July 4, 1939. H. P. KNIGHT ET AL 2,164,713

CONVEYER

Filed April 1, 1938

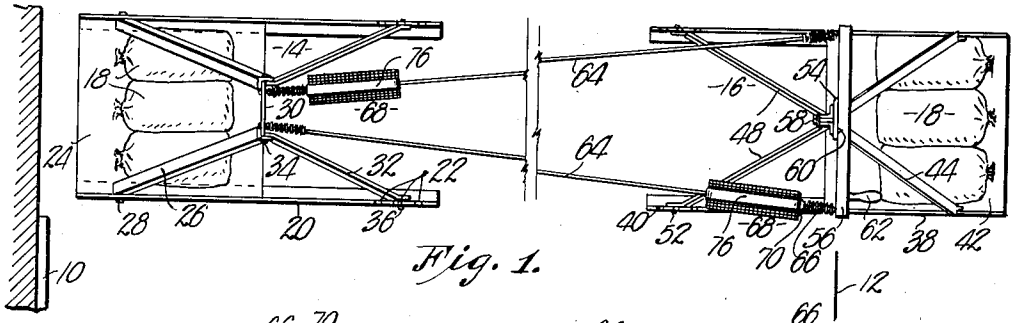


Fig. 1.

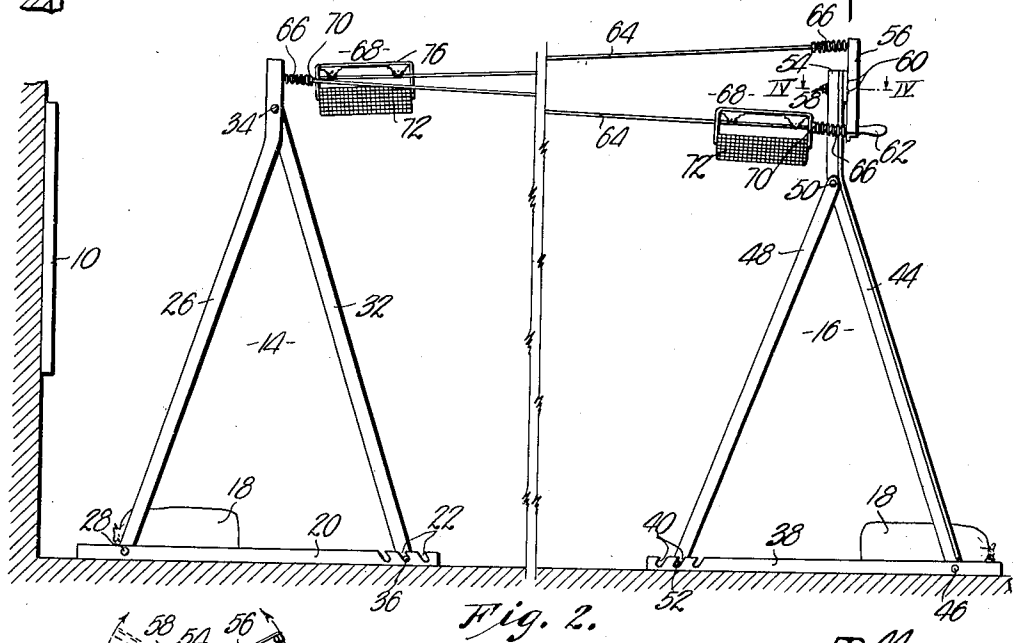


Fig. 2.

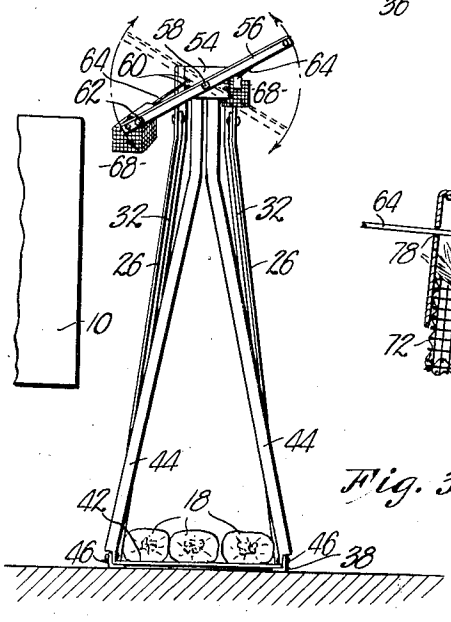


Fig. 3.

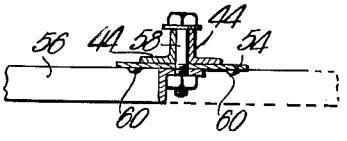


Fig. 4.

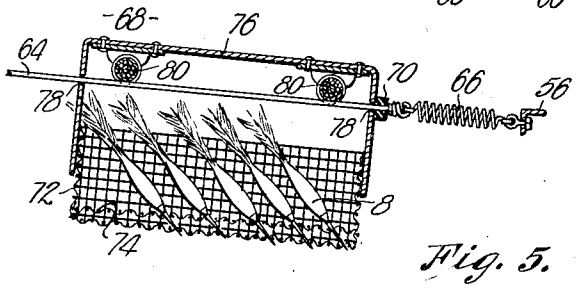


Fig. 5.

INVENTORS.
Herman P. Knight.
Thomas B. Franklin

BY Henry J. Hamilton

ATTORNEY.

Patented July 4, 1939 2,164,713

UNITED STATES PATENT OFFICE

2,164,713

CONVEYER

Herman P. Knight and Thomas B. Franklin,
Kansas City, Mo.

Application April 1, 1938, Serial No. 199,384

2 Claims. (Cl. 186—27)

This invention relates to conveyers generally and particularly that type which is collapsible and may be set up in any desired location and in proximity to a board which forms a part of a game that employs darts in the playing.

The primary object of this invention is to provide a collapsible and transportable conveyer that may be quickly and easily moved to and from an operative condition and which, when in such condition, is efficient, strong, simple in construction, and will serve the players of the game with a minimum amount of effort on their part.

Another important aim of this invention is to provide a pair of uniquely constructed supports, the nature of which is such as to require no anchoring means other than quickly placeable weights; which supports may be collapsed to a condition for transportation when not in use.

One of the main features of this invention resides in the employment of a pair of specially disposed trolley members, by each of which is carried a dart receiving receptacle, which receptacles simultaneously move along the trolleys in opposite directions when the proximal ends thereof are moved to positions above and below a horizontal plane extending through the point of attachment of the other ends of the trolleys.

Another important feature of this invention is the provision of a specially formed carrier for game darts, which carrier is made of foraminous material and provided with a false bottom or partition near the bottom thereof, which will hold the darts in an upright or protected position during the time they are being carried from one support of the conveyer to the other along the trolleys thereof.

Minor objects of the invention are important to the efficient operation of this conveyer, and such will appear during the course of the following specification, referring to the accompanying drawing wherein:

Figure 1 is a condensed plan view of a conveyer made in accordance with this invention and disposed adjacent to the game board.

Fig. 2 is a condensed side elevation of the conveyer.

Fig. 3 is an end view of the conveyer showing the throw-arm in two positions.

Fig. 4 is an enlarged, fragmentary detailed section view through one support of the conveyer taken on line IV—IV of Fig. 2; and,

Fig. 5 is a longitudinal, vertical central sectional view through one of the carriers.

A large number of games which use darts 8 in the nature of those illustrated in Fig. 5, employ a board 10 that is mounted upon a vertical wall some distance from the line from which the player must throw the darts. These darts 8 must be returned to the aforesaid line of play after a predetermined number have been stuck into board 10 and at the present time, it is customary to have an umpire located near board 10 to remove darts 8 so that they may be sent back to the players along the line aforementioned.

Such games have become so popular that the problem of maintaining a supply of darts 8 at the line 12, which is diagrammatically illustrated in Fig. 1, is serious. The game is played for example, in recreation halls, churches, gymnasiums, and other locations, where a permanent conveyer would be undesirable. The conveyer embodying this invention is collapsible and may be set up with ease and dispatch.

The ruggedness and simplicity of the conveyer is noteworthy and reference to the drawing will readily indicate that there are two spaced apart supports 14 and 16 each of which are held in play by a weight that comprises a number of bags of sand 18, or any other similar weight imparting element.

Support 14 comprises a pair of base members 20 each of which are provided with notches 22, and that support a platform 24 upon which rest bags 18. Members 20 should be of angle iron and upwardly converging standards 26 each have pivotal connection with their respective members 20 as at 28. The upper portion of standards 26 are spaced apart and secured together by a plate 30 to which are attached the hereinafter mentioned trolley members.

A brace 32 is associated with each support 26 and the upper ends of these braces are pivotally secured as at 34 to their respective standards 26. A laterally extending pin 36 is carried by each brace 32 to engage either of the notches 22 when support 14 is set up in the operative position.

Support 16 is substantially the same as support 14 in that it has a pair of base members 38 provided with notches 40 and a platform 42. Inclined standards 44 of support 16 are pivotally secured to members 38 as at 46 and a brace 48 is associated with each standard 44. These braces 48 are pivotally attached to standards 44 as at 50 and the lower ends of braces 48 have laterally extending pins 52 to engage notches 40. The upper ends of standards 44 of support 16 are relatively close together and carry a friction plate 54, which in turn has an arm 56 pivotally secured thereto.

A bolt or similar element 58 serves as the medium for pivotally interconnecting arm 56 and plate 54. This arm extends outwardly to each side of support 16 and swings from the position shown in full lines of Fig. 3, to the position shown in dotted lines of that figure and vice versa.

Detents 60 are embossed in plate 54 so as to yieldably maintain arm 56 in either one of the two positions illustrated. A handle 62 mounted on one end of arm 56 is placed in convenient reach of the player.

A pair of trolley members 64 of identical construction extend from support 14 to support 16 and are maintained taut by the pull exerted thereon both by the placement of supports 14 and 16 and by springs 66 which form a medium for interconnecting the ends of trolley members 64 to the parts of the aforesaid spaced apart supports. One end of each trolley member 64 is attached to plate 30 of support 14 while the other end of the trolley is attached to the end of arm 56. When the supports are in the operative position, the point of attachment between trolley members 64 and support 14, is on the same horizontal plane as the axis of rotation of arm 56; therefore, when the arm is in either one of the positions shown in Fig. 3, the trolley members must be inclined out of the horizontal plane and in opposite directions, as illustrated in Fig. 2, to the end that the carriers 68, one of which is mounted on each trolley 64, will move by the action of gravity from one end of trolley 64 to the other.

A bumper in the nature of a small block of resilient material 70, is carried by each end of each trolley 64 so that when the carriers 68 reach the end of the trolleys, they will be stopped without objectional reaction. Each carrier 68 is constructed of a foraminous body 72 that is provided with a partition 74 disposed in spaced, parallel relation with the bottom of the body. Thus, the points of darts 8 may project through partition 74 and the bottom of the body in a manner similar to that illustrated in Fig. 5. So supporting the darts will insure that the feathers which form a part thereof, will not be bent or otherwise destroyed during transportation.

A hanger 76 is secured to body 72 and is substantially U-shaped. The two legs of the U-shaped hanger are provided with guide holes 78 therethrough, which receive trolley members 64 and the portion of hanger 76 between the legs, is provided with a pair of rollers 80 which ride directly upon the associated trolley members 64. These rollers 80 are grooved to fit over trolley members 64 and when the said trolley 64 is passed through holes 78 the danger of rollers 80 jumping from the trolley member is entirely eliminated.

The operation of a conveyer made in accordance with this invention is obvious when it is observed that merely swinging arm 56 from the position shown in full lines of Fig. 3 to the dotted position therein, will reverse the angle of inclination of both trolley members 64. When this action takes place, the carriers which are shown in Figs. 1 and 2, will be moved by gravity along their respective trolley members 64 to positions near the supports which are now at the opposite ends of trolley members 64 from the location of the carriers. Thus, one carrier 68 is always near the line 12, while the other carrier is near board 10. As darts 8 are removed from board 10 by the umpire, they are placed in the closest carrier 68 and when the players need a supply of darts, it is only necessary to move arm 56 about its pivotal point so as to cause the loaded carrier to move to a position where it may be reached by the player.

In folding the supports 14 and 16, it is but necessary to remove the pins from the notches, swing the platform and base members up against the standards, and then move the braces against the base members, thus a substantially flat, compact bundle is created and the supports may be stored or transported as desired.

It is obvious to one skilled in the art that conveyers having different appearances and physical characteristics from the one herein illustrated, might be made without departing from the spirit of the invention or scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a conveyer of the character described, a carrier for darts having elongated points thereon, comprising a body of foraminous material; and a partition of foraminous material in the body, said partition being in spaced parallel relation with the bottom of the body, the distance between said partition and the bottom of the body being less than the length of the said points of the darts.

2. In a conveyer of the character described having a trolley member, a carrier for darts comprising a double bottom body of foraminous material; and means for mounting the body on the trolley member of the conveyer, the distance between the walls of the double bottom of said body being less than the length of the points on the darts.

HERMAN P. KNIGHT.
THOMAS B. FRANKLIN.