

(No Model.)

J. E. COMPTON.
WHEEL.

No. 603,259.

Patented May 3, 1898.

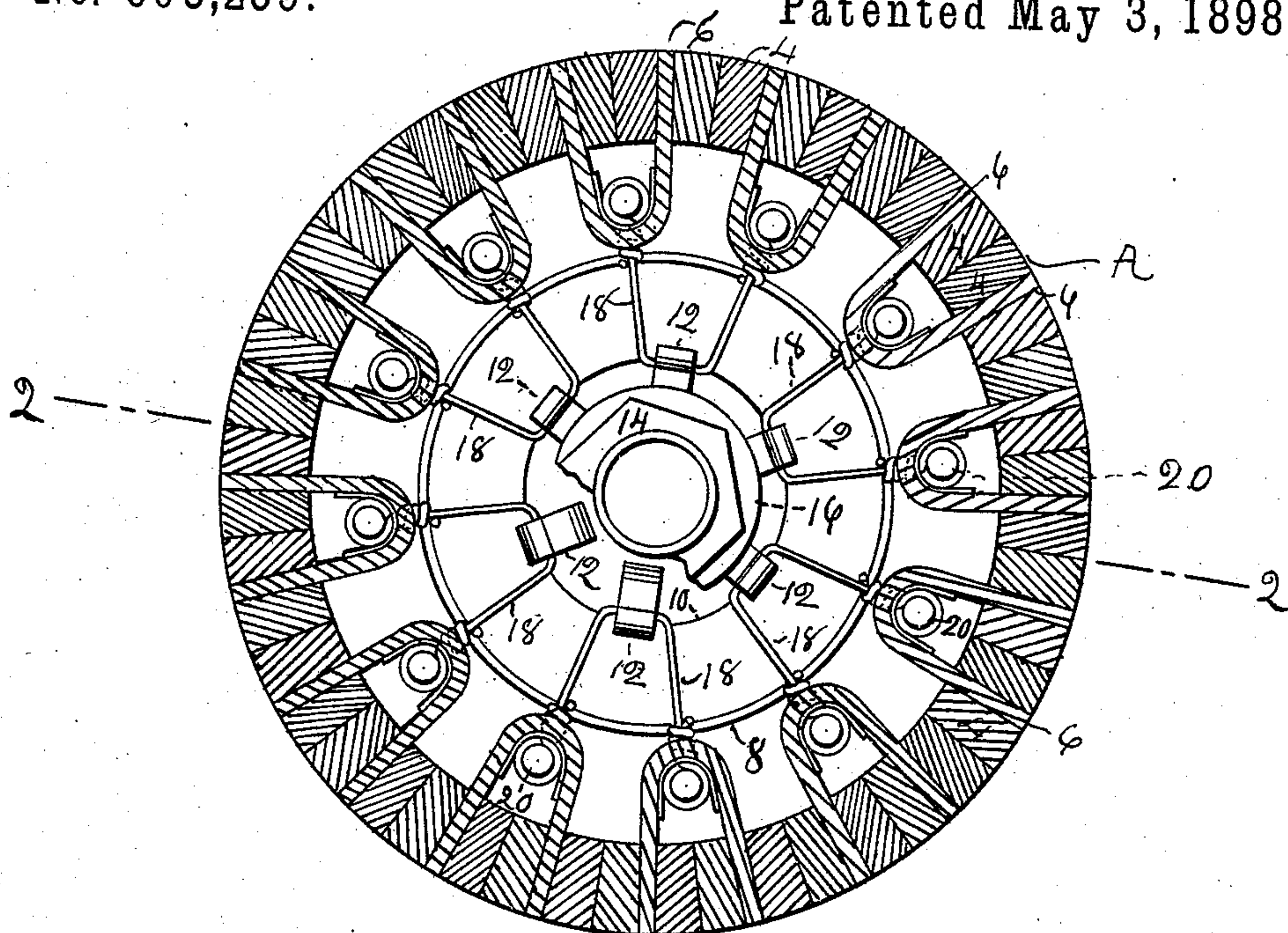


Fig. 1

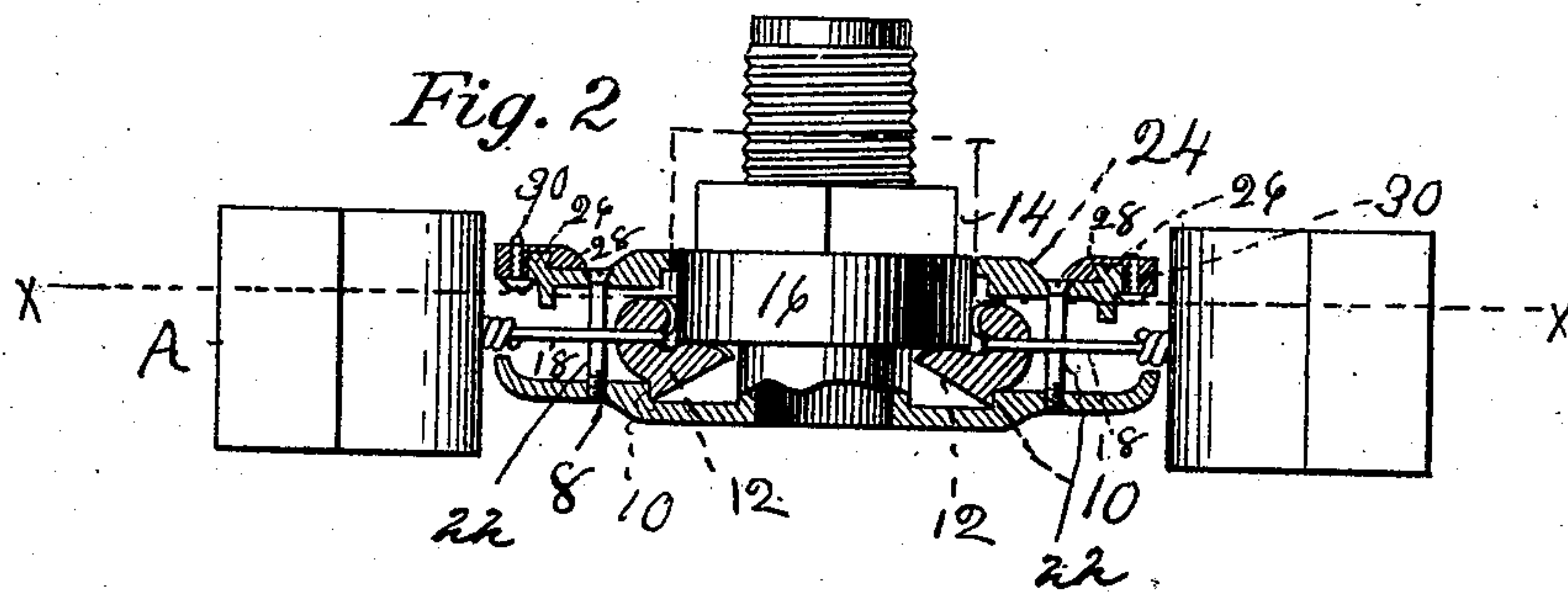


Fig. 2

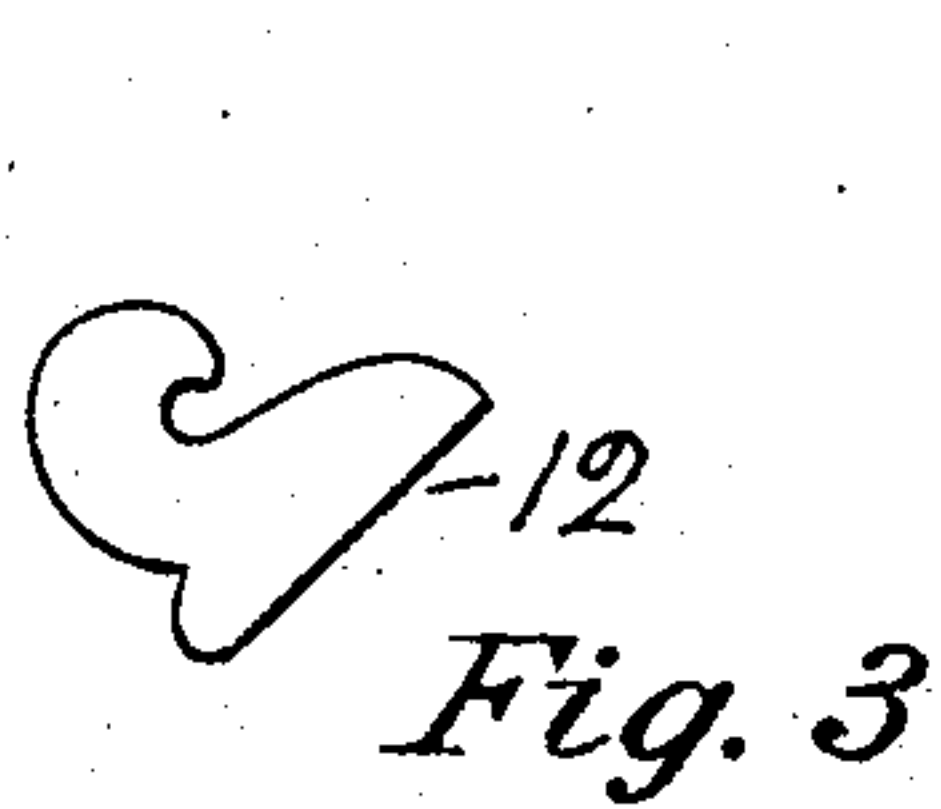


Fig. 3

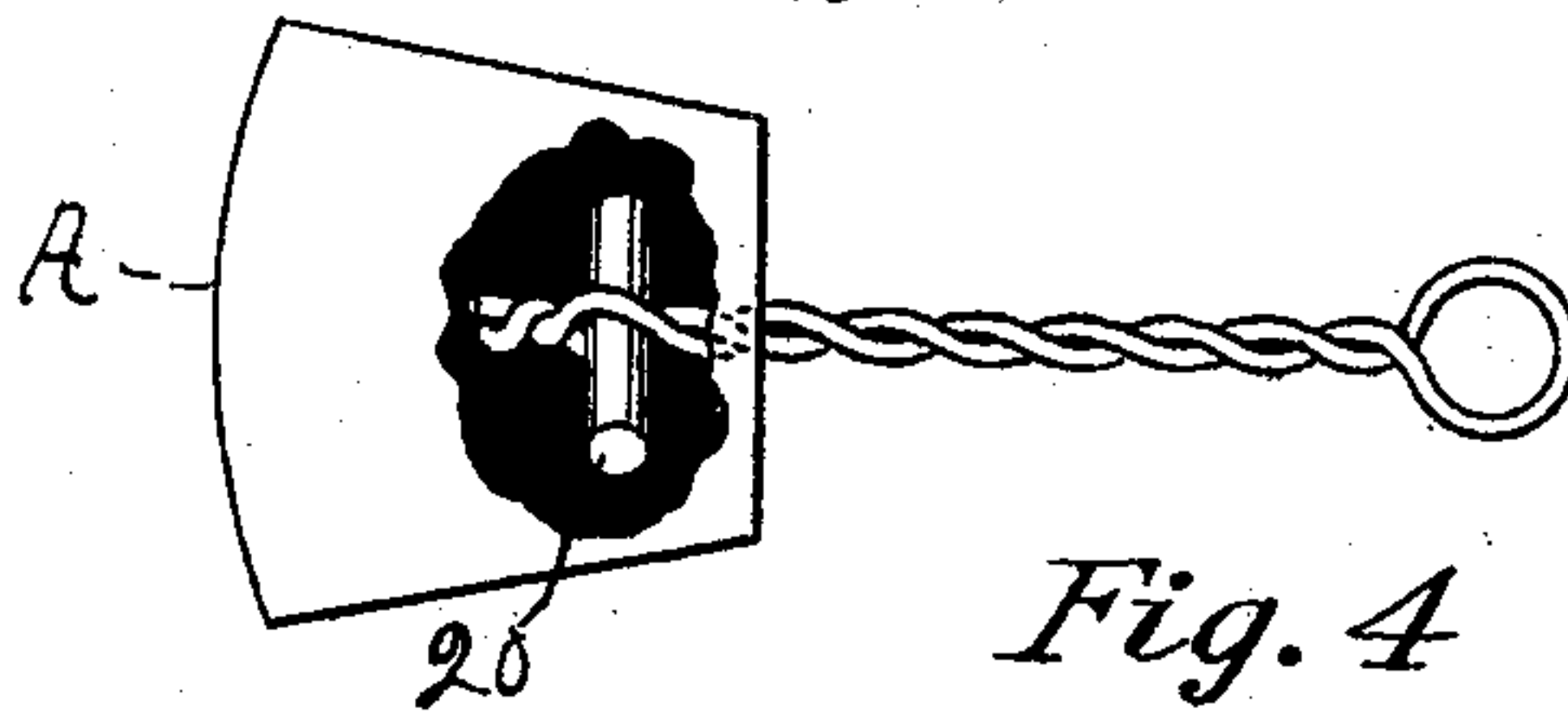


Fig. 4

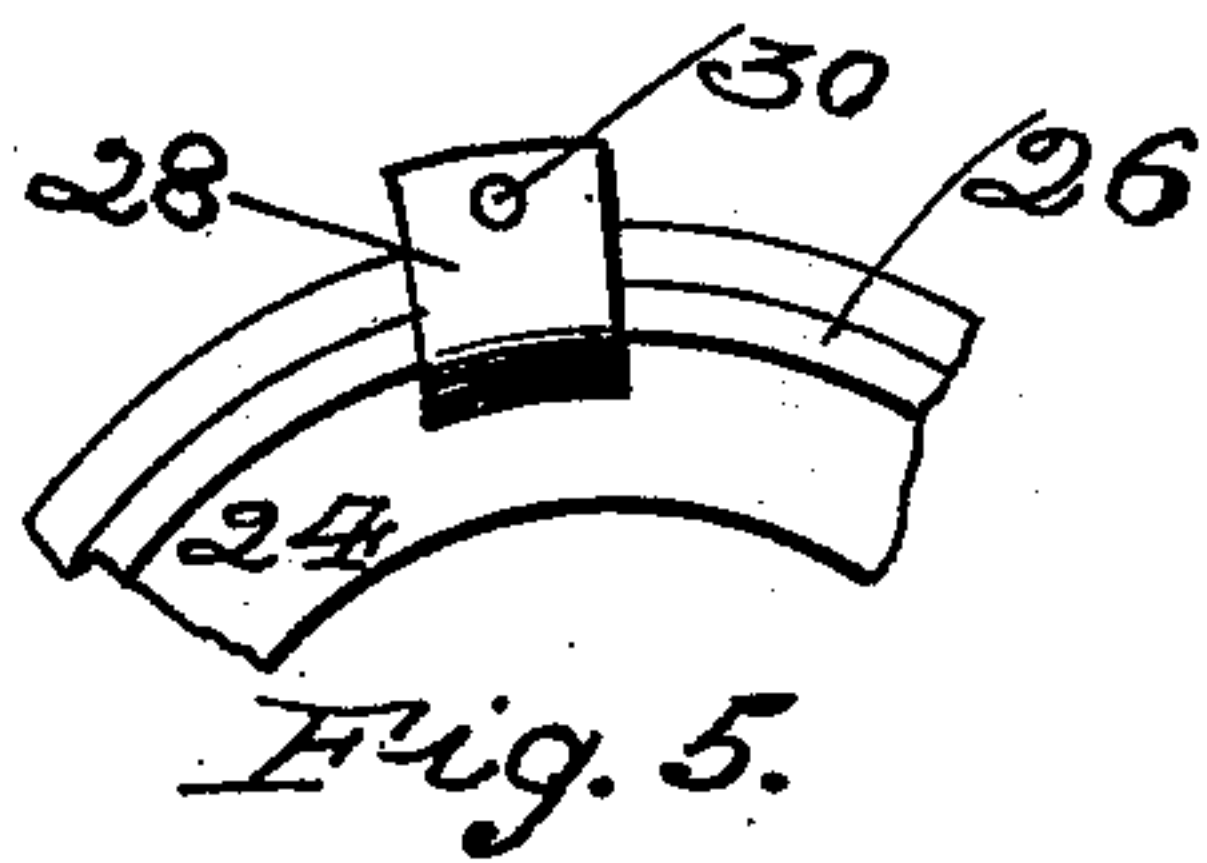


Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES E. COMPTON, OF LYNN, MASSACHUSETTS.

WHEEL.

SPECIFICATION forming part of Letters Patent No. 603,259, dated May 3, 1898.

Application filed May 28, 1896. Serial No. 593,403. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. COMPTON, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Wheels, of which the following, in connection with the accompanying drawings, is a specification.

My invention is shown in the present instance as embodied in a wheel designed for mechanical uses—such as polishing, grinding, and similar purposes—but I would not thereby limit the invention, as it is equally useful in other classes of wheels.

In the accompanying drawings, Figure 1 is a plan view, partly in section, on the line xx of Fig. 2, of a wheel embodying the present invention. Fig. 2 is an elevation, partly in section. Fig. 3 is a detail showing the straining-lever detached. Fig. 4 is a detail showing a modified form of straining-arm, and Fig. 5 is a detail showing one of the weights in position.

The wheel-rim A is composed of any suitable material and may be whole or of one piece, if desired, but, as shown in the present instance, is formed of separate voussoirs, and the voussoirs are preferably made to consist of leather material in part and in part of wood, the materials being arranged with alternating sections of each placed side by side in pack, as shown. The sections 4 of wood are preferably of greater thickness than the sections 6 of leather. The parts are tapered like the voussoirs of an arch and may be secured together by cement or other convenient and suitable means.

The wheel-hub comprises a disk 8, which is also provided with a flange 10, extending inwardly therefrom. Against the disk and flange are supported a plurality of levers 12. Said levers, something like a triangle in shape, (see Fig. 3,) are supported by one corner against the disk and flange 10 to permit rocking movement thereon as a fulcrum. They are located about and extend inwardly toward the hub-center after the manner of radii, the inner ends thereof being at a distance from the disk and free of contact with the hub. On the hub is a nut 14, and adjacent thereto is a collar 16 in bearing contact with the free end of said levers. The nut 14 has screw-thread engagement with the hub,

whereby to be moved thereon for carrying the collar forwardly and backwardly against the levers 12 and rocking the same, as hereinafter described.

In connection with the outer and uppermost corner of the levers 12 are radial arms 18. As shown in Fig. 1, said arms consist of a loop of wire, its loop end being caught over a suitable boss or hook formation on the lever 12 and the free ends thereof being extended and connected with the voussoirs of the wheel-rim. To this end the wire ends are provided with lugs or enlargements 20, which, being suitably socketed in the loop or in the material of the wheel-rim, effect a firm connection of the arm therewith.

It will now be understood that movement of nut 14, carrying the collar 16 against the free ends of levers 12 and rocking the levers 12 on their respective fulcrum-points, operates to draw the arms for tightening the voussoirs and thus contracting the wheel-rim. A reverse movement of nut 14 releases the parts by an obverse movement of the arms 18.

Instead of the looped arm and voussoirs, as shown in Fig. 1, an arm may be employed with a single end connected to the voussoir or with the rim material, as shown in Fig. 4.

Connected with the hub by screws 22 is a disk-plate 24, provided with a rib 26. On the rib 26 are weights 28, which are held adjustably thereon by screws 30, arranged as shown in Fig. 2. Said weights operate as means for balancing the wheel in motion and by suitable operation of the screw 30 allow of being shifted, as required, to obtain the adjustment for balancing the wheel, as desired.

I claim—

1. In combination, the hub, a series of rocking levers supported by the hub, a series of arms engaged by one end with the levers, a rim engaged by the opposite ends thereof, and means connecting with the free ends of the levers, to be moved for rocking the levers whereby the arms are drawn together, substantially as described.

2. In combination, a hub, a series of rocking levers supported by the hub, a series of arms engaged by one end with the levers, a rim engaged to the opposite ends thereof, and means supported adjustably on the hub, in connection with the free ends of the levers,

to be moved thereagainst for rocking the levers, whereby the arms are drawn for tightening the parts together, substantially as described.

- 5 3. In combination, a hub comprising the disk provided with flanges, a series of rocking levers fulcrumed on the disk against said flanges, a series of arms engaged by one end with the levers, a rim engaged by the opposite ends thereof, and means connecting with
10 the free ends of the levers, to be moved thereagainst for rocking the levers, whereby the arms are drawn for tightening the parts together, substantially as described.

4. In combination, a hub, a series of rock- 15
ing levers supported by the hub, a series of arms engaged by one end to the levers, a rim composed of voussoirs engaged by the opposite ends of said arms, and means connecting
20 with the free ends of the levers to be moved for rocking the levers, whereby the arms are drawn for binding the voussoirs together, substantially as described.

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Witnesses:

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