C. Allardice.

Knitting Burr.

No. 55,034. Patented May 29, 1866.

Fig. 3.

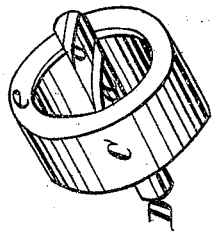


Fig. 2.

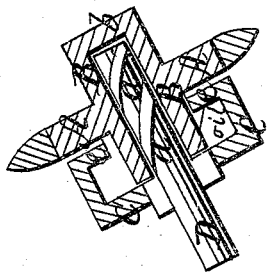
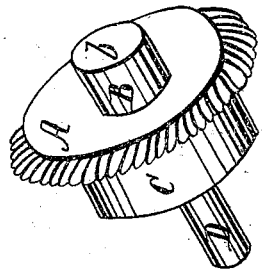


Fig. 1.



Witnesses;

Richard Varick DeMott.

James B. Sanders

Inventor;

Charles Allardice

UNITED STATES PATENT OFFICE.

CHARLES ALLARDICE, OF COHOES, NEW YORK.

IMPROVEMENT IN SELF-LUBRICATING KNITTING-MACHINE BURRS.

Specification forming part of Letters Patent No. **55,034**, dated May 29, 1866; antedated March 29, 1866.

To all whom it may concern:

Be it known that I, CHARLES ALLARDICE, of Cohoes, Albany county, State of New York, have invented a new and useful Improvement in the construction of Rotating Knitting-Burrs; and I declare the following specification, with the drawings forming part thereof, to be a full and complete description of my invention.

My invention has for its object the construction of rotating knitting-burrs, an article employed in knitting-looms almost universally, in such a manner as to allow the lubrication of their spindles or stems more conveniently and to preserve them for a much longer time than can be done by the usual apparatus.

Figure 1 represents in perspective a burr mounted on its axis in its usual position; Fig. 2, a section through the center of the burr and oil-reservoir with the spindle or stem in projection; Fig. 3, a perspective of the reservoir with the spindle.

A is the burr attached to a hollow shaft, B, which passes down and rests upon the bottom of the oil-reservoir C. It is closed at its top by a cap, *b*. Through the bottom of the reservoir C the spindle D passes and is secured to it. It is made of steel and of a size to pass into the shaft B of the burr, to which it is snugly fitted, so as to allow it to revolve freely upon the spindle, which does not quite reach to the cap of the shaft B. The spindle has also cut into its surface spiral grooves *a*, connected by a notch at the top of the spindle.

The reservoir C is, as shown, a hollow cup having a rim, *e*, partially closing its top in toward the shaft *b*, which it nearly touches, so as to hold a small quantity of oil in its lower corner.

To operate the affair the burr with its shaft is drawn off the spindle. Oil is then poured into the reservoir, occupying its lower portion and reaching to the base of the spindle B. As soon as the shaft revolves, which is done with great velocity, the oil is carried by the shaft around the spindle and into the groove *a*, along which it is forced up to its top, whence it is compelled to descend along the smooth sides of the spindle to its bottom and then by the grooves repeat its ascent. The spindle is, by this operation, kept so thoroughly oiled that it cannot heat and dry the oil, and from the construction of the reservoir there is no chance of waste, so that the oil must be used in the most thoroughly economical manner.

In the present construction of burrs the oil is poured in through an opening in the top of the shaft B. The rapid motion of the shaft soon dries and evaporates the oil, requiring repeated oiling during the day, at least once in every four hours; but by my method the oil is made continually to ascend and descend, preventing the evaporation and waste of oil, so that the burr will run weeks without a fresh supply of oil.

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

The shaft B, having its closed cap *b*, in combination with the spindle D and its spiral grooves *a a* and the reservoir C, substantially as described and for the purposes set forth in the above specification.

CHARLES ALLARDICE.

Witnesses:

RICH. VARICK DE WITT,

JAMES B. SANDERS.