

No. 618,749.

Patented Jan. 31, 1899.

A. B. STONE.
HUB FOR VEHICLE WHEELS.

(Application filed Jan. 14, 1898.)

(No Model.)

Fig. 1.

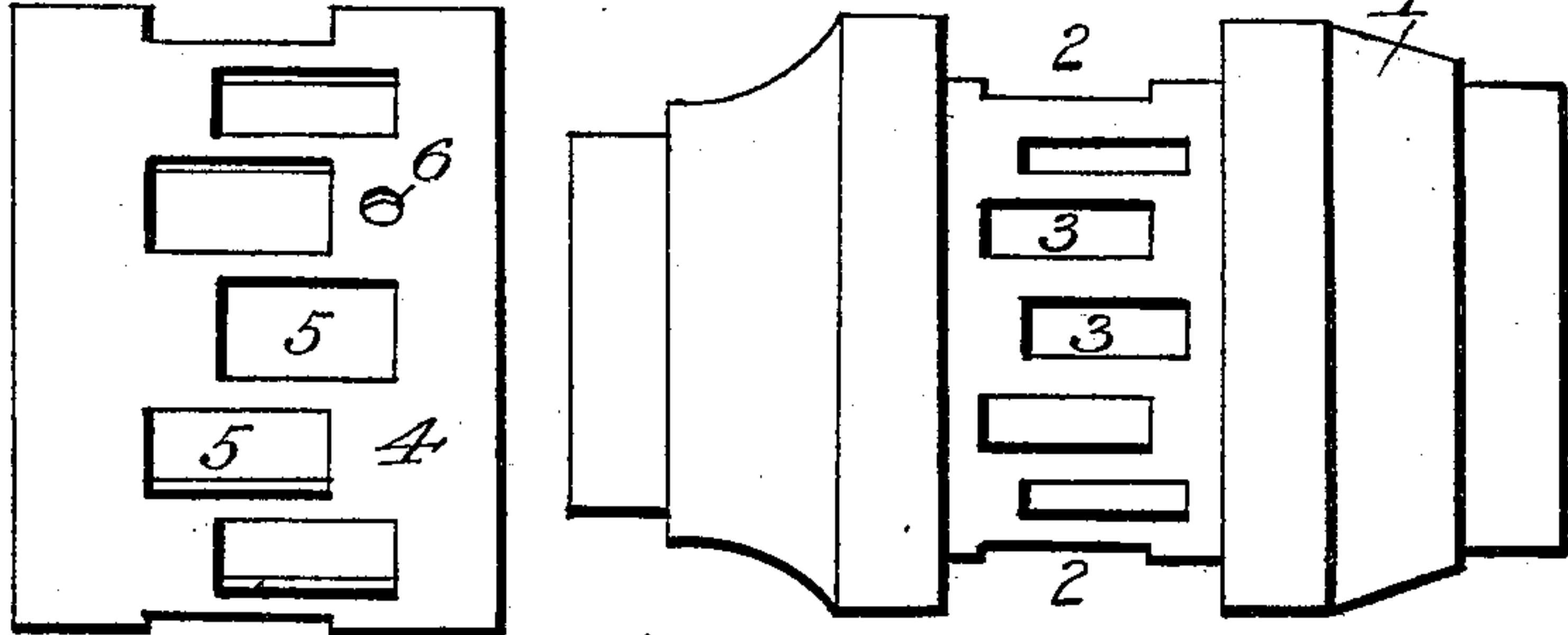


Fig. 6.

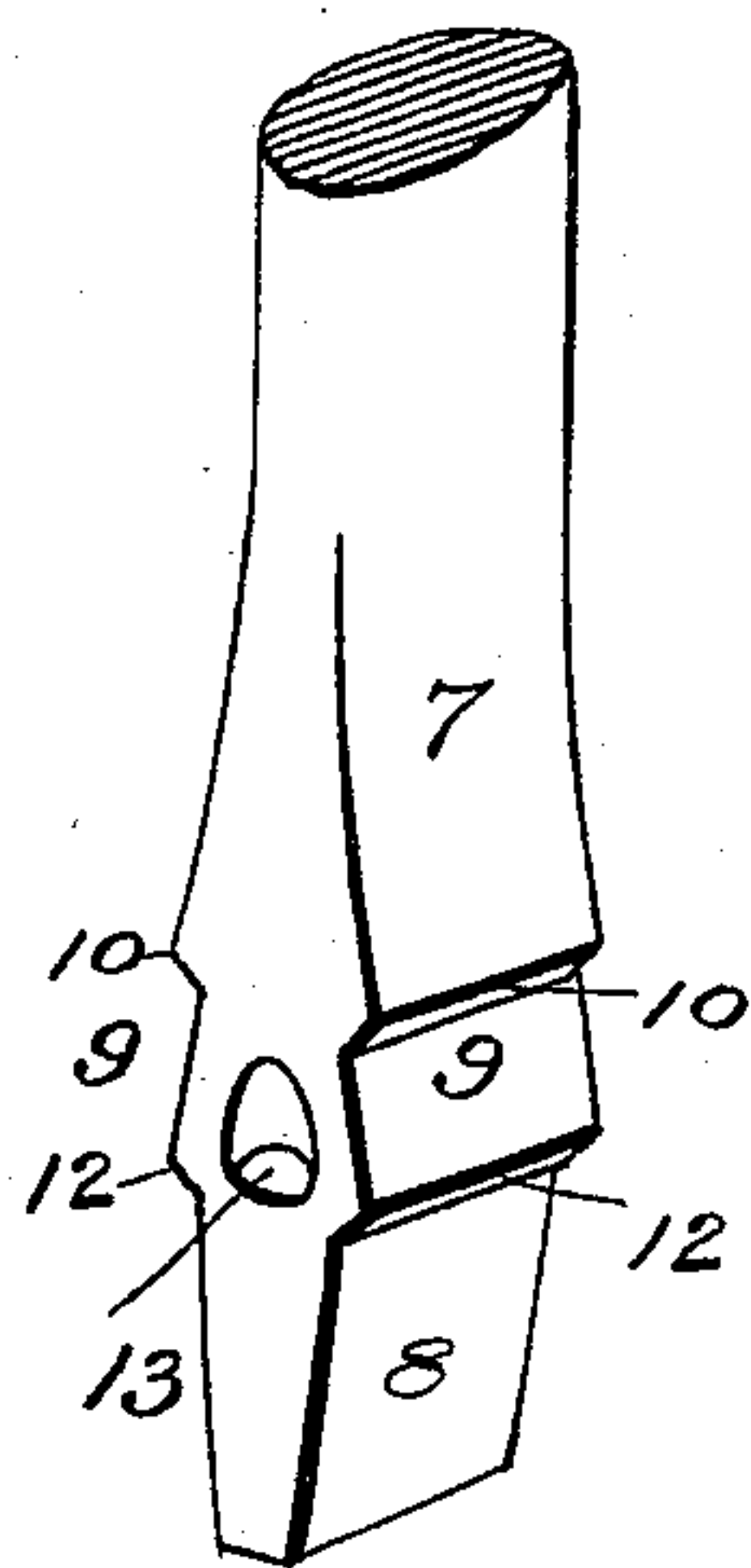


Fig. 2.

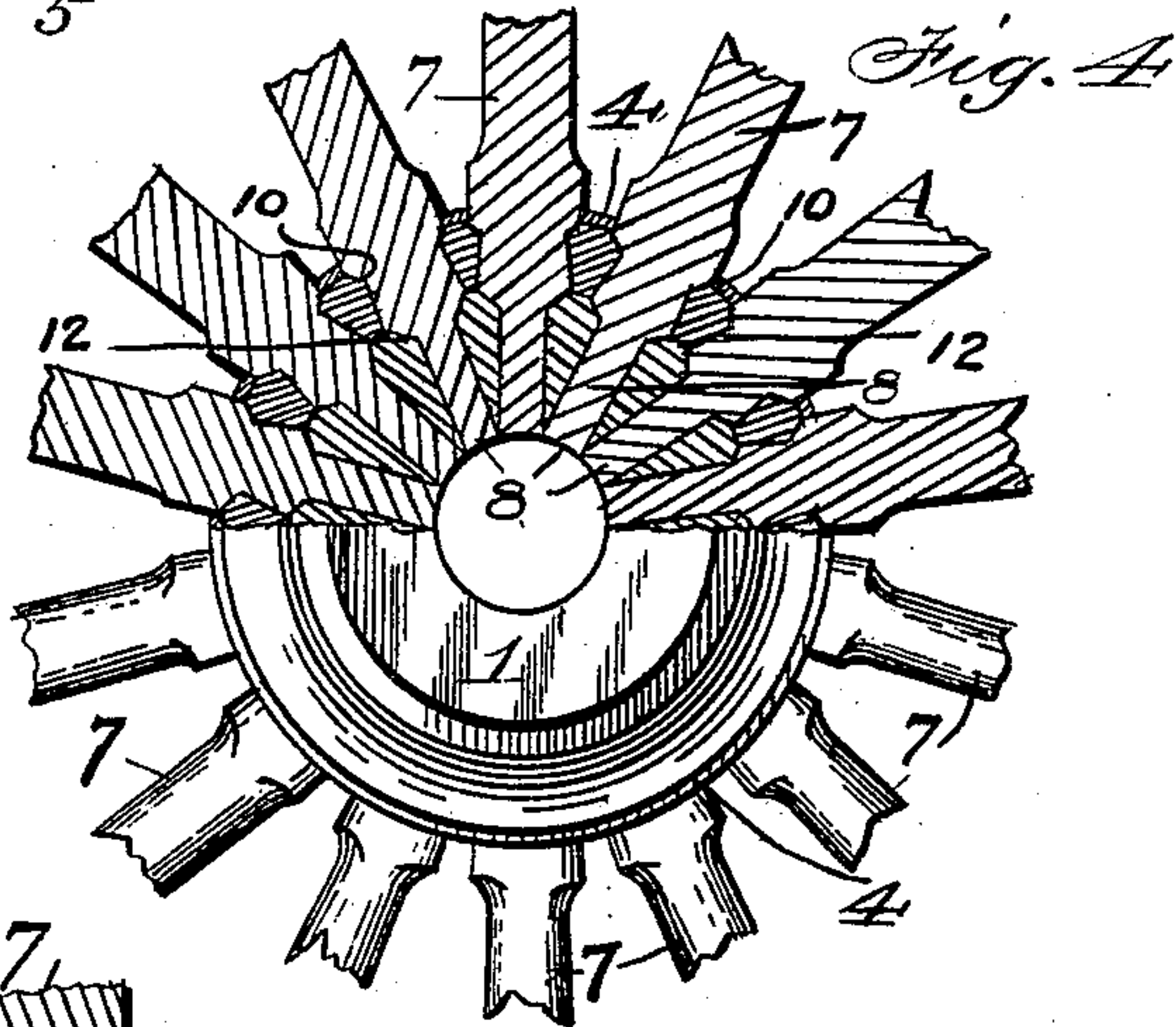
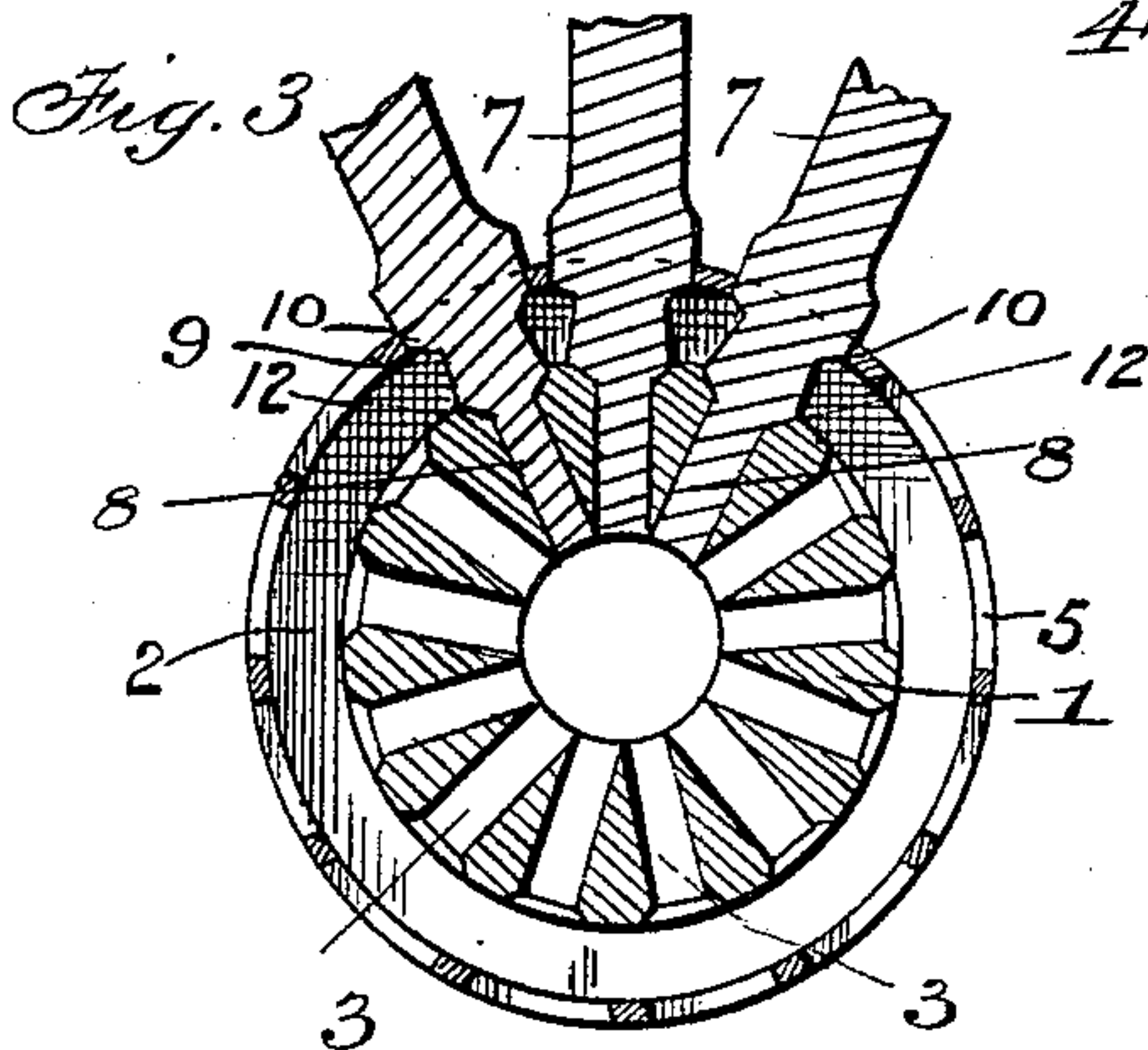
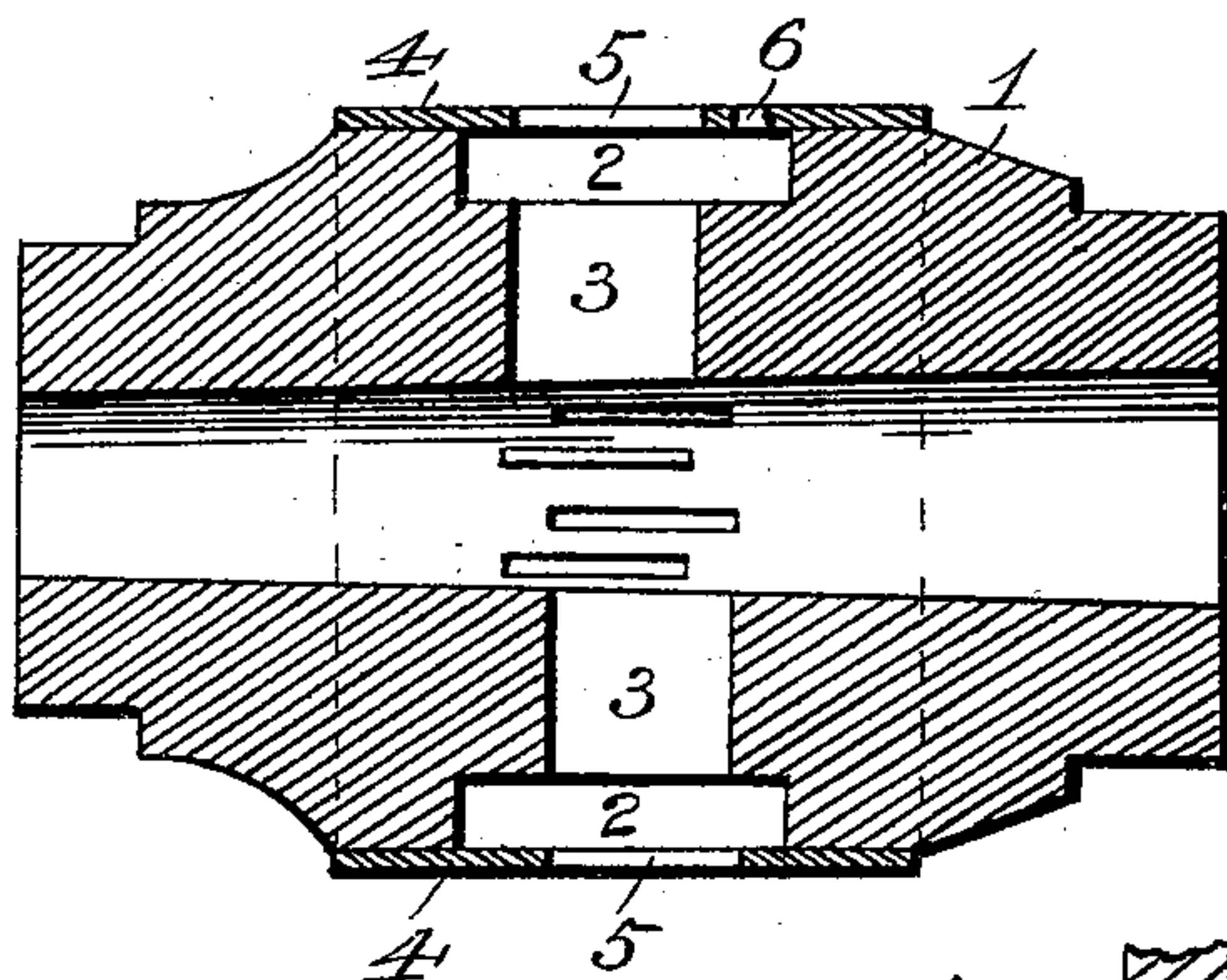
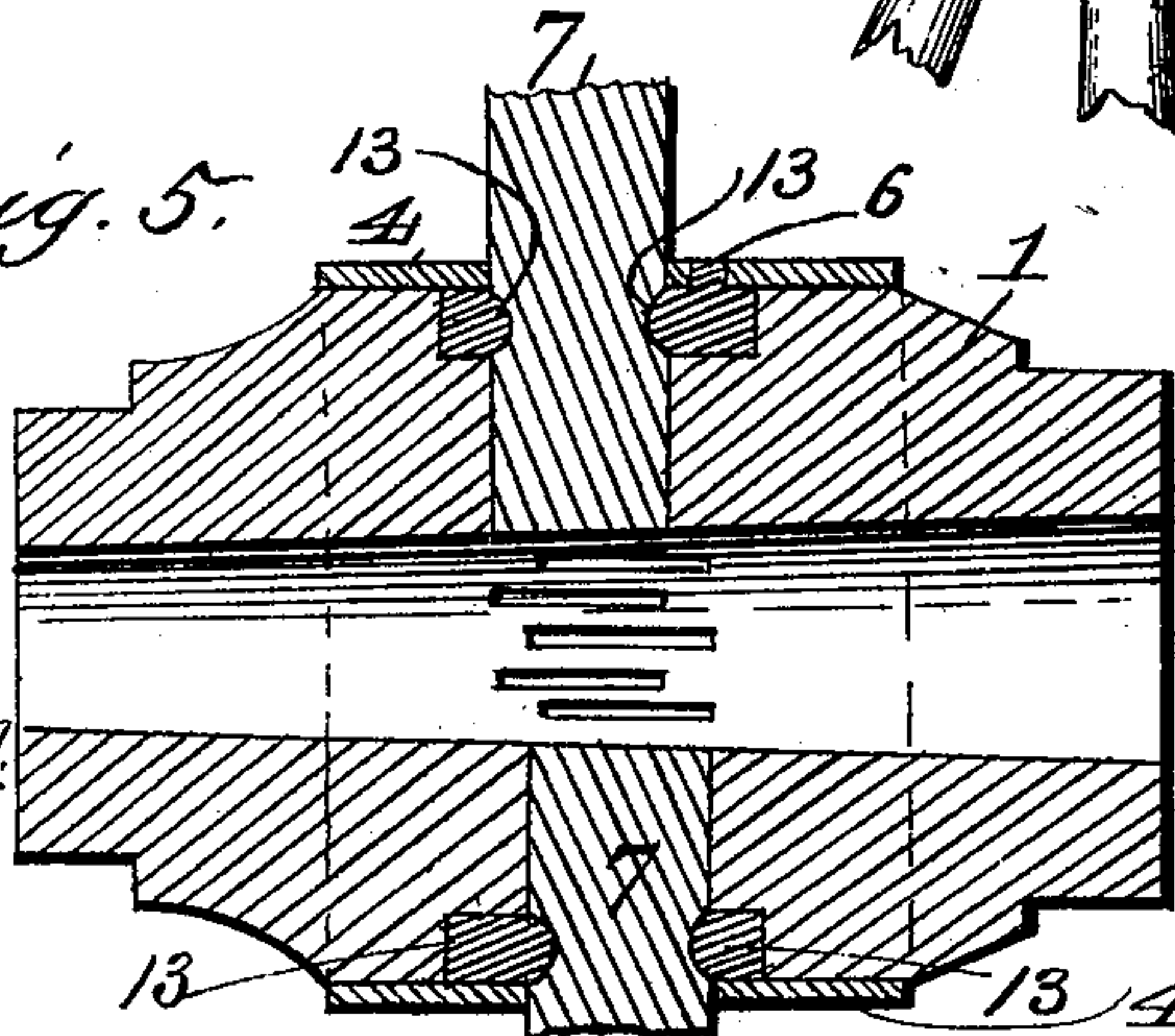


Fig. 5.



Witnesses:
Frank L. Curran,
J. L. Brown.

Inventor:
Abram B. Stone,
Lawyer,
Attorneys.

UNITED STATES PATENT OFFICE.

ABRAM B. STONE, OF DOYLESTOWN, PENNSYLVANIA.

HUB FOR VEHICLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 618,749, dated January 31, 1899.

Application filed January 14, 1898. Serial No. 666,725. (No model.)

To all whom it may concern:

Be it known that I, ABRAM B. STONE, a citizen of the United States, and a resident of Doylestown, in the county of Bucks and State of Pennsylvania, have invented certain new and useful Improvements in Hubs for Vehicle-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to vehicle-wheels; and its object is to provide an improved construction of the same in which the spokes are permanently secured to the hub in such manner that they cannot be disengaged or removed therefrom by any ordinary means.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a wheel-hub constructed in accordance with my invention, showing the same before the spokes are inserted. Fig. 2 is a longitudinal section of the same. Fig. 3 is a central transverse section showing the spokes in place before the Babbitt-metal filling is introduced. Fig. 4 is a central transverse section, the spokes being in place and showing the Babbitt-metal filling. Fig. 5 is a longitudinal section of the same. Fig. 6 is a perspective view showing one of the spokes removed from the hub.

In the said drawings the reference-numeral 1 designates the hub, formed with a central peripheral recess 2. Formed in said recessed portion of the hub are the spoke-sockets 3, alternately arranged so as to break joints with each other. The ends of these sockets do not extend to ends of said recess, so that when the spokes are inserted there shall be a space between them and the walls or ends of the recess. Encircling said hub is a metal ring or band 4, the ends of which overlap the ends of said recess, and formed therein are a number of slots 5, coinciding with, but somewhat larger than, the spoke-sockets. Formed

in said ring or band is a hole 6 for the insertion of Babbitt metal, as hereinafter described.

The numeral 7 designates the spokes. These spokes are cut away at the inner ends, forming reduced portions 8, which fit in the sockets 3. They are also formed with opposite transverse grooves 9 in opposite sides, forming shoulders 10 and 12, and are also formed in the other sides with recesses 13.

In carrying my invention into effect the hub is formed with the peripheral recess and sockets, as described, and the ring or band is then applied, so that the slots therein will coincide with the said sockets and form an annular chamber between said ring and the hub. The spokes are then driven through the slots in the ring or band into the sockets, so that the shoulders 12 will be approximately flush with the inner surface of the ring or band. Molten Babbitt metal or other suitable alloy or metal is then poured into the hole in the ring or band and will flow into the space or chamber between the ring or band and the hub, entirely surrounding those portions of the spokes between the ring and the hub and filling the grooves 9 and the recesses 13. When the metal hardens, it will securely hold the spokes in place, so that they cannot be removed by ordinary means.

Having thus fully described my invention, what I claim is—

1. The combination with the hub formed with a peripheral recess and with spoke-sockets of a width less than the width of said recess, so that the sides thereof do not extend to the sides of said recess, and the ring or band permanently secured to said hub, the ends of which overlap the ends of the recess and formed with slots coinciding with said spoke-sockets and with a filling-hole, of the spokes having reduced inner ends and formed with grooves and the filling of alloy or metal between said ring and the hub and surrounding the inner ends of the spokes, substantially as described.

2. The combination with the hub formed with a peripheral recess and with spoke-sockets, and the ring or band the ends of which

overlap the ends of said recess, and formed
with slots coinciding with said sockets, of the
spokes having transverse grooves in opposite
sides, and formed with recesses in the other
5 sides, and the alloy or metal filling the space
between the ring and hub, and surrounding
the spokes, substantially as described.

In testimony that I claim the foregoing as
my own I have hereunto affixed my signature
in presence of two witnesses.

ABRAM B. STONE.

Witnesses:

H. AUGUSTUS PICKERING,
HENRY O. HARRIS.