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PATENTED MAY 12, 1908.

W. JOSEPHY.

PIN SPOTTING DEVICE FOR BOWLING ALLEYS.

APPLICATION FILED JUNE 6, 1907.

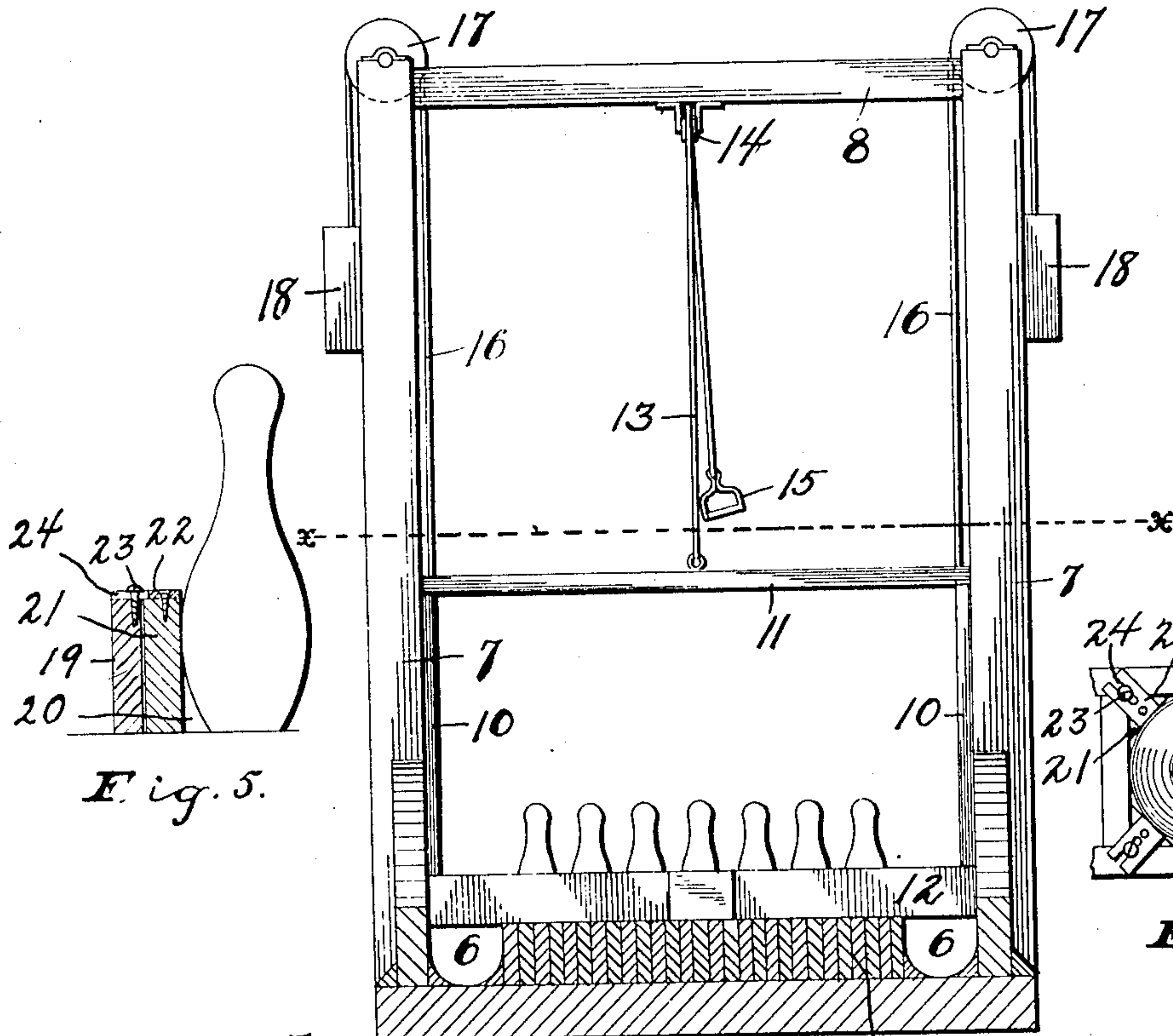


Fig. 5.

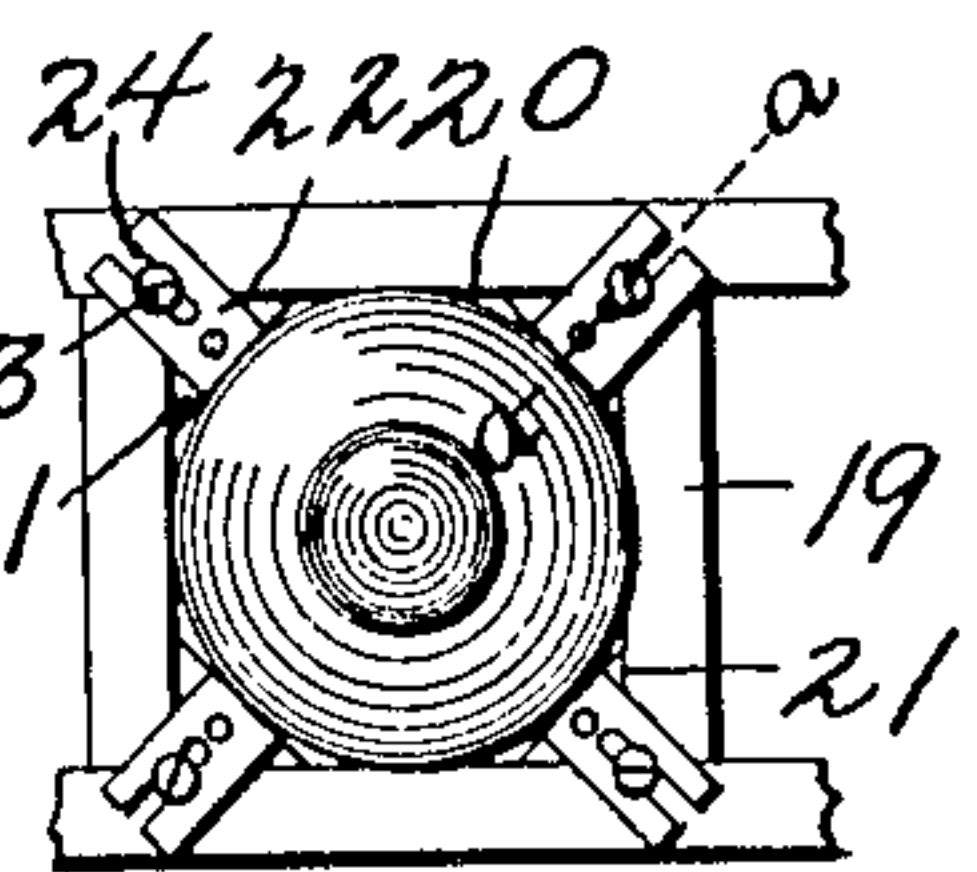


Fig. 4.

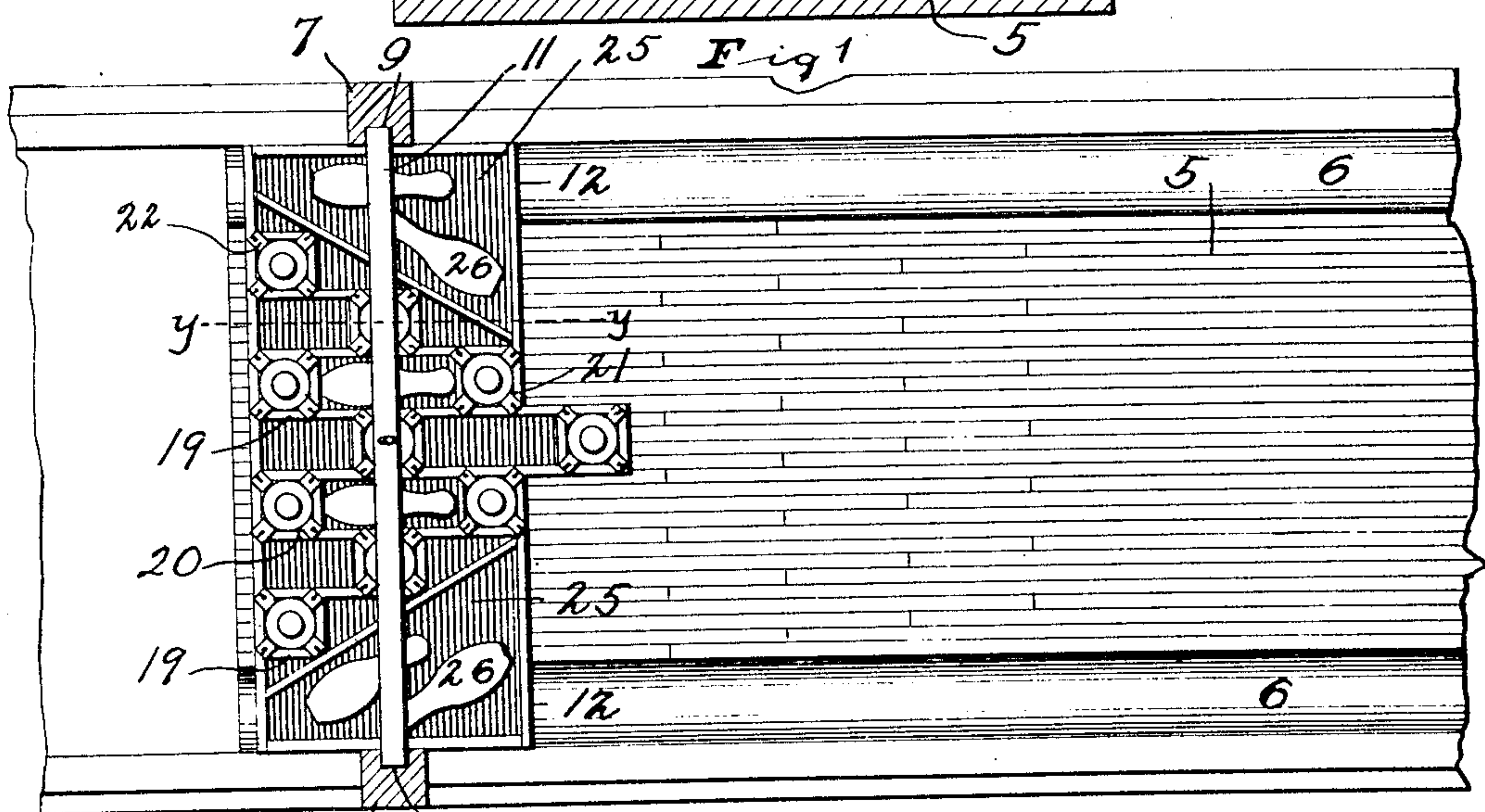


Fig. 2.

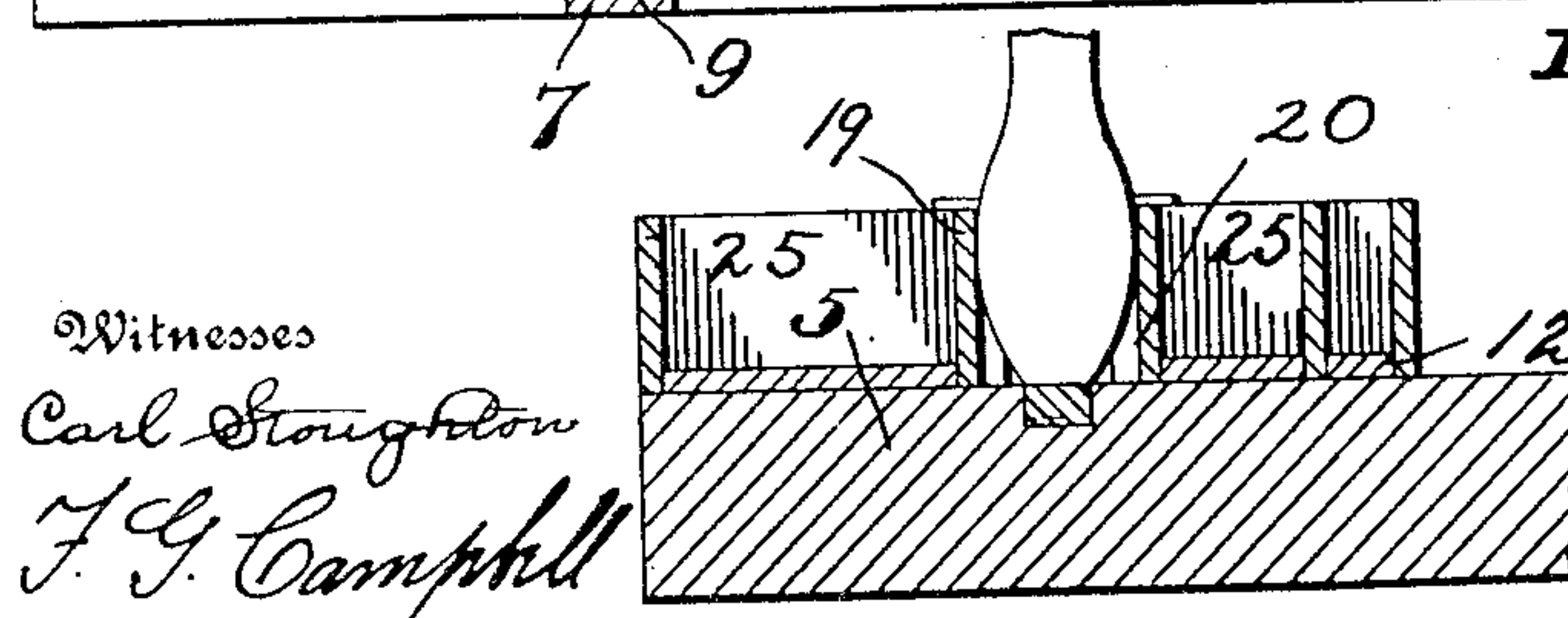


Fig. 3.

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PIN-SPOTTING DEVICE FOR BOWLING-ALLEYS.

No. 887,399.

Specification of Letters Patent.

Patented May 12, 1908.

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To all whom it may concern:

Be it known that I, WILLIAM JOSEPHY, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Pin-Spotting Devices for Bowling-Alleys, of which the following is a specification.

My invention relates to a pin spotting device for bowling alleys and has for its object the provision of a device of this character constructed in such manner that when it is not in use, it may be elevated above the alley and held out of the path of the bowling balls and may when the pins are to be spotted, be lowered upon the alley to act as a guide for the pins as they are placed in position.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing: Figure 1 is a transverse sectional view of a bowling alley, showing my improved pin spotting device applied thereto, Fig. 2 is a horizontal section upon line $x-x$ of Fig. 1, Fig. 3 is a sectional view upon line $y-y$ of Fig. 2, Fig. 4 is a plan view of one of the ten-pins and a portion of the guiding frame, and, Fig. 5 is a sectional view upon line $a-a$ of Fig. 4.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numeral 5 designates the floor of the bowling alley and the numerals 6 designate the usual gutters formed along each side of the alley. Arranged upon the outside of these gutters at the pin setting end of the alley, are the upright standards 7. These standards are connected by a cross bar 8 at the top and are channeled as at 9 (see Fig. 2) for the reception of vertical bars 10, said bars being slidably disposed in said channels. These bars are connected by a cross bar 11 and are secured at their lower ends to a frame 12. A cord 13 is secured to the cross bar 11 and passes over a pulley 14. This cord carries at its opposite end a handle 15, said cord and handle providing means for elevating the frame above the bowling alley after the pins have been spotted.

Cords 16 are secured to the cross bar 11 and sliding bars 10 and pass over pulleys 17. Counterbalancing weights 18 are secured to the ends of these cords, said weights serving

to counterbalance the frame 12, as will be readily understood, the weights being arranged to maintain the frame in an elevated position, after the operator elevates said frame by means of the handle 15 and cord 13.

It is in the construction of the frame 12 that the present invention particularly resides. This frame is provided with partitions 19 which divide it into a plurality of bottomless pockets 20, these pockets serving to guide the pins upon the spots when the pins are being placed in position and said pockets being of such size that when the frame is elevated, it will slide up over the pins without carrying the pins with it.

I am aware of the fact that a number of devices have been provided which are adapted to grip the pins in these pockets and to deposit the pins upon the spots and to then release said pins and move away without elevating the pins, but it has been found that this is an expensive and complicated manner of constructing these devices and that they are constantly getting out of order and fail to release the pins at the proper time. I do not contemplate, therefore, having the pins gripped by my setting frame, but upon the contrary, said frame merely serves as a guide for the pins when they are being placed in position.

The size of the pockets 20 may be varied by diagonal corner strips 21. These corner strips are carried by slotted plates 22 and screws 23 pass through slots 24 of these plates and provide means for binding the diagonal members 21 in any adjusted position. It is a well known fact that bowling pins rapidly become battered out of shape and it is to adjust the sizes of the pockets 20, that these diagonal corner strips are provided. Additional pockets 25 are provided in the frame 12 for carrying pins indicated at 26.

The operation of the device is as follows: When it is desired to spot the pins, the pin boy grasps the frame and draws it down upon the alley. He then places the pins in the pockets 20, these pockets serving to exactly center the pins upon the spots. It is important that these pins be placed exactly in the right position, for if they are not so placed, it is impossible for the player to knock all of the pins down with a single ball. It is a well known fact that in bowling, two balls are rolled for each frame. In many in-

stances the player knocks down only a portion of the pins with the first ball. The pin boy in spotting the pins must reach farther to spot what is known as the head pin, than in spotting any of the other pins. For this reason the pockets 25 are provided.

It is desirable that the pin boys be enabled to spot the pins not only with precision, but with rapidity. If therefore the player knocks down four of the pins with the first ball, the pin boy may while he is waiting for the player to roll the second ball, pick up those four pins and place them in the pockets 25. Ordinarily more time is consumed in gathering the pins from the pit at the rear end of the alley, than in actually placing them on the spots. By providing the extra pockets 25, the time ordinarily spent by the pin boy in idleness while waiting for the player to roll the second ball, may be utilized in picking up the pins and placing them in the pockets 25. When therefore the frame 12 is drawn down upon the alley, these pins are not in the pit, but are in the pockets 25 in such position that they may be rapidly transferred therefrom to the pockets 21 and particularly to the pockets that receive the head pin, the "two pin" and the "three pin." The pins knocked down by the second ball, are permitted to remain in the pit until after the pins have been removed from the pockets 25. The pins from the pockets 25 are placed as has been before stated upon the spots farthest from the pit. When the pin boy gets ready to place the pins from the pit upon the spots, it is comparatively easy to reach the spots at the rear of the alley.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claims.

What I claim, is:

1. In a device of the character described, the combination with a vertically movable

frame having a series of pockets formed therein adapted to register with the spots of the bowling alley, of carrying pockets formed in said frame and adapted to carry pins, said carrying pockets being independent of and in addition to the pockets that register with the spots of the alley, substantially triangular corner blocks arranged within the pockets that register with the spots of the alley, and means for adjusting said blocks toward and from the center of the pockets.

2. In a device of the character described, the combination with a bowling alley, of standards arranged at the rear end of the alley, a vertically movable frame mounted in said standards, counterbalancing weights for said frame, pockets formed in said frame and adapted to register with the spots of a bowling alley and carrying pockets also formed in said frame which are independent of and in addition to the pockets that register with the spots of the alley, substantially triangular corner blocks arranged within the pockets that register with the spots of the alley, and means for adjusting said blocks toward and from the center of the pockets.

3. In a pin spotting device, the combination with a vertically movable frame having pockets formed therein which register with the spots of the bowling alley, of slotted members movably mounted within said pockets, and means for binding said slotted members in their adjusted positions.

4. In a device of the character described, the combination with a vertically movable frame having a series of pockets formed therein adapted to register with the spots of the bowling alley, of carrying pockets formed in said frame adapted to carry pins, said carrying pockets being independent of and in addition to the pockets that register with the spots of the alley, and movably mounted members located within the pockets that register with the spots of the alley, and means for binding said members in their adjusted positions.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM JOSEPHY.

Witnesses:

A. L. PHELPS,
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