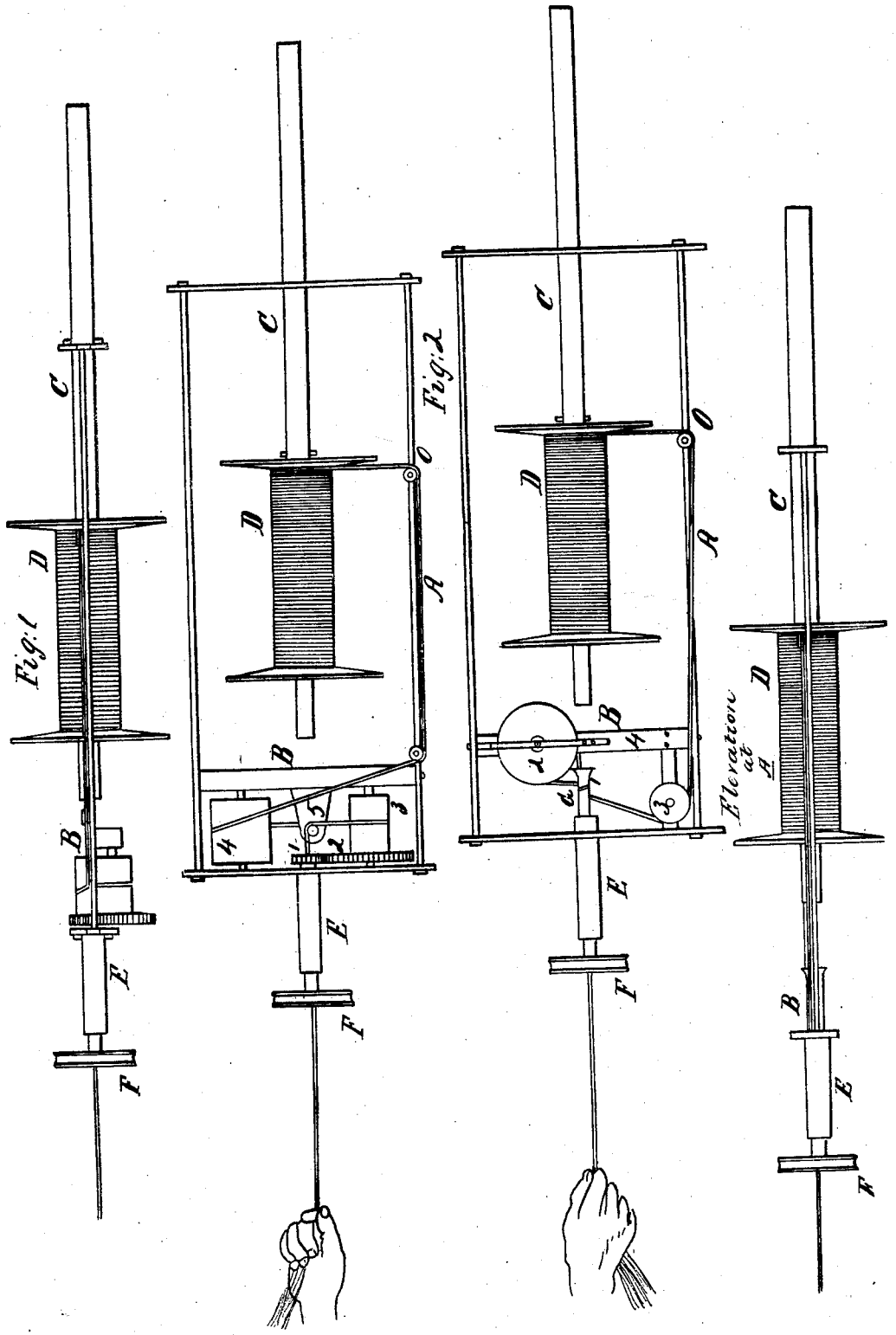
# Evans & Churchill.

## Spinning Mach.

No. 948. Patented Sep. 26, 1838.



# UNITED STATES PATENT OFFICE.

HENRY EVANS AND BARNABAS CHURCHILL, OF PLYMOUTH, MASSACHUSETTS.

## FLIER FOR SPINNING FLAX, HEMP, MANILA, &c.

Specification of Letters Patent No. 948, dated September 26, 1838.

*To all whom it may concern:*

Be it known that we, HENRY EVANS and BARNABAS CHURCHILL, both of Plymouth, in the county of Plymouth and State of Massachusetts, have invented new and useful Improvements for Spinning by Hand in a Stationary Position all Kinds of Hemp, Flax, and Manila; and we do hereby declare that the following is a full and exact description.

Our invention is two regulators for spinning at a given rate, introduced within the flier of a spinning machine as shown in the accompanying drawing.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation.

Regulator B Figure 1, consists of five parts combined, numbered from 1 to 5. Nos. 1 and 2 is two iron cogs. Nos. 3 and 4 is two wood drums and belt. No. 5 is a cross bar or support for one end of drum shafts—the other end (of drum shafts) has a bearing in the head of the flier. Cog No. 1, is stationary on the bearing E or driven by pulley F, through the bearing E. Cog No. 2 is on the shaft with drum No. 3, and geared to cog No. 1. A leather or indiarubber belt is applied to the two drums which gives motion to drum No. 4 and holds the yarn from rendering. The size of drum No. 3, gives the required length of yarn at each revolution of the flier when cog No. 1 is stationary—but when cog No. 1 is driven through the bearing E, the given rate is then determined by pulley F. The several parts thus arranged the course of the yarn will be as follows: The yarn passes from the spinner through the bearing E, over a small sheave on No. 5, passing under the belt over the two drums to flier O, thence to bobbin D, on spindle C. It is then taken up by friction applied to spindle C. See at drawing, Fig. 1.

Regulator B Fig. 2, consists of four parts combined, numbered from 1 to 4. No. 1 is an iron or steel spindle G, in the bearing E, or driven by pulley F through the bearing E. Nos. 2 and 3 is two iron or wood sheaves which conduct the yarn as hereafter described. No. 4 a bar secured with screws to each arm of flier O, to support the two sheaves. The size of spindle G, when stationary determines the rate of turn in the yarn—also the length produced at each revolution of the flier O, but when spindle G is driven through the bearing E, the given rate is then determined by the pulley F. The several parts being thus arranged the course of the yarn will be as follows: The yarn passes from the spinner through the bearing E and spindle G, over sheave No. 2, passing around spindle G, over sheave No. 3, to flier O, thence to bobbin D on spindle C. It is then taken up by friction applied to spindle C. When the flier O is in motion the large sheave No. 2 puts the yarn on spindle G, while small sheave No. 3, takes it off—sufficient friction being applied to spindle C, which regulates the motion of bobbin D. See at drawing Fig. 2.

What we claim as our invention and wish to secure by Letters Patent is—

The application of the two regulators B, B, within the flier of a spinning machine as herein described, for regulating the spinning of all kinds of hemp, flax and manila.

HENRY EVANS.
BARNABAS CHURCHILL.

Witnesses:
ZABEN OLNEY,
JOSIAH T. TRING.