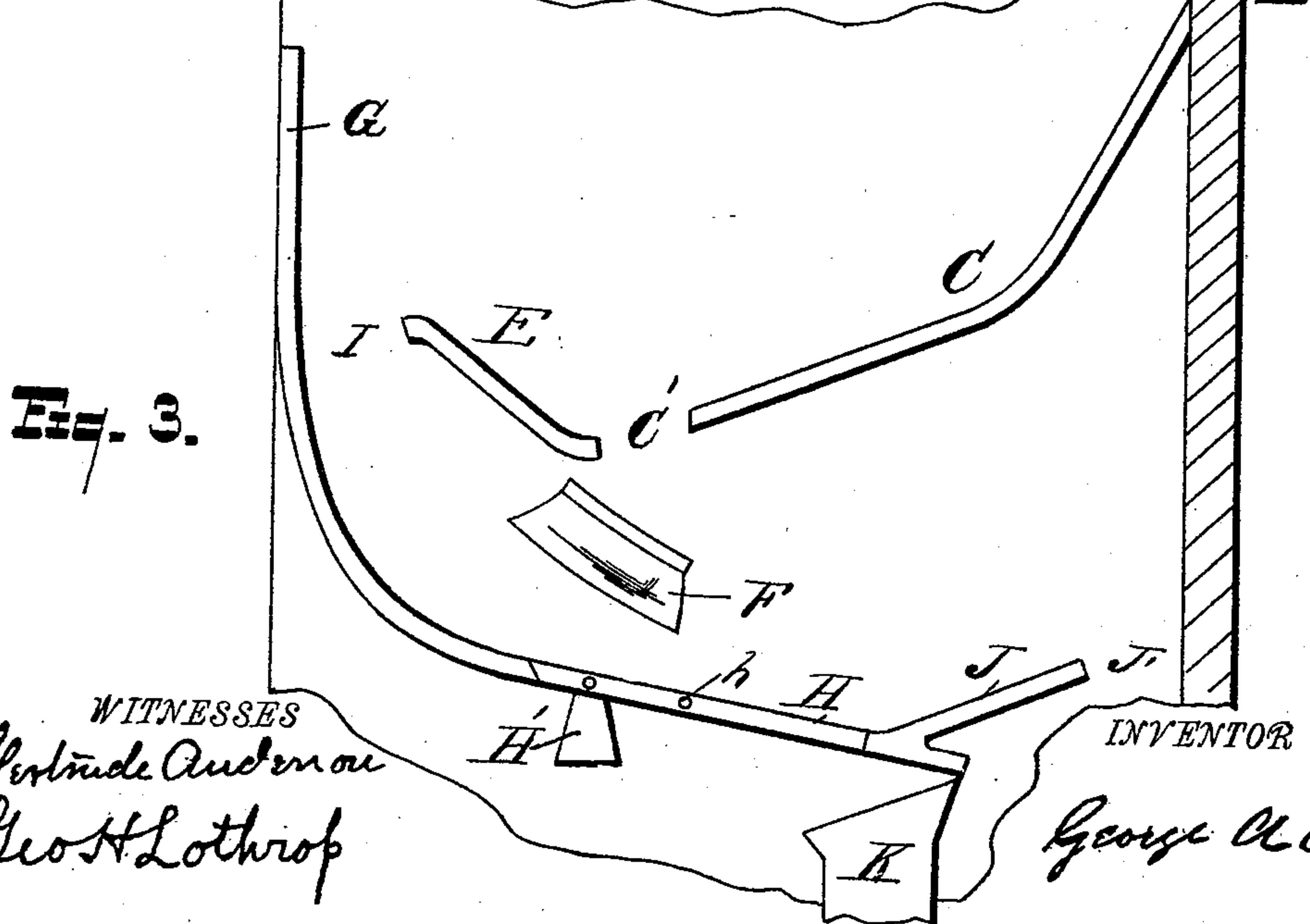
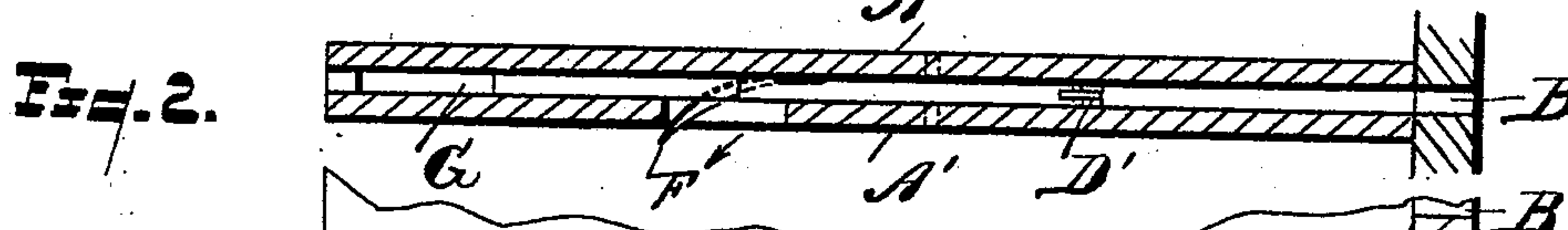
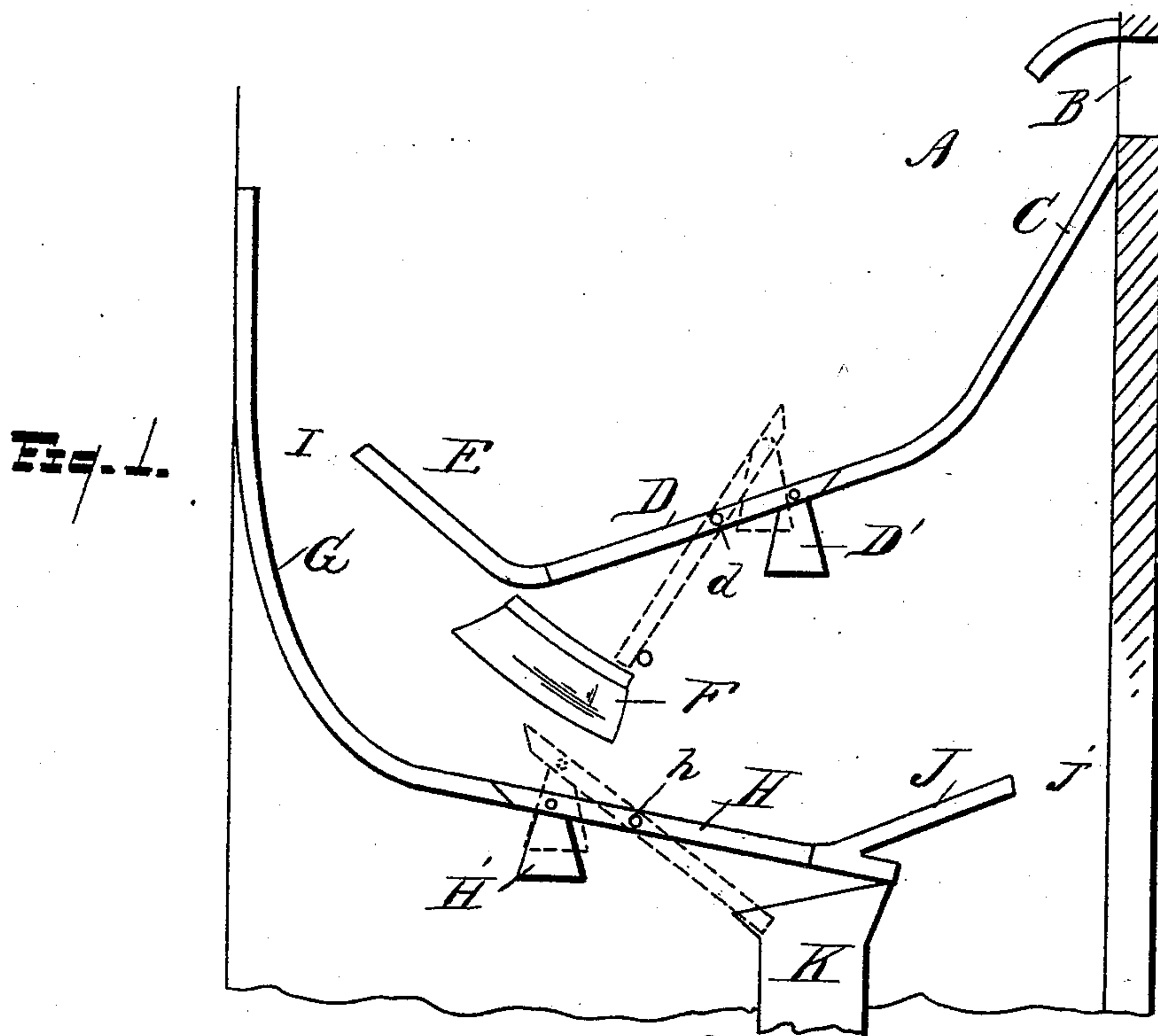


(No Model.)

G. A. ELLIS.  
COIN CHUTE.

No. 437,585.

Patented Sept. 30, 1890.



WITNESSES  
Gertrude Anderson  
Geo H Lothrop

INVENTOR

George A Ellis

# UNITED STATES PATENT OFFICE.

GEORGE A. ELLIS, OF DETROIT, MICHIGAN, ASSIGNOR TO THE AUTOMATIC CIGAR SELLER COMPANY, OF SAME PLACE.

## COIN-CHUTE.

SPECIFICATION forming part of Letters Patent No. 437,585, dated September 30, 1890.

Application filed February 25, 1890. Serial No. 341,723. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. ELLIS, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful  
5 Improvement in Coin-Chutes for Coin-Controlled Vending Apparatus, of which the following is a specification.

My invention consists in an improvement in coin-chutes for coin-controlled vending apparatuses, hereinafter fully described and  
10 claimed.

Figures 1 and 3 are side elevations with the frame of the box in section and with one of the plates which form the side of the coin-chute removed. Fig. 2 is a section through the  
15 plates which form the walls of the coin-chute.

A and A' represent two plates within the box, which form the walls of the coin-chute.

B represents a slit in the frame of the box  
20 for receiving the coin, and C represents the chute, into which a coin passes through slit B. This chute is inclined, preferably, first at an acute angle and then at a more obtuse angle, as shown at Figs. 1 and 2, and terminates in an upwardly-inclined end E, between  
25 which and the continuation thereof, marked G, is an open space, marked I. The chute G continues downward, usually in the reverse direction of the chute C, to economize space,  
30 and finally delivers the coin at the place K, where it is to operate the locking mechanism of the apparatus.

C', Fig. 3, represents an opening between the chute C and its upwardly-inclined end E,  
35 beneath which is placed a deflector F, of light sheet metal, which throws out through a hole in plate A' anything which falls through the opening C', thus preventing some objects from reaching the actuating-place K.

40 Instead of leaving the opening C', the arrangement in Fig. 1 may be adopted, in which D represents a section of the chute hinged at point d and counterweighted by the weight D', which is just sufficient to keep the section  
45 D in the position shown in full lines in Fig. 1, but permits it to tilt, as shown in dotted lines, when any object heavier than the coin

for which the machine is intended rests upon the lower end of section D.

H represents a hinged section in that part  
50 of the chute in which G is, having a pivot h and weight H', and adapted to operate exactly like section D.

J represents an upwardly-inclined extension in which chute G terminates, there being  
55 a vacant space J' between the end of portion J and the box.

The operation of my invention is as follows: The chute C is so arranged that a coin of proper size and weight—for example, a  
60 nickel—in descending said chute has sufficient momentum to leap over the trap C' and to climb the ascent E and fall over its end through its space I into the chute G. As a rule slugs which are made to defraud machines of this class are irregular on their  
65 edges, and this retards them, as they will not climb the ascent as readily as a coin with a true circular outline. Soft metal—such as lead—will not run as easily as a nickel, and  
70 the large majority of such slugs will pass out through the trap C'. If a slug of metal heavier than a nickel be inserted in the slit B, it will not climb the ascent E, because of its irregularity, and also because in jumping  
75 the trap C' its impetus is checked as it strikes the other edge, but will roll backward down said ascent E and fall through the open trap C' or, if the arrangement of Fig. 1 is adopted, will depress the lower end of the hinged section  
80 D and fall into the deflector F, by which it is drawn either out of the machine or into a waste-receptacle. A nickel having passed the ascent E rolls down the chute G, tipping the lower end of trap H, and passes into the  
85 receptacle. If a slug of lighter weight than a nickel be inserted in the slit B, it will sometimes climb the ascent E and fall into chute G, in which case it passes over the trap H, runs up the incline J, and falls into the space J'.  
90

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A coin-chute consisting of the planes C and E, separated by a trap and inclined down-



wardly and upwardly relatively to the direction of movement of the coin, substantially as described.

2. A coin-chute consisting of the inclined  
5 planes C and E, separated by a trap, and the inclined planes G and J, also separated by a trap, substantially as shown and described.

3. In combination with a coin-chute con-

sisting of the inclined planes C and E and a trap between them, a deflector located beneath said trap, substantially as shown and described.

GEORGE A. ELLIS.

Witnesses:

BETHUNE DUFFIELD,  
GERTRUDE ANDERSON.