

(No Model.)

E. E. BRADLEY.
FLIER FOR SPINNING MACHINES.

No. 578,856.

Patented Mar. 16, 1897.

Fig. 1.

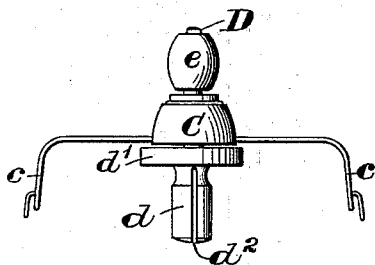
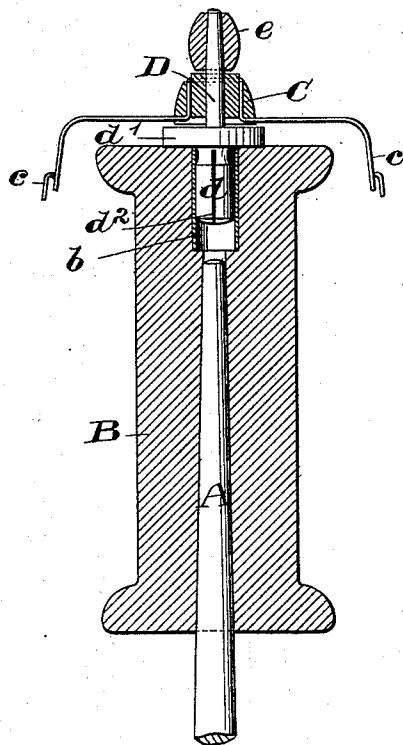


Fig. 2.



Witnesses:-

M. E. Fletcher
George Barry Jr.

Inventor
Edward E. Bradley
by attorneys
Brown & Howard

UNITED STATES PATENT OFFICE.

EDWARD E. BRADLEY, OF STONINGTON, CONNECTICUT.

FLIER FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 578,856, dated March 16, 1897.

Application filed August 29, 1886. Serial No. 604,286. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. BRADLEY, of Stonington, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Fliers for Spinning-Machines, of which the following is a specification.

This invention relates to such fliers as are used for spinning silk and which are free to turn independently of their spindles. Such a flier as now commonly constructed and applied is mounted independently of its bobbin upon the tip of its spindle, which projects through and beyond the bobbin, and it has to be detached from the spindle separately from the bobbin every time the bobbin is removed from the spindle for the purpose of tying up a broken thread.

The object of this invention is to keep the flier attached to the bobbin when and while the latter is removed from the spindle for that purpose and so leave the hand of the machine-attendant free to manipulate the thread.

I will first describe my invention with reference to the accompanying drawings and afterward point out its novelty in the claims.

Figure 1 represents a side view of a flier and the device by which it is attached to a bobbin. Fig. 2 represents in part a side view and in part a section of a spindle, a bobbin, and a flier attached to the bobbin according to my invention.

Similar letters of reference designate corresponding parts in both the figures.

A is the spindle, and B the bobbin.

C c c designate the flier, which may be of any construction suitable for such fliers, but is represented as of ordinary construction, consisting of a hub or eye C, which may be of wood, and attached arms c c, which may be of wire.

D d d' e designate the device by which the flier is attached to the bobbin.

The spindle A, upon which the bobbin B is placed in the usual manner, terminates upward at some distance below the top of the bobbin, and that part of the bore of the bobbin which is above the tip of the spindle and

which is intended to receive the flier-attaching device is represented as counterbored and lined with a thin metal bushing b, but this bushing may not be necessary. The flier-attaching device is represented as consisting principally of a supporting-peg the lower part d or stock of which is adapted to fit into and be self-retained in the bore of the bobbin and the upper part D of which is of a size to receive the eye of the flier and constitute a pivot upon which the flier may turn freely. The said peg is represented as provided with a collar d' below the pivot D to rest upon the top of the bobbin and keep the flier out of contact with the bobbin. The upper part of the pivot D, which is long enough to project some distance above the eye of the flier, is represented as tapered to receive upon it a tight but removable collar e, which serves to confine the flier to the pivot without impeding its free rotation thereon. In order to provide for the fitting of the stock d of the peg or pivot into the bobbin with sufficient tightness to retain itself therein firmly enough to attach the flier thereto, yet to provide for the flier being removed from the bobbin by hand without difficulty when necessary, the said stock is represented as made elastic by slitting it lengthwise, as shown at d². The whole of this flier-attaching device may be made of wood.

The flier attached to the bobbin as above described needs only to be removed therefrom when the latter has been emptied, and it is then attached to the top of a fresh bobbin. As the bobbin and flier are taken many times from the spindle while the bobbin is being emptied the convenience afforded and the saving of labor effected by keeping the flier attached to the bobbin at such times are very considerable.

What I claim as my invention is—

1. The combination with a spinning-flier, of a device for attaching the flier to a bobbin consisting of a peg adapted to be inserted into and self-retained in the bore of the bobbin and constituting a pivot for the flier, substantially as herein described.

2. The combination with a spinning-flier

of a supporting-pivot having an elastic stock to be inserted into a bobbin, substantially as herein described.

3. The combination with a spinning-flier
5 of a device for attaching the same to a bobbin, consisting of a pivot having an elastic stock for insertion into the bobbin and having also

a collar for keeping the flier out of contact with the bobbin, substantially as herein described.

EDWARD E. BRADLEY.

Witnesses:

J. F. JOSEPH,

WM. A. GILBERT.