Oct. 14, 1924. 1,511,696

C. A. WENDT.

BOWLING ALLEY

Filed March 23, 1923

Fig. 1.

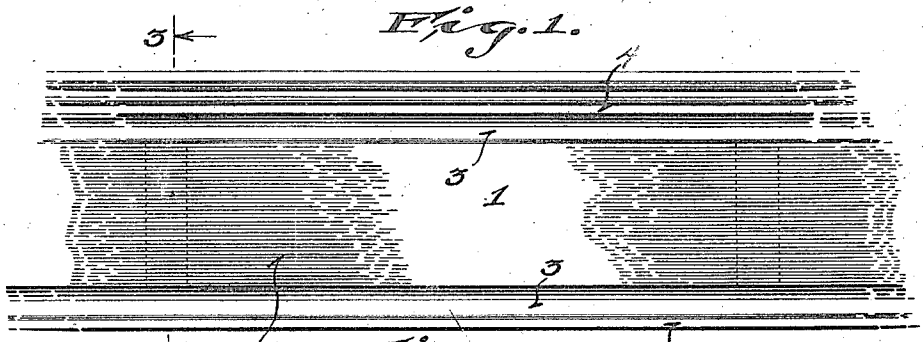


Fig. 2.

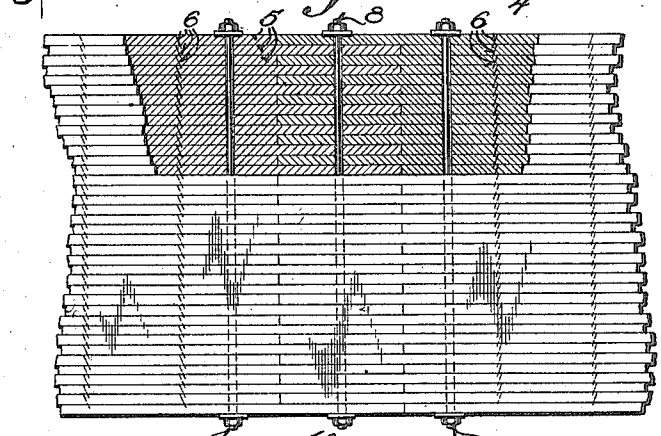
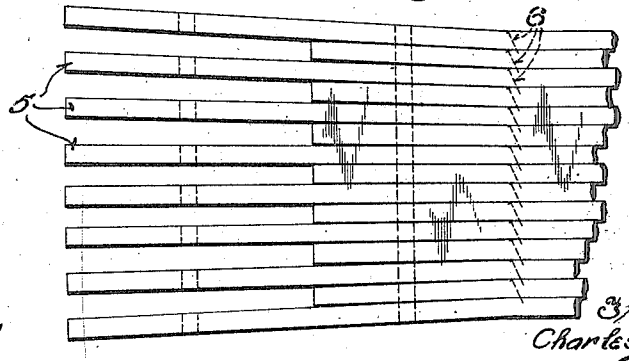


Fig. 3.



Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES A. WENDT, OF MILWAUKEE, WISCONSIN.

BOWLING ALLEY.

Application filed March 23, 1923. Serial No. 627,038.

To all whom it may concern:

Be it known that I, CHARLES A. WENDT, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Bowling Alleys; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention pertains to improvements in bowling alleys, and has primarily for its object the provision of improved means for joining a plurality of made-up sections which comprise the alley.

At the present time it is customary to construct bowling alleys in one continuous length, by nailing the strips of flooring together, allowing the ends of the strips to abut at any haphazard point throughout the length of the alley. In cases where it is desired to move the alley thus constructed, it is cut transversely into a plurality of sections for convenience in transporting. In again laying the alley, the abutting ends of the sections are grooved transversely for the reception of a retaining strip to hold the abutting ends in proper alignment, as in a feather joint. The foregoing structure is objectionable in that a continuous alley must be built up originally on the floor where it is to be used, and when cut in sections for moving, the method of joining is insecure and fails to prevent disalignment of the abutting sections.

It is, therefore, an object of the present invention to overcome the foregoing disadvantages by the provision of an improved joint structure, whereby an alley may be properly constructed of a plurality of sections, of suitable length for convenient shipping, and which may be made up in the factory.

A more specific object resides in the provision of a joint wherein certain of the strips of abutting sections overlap one another, the overlapping strips being drawn together by bolts passing transversely through the ends of each section, and being firmly held against disalignment or spreading by a transverse bolt through the overlapping ends.

A still further object resides in the provision of nails or other means for securing the strips of a section together at spaced intervals throughout the length of a section, said securing means terminating at a point sufficiently spaced from the ends of the section to insure a slight spreading of the overlapping strips, whereby their interengagement with the projecting strips of the abutting section is facilitated.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof.

Figure 1 is a plan view of a portion of a bowling alley constructed in accordance with the present invention.

Figure 2 is an enlarged fragmentary plan view illustrating one of the joints between abutting sections of the alley, with parts broken away and in section to more clearly illustrate the details of construction.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a fragmentary plan view of the end of one of the made-up sections before it is connected to an adjacent section, the same being exaggerated to more clearly illustrate the invention.

Referring now more particularly to the accompanying drawing, the numeral 1 designates a conventional type of alley made up of a plurality of sections 2 and provided with the side troughs 3, of ordinary construction, and the dividing rails 4.

As best illustrated in Figure 2, each section 2 is made up of a plurality of longitudinal strips 5, secured together at spaced intervals throughout the length of a section by the nails 6, or any other suitable means. As illustrated in Figures 2 and 4, alternating strips are extended beyond the adjacent strips to form a connection consisting of a plurality of tongues and grooves adapted to mesh with the corresponding end of an adjacent section. Thus it will be seen that when the sections 2 are properly joined to

form an alley, the ends of alternating strips 5 will overlap one another, as best illustrated in Figure 2.

When the sections 2 are built up in the factory, the nails 6, or other means employed for securing the strips 5 together, are terminated at a point sufficiently distant from the ends of the section, to cause a slight spreading of the projecting strips. The foregoing is of vital importance, in that it has been found that where the nails, or securing means, are brought up to a point closely adjacent the end of the section, the projecting strips are drawn together to such extent as to prevent the projecting strips from the adjacent section from being inserted therebetween. By terminating the nails 6 at a point sufficiently spaced from the ends of the section, the reverse action takes place, and the projecting ends are caused to slightly spread, as illustrated in Figure 4, which greatly facilitates the proper joining of abutting sections, as the projecting strips of adjacent sections can then be readily inserted between one another.

When the sections 2 have been properly abutted and joined, the extending ends of the strips overlapping one another are drawn together by means of the transverse bolts 7 passing through the ends of the sections, and which insure a close engagement of the adjacent strips at this point and prevent any possibility of warping or spreading.

In order to secure the overlapping strips of the sections 2 together, and prevent longitudinal spreading of the sections, or vertical disalignment of the overlapping strips, a bolt 8 is passed transversely through the overlapping strips, the same being provided with nuts threaded upon its ends at opposite sides of the sections to further draw the overlapping ends securely together.

From the foregoing description, considered in connection with the accompanying drawing, it will be obvious that a very simple construction has been provided which will permit the manufacturer to build up completed sections of an alley within the factory, thus materially reducing the cost of manufacture and at the same time insuring better workmanship and a standardization of construction. Further, a joint constructed in accordance with that described allows an alley to be assembled by unskilled workmen heretofore essential, and provides a rigid and smooth connection between the sections which is not subject to spreading or warping, which is detrimental to an alley.

I claim:

1. In a bowling alley, comprising a plurality of abutting sections, each made up of a plurality of strips secured together, certain of the strips of adjacent sections overlapping each other to form a joint, transverse bolts passing through the ends of the section to draw the strips together, and a transverse bolt passing through the overlapping strips to secure the sections together.

2. In a bowling alley comprising a plurality of sections, a made-up section comprising a plurality of strips, certain of which extend beyond adjacent strips, and means for securing the strips together at intervals throughout their length, said securing means terminating a sufficient distance from the ends of the section for spreading the extended strips.

3. In a bowling alley, a made-up section comprising a plurality of strips, alternating strips extending beyond the adjacent strips, and means for securing the strips together at intervals throughout their length, said securing means terminating a sufficient distance from the ends of the section for spreading the extended strips.

4. In a bowling alley, a made-up section comprising a plurality of strips of which alternating strips extend beyond the adjacent strips, means for securing the strips together at intervals throughout their length, said securing means terminating at a sufficient distance from the ends of the section for spreading the extended strips, and a transverse bolt passing through the ends of the section for drawing the strips together.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

CHARLES A. WENDT.