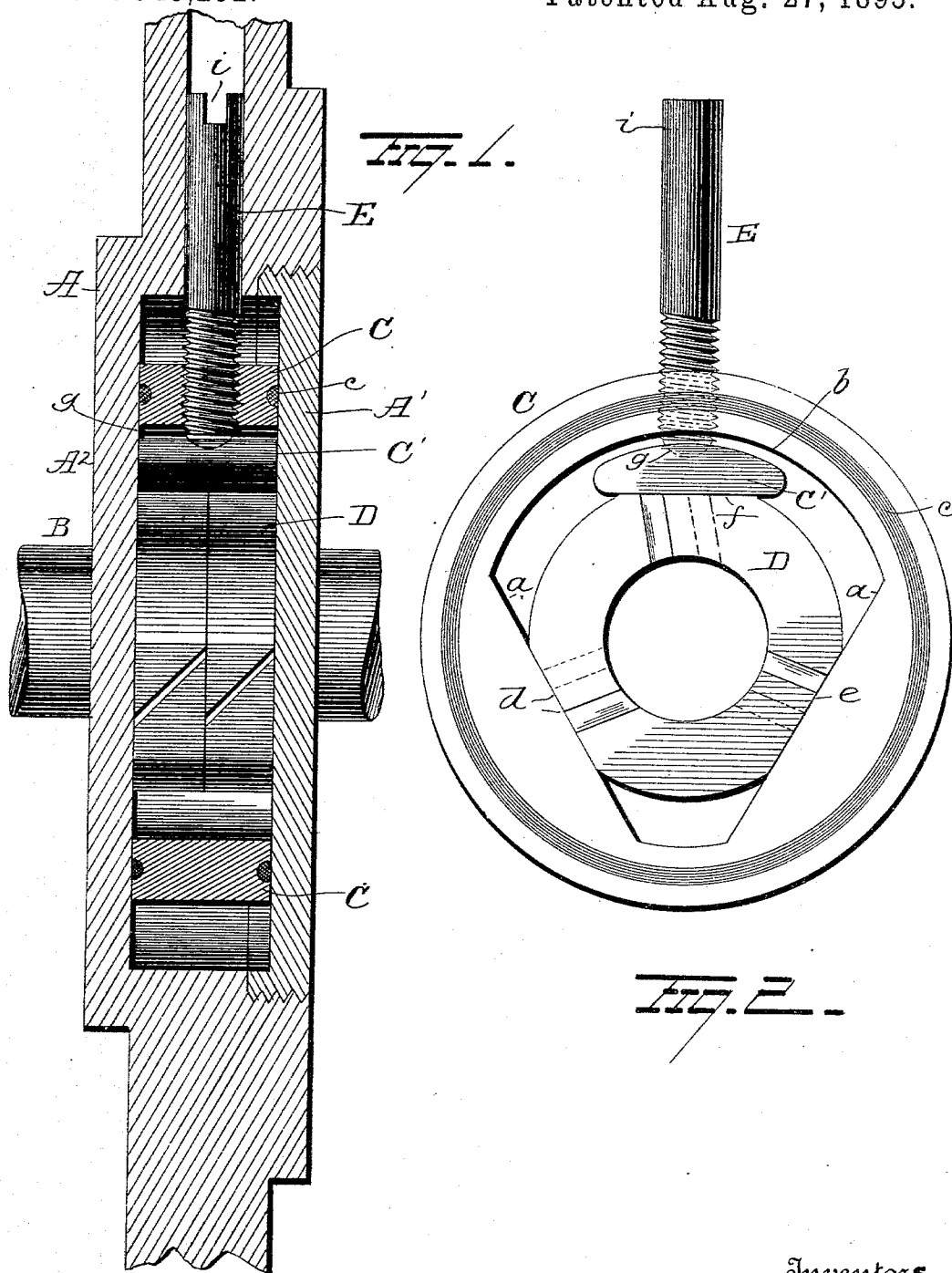


(No Model.)

E. HUBER & J. W. MILLER.
PISTON ROD PACKING.

No. 545,292.

Patented Aug. 27, 1895.



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UNITED STATES PATENT OFFICE.

EDWARD HUBER AND JACOB W. MILLER, OF MARION, OHIO.

PISTON-ROD PACKING.

SPECIFICATION forming part of Letters Patent No. 545,292, dated August 27, 1895.

Application filed April 17, 1895. Serial No. 546,080. (No model.)

To all whom it may concern:

Be it known that we, EDWARD HUBER and JACOB W. MILLER, of Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Piston-Rod Packing; and we 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.

Our invention relates to an improvement in piston-rod packing, the object of the invention being to so construct the packing that the sectional rings can be adjusted to compensate for wear.

A further object is to provide devices for holding the sectional rings of a piston-rod packing in proper relation to the rod, permit the necessary wobbling motion of the latter, and to so construct the said devices that the packing-rings can be adjusted to compensate for wear without removing them or any part of the casing in which they are located.

A further object is to produce a piston-rod packing which shall be simple in construction, comparatively cheap to manufacture, be easy and convenient to adjust, and which shall be effectual in all respects in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical cross-sectional view illustrating our improvements. Fig. 2 is a detail view.

A represents a plate to be secured to a cylinder-head and is made with a recess, a portion of which is screw-threaded for the reception of threads on the periphery of another plate A'. The plates A A' are perforated for the accommodation of the piston-rod B and form a box or casing A², in which a disk or casing C of less diameter than that of the box or case, is located. The external contour of the disk or casing C is circular, but the internal configuration thereof is, in general form, V-shaped, having two beveled walls *a a* and a curved wall *b* concentric with the piston-rod. The thickness of the disk or casing C is about equal to the internal

diameter of the box or case A², and is preferably provided in its faces with packing-rings *c* to bear against the inner faces of the plates A A', forming said box or casing. Packing-rings D (two, more or less,) are located on the piston-rod B within the disk or casing C. These packing-rings are made in sections and are flattened on their exterior at the joints formed by the junction of the sections, as at *d e f*, the flattened faces *d e* being made to bear against the beveled walls *a a* of the disk or casing C. Two of the joints of the sections of the packing-rings are thus made to bear against the flattened or beveled faces *a* of the disk or casing C, and the third joint of said packing-rings bears against a plate C', located within the disk or casing C. The plate C' is made with a recess *g* in its outer face for the reception of the end of a screw E, the threads of which mesh with similar threads in a perforation in the curved wall of the disk or casing through which it passes. The free end of the screw E is adapted to turn freely in a hole in the plate A of the box or casing A², (or in the cylinder-head,) and is made with a slot *i* for the reception of a screw-driver. It will be noticed that the thickness of the packing ring or rings, the disk or casing C, and the plate C' are equal, and that these parts are free to move within the box or casing A² to accommodate themselves to the wobbling motion of the piston-rod. When the packing-rings become worn, they can be readily and quickly adjusted or tightened without removing anything by turning the screw E by the use of an ordinary screw-driver.

Our improvements are very simple in construction, cheap to manufacture, and effectual in all respects in the performance of their functions.

Various slight changes might be made in the details of construction of our invention without departing from the spirit thereof or limiting its scope, and hence we do not wish to limit ourselves to the precise details of construction herein set forth; but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a piston rod packing, the combination with a casing having inclines therein, and a

piston rod, of a sectional packing ring, and means substantially opposite the point toward which the inclines converge for bearing against these packing rings and thereby forcing them from all sides against the rod, substantially as set forth.

2. In a piston rod packing, the combination with a casing, and a piston rod, said casing having two converging walls, of a sectional packing ring bearing against said converging walls and against which the piston rod operates, and means for forcing the rings toward the point toward which the walls converge, substantially as set forth.

3. In a piston rod packing, the combination with a disk or casing having two beveled interior walls adapted to bear against a sectional packing ring at two joints thereof and an adjustable plate adapted to bear against the packing ring at another joint thereof, substantially as set forth.

4. In a piston rod packing, the combination with a disk or casing having two inclined inner walls, of a sectional packing ring adapted to bear against said inclined walls at two joints formed by the junction of the sections thereof, a plate adapted to bear against the packing ring at another joint between the sections thereof, and a screw connected with said plate and passing through the wall of the disk or casing, substantially as set forth.

5. In a piston rod packing, the combination with a box or case and sectional packing rings located within said box or case, of a disk or casing located within said box or case and

adapted to move therein, said disk or casing having two inclined or beveled interior walls bearing against the packing ring at two joints formed by the juncture of the sections thereof, a movable plate within said disk or casing and bearing against the packing ring at another joint, and a screw connected with said plate, said screw passing through a screwthreaded hole in the wall of the disk or casing and entering a hole in said box or case, substantially as set forth.

6. In a piston rod packing, the combination with a plate adapted to be secured to a cylinder head, and having a recess, and another plate adapted to screw into said recess, said plates forming a box or casing, of a disk or casing located between said plates and having inclined or beveled interior walls, a packing ring made in sections and bearing against said inclined or beveled walls at two joints formed by the juncture of the sections of said packing ring, a plate adapted to bear against the packing ring at another joint, and a screw bearing against said plate and passing through the wall of the disk or casing, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

EDWARD HUBER.
JACOB W. MILLER.

Witnesses:

JOHN A. SCHRODER,
JOHN J. CRAWLEY.