L. MIDDLETON.

CHUCK.

APPLICATION FILED DEC. 13, 1915.

1,210,093.

Patented Dec. 26, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

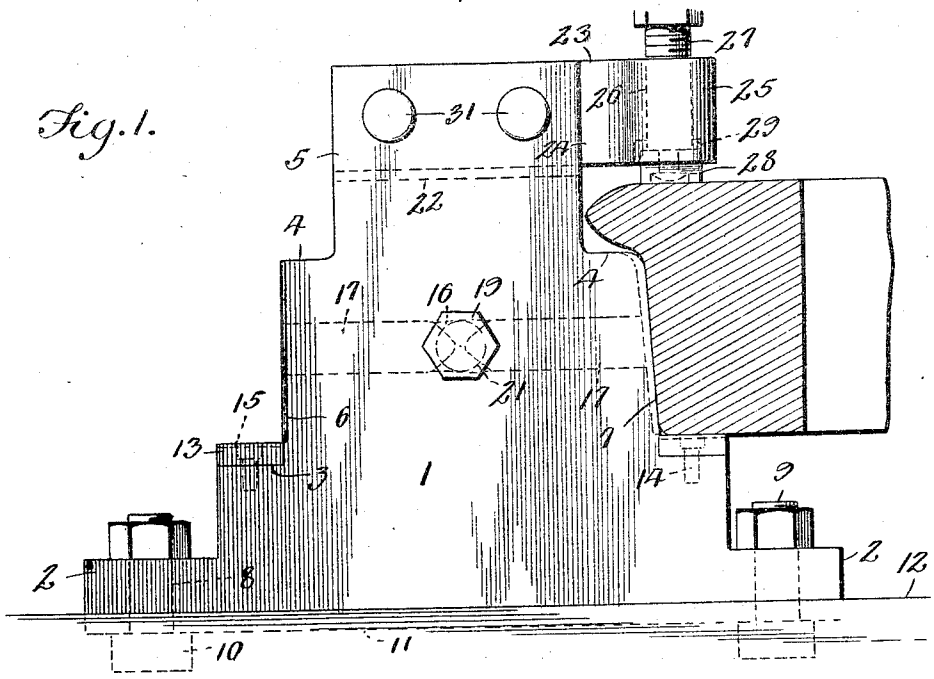


Fig. 3.

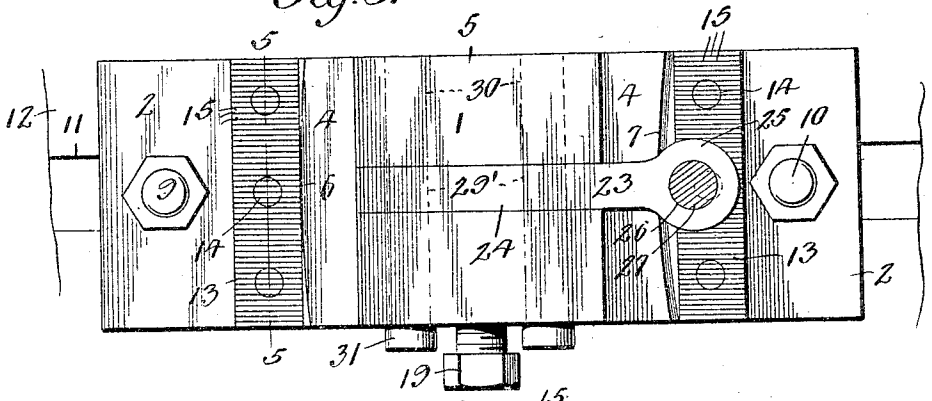
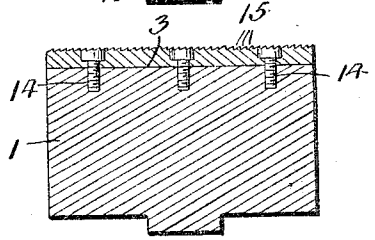


Fig. 5.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

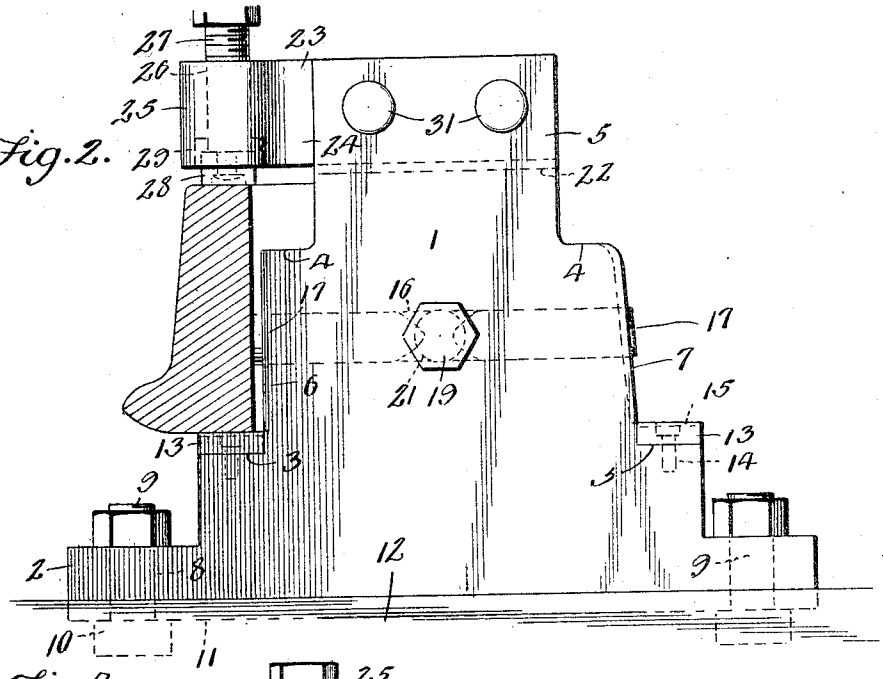


Fig. 4.

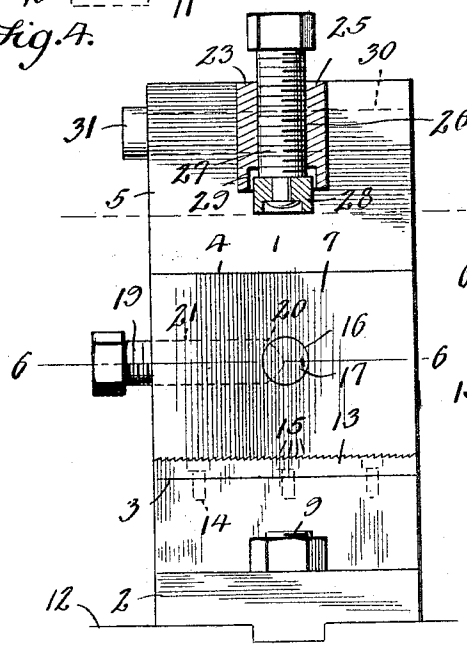
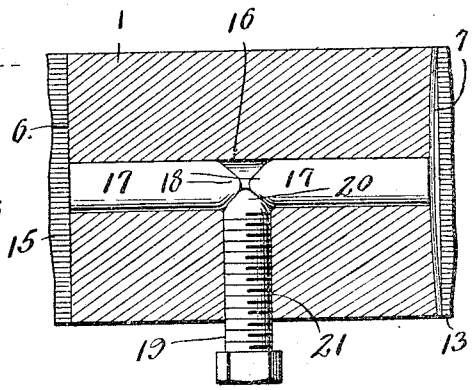


Fig. 6.



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UNITED STATES PATENT OFFICE.

LUTHER MIDDLETON, OF LITTLE ROCK, ARKANSAS.

CHUCK.

1,210,093. Specification of Letters Patent. Patented Dec. 26, 1916.

Application filed December 13, 1915. Serial No. 66,607.

To all whom it may concern:

Be it known that I, LUTHER MIDDLETON, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented new and useful Improvements in Chucks, of which the following is a specification.

The invention relates to a chuck designed for use as an attachment to a machine for boring, turning or facing locomotive driving wheel tires.

The main object of the present invention is the provision of a chuck which may be said to be universal, in that it will in proper coöperation with the machine, provide for the holding of tires while being bored for greater diameter of wheel center or for reflanging the tires when worn.

The invention in the preferred form of details will be described in the following specification, reference being had particularly to the accompany drawings, in which:—

Figure 1 is a view in elevation illustrating the application of the improvement in its use for boring the center openings in the tanks. Fig. 2 is a similar view showing the chuck in its use for reflanging the tires. Fig. 3 is a plan view of the chuck, partly in section. Fig. 4 is a front elevation of the same, partly in section. Fig. 5 is a section on line 5—5 of Fig. 3. Fig. 6 is a section on line 6—6 of Fig. 4.

The improved chuck comprises a block or body 1 of any appropriate material, having a base portion 2 from which rises the pedestal portion of the chuck, which above the base portion is further reduced to provide shoulders 3 and above the shoulders again reduced to provide ledges 4 above which the body extends in the form of an approximately rectangular section 5. The sides of the block are unbroken, and the ends intermediate the shoulder 3 and ledge 4 are of different outlines, the said end 6 being straight or at right angles to the shoulder 3, while the opposing end 7 is inclined or shaped to correspond with the inclination of the tread surface of the tire. The base portion 2 is provided with bolt openings 8 to receive the shanks 9 of headed bolts 10, the heads of which seat in undercut channels 11 in the face plate 12 of the machine, with which the chucks are to coöperate. The shoulders 3 are provided with removable stay plates 13 secured thereon by bolts 14, upper surface of the plates being provided with teeth or corrugations 15. The portion of the block intermediate the faces 6 and 7 is formed with a longitudinally extending bore 16 in which are fitted opposing adjusting pins 17. The proximate or inner ends of these pins are pointed or of triangular formation, as 18, and the adjusting screw 19 having similarly formed end 20 is operative through one face of the chuck, coöperating with the threaded bore 21 therein. By means of the screw, the adjusting pins may be forced beyond the proximate faces 6 and 7 to true the tire resting adjacent said face.

The extreme upper end of the block is formed with a longitudinally extending channel 22 to receive what I term a head stay 23. The head stay comprises an elongated section 24 enlarged at one end as at 25 and formed with a threaded bore 26 extending vertically thereof. The head stay is of such length that when in position with the butt or square end thereof flush with one end edge of the portion 5, that the rounded or enlarged portion 25 will overlie the corrugated stay plate 13, it being understood that the head stay can be inserted from either end of the slot 22 so as to cause the gripping portion thereof to cooperate with either stay plate. Threaded in the bore 26 is a clamping element in the form of a bolt 27 having on the lower end a bearing member 28, the lower end of the bore 26 being enlarged at 29 to receive the bearing member. The member 23 is formed with openings 29 extending transversely thereof and arranged when the member is in either operative position to register with similar openings 30 formed in the upper portion 5 of the block, bolts or pins 31 being inserted in the registering openings to secure the head stay in place.

What is claimed is:—

1. A chuck block, oppositely disposed stay plates carried thereby, said block being formed with tire engaging surfaces above the stay plates, adjusting pins operating through said surfaces, and a head stay removably coöperating with said block, said stay including a tire engaging means designed to be disposed above either stay plate.

2. A chuck block, oppositely disposed stay plates carried thereby, said block being formed with tire engaging surfaces above the stay plates, adjusting pins operating

through said surfaces, a head stay removably coöperating with said block, said stay including a tire engaging means designed to be disposed above either stay plate, and means for securing the head stay in either position.

3. A chuck for use as an attachment for locomotive driving wheel tire machines including a block formed with shoulders, removable stay plates secured upon the shoulders, the upper edge of the block being formed with a longitudinally extending channel, a head stay removably secured in said channel, and a clamping means carried by the head stay.

4. A chuck for use as an attachment for locomotive driving wheel tire machines including a block formed with shoulders, removable stay plates secured upon the shoulders, the upper edge of the block being formed with a longitudinally extending channel, a head stay removably secured in said channel, a clamping means carried by the head stay, and adjusting pins movable longitudinally of the block in opposite directions, and adapted to be projected beyond the surface intermediate the stay plates and head stay.

In testimony whereof I affix my signature in presence of two witnesses.

LUTHER MIDDLETON.

Witnesses:
CHAS. H. ORTO,
GARNER FRASER.

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