

(No Model.)

E. W. SERRELL, Jr.

DEVICE FOR REELING SILK FROM THE COCOON.

No. 317,222.

Patented May 5, 1885.

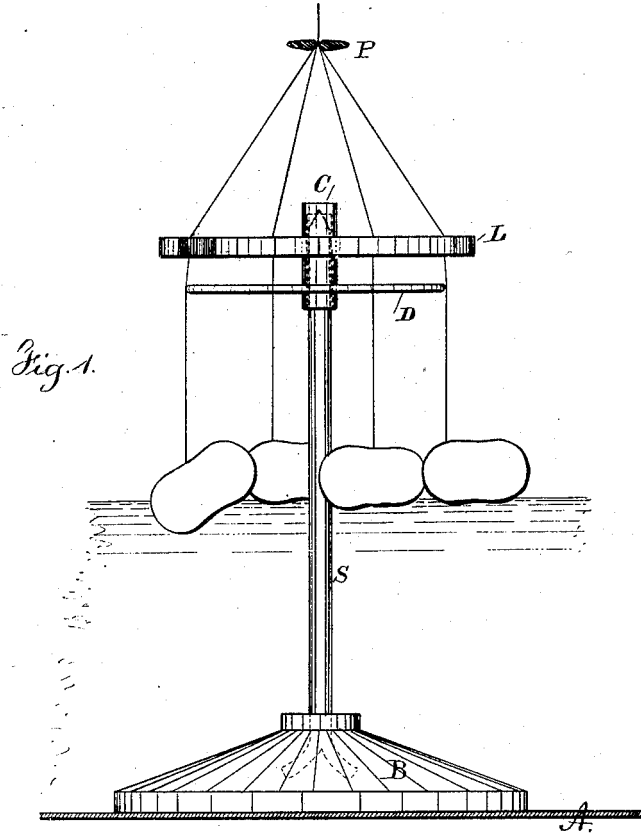
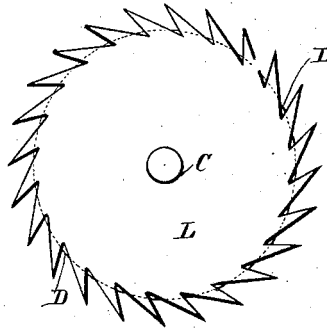


Fig. 2.



Witnesses

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Inventor

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att'y

UNITED STATES PATENT OFFICE.

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DEVICE FOR REELING SILK FROM THE COCOON.

SPECIFICATION forming part of Letters Patent No. 317,222, dated May 5, 1885.

Application filed February 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. SERRELL, Jr., of the city, county, and State of New York, United States of America, but temporarily residing at Chabeuil, in the Department of Drôme, Republic of France, have invented a certain new and useful Improvement in Devices for Reeling Silk from the Cocoon, of which the following is a specification.

In silk-reeling machinery it is usual to pass several of the filaments from the cocoons through a perforated or notched guide usually known as the "agate," on account of being made of a hard substance, such as agate. In this the filaments come together and adhere to each other.

My invention consists in a device for preventing lumps or bunches of filaments and also the chrysalides in expended cocoons from jumping out of the water of the basins and passing into the thread as it runs through an agate or filament-attaching device. For this purpose I employ a disk or surface of fibrous material, preferably of leather, interposed between the water of a basin and the agate or filament-attaching device in such a manner that each filament of cocoon passes over the edge of said disk on its way from the cocoon to the thread. I prefer to make the device in the form of a mobile disk, of leather, with serrated edges, as shown in the drawings, and for the purpose of preventing the filaments from getting cut at the bases of the teeth or serrations of the disk I prefer to employ a circular guide, as shown in the drawings.

Figure 1 is a side elevation of the circular guide and its support and the agate and a part of the water-holding vessel in section, and Fig. 2 is a plan of the disk and circular guide.

The disk of leather L, as shown, is carried upon a center or cap, C, in such a manner as to be free to rotate or oscillate around the support S, which support S has a base, B, resting upon the bottom of the vessel A, so as to be in the water. The circular guide D is provided for the purpose of preventing the filament-coils of the cocoon from passing to the bases of the teeth upon the disk L, as it has been found

in practice that when this occurs the filament is apt to become broken.

The operation of the device is extremely simple. Each cocoon filament, in passing from the cocoon to the agate or filament-attaching device P, is drawn over a surface of leather, and this surface presents little or no obstruction to the passage of the filament as long as the latter is clean or free from bunches or entangled masses, but any small imperfections which present themselves are caught in the fibrous leather and prevented from passing. The disk, being free to oscillate on its bearing, yields to any sudden strain brought upon the filaments, and does not break them, as it would do if fixed, and bunches of silk are held until the filament is pulled off or else the filament is broken.

I am aware that disks of metal, porcelain, and other substances not of a fibrous nature have been employed between the cocoons and agate to prevent the passage of expended cocoons or bunches into the thread, and therefore do not claim such disks, broadly. I am also aware that cleaning devices consisting of surfaces covered with felt, leather, &c., are employed in throwing silk to catch bunches and imperfections existing in the thread. I do not claim such as my invention; but

What I do claim, and desire to secure by Letters Patent, is—

1. The combination, with the water-vessel and agate for the filament, of a guide of fibrous material for the silk in its passage from the cocoon to the agate for catching imperfections, substantially in the manner and for the purpose hereinbefore set forth.

2. The combination, with the water-vessel and agate for the filament, of a notched guide of fibrous material and a plain guide for insuring the proper positions of the filaments, substantially in the manner and for the purpose hereinbefore set forth.

EDW. W. SERRELL, JR.

Witnesses:

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CHARLES T. THIRION.