

J. B. FORSYTH.

Improvement in Shafts for Rubber-Rolls.

No. 132,653.

Patented Oct. 29, 1872.

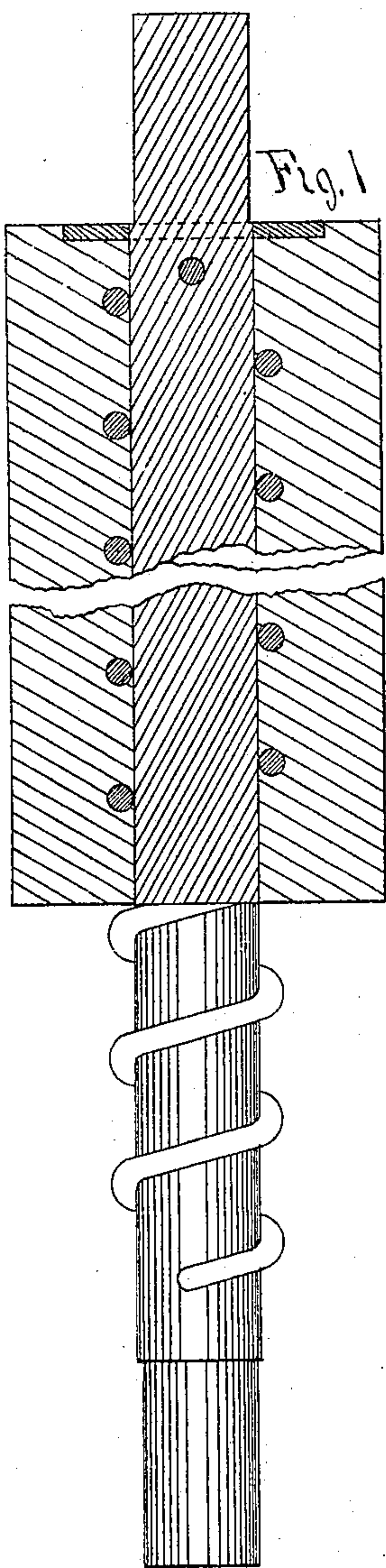


Fig. 1

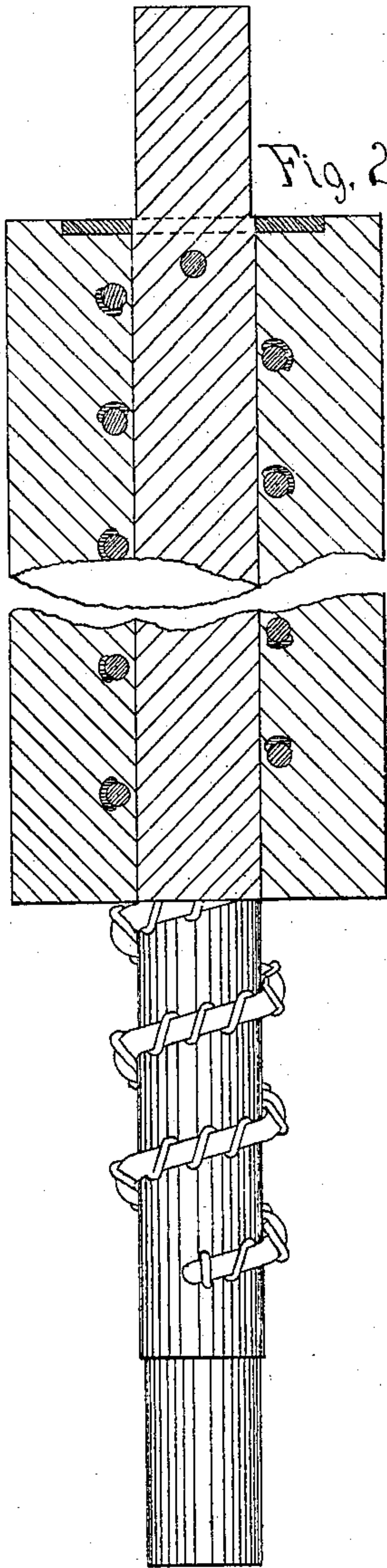


Fig. 2

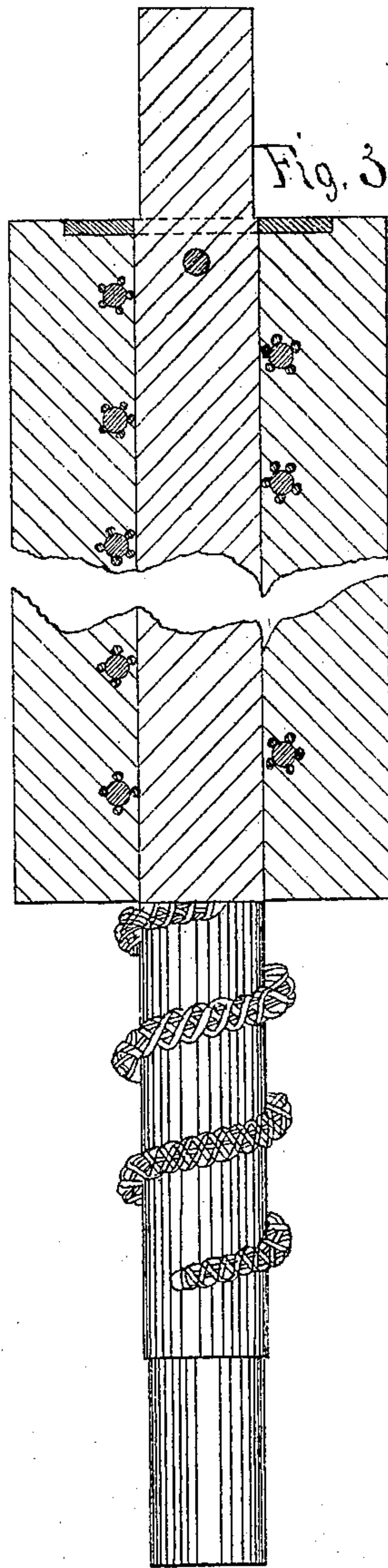


Fig. 3

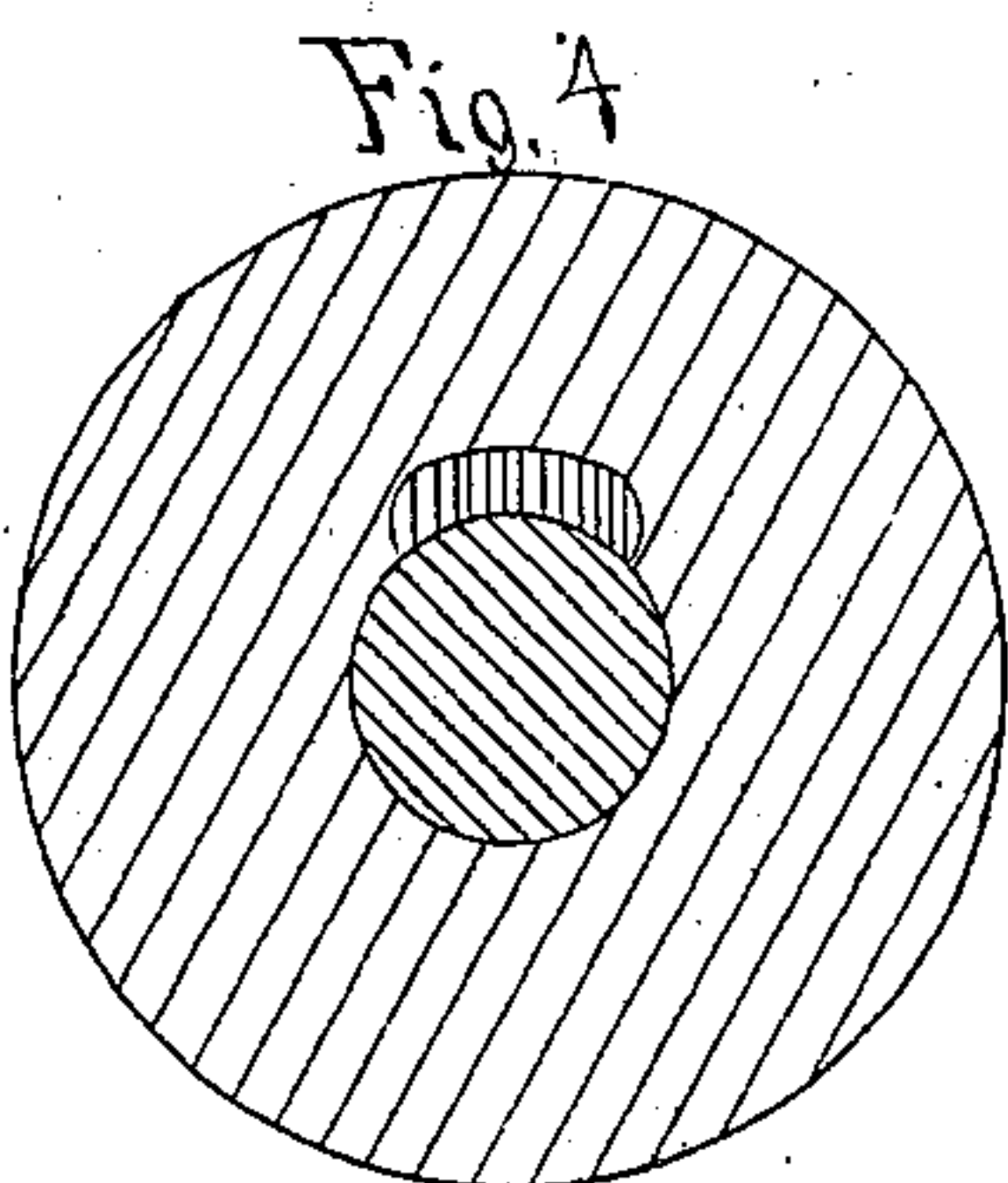


Fig. 4

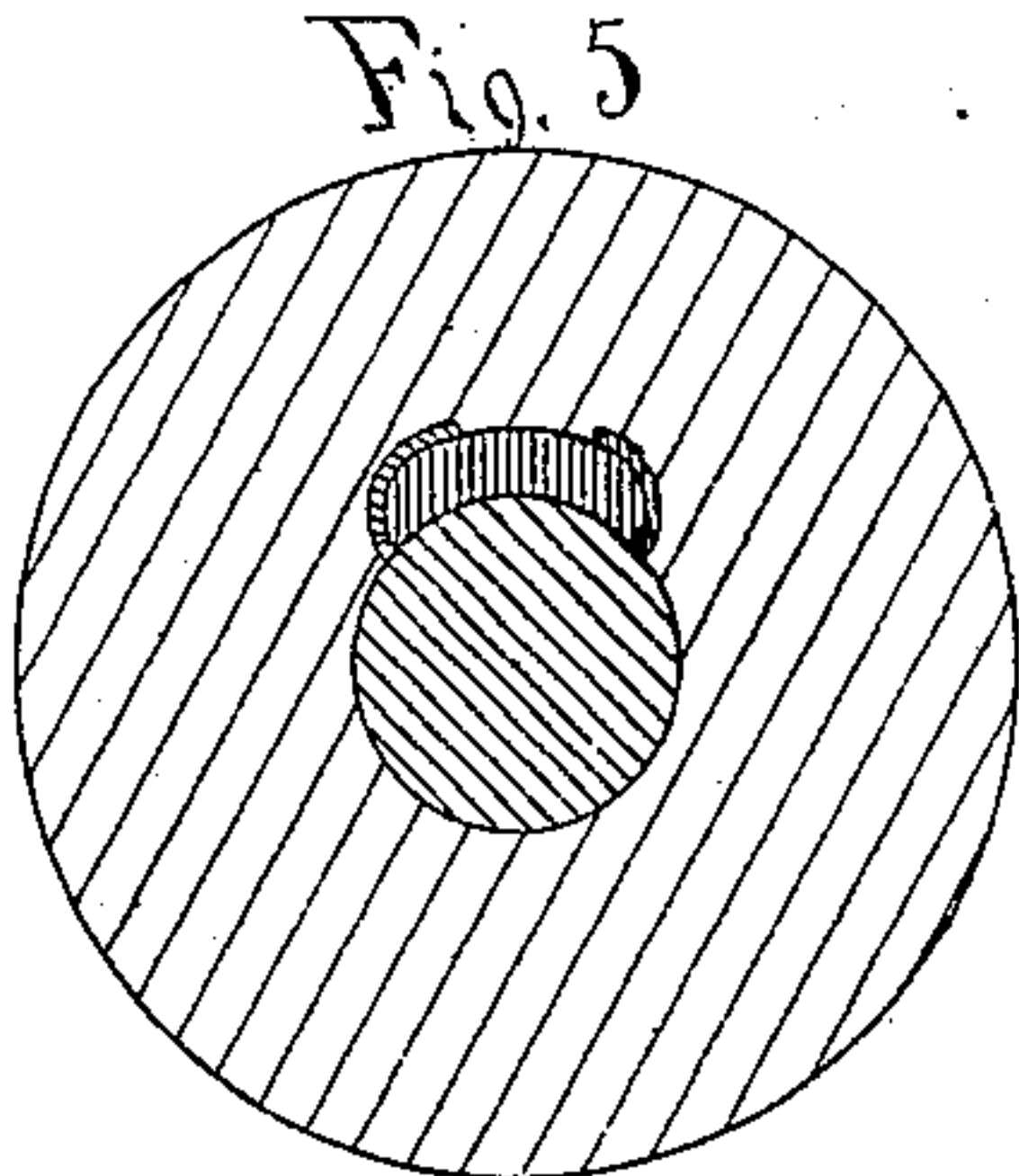


Fig. 5

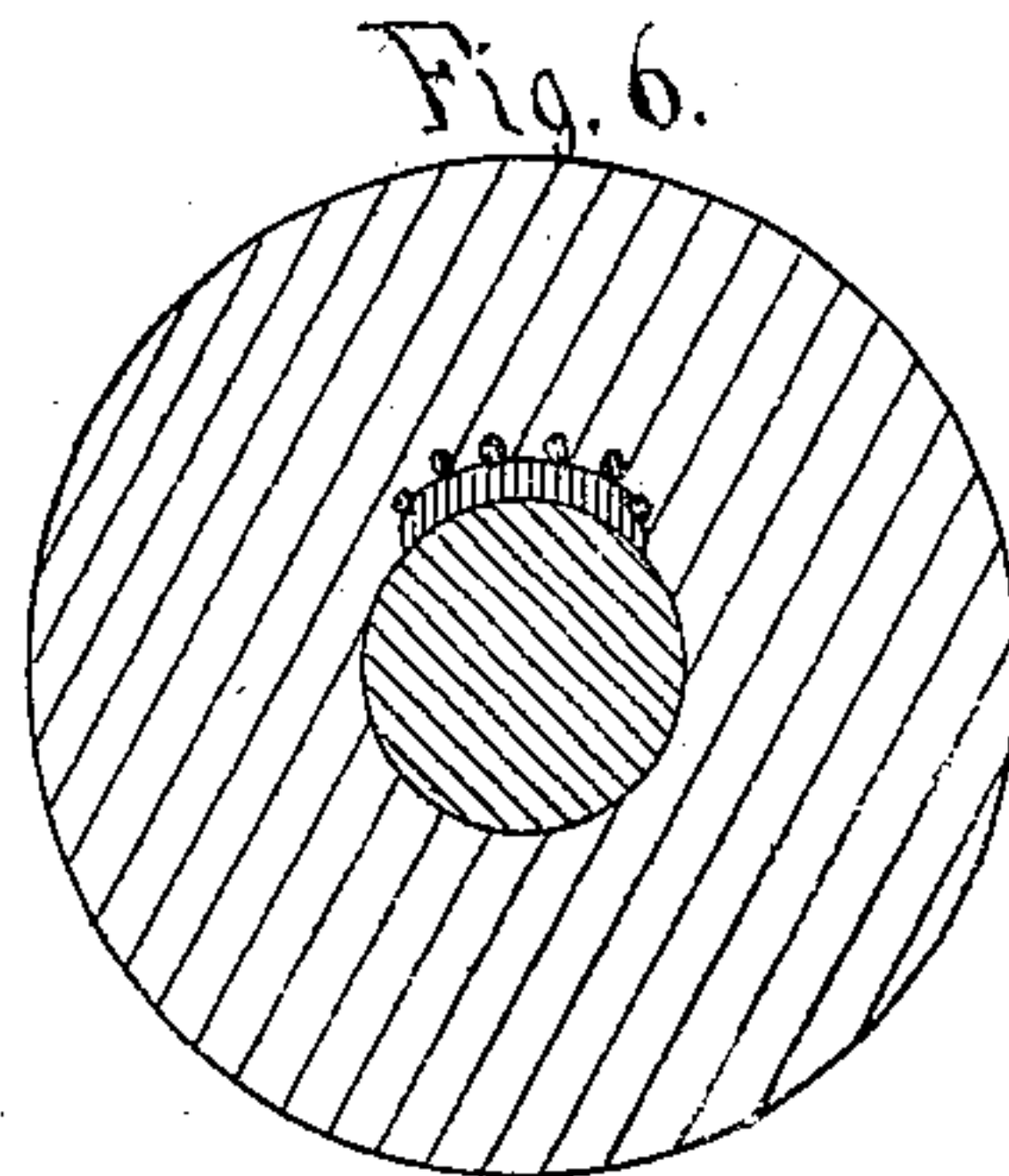


Fig. 6

Witnesses.

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Inventor  
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his atty



# UNITED STATES PATENT OFFICE.

JAMES B. FORSYTH, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN SHAFTS FOR RUBBER ROLLS.

Specification forming part of Letters Patent No. **132,653**, dated October 29, 1872.

*To all whom it may concern:*

Be it known that I, JAMES B. FORSYTH, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improved Shaft for Rubber Rollers, of which the following is a specification:

My improved shaft is clearly shown in the drawing, and consists in a plain shaft of the ordinary construction, generally a round metal rod about three-quarters of an inch in diameter when used for rollers for clothes-wringers, having a stout wire wound spirally around it and fastened to it at each end of the wire, as shown in Figs. 1, 2, and 3.

I prefer to wind the wire with soft cord saturated with rubber cement, as shown in Figs. 2 and 3, as a better result is produced thereby; but this is not essential.

In building up the roll upon my improved shaft, the rubber compound is first applied upon the shaft between the coils of the wire, and the rest of the rubber body then built up over the wire, and the compound lying between the coils; the whole is then vulcanized and becomes one piece of vulcanized rubber, part of which lies above the wire, and part

extends down to the shaft between the coils surrounding the wire, except where it is in contact with the shaft.

I prefer to use a compound which will be semi-elastic when vulcanized, as described in my reissued patent No. 4,244, dated January 31, 1871, for filling in between the coils; or a strip of rubber and cloth, as described in my reissued patent No. 4,243, instead of using the ordinary compound.

Rolls made as described upon my improved shafts are very durable, as it is clear that the bodies are very securely held to the shafts; and the shafts are very simple in construction and not expensive.

What I claim as my invention is—

The improved shaft for rubber rollers, above described, consisting of a rod of metal and a wire, with or without cord wound upon it, wound spirally around and in close contact with and fastened firmly to the shaft.

JAMES B. FORSYTH.

Witnesses:

BENJAMIN J. GREELY,  
J. E. MAYNADIER.