

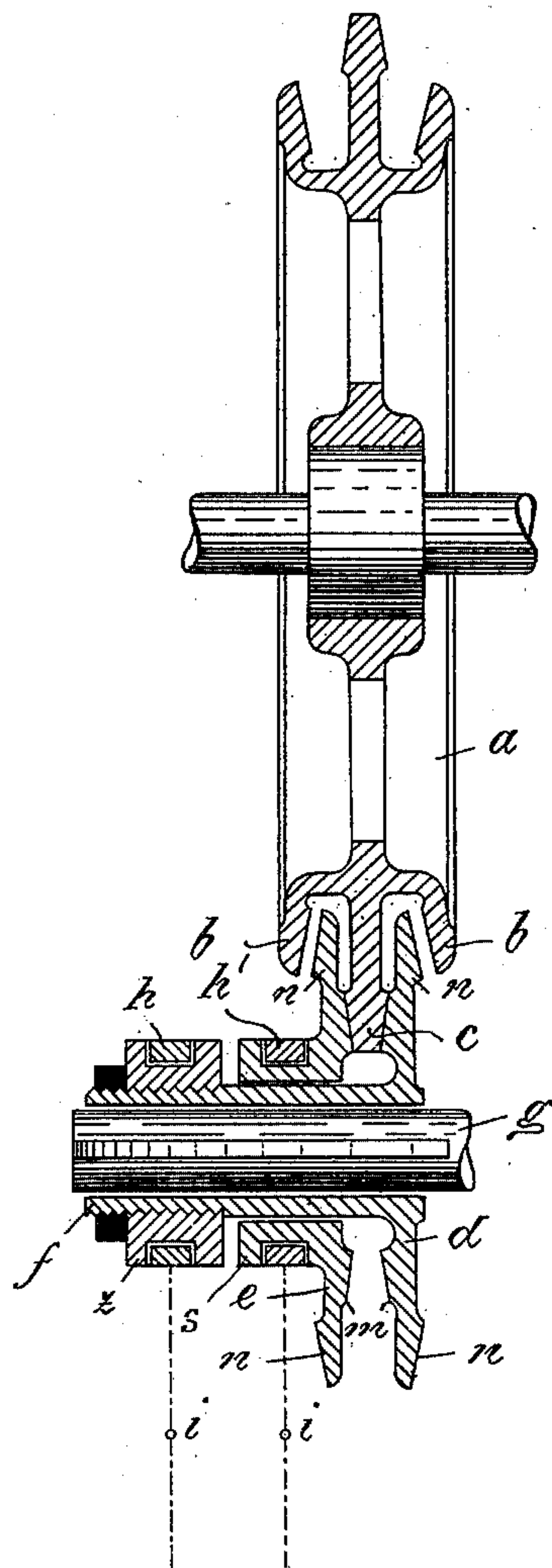
No. 619,152.

Patented Feb. 7, 1899.

F. DÜRR.
FRICITION GEARING.

(Application filed Apr. 15, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FRITZ DÜRR, OF BERLIN, GERMANY.

FRICITION-GEARING.

SPECIFICATION forming part of Letters Patent No. 619,152, dated February 7, 1899.

Application filed April 15, 1898. Serial No. 677,716. (No model.)

To all whom it may concern:

Be it known that I, FRITZ DÜRR, a subject of the Emperor of Germany, and a resident of Berlin, in the Kingdom of Prussia and Empire of Germany, have invented certain new and useful Improvements in Friction-Gearing, (for which I have filed applications for Letters Patent in Germany, dated September 18, 1897; in Denmark, December 10, 1897; in Sweden, December 10, 1897; in Hungary, December 15, 1897, and in Norway, December 15, 1897, and for which I have obtained Letters Patent in Great Britain, No. 29,604, dated December 14, 1897, and in France, No. 270,196, dated April 16, 1898;) and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which forms part of this specification.

My invention relates to a friction-gearing which can alternately be put into connection with two different power-transmitting mechanisms.

My improvement comprises a large friction-wheel having three peripheral flanges providing two outer friction-flanges and a double friction-flange located intermediate of the outer friction-flanges and a divided friction-wheel having friction-flanges adjustable with relation to the double friction flanges of the large friction-wheel, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawing, which shows a diametric section of my improved friction-gearing.

a is a large friction-wheel formed with three peripheral flanges providing two outer friction-flanges b of equal diameter and an intermediate double friction-flange c .

g is a shaft on which is mounted a divided friction-wheel, consisting of two members d and e , capable of being shifted to or from each other. These halves are each provided on the inner side with a friction-flange m and on the outer side with a friction-flange n . The frictional half-wheel d possesses a broad

bush-shaped nave f and can be moved along the shaft g , but not revolvably adjusted, and is provided with a regulating-ring z . The half-wheel, with its nave s , is movably adjusted on the nave f . The moving to and from each other of the two half-wheels d and e is accomplished by means of two forked levers, of which each is on one side, in connection with a shipper-ring h , working in the groove of the regulating-ring z , and the other with a shipper-ring h' , working in the groove of the nave s . In the drawing these forked levers are only shown by dotted lines and oscillate about the pivot-points i , so that if the half-wheels d and e are moved toward each other both their friction-flanges m bind on the double friction-flange c of the friction-wheel a and one of the transmission ratios steps into action. If, however, it is desired to operate the other transmission ratio, then both half-wheels d and e are shifted so far asunder that the friction-flanges n of the half-wheels d and e bind on their respective friction-flanges b of the friction-wheel a .

If the gearing is to be placed entirely out of gear, the half-wheels d and e are shifted to such an extent that they will not bind on the friction-flanges b nor the double friction-flange c .

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A friction-gearing comprising a friction-wheel having three peripheral flanges providing outer friction-flanges and a double friction-flange located intermediate of the outer friction-flanges, a divided friction-wheel having members provided with inner and outer friction-flanges, and means whereby the members of the divided friction-wheel are adjusted with relation to the friction and double friction flanges of the other friction-wheel; substantially as described.

2. A friction-gearing comprising the wheel a having the friction-flanges b and projecting double friction-flange c , the divided friction-wheel having one member d provided with a nave f , a regulating-ring z , an inner friction-flange m , an outer friction-flange n , and an-

other member *e* provided with a nave *s*, an inner friction-flange *m* and an outer friction-flange *n*, and means whereby the members of the divided friction-wheel are adjusted with
5 relation to the friction and double friction flanges of the other friction-wheel; substantially as described.

The foregoing specification signed at Berlin this 30th day of March, 1898.

FRITZ DÜRR.

In presence of—
W. MOCK,
C. H. DAY.