

(No Model.)

B. J. ABBOTT.
CAM CLUTCH FOR ROTATING SHAFTS.

No. 474,312.

Patented May 3, 1892.

Fig. 1.

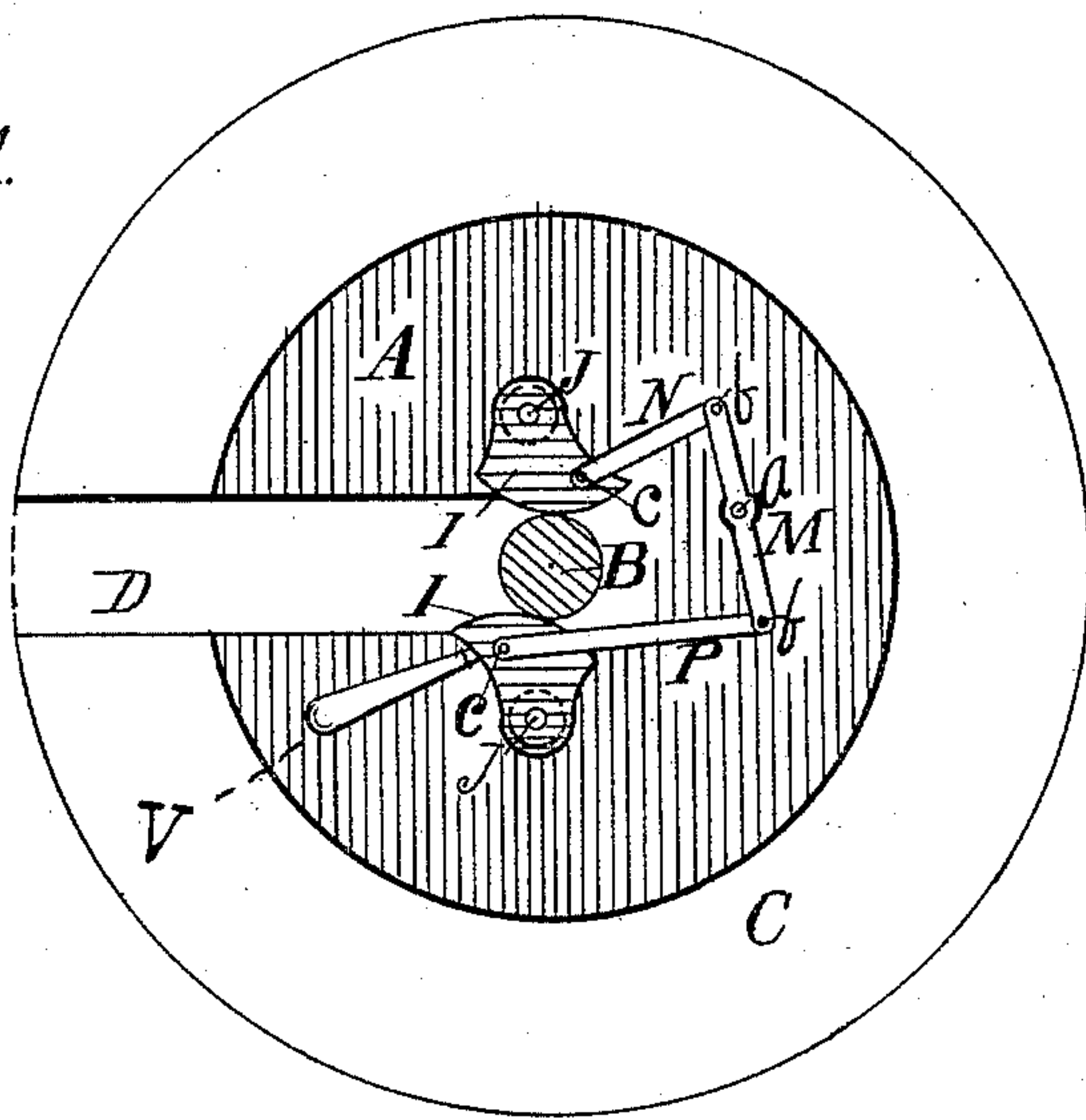


Fig. 2.

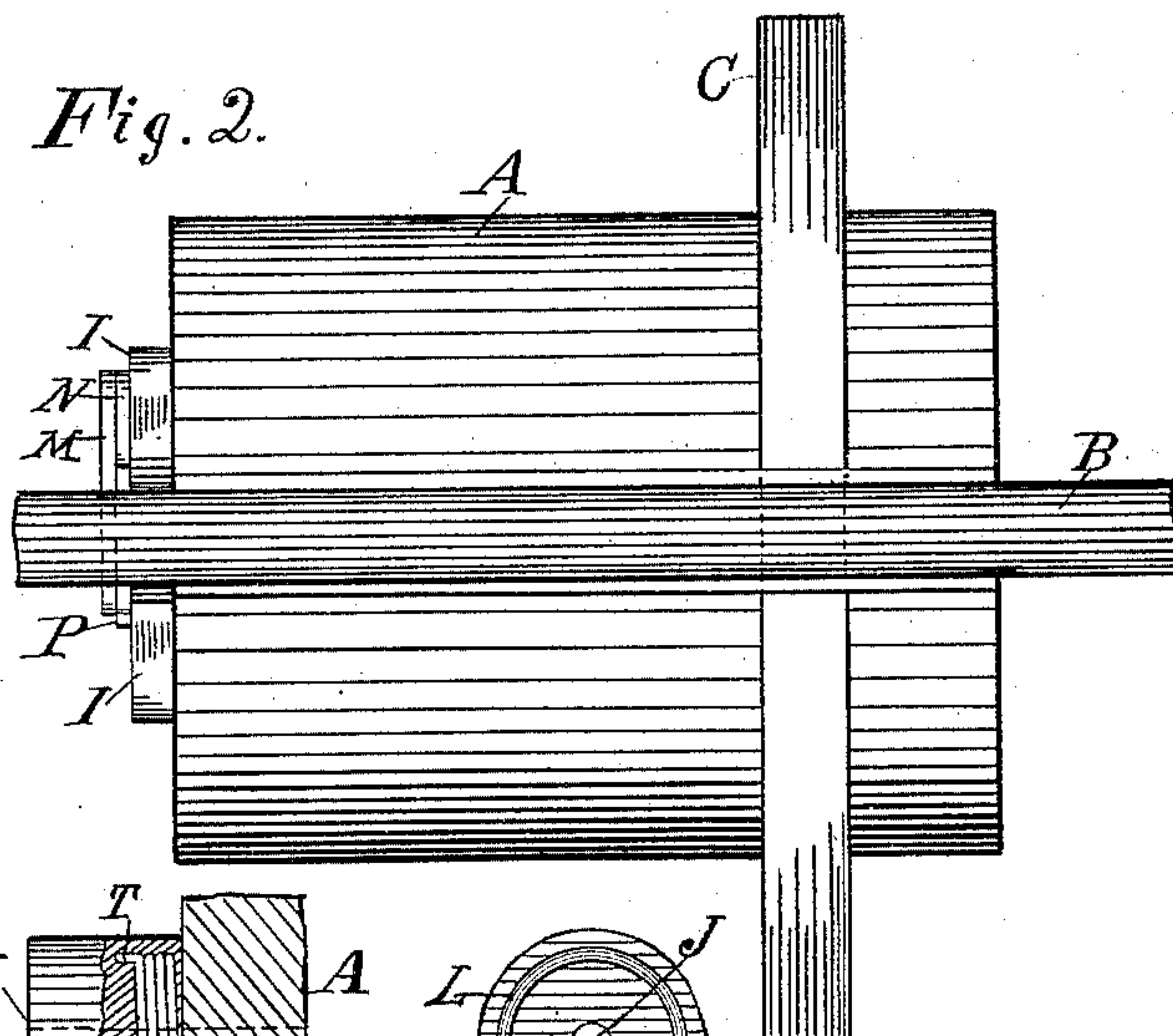
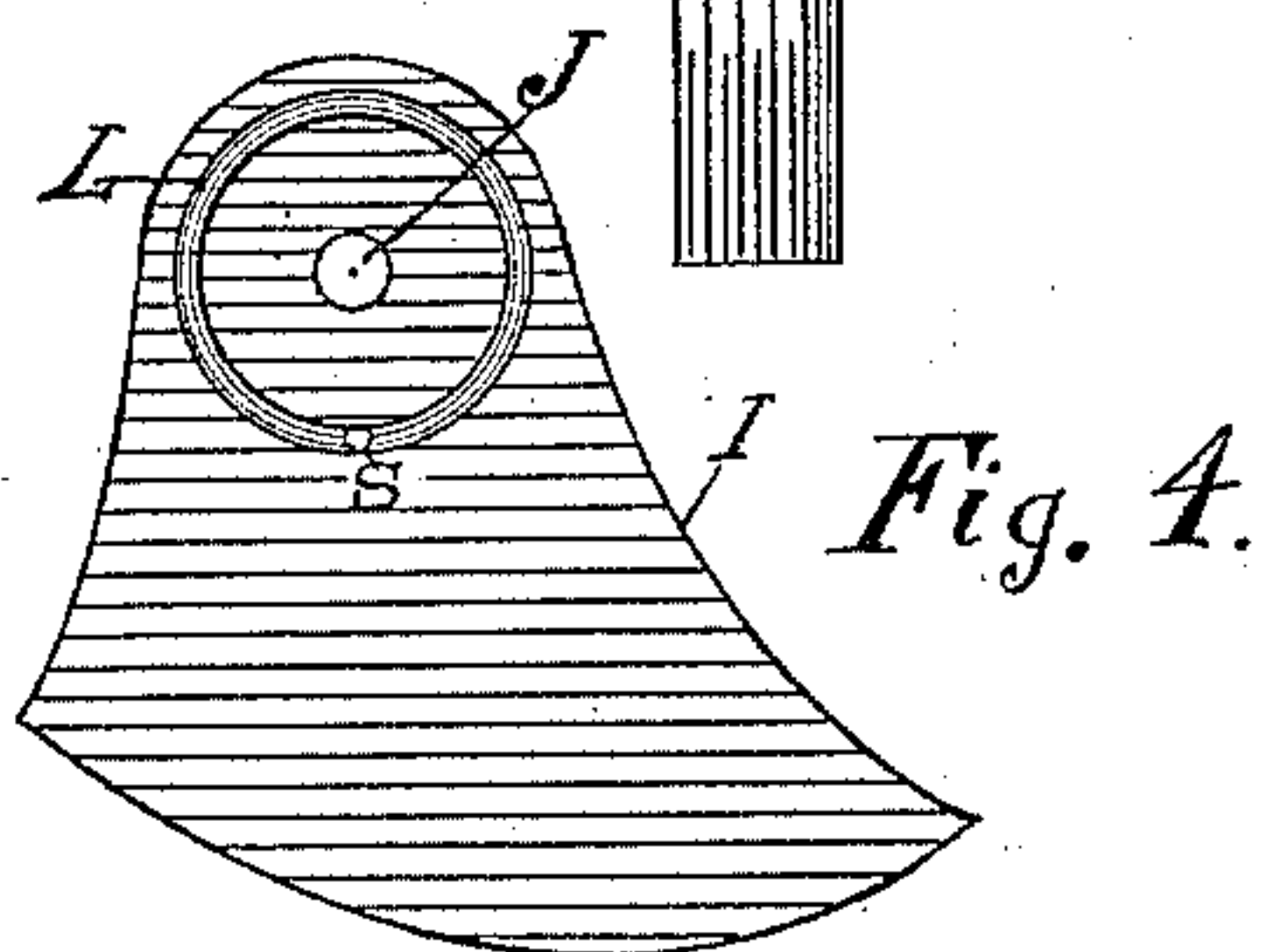
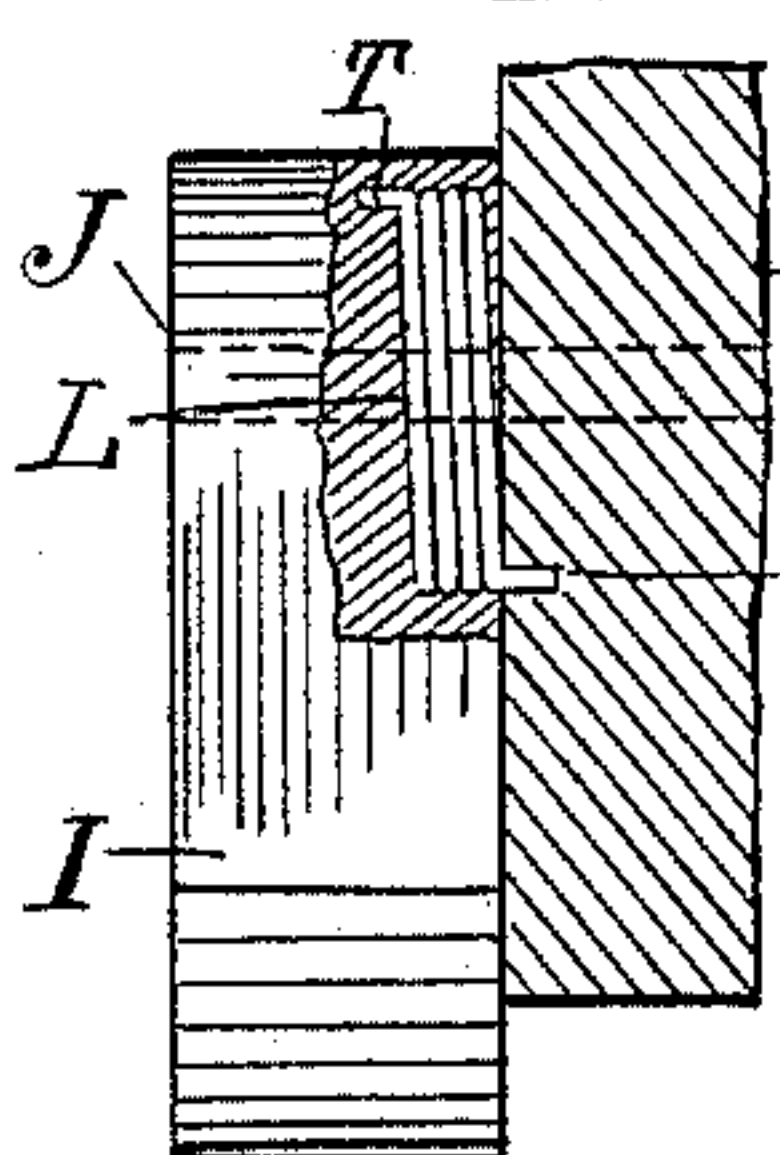


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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CAM-CLUTCH FOR ROTATING SHAFTS.

SPECIFICATION forming part of Letters Patent No. 474,312, dated May 3, 1892.

Application filed August 8, 1891. Serial No. 402,113. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN J. ABBOTT, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Cam-Clutches for Rotating Shafts, of which the following is a specification, reference being had to the annexed drawings, illustrating the invention, in which—

Figure 1 is an end elevation of the receiving-drum, the drive-wheel thereon, and an elevation of the devices for clutching the shaft or axle; Fig. 2, a longitudinal elevation of Fig. 1; Fig. 3, a broken elevation of the edge of one cam-clutch in position on the drum, a broken section of the drum, and the spring connection by which the cam-clutch is made to engage the shaft or axle. Fig. 4 is an inside face view of one of the cam-clutches removed from the drum and enlarged to coincide with Fig. 3.

The purpose of this invention is to provide more certain means for rotating shafts and axles and especially the axles of car-wheels when the latter are to be "trued up." Therefore the improvement is adapted to be applied to a machine for dressing car-wheels, patented September 9, 1890, No. 436,295. In this patent I employ exterior coil-springs to bring the cam-clutches to the axle and a lever to each cam-clutch to release it from the axle.

In the present invention I construct the device as follows: A represents the receiving-drum, which supports the ordinary drive-wheel C and is provided with the usual slot D to permit the axle B to be brought longitudinally and centrally within said drum. The cam-clutches I I are not unlike the clutches in said patent, except as follows: Concentrically with the pivot-supports J J in each inner face of each cam-clutch is formed an annular channel of a suitable depth to countersink a coil-spring L, one outwardly-turned end of the spring having a seat in a hole in the cam-clutch and the other outwardly-turned end having a seat in a hole in the

end of the drum A, as shown at T S. Two or more holes may be formed in each cam-clutch to put the spring in the required tension to grasp the axle. A lever M is pivoted to a suitable seat on the end of the drum A, and a connecting-rod P is pivoted at b thereto and at the other end is pivoted at c to the lower cam-clutch, and a lever N, of suitable length, is pivoted to the lever M at its other end and to the upper cam-clutch; and to one cam-clutch is affixed a lever V, which, when turned downward, releases both cam-clutches by virtue of the said lever M and connecting-rods. It will be seen that the cam-clutches operate in opposite directions and that the connecting-rods P N also operate in the same directions as the cam-clutches. For this reason the springs should be coiled to the right and left. The lever V is omitted in Figs. 2 and 3, the one shown in Fig. 1 illustrating fully the construction.

In practice the opposite end of the drum is provided with devices similar to those described, whereby the axle is firmly grasped and held without inconvenient vibration, and one man at each end of the drum can by the levers disengage the axle, whereas in the patent cited four men are required to do the same labor.

I claim and desire to secure by Letters Patent—

The combination, with a drum for receiving a shaft or axle, of two cam-clutches pivoted to the ends of the drum and coil-springs countersunk therein, the ends of the springs being secured to the cam-clutches and to the drum, a lever pivoted to the drum and having connections by means of a rod with each cam-clutch, one of the cam-clutches being provided with an operating-lever, whereby both cam-clutches are released from the axle, as specified and shown.

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Witnesses:

G. L. CHAPIN,
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