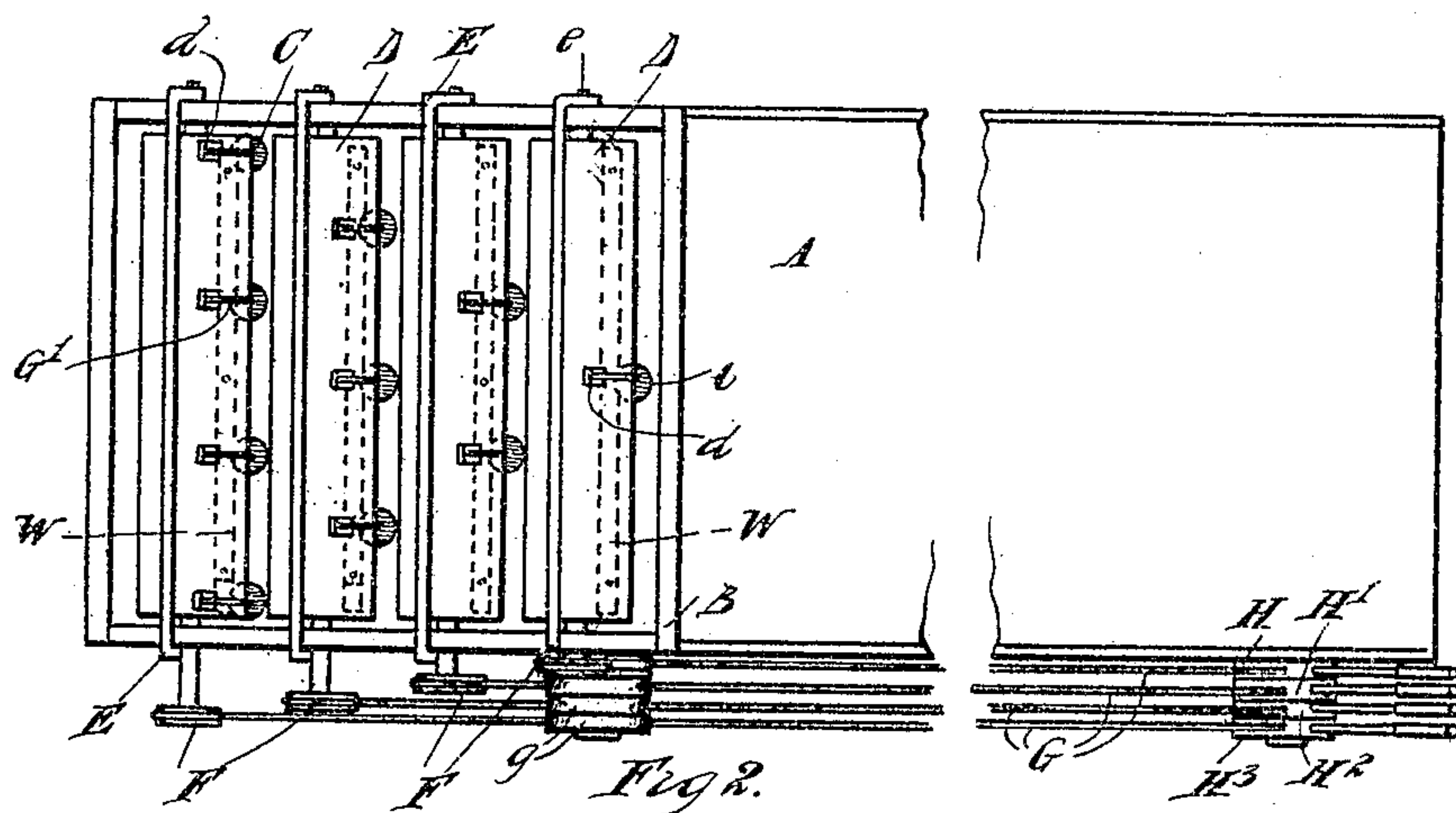
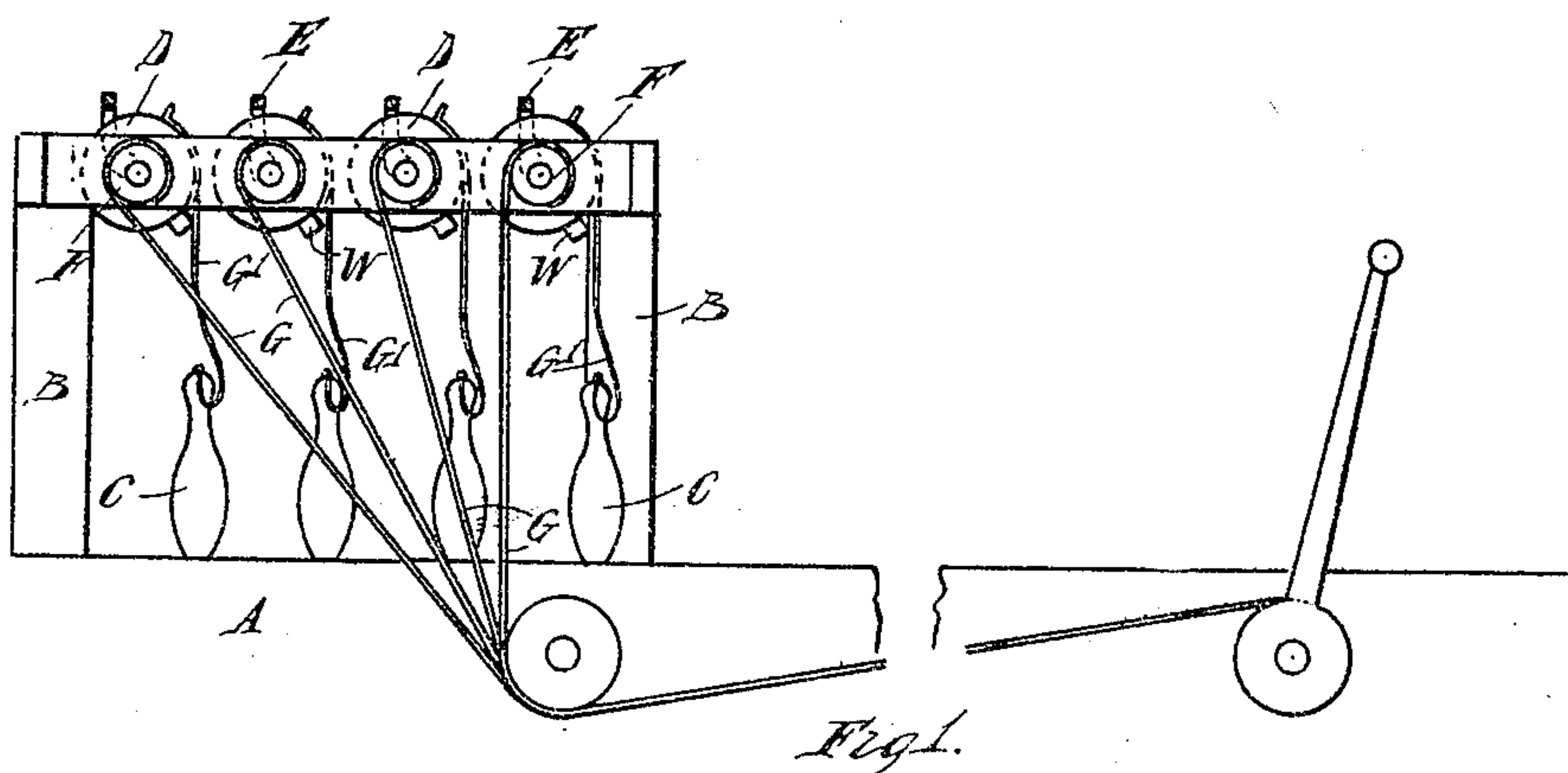


No. 784,360.

PATENTED MAR. 7, 1905.

B. A. STEVENS.
PIN RESETTING DEVICE FOR BOWLING ALLEYS.
APPLICATION FILED APR. 18, 1904.



WITNESSES
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UNITED STATES PATENT OFFICE.

BENJAMIN A. STEVENS, OF TOLEDO, OHIO.

PIN-RESETTING DEVICE FOR BOWLING-ALLEYS.

SPECIFICATION forming part of Letters Patent No. 784,360, dated March 7, 1905.

Application filed April 18, 1904. Serial No. 203,598.

To all whom it may concern:

Be it known that I, BENJAMIN A. STEVENS, a citizen of the United States, residing at Toledo, county of Lucas, State of Ohio, have invented a certain new and useful Improvement in Pin-Resetting Devices for Bowling-Alleys; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a pin-resetting device for bowling-alleys; and the object of my improvement is to provide a simple, cheap, and efficient means for resetting the pins when they have been knocked down by the ball and one in which the separate laterally-extending rows of pins may be reset from the playing end of the alley.

In the drawings, Figure 1 is a side elevation of a bowling-alley having attached thereto a pin-resetting device embodying my invention, a part of the bed being broken away to economize room. Fig. 2 is a plan view of the same.

A is the alley-bed.

B B represent a frame erected at that end of the bed at which the pins are set, said frame extending over the bed.

C C are the bowling-pins shown in playing position.

D represents cylindrical rollers pivoted in bearings on the frame B, each roller extending transversely above the bed, having its periphery parallel with and vertically above one row of pins.

d represents lugs secured upon the cylinders D.

E is a stop pivoted with its pivotal point axially in line with the axis of each of the cylinders D and extending above and over said cylinder in position to be contacted by a lug d to limit the motion of the cylinder in one direction.

The stop E may be adjusted to different positions and secured therein by a nut e.

F represents wheels upon the shafts of the cylinders D outside of the frame B.

G represents cords, one of which extends

over each of the wheels F and is secured at the periphery thereof.

The cords G extend downward and around pulleys g, then backward to the playing end of the alley, where they are secured each to a separate hand-lever H H' H² H³.

W represents weights secured upon the cylinder D at the periphery thereof and at the right of their axes, as shown in Fig. 1.

The weights W act to turn the cylinders in the direction of the hands of a clock, as shown in Fig. 1, and thereby to take up any slack in the cords G and loosen the cords G', which cords are secured to the periphery of the cylinders D and lead downward and are secured to the upper ends of the pins C. The cords G' pass around the cylinders D in the opposite direction to that in which the cords G pass around the wheels F.

The operation of the above-described device is as follows: When one or more pins are knocked down in any lateral row, they are replaced by the player actuating a hand-lever H, H', H², or H³, raising all the pins in that row upward and then lowering them down in place by returning the hand-lever to its former position, the weight turning the cylinder D and slacking the rope G'. The stop E and lug d limit the motion of the cylinder D and take up the inertia of the parts.

What I claim is—

1. In a bowling-alley, the combination of a plurality of cylinders, a plurality of laterally-extending rows of pins, one of said cylinders extending above each laterally-extending row of pins, cords extending through the upper ends of the pins and secured to said cylinders, hand-levers pivoted at the playing end of the bowling-alley, and cords connecting said levers and said cylinders, a single cord connecting a single cylinder and lever so that any movement of a lever shall rotate a corresponding cylinder, for the purpose described.

2. In a bowling-alley, the combination of a bowling-pin, a cord secured to one end of said pin, a cylinder pivoted above said pin, a lever at the playing end of the alley, said cord extending parallel around and secured to the periphery of said cylinder, a weight secured to the periphery of said cylinder and adapted

to rotate the same to loosen said cord, a second cord adapted to rotate said cylinder and extending to the playing end of the bowling-alley and secured to said lever, a lug upon
5 said cylinder, a rod extending parallel and adjacent to said cylinder and having its ends turned at right angles and pivoted in the axis of said cylinder, said rod being adapted to be contacted by said lug and to limit to a pre-
10 determined travel the turning of said cylinder in a direction which acts to raise the pin.

3. In a bowling-alley, the combination of a plurality of cylinders, one of said cylinders extending above each laterally-extending row

of pins, cords connected to the end of said 15 pins and secured to said cylinders, levers pivoted at the playing end of the bowling-alley and cords connecting said levers and said cylinders, a single cord connecting a single cylinder and lever so that any movement of a le- 20 ver shall rotate a corresponding cylinder, for the purpose described.

In testimony whereof I sign this specification in the presence of two witnesses.

BENJAMIN A. STEVENS.

Witnesses:

P. G. JONES,

GEO. E. BIBB.