March 4, 1941. A. L. HAYLEY, JR 2,234,077

FROG-SIMULATING FISH LURE

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Fig. 1

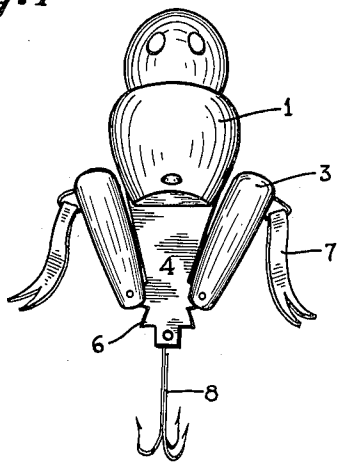


Fig. 2

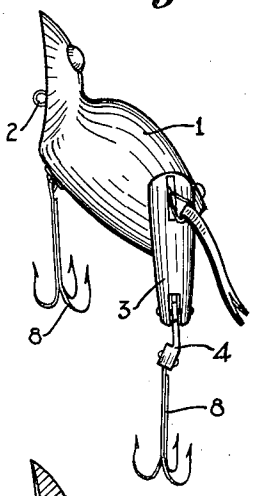


Fig. 4

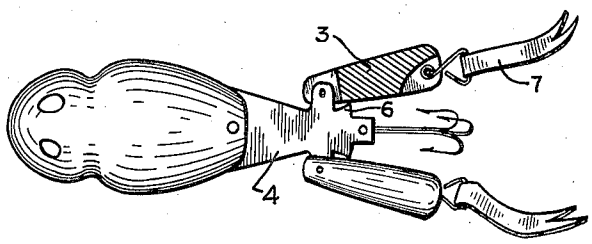


Fig. 3

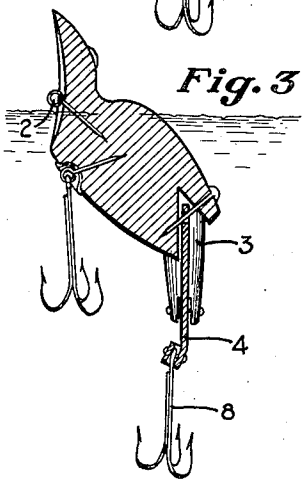
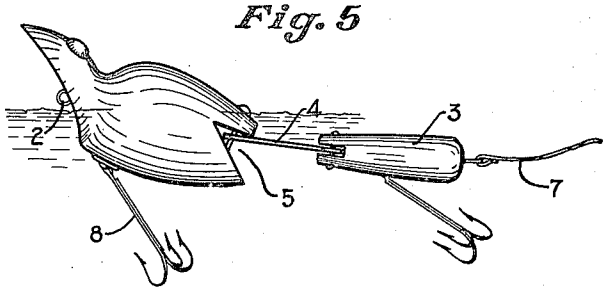


Fig. 5



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FROG-SIMULATING FISH LURE

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7 Claims. (Cl. 43—42)

This invention relates to frog-simulating fish lures or artificial baits and, more particularly, to those equipped with movable legs.

In swimming through water, the legs of a frog move between retracted and extended positions. In the retracted position, the thighs of the legs incline forwardly upward adjacent the body, while in the extended position they project horizontally rearward away from the body. Frog-simulating lures equipped with movable legs have heretofore been provided. The legs, however, are arranged for movement in the horizontal plane only; hence the lures do not accurately simulate the actual leg movements of a frog.

The principal object of this invention is to provide a frog-simulating lure equipped with legs which are arranged for movement between inclined retracted and horizontally extended positions, and which move between such positions in a realistic or lifelike manner.

Heretofore, most of the frog-simulating lures, which have been provided with legs arranged for movement between retracted and extended positions, rely upon water resistance to move the legs to one position and embody some form of delicate spring mechanism to return the legs to the other position. These spring mechanisms have rendered the lures unsatisfactory because: they must be extremely delicate in order to minimize the degree of water resistance necessary to effect leg movement; and, being delicate, they are difficult to keep in working order. Furthermore, even delicate springs require appreciable water resistance to overcome their spring action; hence often entirely prevent, or substantially restrict, leg motion when the lure is being used. Finally, the use of springs not only complicates any provision which might be made for leg movement in more than one plane but also increases the manufacturing cost of the lure.

Another important object of this invention is to provide an inexpensive lure having an extremely simple, yet sturdy leg assembly, the legs of which have buoyant properties causing them to assume an upwardly inclined retracted position when the lure is stationary while permitting them to be moved by water resistance to the horizontally extended position upon forward motion of the lure through water. An arrangement of this character renders unnecessary the use of auxiliary springs or other like mechanism.

The invention is illustrated in the accompanying drawing wherein:

Figure 1 is a rear view of my improved lure as it appears with its legs in the inclined retracted position when stationary in water;

Figures 2 and 3 are side and longitudinal vertical sectional views of the lure with its legs in the retracted position; and

Figures 4 and 5 are top plan and side elevational views of the same lure with its legs in the extended position, one leg member, in Figure 4, being partly broken for the sake of clearness.

The lure illustrated comprises a body portion 1 composed of a plastic, a well-seasoned wood or other buoyant material, and fashioned to simulate the shape of the head and body of a frog. The body of the lure is provided with an eye 2 for attachment to a fishing line. The area adjacent the eye 2 may be concavely recessed, if desired, for well-known purposes. The lure further includes buoyant leg members 3, which simulate the thighs of a frog, and means pivotally connecting the thigh members 3 to the body 1 of the lure.

In accordance with my invention, the pivotal leg-connecting means is arranged to permit the legs to swing about a pivot upwardly, as a result of their buoyancy, to the retracted position when the lure is stationary, and rearwardly, as a result of water resistance, to the extended position when the lure is moved forwardly through water. This may be accomplished by connecting the legs to the body in various ways as by means of a swivel joint which, when the lure is stationary, is located sufficiently below the normal water line of the lure to render the buoyant properties of the thighs 3 effective in causing them to swing upwardly into the retracted position shown in Figures 1 to 3 inclusive. Preferably, the upward and the rearward movements of the legs are accomplished by pivotally mounting the legs on a flap which normally (i. e. when the lure is stationary) holds the legs in a vertical plane where their buoyant properties are effective in causing them to assume and maintain an upwardly extending position, and which, when the lure is moved forwardly through water, bodily carries the legs rearwardly and upwardly more or less into a horizontal plane where water resistance becomes effective to swing the legs to the rearwardly extending position.

Accordingly, a flap 4 is pivotally mounted on the body 1, at or adjacent its rear end, for movement more or less within a vertical plane from a normal or stationary position, in which it depends vertically from the body 1, to an operative or extended position in which it projects horizontally rearwardly from the body 1. The flap 4

is arranged to swing by gravity to the normal or vertically depending position when the lure is stationary and to be swung by water resistance to the operative or horizontally and rearwardly projecting position when the lure is being moved forwardly in water. While separate flaps 4 may be provided for each leg, only one flap is necessary and, in the structure illustrated, only one is shown. It is not necessary that the flap rigidly adhere to a single vertical plane of movement since some wobble out of that plane will ordinarily occur and may even be desirable. Furthermore, it will be noted that the flap 4 extends into an angular recess 5 within the body 1 which permits approximately 45 degrees of relative vertical angular movement between the flap 4 and the body 1. However, as the flap 4 swings upwardly and rearwardly from the normal position, the body 1 will likewise swing upwardly and rearwardly so that the combined upward and rearward swinging motion of both body 1 and flap 4 will result in the flap's moving somewhat less than 90 degrees to the more or less horizontal position shown in Figure 5.

The legs 3 may be pivotally mounted upon the flap 4 at any point along its length so long as the leg pivots are located below the normal water line of the lure, when it is stationary, sufficiently to render the buoyant properties of the leg members 3 effective in causing them to swing upwardly into and remain in the retracted position shown in Figures 1 to 3. When the legs are rearwardly extended, they preferably should not lie parallel but should diverge slightly as shown in Figure 4. Divergence is desirable in order to insure the upward swinging movement of the legs into the retracted position when the flap returns from the horizontal position to the vertical position. To insure divergence, the flap 4 is provided with stops 6 which engage the legs when thehy swing rearwardly to the desired limit and thus prevent them from swinging farther either into a parallel or a rearwardly converging relation.

The lure shown may be additionally provided with fluttering leg members 7 connected to the leg members 3 for the purpose of simulating the calf portions of the legs of a frog. A suitable number of hooks 8 may be provided, two being shown, one connected to the body 1 and the other to the tail end of the flap 4.

In operation, a fishing line is attached to the eye 2, and the lure simply thrown in the water. If the lure falls into the water upon its back, the weight of the flap 4 will cause it to turn over into the proper position. While the lure is stationary, the flap 4 will swing to and remain in the vertical position indicated in Figures 1 to 3, thereby permitting the legs to float upwardly about their pivots to the retracted position. When the lure is jerked forwardly through the water, the water resistance of the flap 4 causes it to swing upwardly and rearwardly about its pivot. At the same time, the body of the lure will swing, raising the tail portion of the body and thus bringing the flap 4 into the more or less horizontal rearwardly projecting position shown in Figures 4 and 5. As the flap 4 thus swings or moves from the vertical toward the horizontal, the water resistance of the leg members 3 becomes more and more effective and ultimately causes those members to swing outwardly and rearwardly to the extended position shown in Figures 4 and 5, thus completing one phase of the leg movement. When forward motion of the lure ceases, the flap 4 sinks toward the vertical position and, in doing so, forces the tail portion of the lure to swing slightly downward with the result that the flap 4 ultimately reaches its normal or vertically depending position. As it approaches this position, the buoyant properties of the divergent legs become more and more effective, ultimately causing them to swing outwardly and upwardly into the retracted position shown in Figures 1 to 3, thus completing the last phase of leg motion. These phases of leg motions necessarily are repeated when the lure is again jerked forwardly and then allowed to come substantially to rest.

Having described my invention, I claim:

1. An artificial fish lure comprising: a buoyant body member; means connected to said body member and normally assuming one position when the lure is stationary, said means moving to another position when the lure is moved forwardly through water; and a buoyant leg member pivotally mounted on and bodily carried by said means, the buoyant property of said leg member being effective in the normal position of said means to cause the leg member to move to an upwardly extending position and the water resistance of said leg member being effective in the other position of said means to cause the leg member to assume a rearwardly projecting position.

2. An artificial fish lure comprising: a buoyant body member; a flap connected to said body member and normally extending downwardly when the lure is stationary, said flap moving to another position when the lure is moved forwardly through water; and a buoyant leg member pivotally carried by said flap, the buoyant property of said leg member being effective when the flap is in its normal position to cause it to assume an upwardly extending position and the water resistance of said leg member being effective when the flap is in its other position to cause it to assume a rearwardly projecting position.

3. An artificial fish lure comprising: a buoyant body member; a flap connected to said body member and arranged to depend downwardly therefrom when the lure is stationary and to be swung by water resistance to a rearwardly projecting position when the lure is being moved forwardly in water, the flap returning by gravity to the depending position when said forward motion ceases; a buoyant leg member pivotally connected to and extending laterally from said flap, the buoyant property of said leg member being effective in the depending position of said flap to cause the leg member to float upwardly about its pivot to an upwardly extending position, and the water resistance of said leg member being effective in the rearwardly projecting position of said flap to cause the leg member to swing rearwardly to a rearwardly projecting position.

4. An artificial fish lure comprising: a buoyant body member; a flap pivotally connected to said body member for vertical movement from a normal downwardly depending position which the flap assumes when the lure is stationary to a rearwardly projecting position into which the flap is swung by water resistance when the lure is being moved forwardly in water, the flap returning by gravity to the depending position when said forward motion ceases; a buoyant leg member pivotally connected to said flap for swinging movement at an angle to the plane of flap movement, said leg member being arranged to swing to an upwardly extending position, as a result of

its buoyancy, when the flap depends downwardly, and to swing to a rearwardly projecting position as a result of its water resistance when the flap projects rearwardly.

5. The lure defined in claim 4 wherein said flap is provided with a stop to limit the rearward swinging motion of said leg member.

6. An artificial fish lure comprising: a buoyant body member; a buoyant leg member adapted for movement from a retracted position, in which it extends upwardly along the body, to an extended position, in which it projects rearwardly from the body; and means connecting said leg member to said body member, said means being arranged when the lure is stationary to occupy one position permitting said leg member to swing upwardly, as a result of its buoyancy, to the retracted position, and, when the lure is moved forwardly through water, to move to another position permitting said leg member to swing laterally, as a result of water resistance, to the extended position.

7. The lure of claim 6, wherein: said leg connecting means provides an axis about which the leg member swings, said axis extending in said one position more or less horizontally, permitting the leg member to swing more or less vertically, and, in said other position, more or less vertically, permitting said leg member to swing more or less horizontally.

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