

I. Dorman. Hub.

N^o 64955.

Patented May 21, 1867.

Fig. 1.

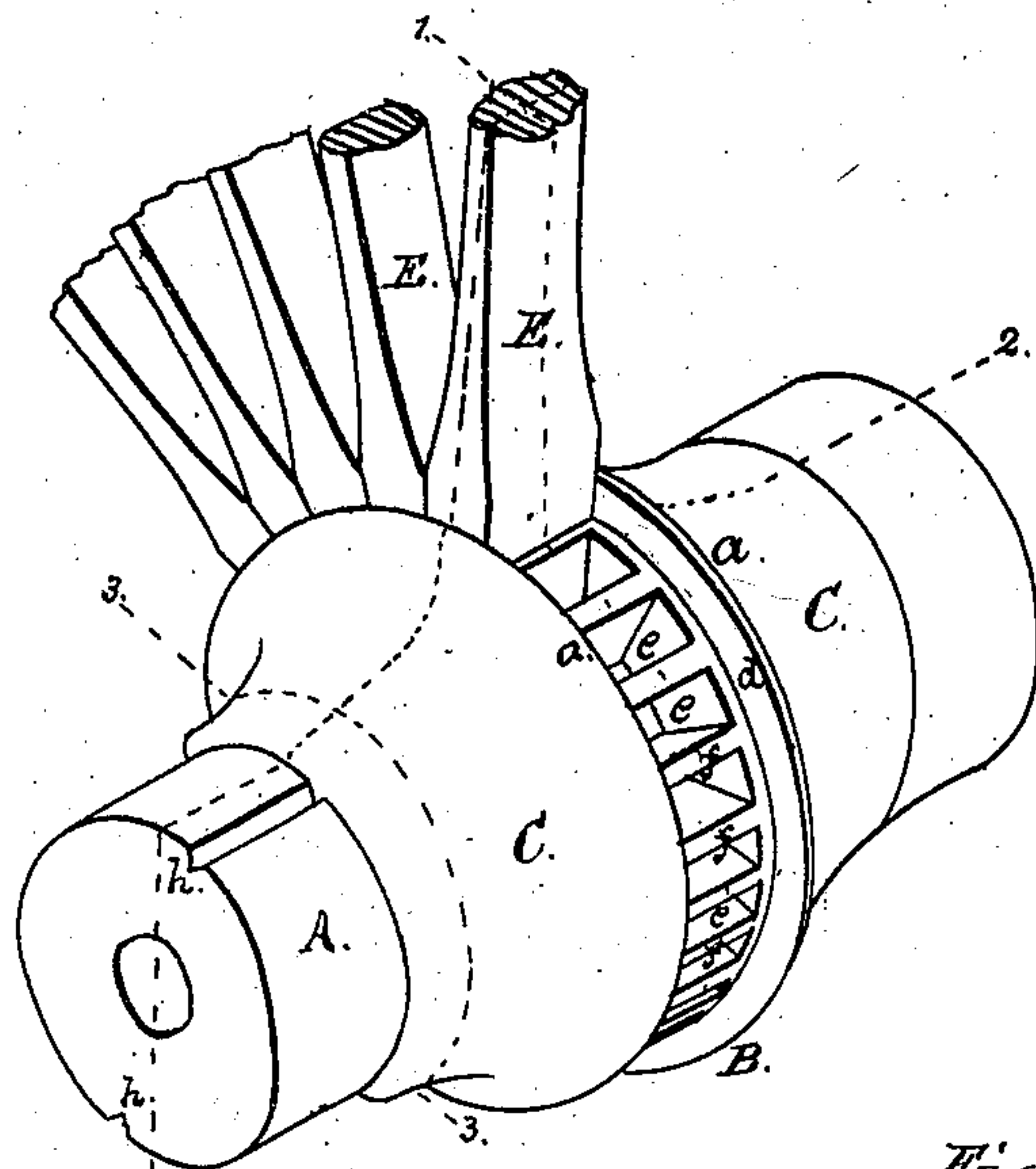


Fig. 2.

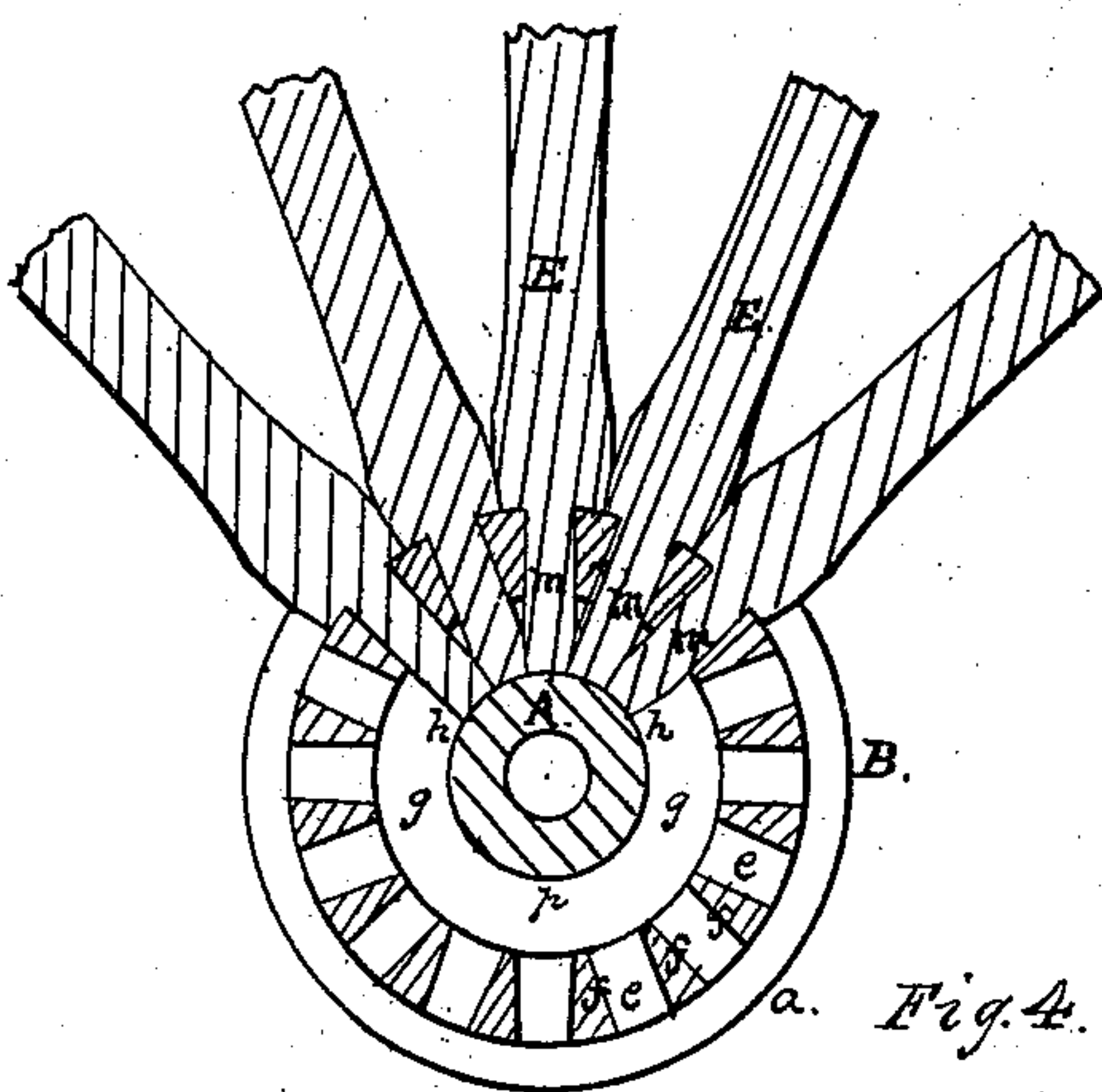


Fig. 4.

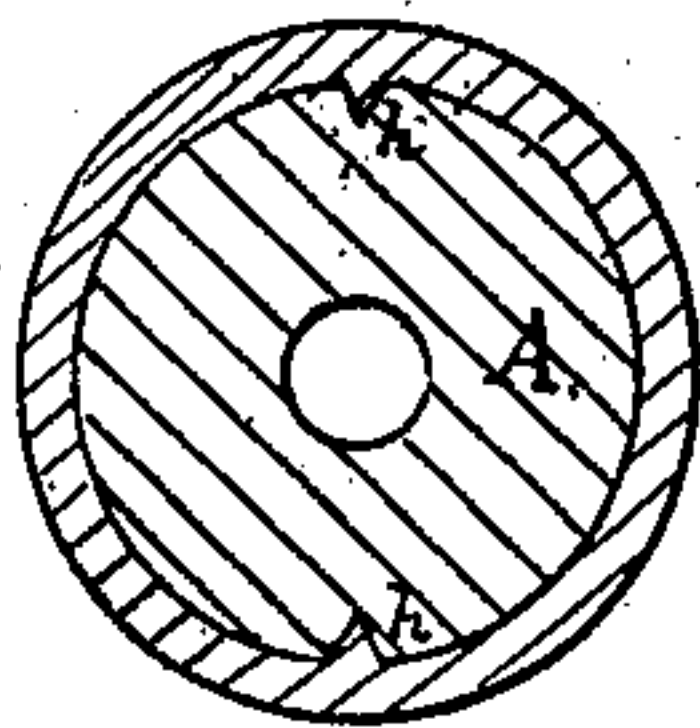
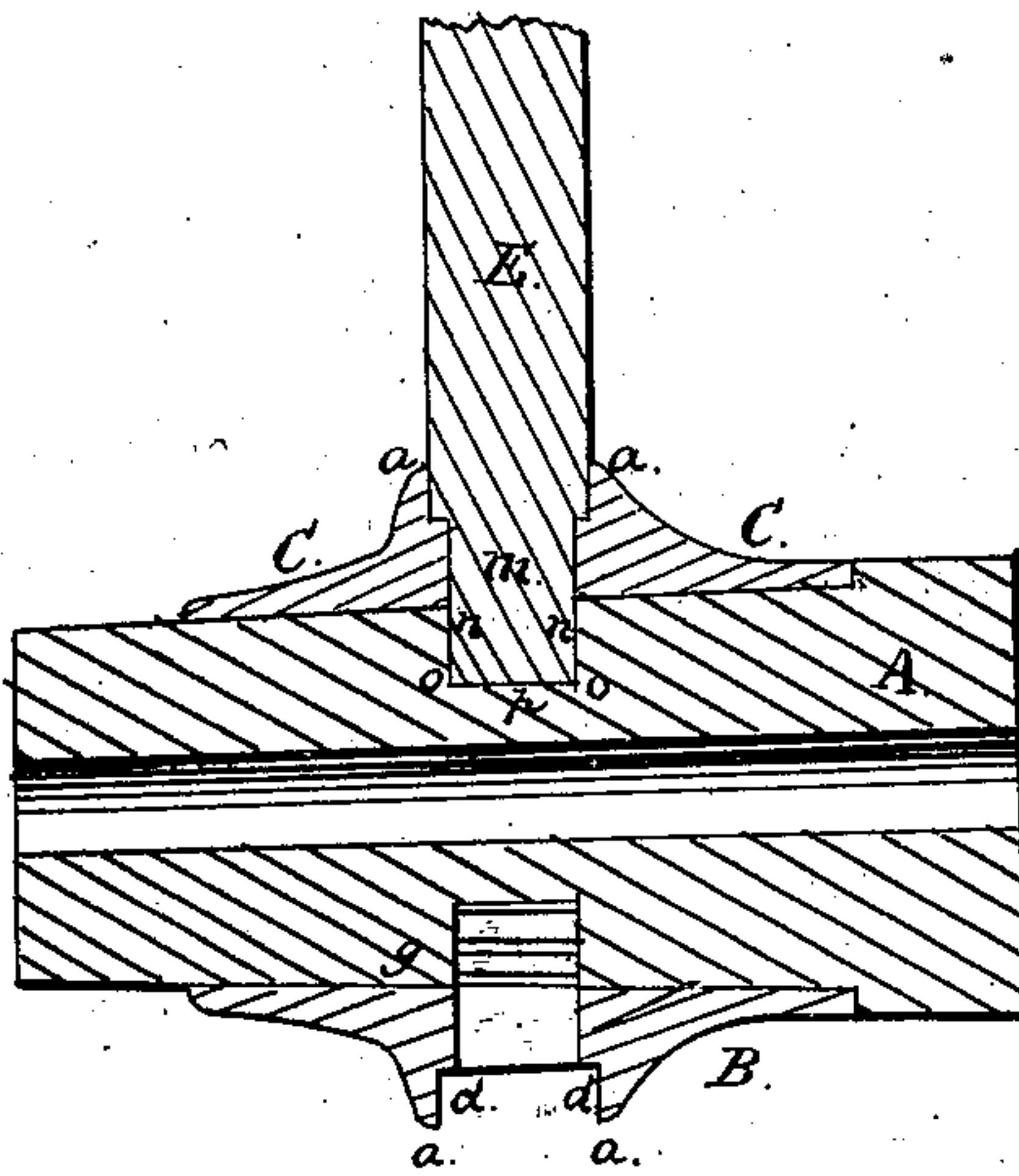


Fig. 3.



Witnesses.

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LATHROP DORMAN, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN CARRIAGE-WHEEL HUBS.

Specification forming part of Letters Patent No. 64 955, dated May 21, 1867

Know all men by these presents:

That I, L. DORMAN, of the city and county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Carriage Wheel Hubs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming a part of this specification, in which—

Figure 1 represents a perspective view of so much of a hub as is necessary to illustrate my invention. Fig. 2 represents a cross central section of the hub shown in Fig. 1, line 1. Fig. 3 represents a longitudinal central section on line 2 2; and Fig. 4 represents a cross-section on line 3 3, Fig. 1.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it.

In the drawings, the part A is made of wood turned a little tapering, to fit closely when driven into the metal shell part B, the hole in which is also made a little tapering. The shell part B is made with tapering ends C C, to combine lightness with strength. It is also made with two flanges, *a a*, which project out so as to leave shoulders *d d*, one on each side. It is also provided with a series of slots or openings, *e e*, which extend through the shell, the sides and ends of these slots in this instance being straight, thereby leaving the angular-formed ribs *f f* between the slots or openings *e*, as fully shown in the drawings. A groove, *g*, is turned in the wood part A, the width being the same as the length of the slots or openings *e*. The wood part A is also grooved out lengthwise in one or more places, *h*, to receive the pins *i* on the shell B.

The operation of constructing the wheel, or combining the spokes E with it, is as follows: The wood part A is driven into the shell, in which it is kept from turning by the pins *i* fitting the grooves *h*. The spokes E are then driven in, so as to occupy the relative positions shown in the drawing. It will

be seen that the shoulders of the spokes rest upon the ribs *f* and also upon the shoulders *d*, while their tenons *m* just fill the openings *e* in the shell B, while their edges *n n* fill and press closely against the sides *o o* of the groove *g*. The ends of tenons *m* are so made that they fit the circular part *p* in the bottom of groove *g*, and also fit each other, as fully shown in Fig. 2. Their shoulders are also so made as to fit and press against each other, as fully shown in the same figure. If preferred, the sides of the groove *g* may be turned out wider at the bottom, so as to make the groove in dovetail form, and the ends or tenons *m* split and fitted with small wedges before they are put in, so that when driven in the wedges will strike against the bottom of the groove *g*, and thus force the tenons apart sufficiently to fill the enlarged bottom of the groove *g*. The wood part A may be bored out and fitted with boxes in the ordinary manner. The ends, too, may be provided with sand-boxes as usual.

By my improvements the expensive and slow process of cutting separate tenons in the hub is obviated, while I obtain a very strong and compact hub, and one, too, in which the base of each spoke is well and perfectly braced and supported. All splitting of the hubs by exposure to the weather is obviated, and thus a light and durable carriage-wheel is produced.

Having described my improved hub for carriages, what I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination of the grooved wooden part A with the metal shell B, substantially as and for the purposes set forth.

2. The combination of the grooved wooden center or core A and the spokes E with the slotted or metal shell part B, substantially as and for the purposes set forth.

LATHROP DORMAN.

Witnesses:

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