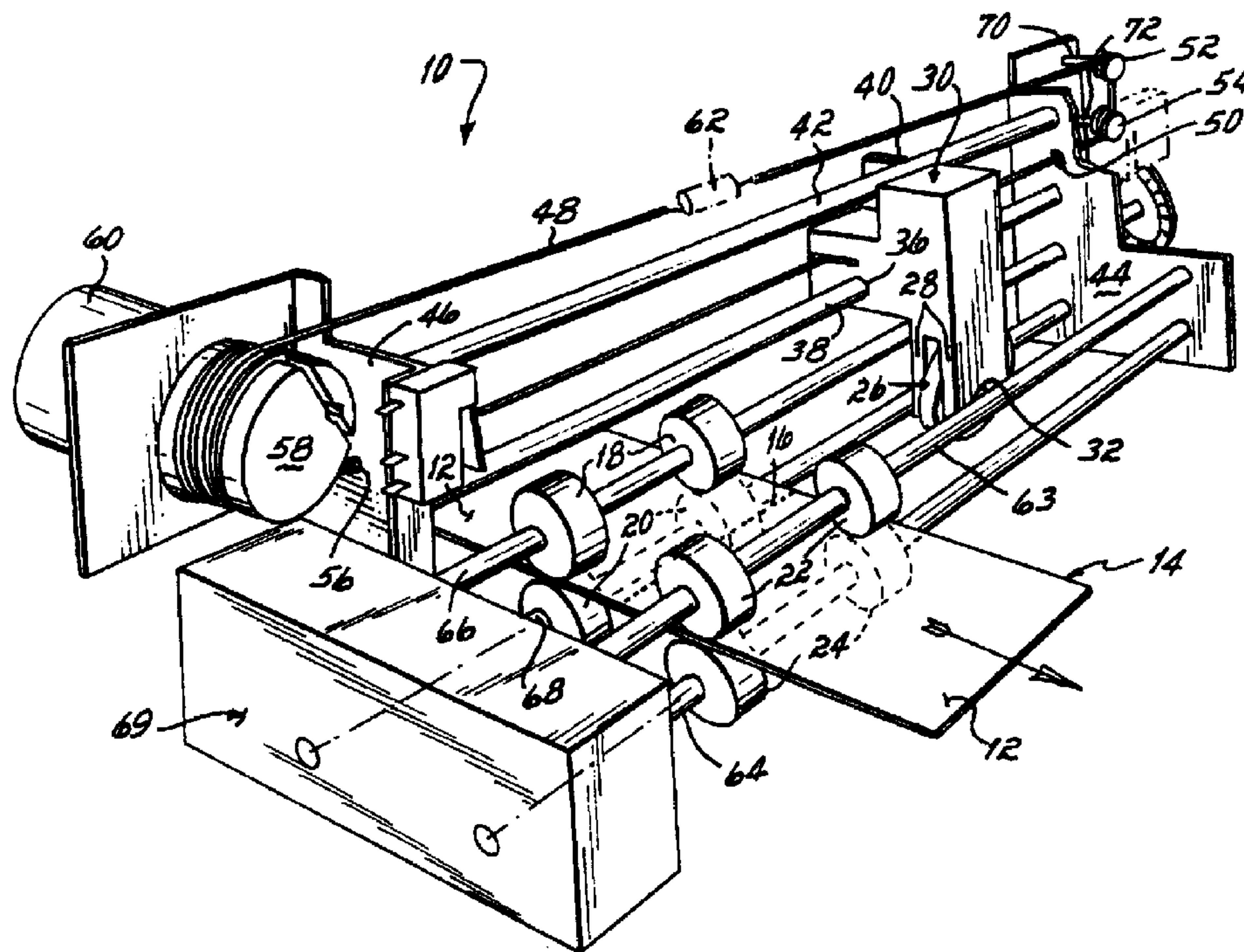




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(57) Abrégé/Abstract:

An improved lottery ticket dispenser includes a burster wheel (26) having a planar contact surface (76). The improved burster wheel (26) provides for an increased range of operation (80) so that greater misalignment between the perforation or line of weakness (16) between adjacent tickets (12) in a fanfold stream (14) and the path of the burster wheel (26) can be accommodated while still providing a reliable and effective separation of the adjacent tickets (12) along the line of weakness (16).

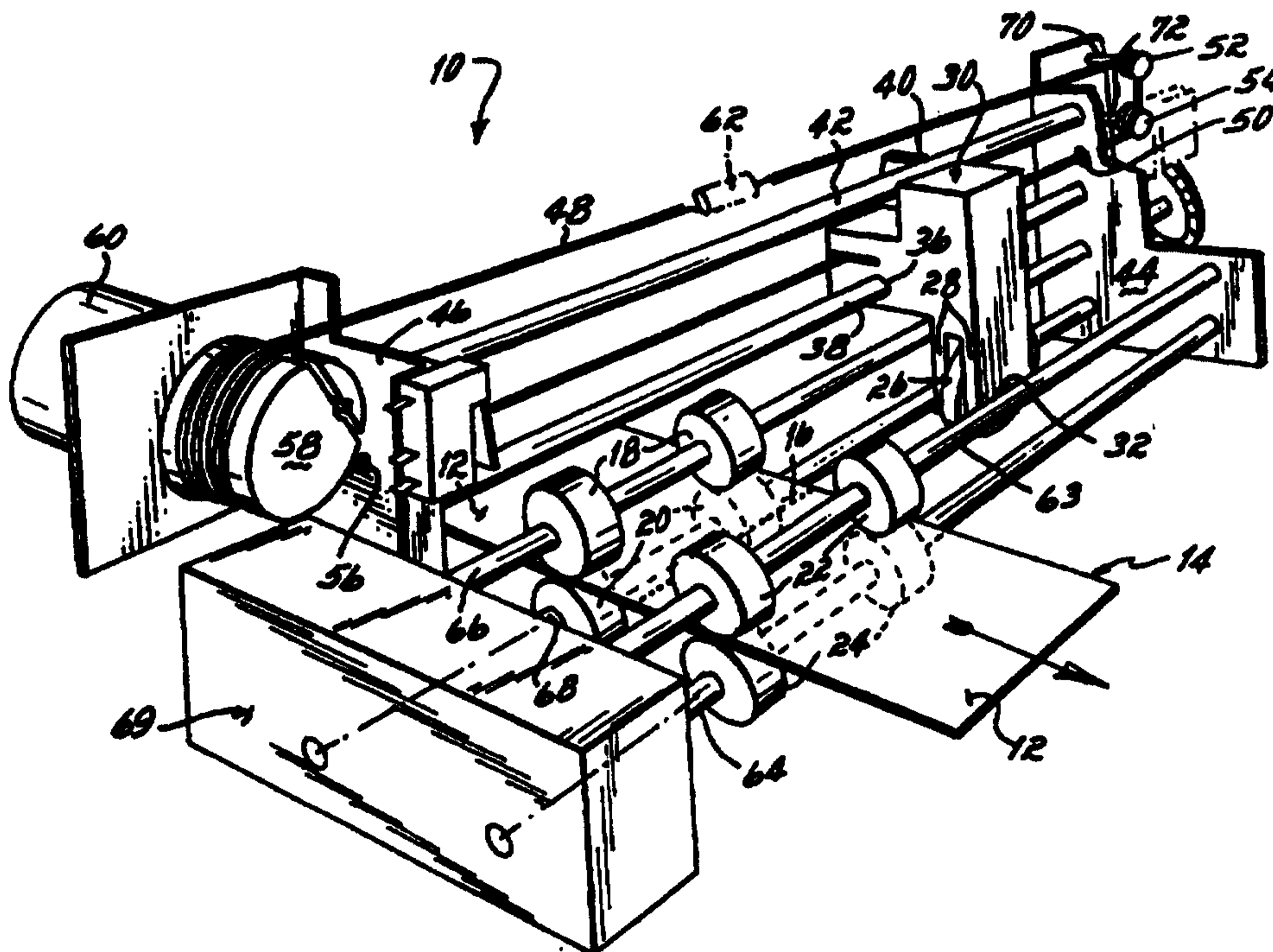
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(54) Title: IMPROVED LOTTERY TICKET DISPENSER



(57) Abstract

An improved lottery ticket dispenser includes a burster wheel (26) having a planar contact surface (76). The improved burster wheel (26) provides for an increased range of operation (80) so that greater misalignment between the perforation or line of weakness (16) between adjacent tickets (12) in a fanfold stream (14) and the path of the burster wheel (26) can be accommodated while still providing a reliable and effective separation of the adjacent tickets (12) along the line of weakness (16).

BACKGROUND OF THE INVENTION

This invention relates generally to ticket dispensing systems and more particularly to an improved system and method for dispensing lottery tickets.

5 State sponsored lotteries are now a popular and accepted method of generating revenue and providing entertainment. One popular form of lottery uses an instant lottery ticket on which winning or non-winning combinations are pre-printed before distribution and the player knows immediately after purchasing the ticket whether or not it is a winning ticket. A common system for distributing instant lottery tickets
10 includes a large number of ticket dispensing machines located at drug stores, supermarkets, convenient stores and the like. Common concerns associated with such lottery ticket dispensing machines are the speed with which they dispense the tickets, the security or anti-theft characteristics of the dispenser and the ability to accurately provide an accounting for the tickets sold from each machine.

15 Due to the popularity of the instant lottery ticket games and the advantage of minimizing clerical involvement with the purchasing and dispensing of instant lottery tickets, it is common for a large number of tickets to be stored within the dispensing machine. Presently, tickets are commonly stored in a fanfold form so that they may be rapidly fed out from a storage compartment without the risk of unintentionally
20 dispensing too many tickets as is common when individual tickets are stored and dispensed from the machine. However, the fanfold tickets must be separated by the machine prior to being dispensed. The mechanism to separate the fanfold tickets from one another should ensure that the separation of the tickets occurs only at the joiner line between the tickets despite whatever variations in the size of tickets and slippage
25 or inaccuracy in the dispensing mechanism may be present.

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A problem associated with the dispensing of lottery tickets stored in a fanfold stream is how to ensure that each ticket as it becomes the leading ticket will be separated from the next following ticket precisely along the joiner line between the tickets. In such a fanfold stream, a line of weakness such as a perforation line is provided to define each ticket and to permit fanfolding of the stream of connected tickets. Commonly, each fold contains a single ticket but in alternative embodiments, a number of tickets for example five or more may be provided within each fold. Lottery tickets conventionally are constructed from laminated layers of paper or cardboard and as such are relatively stiff and inflexible.

Prior art solutions to these problems include using a knife edge or cutting blade to slice through the stream of tickets. This is not desirable because the knife edge may cut through the tickets at any point such as in the middle of the ticket. Therefore, a highly precise alignment device usually must be provided with a knife edge to bring it into precise alignment with the joiner line between the tickets.

One particularly successful prior art solution to these problems is disclosed in U.S. Pat. No. 4,982,337 ("the '337 patent") which is assigned to the assignee of the present invention. According to the '337 patent, the tickets are stored in a fanfold form and the individual tickets are burst, rather than cut, apart prior to dispensing. The separation mechanism of the '337 patent comprises a bursting wheel which separates the leading ticket from the next following ticket along the line of weakness therebetween instead of cutting the two tickets apart. The burster wheel inherently reduces the risk of producing only half a ticket. The burster wheel of the '337 patent is in the form of a circular burster blade which has a dull rounded edge that does not cut the stream of tickets but rather exerts pressure against the top of the stream of tickets to deflect the tickets and separate them along the line of weakness separating the tickets. The burster wheel in the '337 patent is moved back and forth across the connected tickets by a motorized cable and pulley system.

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In order for the burster wheel of the '337 patent to effectively burst the leading ticket from the stream of tickets along the line of weakness, it must be sufficiently aligned with the lines of weakness and in close proximity thereto. Precise alignment between the rounded dull edge bursting blade and the line of weakness is important in that system.

However, the manufacturing tolerances of the tickets vary greatly. For example, the length of individual tickets with respect to other tickets in the same fanfold stream varies a relatively large amount and may be on the order of 1/16 inch or so. As a result, even though the burster wheel may be aligned with the majority of the lines of weakness in a given fanfold stream, due to the variations in the lengths of the tickets, it is commonly misaligned with other lines of weakness and thereby may provide an ineffective separation or fail to separate the tickets at all. Similarly, the perforations or lines of weakness between the individual tickets are not uniformly formed such that a greater force may be required from the bursting wheel to separate one line of weakness than another line of weakness in the same fanfold stream. Tickets are manufactured with varying degrees of perforation quality. Some have tough perforations while some perforations are easily separated. It is widely recognized that perforation quality varies greatly due to a number of variables including, the ticket printing company, ticket stock, ticket coatings and the like. Aside from these variables, perforation quality can still vary within the same game with the same ticket press run. The consistency of ticket perforations vary not only from company to company but also from game to game provided by the same manufacturer.

Moreover, the added force required to burst a poorly formed line of weakness requires more precise alignment between the burster wheel and the line of weakness to effectuate a separation. Therefore, misalignment between the line of weakness and the path of the burster wheel is even more critical when the perforation is poorly formed.

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Since it is not feasible to locate the perforation on every ticket pack or between every ticket within the pack on every different game, it is important to have a reliable separation mechanism for the dispensing unit which is not compromised by these variables.

5 **SUMMARY OF THE INVENTION**

It has therefore been a primary objective of this invention to provide an improved dispenser for lottery tickets.

10 Another objective of the invention is to provide an improved burster mechanism which can overcome variations in the nominal ticket size and perforation quality and still provide an effective, reliable and accurate separation of the tickets.

It has been a still further objective of the invention to provide such a burster mechanism which can be spaced from the perforation or line of weakness separating the lottery tickets and upon contact with the tickets still provide a consistent and reliable separation.

15 A still further objective has been to provide such a burster mechanism which is more reliable and less susceptible to malfunctioning or maintenance problems.

20 These and other objectives of the invention have been attained by an improved burster wheel for use in a lottery ticket dispenser. The improved burster wheel includes a generally planar contact surface around the perimeter of the wheel as opposed to the rounded or semi-circular surface in prior burster wheels. The planar contact surface intersects the stream of fanfold tickets and thereby separates the adjacent tickets along the line of weakness or perforation therebetween. The improved burster wheel having a planar contact surface allows for a more consistent separation of the tickets irrespective of the variation in the tickets, perforations and materials. Moreover, a
25 consistent separation of the tickets at the perforation can be obtained even with a misalignment or a spacing between the path of the burster wheel and the perforation. Therefore, the effective range or margin of error upstream and downstream from the line of weakness or perforation is significantly greater with the improved burster wheel

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having a planar contact surface than that of the prior art semi-circular burster wheel. The increased margin of error with respect to the alignment of the path of the burster wheel and the perforation produces a more reliable and consistent separation of the tickets irrespective of variations in the tickets.

5 A further improvement of the burster mechanism according to this invention is the replacement of the motorized cable and pulley system for translating the burster wheel back and forth across the tickets with either a motor driven threaded screw drive mechanism or a toothed rack and gear drive mechanism. These mechanisms are less susceptible to breakage and provide a more efficient transmission of power to translate
10 the burster wheel across the path of the tickets. As a result, an improved lottery ticket dispenser which includes the screw drive mechanism or toothed rack and gear mechanism is expected to require fewer repairs and more reliable service in the field.

BRIEF DESCRIPTION OF THE DRAWINGS

15 The objectives and features of the invention will become more readily apparent from the following detailed description taken in conjunction with the accompanying drawings in which:

 Fig. 1 is a perspective view of a presently preferred embodiment of a transport mechanism and burster assembly for feeding a stream of tickets and separating the adjacent tickets along a line of weakness within a dispensing unit;

20 Fig. 2 is an enlarged plan view of the pulley wheel of the burster assembly of Fig. 1;

 Fig. 3 is a view of the prior art burster wheel;

 Fig. 4 is a view of a presently preferred embodiment of the burster wheel according to this invention;

25 Fig. 5 is a top plan view of the line of weakness between a pair of adjacent tickets showing an increased range of effectiveness of the burster wheel of the present invention;

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Fig. 6 is a perspective view of an alternative presently preferred embodiment of a transport mechanism and burster assembly;

Fig. 7 is an enlarged perspective view of a screw drive mating with a burster block of the transport mechanism of Fig. 6; and

Fig. 8 is a perspective view of another alternative presently preferred embodiment of a transport mechanism and burster assembly for a lottery ticket dispenser according to this invention.

DETAILED DESCRIPTION OF THE INVENTION

A transport mechanism and burster assembly 10 is shown in FIG. 1 for a lottery ticket dispenser (not shown). A typical lottery ticket dispenser is shown in U.S. Pat. No. 4,982,337. A plurality of individual tickets 12 are connected in a fanfold strip or stream 14. Individual tickets 12 are separated from an adjacent ticket by a line of weakness 16 which typically comprises perforations. The tickets 12 are provided typically by the state authority in a fanfold stack which is compact and easily transportable and typically include as many as 1,500 tickets in each stack. A stack of fanfold tickets 12 are contained in a storage compartment (not shown) in the lottery ticket dispenser. Each ticket 12 is connected to an adjacent ticket 12 along the line of weakness 16 and it will be understood that each successive following ticket 12 is separable from an adjacent ticket by a similar line of weakness 16.

The fanfold stream 14 of tickets 12 is fed along a dispensing path from the storage compartment toward an outlet (not shown). The stream 14 is transported along the dispensing path by the transport mechanism 10 including opposed upper feed rollers 18 and lower feed rollers 20 and opposed upper exit rollers 22 and lower exit rollers 24 as shown in FIG. 1.

A generally circular burster wheel 26 is mounted for rotation between spaced downwardly extending flanges 28 of a burster block 30. The burster wheel 26 is mounted for rotation on the burster block 30 on an axle 32 extending through cylindrical

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hubs 34 on each face of the burster wheel 26 and into the spaced flanges 28. The burster block 30 includes a bore hole 36 through which extends a lower burster bar 38. The burster block 30 also includes an upper cutout 40 which substantially surrounds an upper burster bar 42. The burster block 30 is mounted for a translation along the upper and lower burster bars 38, 42 between opposed side brackets 44, 46 of the transport mechanism 10.

A cable 48 extends from a first face of the burster block 30 through an aperture 50 in the side bracket 44 and around an upper idler roller 52 and a lower idler roller 54. The cable 48 also extends from an opposite face of the burster block 30 through an aperture 56 in the side bracket 46 and is wound around a driven roller 58 driven by a motor 60. The cable 48 preferably includes a tensioning spring 62.

The idler rollers 52, 54 are each mounted on a post 70, 72, respectively, for rotation and include an arcuate cradle 74 in which the cable 48 contacts the roller 52, 54 (Fig. 2). The arcuate configuration of the cradle 74 minimizes stress concentration for the roller 52 or 54 and cable 48 interface and the likelihood that the cable 48 will bind or freeze up when passing over the roller 52 or 54. Furthermore, as shown in Fig. 1 the cable 48 passes over both the upper and lower idler rollers 52, 54 and contacts each roller in a 90° arc thereby minimizing the contact friction with each of the rollers 52, 54 and reducing the failure rate of the components.

The upper exit rollers 22 are journaled on a common upper exit shaft 63 and the lower exit rollers 24 are journaled similarly on a lower exit shaft 64. Likewise, the upper feed rollers 18 are journaled on a common upper feed shaft 66 and the lower feed rollers 20 are journaled on a common lower feed shaft 68. The shafts 62, 64, 66, 68 extend between the bracket 44 and a housing 69 containing a motor (not shown) for rotationally driving the shafts 63, 64, 66, 68 to advance the stream 14 of tickets 12. The motors and operation of the transport mechanism 10 are controlled by a control circuit (not shown) as is well known in the art. The transport mechanism 10 may

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include an aligning mechanism comprising a code wheel (not shown) or the like as is disclosed in the '337 patent.

When the burster block 30 and burster wheel 26 are moved from the rest position illustrated in Fig. 1 toward interception with the dispensing path of the stream 14 of tickets 12 through the action of the cable 48 and motor, the burster wheel 26 will come into contact with the stream 14 of tickets 12 at the side thereof initially then across the stream 14 of tickets 12 to burst the adjacent tickets 12 apart along the line of weakness 16. The burster block 30 is moved from right to left as shown in Fig. 1 to burst the leading ticket 12, then left to right to burst the next leading ticket 12, and so on.

The burster block 30 and wheel 26 translate along the bars to intersect the dispensing path of the stream 14 of tickets 12 perpendicularly. As a result, the path of the burster wheel 26 on the tickets 12 is generally parallel to the line of weakness 16 separating the adjacent tickets 12 and the axis of rotation of the burster wheel 26 is generally perpendicular to the line of weakness 16 and the shafts 63, 64, 66, 68.

The burster wheel 26 according to this invention includes a planar contact surface 76 around the perimeter thereof as shown particularly in Fig. 4. In a presently preferred embodiment the overall outer diameter of the burster wheel 26 is 0.912 inches and the diameter of the central hubs 34 are 0.185 inches. The cylindrical contact surface 76 in a presently preferred embodiment is 0.187 inches wide and adjacent each edge of the contact surface is a 0.062 inch radius 78. Preferably, the burster wheel 26 is fabricated from nylon or black acetal.

The improved burster wheel 26 of the present invention advantageously provides an increased effective separation range 80 in which the wheel contacts the stream 14 of tickets 12 and provides an effective separation of the tickets 12. The burster wheel 26 of this invention provides the larger effective range 80 as shown in Fig. 5 in which the wheel 26 may contact the stream 14 of tickets 12 and still separate the adjacent

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tickets 12 along the line of weakness 16 as compared to a range of operation 82
provided by a prior art burster wheel 84 (Fig. 3) having a rounded outer edge contact

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5 surface 86. Specifically, the effective range of the presently preferred embodiment of the burster wheel is a total of about 1/4 of an inch or 1/8 of an inch on either side of the line of weakness 16 separating the adjacent tickets 12. In contrast, the prior art burster wheel of Fig. 3 having the rounded contact surface 86 provides only a 1/8 inch total effective range or a 1/16 of an inch on either side of the line of weakness 16. In other words, the separation distance from the line of weakness 16 within which the burster wheel 26 having a cylindrical contact surface 76 can intersect the dispensing path of the stream 14 of tickets 12 and still provide a reliable separation of the adjacent tickets 12 is doubled over the prior art rounded edge burster wheel 84.

10 As a result, variations in the alignment between the line of weakness 16 and the path of the burster wheel 26 due to the variations in the lengths of the tickets 12, the transport mechanism 10 variations or the like are significantly increased. Likewise, an incorrectly formed perforation 16 which requires greater downward force to deflect the tickets 12 and thereby burst the line of weakness 16 can be provided by the burster wheel 26 because the cylindrical contact surface 76 provides a larger effective range 80 of operation.

20 Referring to Figs. 6 and 7, a second presently preferred embodiment of the transport mechanism according to this invention is shown. Like reference numerals are used in Figs. 6 and 7 to indicate elements of the invention which are similar to those shown in Fig. 1.

25 The fanfold stream 14 of tickets 12 is fed along a dispensing path from the storage compartment toward an outlet (not shown). The generally circular burster wheel 26 is mounted for rotation between spaced downwardly extending flanges 28 of a modified burster block 31. The burster wheel 26 is mounted for rotation on the burster block 31 on an axle 32 defining an axis of rotation and extending into the spaced flanges 28. The burster block 31 includes a bore hole 37 through which extends a burster bar 39. The burster block 31 also includes a semi-circular upper cutout 41

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which includes a plurality of spaced arcuate grooves 43 which are separated from one another by arcuate ribs 45 (Fig. 7).

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The upper cutout 41 is sized and configured to mate with a screw drive 49 having a spiral screw thread 51 on the outer circumference thereof. Preferably, the screw drive 49 and screw thread 51 is a ten degree modified square thread or other buttress type thread for meshing with the grooves 43 and ribs 45 on the burster block 31. Further, it will be appreciated that other screw drive configurations and translating mechanisms are contemplated within the scope of this invention. The burster block 31 is mounted for a translation along the burster bars 39 between opposed side brackets 53, 55 of the transport mechanism 11.

The screw drive 49 extends between the brackets 53, 55 and is rotationally driven by a motor 57 mounted on the external side of the bracket 53 as shown in Fig. 6. Actuation of the motor 57 to rotate the screw drive 49 in a first direction as shown by arrow A in Fig. 7 translates the burster block 31 in a corresponding direction as shown by arrow B to pass the burster wheel 26 across the path of the tickets 14 and separate adjacent tickets 12 along the perforation 16. Similarly, actuation of the motor 57 to rotate the screw drive 49 in a second direction as shown by arrow C translates the burster block 31 in a corresponding direction as shown by arrow D to once again separate subsequent adjacent tickets 12 along the perforation 16. The mating screw drive 49 and burster block 31 provide increased reliability and improved performance over previous mechanism for translating the burster wheel 26 to separate the tickets 12.

Referring to Fig. 8, a third presently preferred embodiment of the transport mechanism according to this invention is shown. Like reference numerals of Fig. 6 are used in Fig. 8 to indicate similar elements of the invention.

The fanfold stream 14 of tickets 12 is fed along a dispensing path from the storage compartment toward an outlet (not shown). The generally circular burster wheel 26 is mounted for rotation between spaced downwardly extending flanges 28 of a modified burster block 31a. The burster wheel 26 is mounted for rotation on the burster block 31a on an axle 32 extending into the spaced flanges 28. The burster block 31a includes a bore hole 37 through which extends a burster bar 39.

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5 A rack 80 having a plurality of upwardly directed teeth 82 on an upper surface thereof is fixedly mounted between the side brackets 53, 55. A motor 84 is mounted on a bracket 86 to the modified burster block 31a and a rotationally driven shaft 88 projects from the motor 84. A spur gear 90 or the like is mounted on the shaft 88 and engages the teeth 82 on the rack 80. As the motor 84 rotates the shaft 88 and gear 90 in a first direction the gear 90 engages the teeth 82 to move the motor 84 and burster block 31a in a first direction so the burster wheel 26 intersects the fanfold stream 14 of tickets 12. Similarly, reverse rotation of the shaft 88 moves the burster block 31a and wheel 26 in a second direction opposite the first direction to there again intersect
10 the fanfold stream 14.

From the above disclosure of the general principles of the present invention and the preceding detailed description of a preferred embodiment, those skilled in the art will readily comprehend the various modifications to which this invention is susceptible. Therefore, we desire to be limited only by the scope of the following claims and
15 equivalents thereof.

I claim:

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1. A bursting mechanism for separating individual, planar articles in a fanfold stack joined together along a line of weakness comprising:

a transport mechanism for feeding said stack along a dispensing path to an outlet, wherein said transport mechanism includes a roller mounted for rotation about a roller axis of rotation;

a bursting station located along said dispensing path; and

a burster movably mounted for rotation about a burster axis of rotation to intersect said dispensing path proximate said line of weakness at said bursting station, said burster axis of rotation being generally perpendicular to said roller axis of rotation, said burster having a cylindrical contact surface which contacts said stack and separates a pair of adjacent articles along said line of weakness.

2. The bursting mechanism of claim 1 further comprising:

at least one feed roller at said bursting station contacting said articles at a location along said dispensing path upstream of said line of weakness;

at least one discharge roller at said bursting station contacting said articles at a location along said dispensing path downstream of said line of weakness, said discharge and feed rollers each being rotationally driven and cooperating to hold said articles while said burster separates said pair of adjacent articles along said line of weakness.

3. The burster mechanism of claim 1 wherein said cylindrical contact surface on said burster extends completely around a circumference of said burster.

4. The burster mechanism of claim 1 wherein said bursting station further comprises:

a rotationally driven screw drive;

a block having a plurality of grooves meshing with said screw drive, said burster being mounted to said block so that rotation of said screw drive translates said burster into contact with said stack to thereby separate said adjacent pair of articles along said line of weakness.

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5. A lottery ticket dispenser comprising:
- a transport mechanism for feeding a fanfold stream of lottery tickets along a dispensing path to an outlet, a pair of adjacent said tickets being separable from each other along a line of weakness therebetween, wherein said transport mechanism includes a roller mounted for rotation about a roller axis of rotation;
 - a bursting station located along said dispensing path; and
 - a burster wheel mounted for rotation about a burster axis of rotation to roll over said stream of tickets at said bursting station and thereby separate said pair of adjacent tickets, said burster axis of rotation being generally perpendicular to said roller axis of rotation, said burster wheel having a cylindrical contact surface on a perimeter thereof which contacts said stream of tickets and separates said pair of adjacent tickets along said line of weakness even if said cylindrical contact surface is offset from said line of weakness upon contact with said stream of tickets.
6. The dispenser of claim 5 wherein said cylindrical contact surface on said burster wheel extends completely around a circumference of said burster wheel.
7. The dispenser of claim 5 wherein said bursting station further comprises:
- a rotationally driven screw drive;
 - a block having a plurality of grooves meshing with said screw drive, said burster being mounted to said block so that rotation of said screw drive translates said burster into contact with said stack to thereby separate said adjacent pair of articles along said line of weakness.
8. The dispenser of claim 5 wherein said bursting station further comprises:
- a rotationally driven spur gear;
 - a block having said spur gear mounted thereon;
 - a rack with a plurality of teeth meshing with said spur gear, said burster being mounted to said block so that rotation of said spur gear translates said burster into contact with said stack to thereby separate said adjacent pair of articles along said line of weakness.

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9. A lottery ticket dispenser comprising:

a transport mechanism for feeding a fanfold stream of lottery tickets along a dispensing path to an outlet, a pair of adjacent said tickets being separable from each other along a line of weakness therebetween;

a bursting station located along said dispensing path;

a rotationally driven screw drive;

a block having a plurality of grooves meshing with said screw drive so that rotation of said screw drive translates said block in first and second opposite directions corresponding to positive and negative rotation, respectively, of said screw drive;

a burster wheel movably mounted on the block to intersect said dispensing path proximate said line of weakness at said bursting station, said burster wheel having a cylindrical contact surface on a perimeter thereof and being mounted for rotation about a burster axis of rotation to roll over and contact said stream of tickets at said bursting station and thereby separate said pair of adjacent tickets along said line of weakness even if said cylindrical contact surface is offset from said line of weakness upon contact with said stream of tickets;

at least one feed roller at said bursting station contacting said stream of tickets at a location along said dispensing path upstream of said line of weakness;

at least one discharge roller at said bursting station contacting said stream of tickets at a location along said dispensing path downstream of said line of weakness, said discharge and feed rollers each being rotationally driven about respective roller axes of rotation and cooperating to hold said stream of tickets while said burster wheel separates said pair of adjacent tickets along said line of weakness, wherein said burster axis of rotation is generally perpendicular to said roller axes of rotation.

10. A lottery ticket dispenser storing a plurality of lottery tickets connected in a fanfold stream, a pair of adjacent said tickets being separable from each other along

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a line of weakness therebetween, a transport mechanism having a roller mounted for rotation about a roller axis for feeding said stream of tickets along a dispensing path to an outlet, and a bursting station located along said dispensing path and a rotational burster movably mounted to intersect said dispensing path generally perpendicularly thereto and proximate said line of weakness at said bursting station, said lottery ticket dispenser comprising:

a cylindrical contact surface on said burster which contacts said stream of tickets and separates said pair of adjacent tickets along said line of weakness even if said cylindrical contact surface is offset from said line of weakness upon contact with said stream of tickets, wherein an axis of rotation of said burster is generally perpendicular to said roller axis.

11. A method of dispensing lottery tickets comprising the steps of:

feeding a plurality of lottery tickets connected in a fanfold stream along a dispensing path, a pair of adjacent said tickets being separable from each other along a line of weakness therebetween, said feeding being accomplished with a feed roller rotating about a roller axis;

moving a burster generally perpendicular to the dispensing path;

bursting said line of weakness with the burster contacting said stream of tickets proximate said line of weakness, said burster having a cylindrical contact surface which contacts said stream of tickets and thereby bursts said line of weakness and separates said pair of adjacent tickets, said burster being rotated about a burster axis generally perpendicular to said roller axis during said bursting;

and

discharging one of said tickets to an outlet.

12. The method of claim 11 further comprising:

deflecting said stream of tickets with said burster prior to said bursting step.

13. The method of claim 11 further comprising:

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interrupting said feeding and holding said stream of tickets during said bursting with at least one feed roller located upstream of said line of weakness and at least one discharge roller located downstream of said line of weakness.

14. The method of claim 11 further comprising:

spacing said burster from said line of weakness during said bursting.

15. The method of claim 11 further comprising:

alternatively rotating a screw drive in opposite directions;

mounting said burster on a block;

meshing a surface of said block with said screw drive so that said burster passes over and contacts said fanfold stream of lottery tickets alternatively in first and second directions corresponding respectively to said opposite directions of said screw drive rotation.

16. A method of dispensing lottery tickets comprising the steps of:

feeding a plurality of lottery tickets connected in a fanfold stream along a dispensing path, a pair of adjacent said tickets being separable from each other along a line of weakness therebetween;

intercepting said dispensing path with a burster and contacting said stream of tickets in a direction generally parallel to the line of weakness and spaced from the line of weakness;

bursting said line of weakness with said burster contacting said stream of tickets, said burster having a cylindrical contact surface on a perimeter thereof, said cylindrical contact surface contacts said stream of tickets and thereby bursts said line of weakness and separates said pair of adjacent tickets; and

discharging one of said tickets to an outlet.

17. The method of claim 16 wherein said intercepting step further comprises:

alternatively rotating a screw drive in opposite directions;

mounting said burster on a block; and

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meshing a surface of said block with said screw drive so that said burster passes over and contacts said fanfold stream of lottery tickets alternatively in first and second directions corresponding respectively to said opposite directions of said screw drive rotation.

18. The method of claim 16 wherein said intercepting step further comprises:

mounting said burster on a block;

mounting a spur gear on said block so that said spur gear meshes with a toothed rack;

alternatively rotating a spur gear in opposite directions; and

meshing said spur gear with said toothed rack so that said burster passes over and contacts said fanfold stream of lottery tickets alternatively in first and second directions corresponding respectively to said opposite directions of said spur gear rotation.

19. The method of claim 16 further comprising:

interrupting said feeding and holding said stream of tickets during said bursting.

20. A method of dispensing lottery tickets comprising the steps of:

feeding a plurality of lottery tickets connected in a fanfold stream along a dispensing path, a pair of adjacent said tickets being separable from each other along a line of weakness therebetween;

intercepting said dispensing path with a burster and contacting said stream of tickets;

bursting said line of weakness with said burster contacting said stream of tickets, said burster having a cylindrical contact surface on a perimeter thereof, said cylindrical contact surface contacts said stream of tickets and thereby bursts said line of weakness and separates said pair of adjacent tickets; and

interrupting said feeding and holding said stream of tickets during said bursting.

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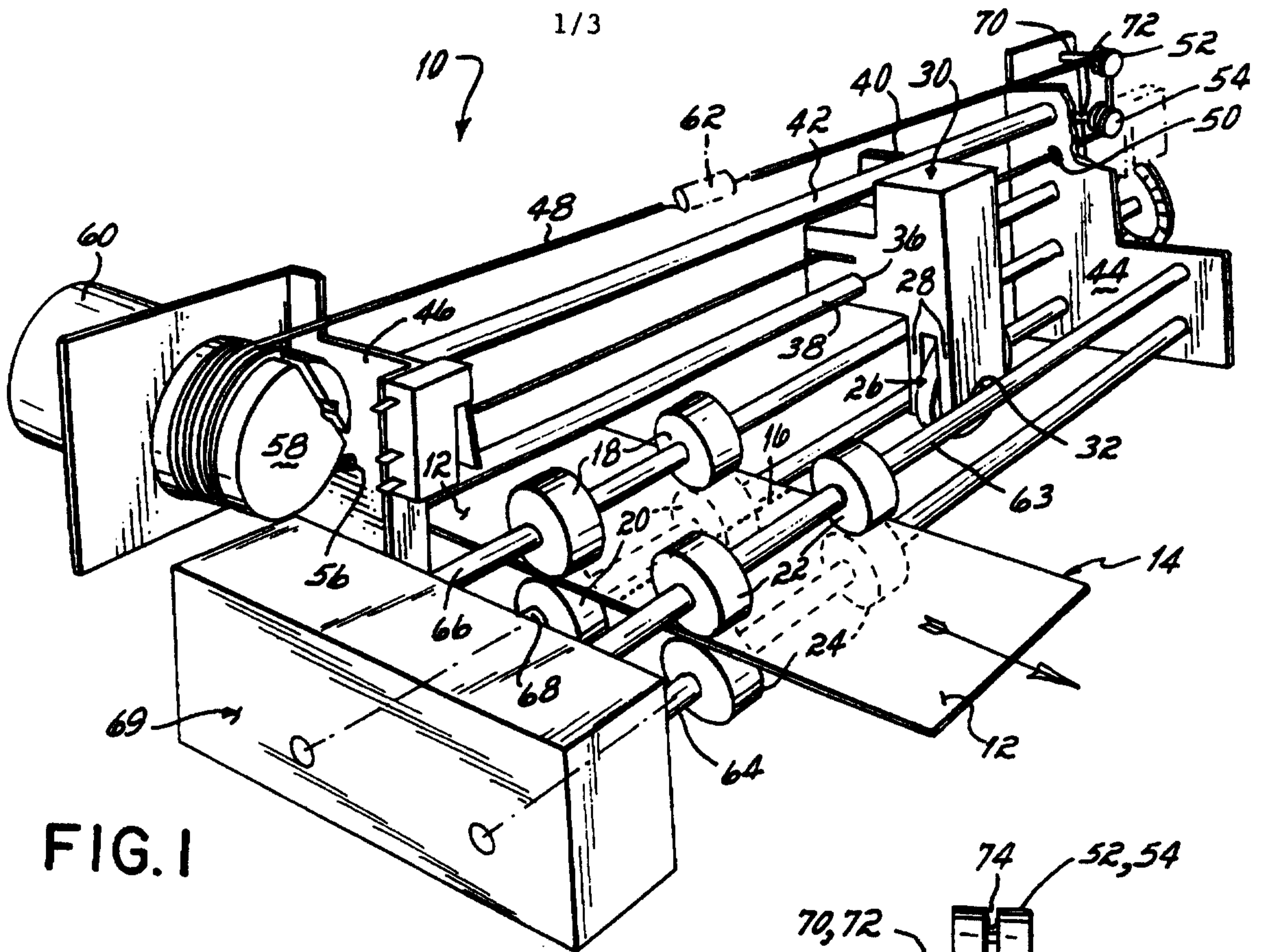


FIG. 1

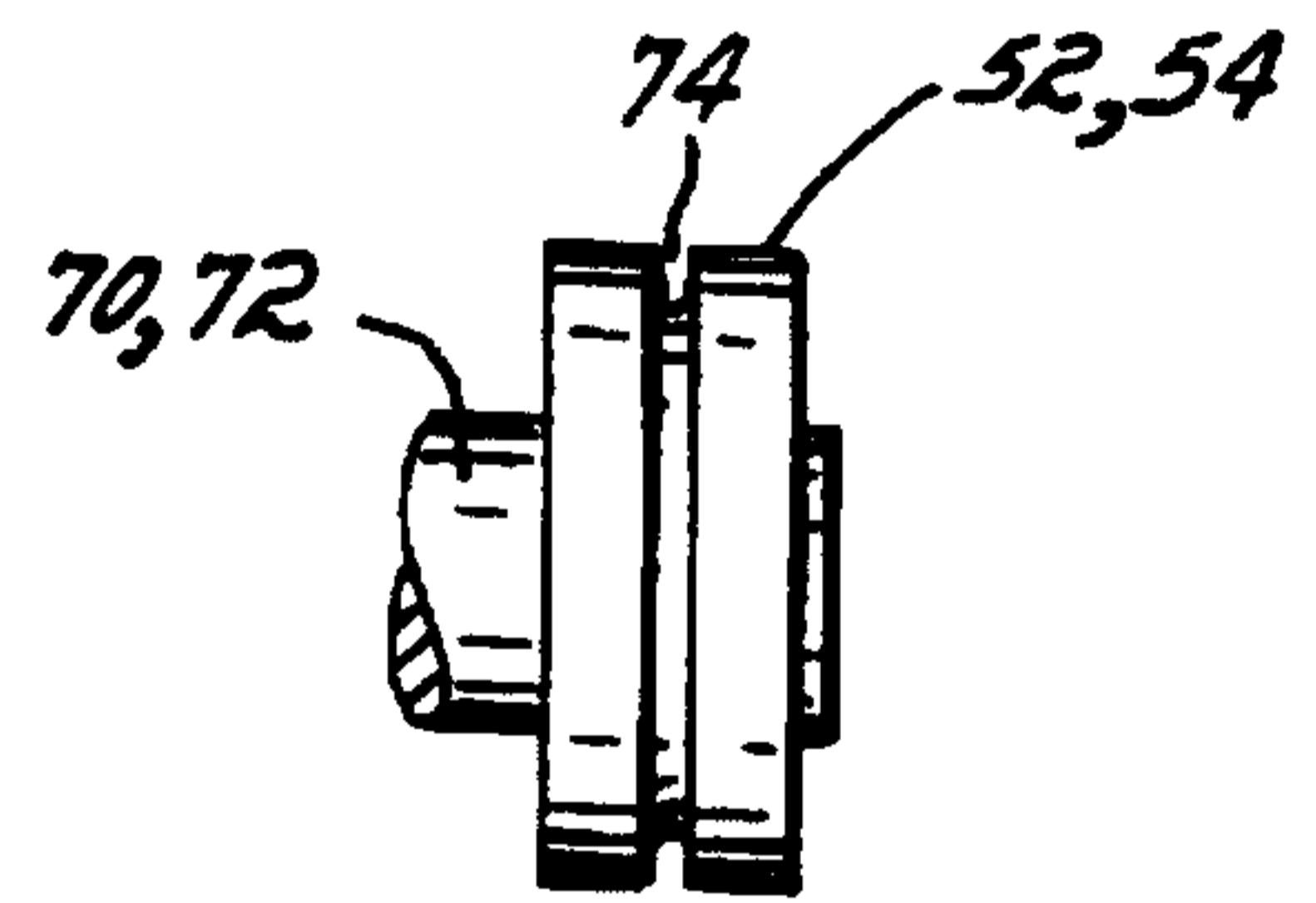


FIG. 2

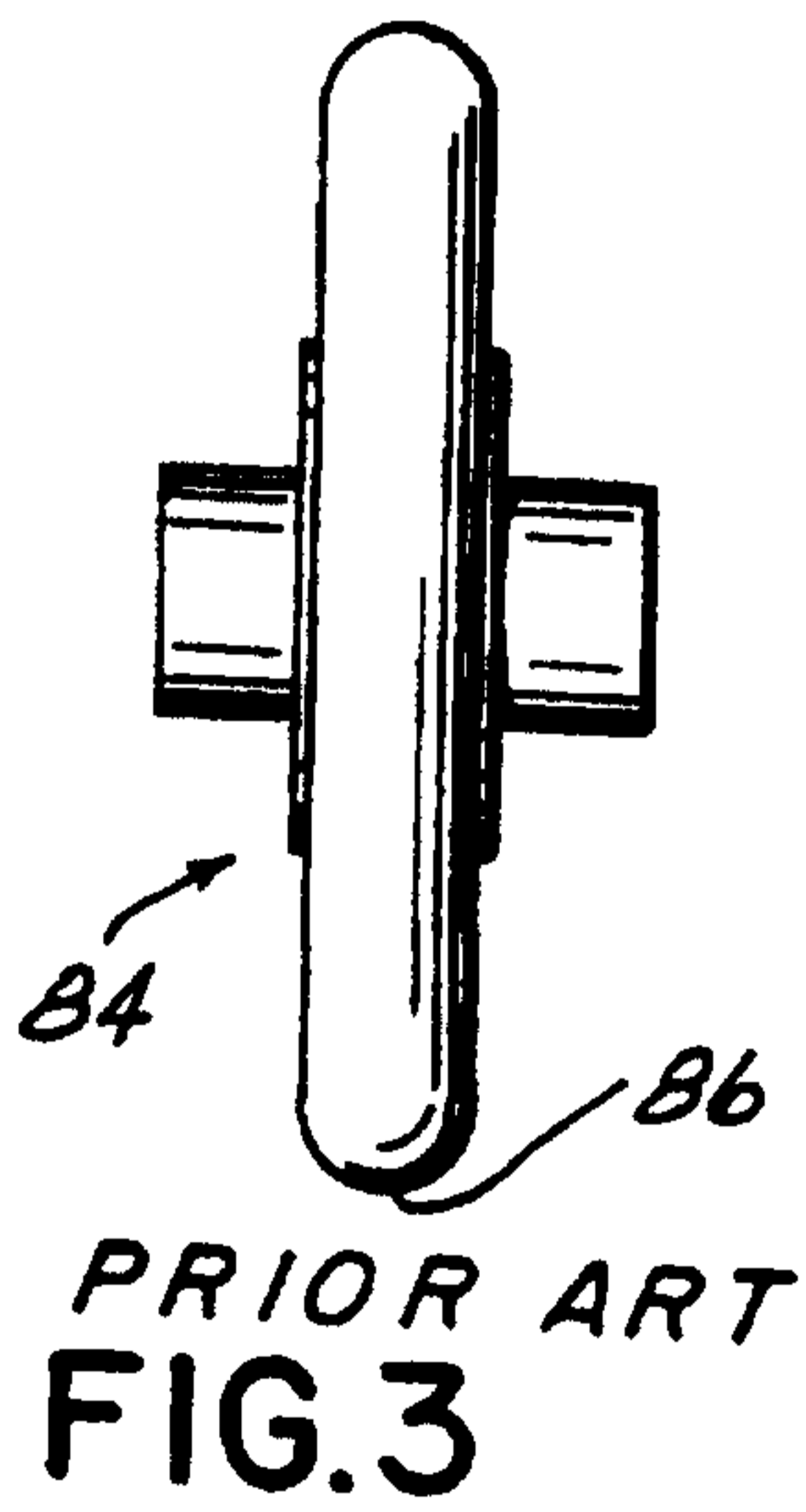


FIG. 3

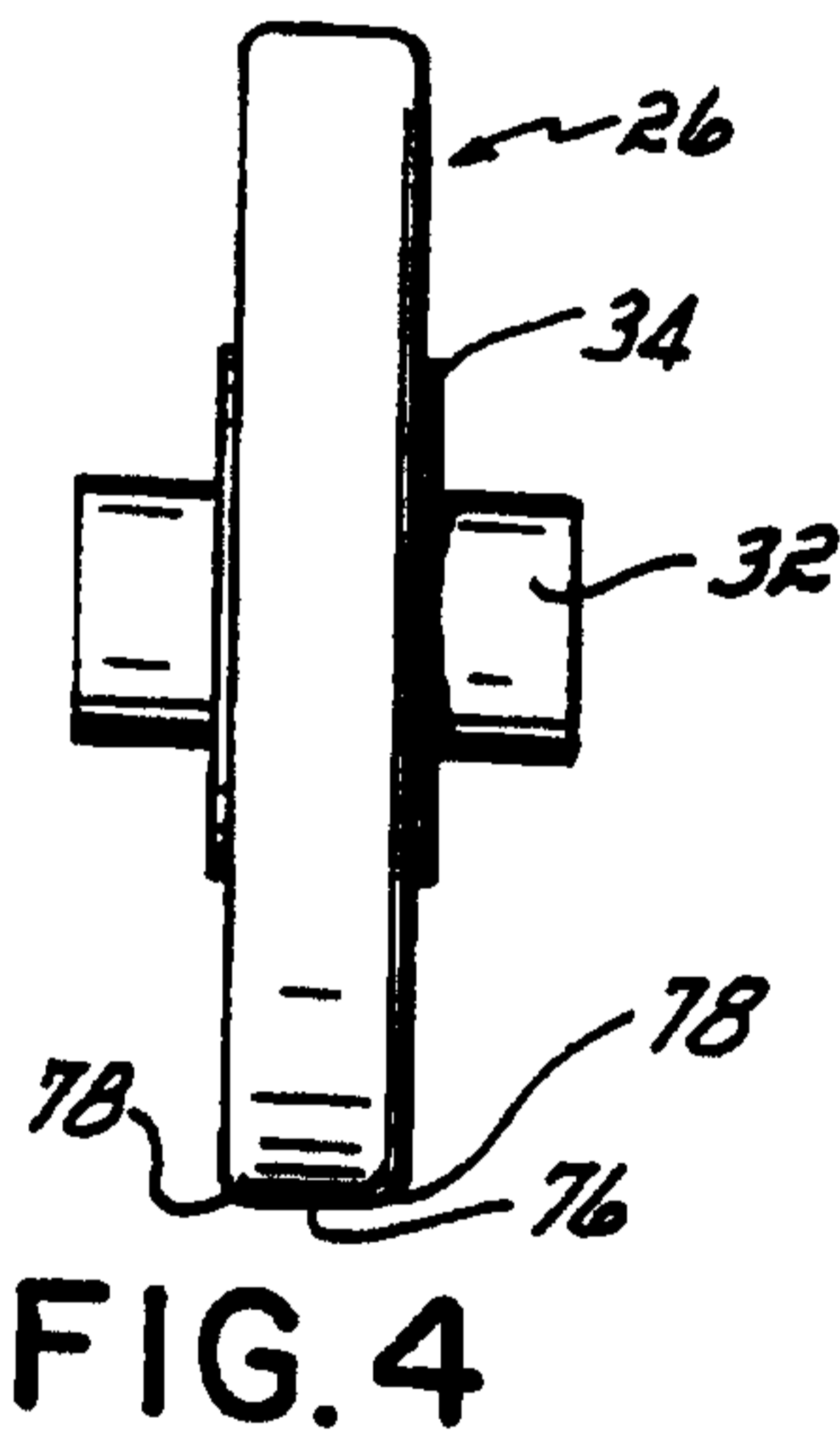


FIG. 4

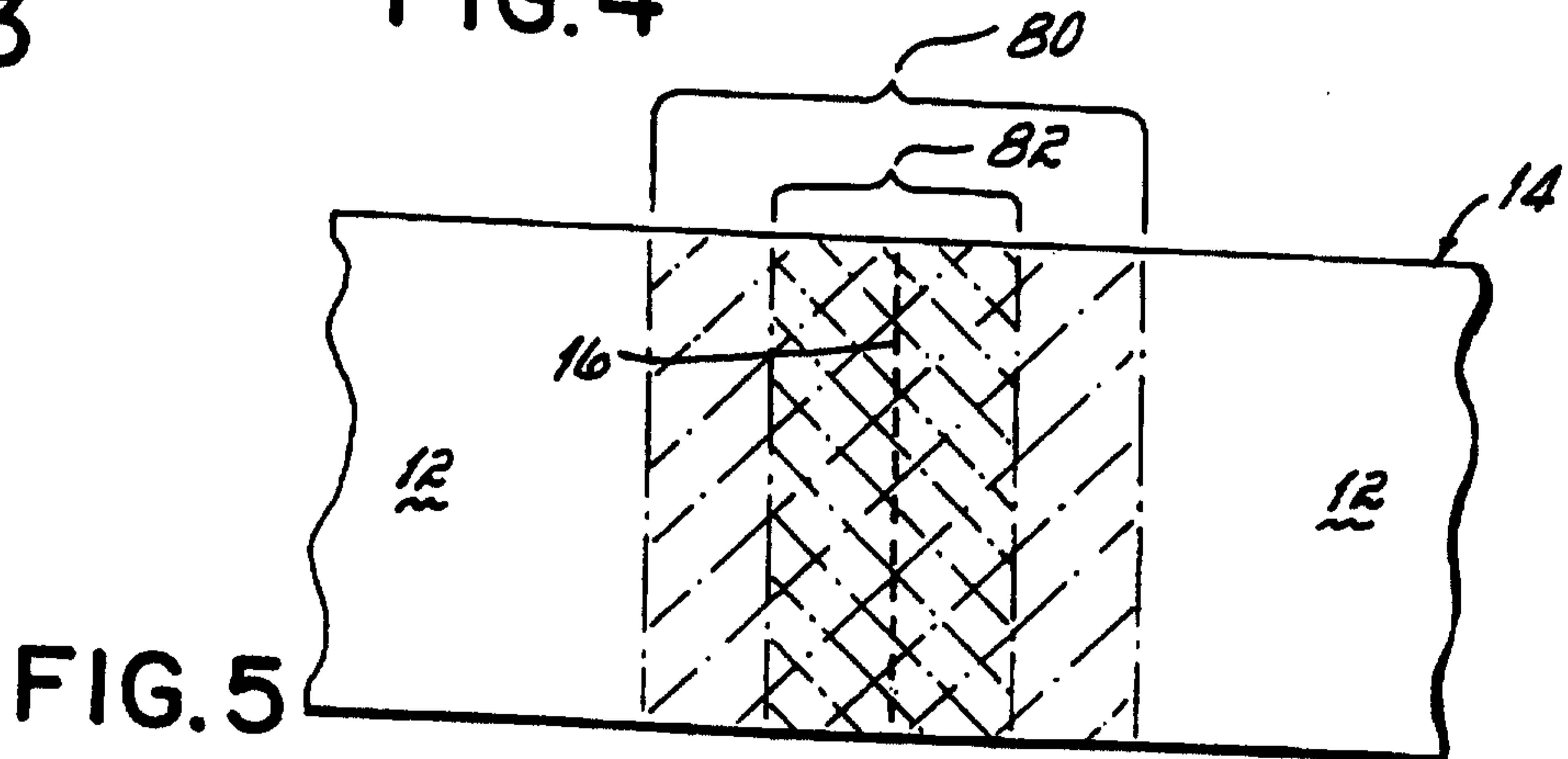


FIG. 5

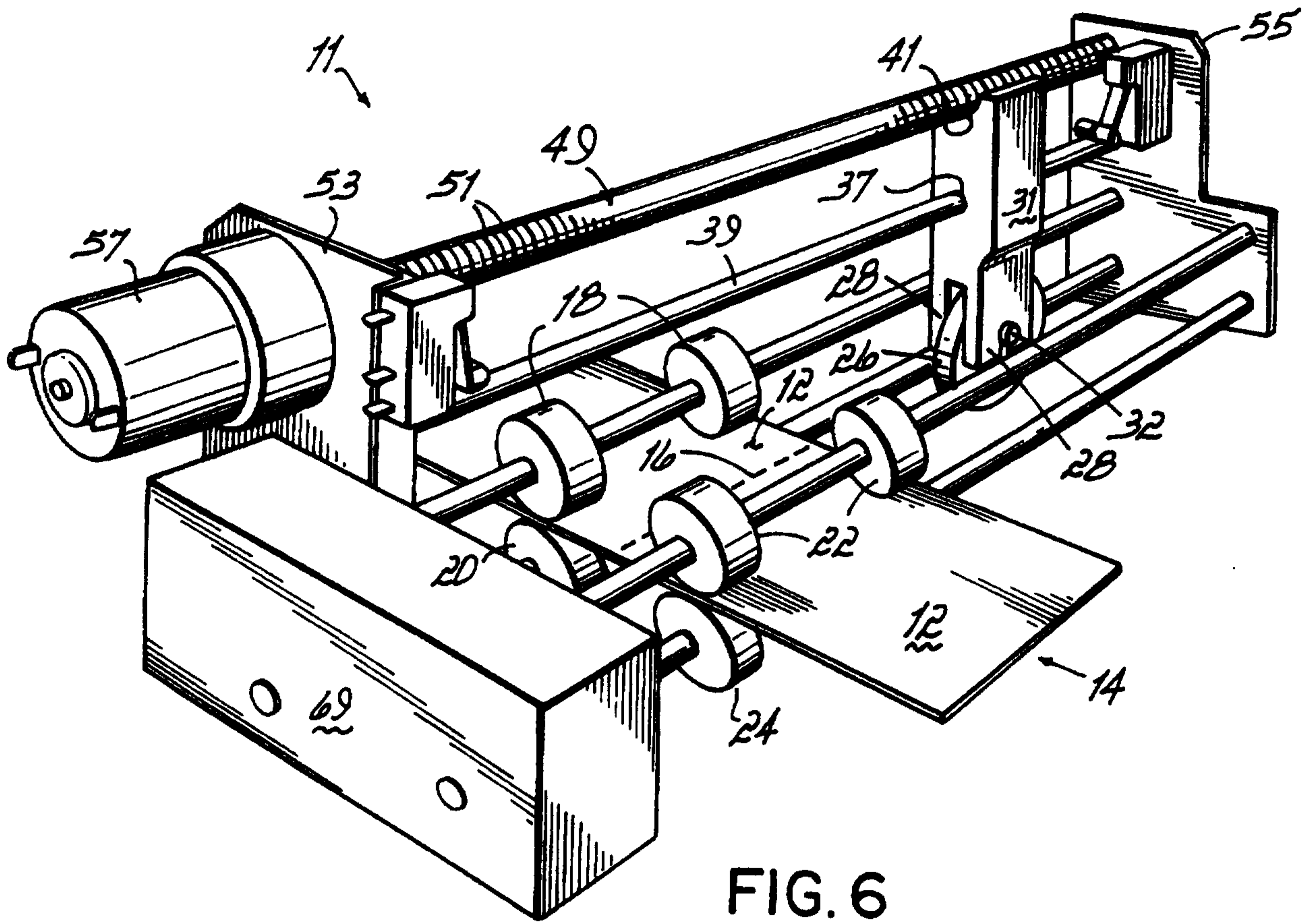


FIG. 6

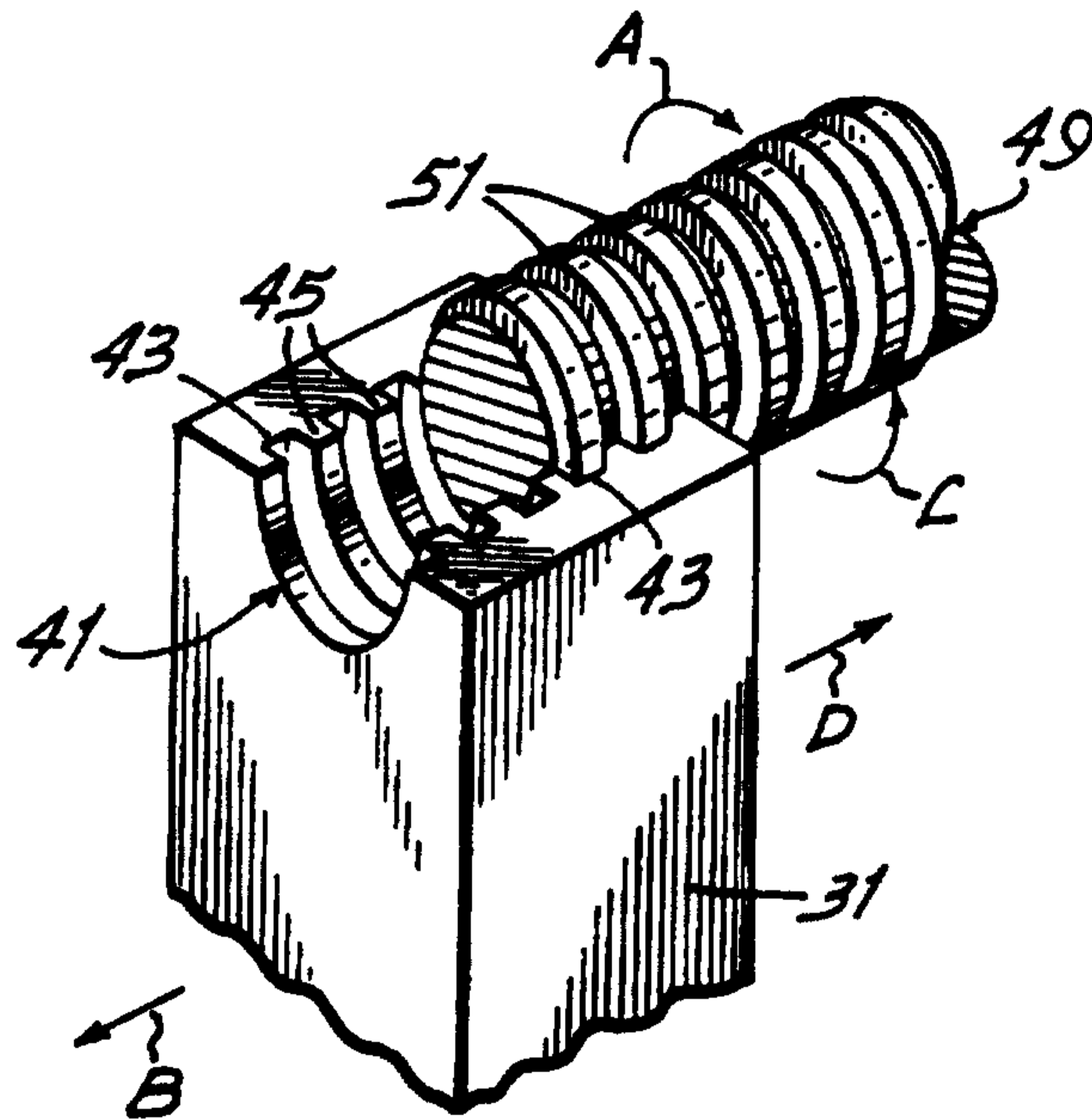


FIG. 7

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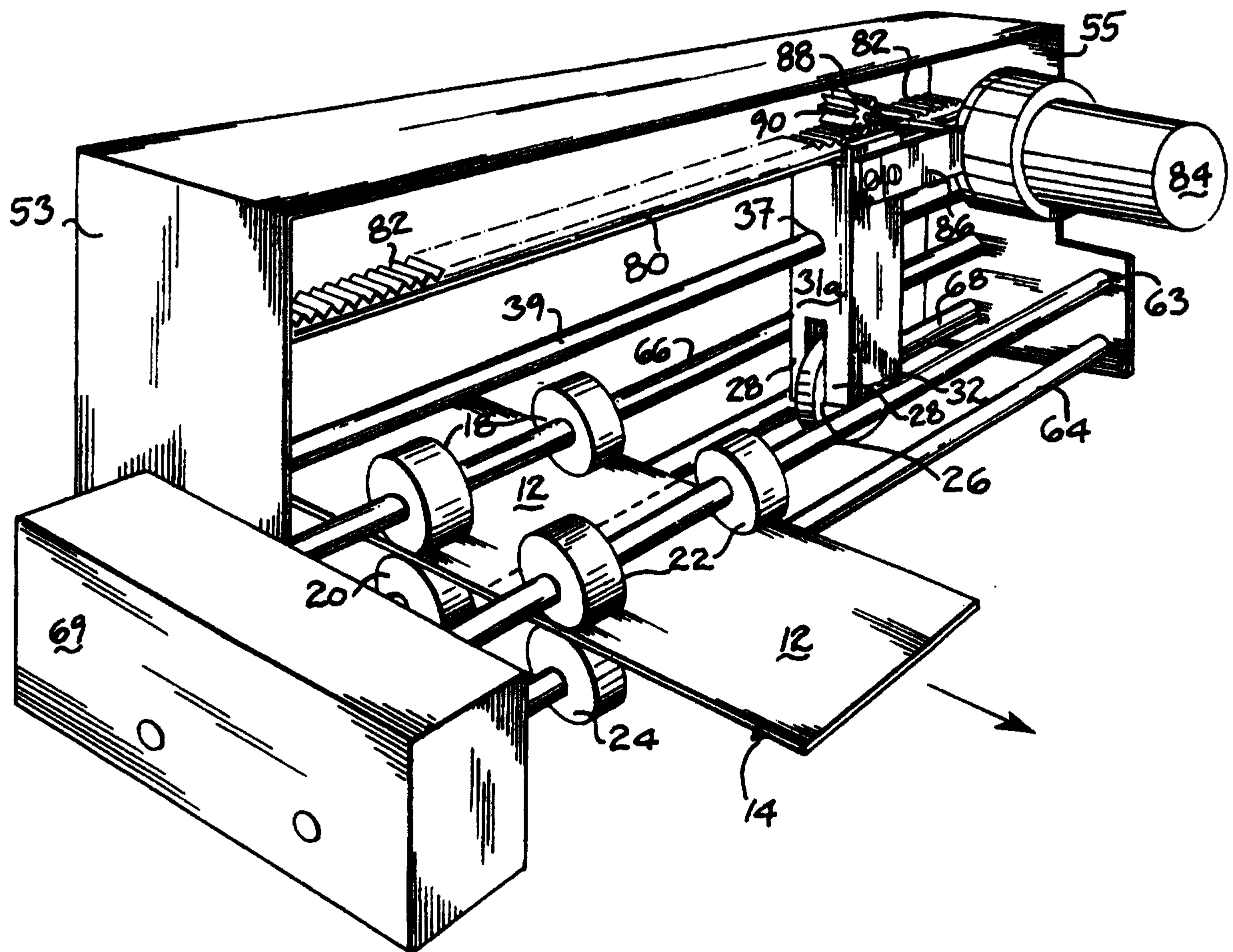


FIG. 8

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