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GUARD FOR CONTROLLING ARM MOVEMENTS IN BOXING TUITION

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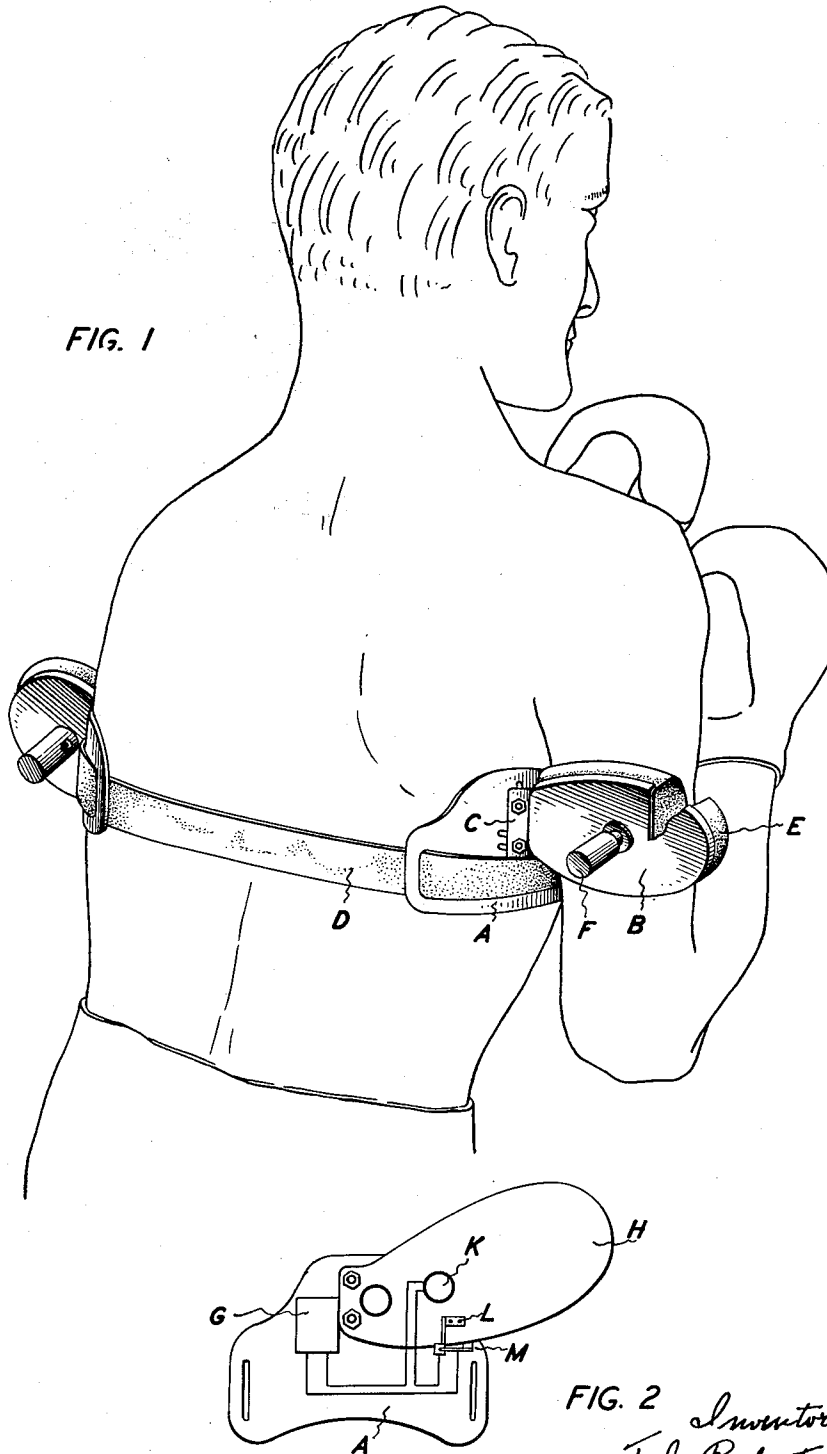
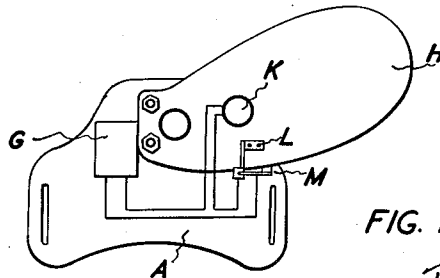


FIG. 2 Inventor:
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UNITED STATES PATENT OFFICE

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GUARD FOR CONTROLLING ARM MOVEMENTS IN BOXING TUITION

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6 Claims. (Cl. 35—12)

In training amateur boxers, instructors find it tedious and difficult to check the tendency of the student to swing the upper arm to far back when he is about to deliver a blow; this error leaves the boxer's body vulnerable and destroys his ability to deliver the blow with the desired quick straight shot action from the shoulder. The natural tendency of the amateur is to swing the arms so far back that the elbows come well behind the body. A trained boxer will not, except in special circumstances, swing the upper arm rearward of the vertical whilst his torso is in erect position. The object of the present invention is to provide a mechanical device which will prevent incorrect back swing movement of the student boxer's arm and constrain the student boxer to acquire the habit of restraining objectionable back-swing movement of his arms. The device which I have designed for this purpose is suited only for "shadow sparring", bag punching and instructional practice; it is not adapted to be used in actual boxing encounters whether practice or contest.

The device consists of two rigid or semi-rigid wings which are adapted to be secured at either side of the torso of the boxer a little above the waist line by a belt. These wings are shaped in the butt portion of them to set comfortably against the torso, and they extend outwards laterally from the torso a little above waist level. They provide positive checks which prevent back swing of the student boxer's upper arm rearwardly of a vertical plane which passes through his shoulders when the torso is erect; they therefore constrain the student boxer to the habit of avoiding back swing arm movements.

In practice the "wings" are constructed of sheet aluminium or other light suitable material, in order to minimize weight; they extend outward only far enough to provide an effective check against back swing arm movements.

To obviate bruising or other injury due to contact of the student's arms with the wings, and to indicate to the student by touch that his arm movements are not sufficiently restrained in the rearward direction, an air cushion or a soft pad may be fitted on the face of each wing. An audible signalling device may also be provided to inform the instructor and the student when the student's arm is moved too far back, and in addition to or instead of an audible signal, a "Veeder" or like register may be provided on which the number of arm contacts made will be displayed, and there may also be provided a contact plate in an electric vibrator circuit through

which a sufficient "shock" current will pass to influence the student to avoid the faulty back swing movement when his arm touches the contact and so completes the shock circuit.

In the accompanying drawing:—

Fig. 1 is a perspective rear-side view of the device as it appears when in use; and

Fig. 2 is a semi-diagrammatic view indicating registering, alarm, and warning attachments fitted to the "wings" or arm check members.

A are curved carrier plates, constructed preferably of light gravity metal such as aluminium and bent to set comfortably against the boxer's sides, and B are wing plates formed integrally with or attached to the carrier plates at C and projecting therefrom laterally in relation to the torso of the boxer when the carrier plates are secured about him by a belt D. E are cushion pads fitted on the frontal surface of the wing plates B. These pads may be inflated flexible rubber sacks or they may be upholstered pads. F is a registering, alarm, or warning device, or a combination of such devices.

In Fig. 2, G represents a miniature electric dry cell circuited through a trembler with the primary winding of a miniature transformer. One terminal of the transformer secondary is connected to the carrier plate A which contacts with the boxer's body, and its other terminal is connected to a small contact plate H fixed on the front face of the pad E. When the boxer's arm touches the plate H he sustains a sufficient "shock" at the contacting place to warn him that his arm movement is excessive in the rearward direction. K is an audible alarm device which is actuated by current from the battery when the boxer's arm touches a contact piece L and moves it sufficiently to complete the alarm circuit. M represents a "Veeder" or like register which is actuated as a result of contact of the boxer's arm with a pallet on the wing member.

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

1. Apparatus for limiting the backward arm motion of boxers and the like, comprising a curved plate fitting about the body beneath the shoulder blade, means holding said plate in position, and a member projecting laterally from said plate into the path of the arm to restrain its rearward passage.

2. Apparatus for limiting the backward arm motion of boxers and the like, comprising a curved plate fitting about the body beneath the shoulder blade, means holding said plate in position, a member projecting laterally from said plate into

the path of the arm to restrain its rearward passage, and a resilient pad on the face of said member to prevent injury to the user.

3. Apparatus for limiting the backward arm motion of boxers and the like, comprising a curved plate fitting about the body beneath the shoulder blade, means holding said plate in position, a member projecting laterally from said plate into the path of the arm to restrain its rearward passage, a separate indicating device on said member for positively indicating contact of the arm therewith.

4. Apparatus for limiting the backward arm motion of boxers and the like, comprising a curved plate fitting about the body beneath the shoulder blade, means holding said plate in position, a member projecting laterally from said plate into the path of the arm to restrain its rearward passage, and a counter on said member for registering the number of contacts of the arm with said member.

5. Apparatus for limiting the backward arm motion of boxers and the like, comprising a curved plate fitting about the body beneath the shoulder blade, means holding said plate in position, a member projecting laterally from said plate into the path of the arm to restrain its rearward passage, and electrical means on said member for imparting a shock to the user upon contact of the arm with said member.

6. Apparatus for limiting the backward arm motion of boxers and the like, comprising a curved plate fitting about the body beneath the shoulder blade, means holding said plate in position, a member projecting laterally from said plate into the path of the arm to restrain its rearward passage, and an audible alarm device on said member and adapted to be operated by contact of the arm with said member.

THOMAS JAMES ROBERTS. 95

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