C. H. Clark,

Pitman Rod.

No. 51,694. Patented Dec. 26, 1865.

Fig. 1

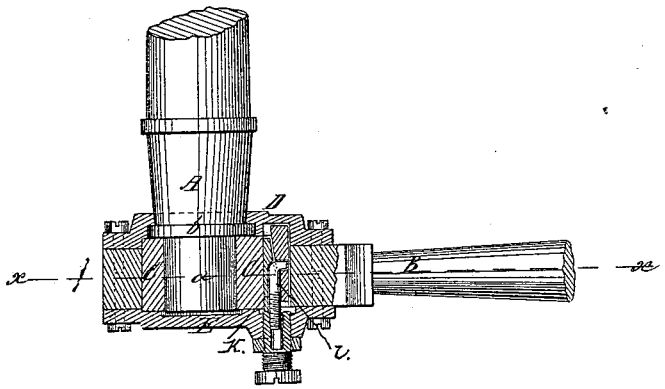


Fig. 4

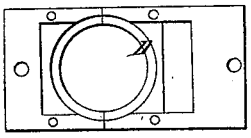


Fig. 2

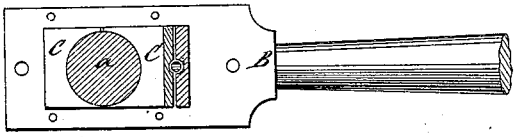


Fig. 5

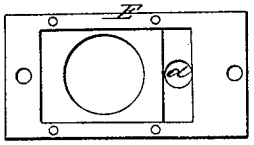
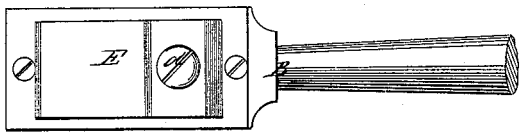


Fig. 3



Witnesses
Jn R Covington
Wm Freeman

Inventor
C H Clark
By Munn & Co
Atty.

UNITED STATES PATENT OFFICE.

CHARLES H. CLARK, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN PARALLEL OR OTHER RODS.

Specification forming part of Letters Patent No. **51,694**, dated December 26, 1865.

To all whom it may concern:

Be it known that I, CHARLES H. CLARK, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in Parallel and other Rods; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a horizontal section of this invention. Fig. 2 is a longitudinal vertical section of the same, the line *x x*, Fig. 1, indicating the plane of section; Fig. 3, a front elevation of the same. Fig. 4 is an inside elevation of the inner cap detached. Fig. 5 is a similar elevation of the outer cap.

Similar letters of reference indicate corresponding parts.

This invention relates to a novel arrangement of the boxes in the ends of parallel and other rods, such as are generally used to couple the wheels of locomotive-engines or to transmit motion from one part of an engine or other machine to another. The crank-pins to which these parallel rods are secured are generally provided with an inside and outside flange, and these flanges straddle the boxes and keep the rod in position, the boxes being secured to the rod by a strap and gib and key. If the boxes have to be filed or refitted, the strap has to be taken off and the rod removed in order to be able to take out the boxes, and much time is lost. Furthermore, dust and dirt have free access to the boxes and cause them to wear very rapidly. These difficulties are obviated by my invention, which is represented in the annexed drawings.

A represents the crank-pin, the end of which forms a plain cylindrical pin, *a*, with a flange, *b*, on its inner terminus, as clearly shown in Fig. 1 of the drawings. The rod B is provided with a mortise, *c*, which passes clear through, and which is long enough to receive the boxes C and the gib and key, as shown. The rod is held in place by a cap, D, which is secured to its inner side by screws or any other suitable means, and which is made in two halves and of such a form that the same catches behind the flange *b*, as clearly shown in Fig. 1 of the drawings. The boxes are prevented from dropping out in front by a plate, E, which is secured to the outer face of the head of the rod. Through this plate passes the set-screw *d*, which serves to adjust the gib and key and to tighten up the boxes without removing the plate. By this arrangement the boxes C are perfectly protected against dust or dirt, which otherwise is liable to cut the journals; and if it is desired to remove the same from their seat in the rod this object can be effected by removing the front plate, E, and without removing the rod from the crank-pin.

If desired, a strap of the ordinary construction may be employed in combination with the cap D and plate E; but if a strap is used the usual planing out, closing, and refitting of the strap to the end of the rod, which has to be done with ordinary boxes almost at every renewal of said boxes, is quite unnecessary, as with my arrangement the straps need never be removed at all, the boxes being so arranged that they can be removed or inserted sidewise, as above stated.

If desired, the cap D and plate E can be made of iron instead of brass, the cap being lined with Babbitt metal at those points where the same catch over the flange of the crank-pin.

The boxes C are adjusted by two keys, *k k'*, and the screw *d*, as previously stated. The screw is hollow and tapped to fit the left-handed thread in the shank of the hook *l*, which catches in a cavity in the key *k'*, whereas the inner end of the screw *d* bears on the key *k*. By turning the screw *d* in the key *k* is forced in and the key *k'* drawn out, and the boxes are tightened. A suitable jam-nut serves to hold the screw *d* and the key in the desired position.

I claim as new and desire to secure by Letters Patent—

The combination of the divided cap D, plate E, set-screw *d*, and wedge-keys *k k'*, substantially as and for the purposes described.

CHARLES H. CLARK.

Witnesses:

WILLIAM H. HORNEY,
E. D. MOORE.