(No Model.)

J. A. McDOWELL-GUAJARDO.

LUBRICATING DEVICE FOR THE TOP ROLLS OF SPINNING OR LIKE FRAMES.

No. 457,877. Patented Aug. 18, 1891.

Fig. 1.

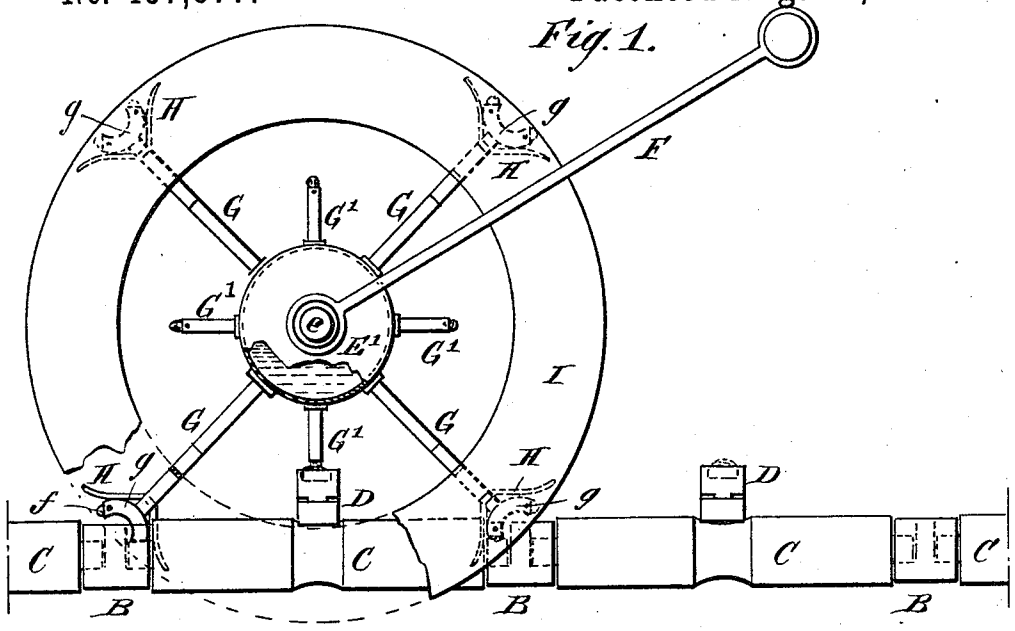
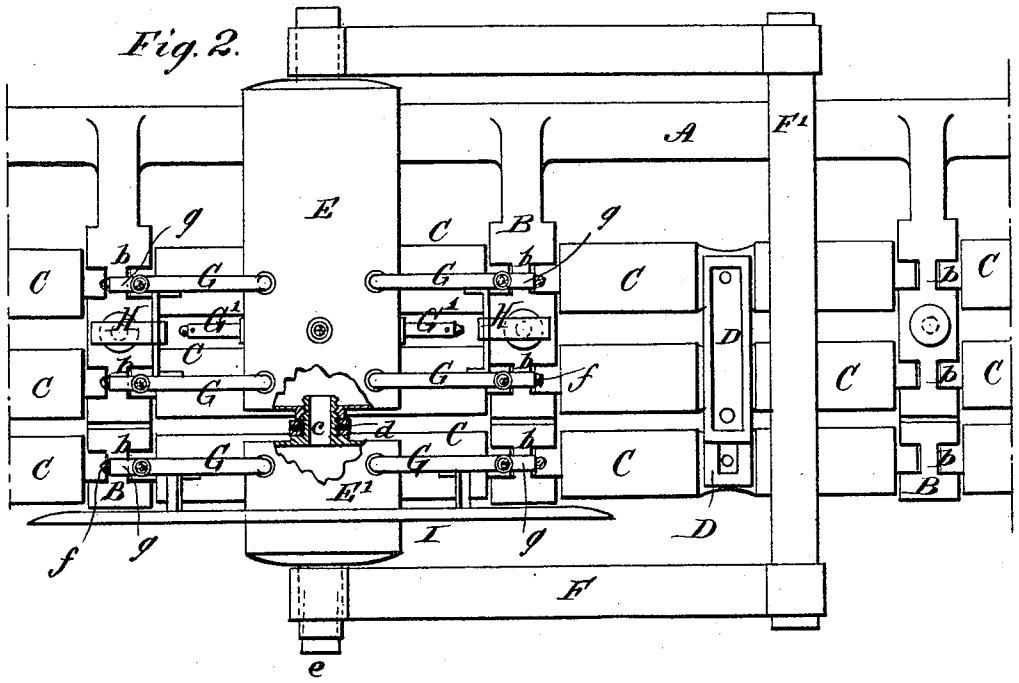


Fig. 2.



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JOSÉ ALBERTO McDOWELL-GUAJARDO, OF SALTILLO, MEXICO.

LUBRICATING DEVICE FOR THE TOP ROLLS OF SPINNING OR LIKE FRAMES.

SPECIFICATION forming part of Letters Patent No. 457,877, dated August 18, 1891.

Application filed August 1, 1890. Serial No. 360,642. (No model.)

To all whom it may concern:

Be it known that I, JOSÉ ALBERTO McDOWELL-GUAJARDO, of Saltillo, State of Coahuila, Mexico, have invented a new and Improved Lubricating Device for the Top Rolls of Spinning or Like Frames, of which the following is a full, clear, and exact description.

This invention consists in a running or rolling lubricating device for the top rolls of spinning, slubbing, and other like frames, and in certain constructions and combinations of parts making up the same, substantially as hereinafter described, and more particularly pointed out in the claims, and whereby both labor and the lubricant are economized.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a broken front elevation of a series of top rolls of a spinning-frame, with the cap-bar in which they have their end bearings and saddles for the intermediate bearings applied, together with my improved lubricating device in position; and Fig. 2 is a plan view of the same.

A indicates the cap-bar portion of a spinning-frame provided with the arms B B.

C C C are the double top rolls here shown in sets of three, each series, and having their end bearings *b* in the arms B B, as customary.

D D are the usual saddles applied to the intermediate bearings of the top rolls.

The device for lubricating the end bearings of these top rolls C, and, if necessary, intermediate bearings of said rolls through the saddles, is a rolling one, designed to be worked by hand, and of spider form or construction. Thus, E E′ is an oil cylinder or chamber, designed when in use to occupy a horizontal position, and preferably made up of a main length or portion E and a shorter front end length or portion E′, joined together by a central screw-threaded nipple connection *c* and a washer-packing *d* between the adjacent ends or heads of the two parts E E′, which when coupled together virtually form but a single oil chamber or cylinder, but by constructing it in sections E E′, as described, provision is made through the screw connection *c*, and by changing the thickness of the intermediate filling-piece or washer *d*, for extending or contracting the section E′ to suit varied distances of the two front top rolls C apart in each series, as sometimes necessary when spinning certain kinds of thread or cotton. The oil-chamber E E′ is free to rotate at its ends in a bail or handle F, by which the lubricator is rolled or operated. It may be charged with the necessary quantity of oil by withdrawing a cork or stopper *e* from its one end.

Projecting radially from the chamber E E′ are circular series, one behind the other, of main distributing or oiling tubes G, each series consisting of several of such tubes arranged at equal distances apart around said chamber and corresponding in point of distance apart at their outer ends to the distance apart of the roller end bearings *b* of each adjacent pair of cap-bar arms B, so that as the lubricator is rolled or trundled over the said bars in direction of the length of the spinning-frame the outer ends of the tubes G will mesh, as it were, with said bearings *b* to lubricate the same, and to do this more effectually it is preferred to make the outer ends of the lubricating-tubes G with bifurcated extensions *g*, so as to distribute the oil to opposite sides of each bearing *b*. Wicks or sponges *f* are passed through the tubes G or fitted in the outer ends thereof or their bifurcated extensions *g* to regulate the flow of the oil, which the speed of the lubricator as it is trundled or rolled will also control.

To support the lubricator and make it register or gear, as it were, with the cap-bar arms B, there are arranged between at least two circular series of the tubes G and connected with them—that is, with each tube G of the two circular series—feet H, which engage in the manner of a gearing with the adjacent cap-bar arms, two at a time, as the lubricator is rolled or trundled over the said arms. These feet may be varied in shape to conform to the shape or construction of the cap-bars.

To keep the lubricator from slipping laterally and its tubes G in line with the bearings *b* as the lubricator is rolled or trundled over the cap-bar arms, it is provided on its front end portion with an attached guide or guard I, that in the revolving of the lubricator will bear against the outer ends of the arms B to keep the lubricator in line. This guide I,

which is here shown as of ring form, with beveled outer edges, will necessarily vary in shape or construction according to the particular construction of the spinning-frame or its cap-bars.

When desired to lubricate the intermediate bearings of the top-rolls C beneath the saddles D, the oil cylinder or chamber E E′ is provided with a circular series of shorter and secondary lubricating-tubes G′ between the tubes G, each provided with a wick or sponge, as desired, and arranged as the lubricator is rotated or rolled to mesh with the upper member of the saddles D, and by suitable perforations in the saddles to pass lubricating material to the reduced middle portions or bearings of the top rolls C.

By means of this trundling or rolling lubricator operated by hand through the handle F′ the several top rolls of a spinning-frame may have their bearings perfectly and very expeditiously lubricated with a great saving of labor and with an economical use of the lubricant, and if the oil cylinder or chamber is made of sufficient size and the oiling-tubes are suitably connected there will be no soiling of the main body portions of the top rolls with the lubricant.

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

1. The within-described lubricating device for the top rolls of spinning-frames and other like frames, the same consisting of a trundling or rolling lubricator capable of manipulation by hand and composed of a central oil-chamber and parallel circular series of radially-arranged main lubricating-tubes extending therefrom, said tubes in each series being arranged at equal distances apart, substantially as and for the purposes herein set forth.

2. A rolling or trundling lubricating device for the top rolls of spinning and other like frames, substantially as described, having radially-arranged main lubricating-tubes provided with bifurcated extensions at their outer ends, essentially as specified.

3. In a rolling or trundling lubricating device for the top rolls of spinning and other like frames, composed of a central oil-chamber and circular series of radially and equidistantly arranged main lubricating-tubes, the combination therewith of a circular series of feet arranged at equal distances apart and adapted to gear with the cap-bar arms of the spinning-frame as said lubricating-tubes come over them, substantially as and for the purposes specified.

4. A rolling or trundling lubricating device for the top rolls of spinning or other like frames, composed of a central oil-chamber and circular series of radially and equidistantly arranged main lubricating-tubes, the central oil-chamber consisting of a main body portion and extensible front portion, essentially as set forth.

5. In a rolling or trundling lubricating device for the top rolls of spinning and other like frames, composed of a central oil-chamber and circular series of radially and equidistantly arranged lubricating-tubes, the combination therewith of a guard or guide on the front end or side of said lubricating device for operation in connection with the cap-bars of the frame, as specified.

6. In a rolling or trundling lubricating device for the top rolls of spinning and other like frames, composed of a central oil-chamber and circular series of radially and equidistantly arranged main lubricating-tubes adapted to mesh with the end bearings of the top rolls, the combination therewith of a secondary series of lubricating-tubes arranged between said main lubricating tubes, substantially as and for the purpose herein set forth.

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