

No. 754,073.

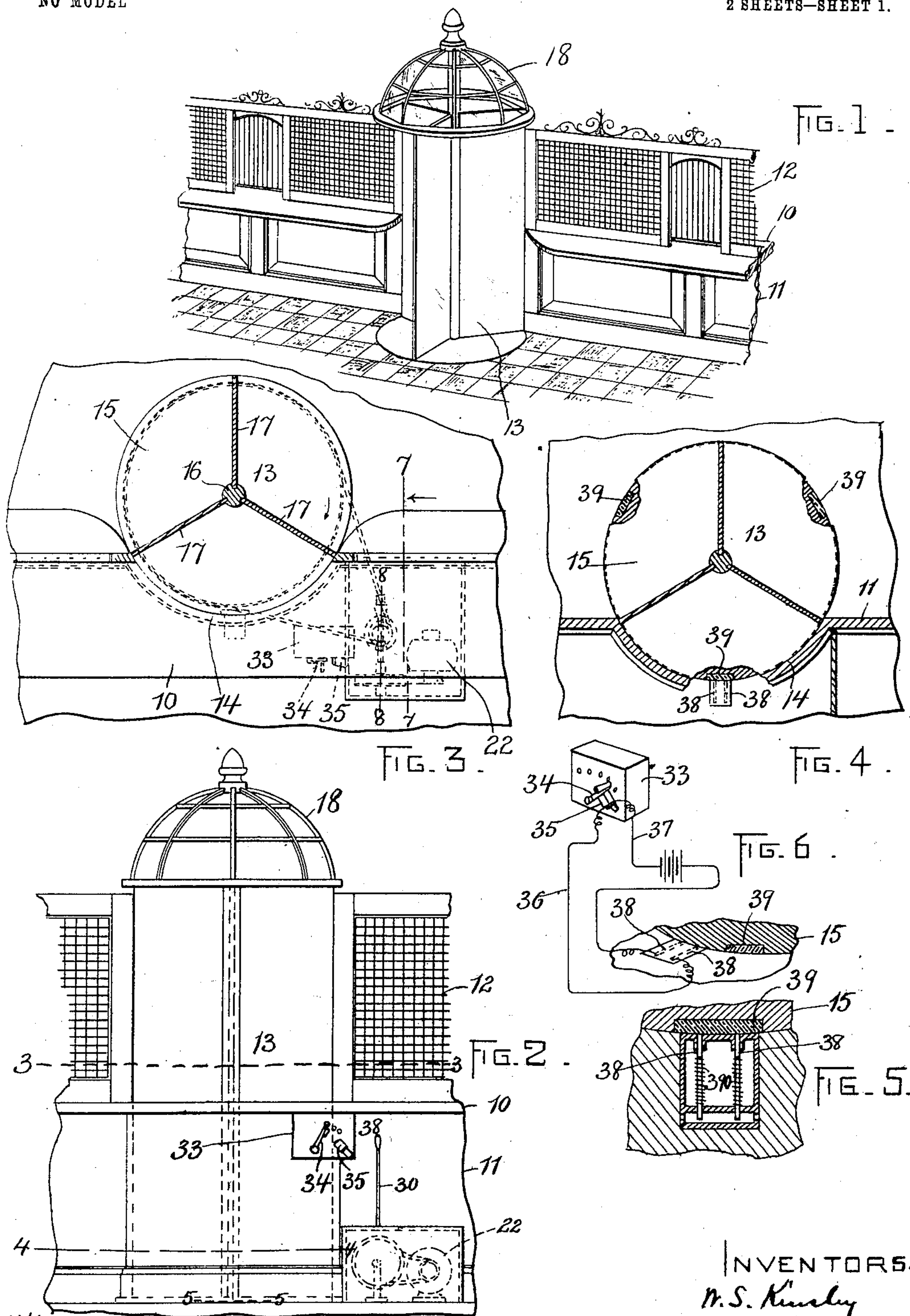
PATENTED MAR. 8, 1904.

W. S. KINSLEY.
SAFETY APPLIANCE FOR BANKS.

APPLICATION FILED JUNE 15, 1903.

NO MODEL

2 SHEETS—SHEET 1.



WITNESSES:
H. L. Robbins.
E. Batchelder

INVENTORS:
W. S. Kinsley
by *Wm. B. Quincy*
Attys.

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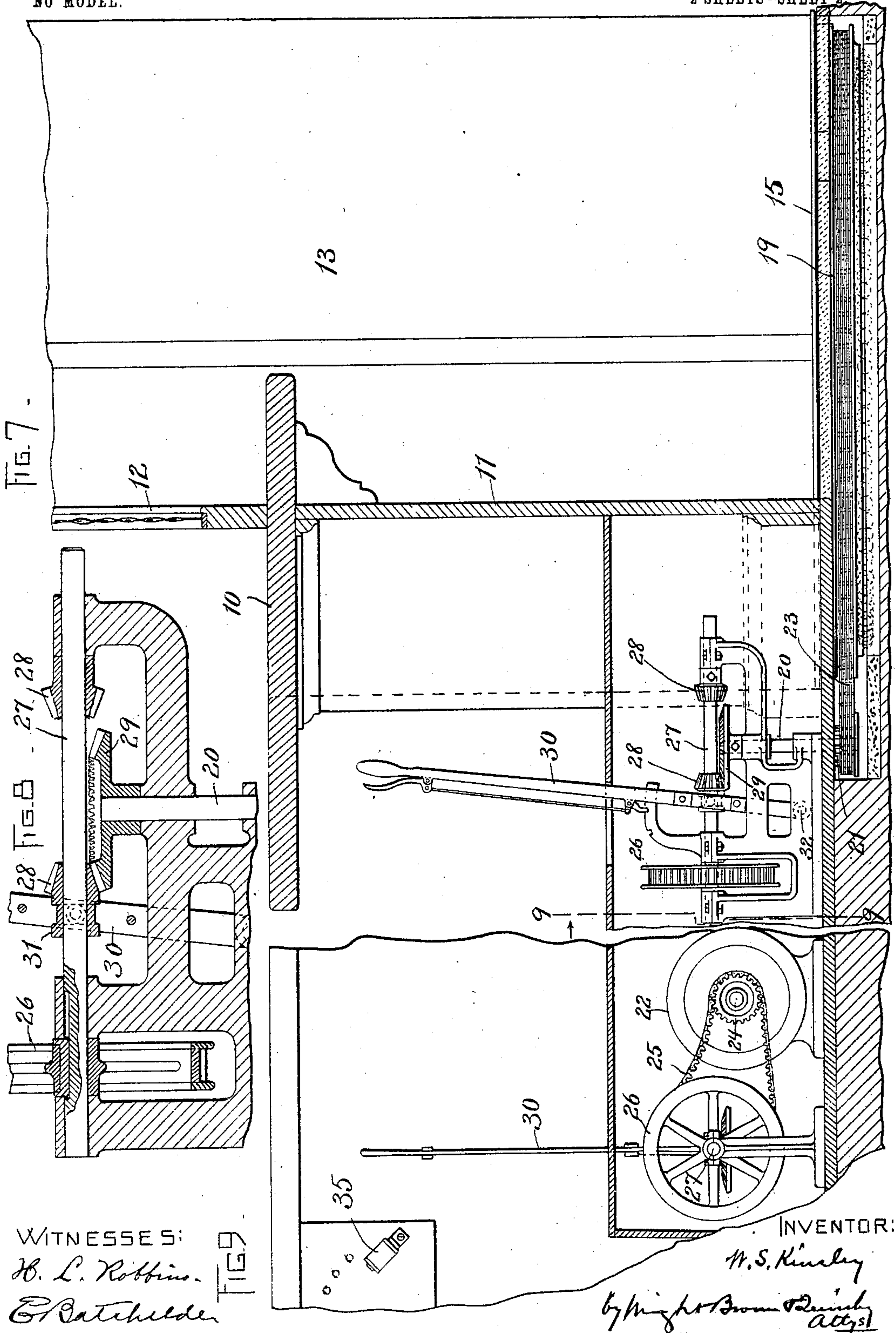
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2 SHEETS—SHEET 2



UNITED STATES PATENT OFFICE.

WILLIAM S. KINSLEY, OF READING, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ELIZA D. COOK, OF READING, MASSACHUSETTS.

SAFETY APPLIANCE FOR BANKS.

SPECIFICATION forming part of Letters Patent No. 754,073, dated March 8, 1904.

Application filed June 15, 1903. Serial No. 161,560. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. KINSLEY, of Reading, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Safety Appliances for Banks, &c., of which the following is a specification.

This invention relates to banking and other rooms in which a barrier is provided between an inclosure reserved for the officials of the place and an outside space to which the public has access.

The invention has for its object to provide means whereby an official at a station within the inclosure from which business is transacted with the outside customers may control the movements of each customer approaching the station in order to prevent the possibility of any outside party seizing money or other valuable property at the station and escaping quickly.

The invention consists, generally speaking, in the combination, with a barrier, such as a bank-counter, separating an inclosure from an outside space, of means within the inclosure for controlling the movements of a person outside the barrier, the said means in this embodiment of my invention being a turnstile arranged to form in connection with the barrier a compartment which confines any person approaching the paying official's station, mechanism being provided behind the barrier whereby the official within the inclosure may control the movements of the turnstile and of the person confined therein.

Of the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of portions of a barrier, including a bank-counter and a turnstile operatively arranged in connection with said barrier, the whole embodying my invention. Fig. 2 is an elevation of the principal parts shown in Fig. 1 looking from the inner side of the barrier. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Fig. 2. Fig. 5 is a section on line 5 5 of Fig. 2. Fig. 6 is an enlargement of a portion of Fig. 4 and a diagrammatic view of certain electrical appliances hereinafter referred to. Fig. 7 is a sec-

tion on line 7 7 of Fig. 3. Fig. 8 is a section on line 8 8 of Fig. 3. Fig. 9 is a section on line 9 9 of Fig. 7.

The same reference characters indicate the same parts in all the figures.

In the drawings, 10 represents the top or horizontal portion of a bank-counter, which, with the supporting portion 11, resting upon the floor, and the upper portion 12, constitutes a barrier such as is usually employed in a banking-room or other room where money is passed.

13 represents a turnstile, which is arranged to rotate upon a vertical axis and is located at the outer side of the barrier, the construction of the turnstile and its arrangement relatively to the barrier being such that the turnstile and barrier constitute a small inclosure or compartment of sufficient size to permit one person to stand at a station communicating through a window in the upper portion of the barrier with the space behind the barrier. The barrier is preferably provided with a recess 14, Fig. 3, in its outer side, the turnstile projecting partly into said recess. As here shown, the turnstile comprises a horizontal circular base or platform 15, which is preferably flush with the floor and supports the persons who pass through the turnstile, a vertical shaft 16, fixed to the floor and rising above the same, and radial wings or partitions 17, formed to cooperate with the barrier in the manner above described. The shaft 16 and wings 17 may be surmounted by a canopy or top 18, preferably composed of a dome-shaped frame provided with lights of glass.

Mechanism is provided for alternately rotating and stopping the turnstile, said mechanism being controlled from within the barrier. The mechanism shown in this embodiment of my invention comprises a shaft 20, journaled in bearings in a supporting-frame within or behind the barrier, an electric motor, the casing 22 of which is shown in Fig. 9 and by dotted lines in Figs. 2 and 3, said motor being connected, as hereinafter described, with the shaft 20, and suitable connections between the shaft 20 and the turnstile. Said connections, as here shown, comprise a sprocket-

wheel 19, affixed to the base portion of the turnstile, a sprocket-wheel 21, affixed to the shaft 20, and a sprocket-chain 23, connecting the wheels 19 and 21. The shaft 24 of the motor is provided with a gear-wheel, which is connected by a gear-chain 25 with a corresponding gear-wheel 26, affixed to a horizontal shaft 27. Said shaft is mounted to rotate in fixed bearings and is provided with a bevel-gear 28, meshing with a bevel-gear 29 on the shaft 20. It will be seen, therefore, that the rotation of the motor-shaft 24 imparts rotary motion through the described connections to the turnstile. The official behind the barrier can therefore control the turnstile by starting and stopping the motor, so that a customer approaching the teller's station first steps into one of the outer sections of the turnstile. The teller then starts the turnstile until the rotation thereof brings the customer to the opening through which business is transacted. The teller then stops the turnstile, and when the business is completed he again starts the turnstile, and the customer is carried outward until he is free to leave the turnstile. The person, whether a customer or a would-be robber, is temporarily confined or practically locked in the compartment, for he cannot get out until the teller permits it by causing the turnstile to again move. Another customer may in the meantime have stepped onto the outer portion of the turnstile, so that the movement which carries out the departing customer may bring in another. In case, however, the departing customer wishes to return before leaving the turnstile the rotation of the turnstile may be reversed until the customer is brought back. This is accomplished in the present embodiment of my invention by making the shaft 27 longitudinally movable in its bearings and providing it with two bevel-gears 28, located at opposite sides of the axis of the shaft 20, said gears being arranged to engage the gear 29 alternately. A lever 30, engaged with a grooved collar 31, affixed to the shaft 27 and pivoted at 32, enables the teller to move the shaft 27 in the direction required to reverse the rotation of the shaft 20 and the turnstile.

33 represents the casing of the controller for the electric motor, and 34 represents the handle or lever of this controller. 35 represents an electromagnet arranged to form a stop against which the lever 34 bears when in position to stop the motor. Said electromagnet is included in an electric circuit, which comprises circuit-wires 36 37, a battery or other source of electrical energy, and two circuit-terminals 38 38, which are held, preferably, by the pressure of springs 390, Fig. 5, against the periphery of the base of the turnstile. The said base is provided at regular intervals with circuit-closing blocks or pieces 39, each adapted to form an electrical connection between the terminals 38 38, as shown

in Fig. 5, and thus close the circuit through the magnet 35. When the circuit is thus closed, the magnet attracts the lever 34 and moves it to position to stop the motor. Provision is thus made for stopping the rotation of the turnstile after it has moved a predetermined distance. The circuit-closers 39 are preferably arranged midway between the wings of the turnstile, as shown in Fig. 4, so that the turnstile is automatically stopped whenever two of its wings are in position to cooperate with the recessed side of the barrier, as indicated in Figs. 3 and 4. I do not limit myself, however, to the means above described for automatically stopping the turnstile and may use any other suitable means to accomplish the result described without departing from the spirit of the invention.

I prefer to extend the turnstile-wings 17 to such height that any two of them will form two sides of a booth or closet the remaining side of which is provided by the recessed side of the barrier. I thus insure privacy of the party transacting business with the official within the barrier and prevent other customers who may be following in line from witnessing the transactions that are taking place. This feature of privacy is an important advantage resulting from the invention.

I claim—

1. The combination with a barrier between an inclosure and an outside space, of means controlled within said inclosure for controlling the movements of a person at the outer side of the barrier, said means being automatically locked to confine a person until released by another person behind said barrier.

2. The combination with a barrier between an inclosure and an outside space, of means controlled within said inclosure for forming a booth or closet at the outer side of the barrier, said booth or closet being normally closed to prevent escape of a person within it until intentionally released.

3. The combination with a barrier between an inclosure and an outside space, of a turnstile located at the outer side of said barrier and having sight-proof arms or wings arranged to cooperate with the barrier in forming a booth or closet at the outer side of the barrier to prevent transactions within the booth from being witnessed by a person in the outside space.

4. The combination with a barrier between an inclosure and an outside space, of a turnstile located at the outer side of said barrier and having sight-proof arms or wings arranged to cooperate with the barrier in forming a booth or closet at the outer side of the barrier to prevent transactions within the booth from being witnessed by a person in the outside space, and means controlled within the inclosure for moving and stopping said turnstile.

5. The combination with a barrier between

an inclosure and an outside space, of a turnstile located at the outer side of said barrier and having arms or wings arranged to cooperate with the barrier in forming a booth or closet at the outer side of the barrier, and means controlled within the inclosure for alternately rotating and stopping the turnstile.

6. The combination with a barrier between an inclosure and an outside space, of a turnstile located at the outer side of said barrier and having arms or wings arranged to cooperate with the barrier in forming a booth or closet at the outer side of the barrier, a motor connected with said turnstile to rotate the same, and means controlled within the inclosure for starting and stopping the motor.

7. The combination with a barrier between an inclosure and an outside space, of a turnstile located at the outer side of said barrier and having arms or wings arranged to cooperate with the barrier in forming a booth or closet at the outer side of the barrier, and mechanism controlled within the inclosure for alternately rotating and stopping the turnstile, said mechanism having provisions for rotating the turnstile in either direction.

8. The combination with a barrier between an inclosure and an outside space, said barrier having a recess in its outer side, of a turnstile located at the outer side of the barrier and projecting into said recess, said turnstile having sight-proof wings to cooperate with the sides of the recess to shut off sight from the outside or rear of the turnstile.

9. The combination with a barrier of the character stated, of a turnstile located at the outer side of the barrier, a wheel affixed to the lower portion of the turnstile, and mechanism for rotating the wheel and turnstile, said turnstile having sight-proof wings to shut off sight from the outside or rear of the turnstile.

10. The combination with a barrier of the character stated, of a turnstile located at the

outer side of the barrier, a wheel affixed to the lower portion of the turnstile, a motor within the barrier, and connections between the motor and wheel for rotating the wheel and turnstile.

11. The combination with a barrier between an inclosure and an outside space, of a turnstile located at the outer side of said barrier, means for rotating the turnstile, and means for automatically stopping the rotation of the turnstile at predetermined points.

12. The combination with a barrier of the character stated, of a turnstile located at the outer side of the barrier and provided with a series of contact-pieces or circuit-closers, an electric motor mechanically connected with the turnstile to rotate the latter, a controller for said motor, a normally open electric circuit arranged to be closed by each of said circuit-closers, and an electromagnet in said circuit arranged to act on the lever of said controller to stop the motor when the circuit is closed.

13. The combination with a barrier of the character stated, of a turnstile located at the outer side of the barrier and having a base formed to support persons entering the turnstile, and vertical wings arranged to cooperate with the barrier in forming a compartment to confine a person supported by the base.

14. The combination with a barrier of the character stated, of a turnstile located at the outer side of the barrier, a wheel affixed to the lower portion of the turnstile, a driving-shaft operatively connected with said wheel, means for rotating said shaft, and means for reversing the rotation of the shaft.

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

WILLIAM S. KINSLEY.

Witnesses:

WM. H. WILLIS,

E. T. Q. HODGES.