

# **ELECTRIC FISHING SPEAR**

## **ABSTRACT**

Disclosed is an electric fishing spear relates to an electric fishing  
5 spear device designed to enhance fish capture efficiency by integrating a  
high-voltage electrical discharge system into a traditional spear format.  
The device comprises a shaft which serves as the primary structural support,  
and a handle grip affixed to its uppermost part to provide ergonomic  
handling. A push-button switch is disposed at the top of the handle grip,  
10 allowing the user to control the electrical operation. Enclosed within the  
handle grip is a rechargeable battery that serves as the primary power  
source for the device. Attached below the handle grip is a circuit  
enclosure that houses a step-up DC converter. This converter is electrically  
connected to both the rechargeable battery and the push-button switch,  
15 and is configured to increase the voltage to a level suitable for stunning  
aquatic targets. Located at the bottom tip of the shaft are a pair of  
spearhead electrodes, a positive electrode and a negative electrode,  
both electrically connected to the output terminals of the step-up  
converter. These electrodes serve a dual function: acting as the physical  
20 spearhead for thrusting into the fish, and as conductive terminals through  
which high-voltage current is delivered. Upon activation of the push-button  
switch, current flows from the battery to the step-up converter, which  
boosts the voltage and sends it to the spearhead electrodes. When these  
electrodes come into contact with a fish, the circuit is completed through  
25 the fish's body, resulting in immediate stunning or immobilization. This  
configuration provides an efficient, safe, and portable solution for small-  
scale and recreational fishing.