

COPY

PATENT SPECIFICATION

399,349

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PROVISIONAL SPECIFICATION.

Improvements in Coin Operated Amusement Machines.

I, WILLIAM EDWARD BRYAN, of Bryan's Automatic Works, London Road, Kegworth, Derby, British Subject, do hereby declare the nature of this invention to be as follows:—

This invention relates to amusement machines of the kind which return automatically one or more coins to the operator according to his skill.

The machine consists of a table containing one or more trap doors or shutters, the whole forming a flat table when the shutters are closed.

Each shutter is pierced with one or more slots or holes large enough to allow a coin or disc to pass through.

The shutters are held in the closed position by a lever catch. A lever or plate beneath the hole or holes in each shutter is arranged to trip the shutter's lever catch on a coin passing through the hole or holes in the shutters.

The shutter concerned then tips and all coins on the particular shutter are passed to the operator via a chute—the coin releasing the shutter passing to a cash box.

The coin or discs may be thrown, rolled or pushed by hand, or shot from a

spring gun in an endeavour to aim at the holes in the shutters.

The shutters may return to the closed position by the effort of a weight or spring or may be replaced by a hand lever controlled by the operator from outside the machine: the whole table & mechanism being enclosed in a case with a transparent lid.

The plain or un-used portion of the table at the operator's end may be guarded by a row of vertical pins or the like or this dead portion may be covered with transparent material and may be pivoted so that the operator may re-claim any coins that come to rest on this dead portion.

All coins passing right over the shutters may be returned to the operator by means of a suitably sloped chute.

In a modification, instead of a hole or slot in each shutter, a moveable peg or upright piece is arranged to release the shutter's lever catch, on being struck with a coin, one or more pegs or pieces being allocated to each shutter.

Dated this nineteenth day of December, 1932.

W. E. BRYAN.

COMPLETE SPECIFICATION.

Improvements in Coin Operated Amusement Machines.

I, WILLIAM EDWARD BRYAN, of Bryan's Automatic Works, London Road, Kegworth, Derby, a Subject of the King of Great Britain, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to amusement machines of the type in which coins or discs (hereinafter termed "coins"), are rolled, thrown, pushed by hand or otherwise propelled upon a playing surface, one or more coins being returned to the player according to his skill.

The object of this invention is to provide apparatus of this type, which needs

little attention from the owner and which automatically retains a proportion of the coins inserted by the players.

Apparatus of this type is known, in which coins are projected from a pistol at a target and the losing coins fall into a hopper, the winning coins which enter apertures in the target, release and deliver the coins contained in the hopper down a chute to the player. The release of the hopper is effected by means of a bell-crank lever engaged by the winning coins operating a pawl to release a plate comprising the mouth of the hopper.

According to this invention a coin-operated amusement machine comprises in combination a support, a table, which

Price 4s 6d

is pivoted to said support for movement about a horizontal axis, but is normally maintained in a horizontal position, a coin chute or the equivalent for projecting coins upon the table, a target associated with the table and means for tipping the table about its pivot on engagement of the target by a winning coin, so as to deliver to the player the coins accumulated on the surface of the table. The target may be constituted by an aperture in the surface of the table and the table tipping means may comprise a release flap located beneath the said aperture and linkage interconnecting the release flap and the table, said linkage being arranged to tip the table about its pivot on engagement of the release flap by a winning coin falling through the said aperture.

A feature of the invention resides in the arrangement of the linkage, which is so constructed as to prevent the table from being turned about its pivot by the weight of the coins resting thereon.

Means (e.g. a hand operated rod cooperating with the table crank) may be provided to restore the table to its horizontal position after it has been turned about its pivot.

A coin chute is located beneath the table to guide the winning coins to the release flap, said coin chute being formed with external guides adapted to lead the coins, which are projected from the table by the operation of the winning coin to a coin delivery chute at hand to the player. Coins may be rolled upon the table by means of a rolling chute, which is adjustable about a vertical axis for directing the coins rolled on their edges upon the surface of the table.

It will be appreciated that the winning coins are retained in the machine and the coins accumulated upon the table are delivered to the player when the table is turned about its pivot as the result of a winning coin having operated the release flap.

In one example of construction, a plurality (for example, six,) of adjacent horizontally pivoted tables are provided, each of which is identical and is formed with a target and means for tipping it about its pivot on engagement of the target by a winning coin. Means are also provided, which interconnects the tables and are adapted, when any one of the tables is tipped about its pivot, to lock the adjacent table against pivotal movement. Said interconnecting means, preferably, comprise tongues formed on the release flaps.

The invention will now be described with reference to the accompanying draw-

ings in which an example of construction is illustrated.

Referring to the drawings,

Fig. 1 is a plan view of the apparatus, Fig. 2 is a side elevation with a sliding side panel removed,

Fig. 3 is a section on the line 3—3 of Fig. 1 and

Fig. 4 is a cross-section on the line 4—4 of Fig. 3.

Referring to the drawings, the apparatus is contained in a wooden case 1, having sliding panels 2 locked in position to the case 1 by locks 3 and a glass top plate 4, which slides in grooves in the case 1 and is locked thereto by a sliding strip 5. The latter can only be slidden aside to remove the glass 4, when a bolt 6 normally retained in a recess 5A by a spring 6A is withdrawn. The bolt 6 cannot, however, be tampered with from outside the apparatus, as it is contained within the case 1 and can only be operated when the panels 2 are unlocked and slidden aside.

The playing surface of the device consists of six tables 7, each of which are identical in construction and operation. The said tables are each attached to associated spindles 8 connected to cranks 9 pivoted to substantially vertical links 10. The latter have their opposite ends pivoted to cranks 11, the pivot points 10—11 being connected by springs 13 to a longitudinal member 12, so as to hold the links 10 and cranks 11 substantially in alignment with each other. The remote ends of the cranks 11 are rigidly connected to spindles 14 mounted in the said longitudinal member 12 which extend transversely across the apparatus parallel to each other.

The tables 7 are formed with targets, consisting of apertures 7A, beneath each of which is a coin chute 15, the lower end of which is normally closed by a release flap 16, which is rigidly secured to one of the spindles 14. There is, thus a coin chute 15, release flap 16 and spindle 14 associated with each table. The tables 7 are similar to each other, but one table (the third from the front end of the apparatus) is shown in all the views in the tipped position and is designated with the letter 7B for the sake of convenience.

A coin rolling chute 17, having grooves 17A for rolling coins on their edges on the tables 7, is located at one end of the apparatus and is mounted in two horizontally pivotable bearings 17B and 17C. The chute 17 is capable of limited angular adjustment about the said pivots 17B and 17C (as shown in dotted lines in Fig. 1), so as to enable the player to aim the coin as he chooses upon the table.

In operation, coins are rolled down the chute 17 by the players and the unsuccessful coins accumulate upon the surface of the tables 7. Baffle pins 18 located near the target apertures 7A and baffle plates 19 on the ends of the tables 7 project upwardly from the surface of the tables 7 and may be engaged by the coins as they are rolled down the chute 17. The pins 18 are so arranged as to guard the target apertures 7A and render it more difficult for the coins to enter therein.

When a successful coin enters a target aperture 7A, it falls down the chute 15 and engages the release flap 16, which is by the weight of the coin thereupon turned through a right angle, (see Fig. 3) the coil falling to the floor of the apparatus and being retained within the machine. The spindle 14 to which the release flap 16 is rigidly secured is also turned through the same angle, turning the crank 11 counter-clockwise as seen in Fig. 2. This action pulls the link 10 downwardly and the crank 9 is turned clockwise in a downward direction, which has the effect of tipping the table 7B about its spindle 8. The coins accumulated upon the said table are thereby projected off the table and are delivered to the player down the chute 20 (see Fig. 4). Deflectors 15A are formed on the outsides of the chutes 15 to direct coins falling from the tables down the chute 20 and prevent the same lodging in the apparatus.

In order to restore the tables from their tipped position to their normal horizontal positions, a longitudinal member 21 operated by a rod 22 and handle 23 and having pins 24 is provided. The said member 21 is carried on arms 25 pivotally mounted on the framework of the apparatus at 25A and a spring 26 connects one of said arms 25 with the member 21. On withdrawing the knob 23 outwardly from the apparatus (to the right in Fig. 2), the pins 21 come in contact with the cranks 9 and raise them and thereby restore the tables 7 to the horizontal position.

The member 21 is itself restored to its normal position as soon as the knob 23 is released by the action of the spring 26 against which the member 21 has been moved, the spring 26 tending to move the member 21 towards the arm 25 to which its other end is anchored. In restoring the member 21 to its original position the pins 24 are free from the cranks 9 and permit the same to be turned about their pivots 8 as soon as their respective tables 7 are again tipped.

The release flaps 16 are each formed with an extension or tongue 16A, which

is so arranged that when a release flap 16 is released by a coin to tip its associated table 7, the tongue 16A contacts with the release flap of the adjacent table 7 and prevents that table from being operated. In Fig. 3, it will be seen that the table 7B, which is third from the left, is in the tipped position and the tongue 16A of its released flap 16 is in a horizontal position against the release flap of the adjacent table 7 (the second from the left in this view).

The release flaps 16 are formed with apertures 16B, to prevent them being operated by a smaller coin than that for which the machine is designed. For instance in a machine operated by pennies, the release flaps 16 would not be pivotally turned by half-pence.

A feature of the invention resides in the fact that it is not possible to tip the tables 7 by downward pressure or the application of a weight upon the tables, and this safeguard against misuse of the apparatus is accomplished by so designing the system of linkage that a downward force upon the tables is applied through the pivot point 9-10 and down the link 10 and crank 11. The table is not tipped because the tipping operation can only be effected by moving the pivot point 10-11 counter-clockwise away from the vertical position through the medium of the crank 11 and spindle 14.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In a coin-operated amusement machine the combination of a support, a table which is pivoted to said support for movement about a horizontal axis but is normally maintained in a horizontal position, a coin chute or the equivalent for projecting coins upon the table, a target associated with the table and means for tipping the table about its pivot on engagement of the target by a winning coin, so as to deliver to the player the coins accumulated on the surface of the table.

2. Apparatus as claimed in Claim 1 wherein the target is constituted by an aperture in the surface of the table, and the table-tipping means comprise a release flap located beneath the aperture and linkage interconnecting the release flap and the table and arranged to tip the table about its pivot on engagement of the release flap by a winning coin falling through the aforesaid aperture.

3. Apparatus as claimed in Claim 2 wherein the linkage is so constructed as to prevent the table from being turned about its pivot by the weight of the coins

resting thereon.

4. Apparatus as claimed in any of the preceding Claims comprising a plurality of adjacent horizontally pivoted tables 5 each of which is provided with a target and means for tipping it about its pivot on engagement of the target by a winning coin, and means interconnecting the tables and adapted, when any one of the 10 tables is tipped about its pivot, to lock the adjacent table against pivotal movement.
5. Apparatus as claimed in Claim 4 in which the release flap of each table is formed with a tongue, which on engagement 15 of the release flap by a winning coin retains the release flap of the adjacent table in the closed position and so prevents said adjacent table from being turned about its pivot.
- 20 6. Apparatus as claimed in Claim 2 in which the table is mounted on a spindle connected by a crank and spring-controlled links to a spindle carrying the release flap.
- 25 7. Apparatus as claimed in Claim 1 in which means (e.g. a hand operated rod co-operating with the table cranks) are provided to restore the table to its horizontal position after it has been turned 30 about its pivot.
8. Apparatus as claimed in Claim 1 in which the winning coins are retained in the machine and the coins accumulated upon the table are delivered to the player when the table is turned about its pivot 35 as the result of a winning coin having operated the release flap.
9. Apparatus as claimed in Claims 5—7 in which a coin chute is located beneath the table to guide the winning coins 40 to the release flap, said coin chute being formed with external guides adapted to lead the coins which are projected from the table by the operation of the winning coin to a coin delivery chute at hand to 45 the player.
10. Apparatus as claimed in any of the preceding Claims having a rolling chute, which is adjustable about a vertical axis for directing coins rolled on their edges 50 upon the surface of the table.
11. Apparatus as claimed in any of the preceding Claims in which upstanding baffles (e.g. plates or pegs) are associated with the tables. 55
12. A coin operated amusement machine constructed and arranged substantially as described and as illustrated in the accompanying drawings.

Dated this 19th day of, May, 1933.
 BREWER & SON,
 33, Chancery Lane, London,
 Patent Agents for the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale.]

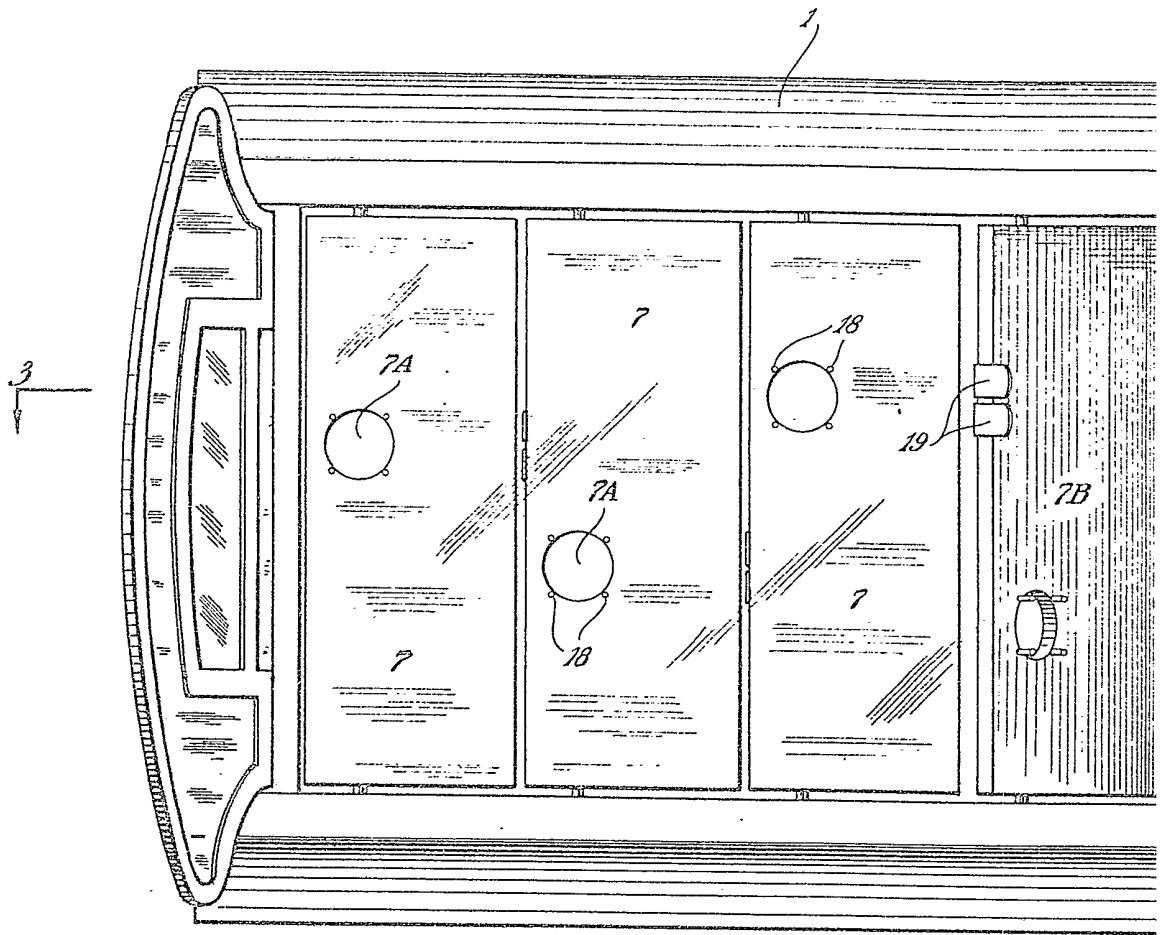


Fig. 1.

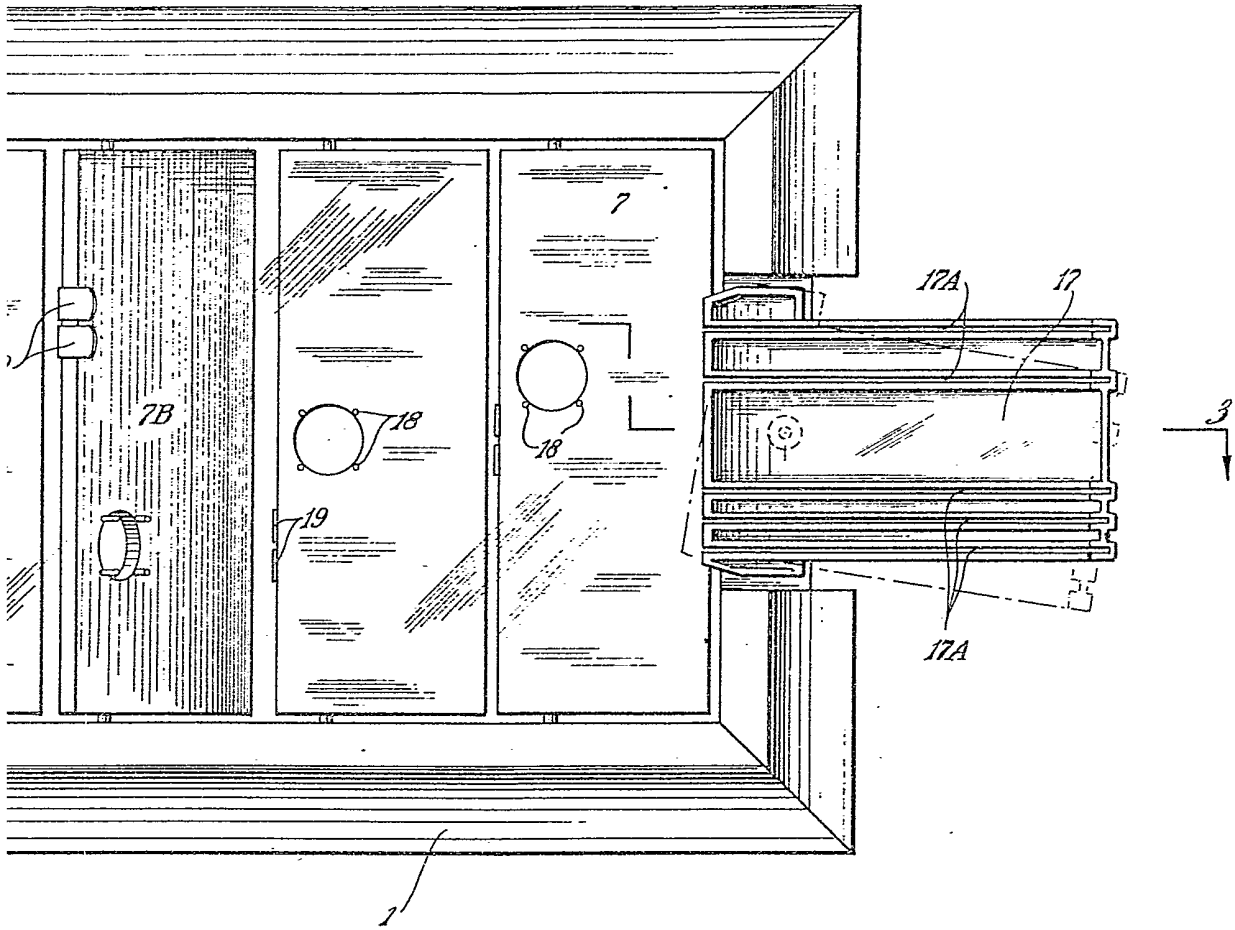


Fig. 1

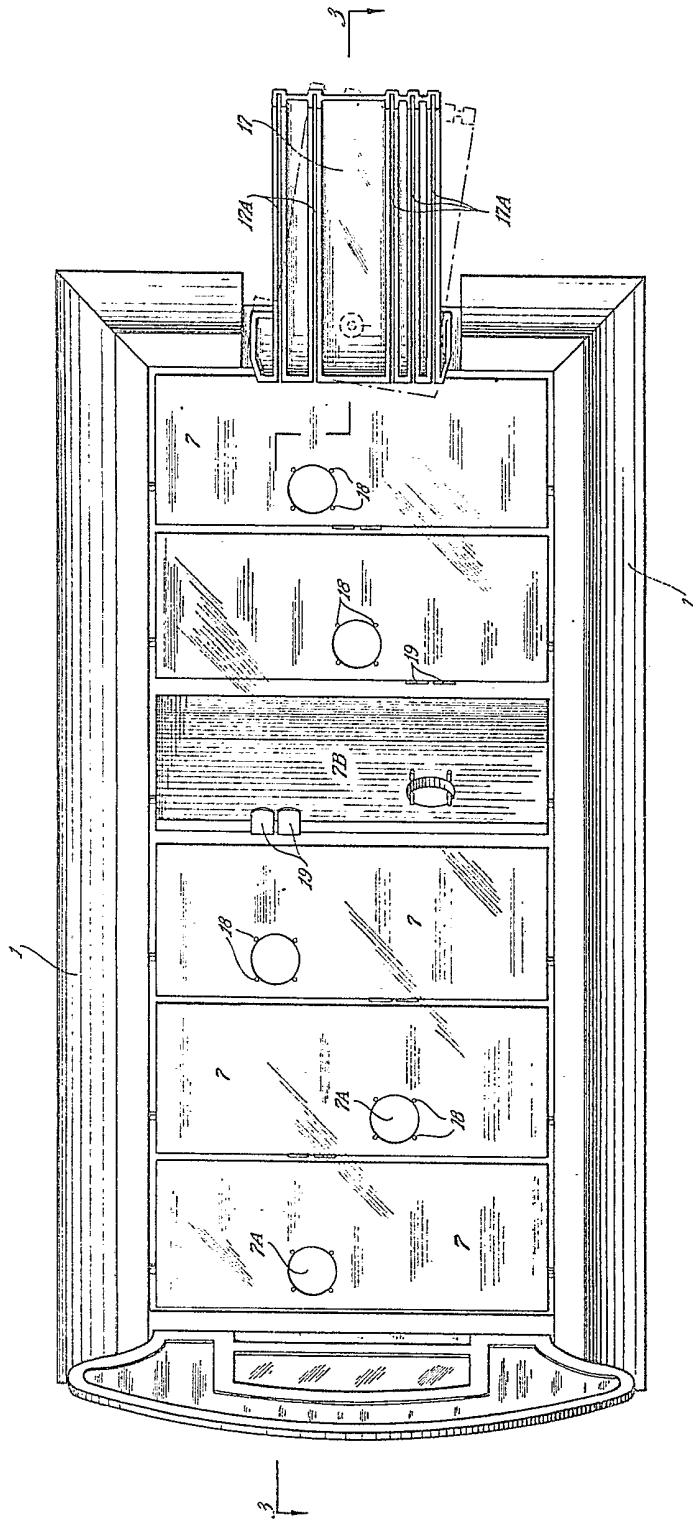


Fig. 1.

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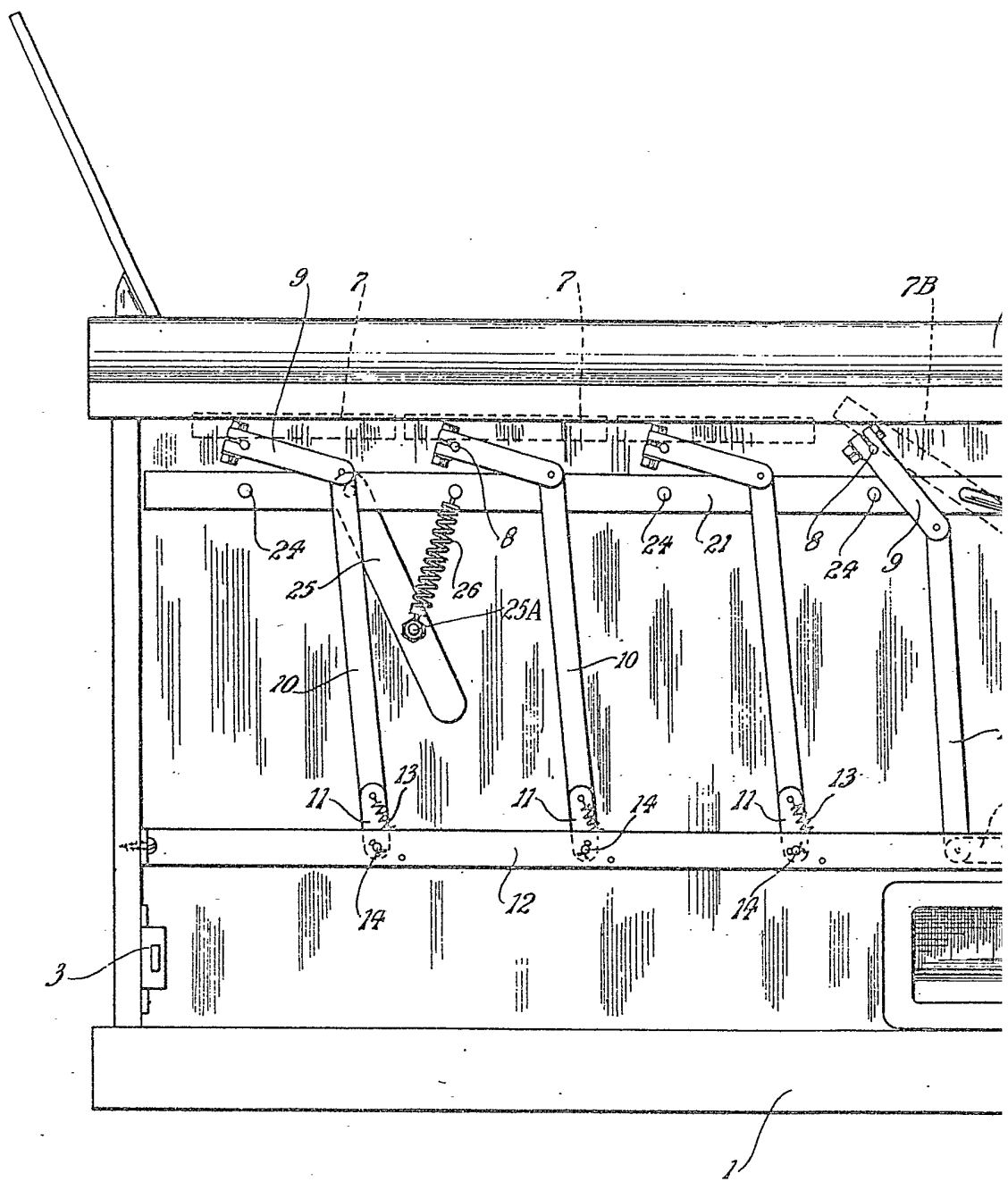


Fig. 2.

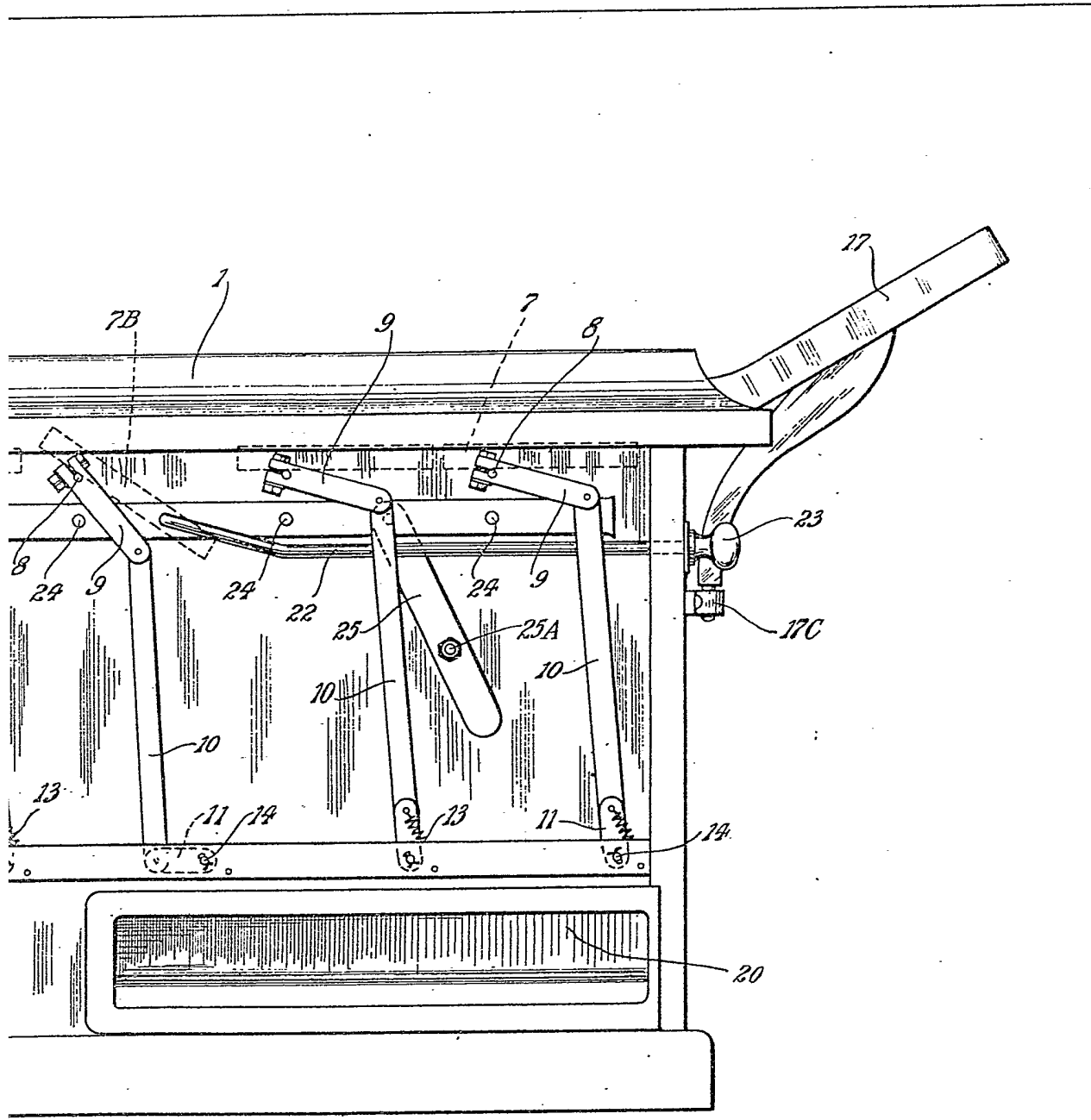
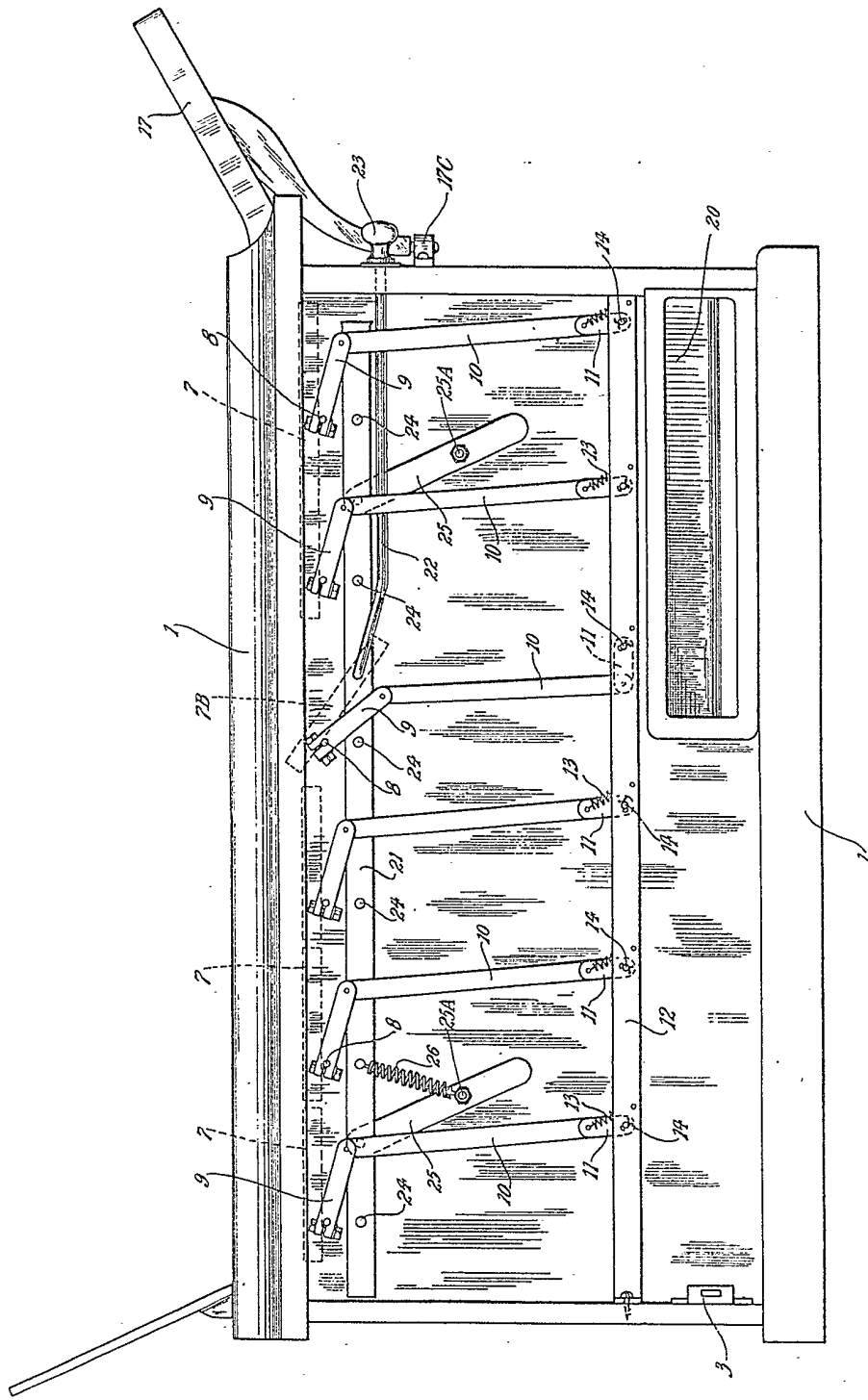


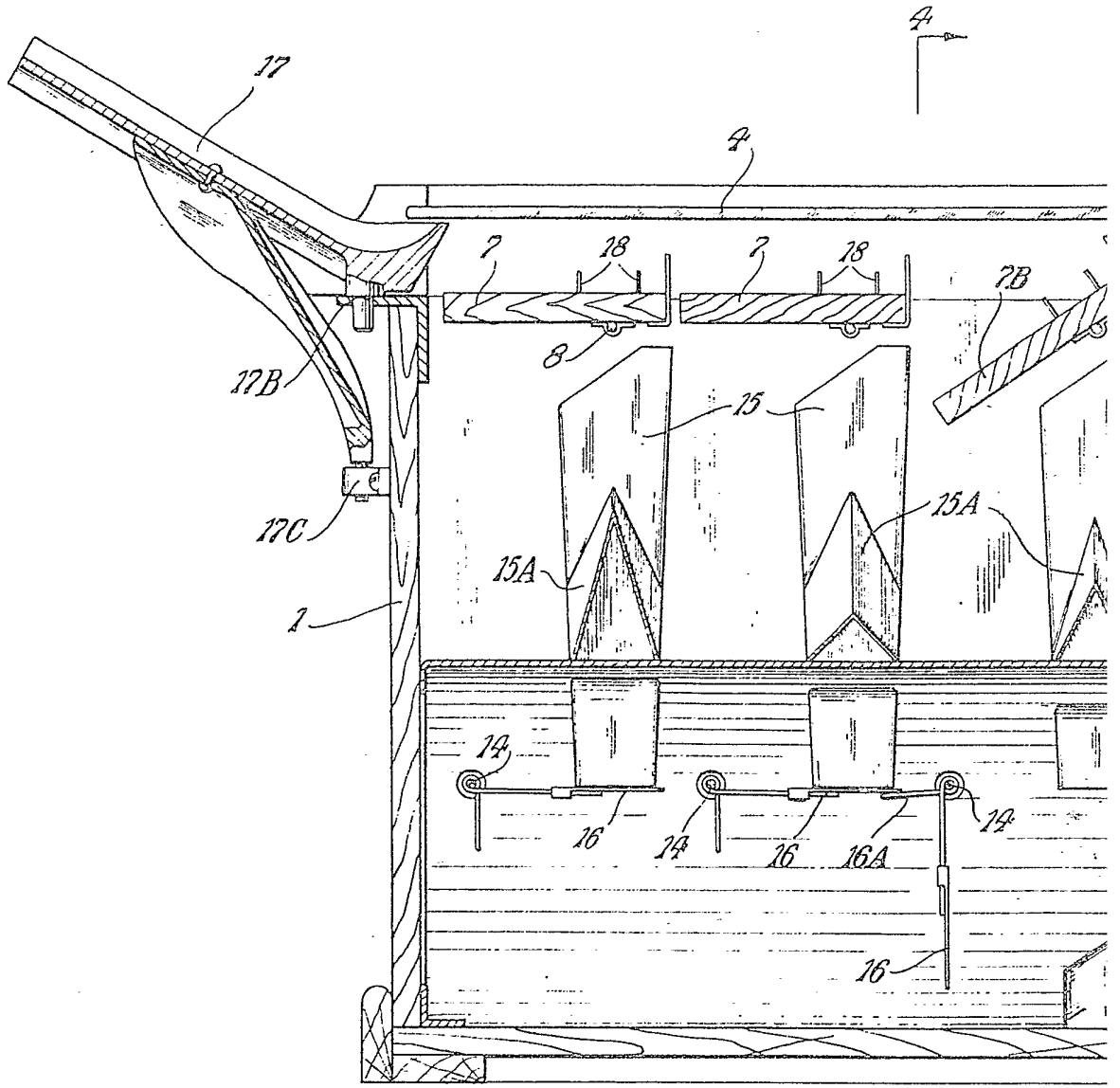
Fig. 2.



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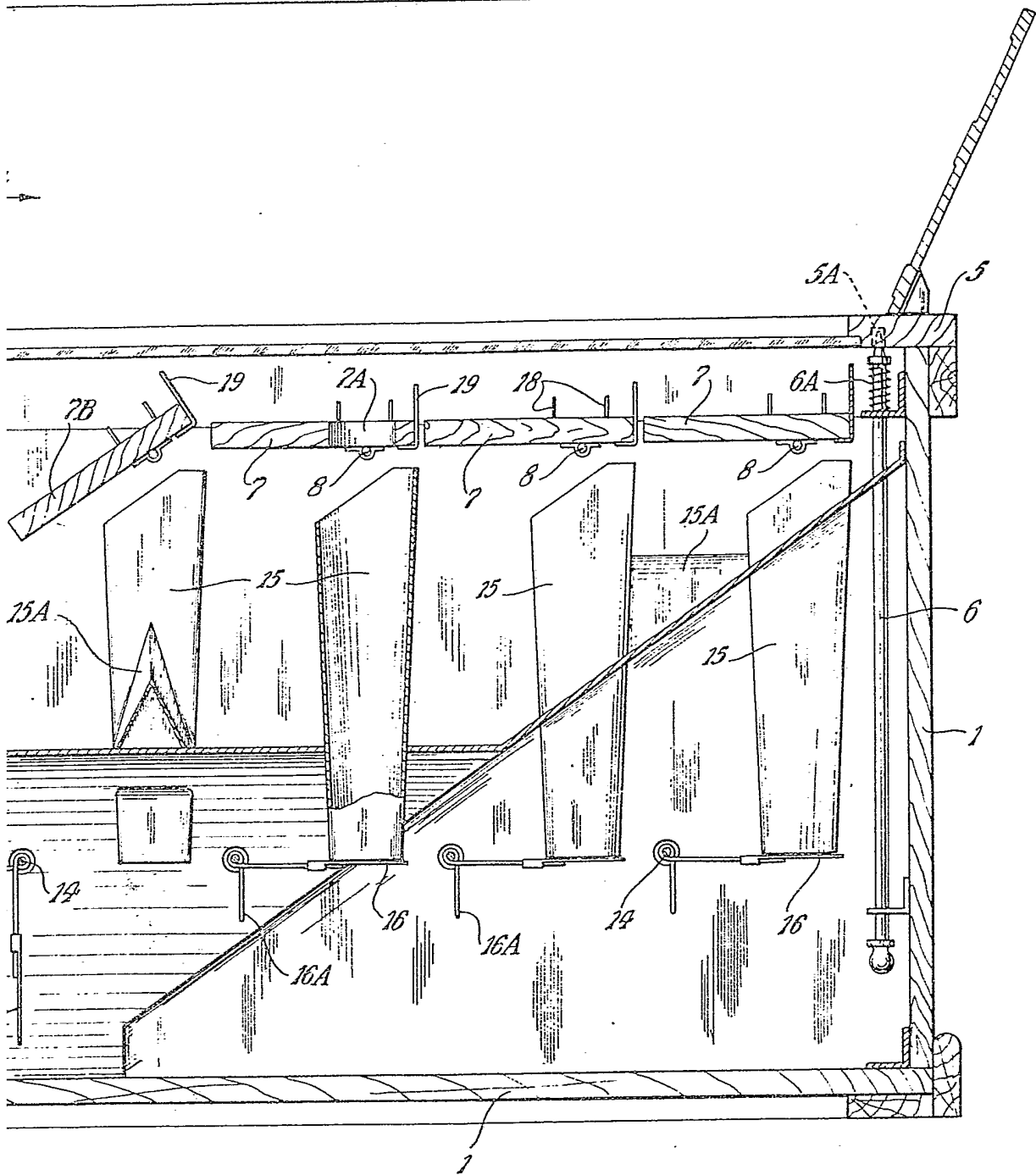
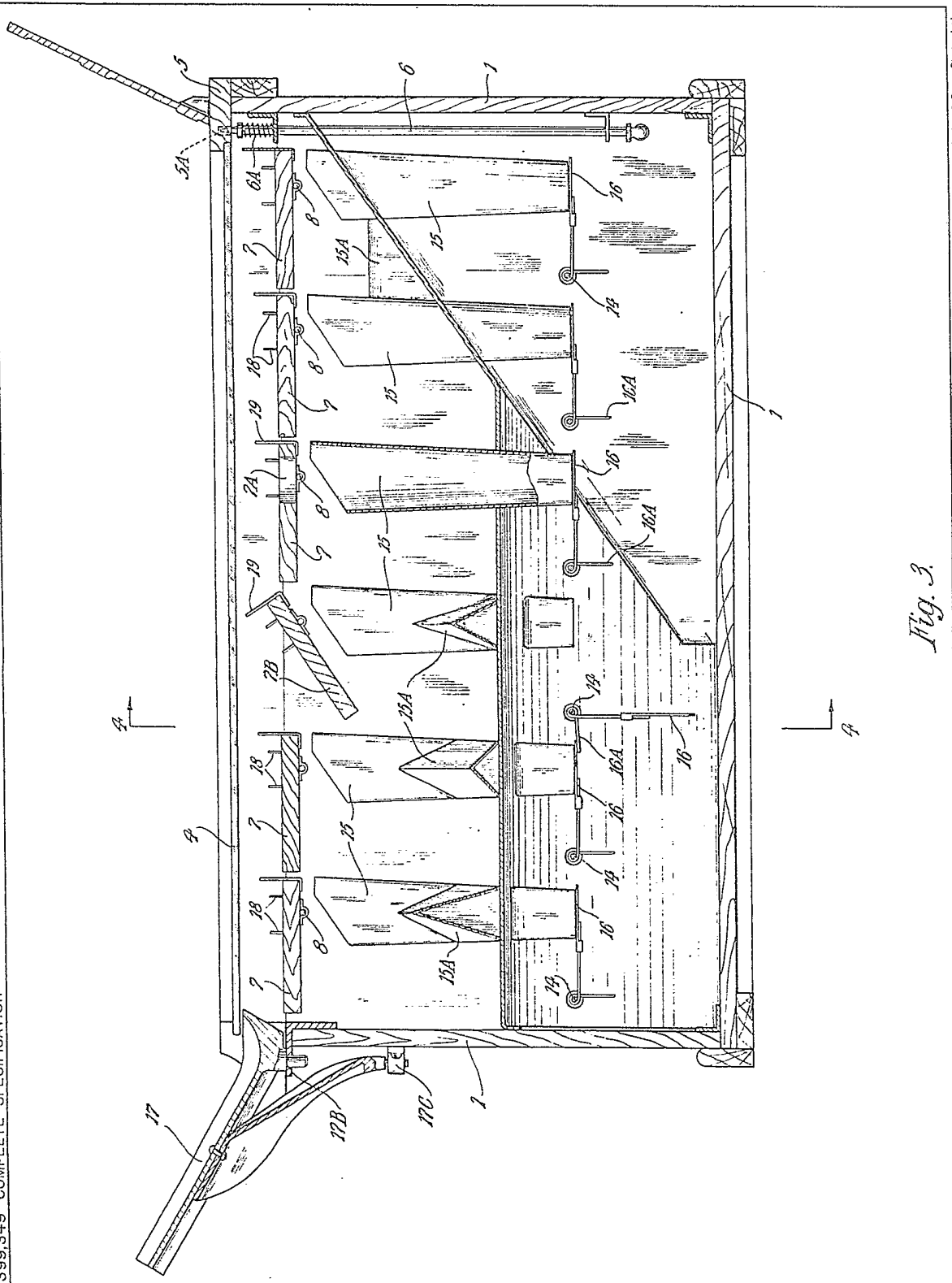


Fig. 3.



[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 3.

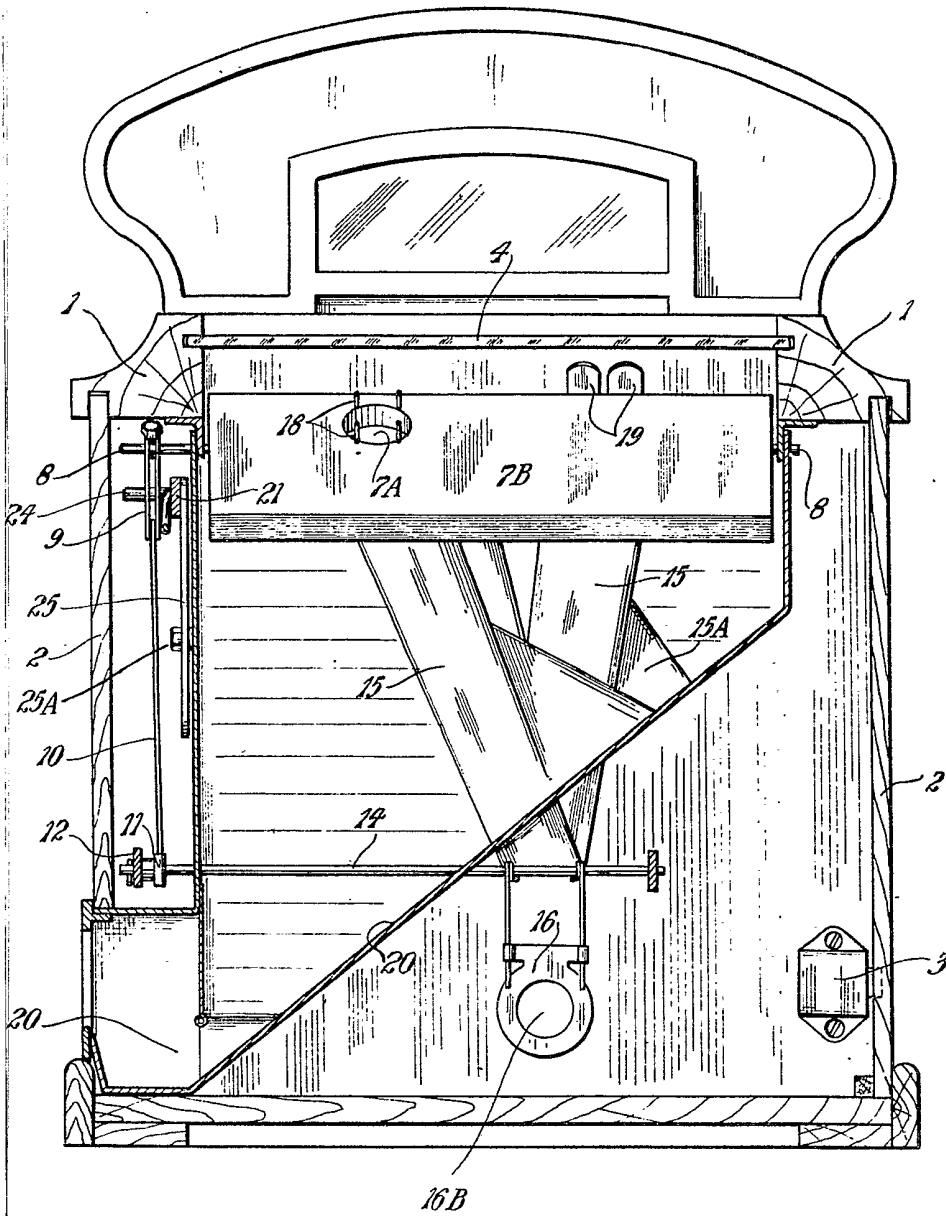


Fig. 4.