July 4, 1967 D. A. BEARSON 3,329,427

ADJUSTABLE BASKETBALL GOAL

Filed Jan. 16, 1964 2 Sheets-Sheet 1

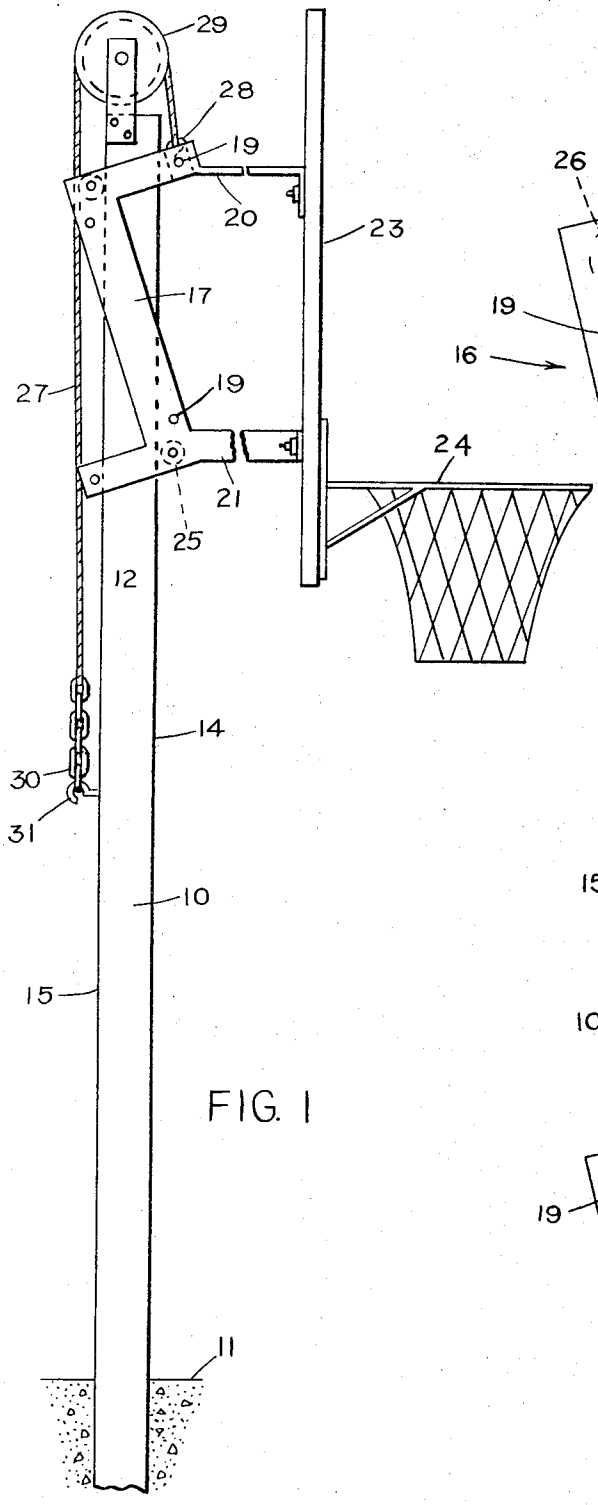


FIG. 1

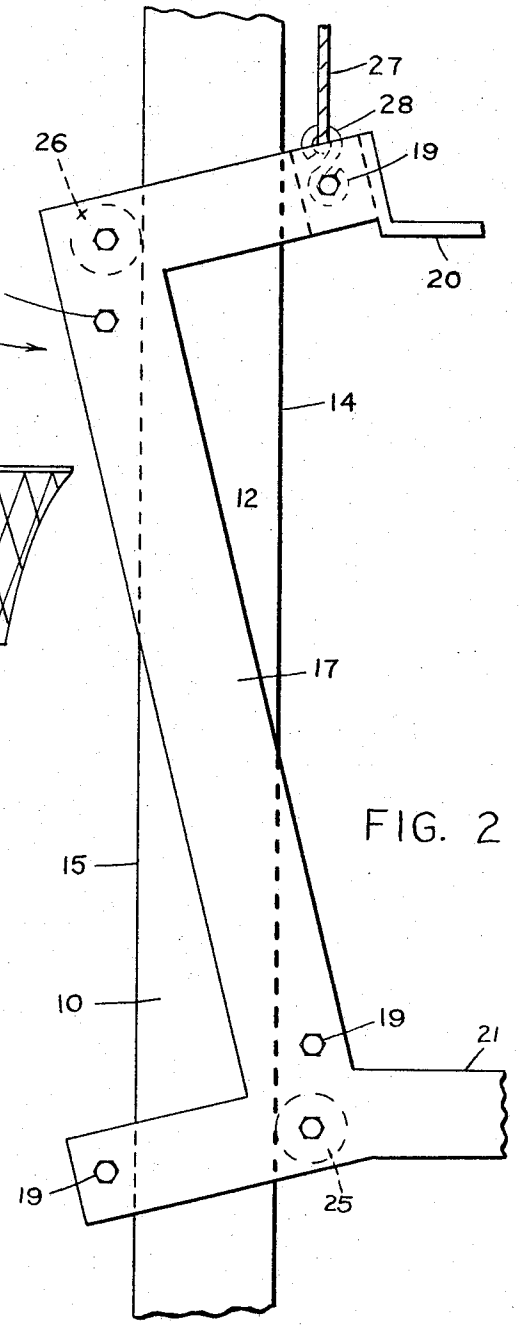


FIG. 2

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ADJUSTABLE BASKETBALL GOAL

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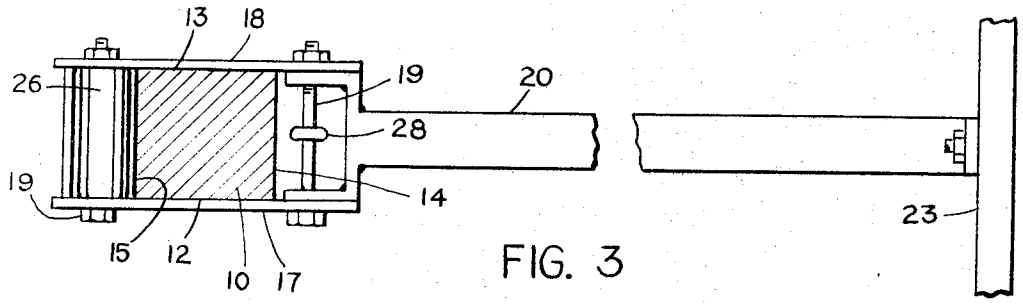


FIG. 3

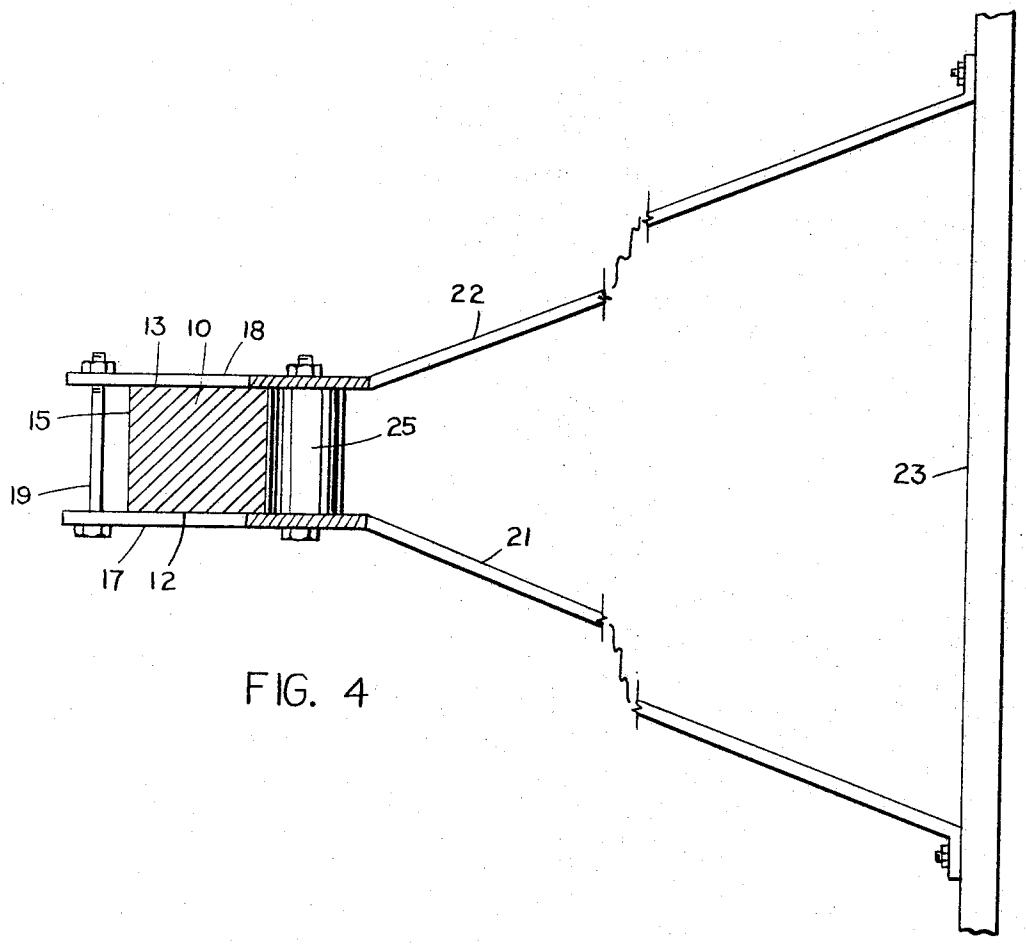


FIG. 4

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ADJUSTABLE BASKETBALL GOAL

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4 Claims. (Cl. 273—1.5)

This invention relates to basketball goals and more particularly it has reference to means for supporting a basketball goal so that it may be adjusted vertically.

For the playing of the game of basketball by adult or mature players, the basketball goal is usually placed at regulation height above the floor. Such a location of the goal is generally too high for the younger children who may wish to play basketball and hence they may be precluded from a sustained enjoyment of the game.

One of the objects of this invention is to provide a relatively simple yet efficient means for supporting a basketball goal so that it may be adjusted vertically.

Other objects are to provide such a basketball supporting means of the type described which is simple in structure so that it may be manufactured and assembled at a relatively low cost; will hold the goal securely in adjusted position and may be raised or lowered with a minimum of effort.

These and other objects and advantages reside in certain novel features of construction, arrangement and combination of parts as will hereinafter be more fully described and pointed out in the appended claims.

Referring to the drawings:

FIG. 1 is a side elevational view of a basketball goal support embodying the invention.

FIG. 2 is an enlarged side view of the vertically movable carriage mounted on a portion of the support member.

FIG. 3 is a top plan view of the upper supporting arm, with parts shown in section.

FIG. 4 is a similar view of the lower supporting arms.

A preferred embodiment of the invention is shown in the drawings wherein **10** indicates a vertical support member or post which may be held in a fixed position by any suitable means such as embedding it in concrete **11**. The support member **10**, which is preferably rectangular in cross-section, has the parallel side faces **12** and **13** and the parallel front and rear faces **14** and **15**.

Mounted for vertical movement on the support member **10** is the carriage **16** which is formed of two similar side plates **17** and **18** which are mounted, respectively, on the opposite sides of the support member **10** and are held in sliding engagement with the side faces **12** and **13** by the tie rods or bolts **19**. Secured to and projecting forwardly from the upper portion of carriage **16** is the support arm **20** and secured to and projecting forwardly from the lower portion of the carriage **16** are the diverging support arms **21** and **22**. The forward portions of the support arms are bolted to the backboard **23** which carries the usual hoop or basket **24** on its front side.

In order to facilitate the vertical movement of the carriage **16**, anti-friction means, such as rollers **25** and **26** are rotatably mounted on the carriage. The roller **25** is mounted on the lower front portion of carriage **16** so that the roller **25** is in rolling engagement with the front face **14** of the support member **10** and the roller **26** is mounted on the upper rear portion of the carriage **16** in rolling engagement with the rear face **15** of the support member **10**. Hence, even though the weight of the overhanging backboard and hoop is substantial, the carriage **16** may be easily moved along the support member **10**. Since the side plates **17** and **18** have substantial areas thereof, from top to bottom, in sliding engagement with the respective side faces **12** and **13** of the support member **10**, the backboard **23** is securely held in position without lateral movement relative to the support member **10**.

The carriage **16** and its attached backboard **23** and hoop **24** may be adjustably moved along the support member **10** by any suitable means such as a flexible cable or rope **27** which is secured by hook **28** to the upper front portion of the carriage **16** and passes upwardly over pulley **29** which is carried at the top portion of the support member **10**. The cable **27** extends downwardly from the pulley **29** along the rear side of support member **10** when the goal supporting carriage **16** is in the desired position, it may be held therein by securing the free end of the cable **27** in any suitable manner such as tying it or engaging a link **30** carried by the cable with a hook **31** mounted on the support member **10**. Or the cable **27** could be controlled by a suitable windlass, not shown, which could be mounted on member **10**.

By tightening or loosening the nuts on tie bolts **19**, as well as the bolts which support the rollers, it is possible to selectively vary the frictional engagement between the side plates **17** and **18** and the respective faces **12** and **13**. The side plates **17** and **18** should engage the faces **12** and **13** firmly enough to prevent objectionable lateral movement of the backboard **23** while still permitting relatively easy movement of the carriage along the support member **10**.

From the foregoing it will be apparent that the objects of the invention have been attained by providing a basketball goal which may be adjusted vertically by a simple, yet efficient, mechanism. Because of its great simplicity, the structure may be easily made and assembled by simple mechanical operations at a minimum cost. The parts of the side plates may, for example, be joined by welding operations. By means of the invention it will be apparent that a basketball goal may be readily raised or lowered so as to render it useable by both adults and young children. While the vertical support member **10** is shown as set in concrete, other means may be employed for holding the support member. For example, a vertical post of ample length could be supported on a vertical wall by suitable brackets or the like.

Various modifications can obviously be made without departing from the spirit of the invention as pointed out in the appended claims.

What is claimed as new is:

1. A basketball goal comprising a vertical support member having a rectangular cross-section, a carriage mounted for vertical movement on said member and having two spaced side plates in sliding engagement with the respective side faces of the member, two rollers mounted on the carriage and positioned, respectively, in rolling engagement with the front and rear faces of the member, supporting arms projecting forwardly from the carriage, a blackboard and attached hoop carried by the arms, and means for moving the carriage and holding it in adjusted position on the support member.

2. In a basketball goal, a vertical support member, a carriage mounted for vertical movement on said member and comprising a pair of spaced side plates mounted, respectively, on opposite faces of said member and in sliding engagement therewith, means for connecting said side plates and holding them in adjusted engagement with said faces, a pair of rollers carried, respectively, by the upper rear and lower front portions of the carriage between said plates and located, respectively, on the front and rear faces of said support member and in rolling engagement with the respective faces, support arms projecting forwardly from the carriage, a backboard and attached hoop carried by the forward portions of said arms, and means for vertically moving the carriage and holding it in adjusted position.

3. In a basketball goal having a backboard and a hoop attached thereto, the combination of means for adjustably supporting said backboard comprising a vertical support member having front and rear faces and parallel side faces, a carriage mounted for vertical movement on said support member and comprising a pair of spaced side plates which are held in sliding engagement with the respective side faces of the support member, a pair of rollers carried, respectively, by the upper rear and lower front portions of the carriage in rolling engagement with the respectively adjacent rear and front faces of the support member, supporting arms projecting forwardly from the carriage and supporting said backboard, and means for vertically adjusting the backboard comprising a pulley carried at the upper part of the support member and a flexible cable connected to the front portion of the carriage and extending over the pulley and down along the rear side of the support member.

4. A basketball goal comprising a vertical support member having parallel front and rear faces and parallel side faces, a carriage mounted for vertical movement on the member, said carriage comprising a pair of spaced side plates mounted, respectively, on the opposite sides of the support member in sliding engagement with the side faces, means for connecting the spaced plates and holding them in adjustable engagement with the side faces of the support member, a roller mounted between the rear upper portions of the side plates for rolling engagement with the rear face of the support member, a second roller mounted between the front lower portions of the side plates for rolling engagement with the front face of the support member, supporting arm means projecting forwardly from the upper and lower portions of the carriage, a backboard with attached hoop supported by the forward portions of the supporting arm means and means for vertically adjusting the carriage comprising pulley means mounted at the top of the supporting member and a flexible cable connected to the upper front portion of the carriage and extending over the pulley means and down the rear side of the support member.

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