

(No Model.)

C. BEAN & G. W. WATSON.  
TOY BOWLING ALLEY.

No. 598,894.

Patented Feb. 15, 1898.

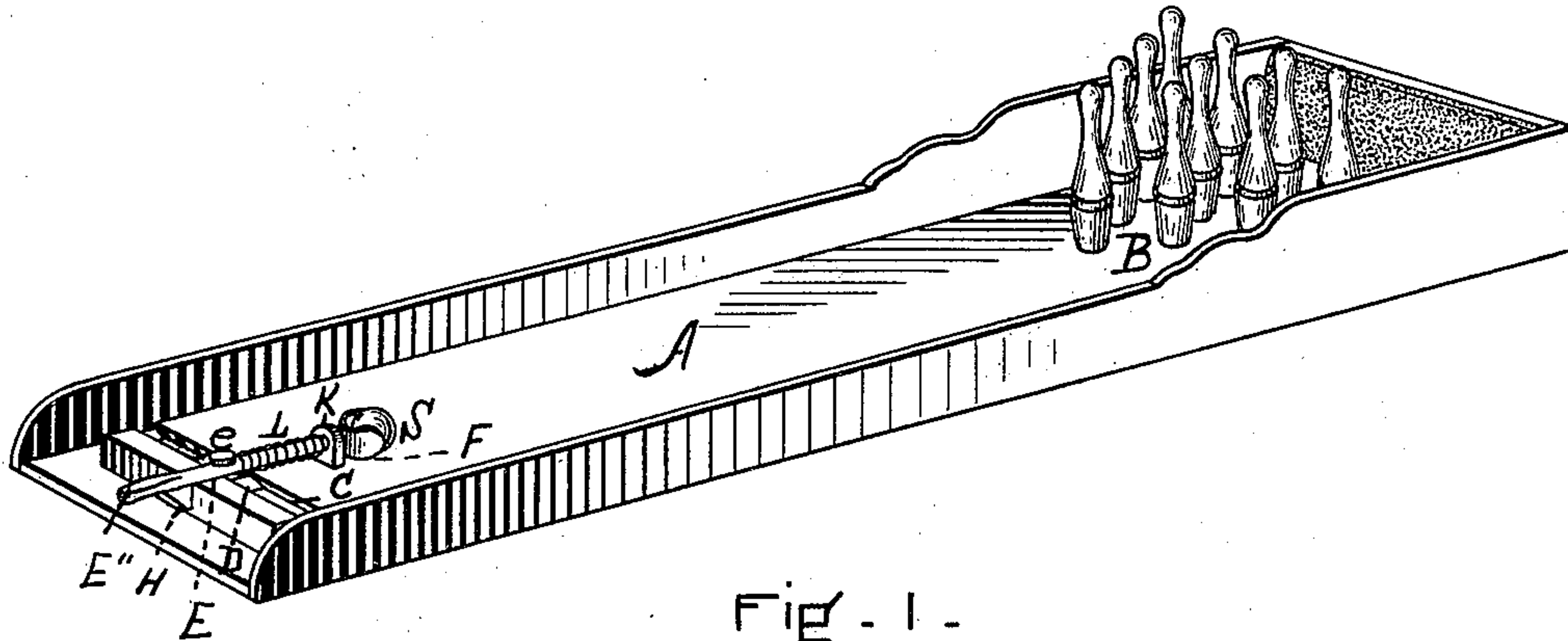


Fig. 1.

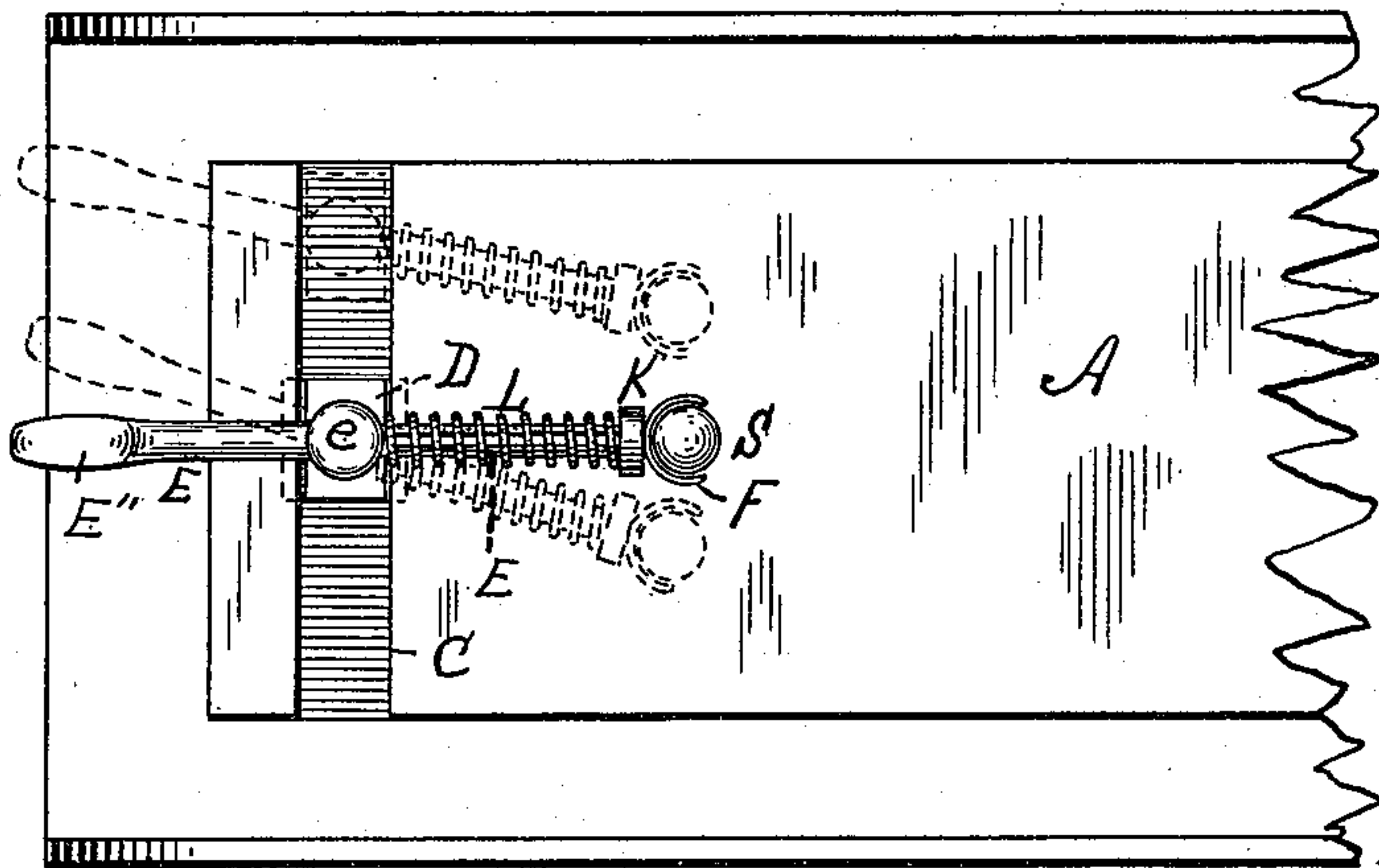


Fig. 2.

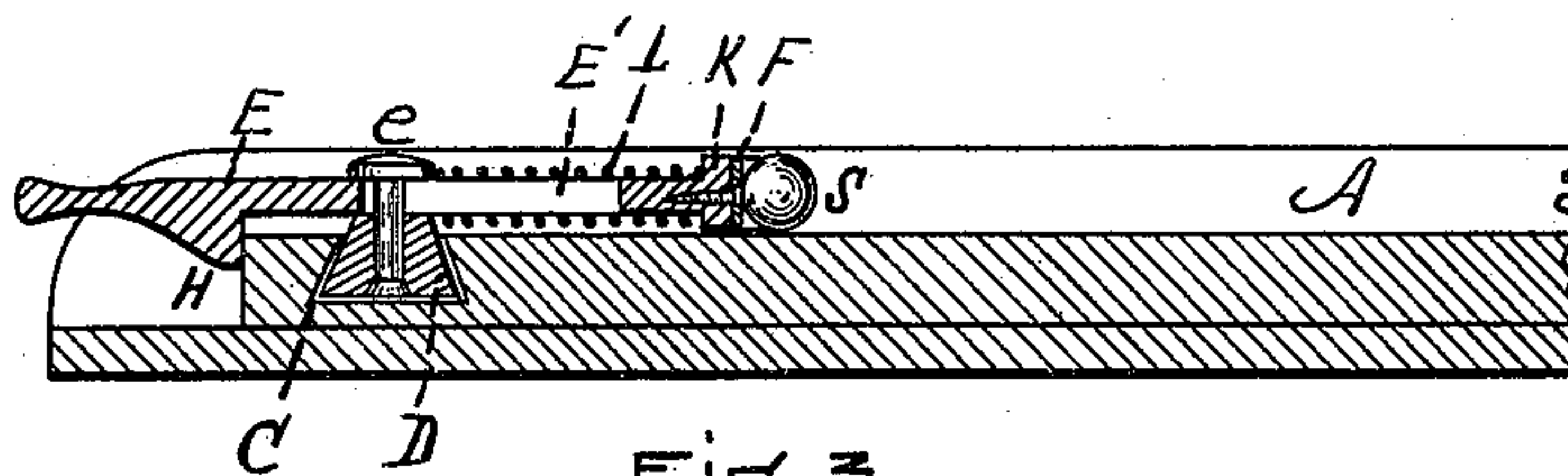


Fig. 3.

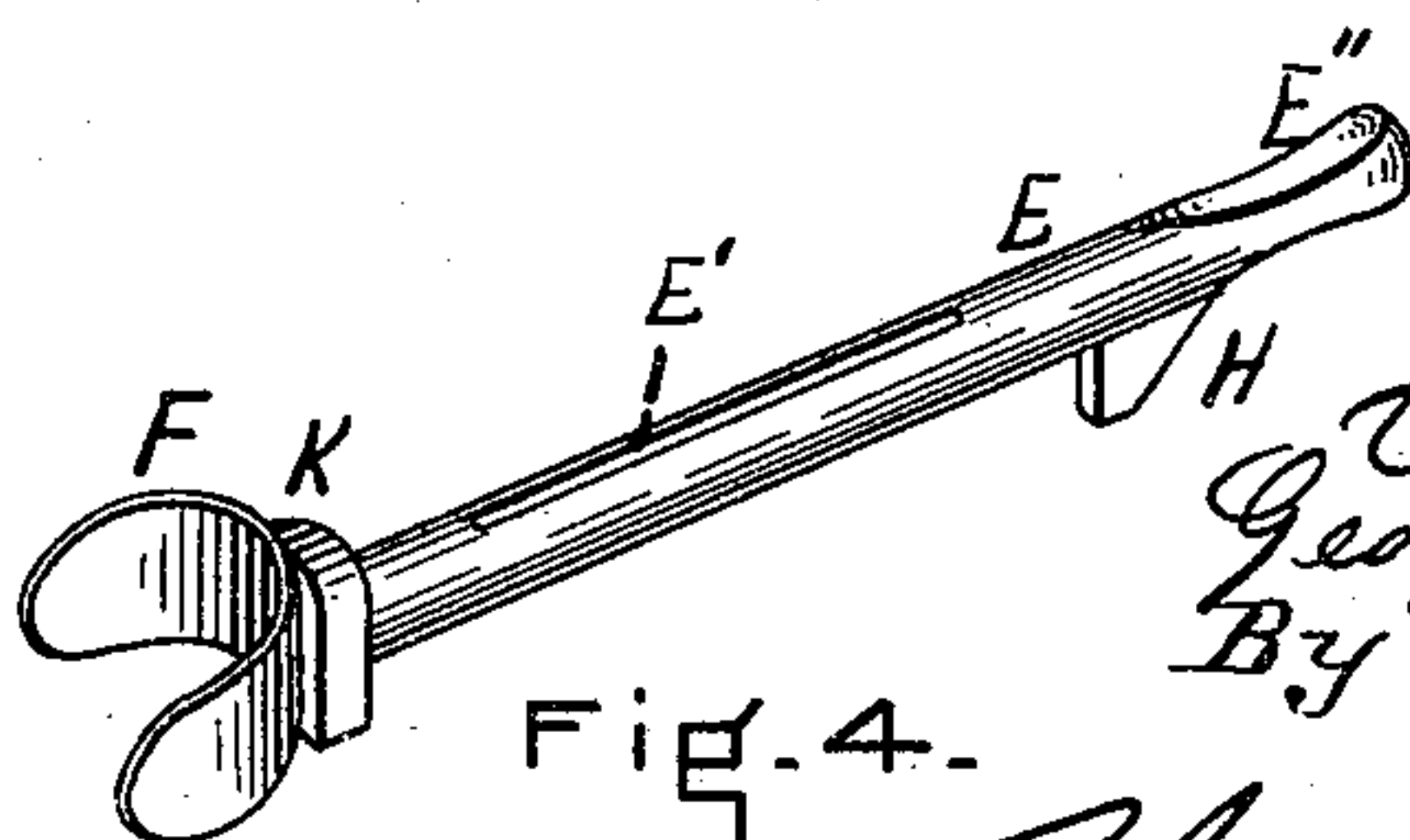


Fig. 4.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

CHARLES BEAN AND GEORGE W. WATSON, OF PAWTUCKET, RHODE ISLAND;  
SAID WATSON ASSIGNOR TO WILLIAM A. HEYWOOD AND JOHN C. STANTON, OF SAME PLACE; SAID BEAN ASSIGNOR OF ONE-HALF OF HIS RIGHT TO ALBERT H. SHAW, OF PROVIDENCE, RHODE ISLAND.

## TOY BOWLING-ALLEY.

SPECIFICATION forming part of Letters Patent No. 598,894, dated February 15, 1898.

Application filed July 30, 1897. Serial No. 646,436. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES BEAN and GEORGE W. WATSON, citizens of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Toy Bowling-Alleys, of which the following is a specification.

This improvement relates to that class of toy bowling-alleys which are adapted to be placed upon a table or floor and in which a ball is placed between the jaws of the propelling device or catapult which lies on the alley and is so connected therewith that it may be moved transversely or swung at any angle thereon. The invention has for its principal objects to simplify the construction of the propelling device in connection with the alley, do away with such parts as are apt to get out of order, and enable the game to be played with greater accuracy; and it consists in the novel construction and arrangement of parts fully described below, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved apparatus. Fig. 2 is an enlarged plan view of the rear portion of the alley. Fig. 3 is a central vertical section taken through the alley and propelling device. Fig. 4 is a perspective view of a portion of the propelling device removed.

Similar letters of reference indicate corresponding parts.

A represents the floor of the alley, and B the pins. Near the rear end of this floor it is provided with a dovetailed transverse groove C, in which slides a correspondingly-shaped block D. This block is provided with a vertical bolt *e*, which extends sufficiently above the upper surface of the block to serve as a pivot for the propelling rod or shank E, through which it extends by means of the longitudinal slot E'. The forward end of this rod or shank has rigidly secured to it the C-shaped spring F. The rear end is slightly hollowed at E'' to accommodate the thumb or finger of the hand and is provided on its under side with the projection or stop H. At

the rear of the spring F the rod or shank is formed with the guard K, and a spiral spring L surrounds said rod and is confined between said guard and the pivot or bolt *e*.

The ball S is placed between the jaws of the spring F, which hold it with sufficient firmness to prevent the ball from slipping out as the propelling device is moved into the desired position. The slide D is then moved in the groove C until the desired point on the alley is reached and then the rod or shank E is swung on the pivot *e* until it is pointed in the proper direction. Thus the ball, which during this operation is retained by the spring F, may be placed centrally on the alley or at any point between the center and the sides. When the ball has been satisfactorily placed, the shank E is grasped at its rear end and drawn back against the power of the spring L, retaining the ball in the grasp of the spring-jaws. Upon releasing the shank or rod E it flies forward until the stop H strikes the rear end of the alley A, the force being sufficient to eject the ball S from the spring-jaws F and drive it toward the pins.

By means of the flange K the bolt E or catapult is held at a fixed position vertically on the alley, so that the ball is struck at the right point to prevent jumping, such position being the same at whatever angle the bolt may be pointed and in whatever position it may be set by means of the slide D. This is practically essential because the bolt and spring surrounding it are not inclosed in the tube or barrel which would naturally rest on the alley. By this construction any necessity for a trigger is done away with and the slot E' serves not only as a socket for the pivot *e*, but allows the bolt to be pulled back and released to any necessary extent.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

In combination, the alley A provided with the transverse dovetailed groove C; the correspondingly-shaped sliding block D within said groove; the vertical bolt or pivot *e* extending up from said block and provided with

a suitable head; the propelling rod or catapult E provided with a longitudinal slot E' through which said bolt e extends and with the downwardly-extending projection or stop  
5 H adapted to rest normally against the rear end of the alley; the guard or flange K formed on the forward end of said rod or catapult and extending down therefrom and resting on the alley; a spiral spring upon said rod be-

tween the guard and the pivot or bolt e; and the spring-jaws F secured to the front surface of the guard, substantially as and for the purpose set forth.

CHARLES BEAN.  
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Witnesses:

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