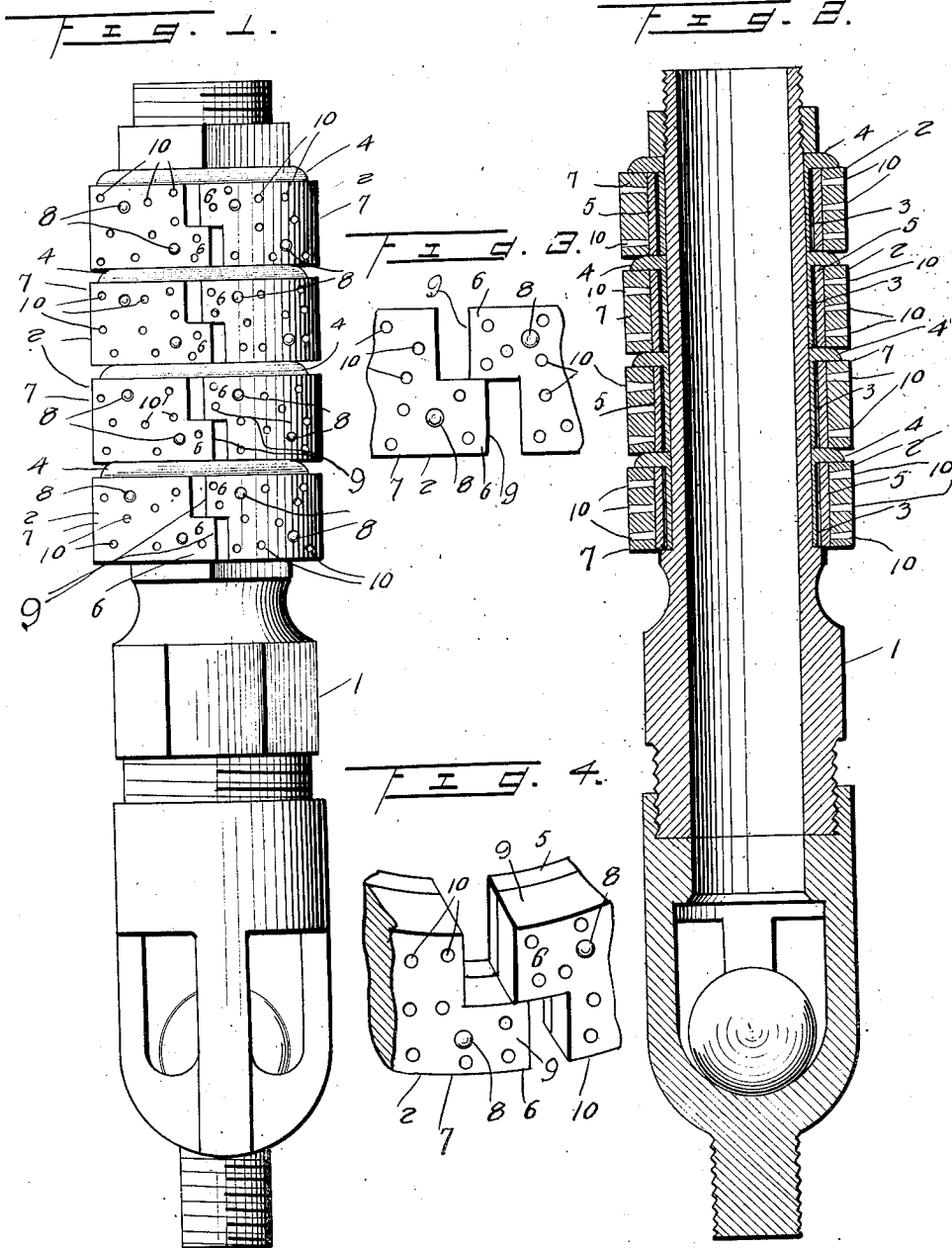


C. P. WILLIAMS.
PUMP PISTON.
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1,355,802.

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Inventor
C. P. Williams

By *A. H. Humphreys* Attorney

UNITED STATES PATENT OFFICE.

CLARENCE P. WILLIAMS, OF SYRACUSE, OHIO.

PUMP-PISTON.

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To all whom it may concern:

Be it known that I, CLARENCE P. WILLIAMS, a citizen of the United States, residing at Syracuse, in the county of Meigs and State of Ohio, have invented certain new and useful Improvements in Pump-Pistons; 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 new and useful improvements in pump pistons and more particularly to a packing ring therefor and has for its primary object the provision of a device that will have an increased wearing surface over ordinary cups or packing rings, thereby insuring a longer life to the device with a greater efficiency in operation.

Another object of this invention is the provision of a split leather ring having means for rendering the same with a large expansion facility so that the leather will contact with the wall of the pump cylinder with considerable force.

A further object of this invention is the provision of means for compressing the fibers of the leather when the device is saturated with fluid so as to increase the durability of the leather.

A still further object of this invention is the provision of a pump piston of the above stated character, which shall be simple, durable, and efficient, and which may be manufactured and sold at a comparatively low cost.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination, and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference will be had to the following description, and accompanying drawing, in which:—

Figure 1 is a side elevation of a pump piston having a plurality of packing rings applied thereto and constructed in accordance with my invention,

Fig. 2 is a vertical sectional view of the piston and packing rings.

Fig. 3 is a fragmentary front elevation of one of the packing rings illustrating the overlapping ends,

Fig. 4 is an enlarged perspective of the overlapping ends.

Referring in detail to the drawings, the numeral 1 indicates a pump piston of an ordinary construction and having applied thereto a plurality of packing rings 2 constructed in accordance with my invention and as each packing ring is identical in construction with the other, reference to one is thought sufficient for all.

A sleeve 3 is mounted upon the piston 1 and has formed thereon a flange 4 for the purpose of supporting the packing ring 2. A band or base 5, constructed from steel or any other material suitable for the purpose and which is capable of giving the device a large capacity of resiliency and is of annular formation, seats upon the flange 4 and has its end cut away to form overlapping extensions 6.

A packing 7 constructed from leather is riveted or otherwise secured to the base 5 as illustrated at 8 and has its ends cut away to form overlapping extensions 9 that cooperate with the overlapping extensions of the body. The overlapping extensions of both the body and the packing assure a leak-proof connection between the ends of the packing ring when assembled within a pump cylinder and owing to the resiliency of the body, the packing is forced against the wall of the cylinder with considerable pressure and which pressure is even throughout the height of the packing.

A plurality of wooden pegs 10 are embedded within the leather packing 7 and when the device becomes saturated with fluid, the pegs 10 swell and compress the fibers of the leather, thereby increasing the wearing quality of the leather.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination, and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:—

1. A packing ring for pump pistons comprising a body having its ends cut away to form overlapping extensions, a packing secured to the outer face of the body and having its ends cut away to form overlapping extensions to cooperate with the overlapping extensions of said body, said exten-

sions coöperating with each other in establishing a leak-proof connection between the ends of the body and the packing.

2. A packing ring for pump pistons comprising a body, leather packing secured to the outer face of the body, and a plurality of wooden pegs embedded within the leather packing and adapted to swell when saturated with fluid to compress the fiber of the leather.

3. A packing ring for pump pistons comprising a body, leather packing secured to said body, and means embedded within the leather for compressing the fiber thereof when saturated with fluid.

4. A packing ring for pump pistons comprising an annular body having overlapping ends, leather packing secured to the

outer face of the body and having overlapping ends, said body constructed of resilient material to compress the leather packing against the wall of a cylinder of a pump, and means compressing the fiber of the leather when saturated with fluid.

5. A packing ring for pump pistons comprising a resilient annular body, packing secured to the outer face of the body, and means embedded in the packing and adapted to expand when saturated with fluid.

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

CLARENCE P. WILLIAMS.

Witnesses:

D. H. PEOPLES,
F. E. RUSSELL.