

B. F. TAFT.

Hub.

Patented Sept 3, 1867

No. 68,397.

Fig. 1.

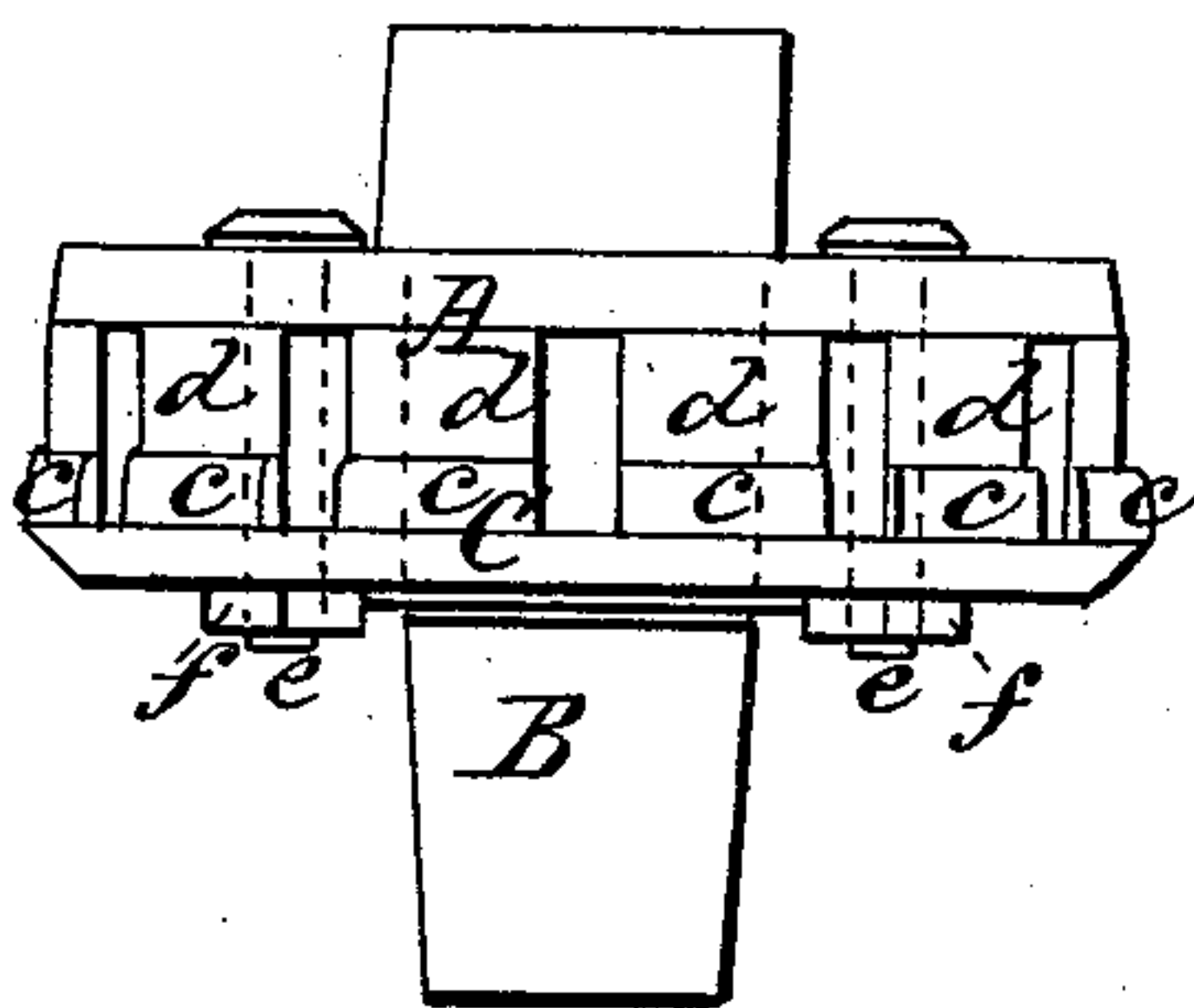


Fig. 2.

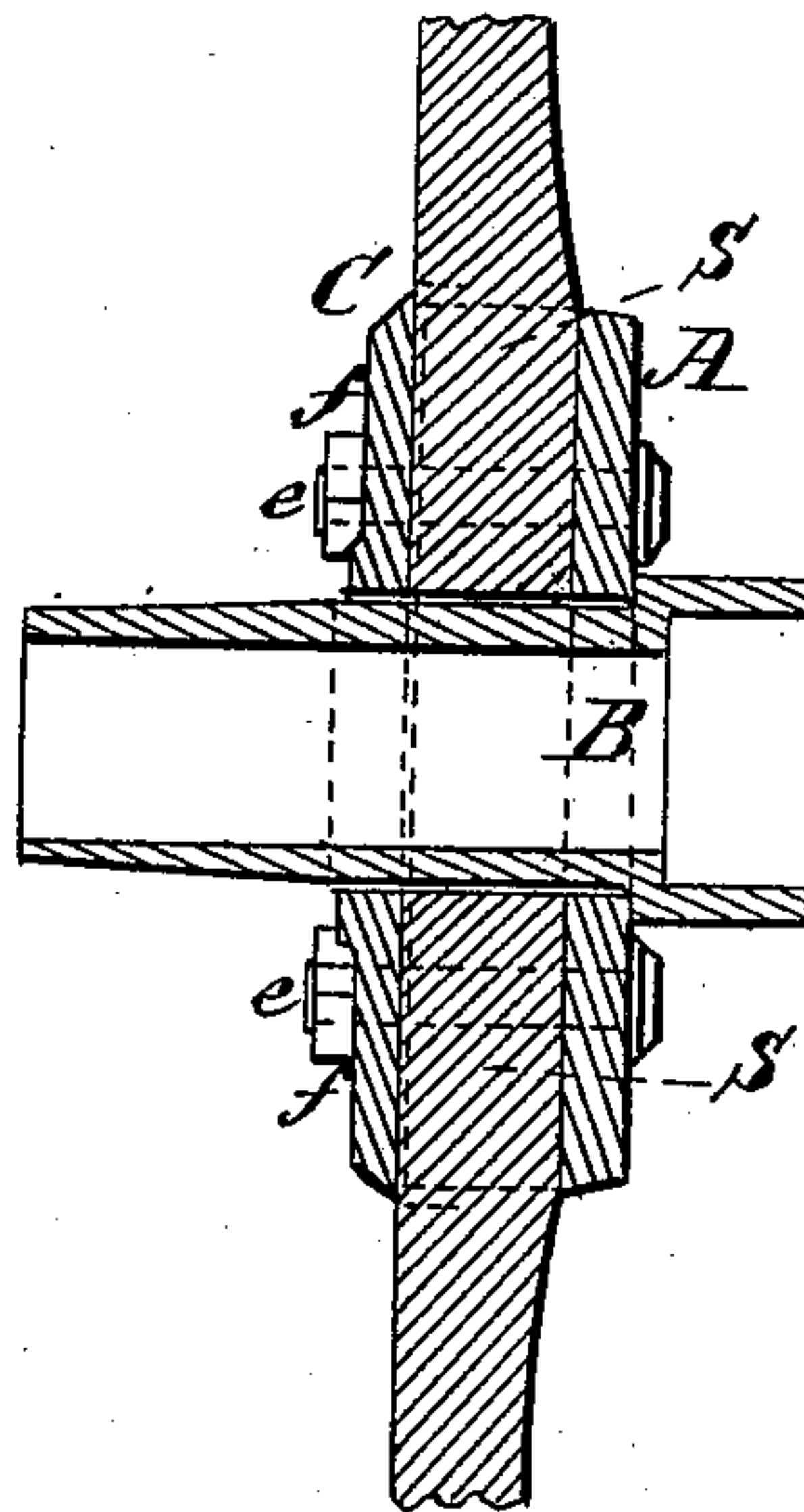


Fig. 3.

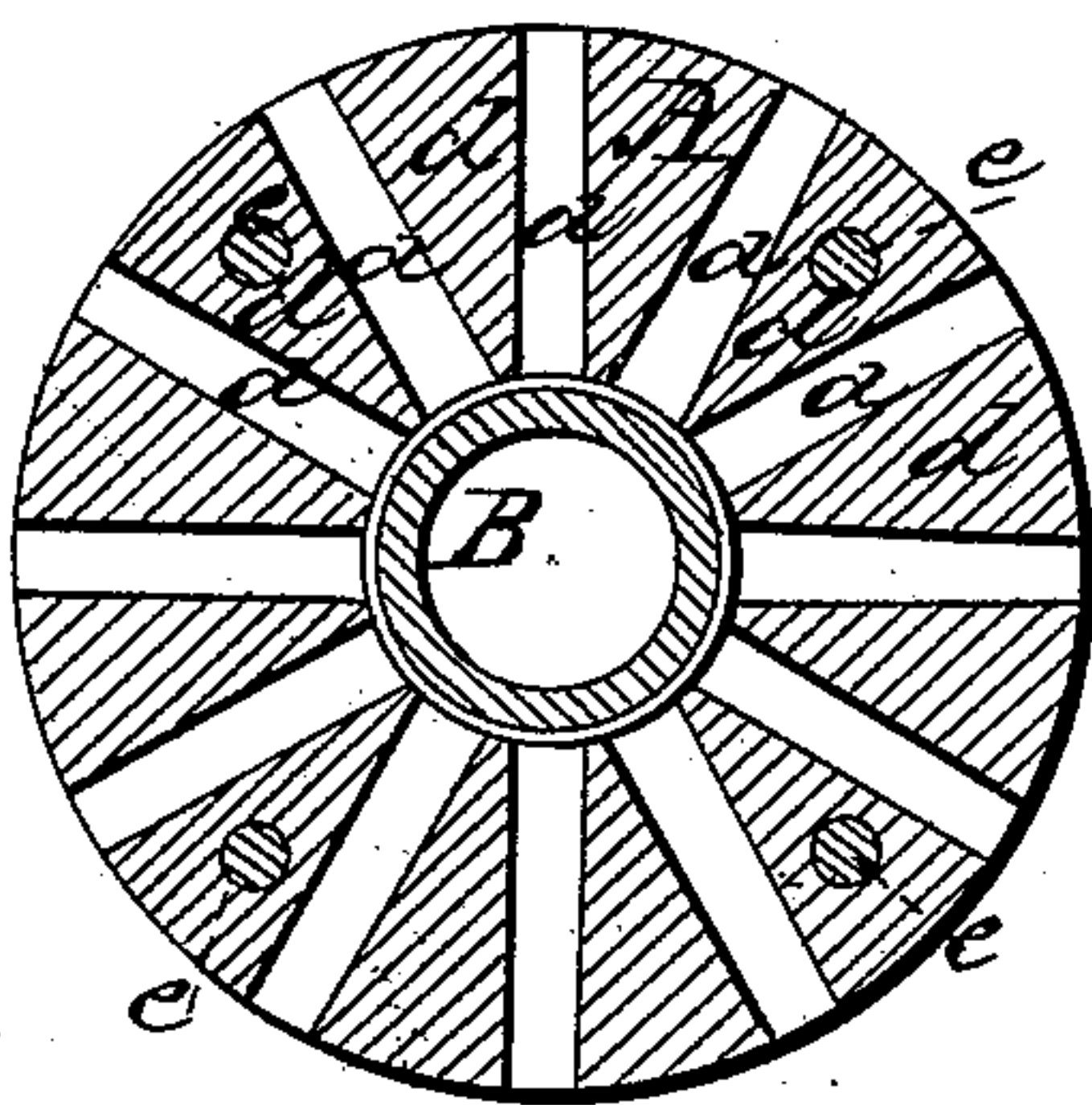
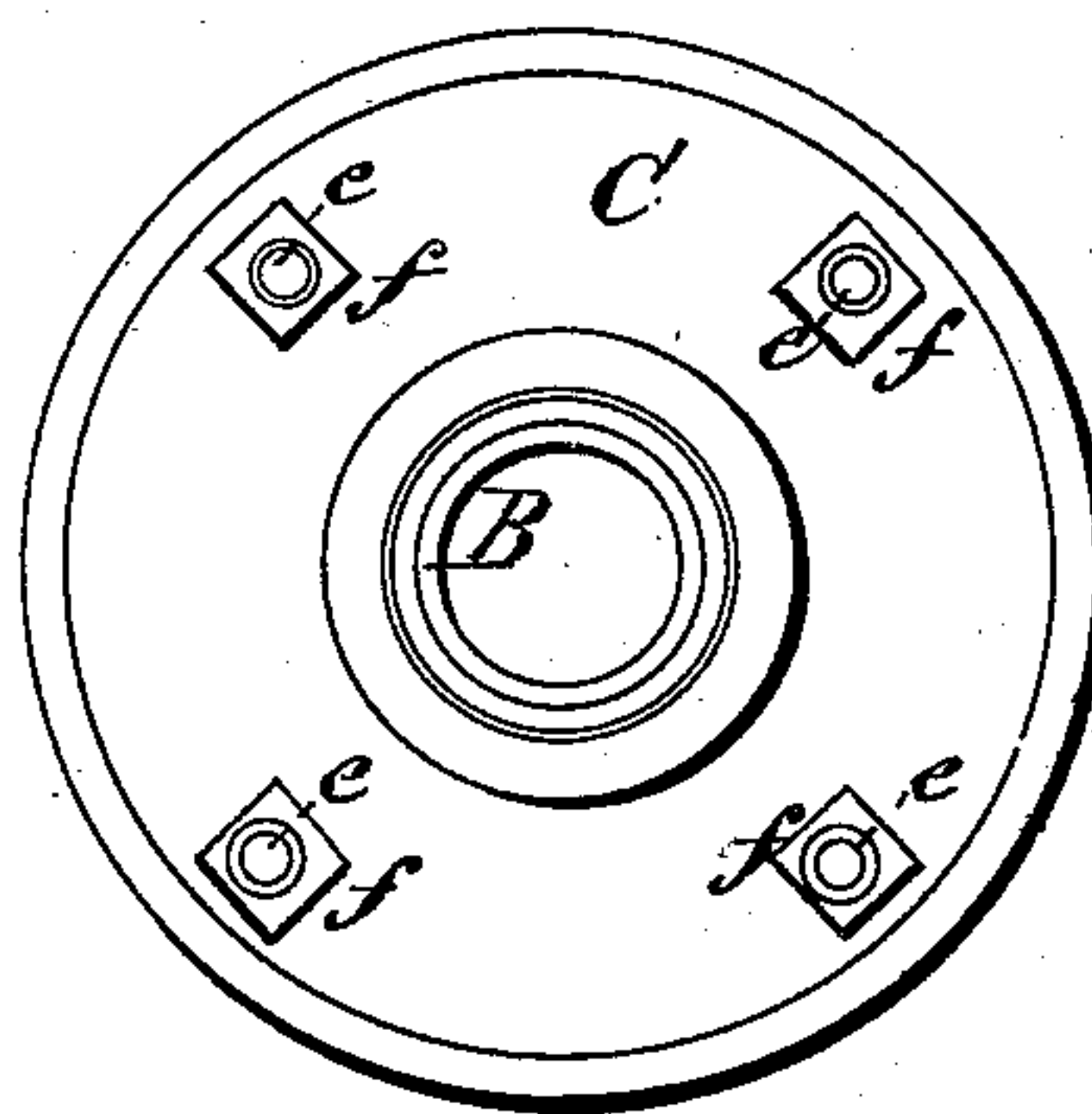


Fig. 4.



Witnesses.

Samuel N. Piper.  
George H. Andrews.

Inventor:

Benj. F. Taft.  
by his attorney,  
R. H. Ledy.

# United States Patent Office.

BENJAMIN F. TAFT, OF GROTON JUNCTION, ASSIGNOR TO AMES PLOUGH COMPANY, OF BOSTON, MASSACHUSETTS.

*Letters Patent No. 68,397, dated September 3, 1867.*

## IMPROVEMENT IN WHEEL-HUBS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, BENJAMIN F. TAFT, of Groton Junction, in the county of Middlesex, and State of Massachusetts, have made a new and useful improvement or invention, having reference to Wheel-Hubs; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view,

Figures 2 and 3 are sections, and

Figure 4 is an end elevation of a wheel-hub provided with my invention.

In carrying out such invention I construct the body or spoke-receiving part A of the hub as an annulus of metal, concentric, and cast in one piece, with a tube or sleeve, B. The said part A I form with a series of mortises or spoke-receiving recesses *a a a*, arranged radially within it, and at equal distances asunder, each of such recesses being made to open out of one side of the annulus A. If desirable, each of the said recesses may be wider transversely across its bottom than it is transversely across its mouth or top, or, in other words, of a "dove-tailed form," or it may be narrower at bottom than it is at top, instead of having its opposite sides parallel. An annular cap plate, C, encircles the sleeve and abuts against one edge of each of the spoke-tenons when within the mortises or recesses *a a a*, each spoke-tenon being made to extend out of its recess or mortise, and beyond that face of the hub part A which is next adjacent to the cap plate C. Furthermore, such cap plate is provided with a series of lips, *c c c*, which project from one side of it at its periphery and so as to bridge over the open spaces between the cap plate and the solid parts *d d d* of the hub that are between the spokes. These lips or bridges are to prevent water, dirt, or extraneous matters from getting between the cap plate and the hub part A while the wheel may be in use. A series of screw-bolts, *e e e e*, go through the part A and the cap plate C, and have nuts *f f f f* screwed upon them where they project beyond the cap plate. These nuts and screws serve to draw the cap plate closely against the several spokes, so as to hold them firmly in place in their sockets.

My invention saves the necessity of wedging the spokes in the hub and the liability of the hub to be split by the wedges. The sleeve B is to receive the axle of the carriage, which is to extend longitudinally into and go through such sleeve. The spoke-receiving part of the hub, when made of metal, viz, cast iron, for instance, becomes very strong, and admits of the spokes being firmly fitted into its mortises. The cap plate, by being forced against its spokes, (two of which are shown at S S, in fig. 2,) serves, after any shrinkage of them, to tighten them in their mortises, such being accomplished simply by screwing up the nuts.

I do not claim the arrangement and combination of the cap plate C and the sleeve B with the hub part A, provided with spoke-receiving cavities or mortises, arranged within it as specified.

What I do claim as my invention or improvement is the combination as well as the arrangement of the series of lips or bridges *c c*, the cap plate C, and the hub part A provided with the sleeve B, and the spoke-receiving cavities or mortises arranged within it, and with respect to the said lips, substantially in manner as herebefore specified, and as represented in the accompanying drawings.

B. F. TAFT.

Witnesses:

A. D. SIMMONS,  
MICHAEL RYNN.