

S. N. WATE, Jr.

Improvement in Connecting-Rod.

No. 133,182.

Patented Nov. 19, 1872.

Fig. 1.

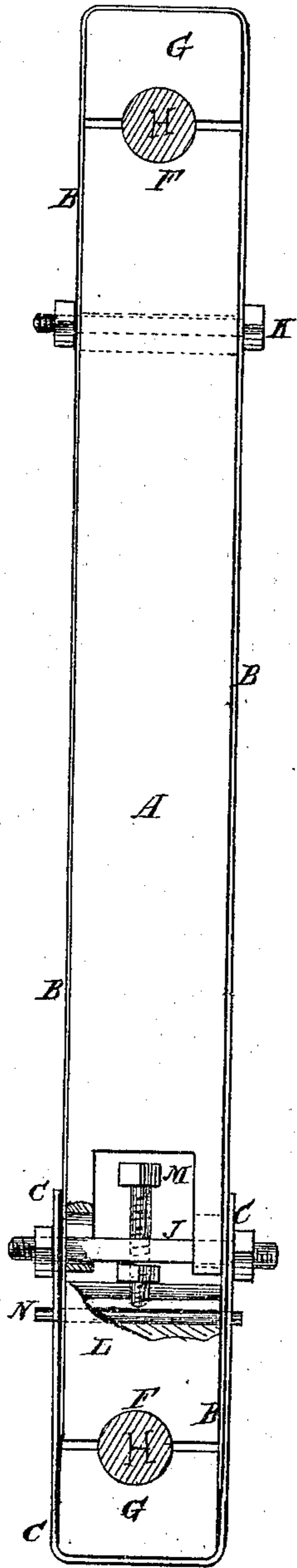
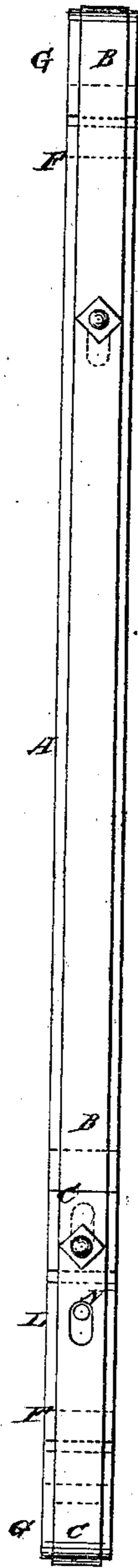


Fig. 2.



Witnesses:

P. C. Dieterich  
C. Sedgwick

Inventor:

S. N. Wate, Jr.

PER

Munn & Co.

Attorneys.

# UNITED STATES PATENT OFFICE.

SAMUEL N. WATE, JR., OF DANVILLE, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND P. J. ADAMS, OF SAME PLACE.

## IMPROVEMENT IN CONNECTING-RODS.

Specification forming part of Letters Patent No. 133,182, dated November 19, 1872.

*To all whom it may concern:*

Be it known that I, SAMUEL N. WATE, JR., of Danville, in the county of Montour and State of Pennsylvania, have invented a new and useful Improvement in Connecting-Rod, of which the following is a specification:

In the accompanying drawing, Figure 1 is a side view of my improved connecting-rod, part being broken away to show the construction; and Fig. 2 is an edge view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of the connecting-rod described in Letters Patent No. 128,831, granted to myself (the inventor) and P. J. Adams, July 9, 1872, so as to make it simpler in construction and neater in appearance; and it consists in the combination of a set-screw and cross-bars with the other parts of the rod, as hereinafter more fully described.

A is the body or main part of the rod. B is the long strap which passes around one end and along the side edges of the rod A. C is the short strap which passes around the other end of the rod A, and the ends of which overlap the ends of the long strap B. F represents the inner and G the outer brasses, which form the bearings for the pins H and which are held in place by the straps B C. J is a bolt or bar which passes through slots in the end parts of the long strap B through holes in the end parts of the short strap C and rests in a slot or notch in the end edge of the main body of the rod A, and which is secured in place by nuts upon both ends. K are bolts, one or more of which may be used, and which pass through holes in the strap B and through slots in the rod A, so that the said rod A and strap B may be moved upon each other in opposite directions and still be secured by said bolts K.

L is a small block interposed between the overlapped ends of the straps B C and the end of the rod A, and against which the inner brass F at that end of the rod rests. M is a set-screw, which passes through a screw-hole in the center of the bolt J in line with the length of the rod A, the middle part of the end of the rod A being cut away to receive it and allow it to be operated, as shown in Fig. 1. The forward end of the set-screw M rests against the center of the bar N placed in a notch or slot in the end edge of the block L, and the ends of which project through holes in the end parts of the strap B and through short slots in the end parts of the strap C. By this construction as the screw M is turned forward the bars J N are forced apart, which forces apart the rod A and block L, moving the inner brasses F outward against the pins H; but the bar N passes through holes in the long strap B and through slots in the short strap C, and the bolt or bar J passes through slots in the long strap B and through holes in the short strap C, so that the movement apart of the bars J N draws the straps B C toward each other, drawing the outer brasses G inward just as much as the inner brasses were moved outward, thus taking up the wear while keeping the pins H at exactly the same distance apart.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The screw M working through bolt J, behind block L, and against bar N, in combination with slotted straps B C, movable, as and for the purpose described.

SAMUEL N. WATE, JR.

Witnesses:

ROBERT ADAMS,  
E. W. CONKLING.