(No Model.) 2 Sheets—Sheet 1.

W. H. SAWYER.

APPARATUS FOR APPLYING PAINT TO WIRE.

No. 298,896. Patented May 20. 1884.

Fig. 1.

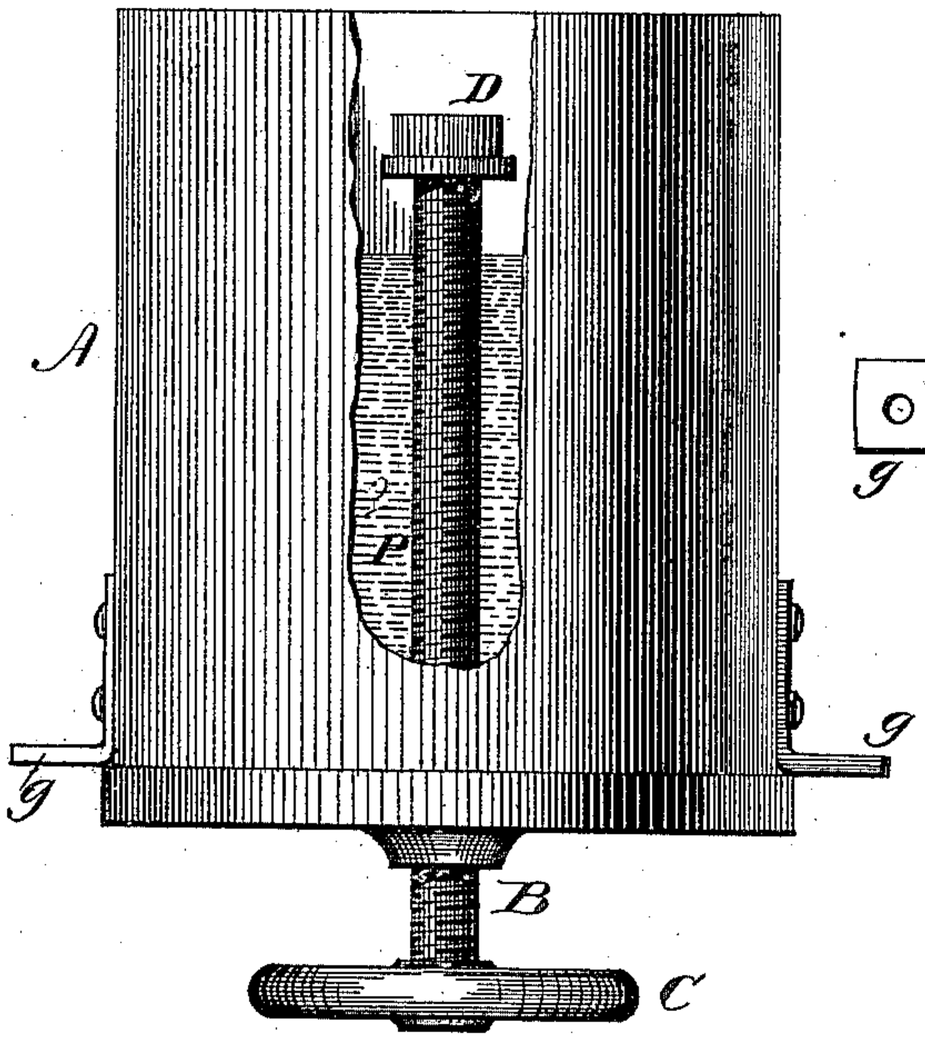


Fig. 2.

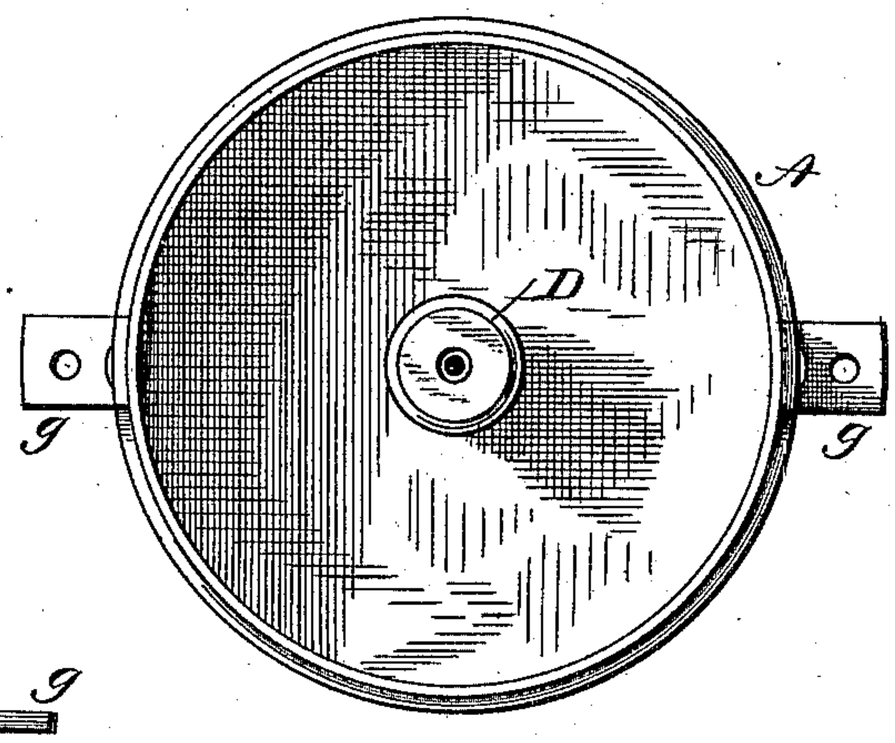
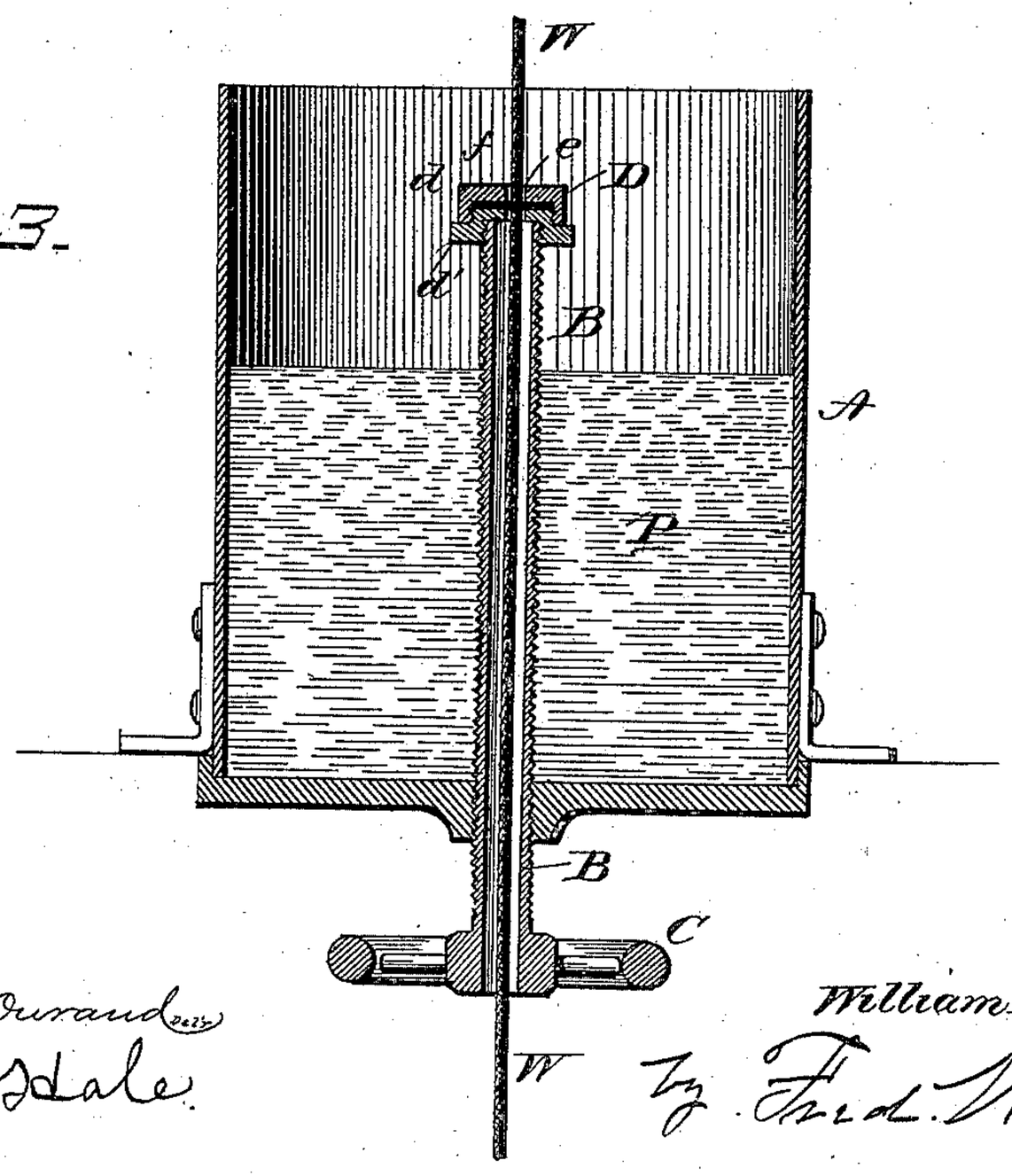


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

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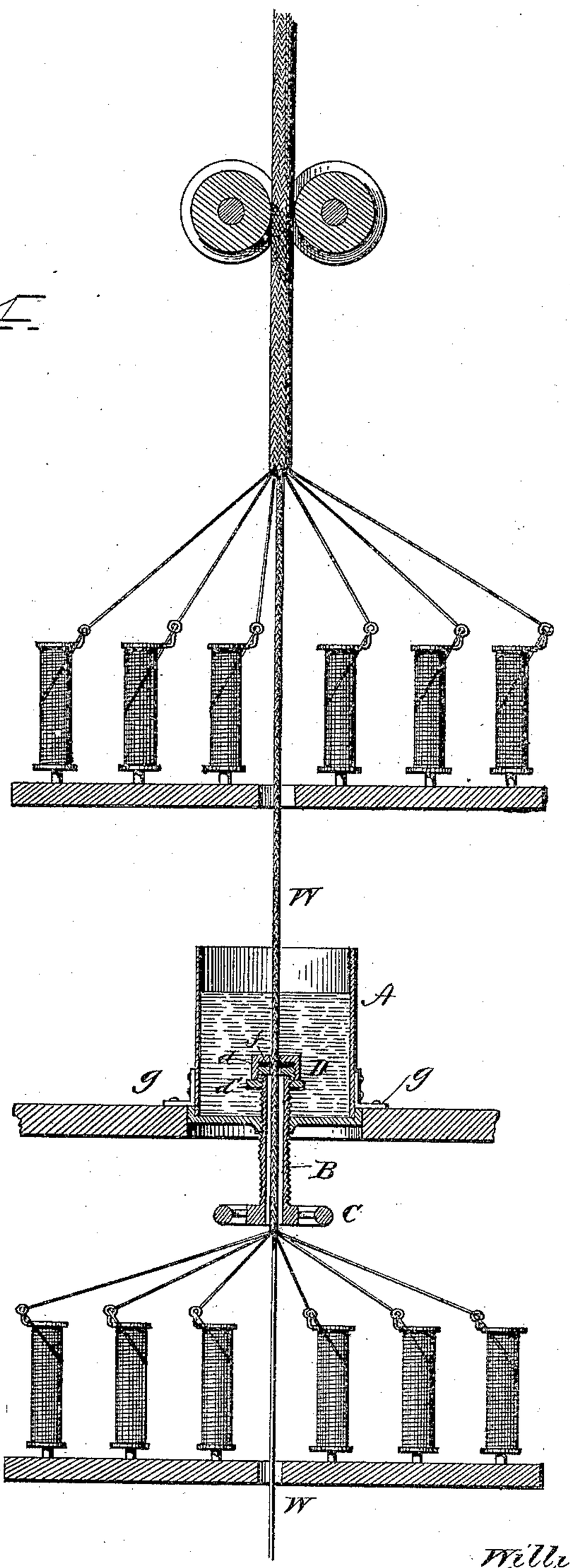
Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. SAWYER, OF PROVIDENCE, RHODE ISLAND.

APPARATUS FOR APPLYING PAINT TO WIRE.

SPECIFICATION forming part of Letters Patent No. 298,896, dated May 20, 1884.

Application filed December 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SAWYER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Pots for Applying Paint to Wire; 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.

My invention relates to an improvement in a pot especially intended to hold a body of paint through which a wire passes vertically after receiving one or more wound or braided layers of fibrous covering-thread in a wire-covering machine, but which may also be used for applying paint, oil, varnish, or other fluid dressing to any vertically-traveling wire, covered or naked.

Wire-covering machines have heretofore been provided with paint-pots for the wires to pass through vertically to receive paint, such a pot having an opening in its bottom for the passage of a wire, and said opening being lined with a packing for hugging the wire closely to prevent the escape of paint. It is found, however, that the packing soon becomes worn sufficiently to allow paint to slowly leak past it, and when the leak becomes so great as to render a new packing necessary the pot must be emptied before the repair can be made, as the paint would all flow out were the old packing removed to give place to a new one. Even when a packing is used which allows the wire to pass freely without escape of paint when the wire is in motion ascending, or when the wall of the wire-passage fits around the wire close enough to prevent escape of paint while the wire is in motion, it is found that the paint or other fluid dressing will ooze down around the wire and run over the parts below when the machine is idle for any length of time—as, for instance, during cessation of work at night with an unfinished wire in the machine, or when fresh bobbins are required to be placed on the spindles, or broken threads pieced.

It is the object of my invention to furnish for applying paint or other fluid dressing to a vertically-traveling wire a pot having a wire-passage, to which a fresh packing can be at any time applied without emptying the pot of its contents, and which may have its wire-passage readily adjusted to prevent the escape of paint or other fluid while the wire is at rest.

With these objects in view the invention consists in certain novel constructions and combinations of parts, which will be fully understood from the following particular description, in connection with the accompanying drawings, and the novel features of which will be definitely pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of my improved paint-pot with a portion of its wall broken away to show the central adjustable passage. Fig. 2 is a top view of the pot. Fig. 3 is a vertical diametric section of the pot containing paint and with a wire in the passage, which is adjusted to prevent the escape of paint, as when the wire is at rest. Fig. 4 is a vertical diametric section of a wire-covering machine with the pot in position to apply a coat of paint to the wire after it has received one layer of fibrous covering.

The letter A indicates a pot, preferably of cast metal, having centrally through its bottom a screw-threaded aperture, through which is fitted an externally-screw-threaded tube, B, having fixed upon its lower end a hand-wheel, C, and upon its upper end a detachable head, D, composed of two parts, *d* and *d'*, the upper of which is screwed upon the lower. The head D has a central aperture, *e*, through its two parts, and between said parts is clamped a packing-disk, *f*, having also a central aperture, said disk being made of some elastic material—such as vulcanized rubber, sole-leather, or other material—which will closely hug a covered wire passing through it without abrading the covering. The packing-disk may be slitted from its central through its outer edge on one side, so as to permit it to be placed around a wire already in the wire-passage, and extending upward to the covering devices; or said disk may be composed of two parts for the same purpose. The pot is provided with ears *g g*, by which it may be secured to a suitable support. The wire, W, to receive paint passes up through the tube B and its head, and is closely hugged by the packing, which, when in good order, prevents the paint from leaking down through the tube.

It is obvious that if the packing should be-

come so worn as to allow leakage the tube can be screwed up to bring its head above the level of the fluid P, as in Fig. 3, and then the upper part of the head may be taken off, the packing replaced by a new one, the upper head part screwed on, and the tube again run down to a proper position to expose the wire to the fluid in the pot. Thus there is no necessity for emptying the pot in order to put in a new packing. It will also be seen that if the wire is to be left at rest for any length of time the tube may be screwed up above the level of the fluid to prevent the same from reaching the wire and oozing down past the same. Each pot should have for its tube a set of heads with different-sized apertures and corresponding packing to accommodate different-sized wires.

The head may be made of one piece and the packing omitted; but the two-part head with interposed packing is preferable.

In Fig. 4 the mode of using the paint-pot in a wire-covering machine is illustrated. The pot is arranged in the central aperture of the frame-work above the lower set of bobbins, H, and is secured to the frame by means of screws passing through the ears *g g*. The wire, after receiving one layer of covering from the bobbins, travels up through the tube B, which is shown lowered to expose the wire to the paint P as it passes through the pot.

Having now fully described my invention and explained the manner of using the same, I claim—

1. The paint-pot having the adjustable tube through its bottom, substantially as and for the purpose set forth.

2. The combination, with the pot having a screw-threaded aperture in its bottom, of the correspondingly-threaded tube fitted through said aperture, substantially as described.

3. The combination, with the pot and the adjustable tube through its bottom, of the removable and replaceable head for the tube, substantially as described.

4. The combination, with the pot adapted to hold a paint or coloring-liquid, and the adjustable tube projecting into said pot and forming a wire-passage, of the two-part head attached to the inner end of the tube, and arranged to receive between its two parts a packing to hug the wire and prevent escape of liquid into the tube, substantially as described.

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

WILLIAM H. SAWYER.

Witnesses:
GILMAN E. JOPP,
W. A. HATHAWAY.