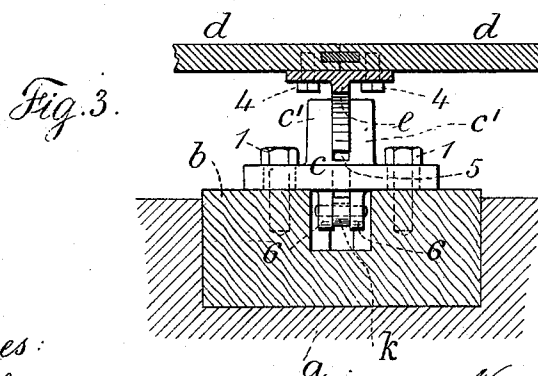
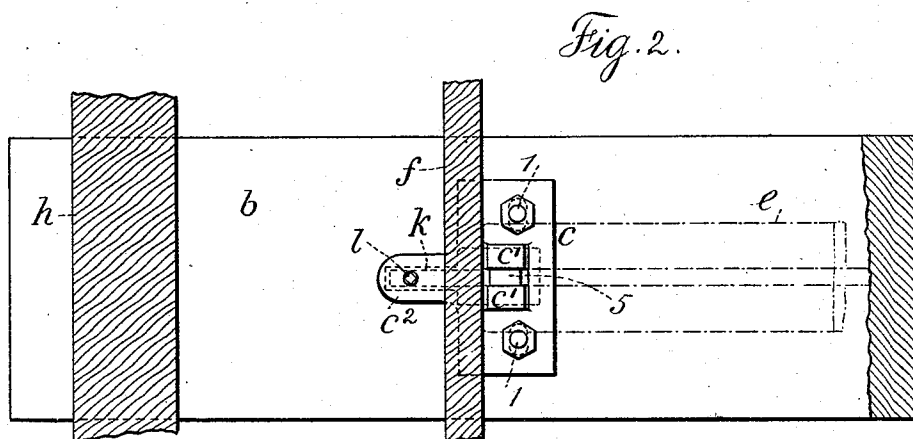
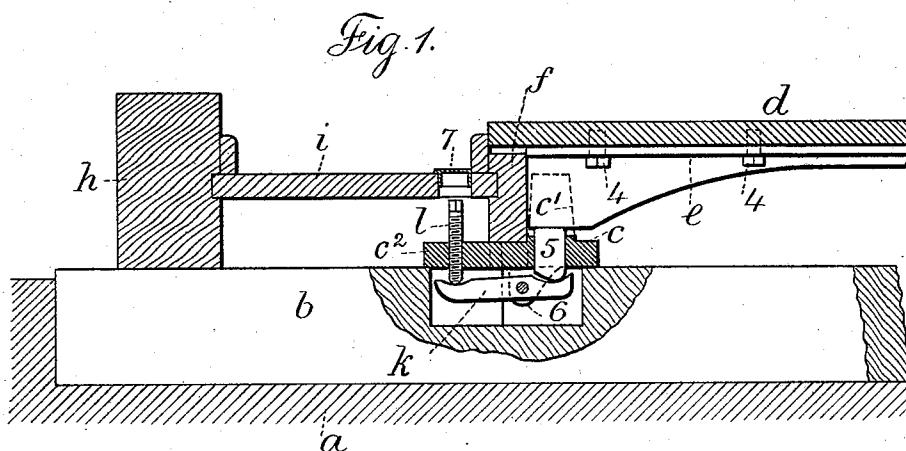


(No Model.)

W. H. WIGGINS.
BOWLING ALLEY.

No. 540,038.

Patented May 28, 1895.



Witnesses:
J. Stail
Chas. Smith

Inventor:
William H. Wiggins
per Lemuel W. Perrell
Atty

UNITED STATES PATENT OFFICE.

WILLIAM H. WIGGINS, OF BROOKLYN, NEW YORK.

BOWLING-ALLEY.

SPECIFICATION forming part of Letters Patent No. 540,038, dated May 28, 1895.

Application filed December 3, 1894. Serial No. 530,648. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WIGGINS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Bowling-Alleys, of which the following is a specification.

My present invention is designed as an improvement upon the device set forth in the Letters Patent granted to myself and T. H. Vanderhoef August 28, 1894, No. 525,172, and the same relates particularly to the standards that rest upon the sleepers and carry the plates of the bowling alley. In the aforesaid patent the plates were adjusted and the alley leveled by wedges, and in order to get at these wedges the base forming the gutter and the vertical strips had to be removed, and the object of my present invention is to obviate this difficulty.

In carrying out my invention I employ standards that are slotted transversely to receive the vertical plate of the T-beams that carry the plates of the bowling alley, and the standard is provided with an opening at the base of the slot to receive a block and lugs are provided upon the under side of the standard and a lever passes between and is pivoted to said lugs. The block in the opening comes under the vertical plate of the T-beams and it rests upon one end of the pivoted lever and a screw passing through the base of the standard acts as a stop upon the pivoted lever. As the screw is rotated and raised or lowered the T-beams and plates are raised or lowered through the intervention of the pivoted lever and block in adjusting and leveling the bowling alley. The screw is so placed that it can be rotated to accomplish the desired result without removing or disturbing the other parts.

In the drawings, Figure 1 is a vertical section illustrating my invention. Fig. 2 is a sectional plan, and Fig. 3 is a vertical cross-section.

The foundation *a* is of concrete carefully laid and the sleepers *b* are bedded in the concrete foundation to any desired extent and are thereby held securely in place. The plates *d* form the floor ways of the bowling alley. They are of steel or other suitable metal. These plates are of even thickness with accu-

ately planed surfaces and edges, and when the plates are brought together there is no unevenness at the lines of union. *f* is a longitudinal wooden strip set edgewise, and *h* is a longitudinal string piece which with the intervening board *i* forms a gutter at one side of the alley. These parts are shown and described in the hereinbefore named patent and do not require further description.

The plates *d* are secured by tap bolts 4 to the transverse T-beams *e*, and the standards *c* are secured by bolts 1 to the sleepers *b*, said standards being slotted transversely for the vertical portion or member of the T-beams or transverse angle irons. The standard is divided by the transverse slot into two upright members *c'*, and an opening is made through the standard between the members *c'* at the base of the slot to receive the block 5 which fits freely in said opening. Lugs 6 project downwardly from the under side of the standard and at each side of said opening, and a lever *k* passes between and is pivoted to said lugs, and the sleeper *b* is made with a cavity to receive the lever *k* and lugs, &c.

The standard *c* has a projection or base *c''* in line with the arm *k* and a screw *l* passes through the projection, and the lower end of the screw bears on the upper edge of the lever *k* near one end and limits its movement, and the block 5 rests upon the arm *k* at its other end and supports the T-beam or angle iron *e* and plates *d*. An opening is made in the board *i* directly over the head of the screw *l* to provide for entering a key to turn the screw in either direction, and I prefer to employ a thin cap of metal 7 fitting the said opening to exclude dust and dirt, and the said cap 7 is not in the way of the balls rolling along the gutter.

The block 5 is preferably made with a square and flat upper edge to receive and support the T-beam, and with a rounded lower end to rest in the curved end of the lever *k*. This insures the vertical movement of the block 5 and its even bearing on the T-beam or angle iron regardless of the position of the lever *k*. Similar screws are provided at both ends of each beam *e* along the alley.

The plates *d* are adjusted and the alley trued and leveled by simply turning the screws *l* to raise or lower the plates and beams.

The operation is simple and is quickly effected, and it is not necessary to disturb any of the parts in making the adjustments.

I claim as my invention—

- 5 1. In a bowling alley, the combination with a foundation, sleepers laid thereon, plates forming ball-ways and transverse beams secured to the under sides of said plates, of standards *c* beneath the plates and resting
10 upon the sleepers and having upright members *c'* receiving the respective ends of the transverse beams and projections *c²* extending outwardly beyond the line of the plates, adjusting screws passing down through the
15 projections *c²* of the standards, and connections extending across below the standards from the said screws to the said beams whereby the plates can be adjusted and the alley
20 2. In a bowling alley the combination with a foundation, sleepers laid thereon, plates forming ball ways and transverse beams secured to the under sides of said plates, of
standards adapted to receive the transverse
25 beams at their ends, levers pivoted in lugs to the under sides of the standards, blocks extending through the standards and upon

which the ends of the beams are supported by the pivoted levers and screws acting on the opposite ends of the levers to form stops and
30 by their movement to shift and level the alley plates, substantially as set forth.

3. In a bowling alley the combination with a foundation, sleepers having end cavities, and plates forming ball ways and transverse
35 beams secured to the undersides of said plates, of standards *c* having upright members *c'* between which the ends of the transverse beams are received, lugs upon the under sides of
said standards, and levers pivoted to said
40 lugs, blocks extending through openings in the standard and resting upon said levers and supporting the transverse beams, screws extending through the standards and acting on
the opposite ends of said levers to shift and
45 level the alley plates, and the gutter bottom *i* having openings to give access to the said screws, substantially as set forth.

Signed by me this 28th day of November, A.
D. 1894.

WM. H. WIGGINS.

Witnesses:

GEO. T. PINCKNEY,
S. T. HAVILAND.