J. A. BALDWIN.

PICKER ROD LUBRICATOR.

APPLICATION FILED MAR. 14, 1916.

1,201,011. Patented Oct. 10, 1916.

Fig. 1.

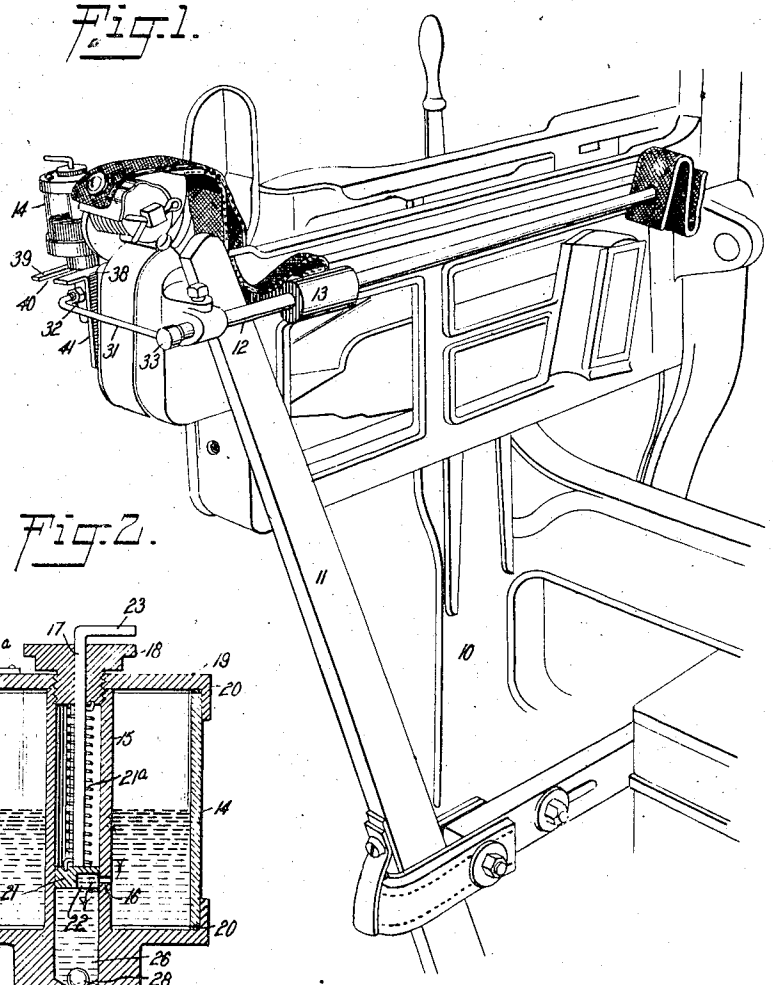


Fig. 2.

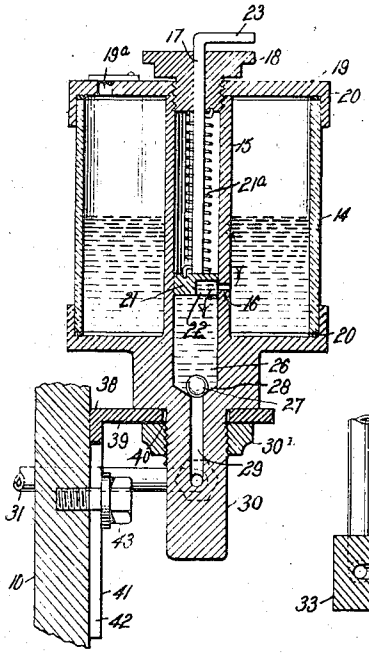


Fig. 3.

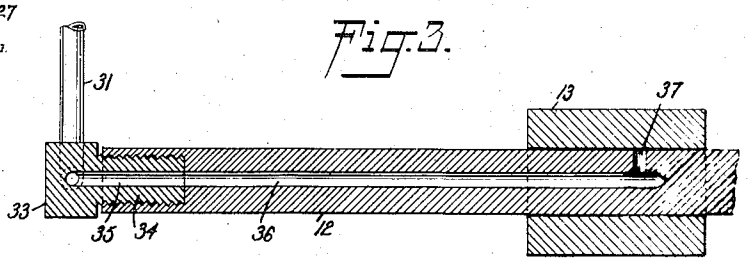


Fig. 4.

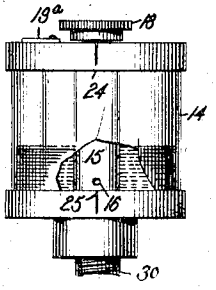
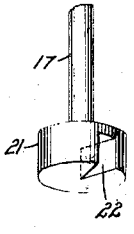


Fig. 5.



WITNESSES

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PICKER-ROD LUBRICATOR.

1,201,011. Specification of Letters Patent. Patented Oct. 10, 1916.

Application filed March 14, 1916. Serial No. 84,068.

To all whom it may concern:

Be it known that I, JAMES ARTHUR BALDWIN, a citizen of the United States, and a resident of Maynard, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Picker-Rod Lubricator, of which the following is a full, clear, and exact description.

Objects of my invention are to provide a lubricator adapted to be secured to a fixed part of a loom; to provide for the automatic feeding of the lubricant to a picker rod; to provide by various means for perfectly regulating the feeding, and to provide for automatically arresting the feed when the loom is not in operation.

Other purposes and advantages of the invention will appear as the description proceeds.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a perspective view of a portion of a loom with my improved picker rod lubricator applied thereto; Fig. 2 is a vertical section of the oil cup and a portion of the feed tube; Fig. 3 is a longitudinal vertical section of the picker rod and the feed tube connection therewith; Fig. 4 is a front view of the oil cup, a portion of the cup being broken away; Fig. 5 is a perspective view of the lower portion of the feed-regulating device in the oil cup.

My improved lubricator is adapted to be applied to looms of known form, a portion of a loom being shown and indicated by the numeral 10. In Fig. 1 is shown a picker stick 11, a picker rod 12, and picker 13, all of known form.

My lubricating attachment includes a lubricator or cup 14 having a central vertical feed tube 15, formed with an oil inlet 16 from the body of the cup. A stem 17 is slidable vertically and adapted to turn in the tube 15 and extends slidably through a screw plug 18 which passes through the cap 19 of the cup and engages the tube 15 to hold the cup parts together. The body of the cup is of glass and may have gaskets 20 at the top and bottom between said body and the cap and base, respectively, to make a liquid-tight joint. Oil may be supplied through an opening at 19^a in cap 19.

The stem 17 carries a piston head 21 formed with a passage 22 and said passage, by the turning of the stem and the head 21, serves to regulate the oil inlet 16 so that said head 21 thus constitutes a regulating valve for said inlet. The upper end of the stem 17 has a lateral handle extension 23 and on the cup at the top and bottom, respectively, gage marks 24, 25, are produced in line with the oil inlet 16 so that by varying the position of the handle 23 relatively to the gage marks, the said inlet may be controlled by the valve head 21. A spiral spring 21^a surrounds the stem 17 and engages at its ends with the valve 21 and the plug 18, respectively, to hold the said valve steady and prevent its accidental turning by the vibrations of the loom, thus making the valve's piston positive after proper feed has been obtained.

The oil chamber 26 in the tube 15 beneath the head 21 receives the lubricant from the passage 22 and a ball valve 27 is adapted to rest on a seat 28 in the cup base at the upper end of a vertical passage 29 leading from the chamber 26 through the stem 30 of the cup. A feed tube 31 communicates with the passage 29, said feed tube having a loose or swiveled coupling 32 connecting the same with the stem 30. At the opposite end the feed tube 31 is provided with a head 33 having a lateral threaded member 34 forming a passage 35 communicating with an axial passage 36 in the picker rod 12, there being a lateral outlet passage 37 leading to the exterior of the rod 12 from the end of the said axial passage 36. The position of the lateral oil inlet 37 is such that said passage will be closed by the picker 13 when the said picker is at rest, so that the picker thus forms a valve to close said passage when the loom is not in operation.

To secure the lubricator in position on the loom, an angle bracket 38 is provided having a horizontal member 39, formed with a slot 40. The bracket is clamped on the threaded stem 30, of the cup, by a nut 30^a, as clearly shown in Fig. 2. The depending vertical member 41 of the angle bracket has a vertical slot 42 receiving a screw 43 for adjustably securing the bracket to a fixed loom part as, for instance, the lathe head of the loom where the shuttle box guide plate is mounted.

When the loom is in operation, the vibra-

tion repeatedly unseats the ball valve 27 to feed oil to the passage 29. The regulation of the feed to the chamber 26 will be such as to relieve the ball valve 27 of the pressure of the oil in the body of the cup. The lateral slot 40 serves to adjust the device for a longer or shorter picker rod. The slot 42 and screw 43, in addition to holding the bracket, 38, in position, can be utilized to regulate the height of the cup and therefore regulate the feed by varying the head.

Having thus described my invention I claim as new, and desire to secure by Letters Patent:

1. In a lubricator of the class described, a container, a feed tube communicating with the container and directly supplied with lubricant therefrom by gravity feed, a picker rod having an axial bore in communication with said feed tube and formed with a lateral discharge outlet from said bore to the exterior surface of the rod, means for vertically adjusting said container to vary the feed head to the said tube by varying the elevation of the container, and a picker movable on the rod over the said discharge outlet, the said outlet being located in the position of rest of the picker for closure by said picker when at rest.

2. In a lubricator of the class described, a container, a feed tube in communication with said container, a picker rod having an axial bore in communication with said feed tube, and formed with a lateral discharge outlet leading to the surface of the rod, and a picker movable on the rod, the said outlet being located in the position of rest of the picker and adapted to be closed by the latter when at rest.

3. In a lubricator of the class described, a container a feed tube communicating with said container, means to connect the container with a picker rod and feed lubricant to the latter, a bracket, and means adjustably securing the said container to the bracket to accommodate the container to picker rods of different lengths.

4. In a lubricator of the class described, a container, feed means communicating with said container and adapted to deliver the oil to the part to be lubricated, and means to fasten the container in position, said last-mentioned means being vertically adjustable to position the container at different elevations to regulate the feed by varying the head, the said cup being laterally adjustable on the said means.

5. In a lubricator of the class described, a container, means to secure the same in fixed position on a loom, a feed tube in communication with said container, a picker rod having an axial bore and a lateral outlet from the said bore to the surface of the rod, and a member on said feed tube detachably connected with an end of said rod and formed with an axial passage establishing communication between the feed tube and the bore of the rod.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES ARTHUR BALDWIN.

Witnesses:

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PERCIVAL VANE ROBINSON.