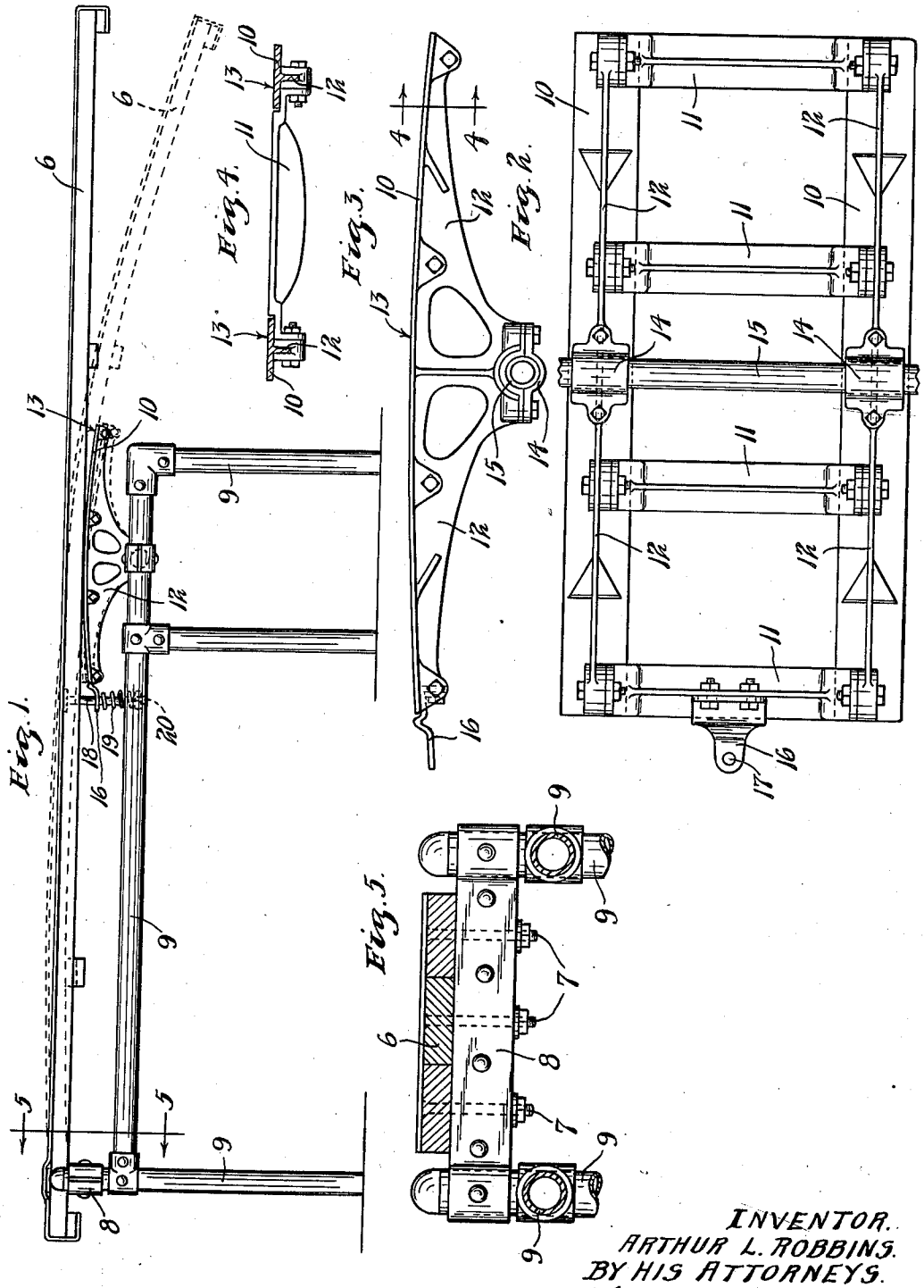
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DIVING BOARD CONSTRUCTION

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DIVING BOARD CONSTRUCTION

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This invention relates to diving board constructions and more particularly to that type of board in which the board member itself is composed of a resiliently flexible material.

In many of the present day types of diving board constructions, the board is anchored at one end and provided with an intermediately positioned fulcrum. The board itself is generally made of wood and it has been found that after being subjected to use for a time the fibers of the board will break at the point where most of the bending takes place.

It is an object of my invention to provide a diving board construction which will properly support the board between its ends in a manner which will greatly relieve the strain at its critical bending point. The term "critical bending point" is used in this instance to denote that portion of the board which is subjected to the most severe bending strains.

It is a further object of my invention to provide a construction which will relieve the bending strain by distributing it over a considerable area.

It is a still further object to provide a construction which will permit movement of the supporting fulcrum so that its supporting action will be effective regardless of the degree to which the board is bent, and an additional object is to provide means to effectively dampen the reflex action of the board.

These and further objects and advantages of the invention will more fully appear in the following description made in connection with the accompanying drawing, in which like reference characters refer to the same or similar parts throughout the several views, and in which:—

Fig. 1 is a side elevation of my improved diving board construction;

Fig. 2 is a bottom plan view of the fulcrum;

Fig. 3 is a side elevation thereof;

Fig. 4 is a section taken on the line 4—4 of Fig. 3; and

Fig. 5 is a section taken on the line 5—5 of Fig. 1.

In the construction illustrated, there is provided a resiliently flexible board 6 which is generally constructed of wood. The rear end of the board is rigidly anchored as by bolts 7 to a cross member 8. The cross member is mounted upon a suitable supporting frame 9, although the means for anchoring the end of the board and the supporting frame are not an essential part of my invention.

Intermediately of the ends of the board is positioned a fulcrum composed of side members 10 rigidly mounted cross members 11. The side members include vertical webs 12 and horizontal longitudinal bearing surfaces 13. The bearing surfaces and webs are so shaped that an upper arcuate board contacting surface is provided longitudinally of the board. The cross members 11 rigidly connect the side members and, as shown in Fig. 4, are so shaped that their upper surfaces between the edges of the side members are flush with the faces of said side members, providing additional board contacting area for the fulcrum.

Mounted centrally of the side members on their under sides, are a pair of journals 14 which are secured to a cross shaft 15 in a manner which will permit the fulcrum to turn with respect to the shaft. The cross shaft 15 may be secured to the frame 9 in any suitable manner.

On that cross member 11 which is positioned nearest the anchored end of the board is a bracket 16 having a hole 17 formed therein. A bolt member 18 is suitably secured to the diving board at its upper end and extends downwardly through the bracket 16 to a point below the bracket, and a helical spring 19 is positioned between the lower face of the bracket and a nut 20 on the lower end of the bolt.

When the diving board is used, it has been found that there is a certain definite area in each board which is subjected to greater bending strain than any other portion of the board. In the embodiment shown in the drawing, this critical bending point of the board is indicated to be approximately at the center of the board where it is supported by the fulcrum. As shown by the dotted lines, there is a slight upward flexing between the fulcrum and the anchored rear end of the board, and, of course, a certain amount of flexing in the outer portion of the board. With my improved fulcrum construction, however, that part of the board which will receive the greatest amount of flexing is provided with an arcuate bearing surface which will contact a relatively large area of the board when it is bent and consequently distribute the bending force at the fulcrum over a much greater area than if the customary narrow or flat topped fulcrum is used. When the board bends downwardly at its outer end, the particular mounting of the fulcrum will permit it to describe a rocking motion and consequently when the forward end of the board has been fully depressed, the arcuate surface of

the fulcrum will have rocked slightly and will be in position to provide a maximum amount of surface over which the bending force may be distributed.

After the diver leaps from the board, its natural resiliency will cause the outer end of the board to spring upward sharply and there will be a tendency for the board to rise from the fulcrum supporting it and then return downward against the fulcrum with a sharp blow. However, in my construction the resilient connection between the fulcrum and the board which includes the bracket 16, the bolt 18 and the spring 19, will prevent the board from bouncing up away from the surface of the fulcrum and also act as a shock absorber to dampen the vibrations of the board. This shock absorbing action is also augmented by the arcuate shape of the rear portion of the fulcrum.

From the foregoing, it will be seen that I have provided a diving board construction which will greatly lengthen the life of the wooden board member by widely distributing the bending force at the critical bending point. This construction is a decided improvement over constructions where the fulcrum has produced a concentrated critical bending area because of the fact that the board has contacted the fulcrum on a transverse line of no substantial area. I have also provided means for permitting the fulcrum to shift or rock as the degree of bending changes and I have provided a construction which will greatly lessen the vibration of the board after the diver has left it.

It will, of course, be understood that various changes may be made in the form, details, proportions and arrangement of the parts without departing from the scope of my invention.

What is claimed is:—

1. In a diving board construction, a resiliently flexible member, a support for said board, means for connecting one end of said board to said support, a fulcrum contacting said board intermediate its ends and having an arcuate upper surface, means yieldably connecting said board and said fulcrum, and a rocker support for said fulcrum.

2. In a diving board construction, a resiliently flexible board member, means for anchoring one end of said board, and a fulcrum beneath said board comprising a pair of longitudinal side members having longitudinally arcuate board contacting surfaces, and rigid cross members connecting said side members.

3. The structure set forth in claim 2, the upper surfaces of said cross members being flush with the arcuate surfaces of said side members.

4. In a diving board construction, a resiliently flexible board member anchored at one end, a fulcrum beneath said board having an arcuate contacting surface, a transverse pivotal support for said fulcrum, and means connecting said fulcrum to said board.

5. In a diving board construction, a resiliently flexible board member anchored at one end, a fulcrum beneath said board having an arcuate board contacting surface, a transverse pivotal support for said fulcrum, and means yieldably connecting one end of said fulcrum to said board.

6. A frame, a diving board fixed at one end to the frame, a fulcrum shaft supported by the frame, a plurality of bars rockably supported by the shaft, and a pair of members supported by the bars by which members the board is supported.

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