E. DIXON.

SADDLES FOR TOP ROLLS OF SPINNING-MACHINES, &c.

No. 183,548. Patented Oct. 24, 1876.

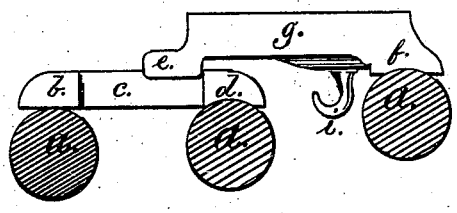

Fig: 1.

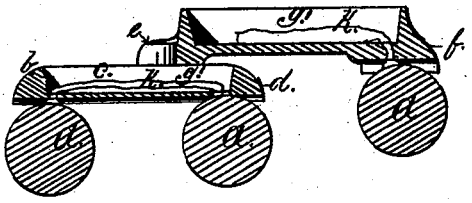

Fig 2.

Fig: 3.

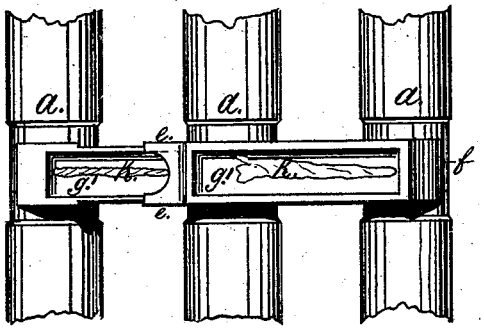

Fig: 4.

Witnesses

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UNITED STATES PATENT OFFICE.

EZRA DIXON, OF BRISTOL, RHODE ISLAND.

IMPROVEMENT IN SADDLES FOR TOP ROLLS OF SPINNING-MACHINES, &c.

Specification forming part of Letters Patent No. **183,548**, dated October 24, 1876; application filed September 20, 1875.

To all whom it may concern:

Be it known that I, EZRA DIXON, of Bristol, in the county of Bristol, State of Rhode Island, have invented certain new and useful Improvements in Saddles for Top Rolls of Spinning-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side view of my improved saddles, showing their position with reference to the rolls. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section. Fig. 4 is a top view of the same.

Similar letters of reference indicate corresponding parts.

This invention consists in the arrangement of metallic saddles for the top rolls of spinning-machines, by which an oil-chamber is formed in the saddle, so that the bearing-surface of the saddle on the rolls can be kept lubricated for a long time.

Another part of the invention consists in slotting or grooving the under side of the saddle, so that the bearing of the same on the roll shall be reduced and friction diminished.

The usual method of holding the top rolls in their bearings is to place wooden saddles on the same, held down by a weight suspended from a hook secured to the upper saddle. Such wooden saddles bear the whole of their width on the rolls, and it becomes difficult to oil the bearing surfaces as they can only be oiled directly on the rolls at the side of the saddle, and near the leather covering of the rolls, they must be oiled frequently, and the leather cover is as liable to receive the oil as the bearing, thus injuring the leather, and also the sliver.

As a large number of saddles are used on each spinning-frame, whether a ring, throstle, or mule frame, the oiling of them requires time, and renders liable the waste of a large quantity of oil, and incurs the risk of injury to the top-roll covering, which becomes smooth when oiled. To prevent this, and also allow the rolls to be run at a higher speed, which, with the improvements in spindles, has become a necessity, without increasing the friction, I construct my saddles of any suitable metal. I prefer cast-iron as being the cheapest and best adapted to the purpose; but any other suitable metal may be used.

In this saddle I form a cavity, by which the weight and cost of the saddle are reduced, and which cavity I use as an oil-reservoir, connected by a small hole with the bearing. Into this cavity I place a wick, and extend the same through the hole to the bearing; or, in lieu of the wick, a loosely-fitting pin may be placed in the hole and rest on the roll, the object being to convey only as much oil to the bearing-surface as the latter may require, as shown in Fig. 3.

In the drawings, *a a a* are the top rolls. *c* is the lower saddle, bearing on two rolls, the end *b* resting on one, and the end *d* on the other. The central portion of this saddle is narrower than the ends *b* and *d*. Over this part the lips *e* of the upper saddle *g* slide, the other end *f* resting on the third roll. *i* is the hook, from which a weight is suspended, by which the saddles are held to the rolls. *g' g'* are the cavities or oil-chambers, made in any suitable shape to reduce the weight of metal, and also hold the oil and wick. *k* represents the wick. *m*, Fig. 3, shows the central slot in the saddle.

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

The metallic saddle for top rolls, having a chamber, *g'*, and oil-outlets, adapted to be partially closed with wicks or metallic pins, and also having a longitudinal channel, *m*, underneath the chamber, as and for the purpose described.

EZRA DIXON.

Witnesses:
JOSEPH A. MILLER,
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