Dec. 13, 1927. 1,652,270

V. P. BRUN

GAME APPARATUS

Filed Dec. 10, 1926 2 Sheets-Sheet 1

Fig. 1.

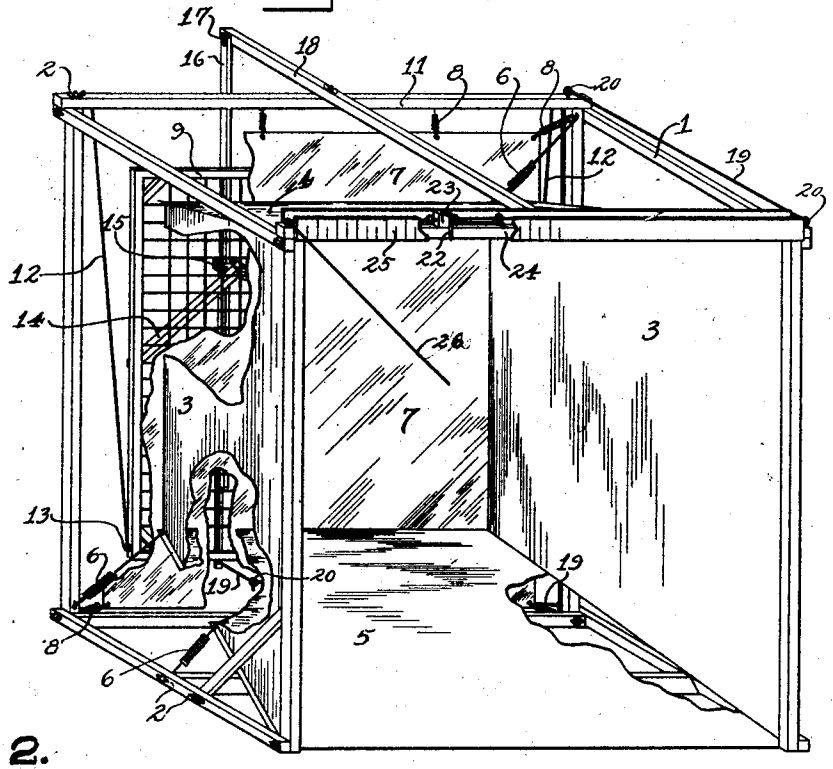


Fig. 2.

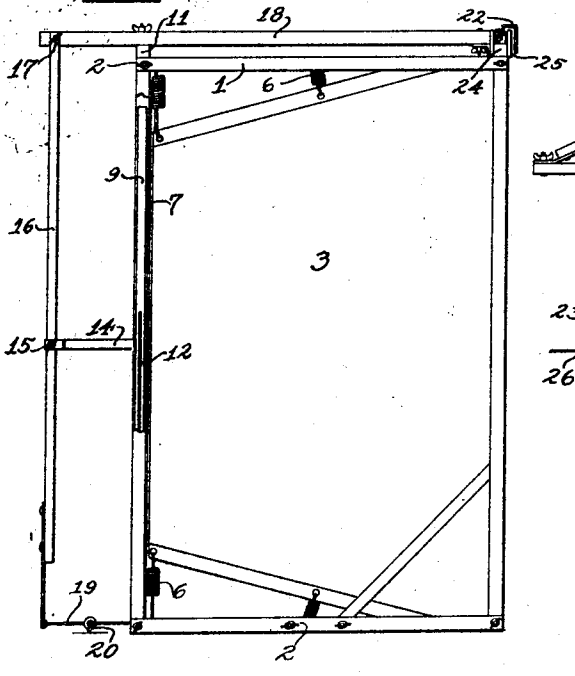


Fig. 3.

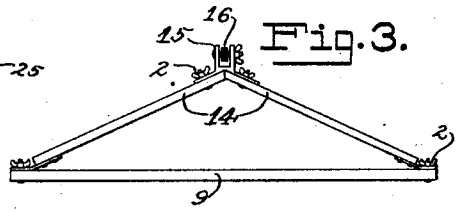
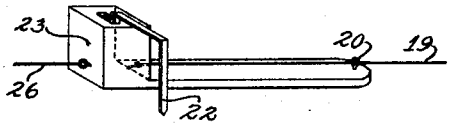


Fig. 4.



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Fig. 5.

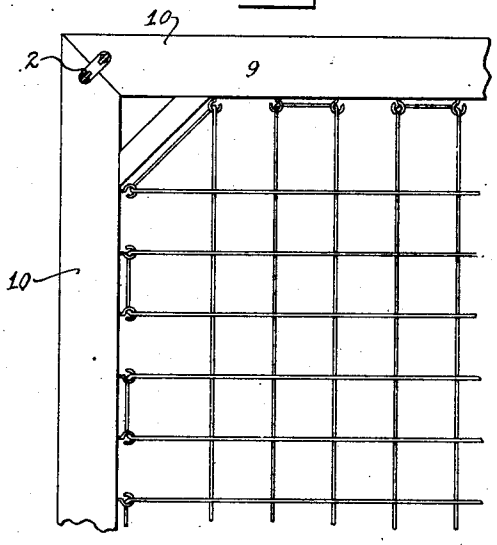
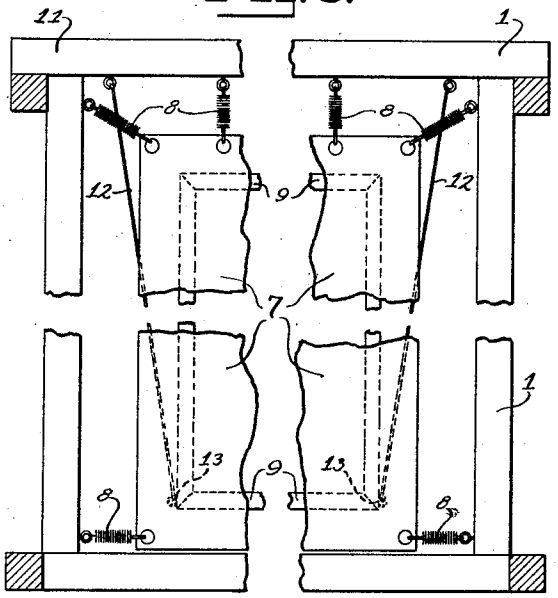


Fig. 6.



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UNITED STATES PATENT OFFICE.

VALLY P. BRUN, OF SAN FRANCISCO, CALIFORNIA.

GAME APPARATUS.

Application filed December 10, 1926. Serial No. 153,838.

This invention relates to improvements in that type of apparatus disclosed in United States Letters Patent No. 1,503,633, granted to me on the 5th day of August, 1924, and more particularly to the accurate indicating of ballistic impulses.

The invention has for its object to provide a game or instruction apparatus of knock-down form, and which may be quickly and easily set up when its use is desired, and disassembled and stored within a comparatively small space when not in use.

Another object is to provide a game or instruction apparatus of the above type which may be manufactured and while in knock-down form sold as an apparatus with instructions enabling the purchaser to readily and quickly assemble the same without the use of special tools or the necessity of cutting parts.

Another and important object is to provide a game or instruction apparatus with an extremely sensitive ballistic impulse registering device, by the use of which the force of the impact is accurately registered, enabling the instructor or player familiar with the objects of the apparatus to quickly determine the degree of perfection of the stroke made by the player. To provide an improved suspension mounting for the main impulse receiving surface, to provide a novel form of stretching and mounting device for the auxiliary impulse receiving surface, and to provide a simple and practical knock-down apparatus designed for use in the instruction or playing of shots or strokes used in the game of golf.

With the above mentioned and other objects in view, the invention consists in the novel construction and combination of parts hereinafter described, illustrated in the accompanying drawings and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

To more readily comprehend the invention, reference is directed to the accompanying drawings, wherein—

Fig. 1 is a view in broken perspective of the preferred embodiment of my invention.

Fig. 2 is a view in side elevation.

Fig. 3 is a view in top plan of the suspended net frame.

Fig. 4 is a view in detail perspective of the indicating member.

Fig. 5 is a view in broken elevation of the net frame, illustrating the preferred mounting of the frame closing and net forming strings therein.

Fig. 6 is a similar view of the suspended net frame and the yieldably held face curtain.

Referring more particularly to the drawings, wherein like characters of reference indicate corresponding parts—the numerals 1 designate the members of an open box frame. The members are detachably secured together to permit the same to be readily assembled and disassembled preferably by bolt and wing nut mechanism 2. The open box frame forms a support for the fabric, preferably canvas side, top and bottom wall members 3, 4 and 5 extended thereinto and arranged with their faces at substantially right angles to each other, forming a tunnel within the box frame, open at its ends, the wall forming members converging toward the rear end of the tunnel.

To maintain the wall members taut and in tightly stretched position within the box frame, coiled spring members 6 attached to the members 1 of the frame and to the wall members at desired points, are employed. The wall forming members or tunnel afford a playing recess into which the player drives the ball or object when carrying out the objects of the game.

To close the rear end of the tunnel, I provide a fabric curtain 7 disposed vertically at the rear end thereof, the peripheral edges of the curtain being engaged by the tension springs 8 to maintain the curtain tightly stretched immediately in rear of the inner end of the tunnel.

Immediately in rear of the curtain is positioned a net frame 9, the members 10 of which are preferably detachably secured together at their ends by the bolt and wing uniting members 2.

Depending from the member 11 of the open box frame and which forms the upper rear wall of the frame, are two flexible supporting members 12, connected at their lower ends, as at 13, to the side members of the net frame adjacent the bottom of the frame, this being clearly illustrated in Fig. 1. Rear-

wardly from the frame, approximately midway between its top and bottom, rigidly extends a bracket 14, the same at its end being pivotally connected at 15 with a lever 16 fulcrumed at its upper end, at 17, to a supporting member 18 carried by the frame forming members 1.

It will be observed that the impulse of a missile or object against the curtain 7 will also be transmitted to cause a swinging movement of the net frame, which movement is imparted to the lever 16.

To indicate this swinging movement of the net frame, there is attached to one end of the lever a flexible member 19, which passes through guide members or eyes 20, carried by the frame forming members 1, and connects with a movable pointer member 22 carried by a support 23, which is slidable longitudinally of the frame forming member 24, forming the upper transverse wall at the front end of the tunnel. The movable pointer operates over a suitable scale 25 and indicates thereon the degree of movement of the net frame by the ballistic impulse of the missile or object driven against the same.

The initial rearward swinging movement of the net frame causes a movement of the indicating pointer 22 to the right, over the scale 25, where the pointer remains, indicating the force of the ball or missile striking the frame, until such time as the indicating pointer is again restored to normal position, by the operation or pulling of the reset cord 26.

I claim:—

1. A game apparatus including a vertically disposed impact receiving frame provided with a net structure extending across the opening thereof for receiving the impact of a missile, depending supporting members secured at their ends to the opposite sides of the frame near its lower edge, a lever, a connection between the frame at a point above its support and said lever, an indicating pointer, a scale over which the pointer moves, and a connection between the lever and pointer, whereby the latter is moved over the scale to register in accordance with the movement of the frame by the impact of the missile.

2. A game apparatus including a vertically disposed impact receiving frame provided with a net structure extending across the opening thereof for receiving the impact of a missile, depending supporting members secured at their ends to the opposite sides of the frame near its lower edge, a lever, a connection between the frame at a point above its support and said lever, an indicating pointer, a scale over which the pointer moves, and a connection between the lever and pointer, whereby the latter is moved over the scale to register in accordance with the movement of the frame by the impact of the missile, and a curtain material in front of said frame and against which the missile strikes.

3. A game apparatus comprising frame members detachably secured together to provide an open box frame, top, bottom and side wall members detachably stretched within the frame with their faces at right angles to each other, forming a tunnel converging toward its rear end, a curtain positioned over and closing the rear end of the tunnel, yieldable means connected with the curtain and frame members for maintaining the curtain taut, an impact receiving frame positioned immediately in rear of the curtain, flexible members for suspending the impact receiving frame and permitting free swinging movement thereof in rear of the curtain, a connection between the lever and the impact receiving frame, and indicating mechanism operable by the movement of the impact receiving frame.

4. A game apparatus including a vertically disposed impact receiving frame, flexible supporting members for said frame secured thereto near its lower edge, means from which said vertical supporting members depend, a lever, a bracket rigidly extended from said frame, a pivotal connection between the bracket and lever, an indicator mechanism, and a connection between the lever and mechanism for operating the latter in accordance with the movement of the frame in one direction.

5. A game apparatus including a vertically disposed impact receiving frame, flexible supporting members for said frame secured thereto near its lower edge, means from which said vertical supporting members depend, a lever, a bracket rigidly extended from said frame, a pivotal connection between the bracket and lever, an indicator mechanism, tunnel forming walls extending forwardly from said impact receiving frame, a curtain extended across and closing the rear end of the tunnel immediately in advance of said frame, yielding means for peripherally supporting the curtain, and a connection between the lever and mechanism for operating the latter in accordance with the movement of the frame in one direction.

6. A game apparatus comprising a knock-down main open box frame consisting of a plurality of coacting frame members, means for detachably uniting the same together, fabric top, bottom and side wall members positioned within the frame with their faces at right angles to each other and converging toward the rear of the frame and forming an open ended tunnel, yieldable means connected with the main frame forming members and the wall members for maintaining the wall members stretched within the main frame, a vertically disposed net stretched transversely across the rear end of the tunnel, a frame mounting the net,

suspension cables depending from one of the main frame forming members and attached to opposite sides of the net frame near its lower edge, a bracket rigidly extended from the rear of the net frame, a lever depending in rear of the net frame, a pivotal connection between the bracket and lever, a curtain extending across and closing the rear end of the tunnel, yieldable means connected with the curtain and the box frame forming members for stretching the curtain, and mechanism operated by the lever for indicating the movement of the net frame on the impact of an object against the curtain.

In testimony whereof I have signed my name to this specification.

VALLY P. BRUN.