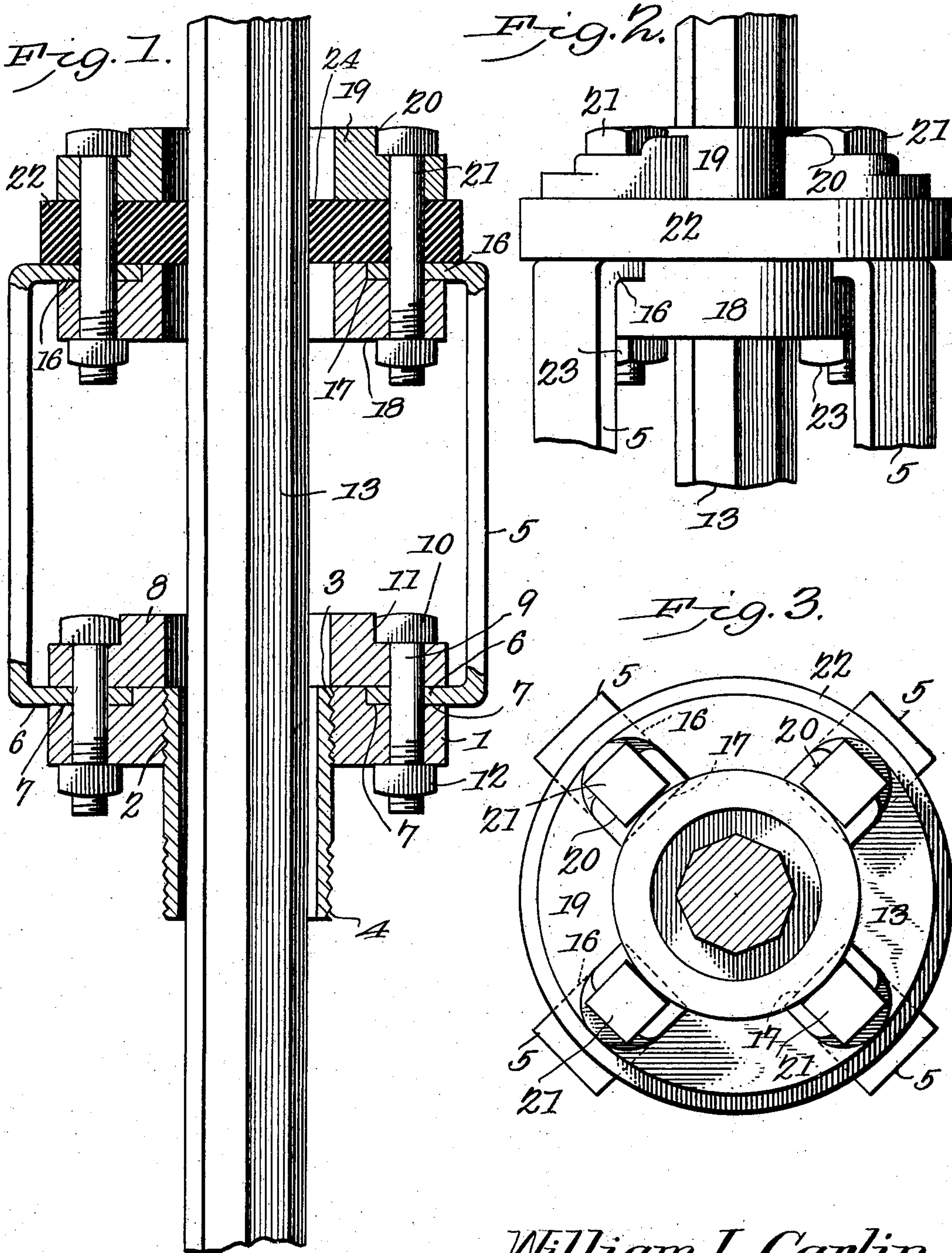


No. 762,985.

PATENTED JUNE 21, 1904.

W. L. CARLIN.
SUCKER ROD CLEANER.
APPLICATION FILED NOV. 17, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM L. CARLIN, OF FINDLAY, OHIO.

SUCKER-ROD CLEANER.

SPECIFICATION forming part of Letters Patent No. 762,985, dated June 21, 1904.

Application filed November 17, 1903. Serial No. 181,550. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. CARLIN, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented a new and useful Sucker-Rod Cleaner, of which the following is a specification.

This invention relates to a paraffin-removing device for sucker-rods employed in oil-well pumping apparatus, and it is particularly designed to effectually remove the accumulations of paraffin from the sucker-rods as they are withdrawn from the tubing.

It is also the purpose of this invention to provide means for attaching and detaching the scraper to the well-tubing in an efficient and expeditious manner without disturbing the various elements commonly employed in oil-well pumping.

A further object is to provide means for superimposing the scraper above the end of the well-tubing, so that the freed paraffin may easily be removed from the scraper.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims, it being understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a vertical longitudinal sectional view of a paraffin-removing device constructed in accordance with my invention. Fig. 2 is a fragmentary side elevation of a portion of the device and a portion of the sucker-rod, and Fig. 3 is a top plan view of the device.

In order that the device may be easily attached to and removed from the well-tubing, I provide a base-ring 1, having internally-disposed threads 2 to engage the threads 3 of the well-tubing 4, from which a stuffing-box has been previously removed to take the sucker-rod from the well. This ring 1 supports the concentric upwardly-disposed brackets 5, having inbent terminals 6, which are shown as seated in recesses 7 and clamped therein by the ring 8, said rings being fastened together

by the angular-headed bolts 9, which pass through the rings and through the terminals 6 of the brackets 5. The angular heads 10 of the bolts 9 when in position are seated in angular recesses 11 in the ring 8, so that said bolt cannot turn, thereby facilitating the attachment of the nuts 12 and also diminishing liability of the parts becoming loose after they are assembled.

The brackets are preferably four in number and are spaced apart, so that the removed accumulation from the sucker-rod 13 may readily pass out between them and be saved as a commercial product. These brackets have inbent upper terminals 16, which engage recesses 17 in the lower clamping-ring 18 similar to the recesses 7, the clamping-rings 1 and 18 being substantially alike in structure.

19 is the upper clamping-ring, conforming to the ring 8, being provided with angular recesses 20 for the upper headed bolts 21. A compressible scraper-ring 22 is disposed between the rings 18 and 19 and bears upon the inbent ends of the brackets 5, in which position it can be clamped by the bolts 21 and the nuts 23. This scraper is in the form of a resilient encircling ring of a diameter less than that of any of the other rings, so that the sucker-rod can move freely through the rings 1, 8, 18, and 19; but the contact thereof with the edge of the resilient ring 22 will cause the paraffin to be easily scraped therefrom, so that it will be easily accessible from the exterior. The rings and the brackets are so disposed that they constitute a barrel fitting around the end of the tubes and the sucker-rod, so as to require a comparatively small space in which to accomplish the desired result.

Of course it is to be understood that the scraping device need not be continuously used, as the sucker-rods require cleaning only about three or four times a year, and on this account a single device will serve for a multiplicity of wells.

When the edge of the central opening 24 in the scraper-ring 22 becomes worn, it will only be necessary to reduce the size of the openings; but this can readily be accomplished by turning the nuts 12 so that the wall of the

rod and the scraper-ring will remain in constant contact during the cleaning process.

What I claim, and desire to secure by Letters Patent, is—

5 1. A paraffin-removing device for sucker-rods, comprising a tubular base to embrace the upper end of a well-tube, a supporting device rising from the base, a pair of superimposed tubular clamp members located above
10 the base, and supported by the supporting device, a scraper-ring fitted between the clamp members with its internal diameter less than that of the clamp members, and means for drawing together the clamp members to com-
15 press the scraper and thereby reduce its internal diameter.

2. A paraffin-removing device for sucker-rods, comprising upper and lower pairs of tubular clamping devices, the lower pair having
20 means for connection with a well-tube, a supporting device having lateral projections respectively fitted between the members of the pairs of clamping devices, a compressible scraper-ring interposed between the members
25 of the upper clamping device, and means for compressing the scraper within the upper clamping device to reduce its internal diameter.

3. A paraffin-removing device for sucker-rods, comprising a pair of tube-engaging rings, brackets carried by the rings, clamping-rings
30 carried by the brackets and a paraffin-scraper carried by the clamping-rings.

4. A paraffin-removing device for sucker-rods, comprising a pair of superimposed rings,
35 of which one ring is internally screw-threaded for connection with the top of a well-tube, means to clamp the rings together, supporting means rising from the rings and having a
40 portion clamped between the same, a scraper-ring, and means to connect the scraper-ring with the supporting means above and in alignment with the clamping-rings.

5. A paraffin-removing device for sucker-rods, comprising brackets, a pair of bracket-supported clamping-rings, means for connect-
45 ing the brackets to the tubing, and a compressible scraper-ring interposed between the clamping-rings.

50 6. A paraffin-removing device for sucker-rods, comprising spaced rings, brackets terminally engaging the spaced rings, means for connecting the brackets to the well-tubing, and a scraper-ring supported by said rings and

having an inner diameter less than the spaced 55 rings.

7. A paraffin-removing device for sucker-rods, comprising clamping devices, connecting devices between the clamping devices and a scraper mounted between two members of 60 one of the clamping devices.

8. A paraffin-removing device for sucker-rods, comprising a pair of superimposed rings having means for connection with a well-tube, adjustable clamping devices piercing the rings, 65 supporting means rising from the rings with a portion clamped between said rings and pierced by the clamping devices, a scraper-ring, and means to connect the scraper-ring with the supporting means above and in alignment with the clamping-rings. 70

9. A paraffin-removing device for sucker-rods, comprising a base having means for connection with a well-tube, supporting means rising from the base and provided near its up- 75 per end with a laterally-projected portion, a pair of clamping-rings embracing the lateral portion of the supporting means, a compressible scraper-ring interposed between the clamping-rings and having an internal diameter less 80 than that of the rings, and adjustable fastenings piercing the clamping-rings, the scraper-ring, and the lateral portion of the supporting means.

10. A paraffin-removing device for sucker-rods comprising upper and lower clamping de- 85 vices each of which consists of superimposed rings and adjustable screw-threaded fastenings piercing the rings, one of the rings of the lower clamping device being internally screw- 90 threaded, a plurality of brackets having terminal lateral projections embraced between the rings of the respective clamping devices with the screw-threaded fastenings piercing the projections, and a compressible scraper- 95 ring interposed between the ring members of the upper clamping device and pierced by the fastenings thereof, the internal diameter of the scraper-ring being less than that of the upper clamping device. 100

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM L. CARLIN.

Witnesses:

BERNARD L. DUNN,
MAUDE BOEHMER.