

H. S. MILLER
FARE BOX.

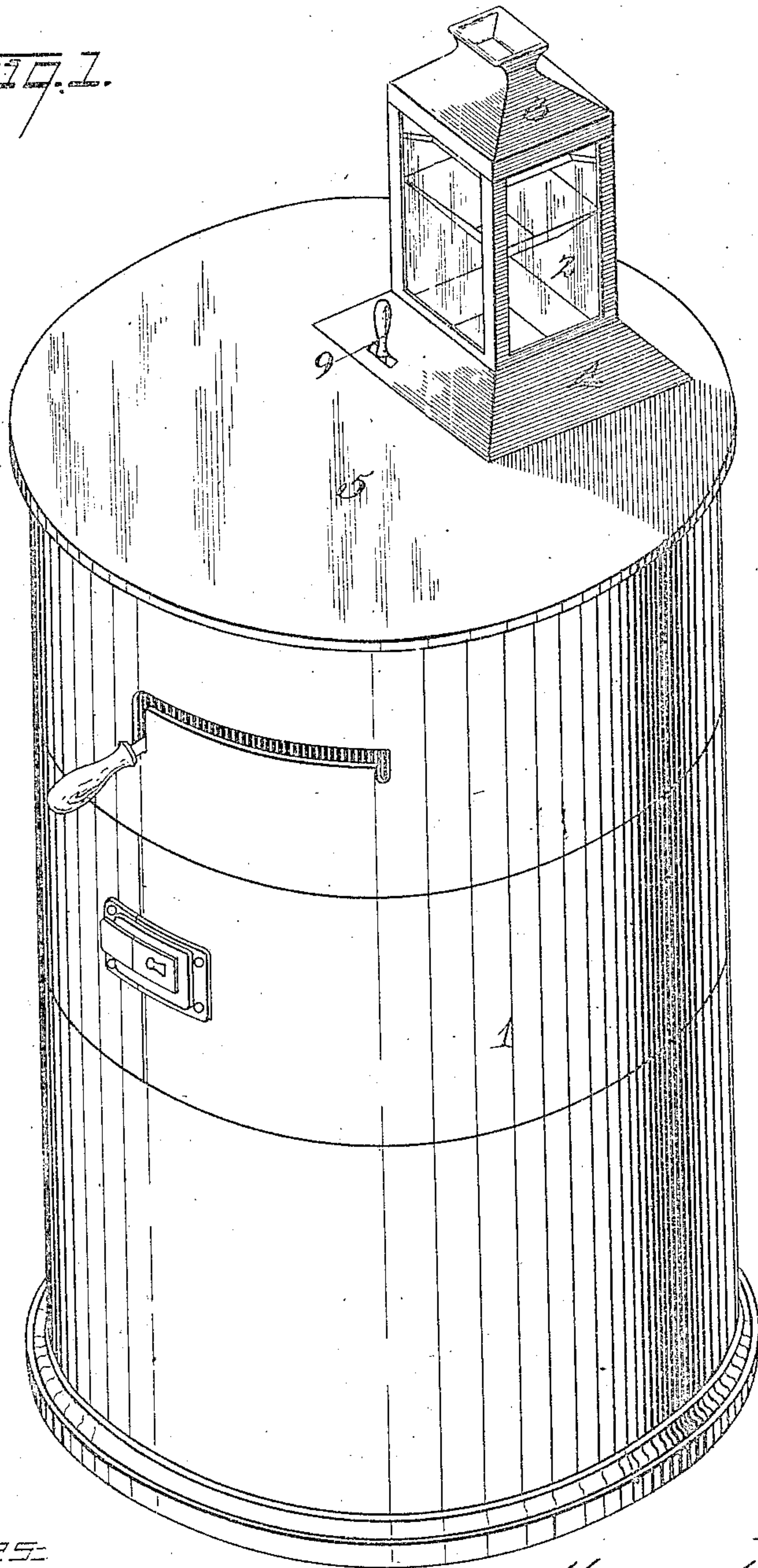
APPLICATION FILED MAR. 9, 1910.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 1.

978,327.

FIG. 1.



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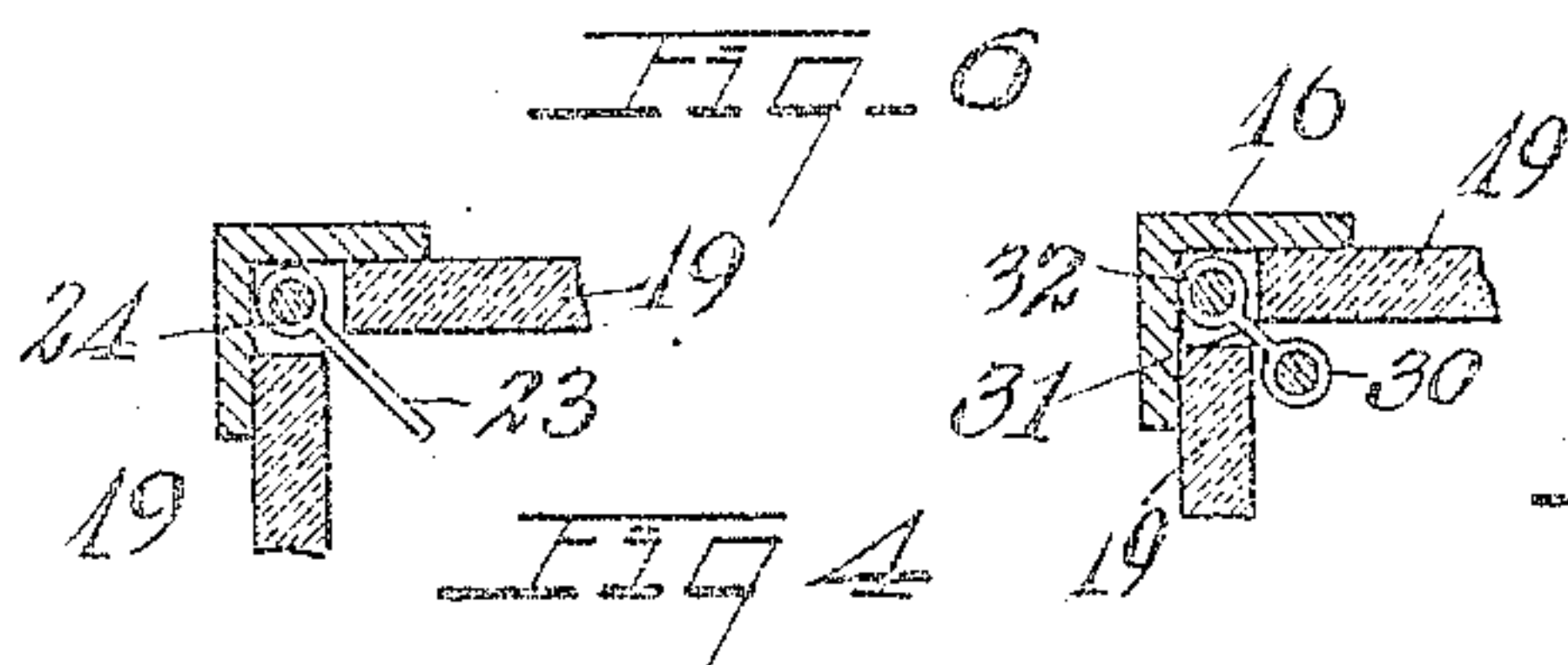
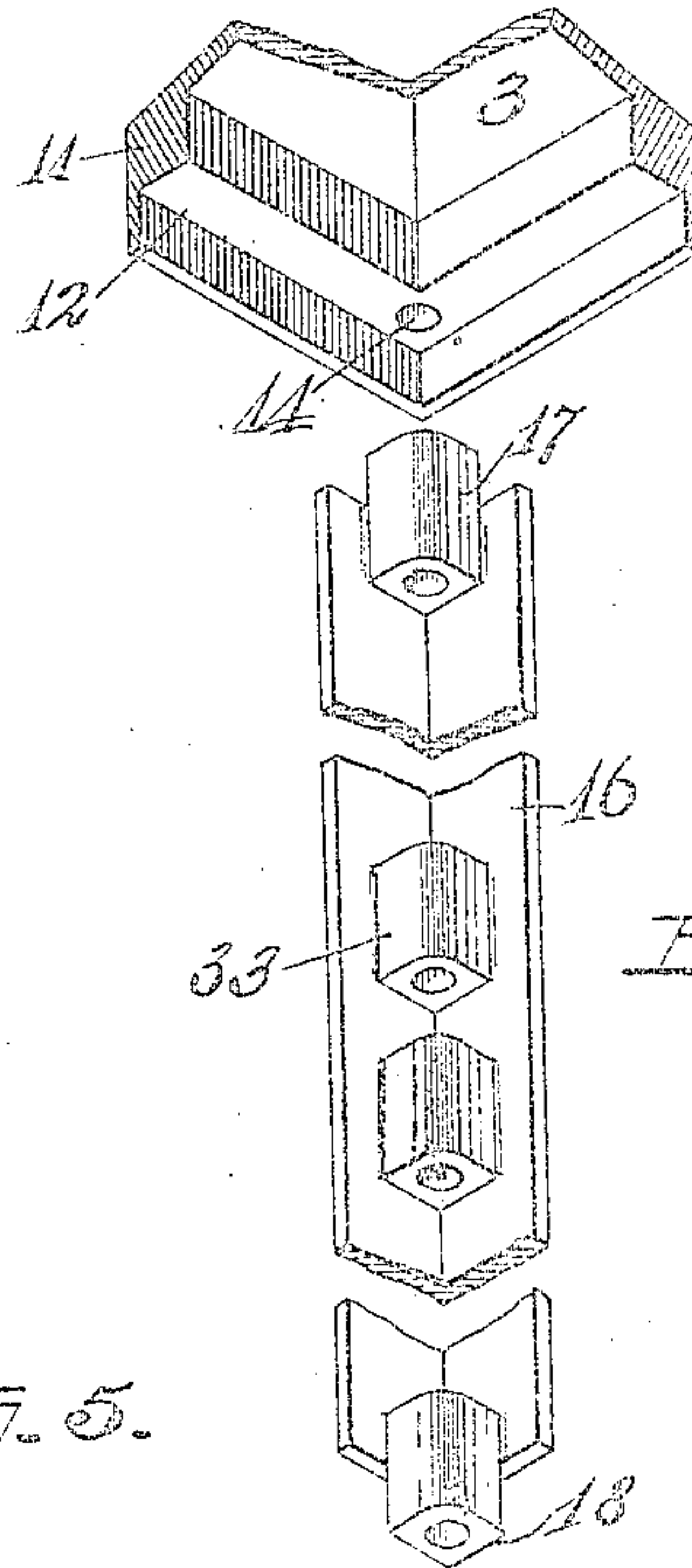
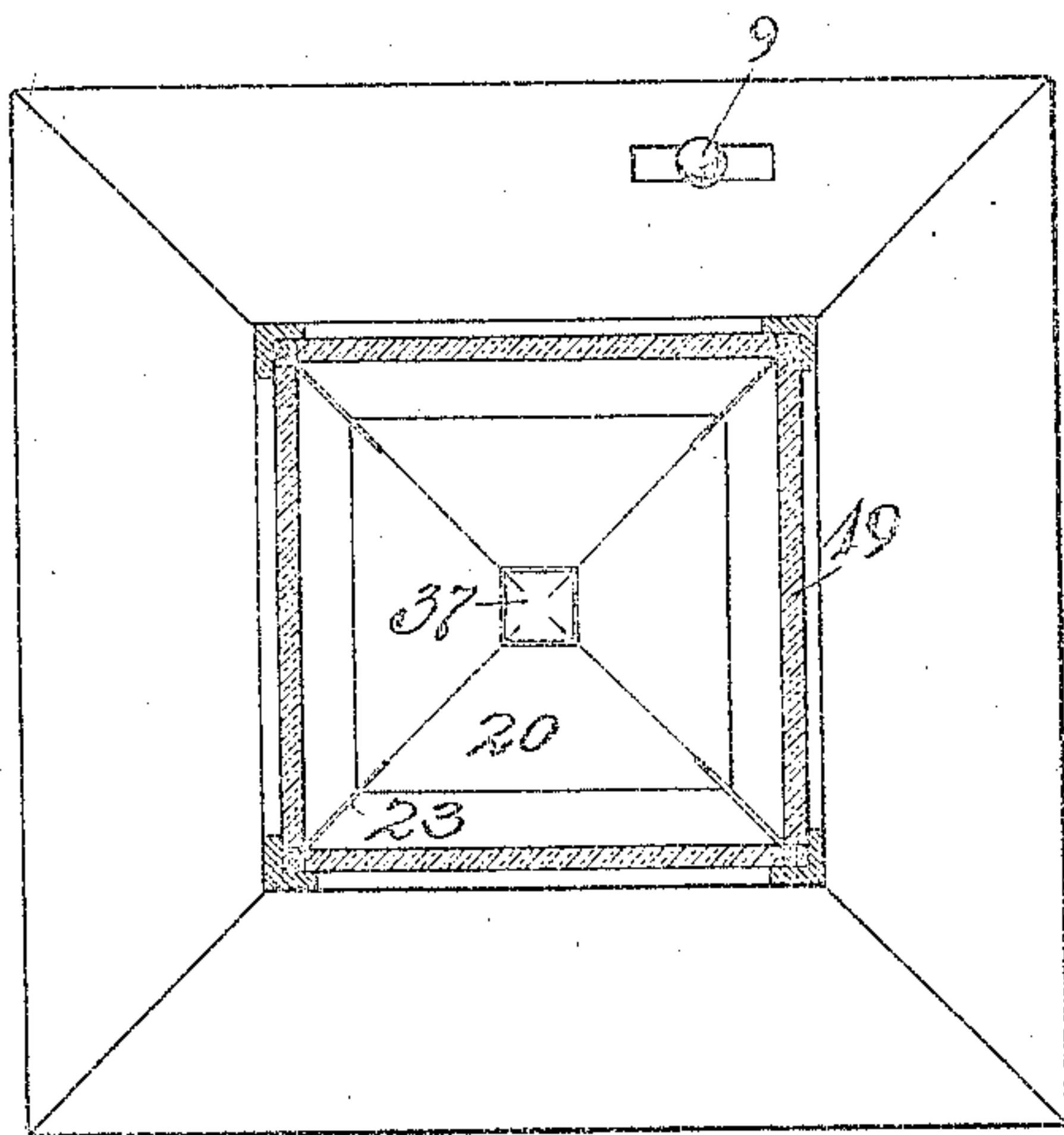
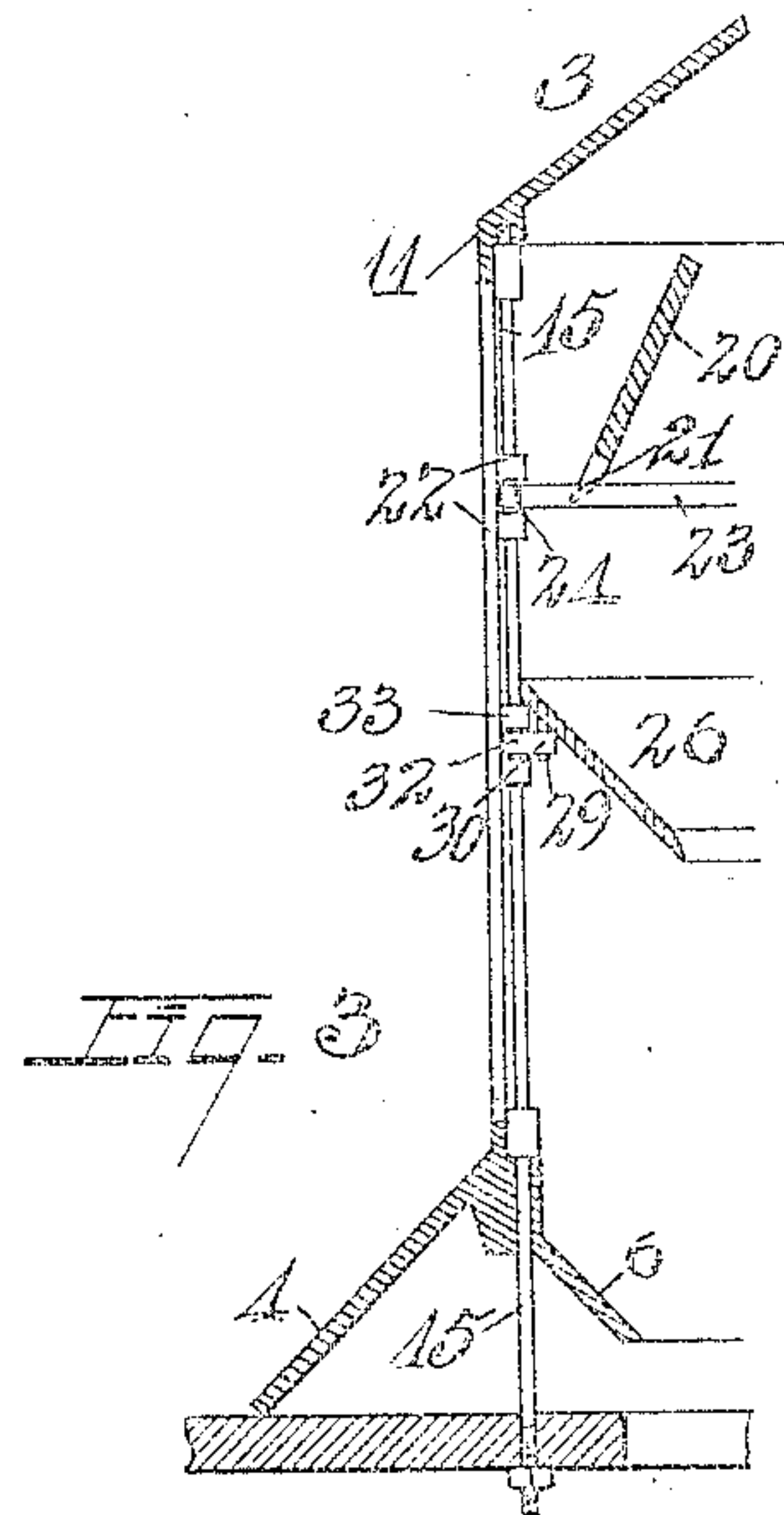
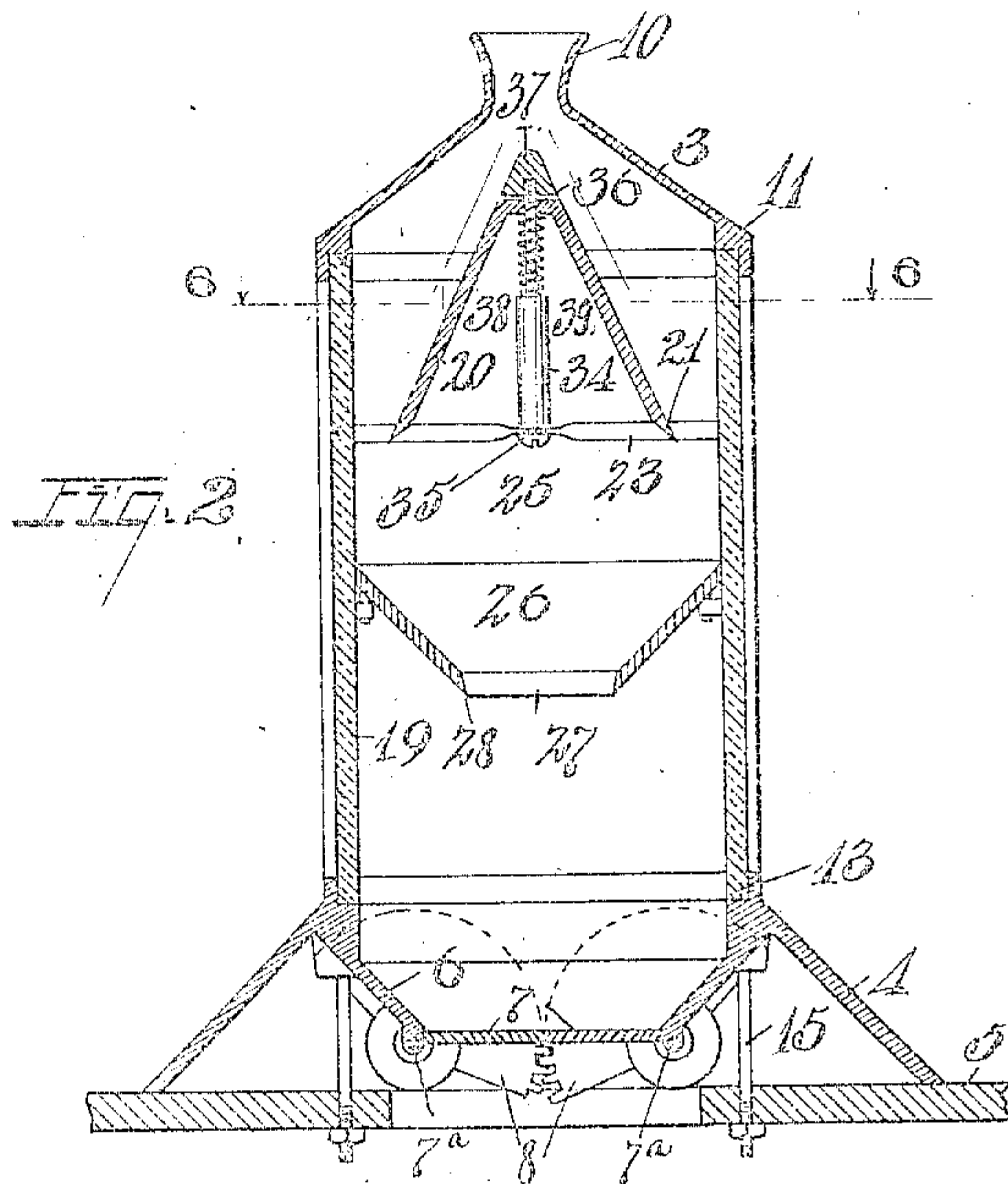
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2 SHEETS—SHEET 2.

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Witnesses

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UNITED STATES PATENT OFFICE.

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FARE-BOX.

978,327.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Original application filed December 14, 1909, Serial No. 533,515. Divided and this application filed March 9, 1910. Serial No. 548,135.

To all whom it may concern:

Be it known that I, HENRY S. MILLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Fare-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to fare boxes, and has for its object to improve the construction and efficiency of the preliminary or inspection boxes into which the fare or tickets may be dropped.

With the above object in view, the invention may be defined further as consisting of the combinations of elements embodied in the claims hereto annexed and illustrated in the drawings forming a part hereof, wherein—

Figure 1 represents a perspective view of a fare box having applied thereto an inspection box constructed in accordance with my invention; Fig. 2 represents a vertical sectional view through the inspection box; Fig. 3 is a vertical sectional detail of one of the corners of said box; Figs. 4 and 5 are horizontal sectional details of such corners; Fig. 6 is a horizontal sectional view on the line 6—6 of Fig. 2; and Fig. 7 is a perspective view of one of the corners of the box with the connecting bolt removed.

Describing the various parts of the drawings by reference characters, 1 denotes the casing of a fare box, said casing being shown as cylindrical and having at its top the preliminary receptacle or inspection box 2 in which the fares or tickets will be deposited by the passengers. This inspection box comprises generally an upper dome-shaped casting 3 and a frusto-pyramidal casting 4 having therebetween suitable spacing corner pieces, panes of glass being interposed between said corner pieces and between the top and bottom castings, with suitable devices inside of the receptacle thus formed for causing the fares or tickets to pass down in full view of the conductor, which devices are so arranged as to reduce to a minimum the danger of "picking" the fare box by the insertion of a tool or wire thereinto through the inspection box. The casting 4 rests on top of the cover 5 of the fare box proper. This casting has formed therewith an inner frusto-pyramidal chute 6, the bottom of said

chute being closed by means of doors 7. Each door is carried by a suitable shaft 7^a and is provided with a segmental gear 8 at its outer end. These segmental gears intermesh, and one of the shafts is provided with a suitable operating handle 9, projecting through the base 4, by means of which it may be rocked, rocking the other door simultaneously therewith. Beneath the door 7 there will be located a spout such as shown in my application No. 533,515 filed December 14th, 1909, of which this application is a division, the spout discharging into the fare box.

The upper casting 3 is provided with a hopper inlet 10. The lower end of the casting 3 is thickened, as shown at 11, and is provided with a recess 12 extending therearound. The upper portion of the casting 4 is thickened in like manner and is provided with a corresponding recess 13. The casting 3 is provided in the thickened part 11 with threaded corner bores 14 for the reception of the upper threaded ends of corner bolts 15, said bolts being anchored at their lower ends to the cover 5. Angular corner pieces 16 connect the corners of the castings 3 and 4 and receive the bolts 15. Each of these corner pieces has cast therewith, at the top and bottom thereof, an inwardly projecting lug 17, 18, respectively. These lugs are so located as to overhang the lower and upper edges of the upper and lower castings 3 and 4, respectively, as shown more particularly in Fig. 3. These lugs receive the bolts 15. This construction anchors the corner pieces firmly to the castings, and the arrangement of the lugs 17, 18 relative to the castings 3 and 4 prevents the shearing of the bolts by the portion of the inspection box which is above the casting 4. The space between the upper and lower castings and between the corner pieces is occupied by panes of glass 19.

Within the upper portion of the inspection box there is located a pyramidal or tapered deflector 20. This deflector will be supported with the apex in line with the center of the opening of the hopper 10. The deflector is preferably made of metal, the lower edges thereof being beveled to a knife edge, as shown at 21. For the purpose of supporting this deflector, the following construction is provided: Each corner piece 16 is provided with a pair of spaced lugs 22 through which one of the corner bolts 15 extends. 23 denotes a pair of flat sheet metal strips. Each

of these is provided at its ends with sleeves 24 which are inserted between the lugs 22 and which receive the bolts 15. At its central portion each of the strips 23 is given a quarter turn, affording convenient means for connecting the central portions of said strips, as shown at 25. Beyond the center, each strip 23 is given another quarter turn, to afford convenient means for attaching the strip to the diagonally opposite bolt and also to provide means for conveniently supporting the deflector 20. The lower knife edge of this deflector is provided at each corner (in the case of a pyramidal deflector) with an elongated slit, enabling the lower edges to receive the strips 23. The engagement of the slits with the strips preserves the proper relation between the deflector and the surrounding casing, the whole construction providing a practically unobstructed passageway between the deflector and the adjacent inner surface of the inspection box.

Beneath the deflector 20 is a frusto-pyramidal or tapered chute 26 having a central opening 27. The lower end of this chute is provided with a knife edge 28. This chute may be conveniently supported by means of vertical pins 29 depending from the outer edge thereof and adapted to be inserted into the sleeves 30 formed on the inner ends of light metal strips 31; the outer ends of which are provided each with a sleeve 32 similar to the sleeves 24 and secured in place between lugs 33 similar to lugs 22.

The inspection box illustrated and described is particularly efficient. By the arrangement of the deflector 20 and chute 26, the fares and tickets are caused to pass down into the lower portion of the box in such manner as to be open to inspection by the conductor. The relative arrangement of the deflector and chute provides a tortuous passageway and this arrangement, taken with the provision of the knife edges 21 and 28, effectually prevents the "picking" of the fare box by the insertion of a wire or other instrument down through the inspection box. Any attempt to withdraw a wire or similar instrument will be prevented by the knife edges cutting thereinto.

Where the fare box is to be used with coins or disks, the lower ends of the slits formed in the deflector 20 may be closed or "staked" against the metal strips 23, and no other support will be needed for the deflector than said strips. When the fare box is to be used with paper tickets, it is advisable to support the deflector in such manner that it may have a vibratory movement, thereby dislodging the tickets and facilitating their passage to the bottom of the inspection box. For the purpose of supporting the deflector in such manner as to secure this result, a post 34 may be supported by the intersecting portions 25 of the strips 23, being se-

cured thereto by the screw 35 which passes through the central portions of the strips and is threaded into the lower end of the post. The upper end of the post is reduced and provided with a thread. This reduced portion 36 projects through an opening in the apex of the deflector and receives at its upper end a tapered nut 37. A spiral spring 38 is interposed between the apex of the deflector and the shoulder 39. By this construction, the deflector receives a yielding support which permits of a limited vibratory movement of the same, while the engagement of the slits at its lower end with the strips 23 preserves the proper relation between the deflector and the surrounding casing. This manner of supporting the deflector enables it to vibrate, thereby preventing tickets from lodging on the surface.

Having thus described my invention, what I claim is:

1. The combination, with a fare box casing, of an inspection box mounted in operative relation thereto, the latter box comprising a vertically-extending casing having an inlet, a deflector beneath said inlet, and metal strips extending across said casing, said deflector having its lower end slitted and supported by said strips with the slits engaged thereby.

2. In an inspection box, the combination of a casing having a hopper inlet at the top thereof and provided with corner pieces, lugs projecting inwardly from said corner pieces, metal strips extending diagonally across said casing and each having at its opposite ends a sleeve adapted to be interposed between said lugs, bolts located within said corner pieces and extending through said lugs and the interposed sleeves, and a deflector within said casing having its lower end slitted to receive said strips.

3. In an inspection box, the combination of a casing having an inlet at the top thereof and provided with spacing pieces, lugs projecting inwardly from said pieces, metal strips extending across said casing and each having at its opposite ends a sleeve adapted to be interposed between said lugs, bolts located within said pieces and extending through said lugs and the interposed sleeves, and a deflector within said casing supported by said strips.

4. An inspection box comprising a casing having an opening at the top thereof and having below said opening a tapered deflector and means for supporting said deflector, said means comprising lugs projecting inwardly from said casing, metal strips having sleeves at their opposite ends, said sleeves being operatively secured to said lugs, said strips having their webs arranged substantially vertically at the outer portions thereof and being connected at their central portions, the lower edges of said deflector

being provided with slits to receive the outer portions of said strips.

5. In an inspection box, the combination of a casing having inwardly projecting lugs, metal supporting members each having at its outer end a sleeve, means securing said sleeves to said lugs, a chute in said casing having a central opening, said chute being provided with downwardly projecting pins, and sleeves at the inner ends of said supports adapted to receive said pins.
6. An inspection box having an inlet, a tapered deflector below said inlet and having its apex presented toward said inlet, a post having a reduced portion projecting through an aperture adjacent to the apex of the deflector, and a spiral spring on the reduced portion of the post and yieldingly supporting the deflector.
7. An inspection box having an inlet, a tapered deflector below said inlet and having its apex presented toward the same, strips extending across said casing and said deflector having slits in its lower end adapted to receive said strips, a post supported by said strips and having a projection extending through the apex of the deflector, and a spiral spring surrounding the projecting end portion of the post and engaging the said deflector.
8. An inspection box having an inlet, a tapered deflector in the box below said inlet and having its apex presented toward the same, a post extending through the deflector, and a spring carried by said post and engaging said deflector.
9. An inspection box having an inlet opening, a tapered deflector below said opening and having its apex presented toward said opening, metallic strips extending across the box and intersecting at the central portion thereof, the lower end of the deflector having slits adapted to receive said strips, a post supported by the intersecting portions of said strips, said post having its upper portion projected through an aper-

ture in the deflector, and a spring surrounding the upper portion of said post and yieldingly supporting the deflector.

10. An inspection box comprising an upper and a lower member, corner bolts connecting said members, supports anchored at their outer ends to diagonally opposite corner bolts, the upper member having an inlet, and a tapered deflector located below the inlet with its apex presented toward the inlet and carried by said supports.

11. An inspection box comprising an upper and a lower member, corner bolts extending between said members, the upper member being provided with an inlet, a pair of supports adjacent to the upper end of the box and each extending across the box and having its outer ends anchored to diagonally opposed bolts, a set of supports located below the first pair of supports and anchored to the corner bolts, a deflector yieldingly carried by the first pair of supports and having its apex presented toward the inlet, and a chute carried by the second set of supports.

12. An inspection box comprising an upper and a lower member, the upper member being provided with an inlet, corner pieces extending between said members, panes of transparent material interposed between the corner pieces and the upper and lower members, bolts located within the corner pieces and connecting the upper and lower members, metallic strips running from each corner to one of the other corners and having their thin edges turned upwardly, and a tapered deflector arranged below said inlet and having vertical slits in its lower end receiving said strips.

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

HENRY S. MILLER.

Witnesses:

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BRENNAN B. WEST.