

F. JENDRZEJEWSKI.
VENDING MACHINE.
APPLICATION FILED JUNE 19, 1908.

921,841.

Patented May 18, 1909.

2 SHEETS—SHEET 1.

FIG. 2

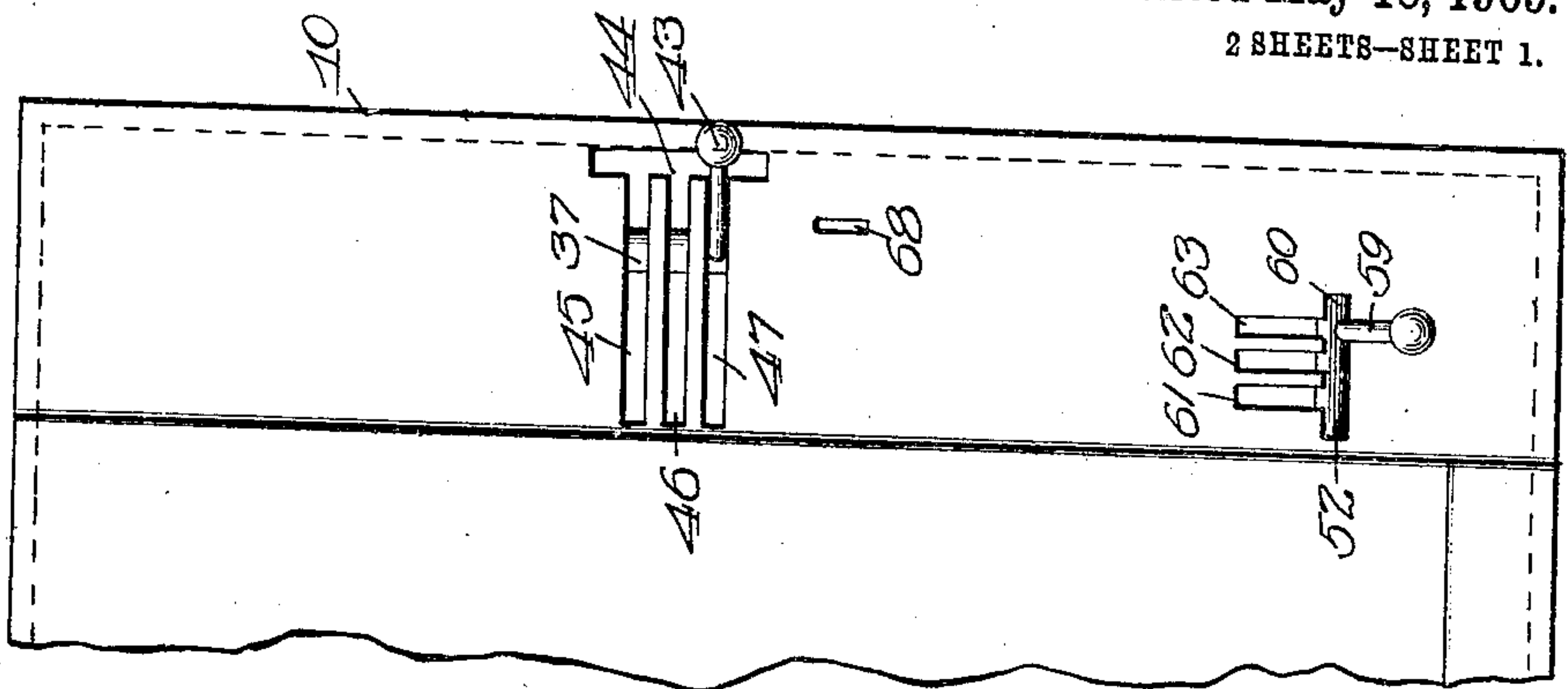
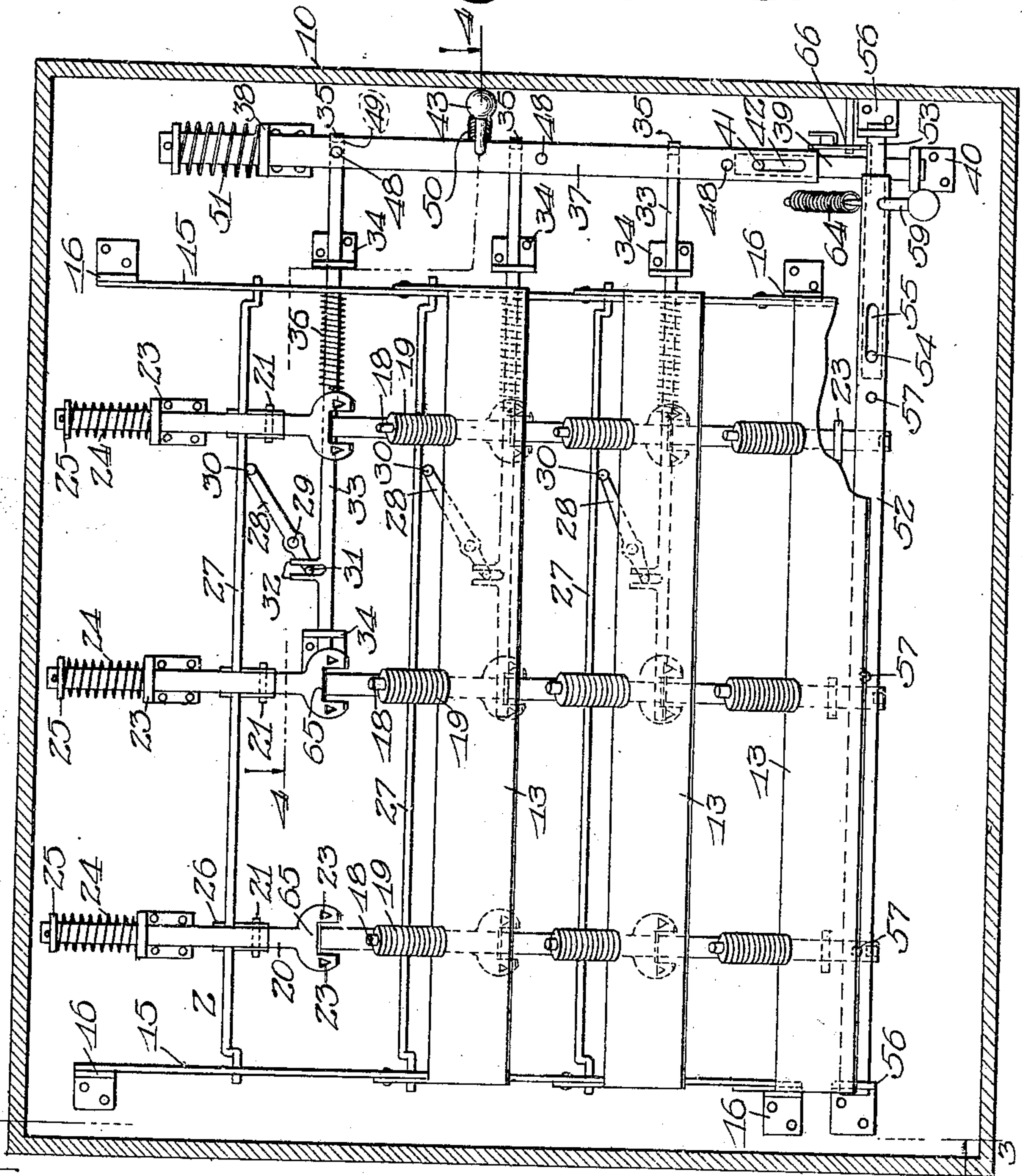


FIG. 1



Witnesses:
G. V. Donarum Jr.
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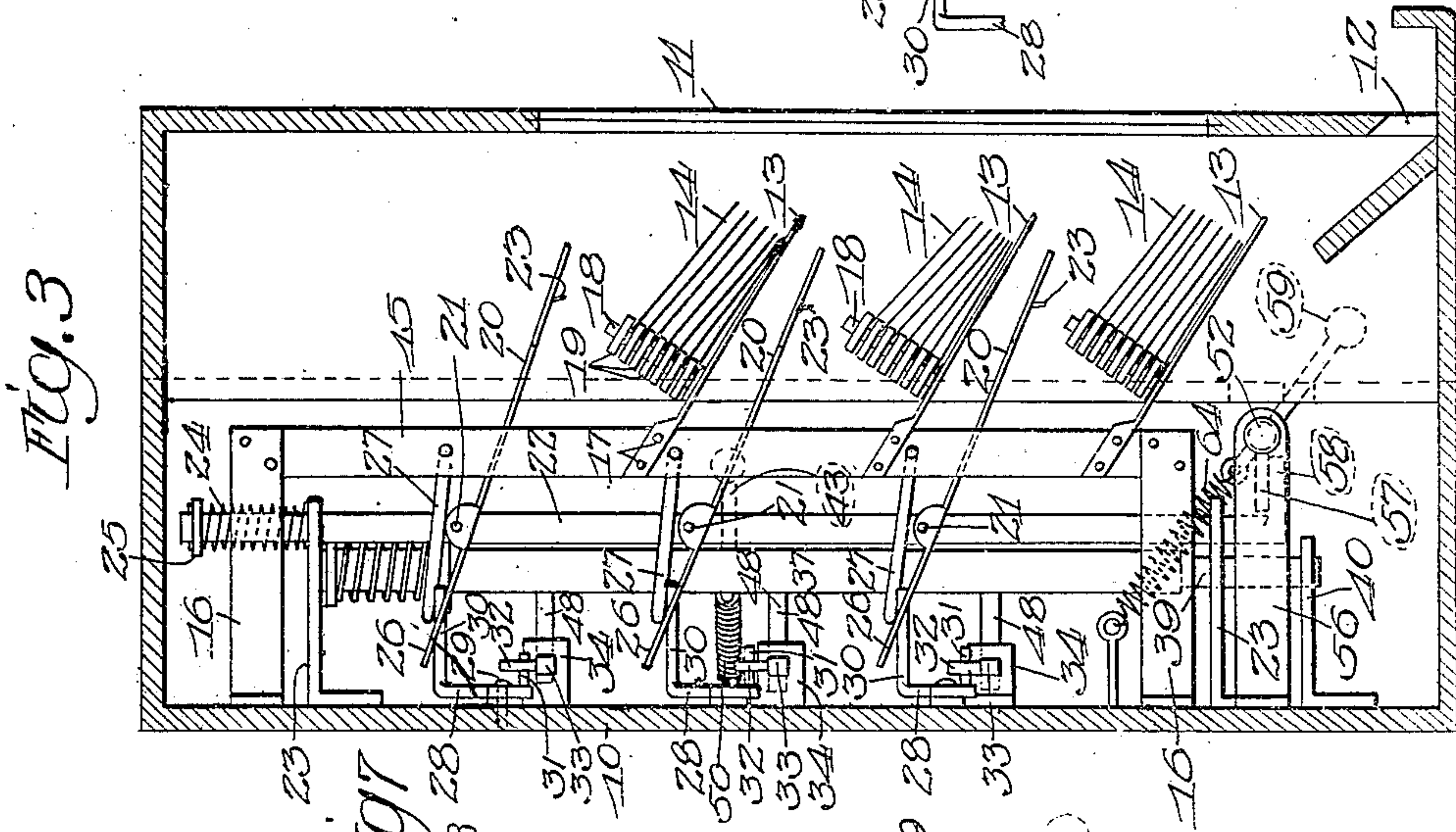
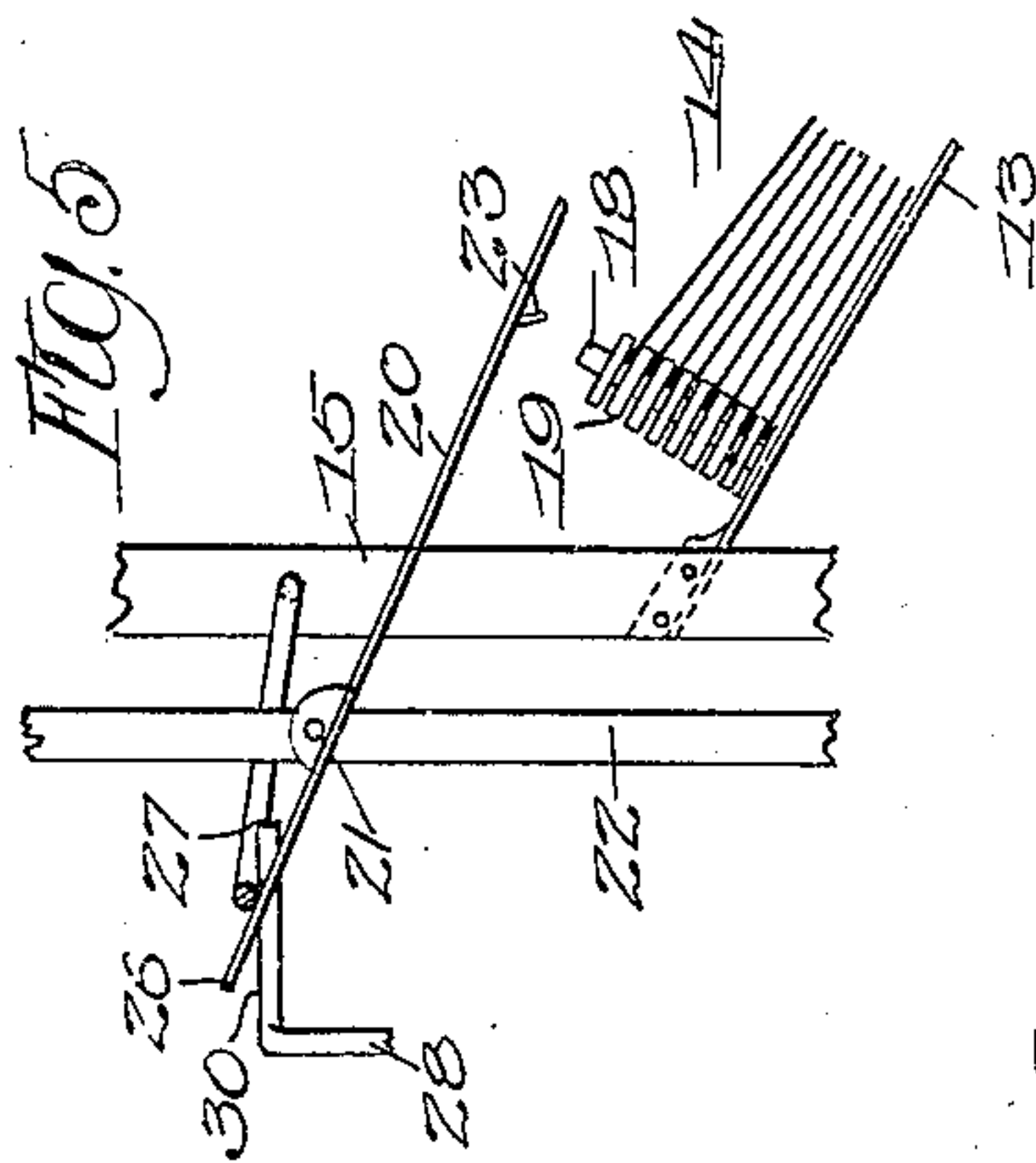
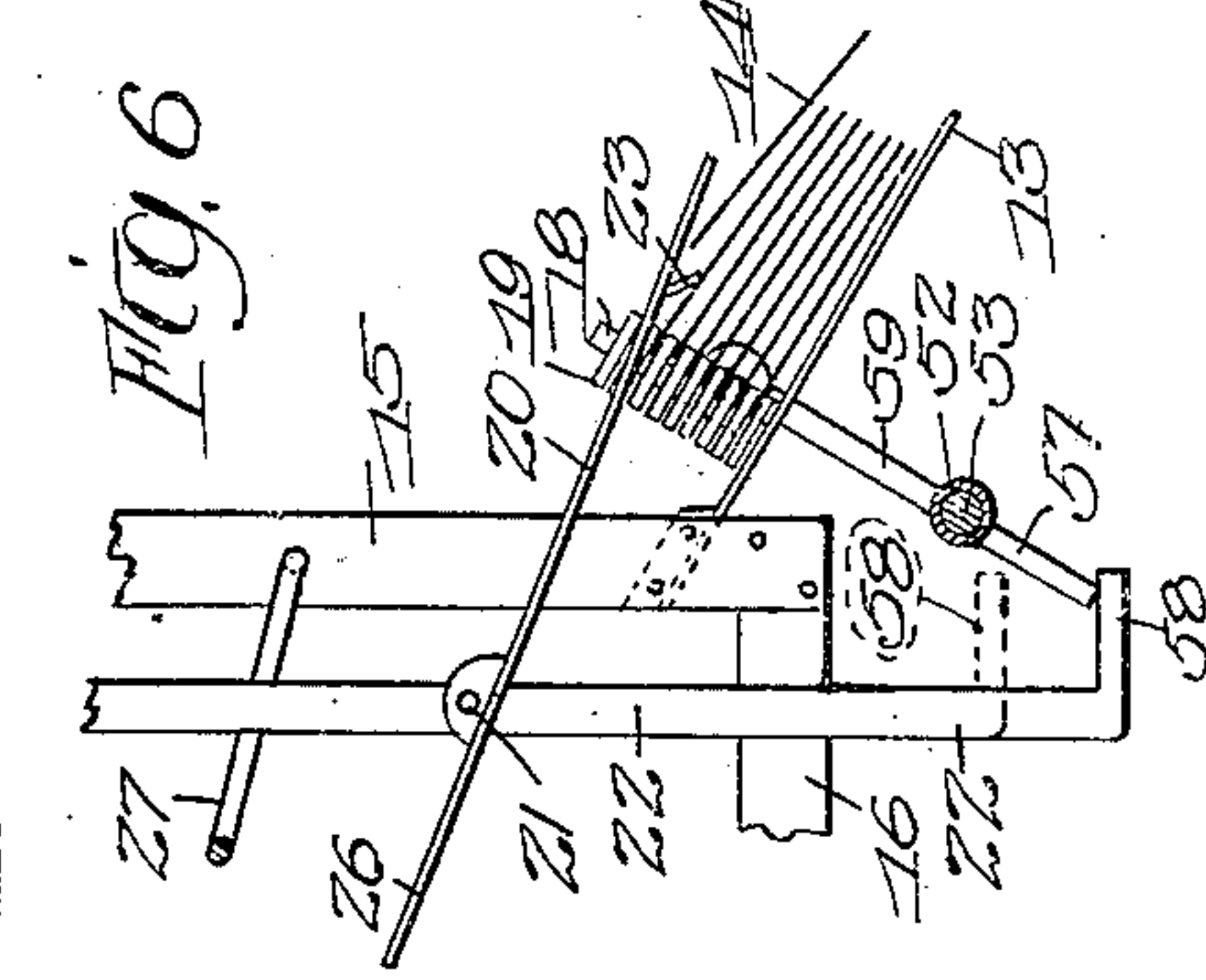
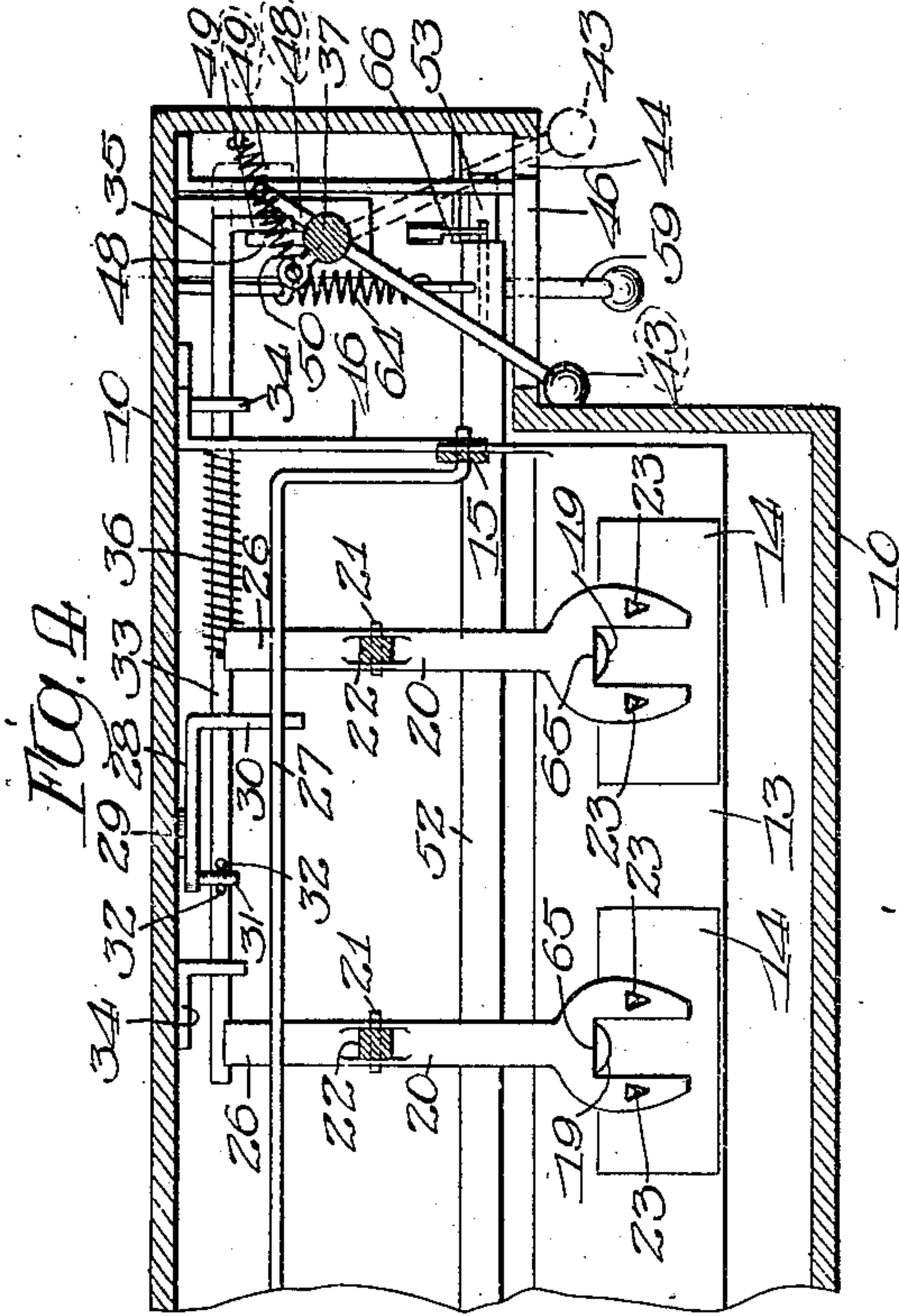
Inventor:
Frank Jendrzewski
By Brown & Hopkins Attys

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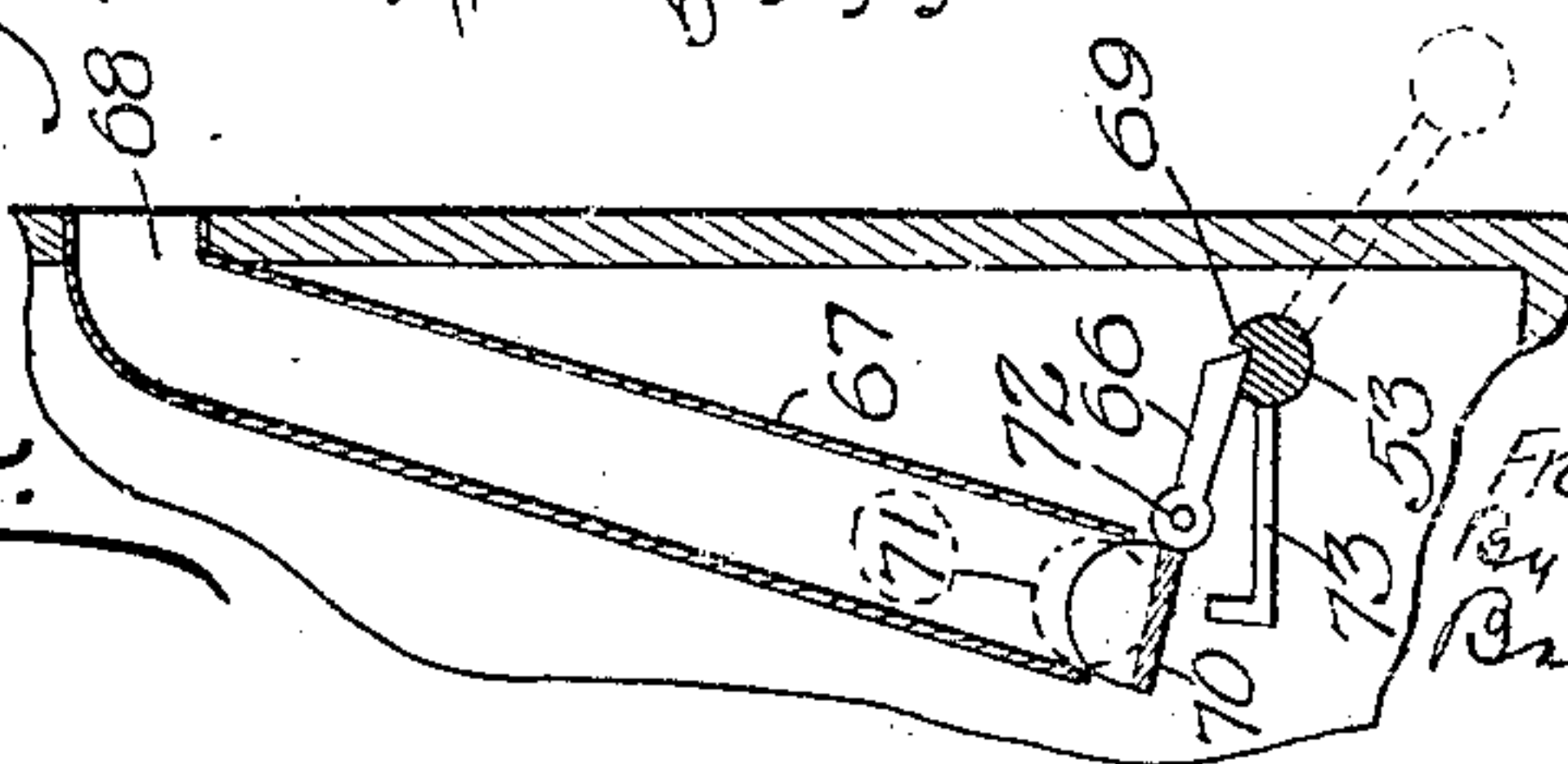
Patented May 18, 1909.

2 SHEETS—SHEET 2.



Witnesses:
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H. P. Daulton

Fig. 7



Inventor:
Frank Jendrzewski
By Brown & Hoffmann
Attys

UNITED STATES PATENT OFFICE.

FRANK JENDRZEJEWSKI, OF CHICAGO, ILLINOIS.

VENDING-MACHINE.

No. 921,841.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed June 19, 1908. Serial No. 439,302.

To all whom it may concern:

Be it known that I, FRANK JENDRZEJEWSKI, a citizen of the United States, and residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to improvements in vending machines particularly adapted for dispensing cards, such as postal cards and the like, and the primary object of the invention is to provide an improved machine of this character in which there is provided a plurality of holders for the cards from any one of which a card may be selected at the will of the operator, and improved means for automatically releasing or discharging the selected card.

A further object is to provide improved means individual to each of the holders for ejecting the cards therefrom and improved means for operating the ejecting means.

A further object is to provide improved delivery mechanism individual to each of the holders for delivering the cards therefrom, said mechanisms being connected in series, and improved means for operating the series.

A further object is to provide improved means for rendering certain of the delivery mechanisms inactive to permit a predetermined one of said mechanisms to deliver a card.

A further object is to provide an improved machine of this character including a plurality of holders for the cards, improved means individual to each of the holders for delivering the cards therefrom, improved means for operating a predetermined one of said delivery mechanisms to cause the same to deliver a card from its respective holder and improved means under the control of the operator for rendering certain of said mechanisms inactive while a card is being delivered from the predetermined holder.

A further object is to provide improved means for automatically rendering all of the delivery mechanisms inactive after a card has been delivered.

A further object is to provide an improved ejector whereby only one card or article will be delivered by the ejector when the latter is operated.

A further object is to provide an improved holder for the cards.

A further object is to provide an improved

device of this character which will be simple, durable and cheap in construction and effective, efficient and automatic in operation.

To the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawings illustrating an embodiment of the invention and in which—

Figure 1 is an elevation partly in section and partly broken away of an improved machine of this character constructed in accordance with the principles of this invention. Fig. 2 is a right hand end elevation of Fig. 1. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a detail sectional view on line 4—4 of Fig. 1. Fig. 5 is a detail elevation of one of the holders for the cards and the ejecting mechanism therefor, showing the position of the ejector when the mechanism is out of operation. Fig. 6 is a similar view to Fig. 5, showing the ejector and its cooperating parts in the position which it assumes when ejecting a card or article. Fig. 7 is a detail sectional view of the check chute and releasing mechanism.

Referring more particularly to the drawings and in the present exemplification of the invention, the numeral 10 designates the casing of the machine within which the mechanism is placed. This casing is preferably provided with a transparent front portion through which the mechanism may be visible to the operator and the casing is provided with a delivery or discharge outlet 12 located at any suitable point through which the cards or articles may be delivered to the operator when ejected or discharged by the ejecting mechanism. The casing may be constructed of any desired size according to the number of holders that are employed and may be constructed of any suitable shape and material.

Arranged within the casing are a plurality of supports 13 for holding the cards or articles 14 to be dispensed. These supports 13 may be held in position in any desired or suitable manner, preferably by means of a frame work comprising spaced uprights 15 arranged one adjacent each of the sides of the casing and which uprights may be supported preferably from the back of the casing by means of suitable arms or brackets 16. The

supports 13 are arranged between the up-
rights and may be secured thereto in any de-
sired or suitable manner, preferably by means
of fastening devices 17 in the form of bolts or
rivets which pass through a portion of the
supports and the uprights 15. These up-
rights 15 may be spaced from each other for
any desired distance within the casing and
the supports 13 are of any suitable length ac-
cording to the number of packages of cards or
articles 14 it is desired to display. In the
present exemplification of the invention the
supports 13 are shown as being of a length
suitable to accommodate and hold three
packages of cards or articles 14 and there is
also shown three of these supports whereby
nine packages of cards may be displayed.
Obviously any number of these supports and
holders may be employed according to the
size of the machine.

Any suitable means may be provided for
individually holding each of the cards of the
various packs. A simple and efficient means
for accomplishing this purpose comprises an
upright 18 over which a plurality of weights
19 are loosely threaded and these uprights 18
are preferably disposed at a right angle to the
support 13 which latter are preferably in-
clined to the horizontal whereby each card
will have a tendency to be deflected down-
wardly toward the discharge opening 12 of
the casing when the card is ejected from the
holder. One of these holders is provided for
each of the packs of cards and the cards of
the respective packs are tucked in between
the weights 19, the superposed weights resting
upon the edges of the cards for supporting the
cards.

Arranged above each of the packs of cards
is an ejector 20 which is pivotally supported
intermediate its ends as at 21 to an upright
22, which latter moves in suitable guides 23
preferably supported by the back of the cas-
ing 10. The holders 18, 19, on the various
supports 13 in the present exemplification of
the invention are arranged in series of three,
one above the other, and there is provided
one of the ejectors 20 for each of the holders,
the ejectors of each vertical series being sup-
ported by the same upright member 22 so
that when the upright 22 is moved in its bear-
ings, the ejectors of the entire series will be
moved bodily with the member 22. Ar-
ranged adjacent the forward extremity of
each of the ejectors 20 are depending lips or
projections 23, any number of which may be
provided on each of the ejectors and which
are preferably inclined slightly in a forward
direction as shown, so that when the forward
extremity of the ejector is lowered into con-
tact with the uppermost card of each pack,
the portion of the ejector beyond the lip or
projection 23 will rest upon the surface of the
pack and the lip or projection 23 will assume
a position behind the rear edge of the upper-

most card, and when the member 22 is de-
pressed when the ejector 20 is in the position
just described, the pivot point 21 of the ejec-
tor will be lowered to move the front end for-
ward to push the top card from between the
holding weights and thereby eject the card to
force the same forwardly from the pack, as
shown more clearly in Fig. 6 of the drawings.
The card thus released will then drop to the
discharge opening 12 of the casing.

Any suitable means may be provided for
normally holding the member 22 elevated so
as to raise the pivot 21 of the ejectors 20 to
hold the latter elevated and out of engage-
ment with the packs. A suitable and effi-
cient means for accomplishing this purpose
comprises an elastic member 24, such as a
coil spring or the like, which preferably sur-
rounds the upper extremity of the uprights
22 so as to engage a shoulder 25 on the ex-
tremity of the upper guide 23.

The rear extremity 26 of the ejectors, pro-
ject for some distance to the rear of the
pivot 21 and the forward extremity of the
ejectors is heavier than the rear extremity
whereby the tendency of the forward ex-
tremity will be to assume a position so that
the lips or projections 23 will stand in close
proximity to and behind the rear edge of the
cards 14.

Each of the horizontal series of ejectors 20
is arranged in the same horizontal plane, and
pivotally supported in any desired or suitable
manner, preferably by means of the up-
rights 15 are a plurality of bails 27 which ex-
tend across and above the rear extremities 26
of the ejectors 20 of each of the horizontal se-
ries. The normal tendency of these bails 27
is to rest upon the extremities 26 of the ejec-
tors 20 of each of the horizontal series to hold
the forward extremities thereof elevated and
out of engagement with the packs of cards.
When it is desired to eject a card from a pre-
determined one of the holders, the respective
ejector 20 is first released, that is, the bail 27
which controls the horizontal series of ejec-
tors in which the predetermined ejector is
located is first adjusted or moved about its
points of pivotal support to relieve the pre-
determined ejector and all of the ejectors in
the horizontal series from the weight of the
bail. When thus relieved, the forward ex-
tremities of all of the ejectors in the horizon-
tal series thus released will fall into engage-
ment with the uppermost card of the packs
in the same horizontal series and in thus fall-
ing the ejectors will move about their points
of pivotal support 21 to permit the lips or
projections 23 to pass behind the rear edge of
the topmost card of the packs in the same
horizontal series, the portion of the ejector in
advance of the lips or projections serving to
arrest the further pivotal movement of the
ejectors. After the ejectors have been thus
released, the upright 22, to which is pivoted

the predetermined ejector 20, is depressed, to eject the card or article in the manner already set forth.

Any suitable means may be provided for relieving the respective horizontal series of ejectors from the weight of the bail 27. A suitable and efficient means for accomplishing this purpose comprises a member 28 pivotally supported intermediate its ends as at 29 preferably to the back of the casing. One extremity 30 of the member is bent or deflected forwardly so as to pass under the bail 27 and the member 28 is of such a length that when the member 28 is moved about its point of pivotal support 29 to an upright position, the extremity 30 will engage and raise the respective bail. The other extremity 31 of the member 28 projects laterally from the member and is adapted to stand between spaced lugs or ears 32 on a horizontally disposed member 33 which moves in suitable guides 34 and one extremity 35 projects beyond the upright 15 toward the side of the casing 10. One of these members 28 and a similar member 33 is provided for each of the bails 27 and the extremities 35 are arranged adjacent the same side of the casing. A suitable elastic member 36, preferably in the form of a coil spring, may be provided for each of the members 33 to cause the member 28 to assume a position that the deflected extremity 30 thereof will permit the respective bail 27 to rest upon the extremities 26 of the ejectors 20 of the respective horizontal series and this elastic member 36 may have a bearing against one of the uprights 15 while the other extremity may be connected in any suitable manner to the respective member 33.

Arranged in proximity to the side of the casing adjacent which the members 33 terminate, is a suitable controlled member 37 in the form of an upright shaft which is preferably constructed in sections, one of the sections passing through a suitable bearing 38 and the other section 39 passing through a suitable bearing 40. These sections 37, 39 may be connected by an ordinary pin and slot connection 41, 42, whereby one of the sections, preferably the section 37, may be adjusted longitudinally with respect to the section 39 and both of the sections may be axially rotated simultaneously by means of a handle 43 preferably secured to the section 37, and which handle projects through the side of the casing and is adapted to move in an upright slot 44, communicating with which are a plurality of slots 45, 46, 47.

Projecting laterally from the section 37 are a plurality of pins or arms 48 which are adapted to engage the extremity 35 of the respective member 33. These arms or pins 48 are so spaced from each other that when one of the arms or pins 48 is moved to a position to engage the laterally deflected portion 49 of the extremity 35, (see Fig. 4) the

remaining arms or pins will be out of alignment with their respective member 33 so that when in this position and an axial rotation is imparted to the member 37, the pin or arm 48 which is in an operative position with respect to the member 33, will engage the portion 49 thereof and adjust the respective member 33 against the tension of the elastic member 36 to raise the respective bail 27 in the manner already described.

A suitable elastic member 50, such as a coil spring or the like, may be provided for returning the member 37 to its normal position when the handle 43 is released. This spring may be arranged to hold the handle 43 either in one of the slots 45 or in the slot 44 but in the present exemplification of the invention, it is shown as holding the handle in one of the slots 45. An elastic member 51, such as a coil spring or the like, may also be provided for depressing the section 37 to throw the arms or pins 48 out of alignment with the laterally projecting portions 49 of the members 33, and the slots 45, 46, in the sides of the casing 10 are so arranged with respect to the handle 43, that they may be used as a gage for properly positioning the section 37 to cause the respective pin or arm 48 to operate a predetermined one of the members 28.

Any suitable means may be provided for depressing the uprights 22 to operate the ejectors 20. A simple and efficient means for accomplishing this purpose comprises a sectional shaft or member 52, 53 similar in construction to the sectional member 37, 39, and these sections 52, 53, may be connected by a pin and slot connection 54, 55, and suitable bearings 56 may be provided for the members. Projecting laterally from the section 52 are a series of pins or arms 57 similar to the pins or arms 48 which are adapted to respectively engage the laterally deflected portions 58 at the extremities of the uprights 22 and these pins 57 are spaced in a manner similar to the pins 48, that is, so that when one of the pins 57 is in position to engage the laterally deflected portion 58 of one of the uprights 22 (as shown more clearly in Fig. 6 and to the left hand of Fig. 1) the remaining pins 57 will be in an inactive position with respect to their respective upright 22. This operating member may be controlled by a similar handle 59 which passes through a slot 60 in the casing 10 and with which slot a plurality of slots 61, 62, 63 communicate and which latter slots may also serve as indicators to permit the proper positioning of the respective pins 57 as well as guides for receiving the handle 59 to permit the adjustment of the upright 22. An elastic member 64 may also be provided and against the tension of which the section 52 may be axially rotated to adjust the upright 22, for returning the member 52 and

for throwing the same out of operative position.

The forward extremities of the ejectors 20 beyond the lips or projections 23 may be provided with a bifurcation 65 of a width slightly greater than the diameter of the weights 19 so that the weights will enter the bifurcation 65 to permit the ejector 20 to receive a proper degree of forward movement for throwing out the card or article.

If desired, a suitable locking pawl 66 may be pivotally supported intermediate its ends adjacent the bottom of a check chute 67 which latter has an opening 68 at any suitable point through the wall of the casing. The section 53 of the operating member for the uprights 22 is preferably provided with a shoulder 69 against which one extremity of the dog or pawl 66 rests to lock the sections 52, 53, against axial rotation to prevent the operation of the machine until a check of the proper denomination is deposited in the check chute 67. The other extremity 70 of the dog or pawl 66 projects across the extremity of the check chute 67 and into a position to be engaged by a check 71 which latter rests upon the free extremity 70 to move the dog or pawl 66 about its pivot 72 to release or unlock the operating member for the uprights 22.

A suitable arm 73 may be provided for arresting the movement of the pawl 66 under the influence of the check 71 and to support the check until a partial rotation has been imparted to the operating member. When this operating member has been rotated a sufficient distance to depress the respective ejector to throw out the card or article, the extremity 70 of the dog 66 will assume a position to permit the check 71 to drop therefrom into the casing and allow the weighted end of the pawl which engages the shoulder 69 to assume a position to lock the operating member or the section 53 thereof against further rotation until the pawl is again tripped, after the elastic member 64 has returned the operating member to its normal position.

Obviously the casing may have a suitable opening provided with a suitable closure (not shown) by means of which the various holders may be replenished with cards or articles 14, when the supply has been exhausted.

In order that the invention might be fully understood the details of the foregoing embodiment thereof have been thus specifically described, but

What I claim as new is—

1. In a vending machine, the combination of a plurality of series of supplies of articles to be vended, delivery mechanisms individual to the supplies, means common to the said mechanisms of each series for normally rendering said mechanisms inactive, means for rendering the said mechanisms of one of the series active, and means for operating a

predetermined one of the mechanisms of the active series.

2. In a vending machine the combination of a plurality of series of supplies of articles to be vended, delivery mechanism individual to the supplies, means common to the said mechanisms of each series for normally rendering said mechanisms inactive, means common to all of the said series for rendering the said mechanisms of one of the series active, and means for operating a predetermined one of the mechanisms of the said active series.

3. In a vending machine, the combination of a plurality of series of supplies of articles to be vended, delivery mechanism individual to each of the supplies, means common to the said mechanisms of each series for normally rendering said series inactive, selective mechanism for rendering the delivery mechanisms of a predetermined series active, and selective mechanism for operating a predetermined one of said series.

4. In a vending machine, the combination of a plurality of supplies of articles to be vended arranged in upright and horizontal series, delivery mechanism individual to each of the supplies, means common to the mechanisms of each series for normally rendering all of said mechanisms in said series inactive, means common to the mechanisms of another series for simultaneously operating the mechanisms when the said mechanisms of one of the first said series is rendered active, and selective mechanism for operating the mechanisms of one of the said other series, each of the said other series including one of the mechanisms of the first said series.

5. In a vending machine the combination of a plurality of supplies of articles to be vended arranged in vertical and horizontal series, delivery mechanisms individual to each of the supplies, means connecting said mechanisms in vertical and horizontal series, means common to the mechanisms of each of the horizontal series for normally rendering said mechanisms inactive, selective mechanism for rendering the mechanisms of one of the horizontal series active, and selective mechanism for operating the vertical series to cause a predetermined one of the series of active mechanisms to deliver an article.

6. In a vending machine, the combination of a plurality of supplies of articles to be vended arranged in vertical and horizontal series, delivery mechanisms individual to each of the supplies, means connecting said mechanisms in vertical and horizontal series, means common to the mechanisms of each of the horizontal series for normally rendering said mechanisms inactive, selective mechanism for rendering the mechanisms of one of the horizontal series active, means for automatically restoring the said horizontal series to an inactive position, and selective mech-

anism for operating the vertical series to cause a predetermined one of the series of active mechanisms to deliver an article.

7. In a vending machine, the combination of a plurality of supplies of articles to be vended arranged in vertical and horizontal series, delivery mechanisms individual to each of the supplies, means connecting said mechanisms in vertical and horizontal series, means common to the mechanisms of each of the horizontal series for normally rendering said mechanisms inactive, selective mechanism for rendering the mechanisms of one of the horizontal series active, selective mechanism for operating the vertical series to cause a predetermined one of the series of active mechanisms to deliver an article, and means for locking the last said selective mechanism against operation.

8. In a vending machine, the combination of a plurality of supplies of articles to be vended arranged in vertical and horizontal series, delivery mechanisms individual to each of the supplies, means connecting said mechanisms in vertical and horizontal series, means common to the mechanisms of each of the horizontal series for normally rendering said mechanisms inactive, selective mechanism for rendering the mechanisms of one of the horizontal series active, selective mechanism for operating the vertical series to cause a predetermined one of the series of active mechanisms to deliver an article, means for locking the last said selective mechanism against operation, said locking means permitting the adjustment of the said selective mechanism, and means whereby said locking means may be released.

9. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, means for holding the cards of each pack spaced from each other, delivery mechanism for the cards, and selective mechanism for operating the first said mechanism to deliver a card from a predetermined pack, said delivery mechanism including an ejector for successively releasing the cards from the tops of the packs toward the bottoms thereof.

10. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, means for holding the cards of each pack spaced from each other, delivery mechanism for the cards, and selective mechanism for operating the first said mechanism to deliver a card from a predetermined pack, said delivery mechanism including an ejector adapted to engage one edge of and eject the uppermost card of the pack.

11. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, means for holding the cards of each pack spaced from each other, delivery mechanism for the cards, and

selective mechanism for operating the first said mechanism to deliver a card from a predetermined pack, said delivery mechanism including an ejector adapted to engage one edge of the uppermost card of the pack to individually and successively eject the cards.

12. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, delivery mechanism for the cards, and selective mechanism for operating the first said mechanism to deliver a card from a predetermined pack, said delivery mechanism including an ejector adapted to rest upon the face of the uppermost card to engage one edge thereof to eject the card.

13. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, delivery mechanism for the cards, and selective mechanism for operating the first said mechanism to deliver a card from a predetermined pack, said delivery mechanism including a pivotally supported and bodily movable ejector adapted to engage the uppermost card of the pack to release the same.

14. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, delivery mechanism for the cards, and selective mechanism for operating the first said mechanism to deliver a card from a predetermined pack, said delivery mechanism including a pivotally supported and bodily movable ejector adapted to engage one edge of the uppermost card to eject the same, and means for permitting the ejector to deliver only a single card.

15. In a card vending machine, the combination of means for holding a plurality of packs of cards to be vended, delivery mechanism individual to each of the packs of the cards, selective mechanism for operating the first said mechanisms to deliver a card from a predetermined pack, said delivery mechanism including a pivotally supported and bodily movable ejector adapted to engage and eject the uppermost card of the pack.

16. In a card vending machine, the combination of means for holding a plurality of packs of cards including means for holding the individual cards, delivery mechanism for the cards, and selective mechanism for operating the delivery mechanism, said delivery mechanism including a pivotally supported and bodily adjustable ejector adapted to engage the edge of the uppermost card of the pack.

17. In a card vending machine, the combination of means for holding a supply of cards, said means including a plurality of superposed weights between which the edges of the cards are tucked for holding the cards normally in an inclined plane and mechanism for successively ejecting the cards.

18. In a card vending machine, the combi-

nation of means for holding a supply of cards, delivery mechanism for the cards, said delivery mechanism including an ejector, a movable support to which the ejector is pivoted, said ejector being adapted to move about its pivot to engage one of the cards, and means whereby the said support for the ejector may be moved to shift the pivot of the ejector to move the portion of the ejector engaging the card in a plane at an angle to the plane of movement of the said support to eject the card.

19. In a card vending machine, the combination of means for holding a supply of cards, delivery mechanism for the cards including an ejector pivotally supported intermediate its ends, one extremity of the ejector being adapted to engage a card, means for moving the ejector when the extremity is in engagement with the card to eject the latter, and means adapted to engage the free extremity of the ejector to normally hold the other extremity out of engagement with the cards.

20. In a card vending machine, the combination of means for holding a supply of cards, delivery mechanism for the cards including an ejector pivotally supported intermediate its ends, one extremity of the ejector being adapted to engage a card, means for moving the ejector when the extremity is in engagement with the card to eject the latter, means adapted to engage the free extremity of the ejector to normally hold the other extremity out of engagement with the cards, and means for controlling the last said means.

21. In a card vending machine, the combination of means for holding a supply of cards, delivery mechanism for the cards including an ejector pivotally supported intermediate its ends, one extremity of the ejector being adapted to engage a card, means for moving the ejector when the extremity is in engagement with the card to eject the latter, a gravity member adapted to engage and rest upon the free end of the ejector to hold the other end out of engagement with the card, and means under the control of the operator for shifting the gravity member to

permit the ejector to assume an active position with respect to the cards.

22. In a card vending machine, the combination of means for holding a supply of cards, delivery mechanism for the cards including an ejector pivotally supported intermediate its ends, one extremity of the ejector being adapted to engage a card, means for moving the ejector when the extremity is in engagement with the card to eject the latter, a gravity member adapted to engage and rest upon the free end of the ejector to hold the other end out of engagement with the card, means under the control of the operator for shifting the gravity member to permit the ejector to assume an active position with respect to the cards, and means for automatically releasing the said gravity member.

23. A card holder for card vending machines, including a support and a holder for the cards, said holder comprising an upright and a plurality of superposed members loosely sleeved upon the upright and between which one edge of the cards is tucked.

24. A card holder for vending machines, including a plurality of superposed weights, and means for holding the weights against displacement, one edge of the cards being tucked between the weights whereby the cards of a superposed series will be individually held.

25. In a card vending machine the combination of a holder for the cards comprising a plurality of superimposed gripping surfaces between which surfaces one edge of the cards are respectively inserted to be gripped thereby to hold the cards normally in an inclined plane and in position to be delivered, and means adapted to engage the edge of the cards for successively ejecting the cards from the holder.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 17th day of June, A. D. 1908.

FRANK JENDRZEJEWSKI.

Witnesses:

C. H. SEEM,

FRANCIS A. HOPKINS.