No. 738,884. PATENTED SEPT. 15, 1903.

H. C. CLAY.

# DETACHABLE TRUNNION AND SUPPLEMENTAL WHEEL FOR TRACTION ENGINES.

NO MODEL. APPLICATION FILED JUNE 15, 1903. 2 SHEETS—SHEET 1.

Fig. 2.

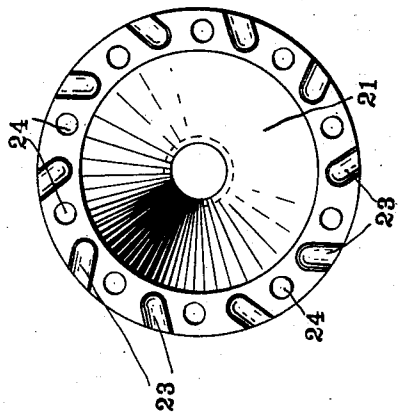
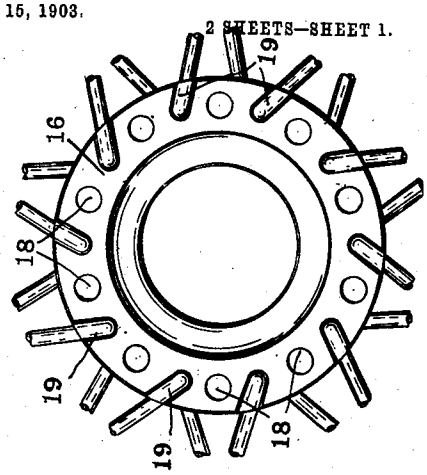



Fig. 3.



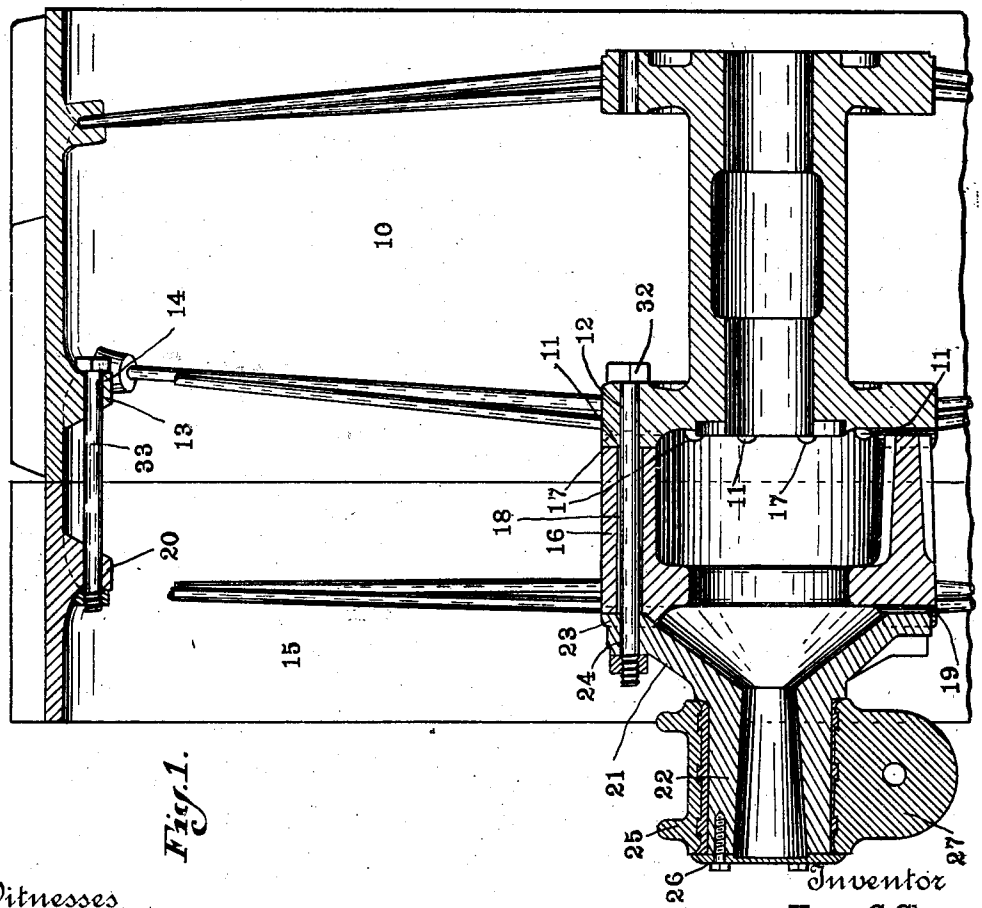




Fig. 1.

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APPLICATION FILED JUNE 15, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

*Fig. 4.*

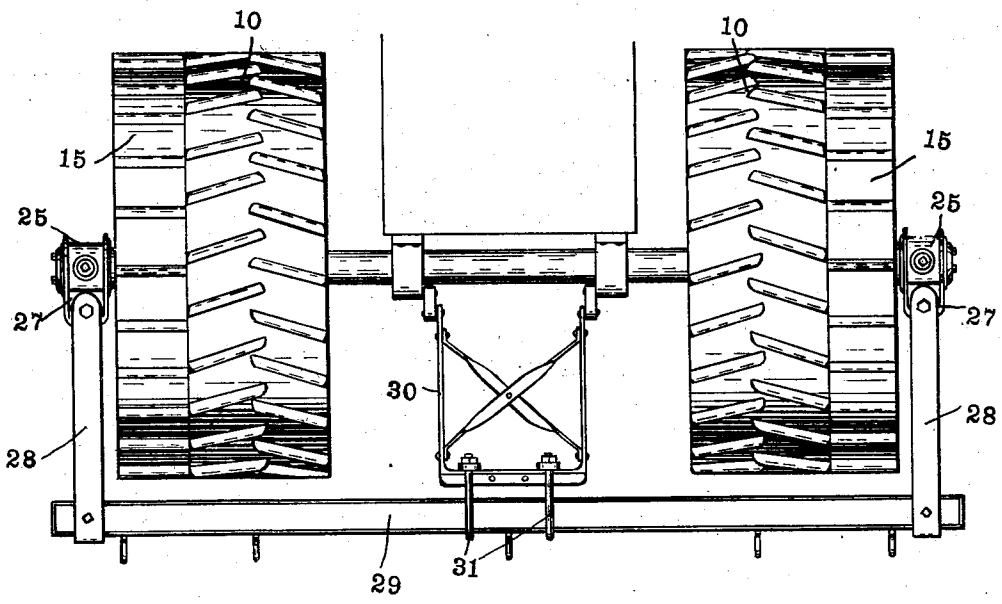
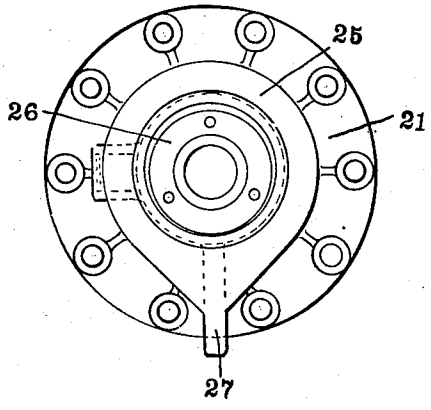



*Fig. 5.*




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No. 738,884. Patented September 15, 1903.

# UNITED STATES PATENT OFFICE.

HARRY C. CLAY, OF COLUMBUS, INDIANA, ASSIGNOR TO REEVES & COMPANY, OF COLUMBUS, INDIANA, A CORPORATION OF INDIANA.

## DETACHABLE TRUNNION AND SUPPLEMENTAL WHEEL FOR TRACTION-ENGINES.

SPECIFICATION forming part of Letters Patent No. 738,884, dated September 15, 1903.

Application filed June 15, 1903. Serial No. 161,489. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY C. CLAY, a citizen of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented certain new and useful Improvements in Detachable Trunnions and Supplemental Wheels for Traction-Engines, of which the following is a specification.

The object of my invention is to provide a convenient means by which a plow-beam or the like may be attached to a traction-engine and also to provide means by which the width of the traction-wheels may be increased.

The accompanying drawings illustrate my invention.

Figure 1 is a vertical section of one-half of the main traction-wheel, an attached supplemental traction-wheel, an attached trunnion, and the accompanying boxing. Fig. 2 is an elevation of the inside face of the trunnion. Fig. 3 is an elevation of the outside face of the hub of either the supplemental wheel or main drive-wheel. Fig. 4 is a plan of the main drive-wheels, the attached supplemental drive-wheels, the trunnions and boxes, the usual draw-bar, and an attached plow-beam; and Fig. 5 is an outside elevation of the trunnion and boxing.

In the drawings, 10 indicates the usual traction-wheel of a traction-engine, the outside face of the hub of which is provided with bosses or lugs 11, between each pair of which is formed a bolt-opening 12. Formed integral with the rim of wheel 10, near the outside edges inside the rim, is a plurality of lugs 13, having bolt-holes 14.

The supplemental wheel 15 is of the same diameter as wheel 10, and its hub 16 is provided upon its inner end with sockets 17, adapted to receive lugs 11 of the hub of the wheel 10, and said hub is perforated with bolt-holes 18. The outside face of the hub 16 is provided with lugs 19, which are similar, both in arrangement and size, to the lugs 11 of the hub of the wheel 10. Supplemental wheel 15 is also provided with bolt-lugs 20, which correspond in position and arrangement to bolt-lugs 13 of the main wheel 10.

The trunnion consists of the main body 21, having a central stud 22. The main body 21 is of substantially the same diameter as the diameter of the hub 16 or the face of the hub of wheel 10 and is provided on its inner face with a plurality of sockets or recesses 23, which correspond in number and arrangement with lugs 19 and 11 and are adapted to receive the same. Trunnion 21 is also provided with bolt-holes 24, which correspond in number and arrangement with bolt-holes 12 and 18. Journaled upon stud 22 of trunnion 21 is a boxing 25, held in position upon the stud by a detachable face-plate 26. Boxing 25 is provided at its rear side with a perforated ear 27, to which may be pivoted a yoke 28, the forward end of which carries one end of the plow-beam 29. Beam 29 may be connected at its middle with the usual draw-bar 30 by means of clips 31.

The supplemental wheel 15 may be attached to the main wheel 10 and the trunnion 21 attached to the supplemental wheel, as shown in Fig. 1, by means of bolts 32, which pass through bolt-holes 12, 16, and 24. As will be readily apparent also, the trunnion 21 may be attached directly to the hub of the main wheel without the interposition of the supplemental wheel in the same manner.

It has heretofore been customary to provide an extension of the main driving-axle upon which may be journaled a suitable boxing for supporting a plow-beam; but in such construction difficulty is often experienced, by reason of the non-detachability of such an extension, in getting the machine through ordinary gateways and in driving the machine on narrow roads. In order to give greater stability to the connection between the main drive-wheel and the supplemental wheel, bolts 33 are passed through lugs 13 and 20.

I claim as my invention—

1. A plow-beam trunnion for traction-engines consisting of a stud-shaft, and means by which it may be detachably connected to the drive-wheel.

2. A plow-beam trunnion for traction-engines, consisting of the main body provided with portions adapted to interlock with portions of the drive-wheel hub, and the stud-shaft forming part of said body.

3. In a traction-engine, the combination,

with the traction-wheel, of a trunnion detachably attached thereto, for the purpose set forth.

4. The combination, in a traction-engine, of a main traction-wheel, a supplemental traction-wheel, said traction-wheels having interlocking portions, a trunnion having portions interlocking with the supplemental wheel, and means for clamping said main wheel, said supplemental wheel and trunnion together, for the purpose set forth.

In witness whereof I have hereunto set my hand and seal, at Columbus, Indiana, this 10th day of June, A. D. 1903.

HARRY C. CLAY. [L. S.]

Witnesses:
HELEN J. HALBERT,
BERTHA L. HARRISON.