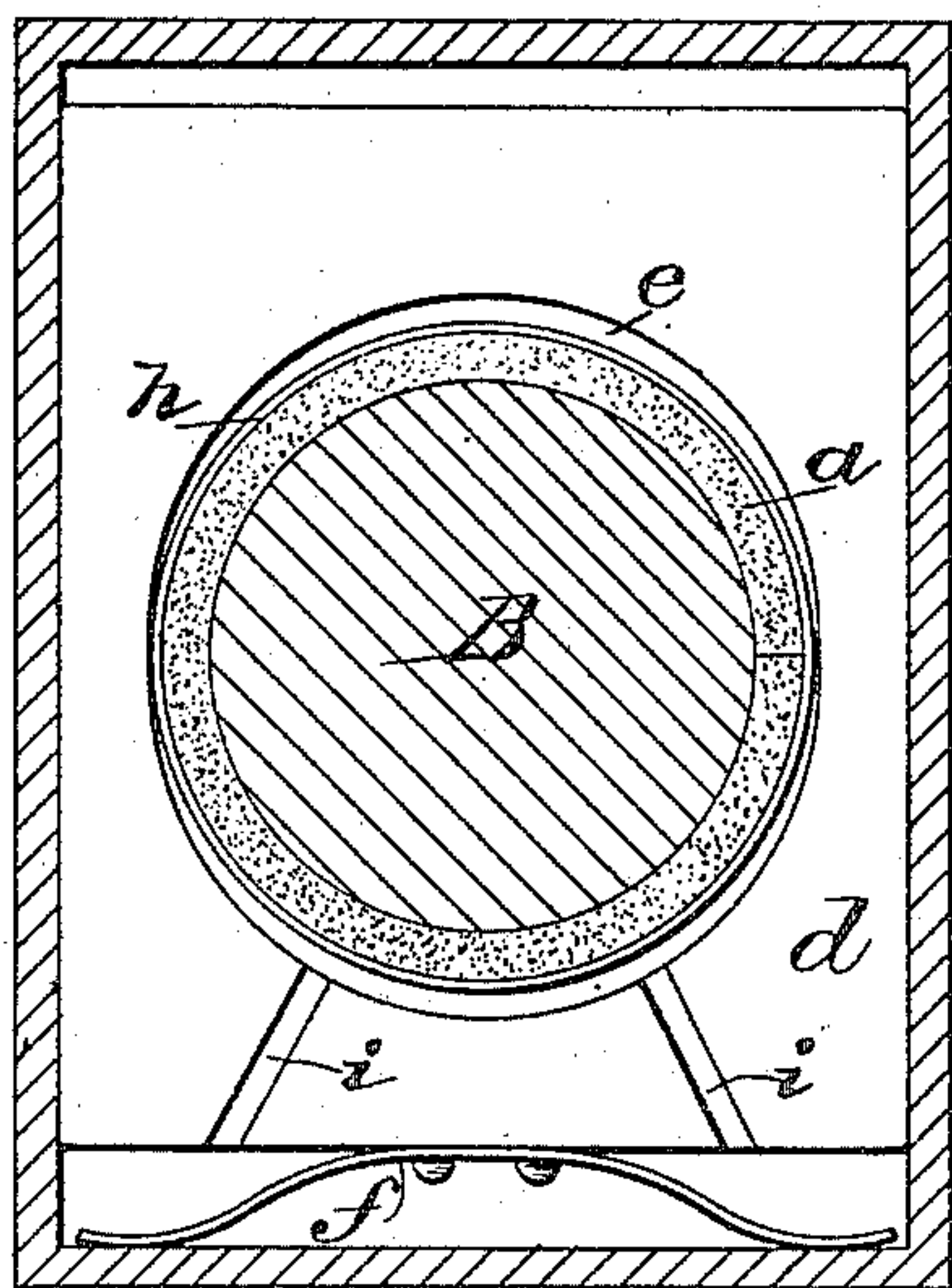
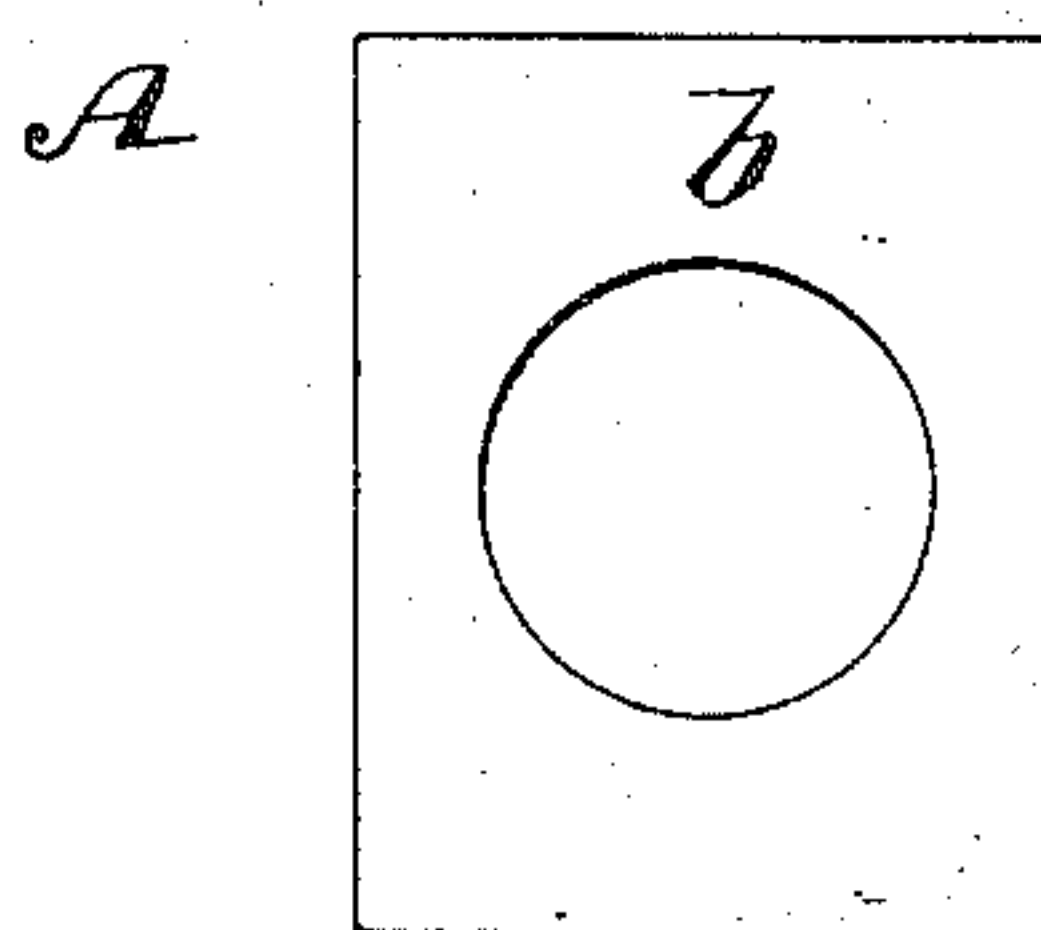


Fig. 3.



WITNESSES:

John R. Deemer
C. Sedgwick

INVENTOR:

N. M. George
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

NATHAN M. GEORGE, OF DANBURY, CONNECTICUT.

DUST-GUARD FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 285,994, dated October 2, 1883.

Application filed June 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, NATHAN M. GEORGE, of Danbury, in the county of Fairfield and State of Connecticut, have invented a new and Improved Dust-Guard for Axle-Boxes, of which the following is a full, clear, and exact description.

This invention has for its object to provide an effective and practical guard for excluding dust from axle-boxes, and is more especially intended for use on railroad trucks and locomotives.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of a car-axle and box having my new and improved dust-guard applied thereto. Fig. 2 is a transverse sectional elevation of the same, taken on the line *x x* of Fig. 1; and Fig. 3 is a plan view of one of the leathers forming part of the dust-guard.

The axle-box A and axle B may be of the ordinary or of any approved construction.

In the space C of the axle-box A is placed my new and improved dust-guard, which surrounds the axle, and is composed, essentially, of the two apertured leathers *b c*, apertured board *d*, placed between them, and the packing *a*, of felt or other suitable material, held in the annular space *e*, formed around the axle by making the aperture through the board *d* of larger diameter than that of the axle, the leathers being made to fit the axle. The leather *c* is secured to the rear face of the board *d*, so that they act as one, and the board *d* is provided at its lower edge with the spring *f*, which rests upon the axle-box and serves to hold the lower edge of the circular aperture in the leather *c* in constant contact with the axle, so that any space caused by the wearing away of the leather will show above the axle. The leather *b* is placed loosely upon the axle, so that any space between its circular edge and the axle caused by wear will show below the

axle, and these spaces above and below the axle will at all times be perfectly closed to exclude the dust by the packing *a*, and the leathers at the same time perfectly close the axle-opening in the axle-box, thus effectually excluding all dust from the axle and box.

I have shown placed around the felt *a* the metal ring *h*. This is not necessary where the felt *a* is made a continuous ring; but where a strip of felt is used, as shown, I prefer to use the ring to avoid the necessity of joining the ends of the strip and for keeping the inner edge of the felt in contact with the axle, and in some cases the ring *h* will be tempered and cut so as to act as a clasp-spring for clasping the felt upon the axle.

The felt *a*, besides serving to exclude the dust from the axle-box, also serves to prevent escape and waste of oil from the rear end of the axle-box, and to permit the escape from the annular space *e* of any oil that might ooze or work through the felt *a* and lodge in the space, I form in the front face of the board *d* the grooves or shallow channels *i i*, through which the oil may pass down into the space C in the axle-box.

It will be understood that, instead of using the leathers *b c*, plates of vulcanized fiber or plates of any other suitable material might be used, and that, instead of using felt for the packing *a*, a packing of rubber, leather, or of any suitable material might be used.

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

The dust-guard for axle-boxes, made substantially as herein shown and described, consisting of the apertured leathers *b c*, apertured board *d*, packing *a*, and spring *f*, the board *d* having one of the leathers secured to it, substantially as and for the purposes described.

NATHAN M. GEORGE.

Witnesses:

GEORGE L. PUTNAM,
C. SEDGWICK.