C. C. E. VAN ALSTINE.
Swift.

No. 225,185. Patented Mar. 2, 1880.

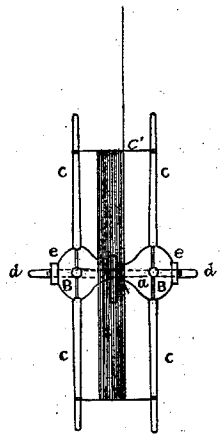


Fig 1

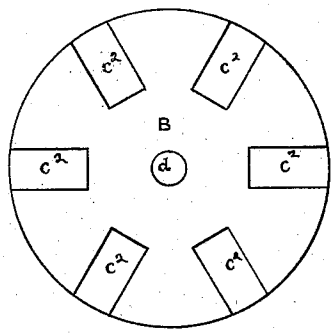


Fig 2

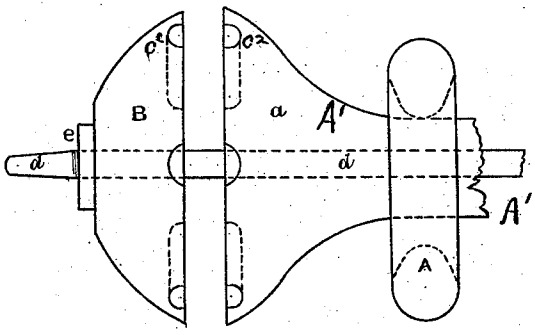


Fig 3

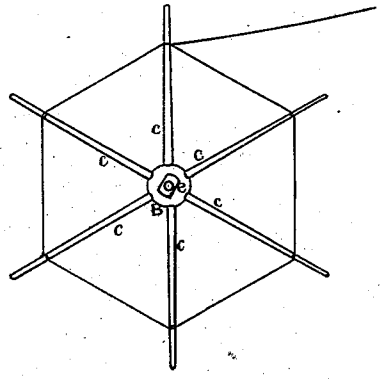


Fig 4

Witnesses
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UNITED STATES PATENT OFFICE.

CORNELIUS C. E. VAN ALSTINE, OF PATERSON, NEW JERSEY.

SWIFT.

SPECIFICATION forming part of Letters Patent No. 225,185, dated March 2, 1880.

Application filed July 28, 1879.

To all whom it may concern:

Be it known that I, CORNELIUS C. E. VAN ALSTINE, of the city of Paterson, county of Passaic and State of New Jersey, have invented a new and useful Improvement in Swifts for Winding Silk and other Materials, of which the following is a specification.

The object of my invention is to provide a swift for winding silk and other kinds of thread in which the spindles may be easily changed when desired.

It is well understood by those who are familiar with the working of swifts as now constructed, with a solid hub, that great difficulty has been experienced in changing the spindles, which is frequently done, and that it is very difficult to remove broken spindles to replace them by others, which difficulty is overcome by my invention.

The invention consists in a swift composed of a body having a weight-ring turned thereon, the object of which is to support a weight in order to regulate the tension of the thread by preventing the swift from unwinding the thread faster than is required by the receiving-spool. On the body of the swift there are hubs formed at each end, and these hubs are made in sections, which separate at the point where the spindles are inserted. The separate parts of the hubs are held together by a bolt and jam-nuts. In the hubs there are inserted spindles, and near the tops of these spindles are arranged cords from each spindle to its corresponding spindle on the opposite hub. These cords being thus arranged on the spindles hold the hanks of thread to be unwound. The bolt before referred to runs through the entire length of the body and hubs of the swift, keeping all the parts or sections together by means of the jam-nuts on the ends of the bolt.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a front view of my swift. Fig. 2 is a side view of half of one of the hubs. Fig. 3 is a front view of one of the hubs with the parts separated, showing the bolt and the sockets where the spindles are inserted, and also the weight-ring. Fig. 4 is an end view, showing the thread on the swift.

A′ indicates the body of the swift. A indicates the weight-ring, as seen in Figs. 1 and 3. B indicates the sectional hubs. *c c* indicate the spindles, which are inserted in the grooves c^2, made in each half of the hubs. *c′* indicates the cords which support the hanks of thread, as seen in Fig. 1. *d* indicates the bolt. *e* indicates the jam-nuts, as seen in Figs. 1, 3, and 4.

The operation of my swift is as follows: The hanks of thread to be unwound are placed on the cord *c′*, as shown in Fig. 4, the swift is put in position, generally in front of a winding-frame, and the end of the thread is taken to a receiving-spool, which is in motion. This receiving-spool draws the thread and rotates the swift during the unwinding operation. When the hank of thread is unwound the swift is taken away or supplied with additional thread. The weight-ring, being suitably weighted when required, prevents the swift from turning faster than required by the receiving-spool and keeps a proper tension on the thread.

When the spindles *c* are to be changed, or when a spindle has been broken and is to be replaced by a new one, the jam-nuts *e* on the bolt *d* are simply unscrewed and the parts or sections of the hubs B separated, and the change made. This is easily effected. Then the parts or sections are again drawn and kept together by screwing up the jam-nuts *e* on the bolt *d*.

Much inconvenience and loss of time, as well as much expense, are saved by the use of my improved swift.

What I claim as new, and desire to obtain by Letters Patent, is—

A swift composed of the body A′, weight-ring A, sectional hubs B, spindles *c*, cords *c′*, bolt *d*, and jam-nuts *e*, said sectional hubs being held together by said bolt and jam-nuts, substantially as and for the purpose set forth.

CORNELIUS C. E. VAN ALSTINE.

Witnesses:

JOHN INGLIS,

JOHN JACKSON SCOTT.