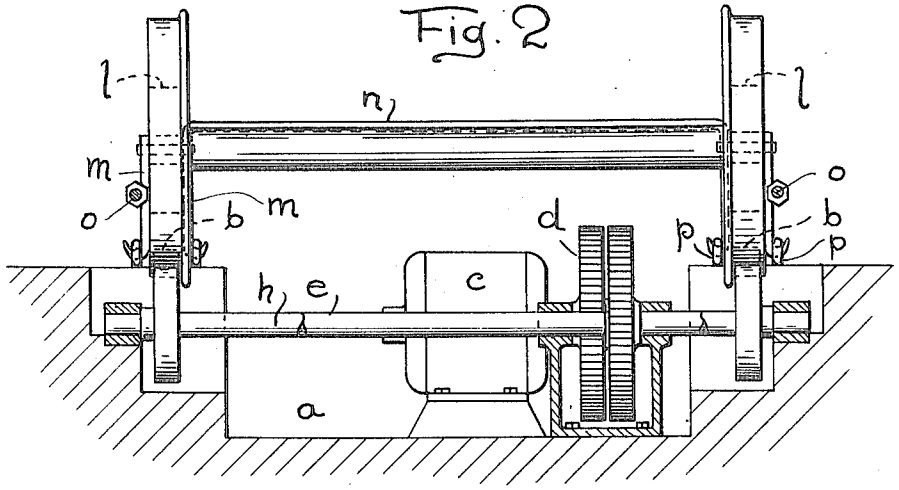
J. M. GRIFFIN & O. P. ALLEN.
WHEEL TRUING APPARATUS.
APPLICATION FILED DEC. 11, 1914.

1,136,124.

Patented Apr. 20, 1915.

2 SHEETS—SHEET 1.

Fig. 2



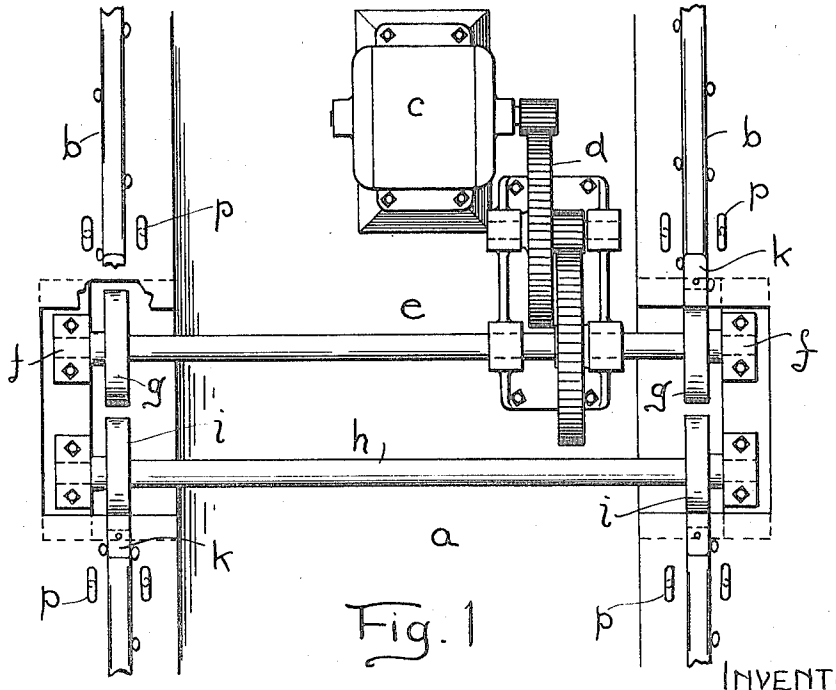


Fig. 1

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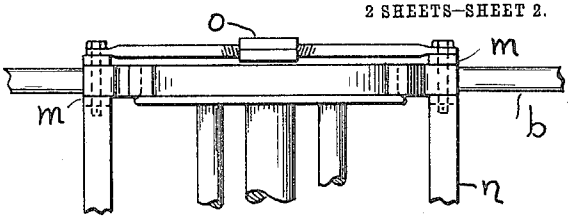
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2 SHEETS—SHEET 2.

Fig. 5



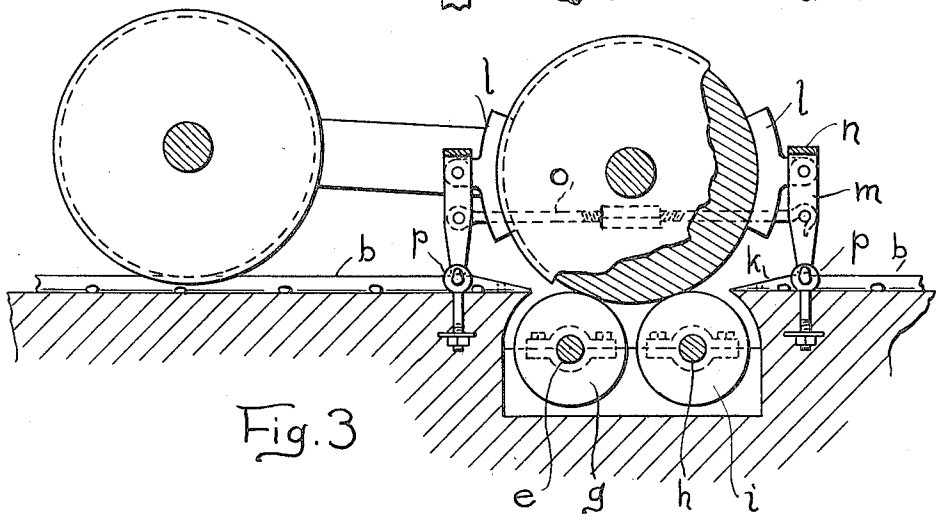


Fig. 3

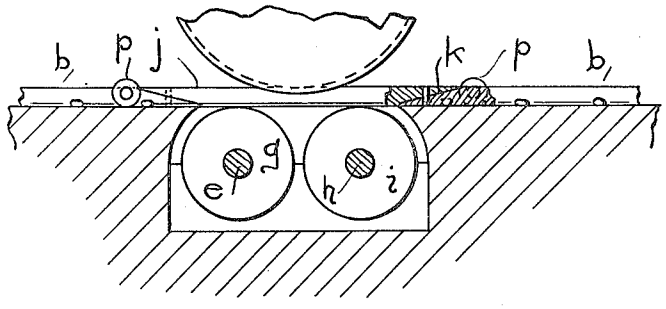


Fig. 4

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JUDSON M. GRIFFIN AND OLIVER P. ALLEN, OF DETROIT, MICHIGAN, ASSIGNORS TO WHEEL TRUING BRAKE SHOE COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

WHEEL-TRUING APPARATUS.

1,136,124. Specification of Letters Patent. Patented Apr. 20, 1915.

Application filed December 11, 1914. Serial No. 876,747.

To all whom it may concern:

Be it known that we, JUDSON M. GRIFFIN and OLIVER P. ALLEN, citizens of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Wheel-Truing Apparatus, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to apparatus for truing car wheels, and has for its object the truing of car wheels by abrading shoes or blocks while the car is in the barns or in the shops.

Heretofore it has been customary to true car wheels by using abrading shoes upon the cars in place of the brake shoes while the car is in service, or else the car wheels had been completely removed from the cars and the wheels ground down to obtain a perfectly circular periphery. Some traction companies do not like to put abrading shoes upon cars in service and the other method of taking the car wheels off and grinding them by special grinding machinery, is a rather difficult and expensive one. It is to obviate these disadvantages that the apparatus hereinafter to be described is designed.

Figure 1 is a plan view, the abrading apparatus being omitted. Fig. 2 is a cross section of the complete apparatus. Fig. 3 is a longitudinal section along the track showing a car wheel mounted upon the apparatus in position for truing. Fig. 4 shows the apparatus when not in use with a section of track inserted above it so that the tracks can be used for other purposes. Fig. 5 is a detail plan view of the abrading blocks and gear.

a designates a pit between the rails *b b* which are the shallow rails which are ordinarily used in shops or barns.

c designates a motor which may be either a new motor or an old motor which has been taken off of a car which has been taken out of service.

d is speed reduction gearing connecting with the shaft *e* which is journaled in the bearings *f f* and which has, at each end in alinement with the rails *b b*, the wheels *g g*. These wheels are mounted so that their peripheries come flush with the plane of the lower side of the rails. Similarly mounted and journaled adjacent to the shaft *e* and the wheels *g g*, is the idler shaft *h* and wheels *i i*. Of course this could be operatively connected with the shaft *e* if it is desired, but this is not necessary. This gearing is a preferred form of construction, but of course the motor need not necessarily be located in the pit and any suitable drive connections may be used between the motor and the wheels *g* and *i*.

The rails *b b* are cut away above the wheels *g* and *h* and a section *j* is insertible in this cut away portion to completely cover the wheels *g* and *i* and put the rails in condition for ordinary service in the barns or shops. When the section *j* is taken out on each side a car may be caused to travel along the rails until the pair of wheels that are desired to be trued rest upon the wheels *g* and *i*. It will be noticed that the ends of the rails are beveled off at *k* so that the wheels may easily drop into the recess and onto the top of the wheels *g* and *i*. The motor *c* may then be started and frictional contact between the wheels *g* and the wheels to be trued, will spin the latter.

The abrading shoe may be substituted in the brake rigging for the ordinary brake-shoe and the brakes applied to the wheels in the ordinary way to secure abrasion or the apparatus shown in the drawings may be used. This comprises at each side of each rail a pair of eye-bolts *p*, to which, after the wheel to be ground is in place, the uprights *m* may be hooked. The uprights adjacent to one rail are connected with the uprights adjacent to the other rails by tie bars *n*. The members of each pair of uprights on the outside of each rail are connected by the connecting rods and turn-buckles *o*. Hence the abrading blocks *l* may be applied to the wheels by adjusting the turn-buckles *o*. One advantage of this form of rigging is that it is in no way dependent upon the brake-rigging of the car and two abrading blocks may be used for each wheel and hence the time necessary for the truing is shortened. Another advantage of this type of rigging especially as connected with the driving means shown in the drawings is that with the spinning of the car wheels by frictional contact therewith there is a tend-

ency to cause the car wheels to assume different centers of revolution, that is, the center of rotation is itself caused to travel around in a somewhat circular course due to the "jumping of the wheel" and the peripheral path is not concentric to the point occupied by the center of the wheel when the wheel is at rest upon the two lower wheels. This action causes brake-shoes or blocks which are rigidly held to grind the wheel unevenly, but the rigging shown in the drawing can oscillate with the wheel and consequently insures a true concentric periphery with this type of drive for the car wheels.

From the above description it will be seen that car wheels may be easily trued at night in the barns or at the shops with very little difficulty and that it makes no difference whether the truck wheels to be trued are connected to the motor or not. They may be trued with this method and apparatus with very little difficulty and expense.

What we claim is:

1. The combination with a track having a pair of rails with cut out portions at opposite points, a plurality of wheels rotatably mounted in each cut out portion so that their peripheries at the top come substantially even with the rails, means for holding an abrading block against the car wheel, the said abrading block and means for driving one or more of said wheels located in said gaps for the purpose of spinning a pair of car wheels.

2. The combination with a track provided with a pair of rails having opposite gaps, rail sections which can be made to bridge the gaps and which are removably securable in said gaps, a plurality of wheels rotatably mounted in each gap for supporting a pair of car wheels, an abrading block, means for supporting the abrading block against the wheel, and means for driving one or more of the wheels in the gaps for the purpose of spinning the car wheels.

3. Apparatus for truing car wheels, having in combination means for spinning the car wheels, abrading blocks, means for holding an abrading block on each side of the wheel, and connecting means for tightening the two abrading blocks against the wheel.

4. Apparatus for truing car wheels, having in combination means for spinning the car wheel, a pair of pivoted uprights, abrading blocks carried by said uprights and arranged to be held against the wheels, and a turn-buckle connecting the two uprights.

5. Apparatus for truing car wheels, having in combination means for spinning the car wheels, an eye-bolt secured to a support, an upright hooked into the eye-bolt, a second eye-bolt secured to a support, an upright hooked into the second eye-bolt, an abrading block carried on one of the uprights, and tightening means between the two uprights for mechanically drawing them toward each other.

6. Apparatus for truing car wheels, having in combination with a track having cut out portions, a pair of wheels in alinement with each rail of the track and located in said cut out portion, and means for journaling said wheels, comprising a pair of pivoted uprights, an abrading block carried on the top of each upright, and means for mechanically drawing the uprights toward each other.

In testimony whereof, we sign this specification in the presence of two witnesses.

JUDSON M. GRIFFIN.
OLIVER P. ALLEN.

Witnesses:
STUART C. BARNES,
VIRGINIA C. SPRATT.