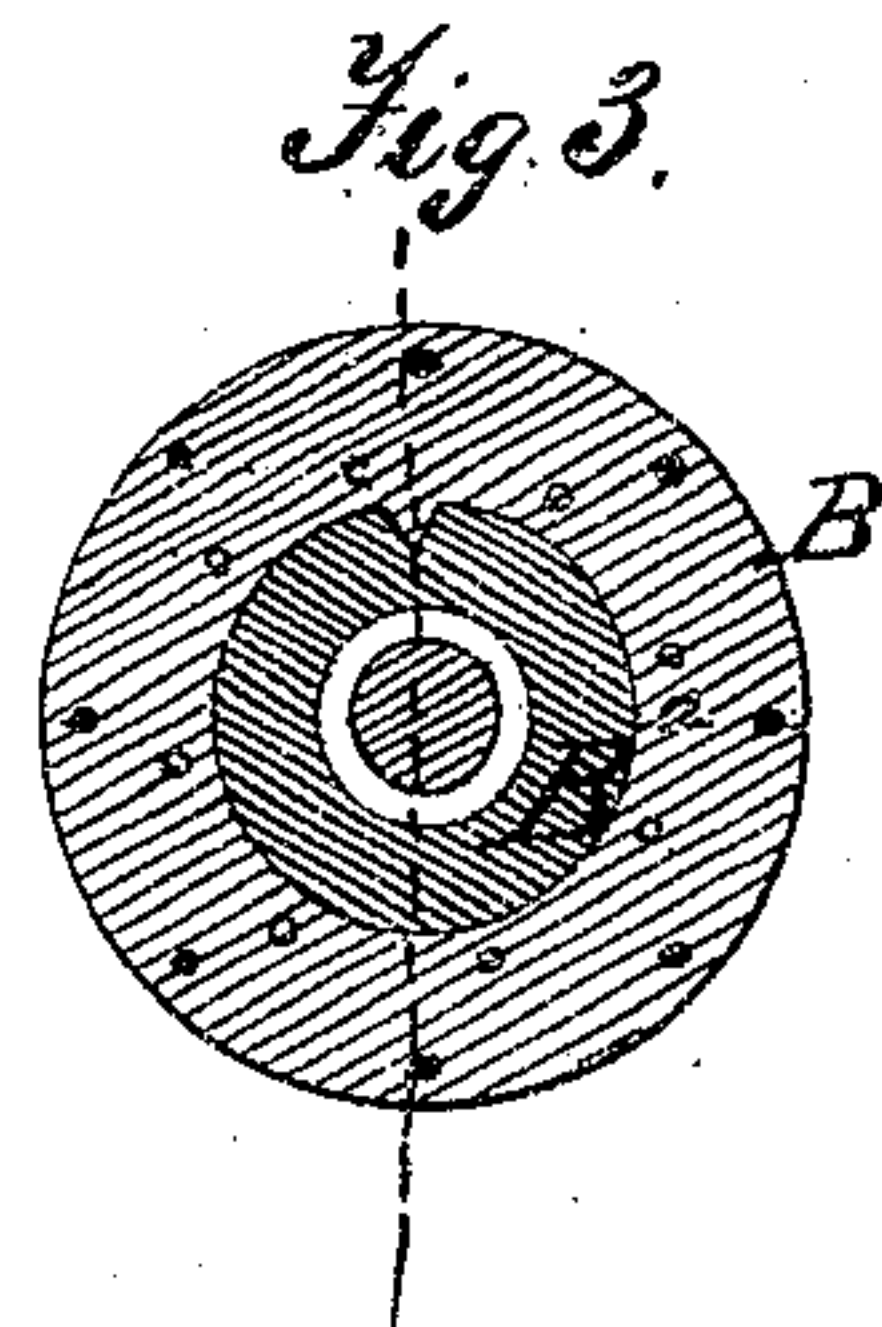
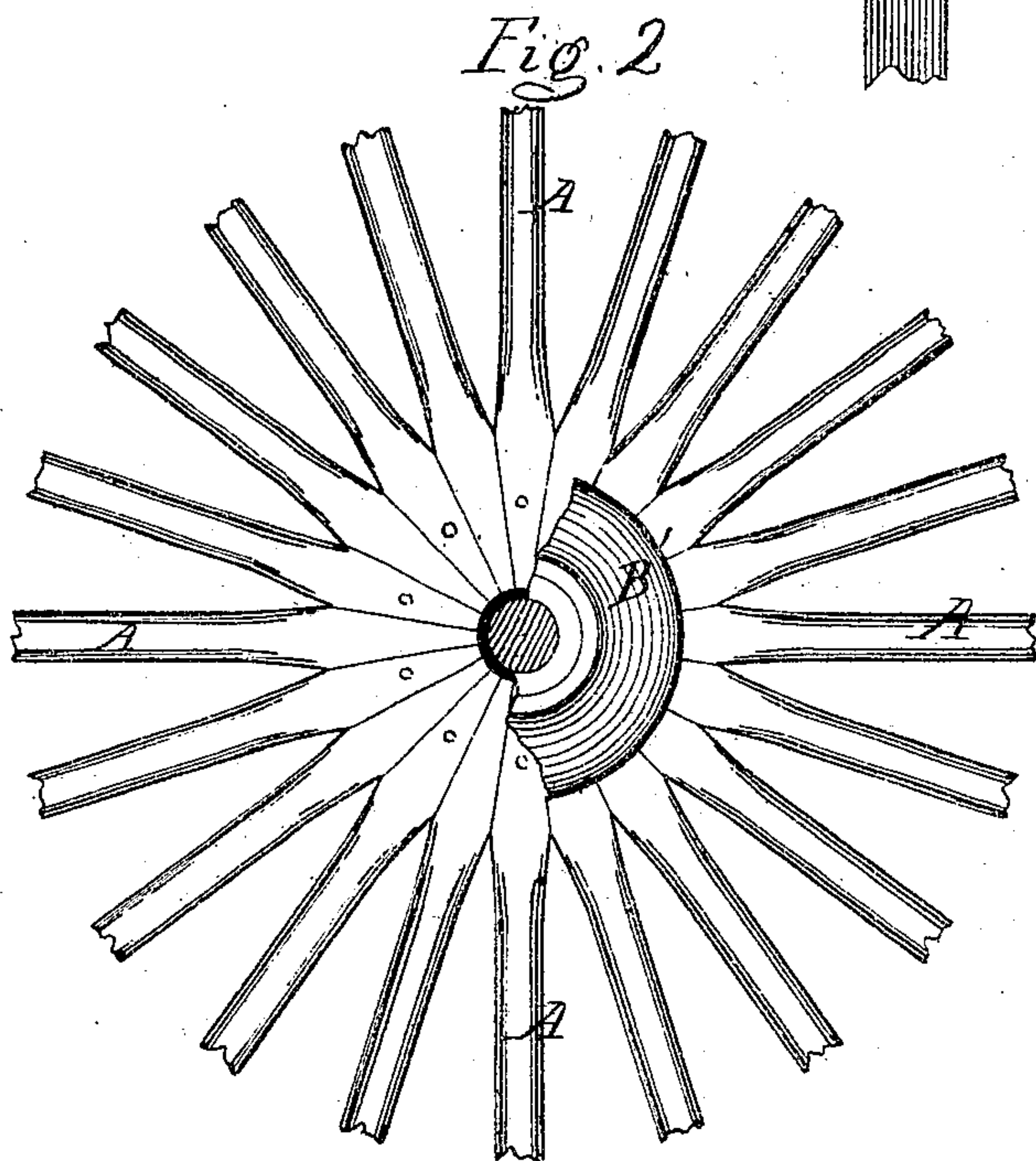
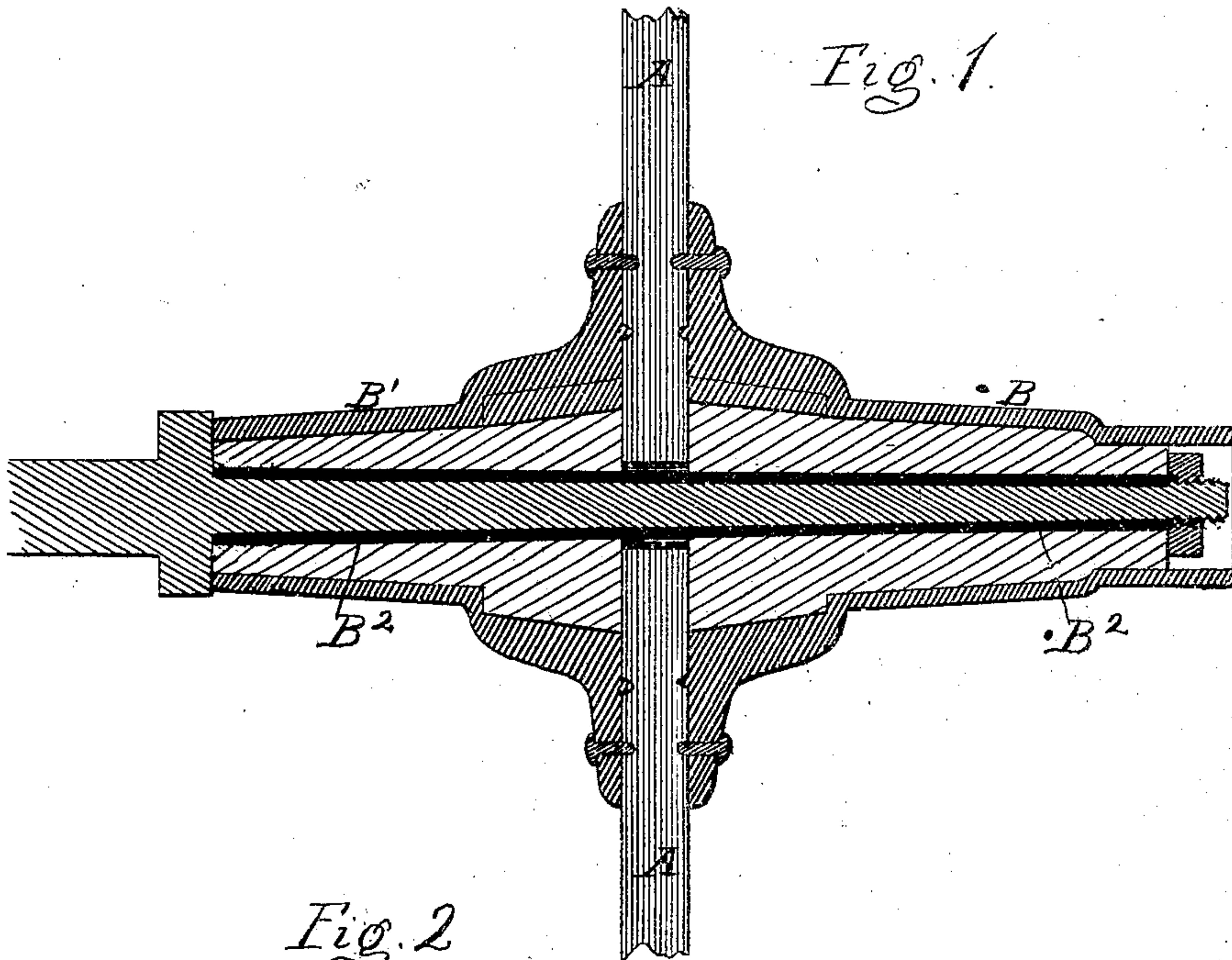


H. E. DODSON.

Improvement in Carriage Wheels.

No. 119,511.

Patented Oct. 3, 1871.



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UNITED STATES PATENT OFFICE.

HARRY E. DODSON, OF WEST LIBERTY, OHIO.

IMPROVEMENT IN CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 119,511, dated October 3, 1871.

To all whom it may concern:

Be it known that I, HARRY E. DODSON, of West Liberty, in the county of Logan and State of Ohio, have invented certain Improvements in Carriage-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is a sectional elevation of my improved wheel, showing the metal flanges, the wooden filling, the manner of inserting the spokes, and also a portion of the axle. Fig. 2 is a transverse section, with a portion of the case or hub broken away for the purpose of showing the construction of the spokes and the method of securing them in the hub. Fig. 3 is a view of the inner end of one section of the hub, showing the metallic case, the wood filling, and the method of holding such filling in the case.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to wheels for wagons and carriages; and it consists in a novel construction of a hub for such wheels, and in the combination and arrangement of the parts of which it is composed, as will be more fully explained hereinafter.

In constructing wheels of this character I use a series of spokes, A A, the number being regulated by the size of the wheel and left to the judgment of the constructor. The inner ends of these spokes should be of such size and form that when the requisite number are placed in the wheel their edges will touch each other from their inner ends outward to a point as far from the center of the hub as the flanges of the case of the hub extend, or further, if desired. To hold these spokes in position at their inner ends, and also to form the hub of the wheel, two cases or caps of metal are employed of substantially the shape shown in Fig. 1, their outer surfaces being provided with flanges to bear upon that portion of the spokes where they are in contact with each other. The portion B of the casing has, extending from the flange above alluded to, a cylindrical or tubular horizontal part which extends outward

beyond the end of the axle far enough to receive a nut upon the end of the axle, and may be covered by a cap to prevent the lubricating material from dripping out of that end of the hub. The inner or opposite portion of the case B' is constructed like the one above described, except that its length is less, it only extending inward far enough to come in contact with the collar upon the axle. Upon the inner faces of the flanges of these cases are to be formed projecting points, as shown in Fig. 1, which shall enter cavities in the spokes, and thus aid in holding them in position. These cases are made hollow, they being of just sufficient thickness to give the required strength to the hub, the aperture in their centers beginning from the inside being conical or tapering for one-third, more or less, of its length, at which point there is a shoulder formed, as shown in Fig. 1. From this shoulder outward the interior of the case should have about the same form as that of the outside of the case, it being tapering when such surface is tapering and parallel when the outer surface is of that form; but generally the whole length of the aperture should be more or less tapering in order that the wooden filling may the better fit it. Upon the inner end of these portions of the case and upon the inner surface a V or other suitably-formed projection is provided, the object of which is to prevent the possibility of the fillings rotating within the casing. Inside of the cavities formed in the casing there are placed pieces of wood, B² B², turned to fit such cavities and to bear firmly against the shoulders formed therein, and through these the pipe or box is passed and secured therein in any suitable manner, their height being such as to fill the spaces between the sides of the spokes and the ends of the pipe or box, they being so arranged as to bear firmly against the spokes when in position. These filling-pieces are put into the case before the two parts are applied to the spokes, and as they are tapering they can never work out, while they at all times form a secure fastening for the pipe or box, and, at the same time, make it easy to fit all the parts to each other before putting them together. The flanges are held in contact

with the spokes by means of bolts and nuts or by screws passing through them and into the spokes, as shown.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the spokes, forming a solid band around the pipe-box, the metallic sections B B', with tapering apertures diminishing in diameter from the spokes outward, and the taper-

ing wooden fillings B² B² bearing against the spokes, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY E. DODSON.

Witnesses:

R. N. JORDAN,
E. S. JORDAN.

(22)