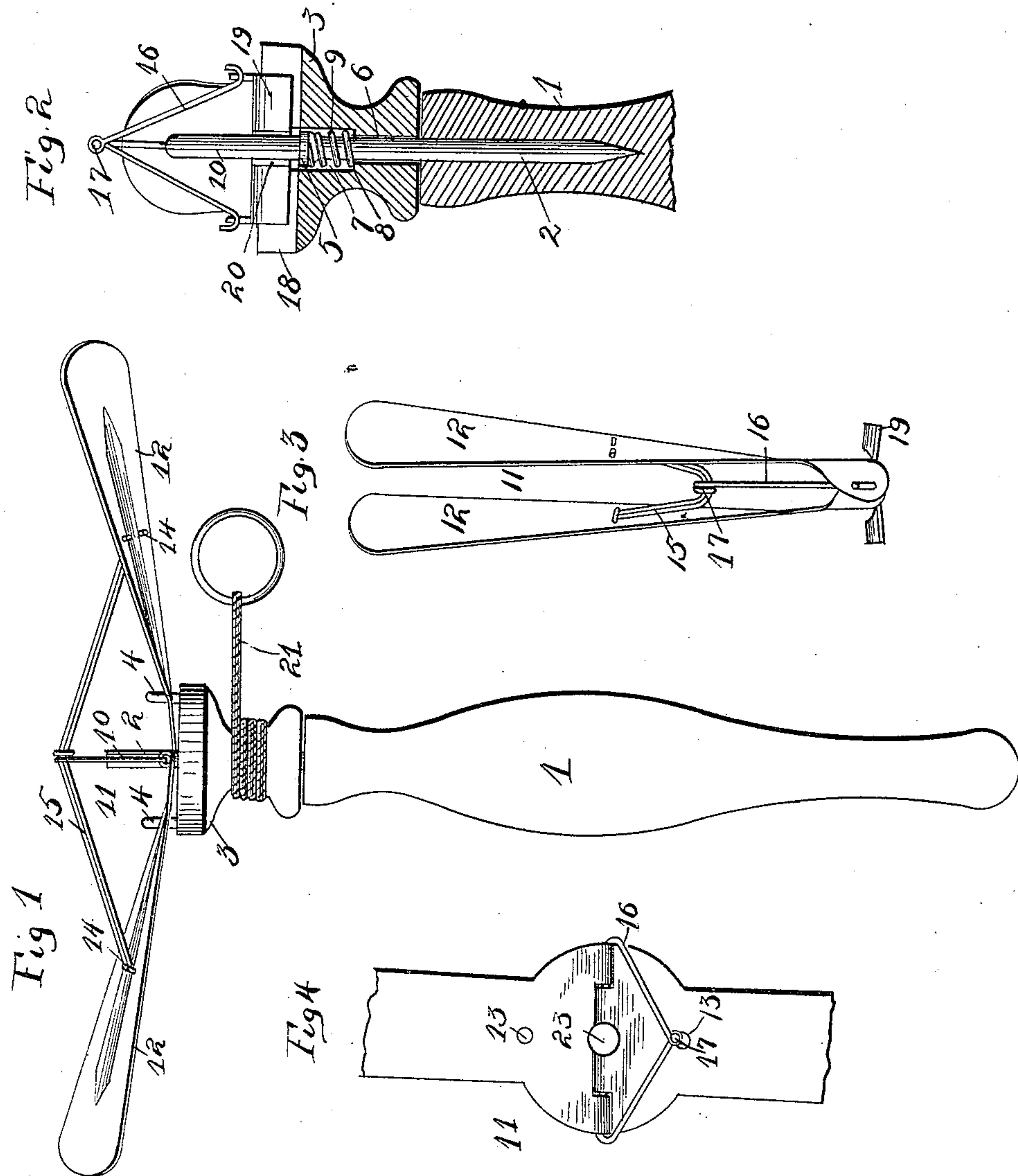


(No Model.)

E. R. LOCHMANN.
FLYING TOY.

No. 481,182.

Patented Aug. 23, 1892.



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FLYING TOY.

SPECIFICATION forming part of Letters Patent No. 481,182, dated August 23, 1892.

Application filed April 12, 1892. Serial No. 428,814. (No model.)

To all whom it may concern:

Be it known that I, EMIL R. LOCHMANN, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Flying Toys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in flying toys; and it consists in the novel arrangement and combination of parts, as will be hereinafter more fully described, and designated in the claims.

In the drawings, Figure 1 is a side elevation of my complete invention. Fig. 2 is a longitudinal section of the modification, the parts broken away. Fig. 3 is a detail view of the flier, as illustrated in Fig. 2, folded up, the position that the same assumes when it has been released from the handle, flies off, and starts to fall. Fig. 4 is a top plan view of the flier, as illustrated in Fig. 1.

I will give a description of the operation of my invention in connection with the mechanical description thereof.

Referring to the drawings, 1 indicates a handle of any suitable and desired form and made of any suitable and desirable material. Firmly secured in said handle 1 is a pin or stud 2, and rotatably mounted on said pin or stud 2 is a spool 3 of the construction as illustrated in Figs. 1 and 2. Securely fastened in said spool 3 are pins 4, for the purpose as hereinafter more fully described. Said pin or stud 2 is provided with a shoulder 5 to prevent the spool 3 from running off of said pin 2. Said spool 3 is provided with a central bore 6, in which the pin 2 is loosely inserted, and with a bore 7 of larger diameter, thus forming a shoulder 8. Mounted on said pin 2 and interposed between shoulder 8 and the collar 5 is a spiral spring 9, the object of which will be more fully hereinafter described. It can be readily perceived by referring to Figs. 1 and 2 that the pin 2 projects beyond the spool 3, thus forming a projection 10, for the purpose more fully hereinafter described.

Having described the mechanism for imparting to the flier a sailing or flying motion, I will now describe the flier itself. 11 indicates the flier, which is composed of two sec-

tions 12, the inner ends of which are hinged together in any suitable and mechanical manner. Said sections are provided with perforations 13, in which the pins 4 are adapted to be loosely inserted, and with staples 14, in which is secured an elastic cord 15, pivotally mounted in the region of the hinge. Uniting said sections 12 is a triangular standard 16, provided with an eye 17, through which eye the elastic cord 15 is inserted and mounted.

In Fig. 2 I show a different construction of the spool 3, which is shown provided with a transverse groove 18. Said spool is to be used in connection with the flier, as illustrated in Fig. 3. The flier, as illustrated in Fig. 3, has two sections hinged together, as the previously-described flier, but each of said sections is provided with a flange 19, and each of said flanges 19 is provided with a semicircular depression 20, and when said flier, as illustrated in Fig. 3, or more specifically the sections of the same, is straightened out in a right line the semicircular depressions 20 coincide and constitute a hole adapted for the insertion of the projection 10 of the pin 2, and when the flier is in this position the flanges 19 fit into the transverse groove 18. In other words, the flier, as illustrated in Figs. 2 and 3, is secured to the spool, as illustrated in Fig. 2, by inserting the flanges 19 into the transverse groove 18, and also by inserting the projection 10 of the pin 2 between the flanges 19.

It can be readily perceived from the foregoing description that the flier is bisectonal, the sections whereof being hinged together in any suitable and mechanical manner, and said sections are folded and drawn together when the flier starts to descend by means of the elastic cord 15.

21 indicates a cord, which is adapted to be wound around the spool 3, and when the same is given a sudden jerk or pull a rotary motion will be imparted to said spool, and the rotary motion of said spool 3 will impart a flying or sailing motion to the flier 11 by centrifugal action, and when said flier 11 has reached the ascent incident to the motion imparted to it by the rotation of the spool 3 the elastic cord 15 will contract the sections 12 toward each other, as illustrated in Fig. 3, and

in such a position the flier will descend almost vertically and light adjacent to the operator, instead of sailing off with indefinite distance, as would be the case if the sections of the flier were not bolted upon each other.

The operation is as follows: The parts are made and put together as described, and the initiatory step for the operation is illustrated in Fig. 1. By pulling on the cord 21 rapidly a rotating motion is imparted to the spool 3 and the rotating motion to the flier 11. The object of the spiral spring 9 is to effect a yielding jerk or pressure of the spool 3, it being conceived that the force applied to the string 21 is from the handle 1.

The flier 11 is provided with a perforation 23, in which the pin 2 is inserted in the operation of the device.

Having fully described my invention, what I claim is—

1. A flying toy having a bisectonal flier the sections whereof are hinged together and means for imparting to said flier a rotating and consequent sailing motion, substantially as set forth.

2. A flying toy having a bisectonal flier the sections whereof are hinged together, a rotating spool for imparting to said flier a sailing motion, and means for communicating a rotary motion to said spool, substantially as set forth.

3. A flying toy having a bisectonal flier the sections whereof are hinged together, an

elastic cord passing from section to section and secured to the same, a rotating spool for imparting to said flier a sailing motion, and a cord for rotating said spool, substantially as set forth.

4. A flying toy comprising a manipulating-handle, a pin or stud firmly secured in one end of the handle and projecting from the same, a spool revolvably mounted on said pin or stud and fixed against detachment therefrom, and a bisectonal flier loosely mounted on said spool, the sections of said flier being hinged together, substantially as and for the purpose set forth.

5. A flying toy comprising a manipulating-handle, a pin or stud firmly secured in one end of the handle and projecting from the same, a rotating spool mounted on said pin or stud and non-detachable therefrom, a bisectonal flier mounted on said spool, the sections of said flier being hinged together, a pivoted triangular standard carried by said flier, and an elastic cord supported by said standard and secured to said flier for drawing the sections of the same together to facilitate the rapid descent of the same, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EMIL R. LOCHMANN.

Witnesses:

ED. E. LONGAN,
ALFRED A. EICKS.