(No Model.)

J. STURROCK & G. D. MACDOUGALD.

SPINNING BAIT.

No. 430,491. Patented June 17, 1890.

Fig. 1.

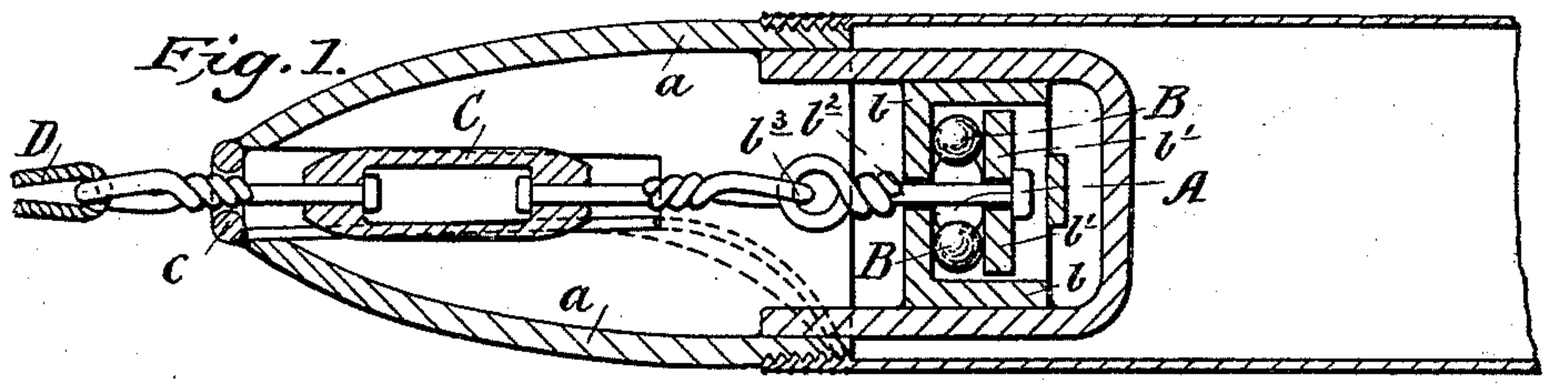


Fig. 2.

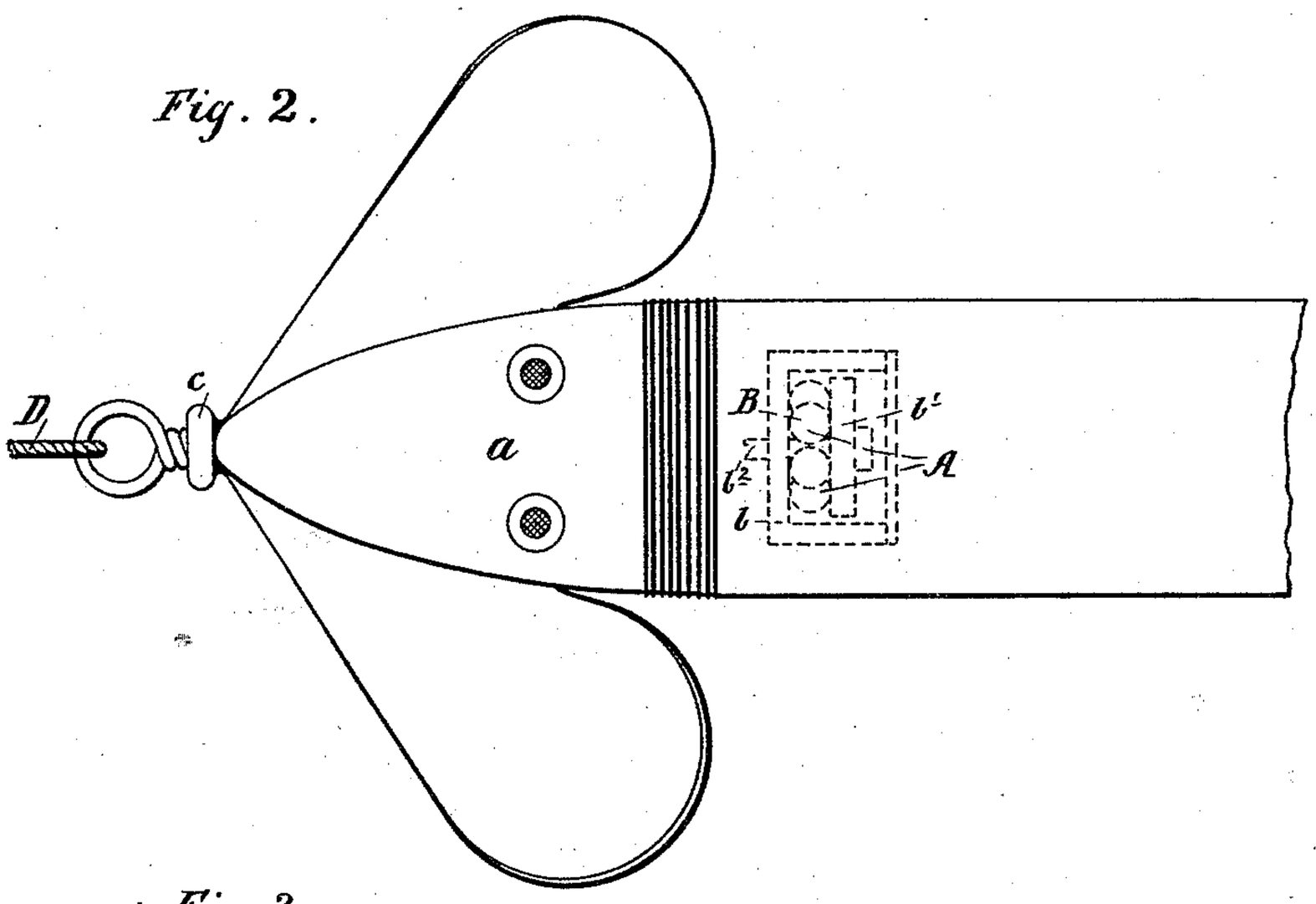


Fig. 3.

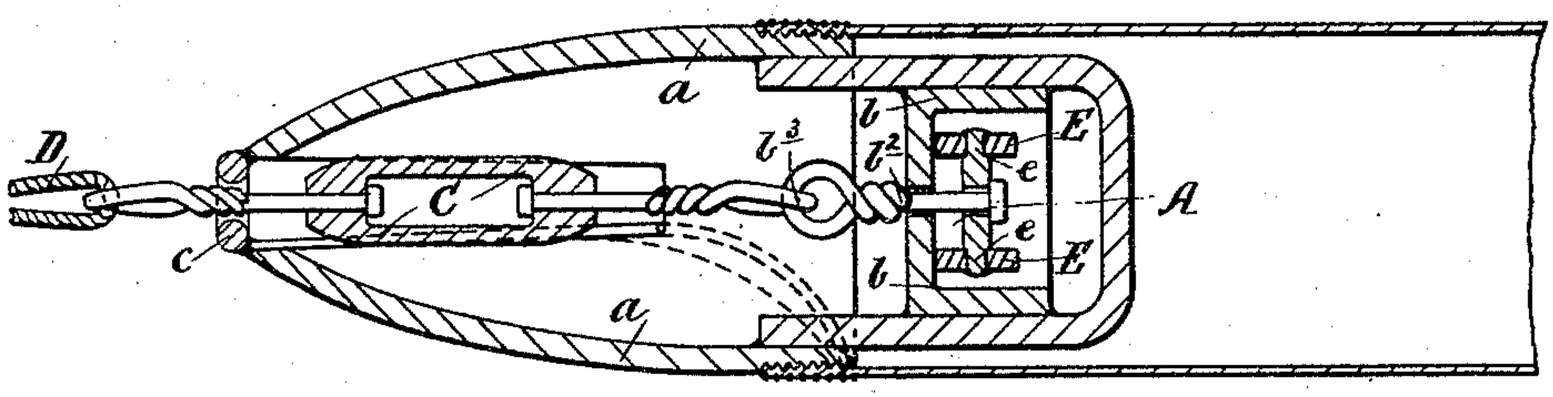
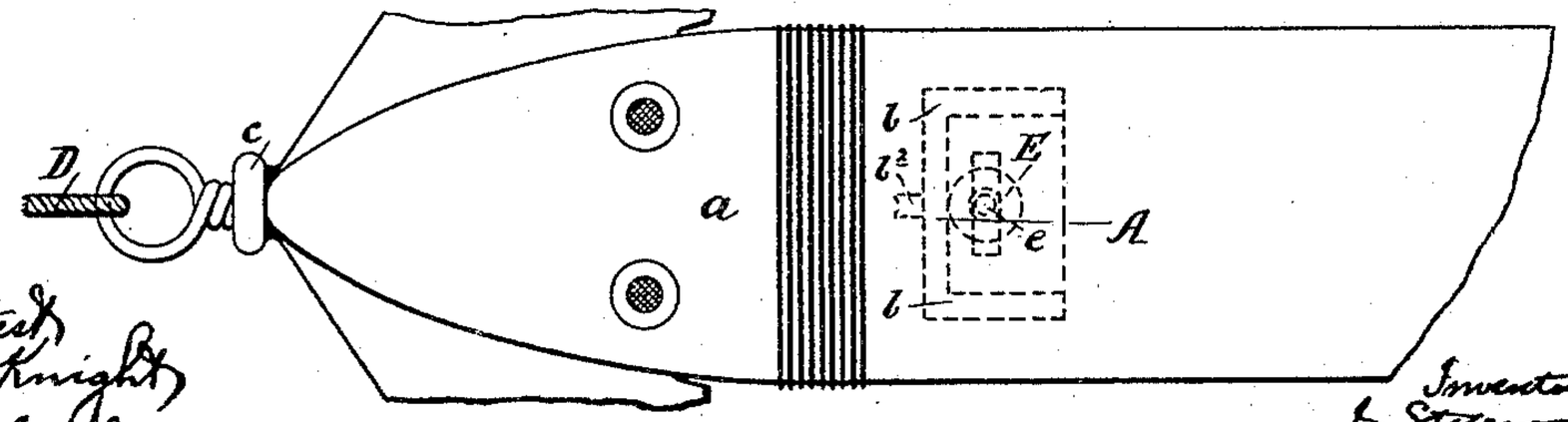


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES STURROCK AND GEORGE DUNCAN MACDOUGALD, OF DUNDEE, ASSIGNORS TO MORRIS CARSWELL, OF GLASGOW, SCOTLAND.

SPINNING BAIT.

SPECIFICATION forming part of Letters Patent No. 430,491, dated June 17, 1890.

Application filed February 25, 1890. Serial No. 341,660. (No model.)

To all whom it may concern:

Be it known that we, JAMES STURROCK, of the Dundee Advertiser Office, and GEORGE DUNCAN MACDOUGALD, public analyst, both of Dundee, in the county of Farfar, Scotland, have invented Improvements in Spinning Baits, (for which we have applied for British Letters Patent on the 4th day of November, 1889, No. 17,450,) of which the following is a specification.

This invention, which relates to improvements in the spinning of artificial baits, has for its object the facilitating of the rapid spinning of the bait, and to minimize the tendency to twisting in a fishing-line when attached to an artificial bait, such as a phantom minnow. The usual method of spinning the artificial bait is to attach a number of common swivels in a line, which, from a variety of causes, often do not work smoothly and break the continuity of the line, besides which the working of these swivels on a gut or other line in smooth water frightens the fish. We not only obviate the necessity of a swivel-line, but we increase the spinning-power of the bait by mounting an anti-friction apparatus close to or upon the bait; or if a hollow bait is used—such as a phantom minnow—we place the anti-friction apparatus within the head or body of the minnow. The anti-friction apparatus consists of rollers, disks, or balls, which act against a plain or grooved surface or surfaces. The rollers, disks, or balls may be arranged to act similarly to roller or ball bearings, where the rollers, disks, or balls are under compression, or each roller, disk, or ball may run upon an axle of its own.

The said drawings are upon an enlarged scale.

Figure 1 is a sectional elevation, and Fig. 2 a plan, of our anti-friction apparatus as applied within the head of a phantom minnow. Fig. 3 is a sectional elevation, and Fig. 4 a part plan, of a modification of the same.

Referring to Figs. 1 and 2, we mount our anti-friction apparatus A inside the head of the minnow, as shown, the said anti-friction apparatus A consisting in providing a number of balls B, which work inside a small cylinder *b*, mounted to the head *a* or body of the minnow, and which is provided with a disk or piston *b'*, the said balls B working between the inside surfaces (which may be either plain, as shown, or grooved) of the cylinder *b* and disk *b'*, after the same manner as ordinary compressed ball-bearings. The disk *b'* is provided with a stem b^2, which passes through a hole formed in the cylinder *b'*, and may, if desired, be attached at b^3 to the one end of an ordinary swivel C, the other end of which passes through the nose-ring *c* and is attached to the end of the ring D, or the said stem b^2 may be caused to pass straight out through the nose-ring *c* and be itself attached to the line D.

Referring to Figs. 3 and 4, the anti-friction apparatus here shown is a modification of the foregoing, in which we mount a number of rollers or disks E in lieu of the balls B, the said rollers or disks E being each mounted on an axle *e*, which is formed on or fixed to the end of the stem b^2, which is formed as a square, oblong, hexagon or other convenient shape, according to the number of rollers or disks used, the other parts (which are similarly lettered) and action being as hereinbefore described with reference to Figs. 1 and 2.

We claim—

1. In spinning baits, the combination of the spinning body, the stem to which the line is to be attached, and the anti-friction device, substantially as described, between the bearing-surfaces of the body and stem, as and for the purpose explained.

2. In spinning baits, the combination of the spinning body, the stem to which the line is to be attached, the bearing-surfaces on the stem and body, respectively, and the roll-

ing devices located between the said bearing-surfaces, as and for the purpose explained.

3. In spinning baits, the combination of the spinning body, the stem to which the line is to be attached, and the anti-friction connection consisting of the cylinder or housing, the disk or piston, and the interposed rolling devices, all substantially as and for the purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES STURROCK.
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Witnesses:
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