

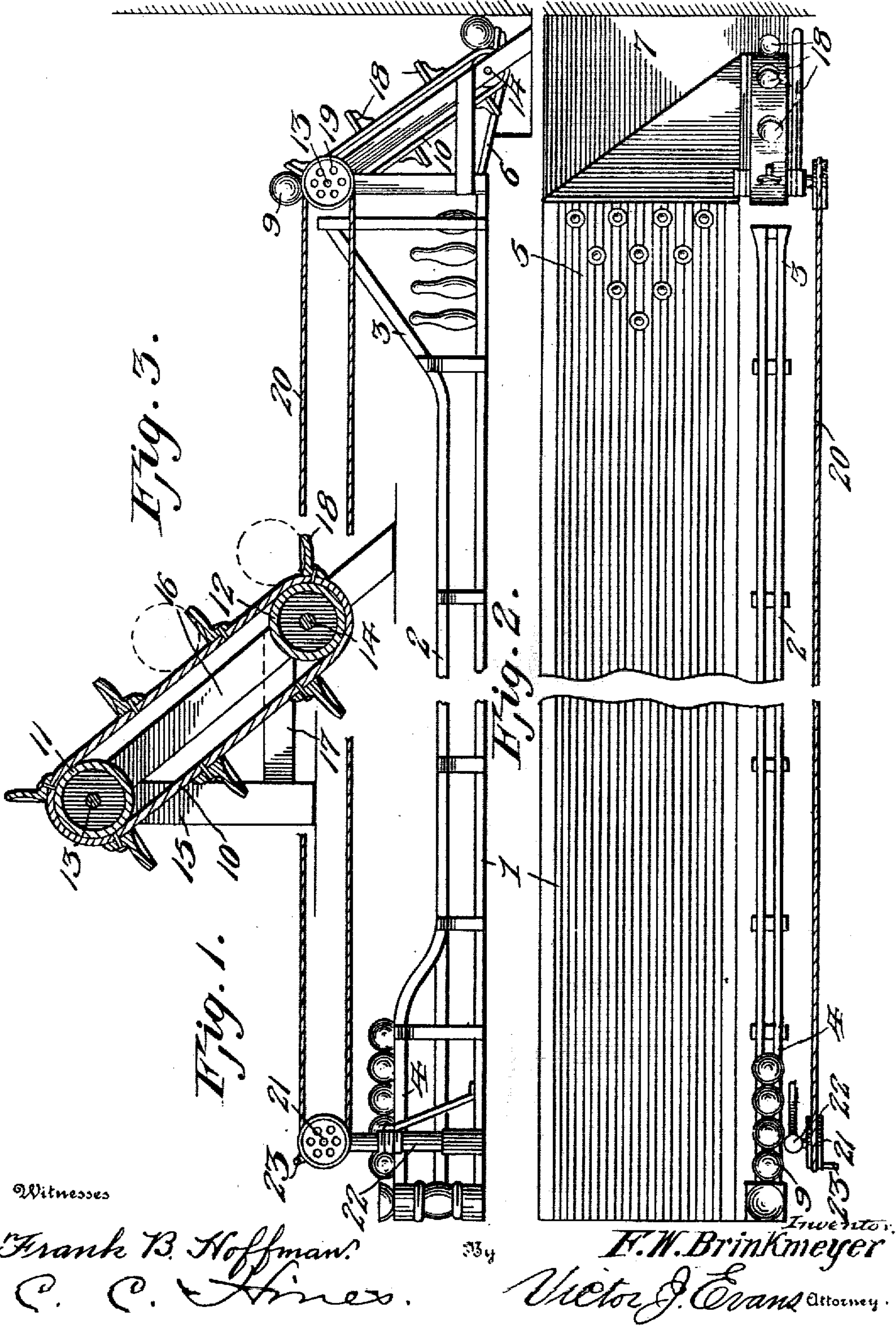
No. 809,245.

PATENTED JAN. 2, 1906.

F. W. BRINKMEYER.

BALL RETURN MECHANISM FOR BOWLING ALLEYS.

APPLICATION FILED MAR. 25, 1905.



UNITED STATES PATENT OFFICE.

FREDRICK WM. BRINKMEYER, OF DECATUR, ILLINOIS.

BALL-RETURN MECHANISM FOR BOWLING-ALLEYS.

No. 809,245.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Original application filed November 17, 1904, Serial No. 233,188. Divided and this application filed March 25, 1905. Serial No. 252,045.

To all whom it may concern:

Be it known that I, FREDRICK WM. BRINKMEYER, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented new and useful Improvements in Ball-Return Mechanism for Bowling-Alleys, of which the following is a specification.

This invention relates to ball-return mechanism for bowling-alleys, and the present application is a division of my former application filed November 17, 1904, Serial No. 233,188.

The object of the invention is to provide simple and effective means whereby the attendant or any of the players at the players' end of the alley may elevate the balls to the rear or chute end of the ball-runway, so that the balls may return by gravity to the players' end.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation of a ball-return mechanism constructed in accordance with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal section of the endless conveyer for lifting the balls from the pit to the runway.

Referring now more particularly to the drawings, the numeral 1 represents the floor or playing-surface of a bowling-alley, which, except as hereinafter noted, may be of ordinary construction, and 2 is the runway or conductor for the balls, provided at its rear end with an inclined chute 3 and at its forward end with a gallery or receptacle 4, adapted to receive and retain the balls in convenient position for use at the front or players' end of the alley.

The floor of the alley in rear of the point 5, where the pins are set up, slants or inclines downwardly or rearwardly to provide a chute-board or portion 6, down which the balls, passing the point 5, roll to a pit 7, disposed in rear of the alley, which pit has its bottom wall inclining downwardly from one side to the other in a direction transverse of the alley and leading at its delivery end into a pocket 8, arranged at one side of the alley.

Each ball 9, conducted into the pocket 8, is conveyed to the chute 3 by means of an endless conveyer-belt 10, mounted for movement on belt-wheels 11 and 12, mounted on

shafts 13 and 14, journaled, respectively, in bearings upon the upper end of a vertical post 15 and the lower end of an inclined standard 16, which latter projects downwardly into the front portion of the pocket 8, the said post and standard being connected by a brace member 17, thus forming a supporting-frame for the conveyer, which extends or inclines at an upward and forward angle from the rear portion of the pocket 8 to a point immediately above and in rear of the upper end of the chute 3. The belt is provided at suitable intervals with pockets or cups 18 to take up the balls from the pocket 8 and convey the same to the top of the chute 3, from which they travel by gravity to the horizontal central portion of the runway 2 and thence ascend through their acquired velocity or momentum to the gallery 4.

On the upper shaft 13 of the conveyer is a belt-wheel 19, which is adapted to receive motion from a belt 20, passing at its forward end around a driving-pulley 21, journaled upon a post or standard 22, disposed alongside the gallery 4, said pulley 21 being provided with an operating-crank 23, by which the belt may be driven to operate the conveyer 10. By operating the crank 23 the conveyer 10 may be set in motion whenever desired to lift the played balls from the pocket 8 to the chute 3, on which the balls, as stated, travel by gravity to the gallery 4. This operation may be performed by an attendant or any of the players at the front or players' end of the alley, thus obviating the necessity of employing an attendant at the rear of the alley to deposit the balls on the chute 3.

Having thus fully described the invention, what is claimed as new is—

1. A bowling-alley having a ball-runway provided at its rear end with a chute and at its forward end with a gallery or receiving portion, the rear end of the alley being provided with a downwardly and laterally inclined chute, an endless conveyer inclined upwardly and forwardly from the chute to the ball-runway and provided with pockets or cups to gather the balls from said chute and transfer them to the runway-chute, and means for operating said conveyer from a point adjacent to the gallery or receiving portion.

2. A bowling-alley having a ball-runway provided at its inner end with an inclined

and at its forward end with a gallery or receiving portion, the rear end of the alley being provided at one side thereof with a ball-receiving pocket and a downwardly and laterally inclined chute leading to said pocket, an inclined support leading from the pocket to a point adjacent the chute portion of the runway, a correspondingly-inclined endless conveyer mounted on said support and provided with pockets or cups to gather the balls from said receiving-pocket and con-

duct the same to the chute of the runway, and means for operating said conveyer from a point adjacent to the gallery or receiving portion of the ball-runway.

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

FREDRICK WM. BRINKMEYER.

Witnesses:

W. C. DIMOCK,
HIRAM JOHNSON.