Aug. 29, 1961 J. WITTRUP 2,998,250

DIVING BOARD SPRING

Filed March 16, 1960

Fig. 1.

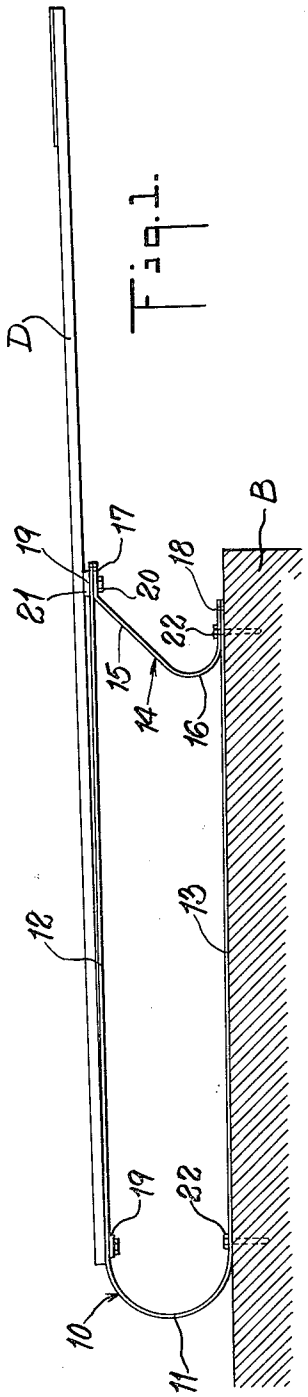


Fig. 2.

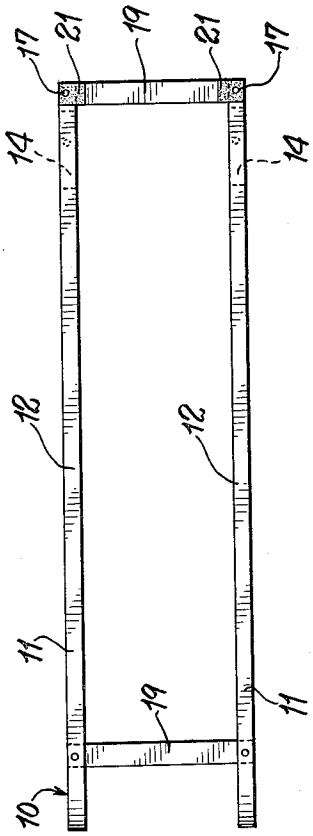
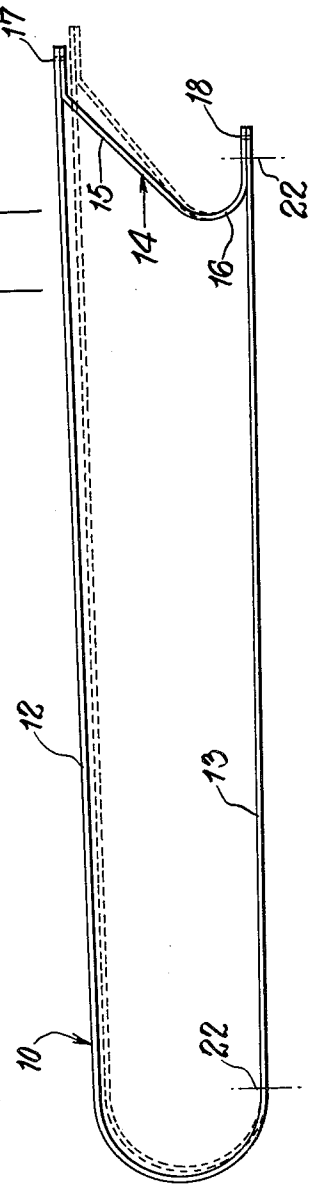


Fig. 3.



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DIVING BOARD SPRING

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3 Claims. (Cl. 272—66)

My invention relates to diving boards and is directed particularly to improvements in diving board springs for use with short diving boards to achieve long board action.

With the increased popularity of private or home swimming pools in recent years, which for the most part are of considerably smaller size than commercial or public pools, the need for space-saving shorter and less expensive diving boards has become more and more acute. In an attempt to compensate for the loss of resiliency and thrust in short diving boards for home pool use, various spring support mechanisms have been devised for the anchored end of the board. None of these has achieved wide acceptance however, principally because the resultant action of the spring-supported shortened board did not nearly enough approach the thrust action of the conventional long board.

It is accordingly the principal object of my invention to provide an improved spring mounting mechanism for a short diving board of from 6 to 10 feet in length that will give the thrust or "snap back" in use of a conventional, solid-support long board 12 to 16 feet in length.

A more particularly object of the invention is to provide a spring mounting mechanism of the character described which is fabricated of flat, spring steel stock and which comprises a first pair of spring members bent into U-shape and having elongated spaced parallel arms one of which is adapted to be secured solidly against a concrete base or the like at the edge of the pool, and the other of which supports the inner end of a short diving board, and a second pair of spring members bent into J-shape and secured, one each, between the outer ends of said pairs of parallel arms.

Still another object of the invention is to provide a spring mounting mechanism of the above nature which is simple in construction and devoid of any structural parts in which the hands or feet could be pinched or injured when the board is in action.

Yet another object is to provide a spring mounting mechanism of the above nature which will be economical in cost, attractive in appearance, easy to install and durable in use.

Other objects, features and advantages of the invention will be apparent from the following description when read with reference to the accompanying drawings. In the drawings, wherein like reference numerals denote corresponding parts throughout the several views:

FIG. 1 is a side elevational view of a spring mounting mechanism and diving board embodying my invention,

FIG. 2 is a plan view of the spring mounting mechanism shown separately, and

FIG. 3 is a side elevational view of the spring mounting mechanism shown separately and on an enlarged scale, and illustrating the flexing action when in use.

Referring now in detail to the drawings, **10** designates in general, an improved spring mounting mechanism for short boards, the same being shown installed for use in FIG. 1 with a diving board D of standard wood construction except for being only from 6 to 10 feet in length. The mechanism **10** comprises a pair of back spring members **11** of flat strip spring steel each bent into U-shape and having spaced parallel elongated top and bottom arm portions **12, 13** respectively. The top arm portions **12** of the back spring members **11** extend slightly beyond or forwardly of the corresponding bottom arm portions **13** thereof. The outer ends of the top and bottom portions **12, 13** of each back spring member **11** are connected by a front spring member **14** also made of strip spring steel, having a straight upper portion **15** riveted as by rivets **17** to said top portion and a curved lower portion **16**, riveted as by rivets **18** to said lower portion. The front spring members **14** are thus generally of J-shape formation. Steel lateral braces **19** are preferably used to hold the top arm portions **12** of the spring members **11** in spaced parallel relation, and, as illustrated in FIG. 1, carriage bolts **20** extending through openings in the diving board D, said top arm portions and the lateral braces **19**, hold the spring mounting mechanism and diving board **10** in secure assembled relation. Preferably, cushioning in the form of flat rubber pads or a rubber coating **21** or the like is provided on the upper surface of the front lateral brace **19** to minimize wear where the diving board D joins said brace.

As illustrated in FIG. 1, the assembled diving board and mounting mechanism will be secured in place at the pool site by bolts **22** extending through each end of the lower arm portions **14** of each spring member **11** and into a flat horizontal solid base structure B of concrete or the like. The spring members **11** and **14** and the lateral braces **19** comprising the mounting mechanism may all conveniently be made of 2 inch by ¼ inch spring steel stock.

In use, when the forward end of the board D is jumped on in diving, the rearmost curved portion of the back spring members **11** will be pulled forwardly and the upper portions **15** of the front spring members **14** will flex forwardly and downwardly so that the upper front end of spring mounting mechanism **10** will move down and forwardly, as indicated by the broken line representation thereof in FIG. 3. Thus, as the spring mounting mechanism returns to rest in the energy-release portion of its cycle of actuation, the diving board D will be pushed back upwardly again with a sharp thrust or "snap-back" action simulating the additional upward thrust that would result from an additional few feet of diving board.

While I have illustrated and described herein only one form in which the invention can conveniently be embodied in practice, this embodiment is presented by way of example only and not in a limiting sense. In short, the invention is limited only by the spirit and scope of the following claims:

What I claim as new and desire to secure by Letters Patent is:

1. A short, spring-mounted diving board, comprising, in combination, a pair of U-shaped rear spring members of spring metal, each having a pair of elongated, substantially parallel arms, the lower arms being anchored in a base member, and a pair of J-shaped front spring members of spring metal, the ends of each of which are connected to each of the outer ends of each of said arms, and means for holding said rear spring members in laterally spaced relation, said J-shaped front spring members each having a straight portion integrally formed with a curved portion, said straight portion being inclined downwardly and rearwardly at an angle toward the closed end of its respectively U-shaped member, and the J-shaped portion curving forwardly and forming a base portion and being anchored to said base member, said J-shaped front spring members being connected to said upper arms at such a distance forwardly from their connections with said lower arms as to produce an effective forward movement of the diving board upon downward flexion thereof, and a short diving board connected to the outsides of the upper parallel arms of one each of said U-shaped rear spring members to which said ends of said straight portions of said J-shaped front spring members are connected, said U-shaped members having a length of the

order of half the overall length of said diving board.

2. A spring mounted diving board as defined in claim 1 wherein one arm of each of said upper U-shaped members is longer than the other arms, and wherein the ends of said straight portions of said J-shaped front spring members are connected respectively to said longer arms and the straight portion of said J-shaped spring member being slanted toward the closed end of the U-shaped spring and the J-shaped portion curving back toward the outer ends of said U-shaped arms and being anchored in the base member, the lower arms of said U-shaped member being also anchored in said base member.

3. A spring mounted diving board as defined in claim 2 wherein said front and rear spring members are made of strap spring steel of equal cross-sectional size and shape and are mounted at the lower ends to a base member.

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