

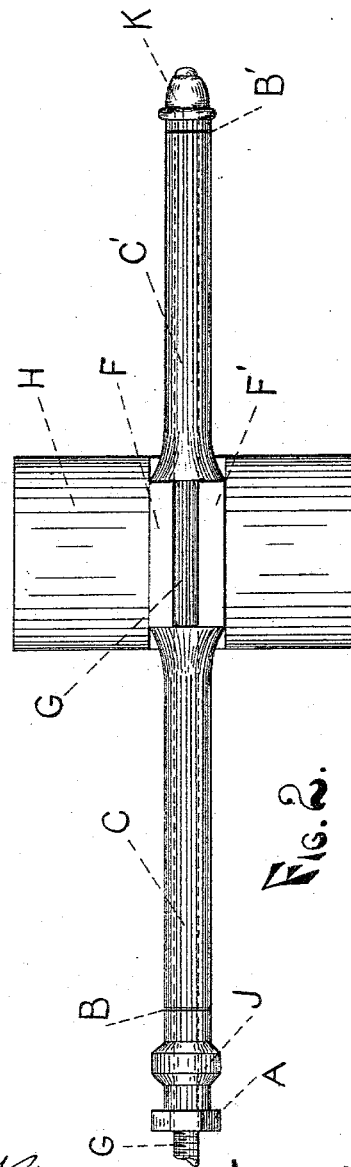
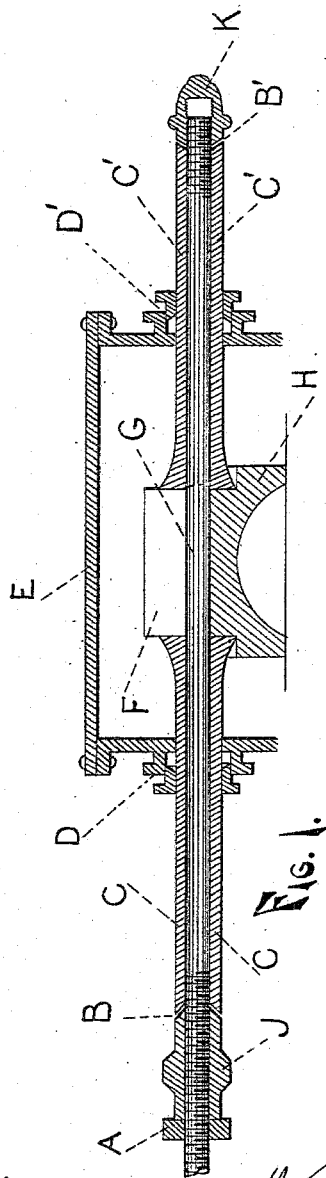
(No Model.)

W. E. WILEY.

ADJUSTING AND SECURING SLIDE VALVES UPON THEIR RODS.

No. 301,416.

Patented July 1, 1884.



Witnesses: *William E. Wiley*
John Lawrence
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Inventor

UNITED STATES PATENT OFFICE.

WILLIAM E. WILEY, OF GRAND RAPIDS, MICHIGAN.

ADJUSTING AND SECURING SLIDE-VALVES UPON THEIR RODS.

SPECIFICATION forming part of Letters Patent No. 301,416, dated July 1, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. WILEY, of the city of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful device for tightening, adjusting, and firmly securing slide-valves upon their rods without opening the steam-chest, which invention is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to tighten, adjust, and firmly secure the valve-rod of a slide-valve engine to the valve by means of cylindrical sleeves or tubes combined with screw-nuts, which latter are outside of the steam-chest, without opening the steam-chest.

The invention is illustrated more in detail by the accompanying drawings.

Figure 1 is a vertical section of Fig. 2 with steam-chest. Fig. 2 is a plan view of the invention with steam-chest removed.

Similar letters refer to similar parts throughout the several views.

A is a following-nut, which is used in holding the nut J firmly in position. B and B' are beveled joints. C and C' are elongated cylinders or tubes, made of brass, steel, or wrought-iron, through which passes the valve-rod G. D and D' are stuffing-boxes. E the steam-chest. F and F' are lugs of the valve H. G is the valve-rod. H is the valve. J is a tightening-nut, by means of which the cylinders C and C' are permitted to slide along the valve-rod G. K is a similar nut. H is an ordinary valve having lugs F and F', so arranged as to permit the valve-rod G to pass loosely between them. The cylinders or tubes C and C' fit loosely on the valve-rod G, and are pressed against the lugs F and F' by means of the nuts J and K, so that if a change of lap or lead of the valve H is desired, or if the valve H should become loose on the valve-rod G, it may be adjusted to any position from without the steam-chest E, thus preventing the necessity

of taking off the cover of the steam-chest E, as is required, where grip-collars are used inside the steam-chest.

I claim as my invention and desire to secure by Letters Patent—

1. The combination, with a steam-chest, a valve-rod, and valve adjustable thereon, of sleeves for clamping the valve on opposite sides, and nuts located outside of the chest for moving said sleeves, whereby the valve may be adjusted from the outside of the chest back and forth on the rod and tightened and locked to the rod, substantially as described.

2. The combination, with a steam-chest, a valve-rod, and valve adjustable thereon, of sleeves having enlarged ends bearing against opposite sides of the valve, and nuts located outside of the chest for moving said sleeves, whereby the valve may, from the outside of the chest, be adjusted back and forth on the rod and tightened and locked to the rod, substantially as described.

3. The combination of the steam-chest, the slide-valve formed with lugs with a space between them for the passage of the valve-rod, the rod, the sleeves encircling the rod with one end bearing against the lugs on the valve and the other end extending outside of the chest, and the screw-nuts engaging with screw-threads on the rod and bearing against the said sleeves, whereby the valve may, from the outside of the chest, be adjusted back and forth on the rod and tightened and locked to the rod, substantially as described.

4. The combination, with a steam-chest, a valve-rod, and valve adjustable thereon, of clamps on opposite sides of the valve operated from the outside of the chest to move the valve back and forth on the rod and tighten it and lock it to the rod, substantially as described.

WILLIAM E. WILEY.

Witnesses:

JOHN S. LAWRENCE,
HENRY C. DURA.