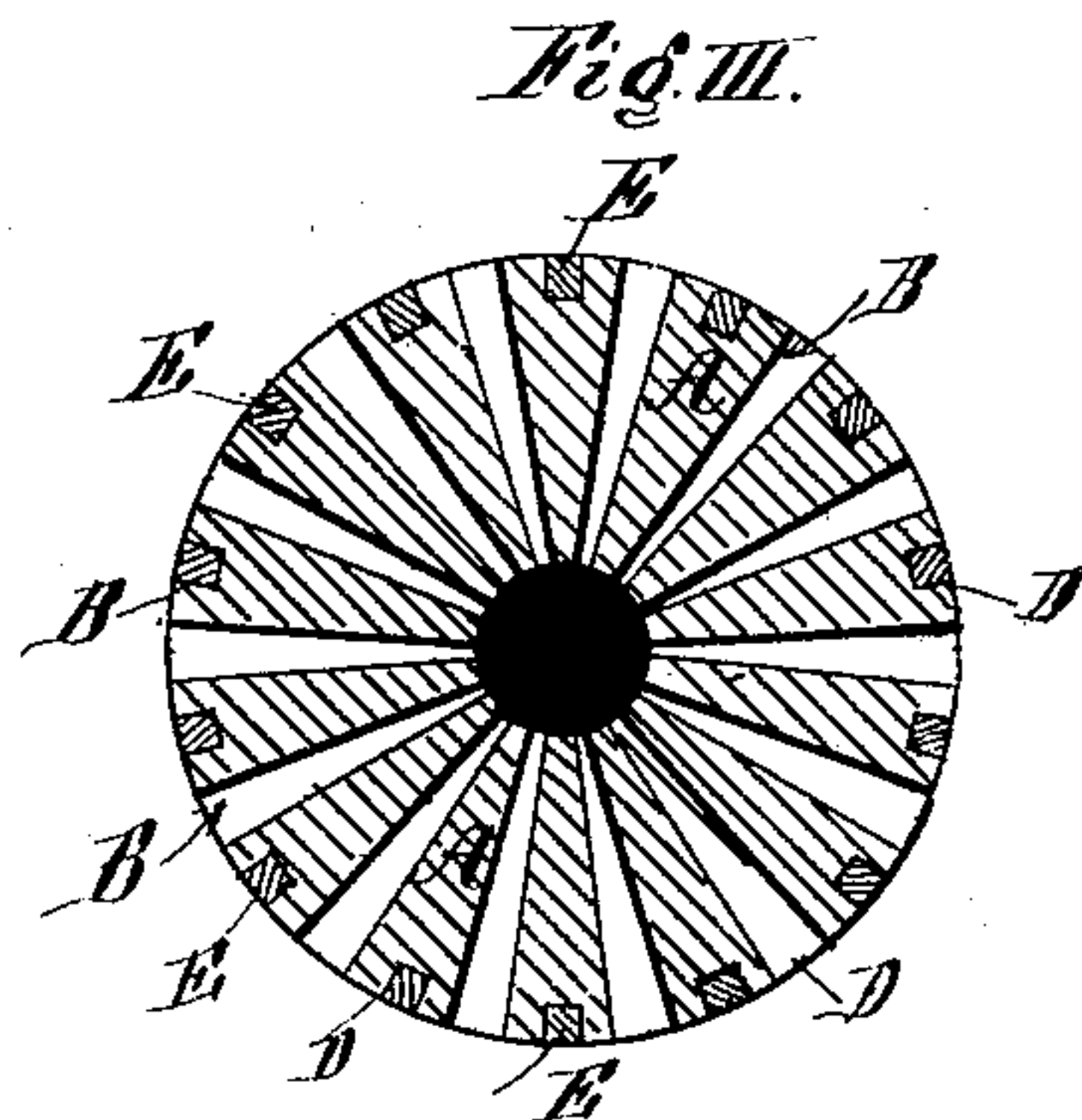
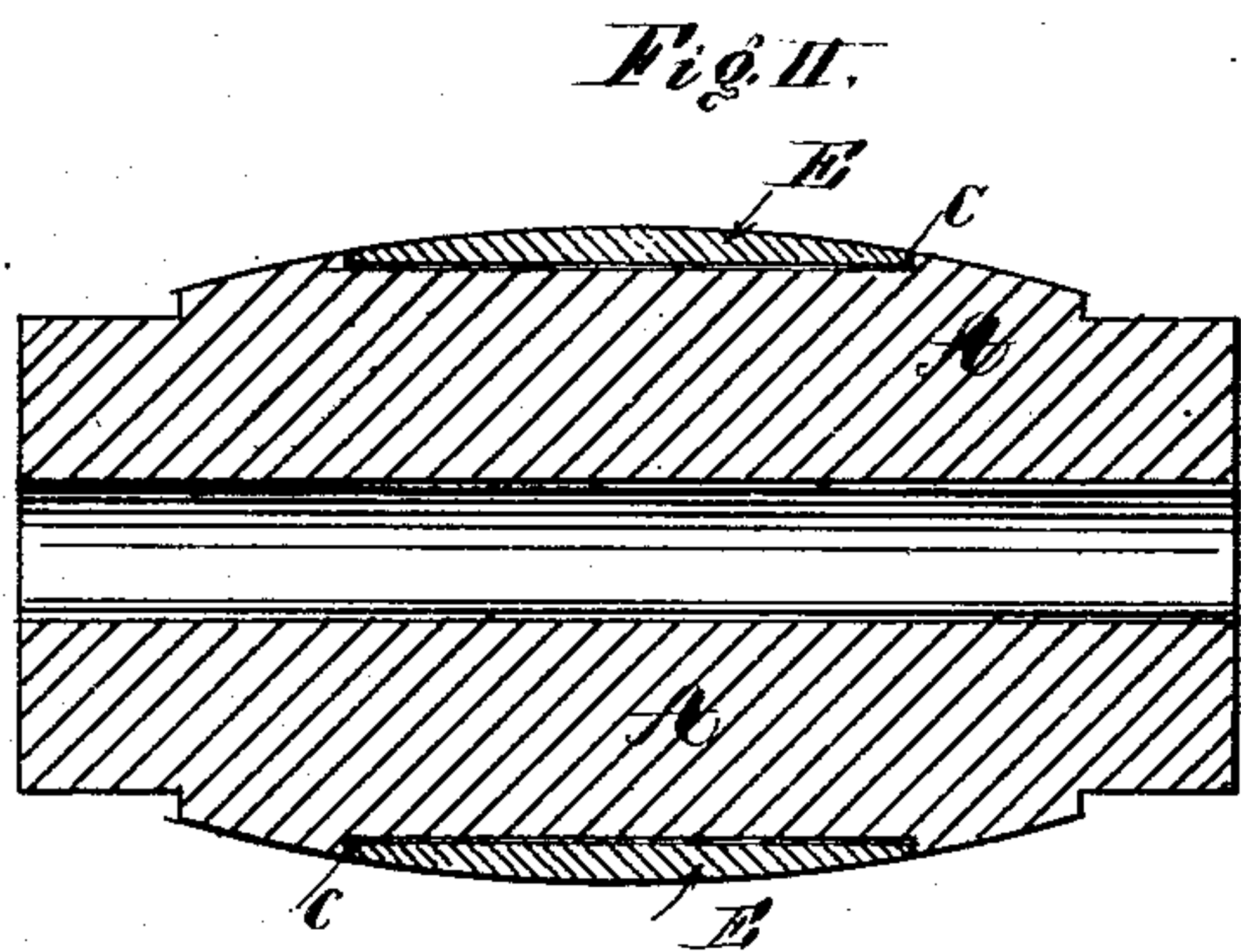
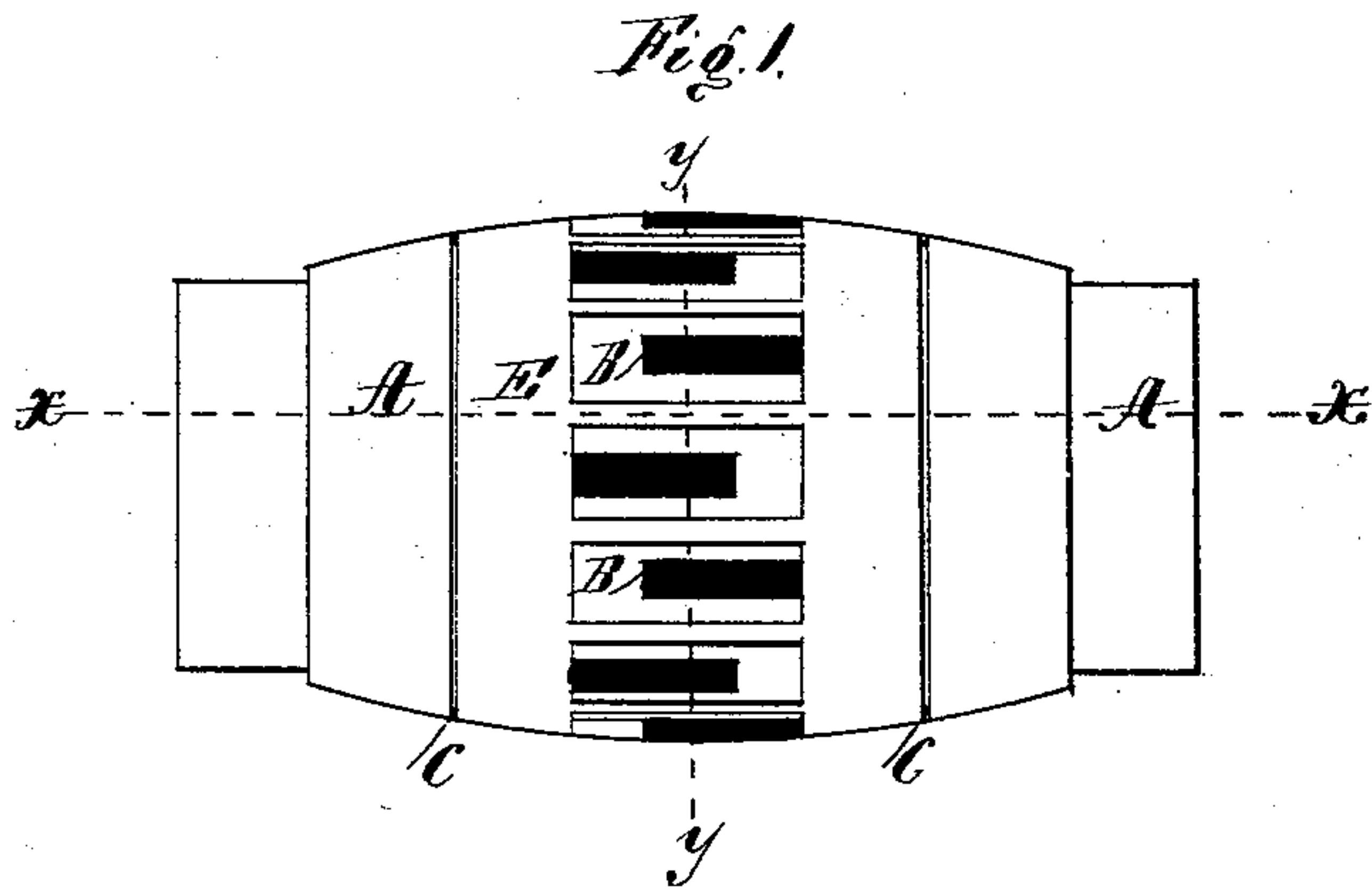


J. H. HYMAN.
Vehicle-Wheel Hub.

No. 162,477.

Patented April 27, 1875.



Witnesses:
Franklin Barrett.
Richard Gerner.

Inventor:
John H. Hyman.
Per,
Henry Gerner,
Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. HYMAN, OF TIPPECANOE CITY, OHIO.

IMPROVEMENT IN VEHICLE-WHEEL HUBS.

Specification forming part of Letters Patent No. **162,477**, dated April 27, 1875; application filed January 14, 1875.

To all whom it may concern:

Be it known that I, JOHN H. HYMAN, of Tippecanoe City, Miami county, State of Ohio, have invented certain Improvements in Hubs, of which the following is a specification:

The object of my invention is to strengthen the hub of a wheel, in a cheap and efficient manner, in such a way that the bands require no fastenings, and will not drop off by the shrinking of the wood. My invention consists in cutting circular grooves near to the outer sides of the spoke-sockets in the hub, and also longitudinal grooves between each spoke-socket, communicating with the two before-mentioned circular grooves. Into these grooves I run any suitable molten metal, which, becoming cold, will contract, and thus very tenaciously encircle the hub, and prevent it from splitting. At the same time the longitudinal as well as the circular bands will strengthen the spoke-sockets.

In order to more fully describe my invention I refer to the accompanying drawings, forming a part of this specification, of which—

Figure I is a plan view of a hub embodying

my invention. Fig. II is a sectional view through line *x x*, Fig. I. Fig. III is a sectional view through line *y y*.

A is the hub, with spoke-sockets B. C C are the two circular grooves. D D are the longitudinal grooves connecting the circular grooves C C. E is the metal run into the grooves C and D.

I am well aware that patents are granted to C. H. Guard and to C. W. Fillmore for strengthening hubs, but, as both these patentees use forged bands and connections, and I cast the bands and connections directly into the grooves in the hub, I disclaim all similarity or interference with said inventions and patents.

Having thus described my invention, I desire to claim—

The hub A, having grooves C and D filled with metal E, all combined substantially as and for the purpose set forth.

JNO. H. HYMAN.

Witnesses:

S. W. HECKER,
R. W. ALLEN.