

No. 768,600.

PATENTED AUG. 30, 1904.

A. F. GRIEBEL.  
BOWLING ALLEY.

APPLICATION FILED MAR. 5, 1904.

NO MODEL.

3 SHEETS—SHEET 1.

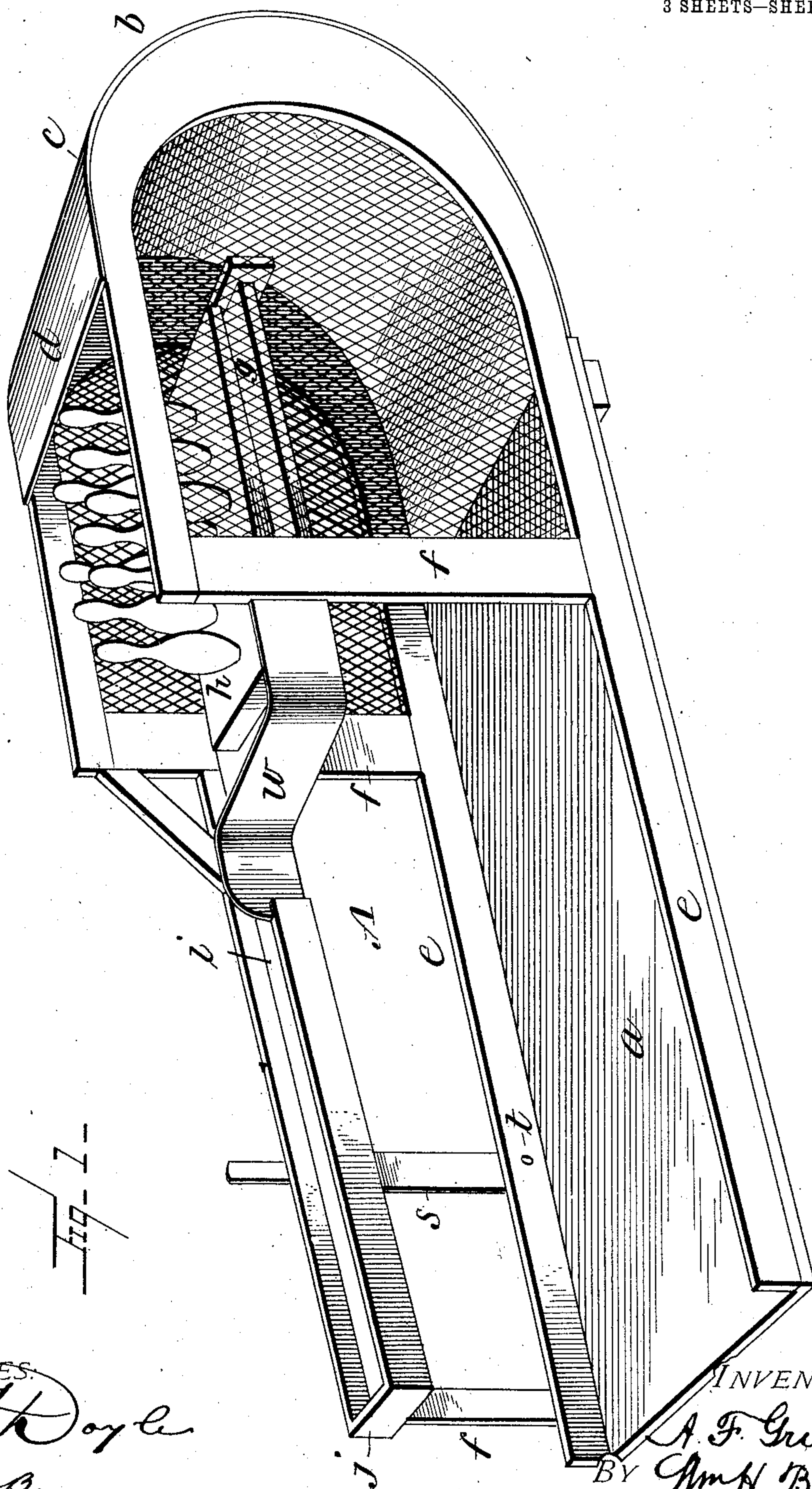


Fig. 1—

WITNESSES.

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*A. F. Griebel*

BY *J. M. H. Bates*

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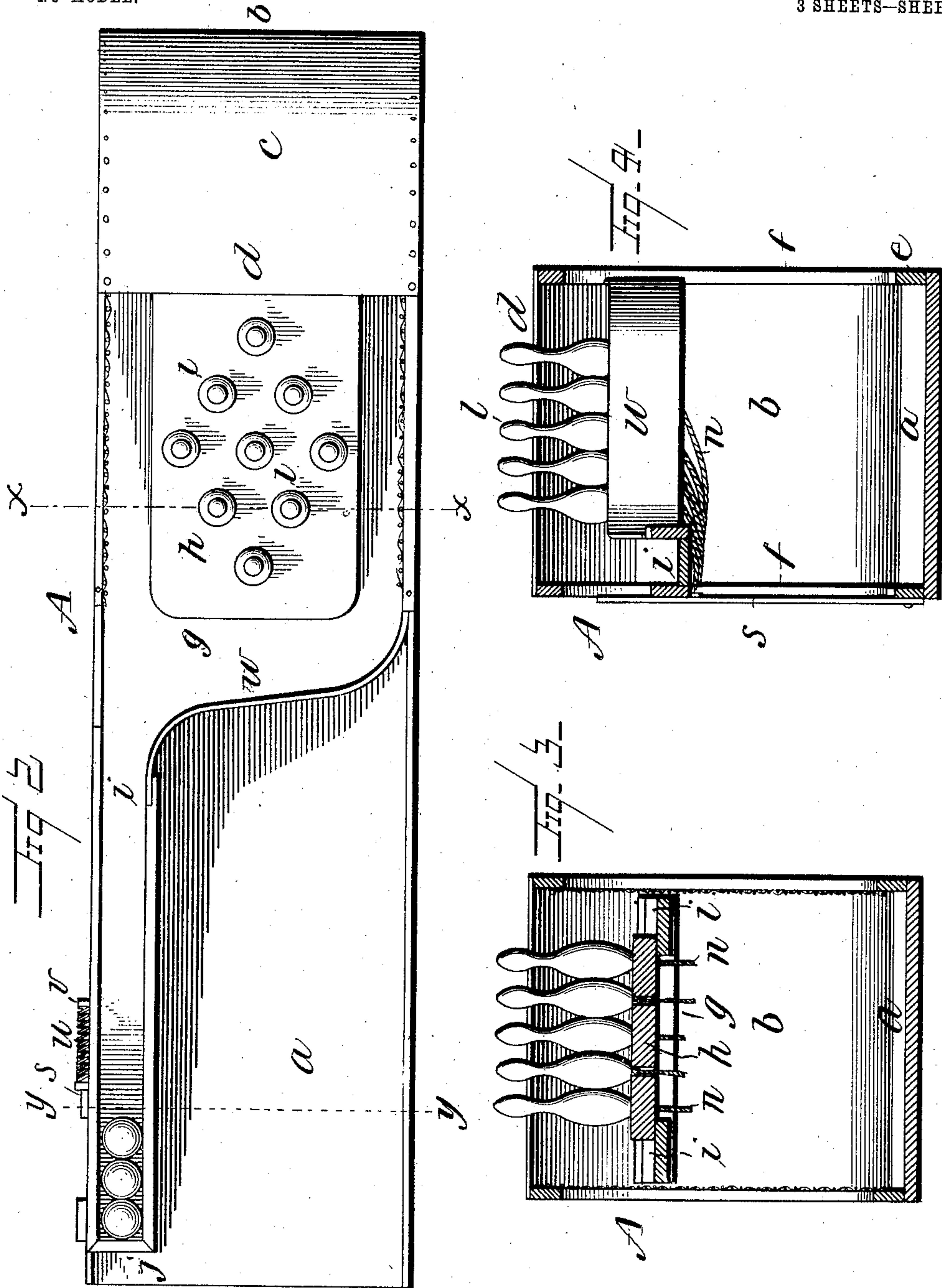
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3 SHEETS—SHEET 2.



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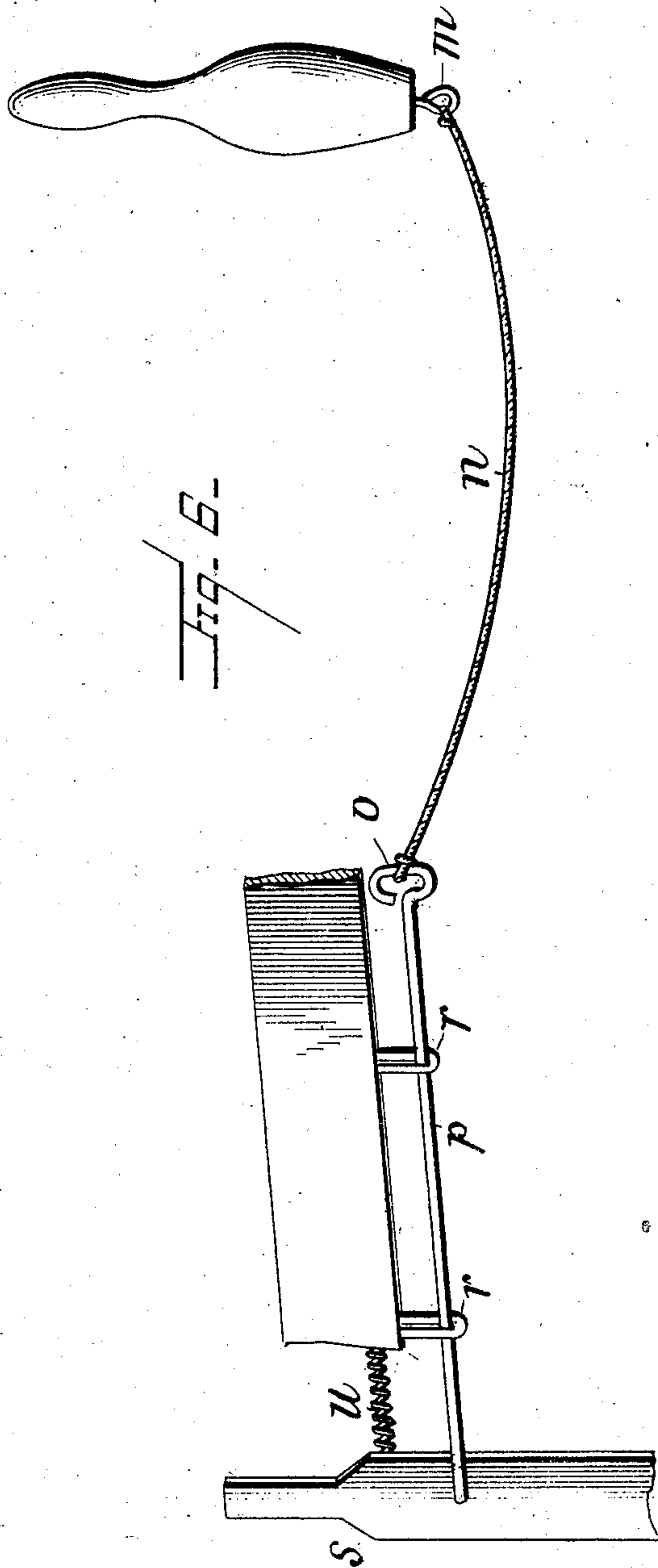
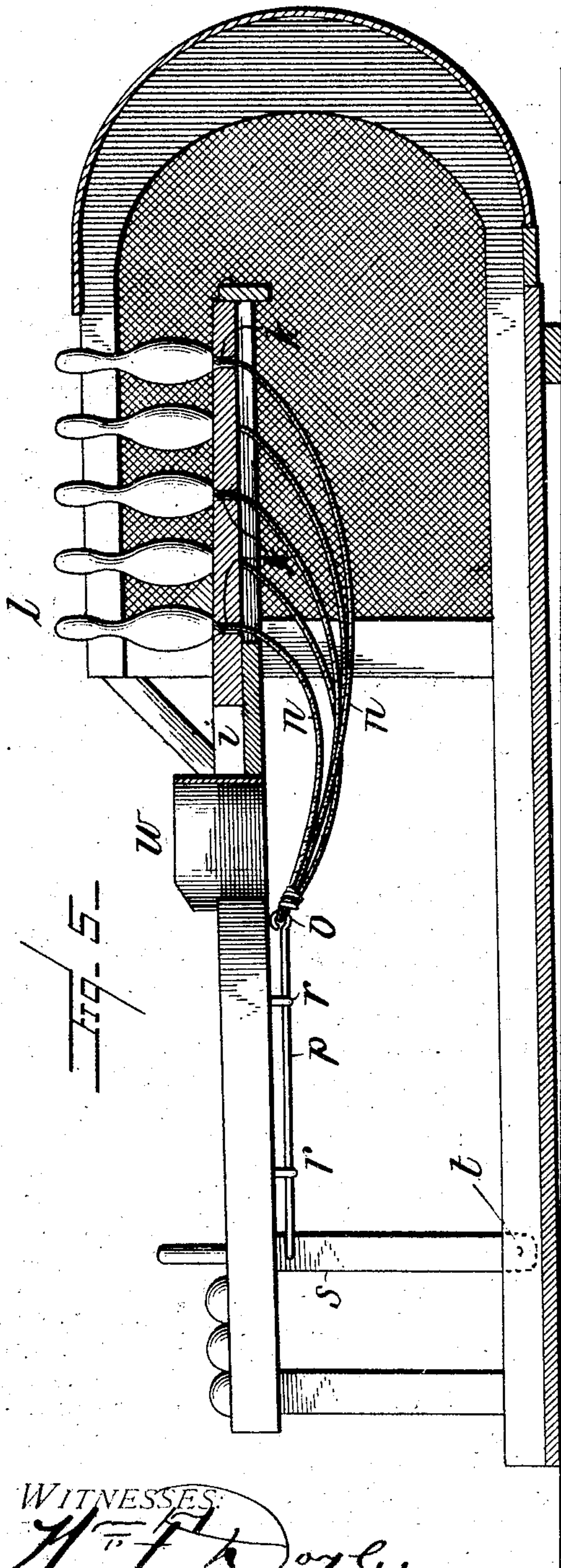
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3 SHEETS—SHEET 3.



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## UNITED STATES PATENT OFFICE.

ARTHUR F. GRIEBEL, OF LITTLE ROCK, ARKANSAS.

## BOWLING-ALLEY.

SPECIFICATION forming part of Letters Patent No. 768,600, dated August 30, 1904.

Application filed March 5, 1904. Serial No. 196,758. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR F. GRIEBEL, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented new and useful Improvements in Bowling-Alleys, of which the following is a specification.

This invention has relation to bowling-alleys; and it consists in the novel construction, combination, and arrangement of the same, all as will be hereinafter fully explained.

My object mainly is to provide a portable alley or parlor game; but the device can be constructed of sufficient size to provide an alley similar to those now in use and which are permanent structures.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a perspective view of my device, wherein a portable bowling-alley is shown. Fig. 2 is a plan view of the same. Fig. 3 is a vertical transverse sectional view taken on line *x x*, Fig. 2. Fig. 4 is a vertical transverse sectional view taken on line *y y*, Fig. 2. Fig. 5 is a vertical longitudinal view of the same; and Fig. 6 is a detail perspective view showing the lever, its rod, and one of the pins connected by a cord to said rod.

Referring by letter to the accompanying drawings, A designates the main frame of the device, comprising the floor or bed *a* and a hood *b*, that forms a rear extension, thereby closing this end of the alley. This hood is semicircular in form, having the top *c* extending somewhat forward from the central vertical line, as at *d*. The bed of the alley and the semicircular hood are connected to one another by side rails or pieces *e*, which are braced and supported by the upright pieces *f* and to which latter is secured an elevated platform *g*, consisting of raised table or support *h*, upon which the nine or number of pins, according to the game played, are set up, and a trough *i*, that is arranged on each side and at the front of this raised table and continues toward the front of the device at one side thereof, where it is closed at the end, as at *j*. This raised platform, with its gutter or trough, is arranged within the main frame,

and the sides of frame adjacent to the "set-up" table is provided with a wire screen, thus inclosing this portion of the device with the exception of the top above the nine pins. This table is provided with nine vertical perforations *k*, being one perforation for each pin *l*, and at the bottom of each pin is an eye *m*, to which a single cord or chain *n* is secured, said cord or chain and the eye entering the perforation, and the opposite end of each cord or chain is connected or secured to an eye *o* in the rear end of a horizontal rod *p*, which is supported by staples *r* on the under side of the trough. The front end of this rod is pivoted to a hand-lever *s*, which latter in turn is pivoted at *t* to the main frame. A spring *u* is connected at one end to the upper portion of this lever, while its opposite end is secured to the side of the main frame or trough, as shown at *v*. A shield *w* is arranged in front of the nine pins and somewhat higher than the table, which also serves as a portion of the trough.

It will be observed that the hood or rear end of the alley is slightly raised or elevated, and in playing the game of ninepins the operator pitches the ball in the usual manner, and when it reaches the inside of the hood at its lowest point said ball follows the semicircle or curve in its upward flight, at the same time coming forward and striking the pins, knocking them down, after which the ball rolls in the trough on either side of the table and down the long portion thereof, where it is stopped by the closed end. After one or more pins are knocked down the same can be readily set up simply by the operator drawing the hand-lever forward, which causes the rod to draw the cords or chains, and the latter in turn draw the eye of the pin into its perforation on the table, when the pin or pins are caused to stand upright, the spring forcing the lever to its normal position.

It will be readily seen that a device of this character need not be necessarily portable, but can be a permanent fixture and used as bowling-alleys are now operated, and a device as herein described is simple in construction, durable, and inexpensive to manufacture.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is--

1. In a bowling-alley, the combination with the floor, of a pin-platform supported thereon, the rear end of said floor being curved upwardly and forwardly and terminating near the rear end of said pin-platform.

2. In a bowling-alley, the combination with an elevated pin-platform provided with a trough arranged at the side of, and in front of the elevated pin-platform, a shield located above the pin-platform and secured to, and

forming a part of said trough, and the rear end of the floor being curved upwardly and forwardly and terminating near the rear end of said pin-platform. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR F. GRIEBEL.

Witnesses:

G. C. SIMMERMAN,  
A. D. BEACH.