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PATENTED DEC. 25, 1906.

C. H. EMERSON.
THREAD LUBRICATING DEVICE.
APPLICATION FILED NOV. 2, 1905.

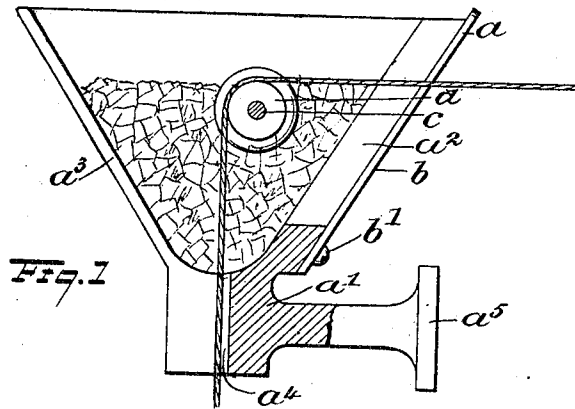


Fig. 1

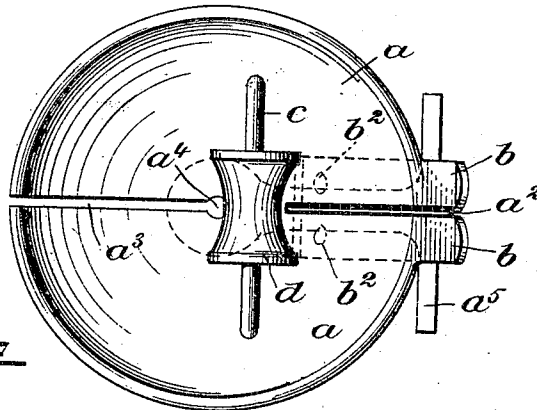


Fig. 2

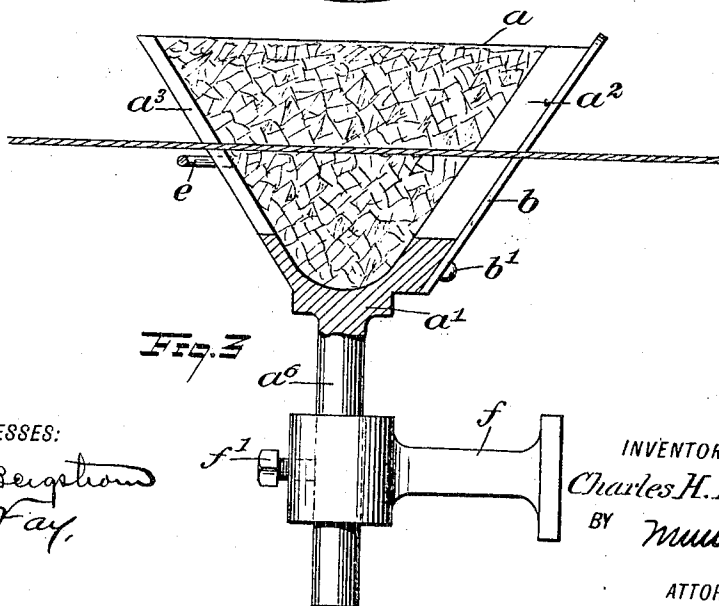


Fig. 3

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THREAD-LUBRICATING DEVICE.

No. 839,567.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed November 2, 1905. Serial No. 285,566

To all whom it may concern:

Be it known that I, CHARLES H. EMERSON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Thread-Lubricating Device, of which the following is a full, clear, and exact description.

My invention relates to a device for waxing threads, and is especially applicable for use on spooling-machines, where it is mounted at such a point that the thread in passing to the spooler may pass through the device in order to be waxed. It is designed for the reception of a solid lubricating material in lumps—as, for example, paraffin or the like.

The objects of the invention are to provide means for conveniently passing thread through a solid lubricant so as to attach particles thereof to the thread by a process of abrasion and to provide means for removing projections and catching-knots in the thread as it passes through the device.

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

Figure 1 is a central vertical sectional view of a form of apparatus embodying my invention and showing the lubricant and thread in position. Fig. 2 is a plan view thereof with the lubricant and thread removed; and Fig. 3 is a view similar to Fig. 1, showing another form in which my invention may be embodied.

a represent two halves of a cup secured together by a solid portion a' , upon which the cup is supported, which cup contains the lubricating material. The two halves are separated by slits a^2 and a^3 , preferably vertically arranged in the opposite walls of the cup and of sufficient width to permit the passage of the thread which it is desired to operate upon.

a^4 is a perforation in the bottom of the cup for the passage of the thread when it is to feed directly downward. The slit a^2 , through which the thread enters, may be provided with a pair of adjustable lips b . These lips are preferably secured at their lower ends to the solid portion a' by means of screws b' or equivalent devices. By this arrangement it will be obvious that the lips may be swung upon their pivots and adjusted to and from

each other, and they may be provided with elongated slots b^2 , so that they may be adjusted to and from each other in parallelism. By the tightening of the screws b' the lips are fixed in any adjusted position in which they may be placed, and therefore will serve to remove all projections and catch-knots which may happen to be upon the thread as it enters the cup.

c represents a shaft mounted in the interior of the cup and provided with a rotary guide or roller d , over which the thread passes and by which it is guided in an obvious manner.

The device may be supported by means of a projection a^5 , which may or may not be integral with the portion a' . When threading the device, the thread is passed through the slit a^3 from the top to the opening a^4 . This description applies to the form of my invention which is illustrated in Figs. 1 and 2, and it is to be understood that the thread instead of passing through the perforation a^4 may, if desired, pass directly through the cup from the slit a^3 . The lips b may be dispensed with, if desired.

In Fig. 3 I have shown a modified form of invention in which the parts a , a' , a^2 , a^3 , b , and b' are substantially the same as those shown in the other figures; but in this form the thread necessarily passes directly through the cup from one side to the other and is preferably supported adjacent to the slit a^3 by the cross-bar e . The cup is supported in this case by a stem a^6 , extending from the bottom portion a' and passing through a bracket f , to which it is adjustably secured by a set-screw f' .

It will be understood that as the yarn or thread is wound from the hanks onto the spools with which the spooler is provided it passes through the slit a^2 between the lips b , which remove projections, &c., and then out through the perforation a^4 or the slit a^3 . On its passage through the cup the yarn is thoroughly paraffined or waxed, and from the cup it passes to the spools in the usual manner.

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

1. A lubricating device, comprising a receptacle for a lubricant, having vertical slits in its opposite sides for the passage of a thread.

2. A lubricating device for spooling-machines, comprising a receptacle for a lubri-

cant, having slits in its sides for the passage of a thread, a perforation in the bottom communicating with one of said slits, and a roller-guide above the perforation.

- 5 3. A lubricating device for spooling-machines, comprising a receptacle for lumps for a lubricating material, having slits in its opposite sides, and a perforation in its bottom for the passage of a thread, a pair of lips on the
10 outside of one of the slits, and a rotary guide in the receptacle for the thread.

4. A lubricating device comprising a re-

ceptacle for a lubricant having slits in its opposite sides for the passage of a thread, and means projecting over one of said slits for
15 removing projections and the like from the thread.

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

CHARLES H. EMERSON.

Witnesses:

JOHN C. EDEN,
DICK SCHNIBBE.