D. E. JOHNSON AND O. E. PARMELEE.

SPRING BOARD FOR DIVING.

APPLICATION FILED AUG. 13, 1919.

1,347,510. Patented July 27, 1920.

Fig. 3

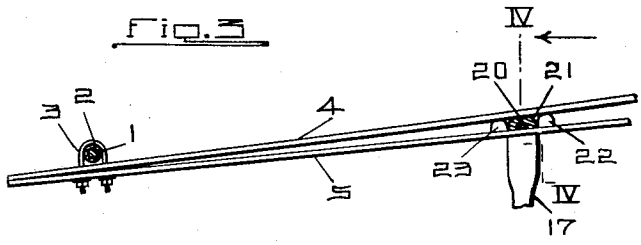


Fig. 4

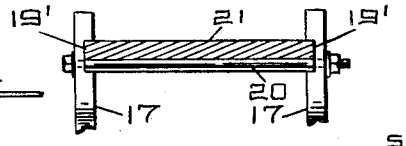
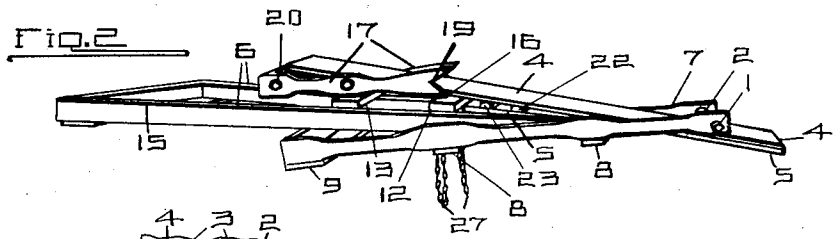


Fig. 1

Fig. 2



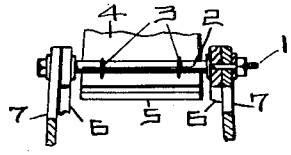


Fig. 5

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SPRING-BOARD FOR DIVING.

1,347,510. Specification of Letters Patent. Patented July 27, 1920.

Application filed August 13, 1919. Serial No. 317,143.

To all whom it may concern:

Be it known that we, DORR E. JOHNSON and Dr. OLIN E. PARMELEE, citizens of the United States of America, and residing, respectively, at Toledo, Lucas county, Ohio, and Lambertville, Monroe county, Mich., have invented new and useful Spring-Boards for Diving, of which the following is a specification.

This invention relates to portable spring board apparatus.

This invention has utility when incorporated in diving spring boards.

Referring to the drawings:

Figure 1 is a perspective view of an embodiment of the invention in a submersible, collapsible diving apparatus spring board;

Fig. 2 is a perspective view of the apparatus collapsed;

Fig. 3 is a detail of the pair of boards comprising the spring board and clip structure;

Fig. 4 is a section on the line IV—IV, Fig. 3, looking in the direction of the arrow; and

Fig. 5 shows the clamped mounting of the boards to the main bearing of the apparatus, parts being broken away.

As a central main bearing for the apparatus there is provided a bolt 1 having intermediately thereon a tubular member or pipe 2 over which may be a pair of U-bolts 3 going through upper board 4 and lower spring board 5 to clamp the pair of boards together. On the bolt 1 outside the pipe or tube 2 is an inner pair of legs 6 and therebeyond outer pair of legs 7. This outer or after pair of legs 7 may move as a unit and be so held by braces 8 and a lower footing of channel form comprising members 9, 10. Extending forwardly from the main bearing 1 is a second pair of spread legs 6 operable as a unit as is the unit of the spread legs 7. The spread legs 6 have therebetween braces 11, 12, 13, 14, 15; the braces 14, 15, coacting as a footing as do the braces 9, 10, of the spread legs 7 to level up the apparatus very readily and prevent its sinking into sand or softer soil.

The longer forwardly extending pair of legs 6 carry on the brace 12, hinges 16 for mounting swingably, upwardly extending members 17 as a supplementary support, there being a brace 18 therebetween medially of the upward extent. Each of these members 17 adjacent the hinge 16 has a V-notch 19 embracing crosspiece or bar 12 when the apparatus is in set up position. These said members 17 of the supplementary support have in the upper extremity notches 19′ and bolt 20 to clamp the spacer 21 between said struts 17, (Figs. 3, 4.)

In setting up the apparatus, the rear or shorter legs 7 may have but slight inclination while the forwardly extending legs 6 may have the desired inclination to place the bearing 1 at such height as may be acceptable in the depth of water and for clearance of the board as to the water. The position of the main bearing or pivot 1 is thus fixed. The supplementary support or structure on the forwardly extending legs 6 is then swung upward to bring the portion or brace 21 between the upper spring board 4 and the lower spring board 5 which as clamped together by U-bolts 3 at the bearing bolt 1 as a main pivot bearing comprise a clip, the lower spring board 5 being snapped away from the upper board 4 as the brace 21 passes over the cleat 22 to seat between the cleats 22 and 23. From this intermediate position of support by the supplementary support or strut members 17, the upper main spring board 4 extends to have a free terminus forwardly and over the pair of spreading legs 6. This upper spring board 4 may be thin stock say of 1 in. x 12 in. Georgia pine and as herein shown there is provided a light cleat 24 as a reinforcement for the forward end on the under side thereof, while on the upper side, to prevent slipping by a diver having wet feet, a pad 25 of rubber or carpet may be provided.

In order that this adjusted spacing of the two pairs of legs may not be shifted in the use of the board, there is provided eyes 26 on the rear spring legs 7 from which extend forwardly link means as flexible chains 27 connected to hooks 28 on the forward pair of legs 6. This chain may effect an adjustment for desired spacing between the legs 6 and 7 in determining the height of the main pivot bearing 1.

It is desirable in the use of this collapsible apparatus as a submersible diving board that it be of a structure which will not float away. To insure this, a chain 29 is provided extending from the hooks 28 to a pail 30 which may be a ballast, when filled with sand.

The apparatus may be readily set up in water by floating out to position and setting up. In operation the diver going to the free end of the upper board 4 and making a spring therefrom gets a give or spring action not only from free upper board 4 clear to the full extent thereof to the bearing 1, but has this supplemented by the clip or buckle action of the lower board 5 as well as the spring from the long forwardly extending leg 6. These forwardly extending legs 6 are of such extent that the device does not topple or become overbalanced in most violent spring effort of the diver. The spread of the legs is such that the apparatus will not teeter laterally.

The distributed spring action as above described from the main spring board 4 gets to the extending legs 6 through the auxiliary support 17. The buckle action of the lower board 5 in supplementing the spring action of the board 4 is brought about by the clamped holding of the boards 4, 5, together by U-bolts 3 which tend to maintain these boards parallel due to the after extension which in a seven foot board may run about one foot.

The braces 8 may conveniently be spaced to form a ladder or means of ascent to the boards 4.

What is claimed and it is desired to secure by Letters Patent is:

1. A spring board, a support therefor comprising a pivot bearing connected to the board, two pairs of inclined legs, each pair connected to and diverging from said bearing, and a supplementary support for the board carried by one pair of legs.

2. A spring board comprising a pair of boards, means clamping the boards together, a support for the clamp portion of the board, and a supplementary support for one board of the pair, said other board coacting to hold the supplementary support in position.

3. A spring board comprising an upper and lower board, means for clamping the boards together at one portion, a bearing for the clamp portion of the boards, legs extending from the bearing including a yieldable member, and a strut from the yieldable member to the boards.

4. A spring board comprising an upper and lower board, means for clamping the boards together at one portion, a bearing for the clamp portion of the boards, legs extending from the bearing including a yieldable member, and a strut to the under side of the upper board, said lower board coacting to hold the strut in position.

5. A spring board comprising upper and lower boards, means clamping the boards together, a bearing for the means, rearwardly and forwardly extending pairs of spread legs connected to the bearing, said forward legs being yieldable, a strut from the forward legs intermediately sustaining an overhanging portion of the upper board and spacing the lower board from the upper board, said lower board coacting with the strut to maintain it in set-up position.

6. A collapsible spring board embodying a pair of clamped boards providing a yieldable clip therebetween, two pairs of spread legs pivotally connected to the clamped boards, and a strut hinged to one pair of legs movable into the clip between the boards.

In witness whereof we affix our signatures.

DORR E. JOHNSON.
OLIN E. PARMELEE.