

(No Model.)

C. G. LEVISON.

FLY BOOK.

No. 333,239.

Patented Dec. 29, 1885.

Fig. 2.

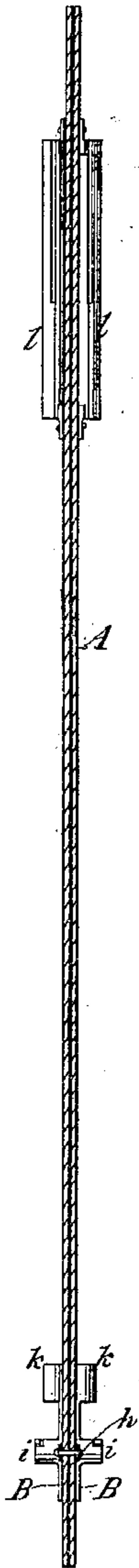


Fig. 1.

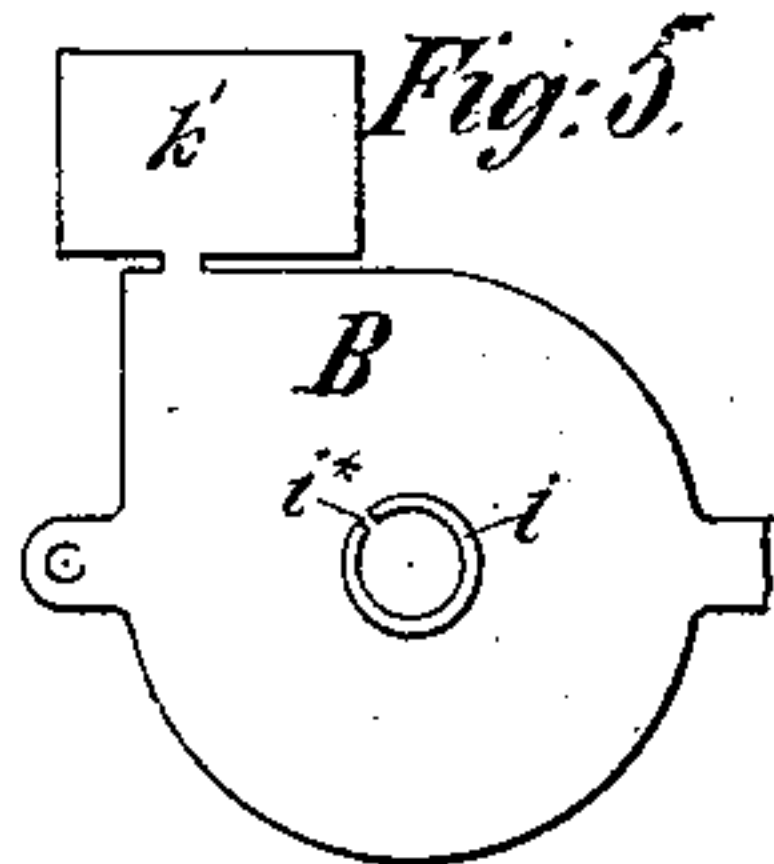
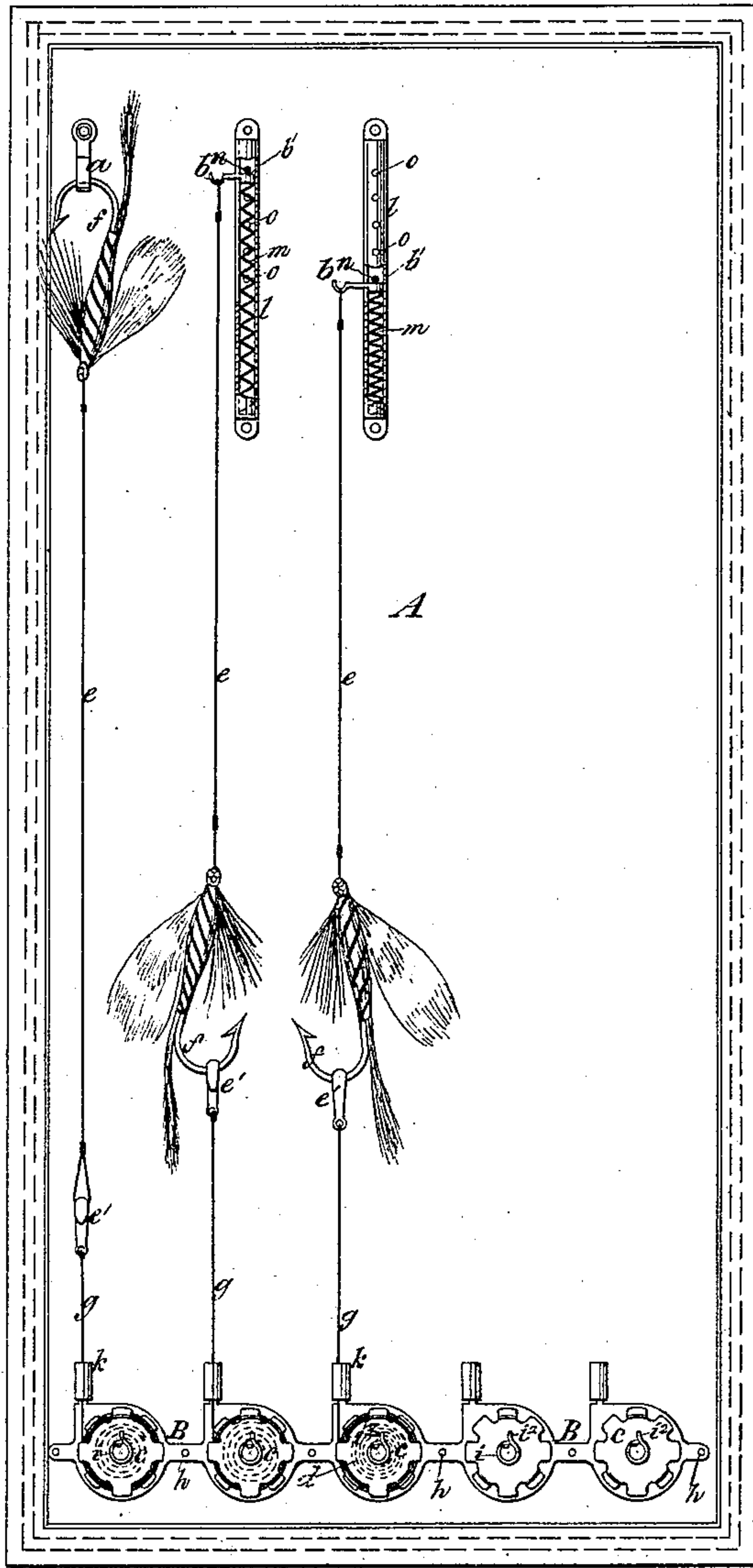


Fig. 5. Fig. 6.

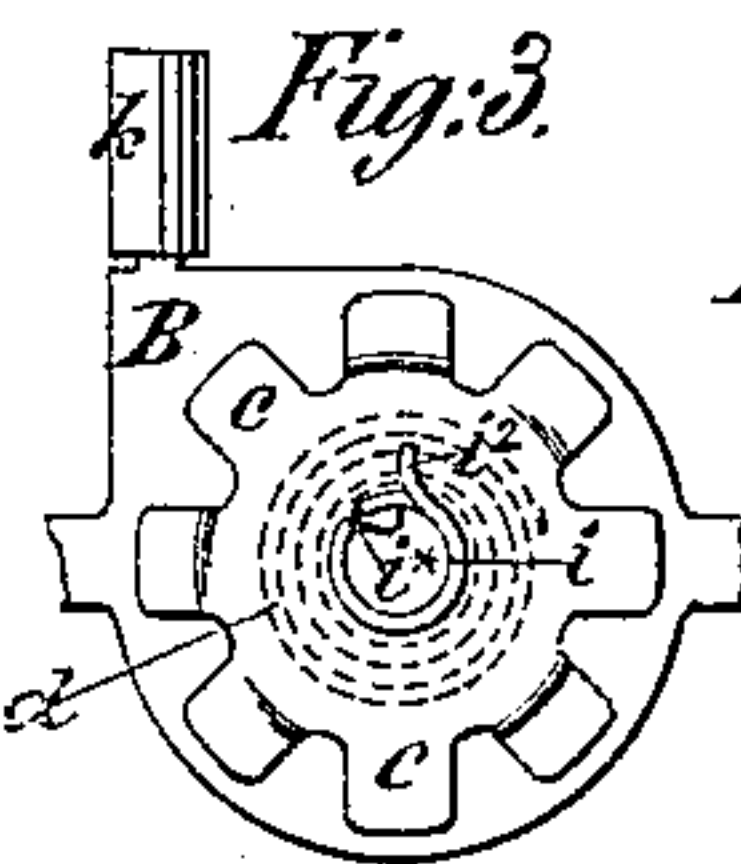
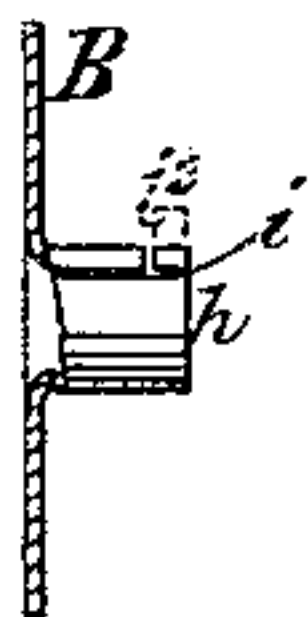
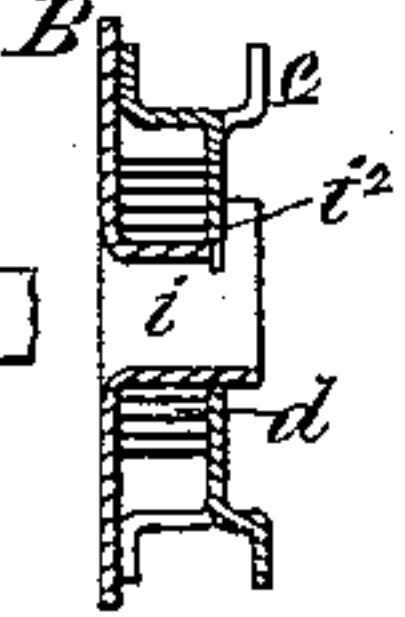


Fig. 3.

Fig. 4.



Witnesses:
Romy
Matthew Pollock

Inventor:
C. G. Levison
By his attorney
Brown & Hall

UNITED STATES PATENT OFFICE.

CHANCELLOR G. LEVISON, OF BROOKLYN, NEW YORK, ASSIGNOR TO
THOMAS B. MILLS, OF SAME PLACE.

FLY-BOOK.

SPECIFICATION forming part of Letters Patent No. 333,239, dated December 29, 1885.

Application filed February 24, 1885. Serial No. 156,933. (No model.)

To all whom it may concern:

Be it known that I, CHANCELLOR G. LEVISON, of the city of Brooklyn, in the county of Kings and State of New York, have invented
5 a new and useful Improvement in Fly-Books, of which the following is a specification, reference being had to the accompanying drawings.

The objects of my invention are to provide
10 for retaining long snells and holding them taut in a comparatively short fly-book, and also to provide a sufficient range of spring to accommodate and retain taut in the same book
15 snells varying very considerably in length; and to these ends my invention consists, principally, in the combination, with the leaf of a fly-book having fixed or adjustable hooks or
20 holders at or near one end, for engaging with fly-hooks or snells, of pulleys at or near the other end, retaining-cords wound on the said
25 pulleys, and provided with hooks for engaging with snells or fly-hooks, and volute springs applied to the said pulleys, for producing the winding up and tautening of the retaining-
30 cords, as hereinafter more fully described; also, in certain details of construction hereinafter fully explained and claimed.

Figure 1 is a face view of a leaf of a fly-book illustrating my invention. Fig. 2 is a
30 longitudinal section of the same. Fig. 3 is a face view, on an enlarged scale, of one of the spring retaining-pulleys. Fig. 4 is a transverse section corresponding with Fig. 3. Fig.
35 5 is a face view of a portion of the plate or blank of which the retaining-pulley frame or holder is made. Fig. 6 is a transverse section corresponding with Fig. 5.

Similar letters of reference indicate corresponding parts in the several figures.

40 A is the leaf of the fly-book, to the upper part of which is to be attached a series of holders, which may consist of fixed hooks *a* or of adjustable hooks *b b*, which will be hereinafter described.

45 To the lower part of the leaf A are attached the retainers, consisting of pulleys *c c*, cords *g g*, winding on said pulleys, and volute springs *d d*, which are so applied to the said pulleys as always to exert a tendency to turn them in
50 a direction to wind up the said cords, and so keep extended the snells *ee* of the fly-hooks *ff*,

which are placed in the book. The retainer-cords are furnished with hooks *e' e'*, to which may be hooked either the fly-hooks or the farther ends of the snells, as shown in Fig. 1. 55

The retainer-pulleys may be of various construction and attached to the leaf of the fly-book in various ways; but in the example represented all the pulleys for one side of the book are represented as attached to a single
60 plate, B, of metal, in which, at proper intervals for the centers of the pulleys, holes are punched, and the margins of the said holes are struck up in tubular form, as shown at *i i*, to form fixed axles for the pulleys to turn upon. 65
One of these plates and its attached pulleys being placed on each side of the leaf, as shown in Fig. 2, the two are secured to the book by rivets *h h*, passing through them both and through the book. The two plates so applied
70 serve not only to hold the two sets of retainers—one on each page or side of the leaf—but to stiffen the leaf and give durability to the book.

The retainer-pulleys may be variously constructed. Those represented are struck up
75 out of sheet metal. One end of the winding-spring *d* of each pulley is secured in a notch provided in its hollow axle *i i*, as shown at *i** in Fig. 3, and the other end is fastened to the
80 pulley. The pulley is represented as being secured to the tubular axle *i* by having a portion of the metal turned out from the slit *i**, as shown at *i²* in Figs. 3 and 4, and dotted in Fig. 6. 85

The plate B is provided with a tubular
85 guide, *k*, for each retainer-cord, the said guide being produced by turning into tubular form a projecting portion, which is provided on the upper edge of the plate, as shown at *k'* in
90 Fig. 5.

A retainer with a pulley and a volute winding-spring, as described, provides for a much longer range of spring than could be obtained with a helically-coiled spring without making
95 the latter so long as not only to be itself unmanageable, but to involve making the leaf of the book of inconvenient length.

The adjustable hooks *b b* (shown in Fig. 1) are attached to small disks or plungers *b' b'*,
100 working in tubes *l l*, secured to the leaf of the book, the said tubes being slotted longitudi-

nally in the upper portions of their length for the passage of the said hooks. Below each disk *b'* in its respective tube is a helical spring, *m*, which tends to press the disk and its hook upward as far as permitted by an adjustable stop-pin, *n*, which is inserted through either of a series of holes, *o o*, provided in the tube. By placing the hook *b* and its disk *b'* higher or lower in the tube and inserting the stop-pin *n* in the next hole *o* above it, the hook is adapted for a longer or shorter snell, thus providing for properly retaining in the same book snells of greater differences of length than could be provided for by any practicable length of range of the retaining-cord *g*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the leaf of a fly-book, having at one end hooks or holders for engaging with the fly-hooks or snells, of pulleys at the other end, retainer-cords winding on said pulleys, and having hooks at their ends for engaging with snells or fly-hooks, and volute springs applied to the said pulleys to turn them in a direction to wind up the said cords and to hold snells stretched or extended between the hooks or holders and the retainer-cords, substantially as herein described.

2. The combination, with the leaf of a fly-book, having at one end hooks or holders for engaging with fly-hooks or snells, of two plates, *B*, placed opposite each other on each side of the leaf at the other end thereof, and secured to each other and to the leaf by riveting through the whole, pulleys journaled to said plates, retainer-cords winding on said pulleys, and having hooks at their ends for engaging with snells or fly-hooks, and volute springs applied to said pulleys to turn them in a direction to wind up said cords and to hold the snells stretched or extended between the hooks or holders and the retainer-cords, substantially as herein described.

3. The combination, with the leaf of a fly-book, of a tube, *l*, provided with a series of holes, *o o*, a hook, *b*, adjustable in said tube, a spiral spring applied to the said hook within the said tube, and a stop-pin adjustable in the said holes, all substantially as herein described.

CHANCELLOR G. LEVISON.

Witnesses:

FREDK. HAYNES,
MATTHEW POLLOCK.