

E. G. YEATES.
 DRIVING DOG FOR CAR WHEEL LATHES.
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1,057,107.

Patented Mar. 25, 1913.

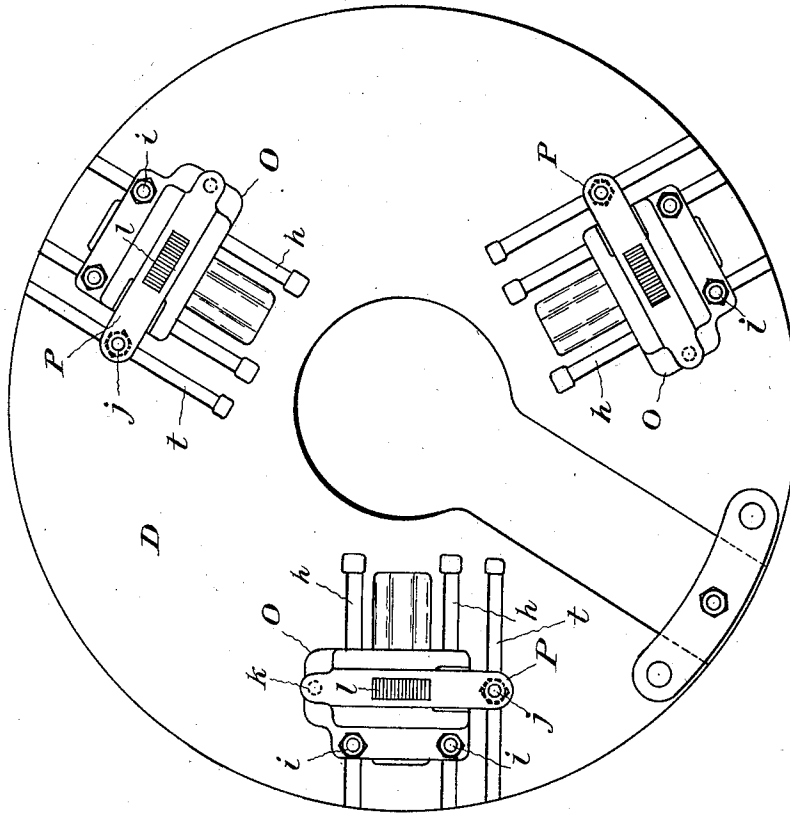


Fig. 1

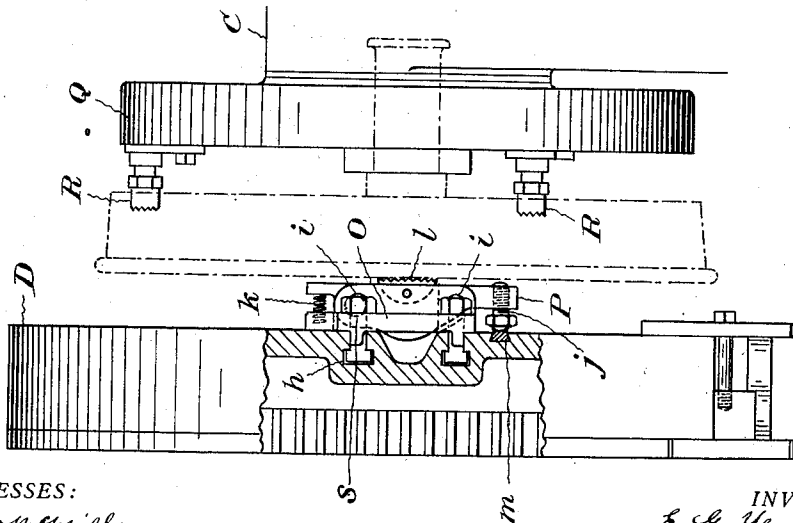


Fig. 2

WITNESSES:

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ERNEST GEORGE YEATES, OF HAMILTON, ONTARIO, CANADA.

DRIVING-DOG FOR CAR-WHEEL LATHES.

1,057,107.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Original application filed March 15, 1910, Serial No. 549,454. Divided and this application filed October 16, 1911, Serial No. 654,895. Renewed February 5, 1913. Serial No. 746,419.

To all whom it may concern:

Be it known that I, ERNEST G. YEATES, of the city of Hamilton, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Driving-Dogs for Car-Wheel Lathes, of which the following is a specification.

This invention relates to driving dogs for use in central drive lathes in which car wheels may be turned while attached to their axles. In such lathes face plates are provided on a central head stock which face plates carry driving dogs, and my object is to devise driving means which will properly and securely engage and drive the wheels with a minimum strain on the wheel axle.

I attain my object by the constructions hereinafter described and illustrated in the accompanying drawings in which:—

Figure 1 is a front elevation of a headstock face plate provided with my improved driving dogs. Fig. 2 is a side elevation of a face plate of a head stock and an opposed tail stock face plate.

In the drawings like letters of reference indicate corresponding parts in the different figures.

D is a face plate of a head stock. This face plate is provided with a plurality of driving dogs. Each of these dogs comprises a slide O, readily removable in suitable radial guideways *h* on the face plate and adjustably held therein through the medium of the ordinary clamping bolts *i*. Each slide carries a lever *p* fulcrumed thereon near one end by means of the pin *s*. Each lever is provided with an adjusting screw *j* adapted to rock the lever. As shown in Fig. 2 the screw *j* engages the lever and the slide *m*, being screwed into one of these parts. The slide *m* is movable into the radial guideway *t* on the face plate so that it may be adjusted simultaneously with the lever P. A coil spring *k* is also provided preferably engaging a tail on the lever and adapted to rock the lever toward the face plate and therefore away from the inner side of any wheel placed in the lathe. Each lever carries a serrated segment *l* so connected with the lever that it has a rocking movement thereon enabling it to adapt itself to the surface with which it may be engaged. This rocking movement is preferably provided for by pivoting the segment, as indicated, in a suit-

able recess in the lever. The segment *l* being intermediate the fulcrum of the lever and the screw *j*, the power of the screw is multiplied, giving a very powerful bite to the segment *l*.

When a pair of wheels have been placed in position in a lathe the driving dogs are engaged with a wheel by adjusting the screws *j*. This produces a longitudinal tensional strain on the car axle since the adjustment of the dogs is parallel to the axle of the machine. To counterbalance this strain and also to cause a better engagement of the driving dogs with the car wheels, I provide the face plates Q of the tail stocks C with a plurality of jacks R. These may be either pneumatic, hydraulic or screw jacks, the latter being illustrated in the drawing. After the driving dogs are adjusted, as already described, these screw jacks are tightened up until the tensional strain induced in the axle by the driving dogs is practically neutralized. By the method of holding the car wheels just described, it will be seen that the car axle will be relieved of all longitudinal strain without impairing the efficiency of the drive.

This application is a division of application, Serial Number 549,454, filed March 15, 1910.

What I claim as my invention is:—

1. In a car wheel lathe the combination of a suitably driven face plate; and a driving dog on said face plate comprising a lever pivoted near one end, an adjusting screw whereby said lever may be rocked, and a serrated segment adapted to engage the side of a wheel.

2. In a car wheel lathe the combination of a suitably driven face plate; and a driving dog on said face plate comprising a lever pivoted near one end, an adjusting screw whereby said lever may be rocked, and a rocking serrated segment adapted to engage the side of a wheel.

3. In a car wheel lathe the combination of a suitably driven face plate; and a driving dog on said face plate comprising a lever pivoted near one end, an adjusting screw whereby said lever may be rocked, a rocking serrated segment adapted to engage the side of a wheel, and a spring tending to rock the lever to disengage the serrated segment from the wheel.

4. In a car wheel lathe the combination of

a head stock adapted to receive the axle of a pair of wheels; a face plate rotatably mounted on the head stock; driving dogs on said face plates adjustable to engage the
5 inner sides of the wheels with a thrust parallel to the axis of the lathe; a tail stock provided with a face plate; and jacks carried by said face plate adjustable to engage the wheel with a thrust also parallel to the axis of the lathe but opposite in direction 10 to the thrust of the driving dogs.

Toronto, this 10th day of October 1911.

ERNEST GEORGE YEATES.

Signed in the presence of—

J. EDW. MAYBEE,

E. P. HALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."