(No Model.) 2 Sheets—Sheet 1.

A. POULSON.

CONNECTING ROD.

No. 387,444. Patented Aug. 7, 1888.

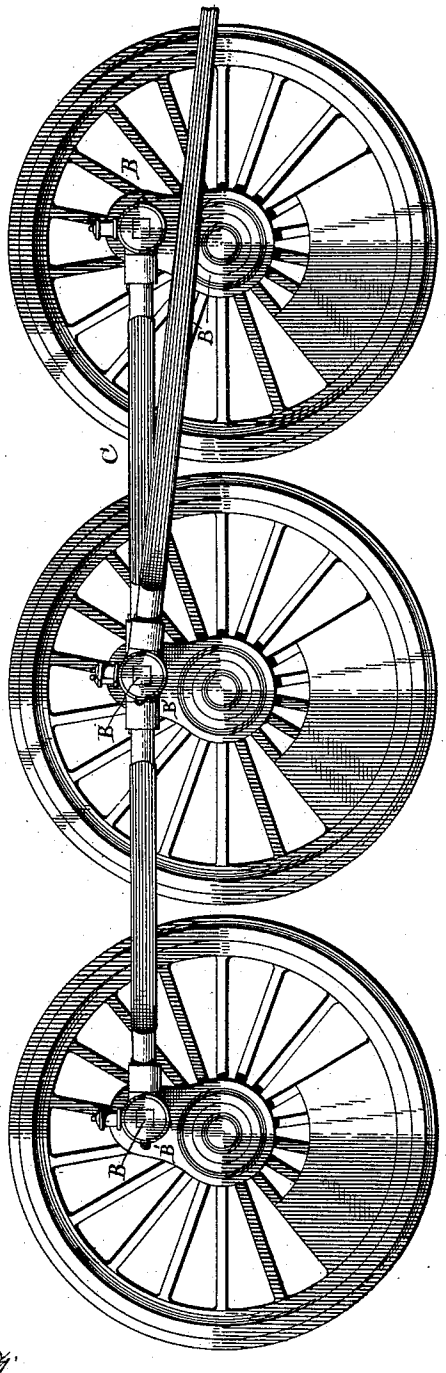


Fig. 1.

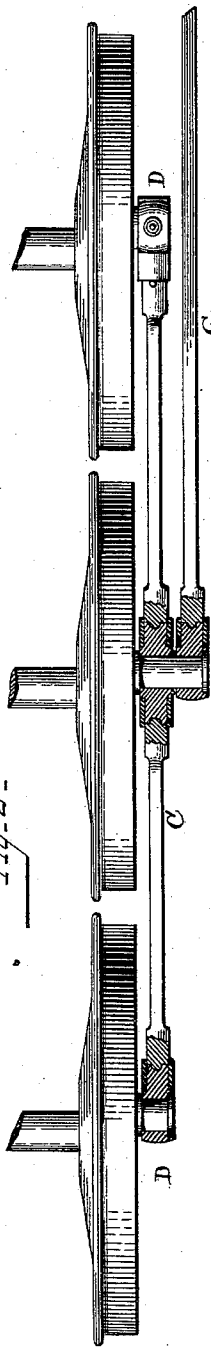


Fig. 2.



Fig. 3.

Witnesses,
Wm. F. Gaidew.
Wm. R. Singleton.

Inventor,
Andrew Poulson

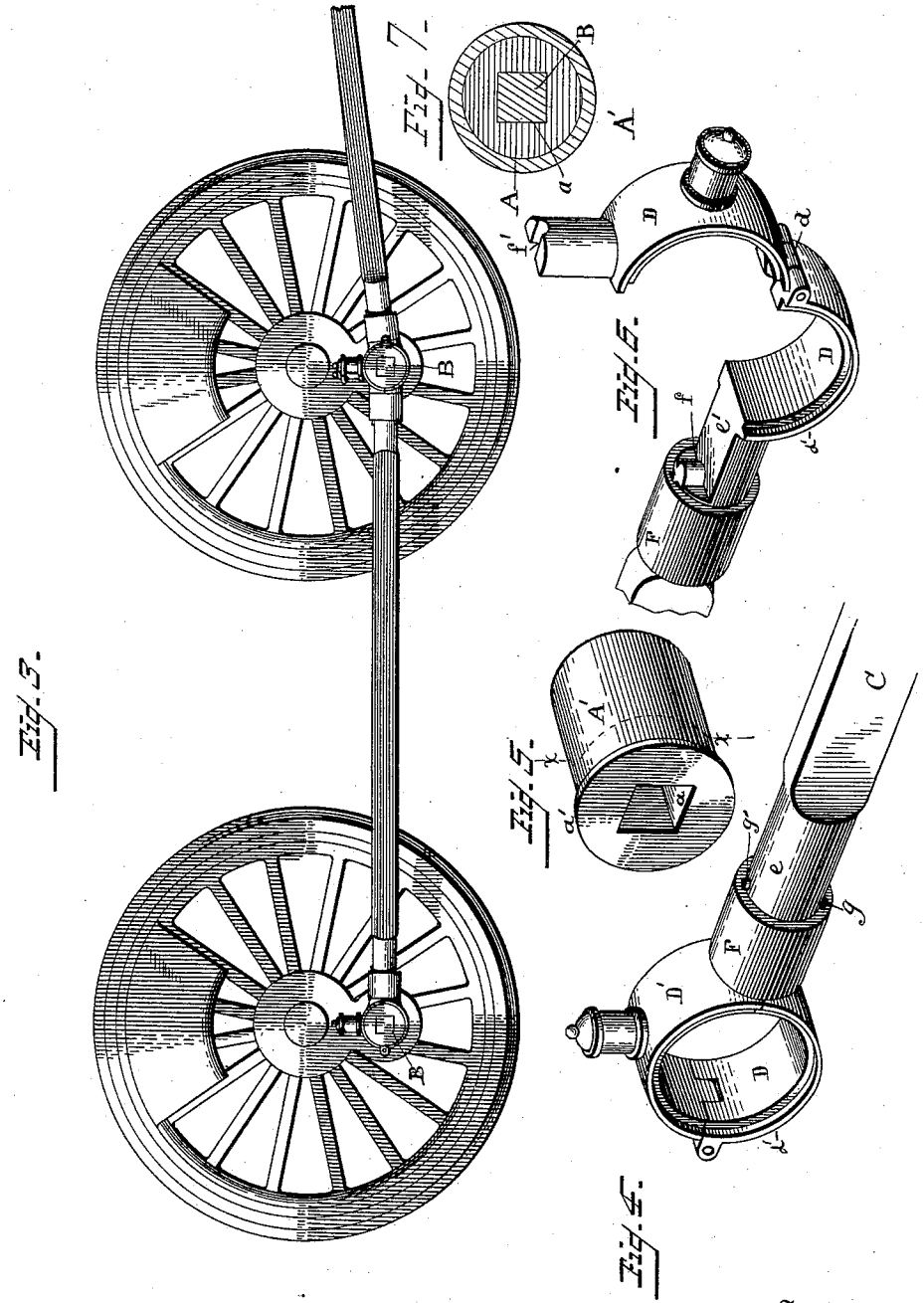
N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

A. POULSON.

CONNECTING ROD.

No. 387,444. Patented Aug. 7, 1888.



Witnesses
Wm. J. Linden.
Wm. R. Singleton.

Inventor.
Andrew Poulson.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ANDREW POULSON, OF ST. LOUIS, MISSOURI.

CONNECTING-ROD.

SPECIFICATION forming part of Letters Patent No. 387,444, dated August 7, 1888.

Application filed April 20, 1888. Serial No. 271,332. (No model.)

To all whom it may concern:

Be it known that I, ANDREW POULSON, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Connecting-Rods for Locomotive and other Engines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in couplings of the connecting-bars on locomotive and other engines, which will be hereinafter more fully described, and pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view of three wheels of a locomotive-engine, showing the couplings. Fig. 2 is a top view of the parts shown in Fig. 1. Fig. 3 is a side view of two wheels with the couplings. Figs. 4, 5, 6, 7, and 8 are details of the coupling.

A, Fig. 7, is a collar having through its middle a square hole, *a*, and at one end a flange, *a'*, Fig. 5.

B is a wrist-pin on the crank-arm B' of each wheel to be coupled, and is made square and to fit neatly the square hole *a* in the collar A. In Fig. 2 the middle wheel has a wrist-pin twice the length of those on the outside wheels. The connecting-bar C has on its outer ends couplings D, formed, as shown in Figs. 4 and 6, with hinge-joints *d*. The lower sections, D, are integral parts of the bar C, and the parts *e* of them are cylindrical and solid. The parts *e'*, connected to the half-ring D, are cut down to half-cylinders, as shown in Fig. 6. The swinging half D' of the coupling has at its loose end a half-cylinder to correspond with the half-cylinder on the bar C, so that when the two halves are brought together they will form the continuation of the solid cylindrical part *e*. The half-cylinder *e'* has on it a pin, *f*, and the other half-cylinder has in its end a notch, *f'*, to correspond with the pin *f*, so that when the two are closed, the pin *f* and notch *f'* keep the pieces in place. A sliding sleeve, F, is neatly fitted to the cylindrical part *e* of each coupling, and is only one-half the length of the cylindrical part of the bar, so that when the coupling is to be opened for coupling or uncoupling, the sleeve F can be run onto the part *e*, so that the hinged section D' can be lifted from the other part, *e'*, as seen in Fig. 6. There is a longitudinal groove, *g*, inside of the sleeve, and a pin, *g'*, on the cylinder *e*, so that the sleeve can slide over the pin; but when turned to either side the pin *g'* will lock the sleeve in its place, when the two sections D D' are to be secured over the collar A. On top of the loose half D' of the coupling there is an oil-cup for lubrication. The coupling D D' is fitted to the collar A inside of the flange *a'*, and has an enlargement, *d'*, on one side, as seen in Figs. 4 and 6, to cover the edge of the flange *a'*. The connecting-rod G extends from the end of the piston-rod of the steam-cylinder, neither of which is shown in the drawings. A soft-metal box, A', cylindrical in form, is fitted on the collar A of each coupling, as seen in section, Fig. 7, which is a diametrical section of Fig. 5 on *x x*. The manner of connecting the middle wheel in Figs. 1 and 2 with the connecting-bar is shown in Fig. 8, where the top section of the coupling is not hinged, but has both ends alike and between two half-cylinders and a sleeve on each side of the coupling. The lower half of the coupling is formed in the connecting-bar C, itself having on each side a cylindrical part and a sleeve similar to the construction of the hinged coupling with the pin *f* and notch *f'* and groove *g* and pin *g'*, as heretofore described.

The collar A can be secured to the wrist-pin B in any practical manner, as it forms no part of this invention.

I claim—

The wrist or crank pin of a locomotive or other engine wheel, of square form transversely, in combination with a cylindrical collar covered with soft metal and a hinged coupling, constructed substantially as described.

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

ANDREW POULSON.

Witnesses:

THOS. H. YOUNG,

WM. R. SINGLETON.