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Etiqueteuse à main

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Description

BACKGROUND OF THE INVENTION

1. Field of the invention

[0001] The present invention relates to an improved label stamper which is capable of stamping prices on labels attached on a tape so as to attach the stamped labels on commodities.

2. Description of the prior art

[0002] Generally, the label stamper is a machine which stamps prices on labels to attach them on commodities. The label stamper has a complicated structure.

[0003] That is, the label stamper includes: (1) a means for loading a label tape into a case; (2) a guide means for guiding the loaded label tape toward a stamper; (3) a holding means for firmly holding the guided label tape onto the stamper; (4) a stamping means for stamping prices on labels; and (5) a carrying means for attaching the stamped labels on commodities, and for pulling the empty tape to discharge it to the outside. These means have various structures respectively, and the constitution of the structures of the different means decide the superiority of the label stamper.

[0004] The prior art for the present invention will be described below.

(1) one example of the loading means for loading the label tape of the label stamper is disclosed in Japanese Utility Model Laid-open No. Sho-59-3814 (dated Jan. 11, 1984). In this tape loading device, a tape roll is inserted into a narrow loading chamber of the label stamper.

In this prior art, the tape roll is inserted into the narrow loading chamber, and a supporting shaft is fitted into a retainer. This procedure is very complicated, and inconvenient. Further, it frequently happens that the tape is not smoothly loosened.

Other loading means are known, but they are also inconvenient like the above described device. However, within a crowded store, it is needed that the tape roll has to be quickly replaced.

(2) One example of the guide means for guiding the label tape is disclosed in Korean Utility Model Publication No. 90-1370. In this guide means, a guide hole is formed vertically from the top of the stamping machine like a tunnel. The end of the label tape is inserted into the tunnel shaped guide hole from above to pass through the bottom of the machine. Then the tape is carried by a carrying roller.

In this prior art, the label tape is liable to be bent or folded within the tunnel, and therefore, it is very inconvenient to insert the label tape.

(3) Example of the holding means for holding the

tape are disclosed in Korean Patent Publication No. 82-1815 (dated Oct. 12, 1982) and Korean Patent application Laid-open No. 88-12449 (Nov. 26, 1988).

In these devices, a lower plate which is provided with a push plate can be opened and closed by means of a hinge.

Therefore, when inserting the tape into the guide hole, the lower plate is opened, then the tape is inserted into the guide hole, and then, the lower plate is closed, so that the push plate would push up the tape.

In these devices, each time when the label tape is replaced, the lower plate has to be opened and closed, this being a troublesome task. Further, their structure is very complicated, and therefore, the manufacturing cost becomes high, as well as being liable to disorders. Further, the operation procedure for the stamping machine is very complicated.

(4) The important matter in the label stamping is the shifting of the character blocks. One example of the stamping means is disclosed in Korean Utility Model Publication No. 83-2593 (dated Dec. 7, 1983), Korean Patent Application Laid-open No. 88-308 (dated Mar. 24, 1988), and Korean Patent Publication No. 80-1096 (dated Oct. 6, 1980). Further, other examples are known.

In one of these devices, the selecting wheel has to be rotated manually, and therefore, the selecting wheel is very inconvenient.

In another, the selecting wheel is rotated by means of a selecting bar. When shifting the selecting bar, the selecting bar is engaged between two selecting wheels, with the result that the two selecting wheels are rotated simultaneously. Because of this, the selection of character blocks becomes inconvenient.

(5) Examples of the carrying means for carrying the tape of the label stamper are disclosed in Japanese Patent Publication No. Sho-53-43038 (dated Nov. 16, 1978), Japanese Utility Model Laid-open No. 83-139 (dated Mar. 25, 1983), and Korean Utility Model Publication No. 90-3053 (dated Apr. 12, 1990).

[0005] In these devices, the tape carrying roller is secured to the machine by means of supporting shafts, and therefore, the assembling procedure is very complicated. Further, they cannot maintain balance with the other assembling procedure of the other components, and therefore, the production line stopped frequently, with the result that the production cost is increased. Further, even if the carrying roller is damaged during the use, its replacement is almost impossible, with the result that the whole stamping machine becomes useless.

SUMMARY OF THE INVENTION

[0006] The present invention is intended to overcome the above described disadvantages of the conventional techniques.

[0007] Therefore it is an object of the present invention to provide a label stamper for use in a store for stamping prices on commodities, in which the functions are much progressed and improved.

[0008] The tape loading means of the label stamper according to the present invention is constituted such that a loading case goes in and out of the machine by functions of a pair of folding and extending legs, so that the label tape can be loaded in a convenient manner.

[0009] The guide means for the label tape according to the present invention is constituted such that a front plate and a rear plate are fastened across a narrow gap, and in this gap, a guide channel is formed. A side of this channel is open, and the tape is inserted into the open portion of the channel in a convenient and speedy manner.

[0010] The holding means of the label stamper according to the present invention is constituted such that a push plate is disposed facing toward a base plate, and the push plate interlocks a movable lever to the loading case. Thus, if the tape is inserted into the guide channel, the tape is automatically press-held to the base plate. During the carriage of the tape, the tape is carried by being lightly pressed upon the base plate.

[0011] The stamping means of the label stamper according to the present invention is constituted as follows. That is, a selecting hole of a selecting wheel for driving a stamping belt is provided with a recess and a triangular protuberance. Thus two selecting wheels will never be engaged simultaneously, and fingers of a selecting bar are accurately coupled to the selected wheel. Therefore, the desired characters can be accurately and conveniently selected.

[0012] The stamping means includes an ink roller of a known type and an interlocking mechanism for the ink roller. Thus automatically, ink is spread on the character blocks, with the result that the characters are clearly stamped on the labels.

[0013] In the carrying means for carrying the label tape, the carrying rollers for the tape are provided in the form of a cartridge, and this cartridge is replaceably accommodated within a cartridge room. This improves the compactness and the performance of the label stamper, and the cartridge can be conveniently replaced.

[0014] Therefore, the label stamper according to the present invention shows improved functions, with the result that the label stamper is not liable to disorders, and its use is convenient.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The above object and other advantages of the present invention will become more apparent by de-

scribing in detail the preferred embodiment of the present invention with reference to the attached drawings in which:

- 5 FIG. 1 illustrates the total constitution of the label stamper of the present invention, with the side plate removed;
- 10 FIG. 1-1 is a perspective view showing the tape loading means 100 of the label stamper of the present invention, with the side plate removed;
- FIG. 1-2 is a side view showing the loaded state of the tape roll;
- FIG. 1-3 is a frontal view showing the tape loading means partly cut off;
- 15 FIG. 2-1 is a perspective view showing the guide channel means 200 for the label tape of the present invention;
- FIG. 2-2 is a perspective view showing the guide means in detail, with the side plate removed;
- 20 FIG. 2-3 is a side view showing the label tape inserted into the guide channel of the label stamper according to the present invention;
- FIG. 3-1 is an exploded perspective view showing the holding means 300 for holding the label tape of the present invention;
- 25 FIG. 3-2 is a side view showing the critical portion of the holding means;
- FIG. 3-3 illustrates the operating state of the label tape;
- 30 FIG. 4-1 is an exploded perspective view showing the critical portion of the stamping means 400 according to the present invention;
- FIG. 4-2 is an enlarged side view of the stamping means;
- 35 FIG. 4-2a is a frontal view of the selecting wheel;
- FIG. 4-3 is an enlarged sectional view showing the shifting of the selecting bar in the selecting wheel according to the present invention;
- FIG. 4-4 is an enlarged sectional view showing a selection-contact state of the selecting bar together with the selecting wheel;
- 40 FIG. 5-1 is an exploded perspective view showing the tape carrying means 500 of the label stamper according to the present invention;
- 45 FIG. 5-2 is an exploded perspective view of the tape carrying cartridge according to the present invention;
- FIG. 5-3 is a perspective view of the tape carrying cartridge;
- 50 FIG. 5-4 is a longitudinal sectional view of the tape carrying cartridge;
- FIG. 5-5 is a side sectional view taken along a line A-A of FIG. 5-4;
- 55 FIG. 5-6 is a side sectional view taken along a line B-B of FIG. 5-4; and
- FIG. 5-7 illustrates the assembled state of the tape carrying cartridge according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0016] As shown in FIG. 1, the label stamper according to the present invention includes:

a label tape loading means 100 for loading a label tape in a convenient manner;
 a label guide means 200 with its side portion open;
 a tape holding means 300 for automatically press-holding the label tape after its insertion into a guide channel;
 a character selecting means 400 for selecting characters in an accurate and easy manner; and
 a cartridge type tape carrying means 500 for attaching stamped labels onto commodities, and for pulling out the empty tape to the outside of the label stamper.

[0017] The above described function means 100, 200, 300, 400 and 500 have improved structures compared with the conventional means.

[0018] Now the function means will be described as to their constitutions and actuations.

[0019] FIG. 1-1 is a perspective view showing the tape loading means 100 of the label stamper of the present invention, with the side plate removed, FIG. 1-2 is a side view showing the loaded state of the tape roll. FIG. 1-3 is a longitudinal sectional view of it.

[0020] As shown in FIG. 1-1, a tape loading room 102 is formed at a middle of a main body 101. The tape loading room 102 is surrounded by side plates 102a, and its top is open. On one of the side plates 102a of the tape loading room 102, there are disposed a pair of joint type legs 104 supported by shafts 105 and 105'. A loading case 103 is disposed above the legs 104. A torsion spring 105s is installed on each of the legs 104, so that the legs 104 can be extended.

[0021] In the loading case 103, a shaft 103b projects at the middle of the side plate 103a. Another side of the loading case 103 is open. The outer end of the shaft 103b forms a free end 103b'. A plurality of labels 106 are attached aligned in one straight line on a tape 106, this being a known type. A shaft hole 106b of a tape roll 106r on which the tape 106 is wound is fitted to the shaft 103b from the free end 103b', thereby loading the tape roll into the loading case 103.

[0022] An arcuate cover 103c is disposed above the loading case 103, and the cover 103c is provided with an engaging step 103d. The loading room 102 is provided with a locking lever 103e having an engaging step 103d', so that it can be coupled to the engaging step 103d of the cover 103c.

[0023] As shown in FIG. 1-2, if the case 103 is pressed down into the loading room 102, then the engaging step 103d of the cover 103c is coupled to the engaging step 103d' of the locking lever 103e so as to be locked.

[0024] Since the engaging steps 103d and 103d' are

coupled together, and owing to the elasticity of the locking lever 103e, the locking lever 103e is not released unless it is manually released.

[0025] The cover 103c which is disposed above the loading case 103 arcuately covers the loading room 102, thereby protecting the tape. The lower half portion of the loading case 103 is inserted into the loading room 102, while the upper half portion of the loading case 103 is exposed above the main body. Therefore, the remaining amount of the tape can be confirmed visually. Although a part of the tape roll 106b is exposed to the outside of the loading room 102, the tape roll does not depart from the loading room.

[0026] Each of the legs 104 of the loading case 103 consists of an upper leg 104a and a lower leg 104b, these two being connected by a shaft 104d of a joint 104c. That is, the upper and lower legs are connected by a hinge, so that the legs 104 can be folded and extended.

[0027] The upper and lower portions of the upper and lower legs 104a and 104b are provided with teeth 104g and 104g' like gears, and these teeth are meshed together. Owing to the mesh of the teeth, the upper and lower legs 104a and 104b of the two legs 104 actuate at the same angle, so that the loading case can move vertically up and down. A torsion spring 105s is installed on each of the shafts 105' of the legs 104, thereby providing elastic forces to the legs 104.

[0028] Therefore, if the locking lever 103e is pulled to a side to release the two engaged engaging steps 103d and 103d', then the folded legs 104 extend upward as shown in Table 1-3. Under this condition, owing to the extension of the legs 104, the loading case 103 which has been accommodated within the loading room 102 protrudes upward. When the loading case is thus protruded, the tape roll 106r can be loaded in a convenient manner.

[0029] This loading device is improved compared with the conventional ones, while its aesthetic appearance is nice, as well as being convenient to use.

[0030] FIG. 2-1 is a perspective view showing the guide channel means 200 for the label tape of the present invention. FIG. 2-2 is a perspective view showing the guide means in detail, with the side plate removed. FIG. 2-3 is a side view showing the label tape inserted into the guide channel of the label stamper according to the present invention.

[0031] As shown in FIG. 2-1, a side plate 202 of the main body 101 is divided into a front side plate 202a and a rear side plate 202b. These two side plates 202a and 202b are attached onto a side of the main body 101 through screws 205 and screw holes 205a and 205b, leaving a small gap between them. This gap is a guide channel 203 through which the tape runs.

[0032] As shown in FIG. 2-2, a guide plate 202c is formed on the front end of the rear plate 202b, and this guide plate 202c forms a side wall of the guide channel 203. In the drawing, the guide channel 203 is bent in an

L shape. However, it will not be limited to the drawn shape, but can be modified to any other shape.

[0033] In accordance with the shape of the guide channel 203, the contours of the front and rear plates 202a and 202b are varied. Further, the guide channel 203 is decided by the front and rear plates 202a and 202b. This channel 203 is open, and this feature is that which is different from the conventional ones.

[0034] Therefore, as shown in FIG. 2-3, the tape 106 which is accommodated within the loading room 102 can be inserted into the guide channel 203 through the open portion. This is an improved feature compared with the conventional ones in which the tape is inserted into a guide hole.

[0035] The guide channel 203 guides the label tape 106 into under a stamp P, so that the labels can be stamped.

[0036] On the lower portion of the guide channel 203, there is formed a base plate 206 which is formed on the rear side plate 202b (refer to FIG. 3-1).

[0037] The base plate 206 is a pad for supporting the stamping. Facing to a sharp edge of the base plate 206, there is an attaching roller 207 which is rotatably secured on the lower end of the front side plate 202a.

[0038] Accordingly, if the tape is pulled by the tape carrying means (which is to be described later), the stamped labels 106a are detached from the tape 106 at the sharp edge of the base plate 206 due to the bent running of the tape. Then the detached labels are attached onto the commodities owing to the pressing of the attaching roller 207. That is, if the handle 204 is grasped, and if the attaching roller 207 is rubbed onto the commodity, then the label is attached onto the commodity.

[0039] FIG. 3-1 is an exploded perspective view showing the holding means 300 for the label tape of the present invention. FIG. 3-2 is a side view showing the critical portion of the holding means. FIG. 3-3 illustrates the operating state of the label tape.

[0040] The tape holding means 300 is a device which lightly presses the label tape when stamping it, so that the label tape would not be oscillated.

[0041] As shown in FIG. 3-1, the base plate 206 faces the stamping device P in an inclined posture. Above the base plate 206, there is a push plate 303 which is installed movably up and down by means of a retaining portion 303a and supporting shaft 305. Owing to the force of the coil spring 304, the push plate 303 presses the base plate 206, so that the tape 106 would be secured on the base plate 206.

[0042] About the middle of the side plate 102a of the main body 101, there is installed an interlocking lever 306 which is coupled to a shaft 305a by means of a shaft hole 306c together with a coil spring 304a. An actuation lever 307 which is installed on the main body 101 contacts with a recessed cam portion 306a of the lever 306. When the actuation lever 307 is actuated up and down by means of a manual lever 204a, the interlocking lever

306 moves up and down owing to the sliding of a protuberance 307a.

[0043] As shown in FIG. 3-2, A roller 301 which is installed on a shaft 302 of the lever 306 presses or releases the label tape 106 which has been inserted into the guide channel 203. Therefore, when the tape runs, an excessive loosening of the tape is prevented.

[0044] As shown in FIG. 3-3, a connection bar 310 is connected to a connection groove 104e and a connection groove 306d by means of shafts 310a and 310b.

[0045] Therefore, when the loading case 103 is inserted into the loading room 102 like in the FIG. 3-2, the connection bar 310 pushes the upper portion of the interlocking lever 306 to the left, and therefore, the lower portion 306b of the lever 306 departs from the lever 303b of the push plate 303.

[0046] Therefore, owing to the elastic force of the coil spring 304, the push plate 303 closely contacts to the base plate 206 to lightly press down the tape on the base plate 206. This prevents the movements of the label tape during the stamping, so that the stamping can be made on the accurate positions.

[0047] Meanwhile, when the loading case 103 is protruded to the outside of the loading room 102 like in FIG. 3-3, the connection bar 310 is pulled to the right by the legs 104. Therefore, the lower portion 306b of the lever 306 moves to the left, and therefore, the lower portion 306b of the lever 306 presses down the lever 303b of the push plate 303, with the result that the push plate 303 departs from the base plate 206. Under this condition, the tape 106 can be easily inserted into between the push plate 303 and the base plate 206 during a replacement of the tape.

[0048] FIG. 4-1 is an exploded perspective view showing the critical portion of the stamping means 400 according to the present invention. FIG. 4-2 is an enlarged side view of the stamping means. FIG. 4-3 is an enlarged sectional view showing the shifting of the selecting bar in the selecting wheel according to the present invention. FIG. 4-4 is an enlarged sectional view showing a selection-contact state of the selecting bar together with the selecting wheel.

[0049] The stamping means of the label stamper according to the present invention is capable of selecting and arranging the character blocks accurately and speedily.

[0050] As shown in FIGs. 1 and 3-2, the stamper P is generally installed on the front portion of the actuation lever 307 which is actuated by a hand lever 204a.

[0051] In this stamper P, two side plates 401 and 402 are assembled by means of fastening screws 409 and 409' and fastening holes 409a, 409a', 402e and 402e' of a supporting plate 408a. A guide plate 402a with a guide groove 402b formed thereon is formed on an end of the side plate 402. A coupling hole 402d which is formed on an end of the guide plate 402a is coupled to a coupling protuberance 408b of the side plate 401. A rectangular slider 410 is inserted into the guide groove

402b of the guide plate 402a, in such a manner that the slider 410 can slide through elongate guide holes 401a and 401b formed laterally on the upper portions of the side plates 401 and 402.

[0052] Further, on the upper portion of the side plate 401, there are formed a guide rod 406 and a gently curved retaining plate 408. A selecting wheel 404 having a plurality of selecting steps is fitted to the guide rod 406, and at the same time, is supported by the gently curved retaining plate 408. A stamping wheel 405 is installed between the two side plates 401 and 402 by means of a shaft 405a and shaft holes 405b. Surrounding the selecting wheel 404 and the stamping wheel 405, there is a character stamping belt 403 on which an index part (not shown in the drawing) and a numeral part (not shown in the drawing) are formed. An elastic grasping ring 411 which is formed on the slider 410 receives a selecting bar 412 together with a sleeve 407 through a cut portion 411a.

[0053] A handle 412a is formed on the rear portion of the selecting bar 412. A plurality of fingers 412b (3 in the drawing) having protuberances 412c are formed on the front portion of the selecting bar 412. The selecting bar 412 is inserted into the selecting hole 404a of the selecting wheel 404. Thus an indicating pin 410a of the slider 410 is set to the desired numeral of the numeral part of the stamping belt 403 by shifting the selecting bar 412 by holding the handle 412a.

[0054] The selecting hole 404a is provided with a plurality of ridges 404b and furrows 404c. As shown in FIG. 4-2a, the protuberances 412c of the fingers 412a of the selecting bar 412 are inserted into the furrows 404c of the selecting hole 404a so as to be clutched owing to the elasticity of the fingers.

[0055] Therefore, if the selecting wheel is rotated by turning the selecting bar 412 by grasping the handle 412a, the clutched selecting wheel is rotated, and the stamping belt 403 is also rotated. Thus the selected numeral is placed on the lower stamping wheel 405.

[0056] As shown in FIG. 4-4, a triangular protuberance 404c' is formed on each of the furrows 404c of the selecting hole 404a of the selecting wheel 404.

[0057] Thus when the selecting bar is shifted to the left and right by grasping the handle 412a, the fingers 412b are easily shifted in a state inserted into the furrows 404c. In a stationary state, the protuberances 412c of the fingers 412b are halted by the triangular protuberances 404c' so as to be engaged into the selecting hole 404a of the selecting wheel 404. Therefore, they cannot be coupled to an intermediate position. Accordingly, the character blocks can be accurately selected.

[0058] The guide rod 406 is inserted into the guide hole 406a of the selecting bar 412, and therefore, it moves straightly during the shifting manipulation. The stamping belt 403 is coupled to the selecting wheel 404 and the stamping wheel 405, and therefore, the characters (letters and numerals) can be arbitrarily selected to stamp prices.

[0059] FIG. 5-1 is an exploded perspective view showing the tape carrying means 500 of the label stamper according to the present invention. FIG. 5-2 is an exploded perspective view of the tape carrying cartridge according to the present invention. FIG. 5-3 is a perspective view of the tape carrying cartridge. FIG. 5-4 is a longitudinal sectional view of the tape carrying cartridge. FIG. 5-5 is a side sectional view taken along a line A-A of FIG. 5-4. FIG. 5-6 is a side sectional view taken along a line B-B of FIG. 5-4. FIG. 5-7 illustrates the assembled state of the tape carrying cartridge according to the present invention.

[0060] As shown in FIG. 5-1, the label tape carrying means 500 includes an actuation mechanism A and a carrying cartridge B.

[0061] The actuation mechanism A includes a hand lever 204a movably secured to the main body 101 by means of a supporting shaft 501. An actuation lever 307 extends from a hand lever 204a. An actuation piece 502 extends vertically downward from the middle of the actuation lever 307. The actuation piece 502 is provided with a connection groove 502a which is connected to a crank shaft 505b of the cartridge.

[0062] In the place where the actuation piece is disposed, there is a space R for accommodating the cartridge. Into this space, there is assembled the cartridge B by means of fastening screws 510a and fastening holes 510.

[0063] The principal feature of the present invention in this respect is that the carrying roller is provided in the form of the cartridge.

[0064] As shown in FIG. 5-2, the tape carrying cartridge B is constituted as follows. That is, between two side plates 503a and 503b of a cartridge case 503, there are installed a carrying roller 504 having a plurality of teeth 504a and a ratchet wheel 505 by means a. supporting shaft 506 and shaft holes 505a'. In a recess 504b of the carrying roller 504, there are formed a plurality of shaft holes 504' in which ratchet poles 504c are inserted, the ratchet poles 504c forming a circular contour.

[0065] Free ends 504c' of the ratchet poles 504c are contacted to a ratchet gear 505a of the ratchet wheel 505. Thus only when the ratchet wheel rotates in one direction, the carrying roller 504 revolves, while when the ratchet wheel 505 is rotated in the opposite direction, the carrying roller 504 maintains a stationary state. A crank shaft 505b of the ratchet wheel 505 is inserted into an elongate arcuate slot 503c of the side plate 503a of the cartridge to be exposed to the outside. Thus this crank shaft 505b is connected to a connection piece 502 of the actuation piece 502 shown in FIG. 5-1. Therefore when the actuation piece 502 actuates to the left and right in accordance with the actuation of the actuation lever 307 as a result of the manipulation of the hand lever 204a, the ratchet wheel 505 is rotated clockwise or anticlockwise owing to the actuation of the crank shaft 505b. However, the carrying roller 504 is interlocked to one direction rotation of the ratchet wheel 505.

[0066] Beneath the cartridge, a guide roller 508 is installed by means of a supporting shaft 506a and a shaft hole 508a. The both ends of the supporting shaft 506a are coupled to fastening holes 506a' of the side plates 503e and 503b by means of fastening screws 510a. The guide roller 508 plays the role of guiding the label tape 106 to the carrying roller 504.

[0067] Above the carrying roller 504, there are installed tape push plates 507 by means of coupling portions 507a and 507b and the supporting shafts 506a and 506b. The tape 106 which is guided by the guide roller 508 and the tape push plates 507 is engaged with the teeth 504a of the carrying roller 504. Therefore, in accordance with the rotation of the carrying roller, the tape 106 is pulled to be carried. When the tape is carried, the stamped labels are carried to the attaching roller 207 to be attached onto commodities.

[0068] Further, beneath the carrying roller 504, there is installed a directing plate 509 on the side plates 503a and 503b of the cartridge by means of the supporting shaft 506c and the shaft hole 509a, for directing the tape 106 to the outside.

[0069] The supporting shaft 506c is inserted into a hole 506c' of the side plate 503b, and is fastened by means of screws (not shown in the drawing). Supporting rods 506d are inserted into holes 506d' of the side plate 503b, and are fastened by means of screws (not shown in the drawing).

[0070] Thus the carrying roller is provided in the form of a cartridge, and the cartridge B is inserted into the cartridge loading room R of the main body 101 so as to be fastened by means of screws (not shown in the drawing) and fastening holes 510 as shown in FIG. 5-7. The cartridge B can be replaced by loosening the screws.

[0071] As shown in FIG. 5-7, the label stamper according to the present invention can be operated as follows. That is, if the handle 204 and the hand lever 204a are held by hand, and if the two are pressed together like when manipulating a scissor, then the actuation lever 307 moves downward. As a result, ink is spread on the relevant character block of the stamping belt 403 by the ink roller Ro, and the price is stamped on the label 106a which is held between the push plate 303 and the base plate 206. Then if the grasped hand lever 204a is released, then the hand lever 204a is spread owing to the elastic restoring force of the torsion spring 204s. At the same time, the actuation lever 307 moves upward. Thus the stamping device P is restored to the original position. Under this condition, the actuation piece 502 moves to the left and right, so that the crank shaft 505b of the carrying cartridge would be rotated clockwise and anticlockwise.

[0072] Accordingly, the ratchet wheel 505 is rotated, with the result that the carrying roller 504 revolves as much as the rotated angle of the ratchet wheel 505. Owing to the rotation of the carrying roller 504, the tape which is partly wound on the carrying roller is carried. The carrying distance is equal to the width of a label

106a which is attached on the tape. When the ratchet wheel 505 is restored, the reverse revolutions are prevented owing to a stopper 504s of the side plate 503b and an engaging step 504s'. Therefore, the carrying roller is driven only in one direction. Thus the labels which are repeatedly stamped are carried to the attaching roller 207 so as to be attached onto commodities by being pressed onto the commodities. The stamped labels are attached on the tape, but owing to the sharp triangular edge of the base plate 206, the tape is bent at that point, so that the labels would be detached from the tape. The tape plays the role of a conveyor for the labels, and this is a known feature.

[0073] The tape loading means 100, the tape guide means 200, the label tape holding means 300, the label stamping means 400 and the tape carrying means 500 in the label stamper according to the present invention have novel features compared with the conventional ones. Thus the loading case is made to project to the outside of the main body, so that the tape can be loaded in a speedy and simple manner.

[0074] Further, a side of the guide channel is open, and therefore, the tape can be easily inserted into the guide channel. Further, the tape guiding distance is short.

[0075] The tape holding means presses the tape onto the base plate in an automatic manner owing to the up and down movements of the loading case. Therefore an additional devices are not needed unlike the conventional ones. Therefore, an attention is not required to the pressing of the tape onto the base plate.

[0076] The selecting hole of the selecting wheel of the stamping means is provided with recesses and triangular protuberances. Therefore, owing to the triangular protuberances, the fingers of the selecting bar are coupled to only one selecting wheel in an accurate manner. Therefore unlike the conventional ones, the relevant character blocks can be accurately selected and arranged.

[0077] Particularly, the tape carrying means is provided in the form of a cartridge. Therefore the manufacturing cost for the label stamper can be saved in carrying out its mass production. Further, if the carrying roller is damaged during the use, it can be replaced in a simple manner, and therefore, the label stamper can be conveniently used even in a crowded store.

Claims

1. A label stamper for stamping commodity prices, comprising

a tape loading means (100) for loading a label tape (106) ; a guide means (200) for guiding the loaded label tape (106) toward a stamping means (400) for stamping said prices on labels; a holding means (300) for holding the guided

label tape (106) onto said stamping means (400) ;
and a carrying means (500) for carrying said label tape (106) to the outside of the label stamper;

characterized in that

said tape loading means (100) has a loading case (103) going in and out of a main body (101) by functions of a pair of folding and extending legs (104) so to load a label tape (106) in a convenient manner;
said guide means (200) has a front plate (202a) and a rear plate (202b) fastened leaving a narrow gap to form a guide channel (203), a side of said guide channel (203) being open to receive the tape (106) in a convenient and speedy manner;
said holding means (300) has a push plate (303) disposed facing toward a base plate (206), said push plate (303) interlocking a movable lever (306) to said loading case (103), to automatically press-hold the tape (106) to said base plate (206) ;
said stamping means (400) has at least one selecting wheel (404) with a selecting hole (404a) for driving a stamping belt (403) by means of a recess and a triangular protuberance (404c'), two selecting wheels (404) never being engaged together, and a finger (412b) of a selecting bar (412) being accurately coupled to one selected wheel, so as to select desired characters accurately and conveniently; and
said carrying means (500) has a carrying roller (504) and a ratchet wheel (505) provided in the form of a cartridge (B), this cartridge being replaceably accommodated within a cartridge room (R).

2. The label stamper as claimed in claim 1, wherein said label tape loading means (100) comprises a loading case (103) accommodated within a loading room (102) of said main body (101) by means of a pair of joint type legs (104), torsion springs (105c) and supporting shafts (105 and 105') so as to make said loading case (103) received into said loading room (102) or to make it protrude to an outside of said main body (101).
3. The label stamper as claimed in claim 2, wherein one side of said loading case (103) is closed; another side of said loading case is open; a supporting shaft (103b) is formed at a middle position of said loading case (103) to receive a label tape roll (106r) ; a cover (103c) is formed above said loading case (103); an engaging step (103d) is formed on an end of said cover (103c); and a locking step

(103d') is formed on a locking lever (103e) to be coupled with said engaging step (103d).

4. The label stamper as claimed in claim 2, wherein said joint type legs (104) for supporting said loading case (103) are provided with teeth (104g and 104g') respectively on upper portions and lower portions of them so as to make them folded and extended at same angles in raising or lowering said loading case.
5. The label stamper as claimed in claim 1, wherein said label tape guide means (200) comprises a side plate (202) divided into said front plate (202a) and said rear plate (202b) leaving a small gap, said gap forming said guide channel (203), and said guide channel (203) being open in its one side so as to make it easy to insert the tape into said guide channel (203).
6. The label stamper as claimed in claim 5, wherein a lateral guide plate (202c) is formed on a front portion of said rear plate (202b).
7. The label stamper as claimed in claim 1, wherein said holding means (300) comprises: said push plate (303) installed above said base plate (206) by means of a supporting shaft (305) and a coil spring (304) onto a side plate (102a); and an interlocking lever (306) installed above said push plate (303) to be interlocked to an actuation lever (307) and said legs (104) of said loading case (103) so as to actuate said push plate (303), thereby press-holding the tape upon said base plate (206).
8. The label stamper as claimed in claim 7, wherein a protuberance (307a) of said actuation lever (307) contacts with a cam portion (306a) of said interlocking lever (306) to actuate said actuation lever (307) so as to make a roller (301) of said interlocking lever (306) press the label tape onto said guide plate (202c), thereby preventing an excessive loosening of the tape.
9. The label stamper as claimed in claim 8, wherein a connection rod (310) is connected to an upper portion of said interlocking lever (306) and lower portions of said legs (104) so as to make said interlocking lever (306) depart from a lever (303b) of said push plate (303), thereby making said push plate press the tape onto said base plate (206).
10. The label stamper as claimed in claim 1, wherein said label stamping means (400) comprises: a plurality of selecting wheels (404) installed by means of a guide rod (406) and a retaining plate (408) between side plates (401 and 402); a plurality of stamping wheels (405) installed between said side

plates (401 and 402); said stamping belt (403) wound around said selecting wheels (404) and said stamping wheels (405); a slider (410) coupled to a guide plate (402a) for adjusting said stamping belt (403); and said selecting bar (412) coupled to said slider (410), said selecting bar (412) being shiftably inserted into said selecting hole of said selecting wheel (404) so as to select and arrange the character blocks.

11. The label stamper as claimed in claim 10, wherein said selecting hole (404a) of said selecting wheel (404) comprises ridges (404b) and furrows (404c) to form a polygonal hole; said selecting bar (412) comprises a plurality of fingers (412b) having each a protuberance (412c); and said fingers (412b) are inserted into said furrows (404c) of said selecting hole (404a) to clutch it.

12. The label stamper as claimed in claim 11, wherein said triangular protuberances (404c') are formed in said furrows (404c) of said selecting hole (404a) so as to make said fingers (412b) coupled to only one selecting wheel (404).

13. The label stamper as claimed in claim 1, wherein said label tape carrying means (500) comprises: a cartridge case (503); said carrying roller (504) and said ratchet wheel (505) coupled together and assembled into said cartridge case (503); a pair of push plates (507) disposed above said carrying roller (504); and a guide roller (508) and a guide plate (509) installed at a front and a rear of said carrying roller (504), the above components being assembled into said cartridge (B) and being accommodated into said cartridge room (R) having an actuation mechanism (A).

14. The label stamper as claimed in claim 1, wherein a crank shaft (505b) of said ratchet wheel (505) is connected to a connection groove (502a) of an actuation piece (502b) of said actuation lever (307) of said actuation mechanism (A) so as to make said crank shaft (505b) drive said ratchet wheel (505) and said carrying roller (504) through manipulation of said hand lever.

15. The label stamper as claimed in claim 13, wherein a ratchet gear (505a) of said ratchet wheel (505) is engaged with ratchet poles (504c) installed within a recess (504b) of said carrying roller (504) so as to make said carrying roller (504) driven in one direction only.

16. The label stamper as claimed in claim 13, wherein said push plates (507) lightly press an upper circumferential surface of said carrying roller (504) so as to make the label tape (106) meshed with said

teeth (504a) of said carrying roller (504), thereby carrying the label tape (106) without departing from said carrying roller (504).

17. The label stamper as claimed in claim 13, wherein said carrying roller (504) comprises an engaging step (504s') to be engaged with a stopper (504s) of a side plate (503b) so as to prevent reverse revolutions of said ratchet wheel.

18. The label stamper as claimed in claim 13, wherein said crank shaft (505) of said ratchet wheel (505) passes through a hole (503c) of a side plate (503a) to be inserted into a connection groove (502a) of said actuation piece (502b).

Patentansprüche

1. Auszeichnungsvorrichtung zur Preisauszeichnung von Waren, mit

- einer Bandladeeinrichtung (100) zum Laden eines Etikettenbands (106),
- einer Führungseinrichtung (200) zum Führen des geladenen Etikettenbands (106) zu einer Stempelinrichtung (400) zum Stempeln der Preise auf Etiketten;
- einer Halteeinrichtung (300) zum Drücken des geführten Etikettenbands (106) gegen die Stempelinrichtung (400),
- und einer Transporteinrichtung (500) zum Transportieren des Etikettenbands (106) zur Außenseite der Auszeichnungsvorrichtung,

dadurch gekennzeichnet, dass

- die Bandladeeinrichtung (100) eine Ladekassette (103) aufweist, die durch die Funktion eines Paares zusammenfaltbarer und auseinanderklappbarer Arme (104) in einen Hauptkörper (101) eingeführt und aus diesem herausgeführt werden kann, wodurch ein Etikettenband (106) auf günstige Art und Weise geladen werden kann,
- die Führungseinrichtung (200) eine Vorder- schale (202a) und eine Hinterschale (202b) aufweist, die so zusammengefügt sind, dass sie eine enge Spalte zum Bilden eines Führungskanals (203) freilassen, wobei eine Seite des Führungskanals (203) offen ist, so dass das Band (106) in günstiger und schneller Art und Weise aufgenommen werden kann,
- die Halteeinrichtung (300) eine Drückplatte (303) aufweist, die so angeordnet ist, dass sie einer Basisplatte (206) gegenüber liegt, wobei die Drückplatte (303) einen beweglichen Verriegelungshebel (306) und die Ladekassette

- (103) ineinander greifen lässt, um das Band (106) automatisch gegen die Basisplatte (206) zu drücken,
- die Stempelinrichtung (400) mindestens ein Auswählrad (404) mit einem Auswählloch (404a) zum Antreiben eines Stempelbands (403) mittels einer Vertiefung und eines dreieckigen Fortsatzes (404c') aufweist, wobei niemals zwei Auswählräder (404) zusammen in Eingriff sind, und ein Finger (412b) einer Auswählstange (412) exakt mit einem ausgewählten Rad gekoppelt ist, so dass erwünschte Zeichen genau und bequem ausgewählt werden, und
 - die Transporteinrichtung (500) eine Transportwalze (504) und ein Sperrklinkenrad (505) in der Form einer Kassette (B) aufweist, wobei die Kassette austauschbar in einer Kassettenkammer (R) untergebracht ist.
2. Auszeichnungsvorrichtung nach Anspruch 1, bei der die Etikettenbandladeeinrichtung (100) eine Ladekassette (103) aufweist, die mittels eines Paares von Gelenkarmen (104), Torsionsfedern (105c) und Tragewellen (105 und 105') in einer Ladekammer (102) des Hauptkörpers (101) untergebracht ist, damit die Ladekassette (103) entweder in die Ladekammer (102) aufgenommen ist oder aus dem Hauptkörper (101) heraus ragt.
3. Auszeichnungsvorrichtung nach Anspruch 2, bei der eine Seite der Ladekassette (103) geschlossen ist; eine andere Seite der Ladekassette offen ist; eine Tragewelle (103b) zum Aufnehmen einer Etikettenbandrolle (106r) an einer mittigen Position der Ladekassette (103) ausgebildet ist; eine Abdeckung (103c) über der Ladekassette (103) ausgebildet ist; ein Einrastfortsatz (103d) an einem Ende der Abdeckung (103c) ausgebildet ist und ein Arretierfortsatz (103d') zum Eingreifen mit dem Einrastfortsatz (103d) an einem Arretierhebel (103e) ausgebildet ist.
4. Auszeichnungsvorrichtung nach Anspruch 2, bei der die Gelenkarme (104) zum Halten der Ladekassette (103) jeweils an ihren unteren und oberen Teilen Zähne (104g und 104g') aufweisen, so dass sie beim Anheben oder Absenken der Ladekassette im gleichen Winkel zusammen gefaltet oder auseinander geklappt werden.
5. Auszeichnungsvorrichtung nach Anspruch 1, bei der die Etikettenführungseinrichtung (200) eine Seitenschale (202) aufweist, die in die Vorderschale (202a) und die Rückschale (202b) aufgeteilt ist, wodurch eine enge Spalte verbleibt, wobei die Spalte den Führungskanal (203) bildet, wobei der Führungskanal (203) auf der einen Seite offen ist, so
- dass es einfach ist, das Band in den Führungskanal (203) einzulegen.
6. Auszeichnungsvorrichtung nach Anspruch 5, bei der auf einem Vorderteil der Hinterschale (202b) eine quer stehende Führungsplatte (202c) ausgebildet ist.
7. Auszeichnungsvorrichtung nach Anspruch 1, bei der die Halteeinrichtung (300) Folgendes aufweist: die Drückplatte (303), die mittels einer Tragewelle (305) und einer Schraubenfeder (304) über der Basisplatte (206) auf einer Seitenplatte (102a) angebracht ist; und einen über der Drückplatte (303) angebrachten Verriegelungshebel (306), der mit einem Betätigungshebel (307) und den Armen (104) der Ladekassette (103) ineinander greift, damit so die Drückplatte (303) betätigt und das Band unter Druck auf der Basisplatte (206) gehalten wird.
8. Auszeichnungsvorrichtung nach Anspruch 7, bei der ein Fortsatz (307a) des Betätigungshebels (307) mit einem Nockenteil (306a) des Verriegelungshebels (306) in Kontakt kommt, um den Betätigungshebel (307) zu betätigen, so dass eine Walze (301) des Verriegelungshebels (306) das Etikettenband auf die Führungsplatte (202c) drückt, wodurch das Band nicht zu lose wird.
9. Auszeichnungsvorrichtung nach Anspruch 8, bei dem eine Verbindungsstange (310) mit einem oberen Teil des Verriegelungshebels (306) und unteren Teilen der Arme (104) verbunden ist, damit der Verriegelungshebel (306) sich von einem Hebel (303b) der Drückplatte (303) löst, wodurch die Drückplatte das Band auf die Basisplatte (206) drückt.
10. Auszeichnungsvorrichtung nach Anspruch 1, bei der die Etikettenstempelinrichtung (400) Folgendes aufweist: mehrere Auswählräder (404), die mittels eines Führungsstabes (406) und einer Rückhalteplatte (408) zwischen den Seitenplatten (401 und 402) angebracht sind; mehrere zwischen den Seitenplatten (401 und 402) angebrachte Stempelräder (405); wobei das Stempelband (403) um die Auswählräder (404) und die Stempelräder (405) herum verläuft; eine Gleitfläche (410), die mit einer Führungsplatte (402a) zum Einstellen des Stempelbands (403) verbunden ist; und den Auswählstab (412), der mit der Gleitfläche (410) verbunden ist, wobei der Auswählstab (412) verschiebbar in das Auswählloch des Auswählrads (404) eingeschoben ist, um so die Zeichenblöcke auszuwählen und auszurichten.
11. Auszeichnungsvorrichtung nach Anspruch 10, bei der das Auswählloch (404a) des Auswählrads (404) Grate (404b) und Rillen (404c) zum Bilden eines po-

lygonalen Lochs aufweist; wobei der Auswählstab (412) mehrere Finger (412b) aufweist, von denen jeder einen Fortsatz (412c) aufweist; wobei die Finger (412b) in die Rillen (404c) des Auswähllochs (404a) eingeführt werden, um mit diesem in Eingriff zu kommen.

12. Auszeichnungsvorrichtung nach Anspruch 11, bei der die dreieckigen Fortsätze (404c') in den Rillen (404c) des Auswähllochs (404a) ausgebildet sind, damit so die Finger (412b) nur mit einem Auswählrad (404) in Eingriff stehen.
13. Auszeichnungsvorrichtung nach Anspruch 1, bei der die Etikettentransporteinrichtung (500) Folgendes aufweist: ein Kassettengehäuse (503); die Transportwalze (504) und das Sperrklinkenrad (505), die miteinander verbunden sind und im Kassettengehäuse (503) zusammen montiert sind; ein Paar Drückplatten (507), die über der Transportwalze (504) angeordnet sind; eine Führungswalze (508) und eine Führungsplatte (509), die vor und hinter der Transportwalze (504) angebracht sind, wobei die obigen Komponenten in der Kassette (B) zusammengesetzt sind und in der Kassettenkammer (R) untergebracht sind, die einen Betätigungsmechanismus (A) aufweist.
14. Auszeichnungsvorrichtung nach Anspruch 1, bei der eine Kurbelwelle (505b) des Sperrklinkenrads (505) mit einer Verbindungskerbe (502a) eines Betätigungsstücks (502b) des Betätigungshebels (307) des Betätigungsmechanismus (A) verbunden ist, damit so die Kurbelwelle (505b) durch Betätigung des Handhebels das Sperrklinkenrad (505) und die Transportwalze (504) antreibt.
15. Auszeichnungsvorrichtung nach Anspruch 13, bei der ein Sperrzahnrad (505a) des Sperrklinkenrads (505) mit in einer Vertiefung (504b) der Transportwalze (504) angebrachten Sperrklinken (504c) in Eingriff steht, so dass die Transportwalze (504) nur in einer Richtung angetrieben wird.
16. Auszeichnungsvorrichtung nach Anspruch 13, bei der die Drückplatten (507) leicht auf eine obere umlaufende Oberfläche der Transportwalze (504) drücken, wodurch das Etikettenband (106) mit den Zähnen (504a) der Transportwalze (504) in Eingriff kommt, wodurch das Etikettenband (106) transportiert wird, ohne von der Transportwalze (504) abzugleiten.
17. Auszeichnungsvorrichtung nach Anspruch 13, bei der die Transportwalze (504) einen Eingriffsfortsatz (504s') aufweist, der mit einem Anschlag (504s) einer Seitenplatte (503b) in Eingriff kommt, um so Rückdrehungen des Sperrklinkenrads zu verhin-

dern.

18. Auszeichnungsvorrichtung nach Anspruch 13, bei der die Kurbelwelle (505b) des Sperrklinkenrads (505) durch ein Loch (503c) in der Seitenplatte (503a) hindurch greift, um in eine Verbindungskerbe (502a) des Betätigungsstücks (502b) einzugreifen.

Revendications

1. Etiqueteuse pour marquer des prix sur des marchandises, comprenant:

- un moyen (100) de chargement de bande pour charger une bande d'étiquettes (106);
- un moyen de guidage (200) pour guider la bande d'étiquettes chargée (106) vers un moyen d'impression (400), afin d'imprimer lesdits prix sur des étiquettes ;
- un moyen de support (300) pour porter la bande d'étiquettes guidée (106) vers ledit moyen d'impression (400) ; et
- un moyen de transport (500) pour transporter ladite bande d'étiquettes (106) vers l'extérieur de l'étiqueteuse ;

caractérisée en ce que:

- ledit moyen de chargement de bande (100) présente un boîtier de chargement (103) rentrant dans et sortant hors d'un corps principal (101) sous l'action d'une paire de bras (104) se repliant et s'étendant de façon à charger une bande d'étiquettes (106) de manière convenable ;
- ledit moyen de guidage (200) présente une plaque avant (202a) et une plaque arrière (202b) fixées de façon à laisser entre elles un intervalle étroit formant un canal de guidage (203), un côté dudit canal de guidage (203) étant ouvert pour recevoir la bande (106) d'une manière convenable et rapide ;
- ledit moyen de support (300) présente une plaque de poussée (303) disposée de façon à faire face à une plaque de base (206), ladite plaque de poussée (303) verrouillant un levier mobile (306) avec ledit boîtier de chargement (103), en vue de presser automatiquement la bande (106) sur ladite plaque de base (206);
- ledit moyen d'impression (400) possède au moins une roue de sélection (404) munie d'un trou de sélection (404a) pour entraîner une courroie d'étiquetage (403) au moyen d'un évidement et d'une protubérance triangulaire (404c), deux roues de sélection (404) n'étant jamais engagées l'une avec l'autre, et un doigt (412b) d'une barre de sélection (412) étant ac-

- couplé avec précision à une roue sélectionnée, de façon à sélectionner les caractères désirés avec précision et convenablement ; et
- ledit moyen de transport (500) comporte un rouleau de transport (504) et une roue à rochet (505) prévue sous la forme d'une cartouche (B), cette cartouche étant remplaçable et logée à l'intérieur d'une chambre (R) pour cartouche.
2. Etiqueteuse selon la revendication 1, dans laquelle ledit moyen (100) de chargement de la bande d'étiquettes comporte un boîtier de chargement (103) logé à l'intérieur d'un espace de chargement (102) dudit corps principal (101) au moyen d'une paire de bras (104) du type à articulation, de ressorts de torsion (105) et d'arbres de support (105, 105'), qui agissent de façon à ce que ledit boîtier de chargement (103) soit reçu dans ledit espace de chargement (102), ou à ce que ledit boîtier fasse saillie vers l'extérieur dudit corps principal (101).
 3. Etiqueteuse selon la revendication 2, dans laquelle un côté dudit boîtier de chargement (103) est fermé ; un autre côté dudit boîtier de chargement est ouvert ; un arbre de support (103b) est formé en une position médiane dudit boîtier de chargement (103) pour recevoir un rouleau de bande d'étiquettes (106r) ; un couvercle (103c) est formé au-dessus dudit boîtier de chargement (103) ; un épaulement d'engagement (103d) est formé sur une extrémité dudit couvercle (103c) ; et un épaulement de verrouillage (103d') est formé sur un levier de verrouillage (103e) destiné à être couplé audit épaulement d'engagement (103d).
 4. Etiqueteuse selon la revendication 2, dans laquelle lesdits bras (104) du type à articulation destinés à supporter ledit boîtier de chargement (103) sont munis de dents (104g et 104g') situées respectivement sur leurs parties supérieures et sur leurs parties inférieures, de façon à les faire se plier et s'étendre selon les mêmes angles lorsque l'on élève ou on abaisse ledit boîtier de chargement.
 5. Etiqueteuse selon la revendication 1, dans laquelle ledit moyen de guidage (200) de la bande d'étiquettes comporte une plaque latérale (202) subdivisée en ladite plaque avant (202a) et ladite plaque arrière (202b) en laissant subsister un petit intervalle, ledit intervalle formant ledit canal de guidage (203), et ledit canal de guidage étant ouvert sur l'un de ses côtés de façon à rendre facile l'insertion de la bande dans ledit canal de guidage (203).
 6. Etiqueteuse selon la revendication 5, dans laquelle une plaque de guidage latérale (202c) est formée sur une partie avant de ladite plaque arrière (202b).
 7. Etiqueteuse selon la revendication 1, dans laquelle ledit moyen de support (300) comprend : ladite plaque de poussée (303) disposée au-dessus de ladite plaque de base (206) au moyen d'un arbre de support (305) et d'un ressort à boudin (304) s'appliquant sur une plaque latérale (102a) ; et un levier de verrouillage (306) installé au-dessus de ladite plaque de poussée (303) en vue d'être verrouillé avec un levier d'actionnement (307) et avec lesdits bras (104) dudit boîtier de chargement (103), de façon à actionner ladite plaque de poussée (303), ce qui maintient la bande appuyée sur ladite plaque de base (206).
 8. Etiqueteuse selon la revendication 7, dans laquelle une protubérance (307a) dudit levier d'actionnement (307) est en contact avec une portion de came (306a) dudit levier de verrouillage (306) afin d'actionner ledit levier d'actionnement (307), de façon à amener un galet (301) dudit levier de verrouillage (306) à presser la bande d'étiquettes sur ladite plaque de guidage (202c), empêchant ainsi un relâchement excessif de la bande.
 9. Etiqueteuse selon la revendication 8, dans laquelle une tige de connexion (310) est connectée à une portion supérieure dudit levier de verrouillage (306) et aux portions inférieures desdits bras (104), de façon à amener ledit levier de verrouillage (306) à s'éloigner d'un levier (303b) de ladite plaque de poussée (303), amenant ainsi ladite plaque de poussée à presser la bande sur ladite plaque de base (206).
 10. Etiqueteuse selon la revendication 1, dans laquelle ledit moyen d'impression (400) comprend : une pluralité de roues de sélection (404) montées au moyen d'une tige de guidage (406) et d'une plaque de retenue (408) entre des plaques latérales (401 et 402) ; une pluralité de roues d'impression (405) montées entre lesdites plaques latérales (401 et 402) ; ladite courroie d'étiquetage (403) enroulée autour desdites roues de sélection (404) et desdites roues d'impression (405) ; une pièce coulissante (410) couplée à une plaque de guidage (402a), afin d'ajuster ladite courroie d'étiquetage (403) ; et ladite barre de sélection (412) étant insérée et mobile dans ledit trou de sélection de ladite roue de sélection (404), de façon à sélectionner et à mettre en place les blocs de caractères.
 11. Etiqueteuse selon la revendication 10, dans laquelle ledit trou de sélection (404a) de ladite roue de sélection (404) comporte des arêtes (404b) et des cannelures (404c) pour former un trou polygonal ; ladite barre de sélection (412) comporte une pluralité de doigts (412b) présentant chacun une protubérance (412c) ; et lesdits doigts (412b) sont insés-

rés dans lesdites cannelures (404c) dudit trou de sélection (404a) pour s'accoupler avec lui.

12. Etiqueteuse selon la revendication 11, dans laquelle lesdites protubérances triangulaires (412c) sont formées dans lesdites cannelures (404c) dudit trou de sélection (404a), de façon à amener lesdits doigts (412b) à s'accoupler à seulement une roue de sélection (404). 5
13. Etiqueteuse selon la revendication 1, dans laquelle ledit moyen de transport (500) de la bande d'étiquettes comprend : un boîtier pour cartouches (503) ; ledit rouleau de transport (504) et ladite roue à rochet (505) couplés l'un à l'autre et assemblés dans ledit boîtier pour cartouches (503) ; une paire de plaques de poussée (507) disposée au-dessus dudit rouleau de transport (504) ; et un galet de guidage (508) ainsi qu'une plaque de guidage (509) installés à l'avant et à l'arrière dudit rouleau de transport (504), les composants ci-dessus étant assemblés dans ledit boîtier (B) et étant logés dans ladite chambre pour cartouche (R) qui présente un mécanisme d'actionnement (A). 10 15 20 25
14. Etiqueteuse selon la revendication 1, dans laquelle un arbre-manivelle (505b) de ladite roue à rochet (505) est connecté à une rainure de connexion (502a) d'une pièce d'actionnement (502b) dudit levier d'actionnement (307) dudit mécanisme d'actionnement (A); de façon à amener ledit arbre-manivelle (505b) à entraîner ladite roue à rochet (505) et ledit rouleau de transport (504) par la manoeuvre dudit levier à main. 30 35
15. Etiqueteuse selon la revendication 13, dans laquelle une roue dentée (505a) de ladite roue à rochet (505) est engagée avec des loquets (504c) disposés dans un évidement (504b) dudit rouleau de transport (504), de façon à ce que ledit rouleau de transport (504) soit entraîné dans un sens seulement. 40
16. Etiqueteuse selon la revendication 13, dans laquelle lesdites plaques de poussée (507) appuient légèrement sur une surface circonférentielle supérieure dudit rouleau de transport (504), de façon que la bande d'étiquettes (106) vienne en prise avec lesdites, dents (504a). dudit rouleau de transport (504), ce qui permet de transporter la bande d'étiquettes (106) sans qu'elle s'écarte dudit rouleau de transport (504). 45 50
17. Etiqueteuse selon la revendication 13, dans laquelle ledit rouleau de transport (504) comporte un gradin d'engagement (504s') qui doit s'engager avec un dispositif d'arrêt (504s) d'une plaque latérale (503b), de façon à empêcher la rotation en sens in- 55

verse de la roue à rochet.

18. Etiqueteuse selon la revendication 13, dans laquelle ledit arbre-manivelle (505b) de ladite roue à rochet (505) passe à travers un trou (503c) d'une plaque latérale de façon à être inséré dans une rainure de connexion (502a) de ladite pièce d'actionnement (502b).

FIG.1

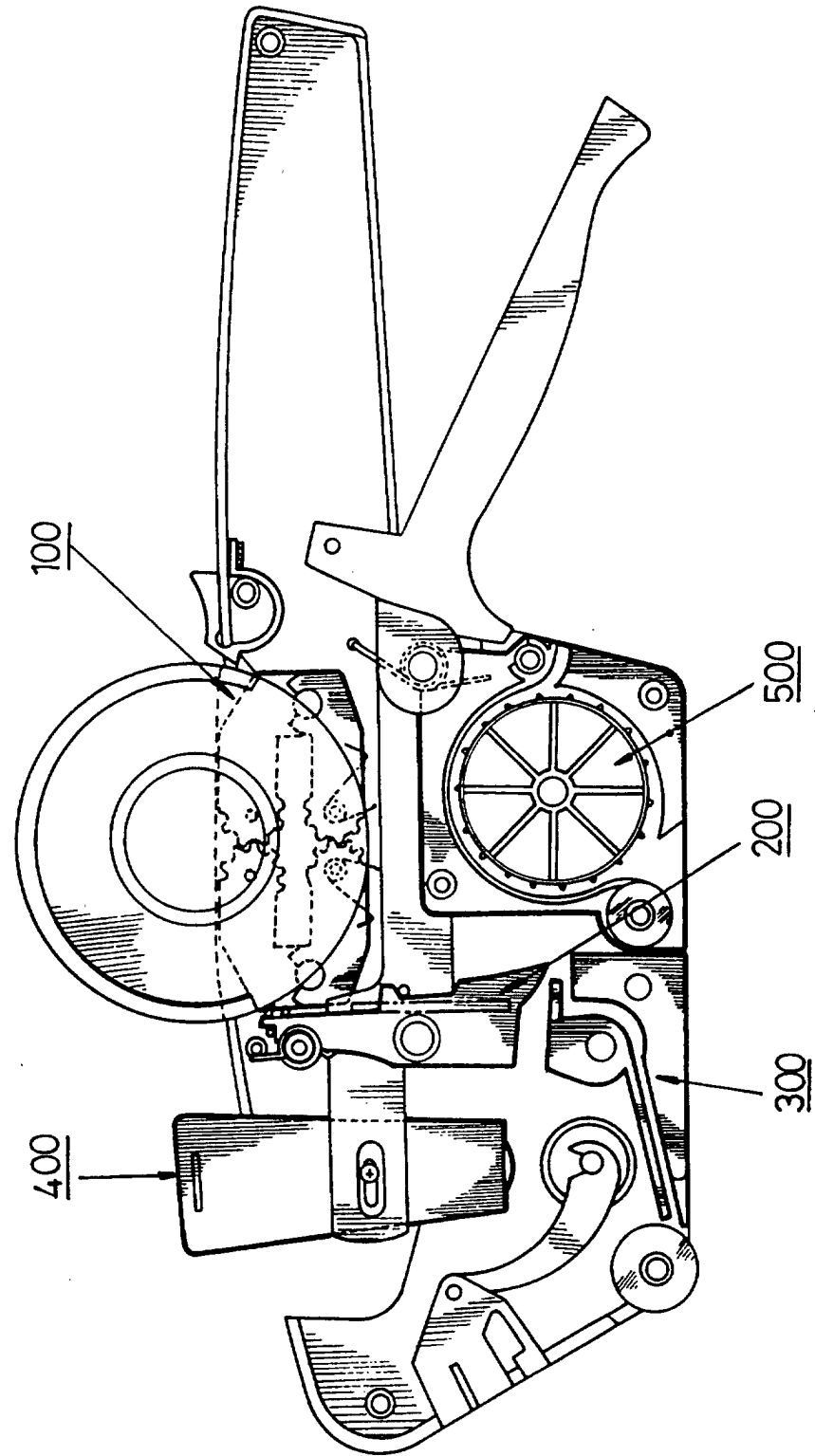


FIG.1-1

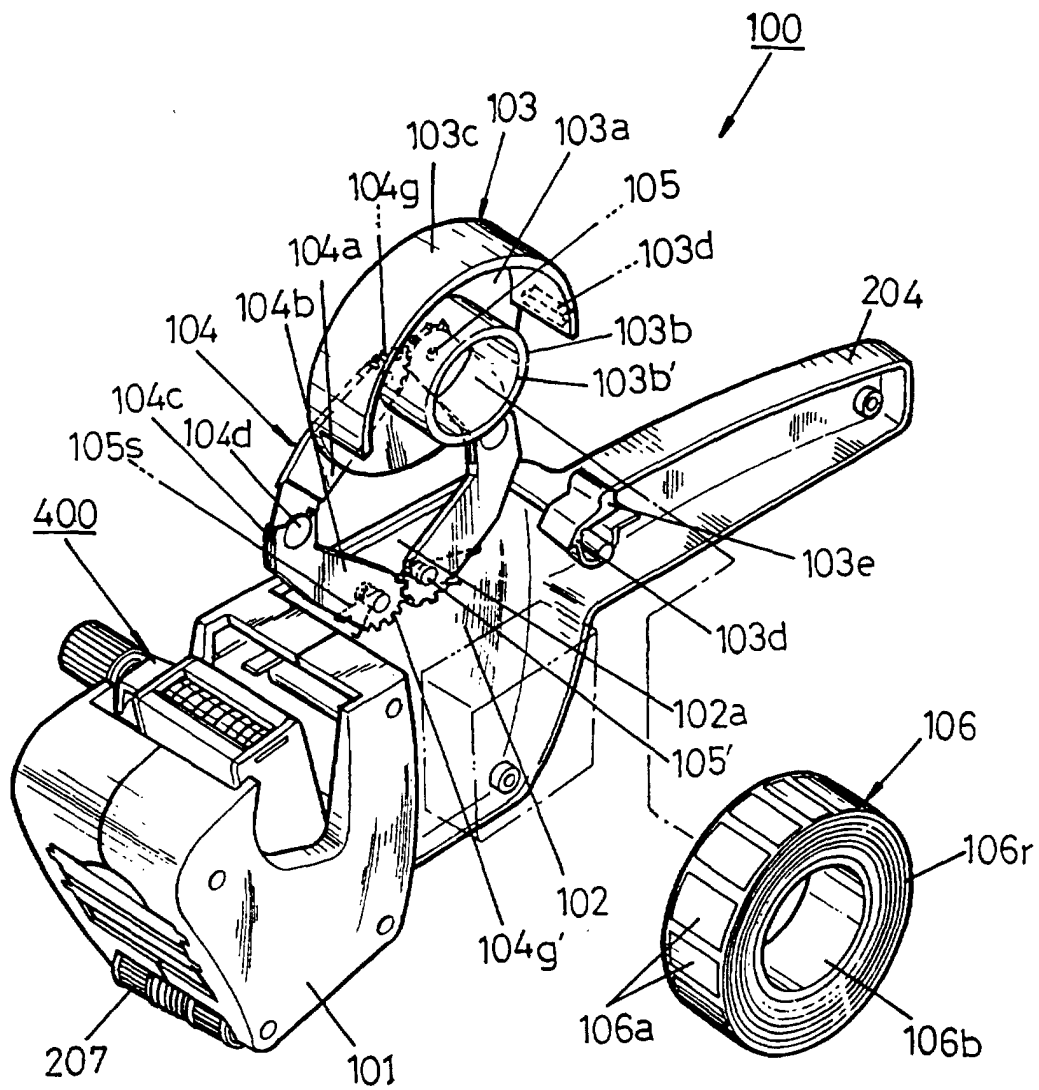


FIG.1-2

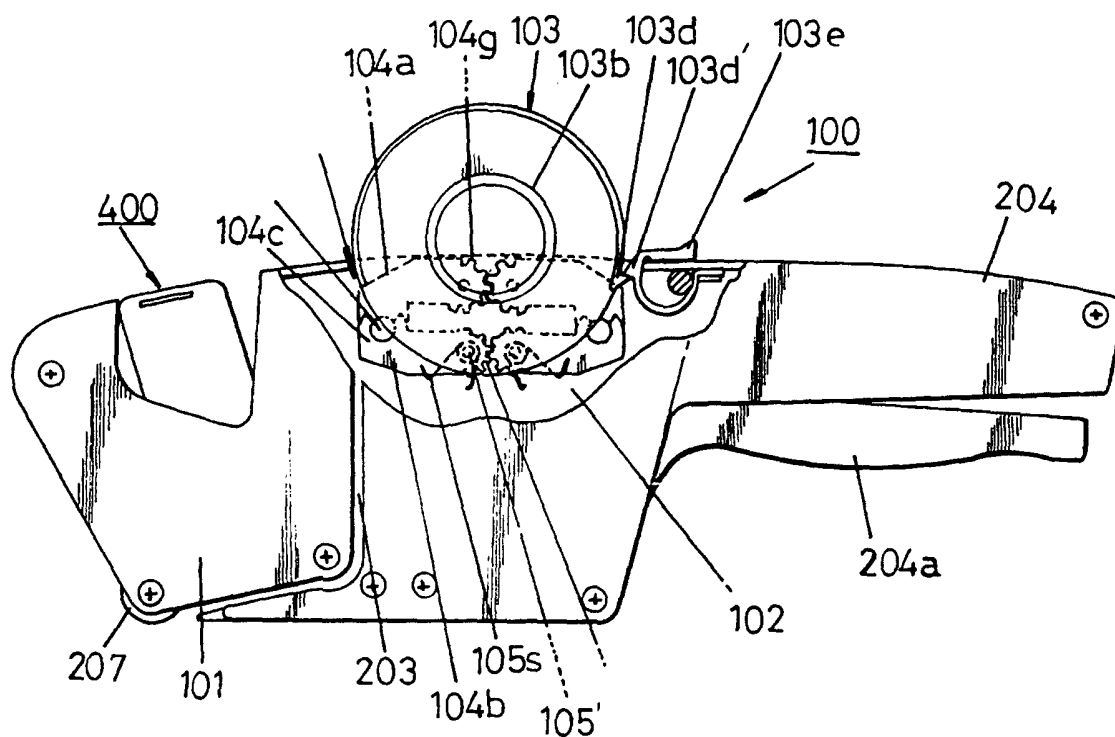


FIG.1-3

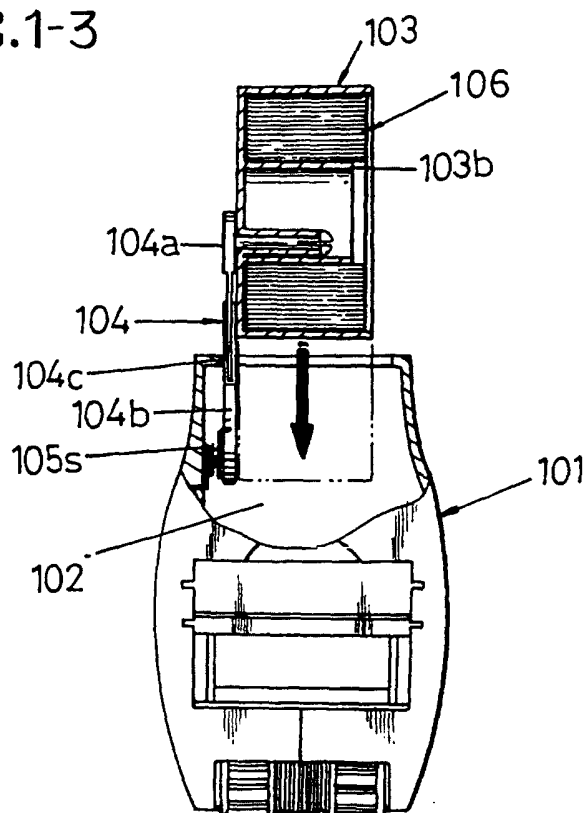


FIG. 2-1

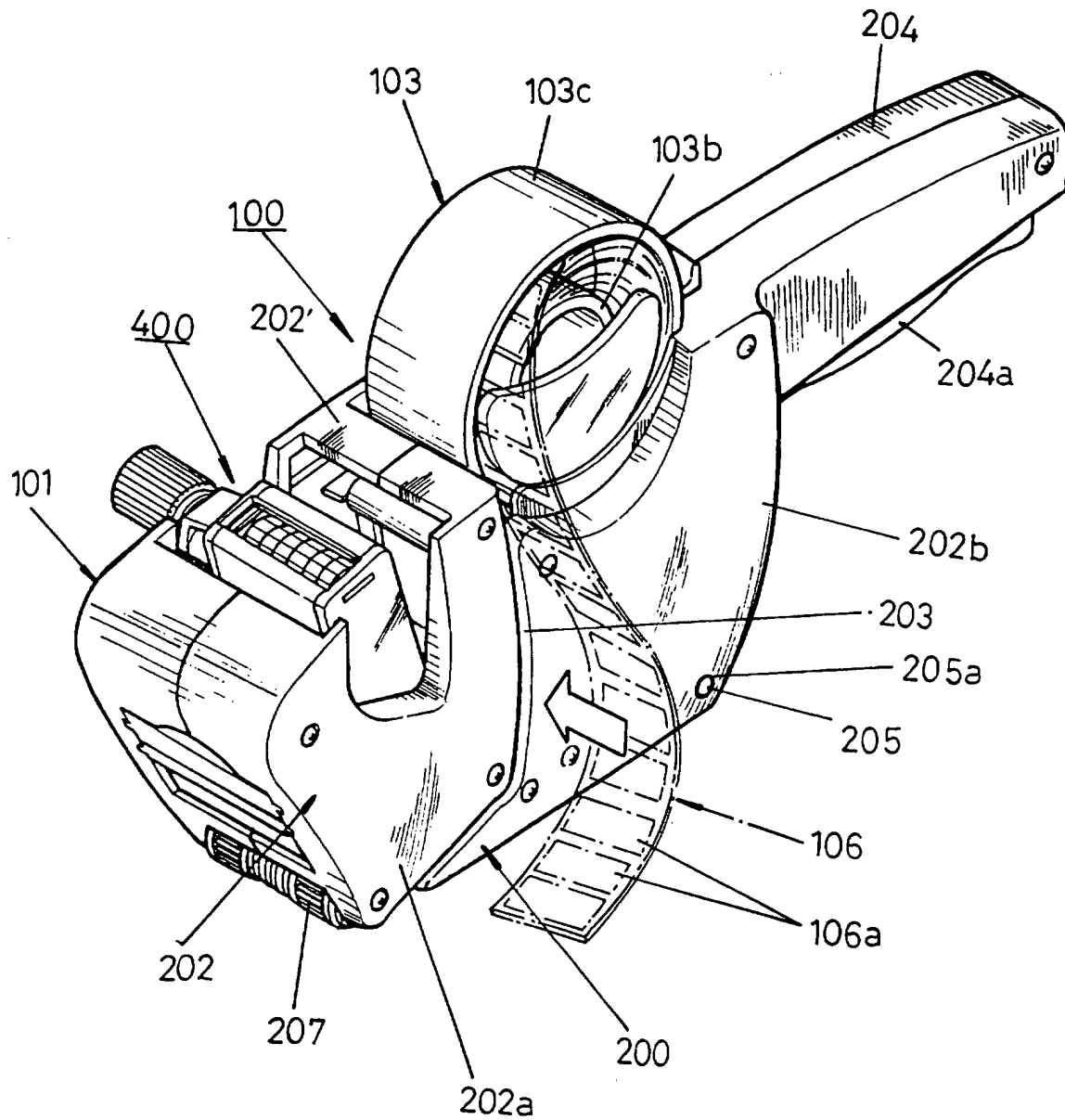


FIG. 2-2

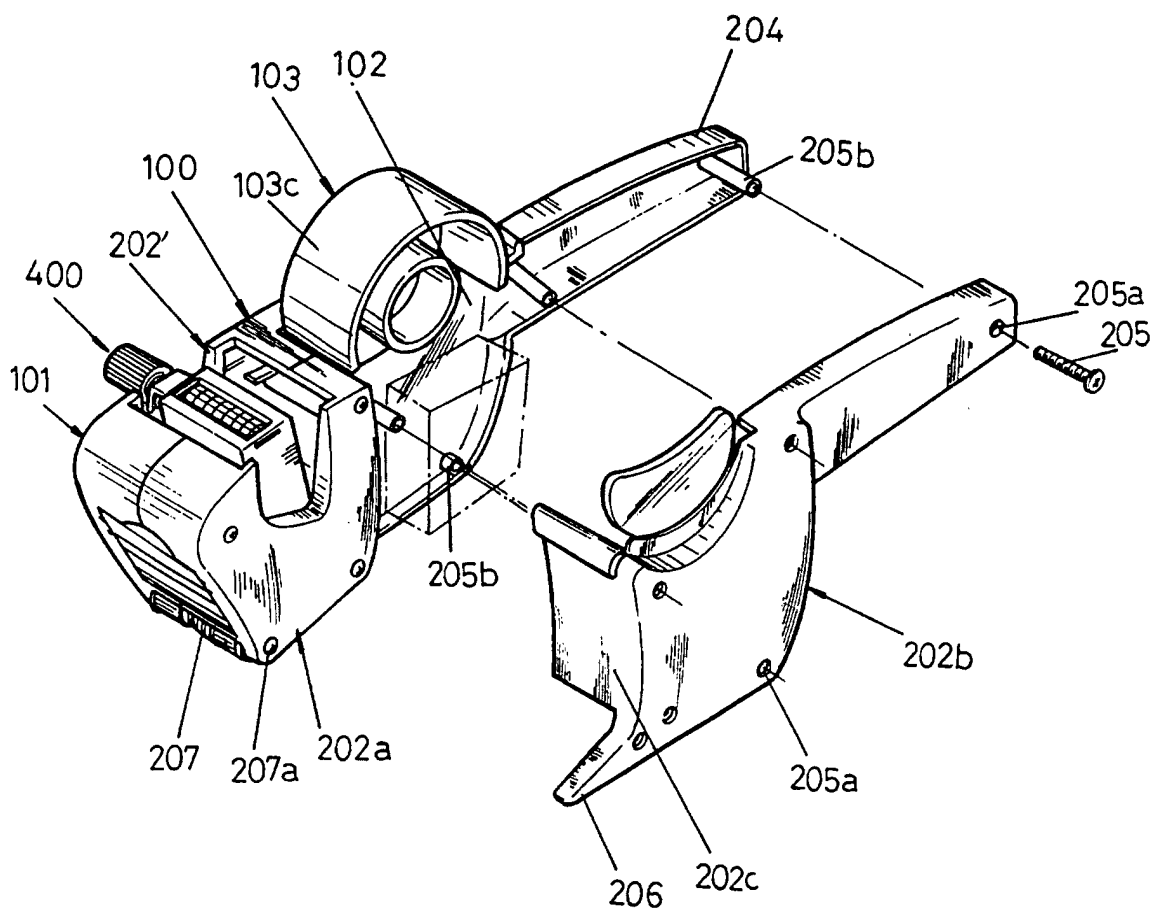
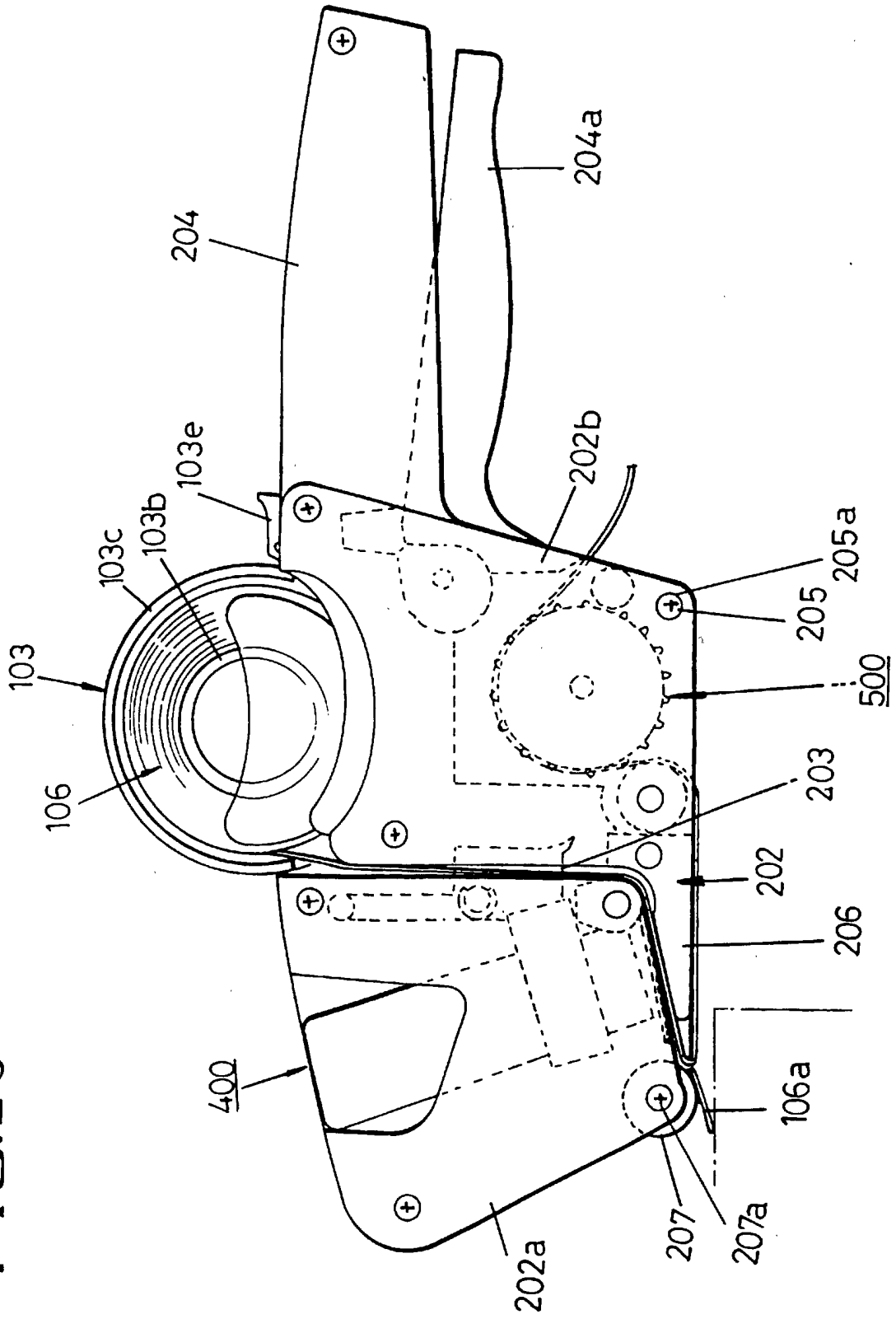
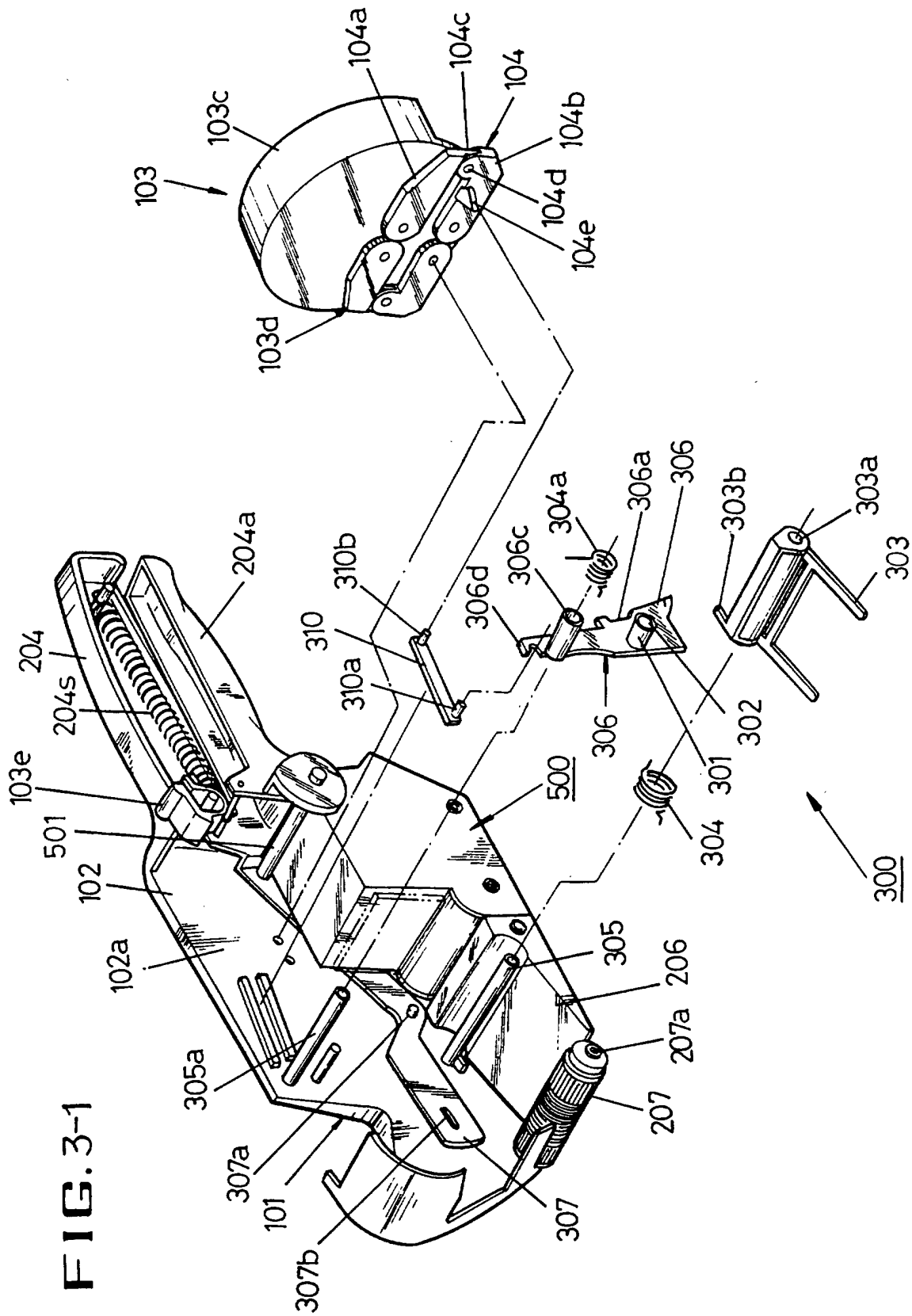


FIG. 2-3





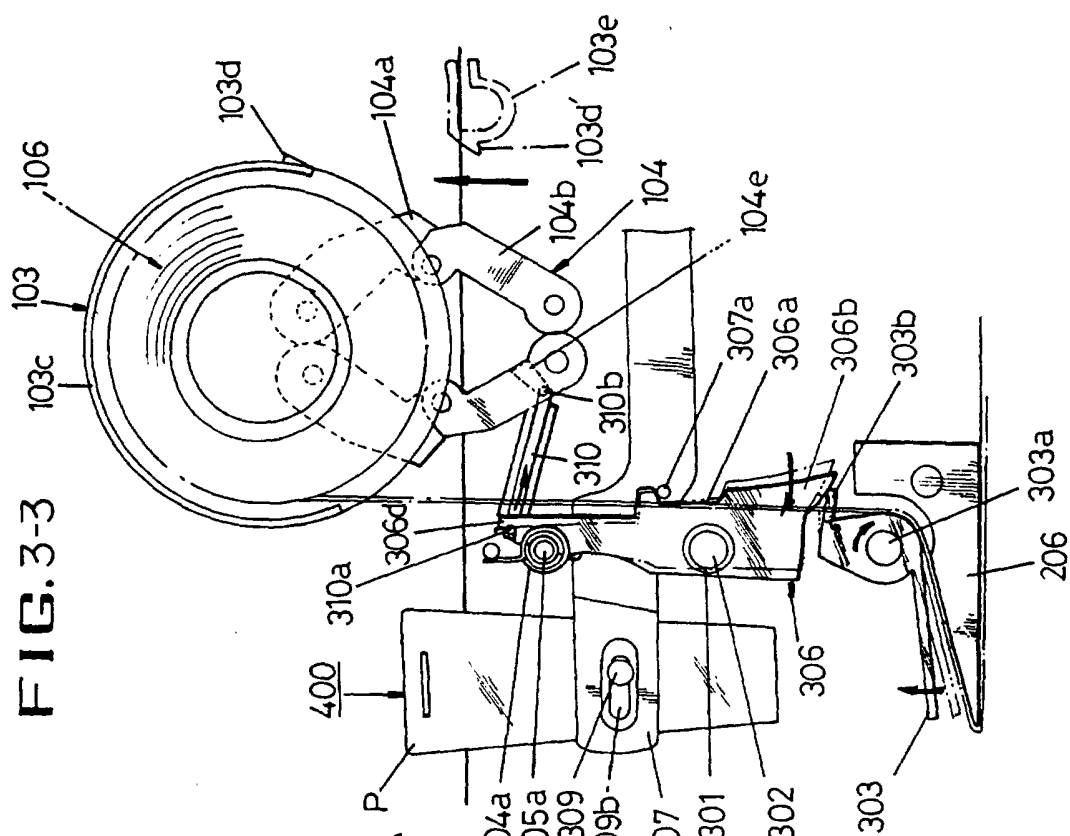


FIG. 3-3

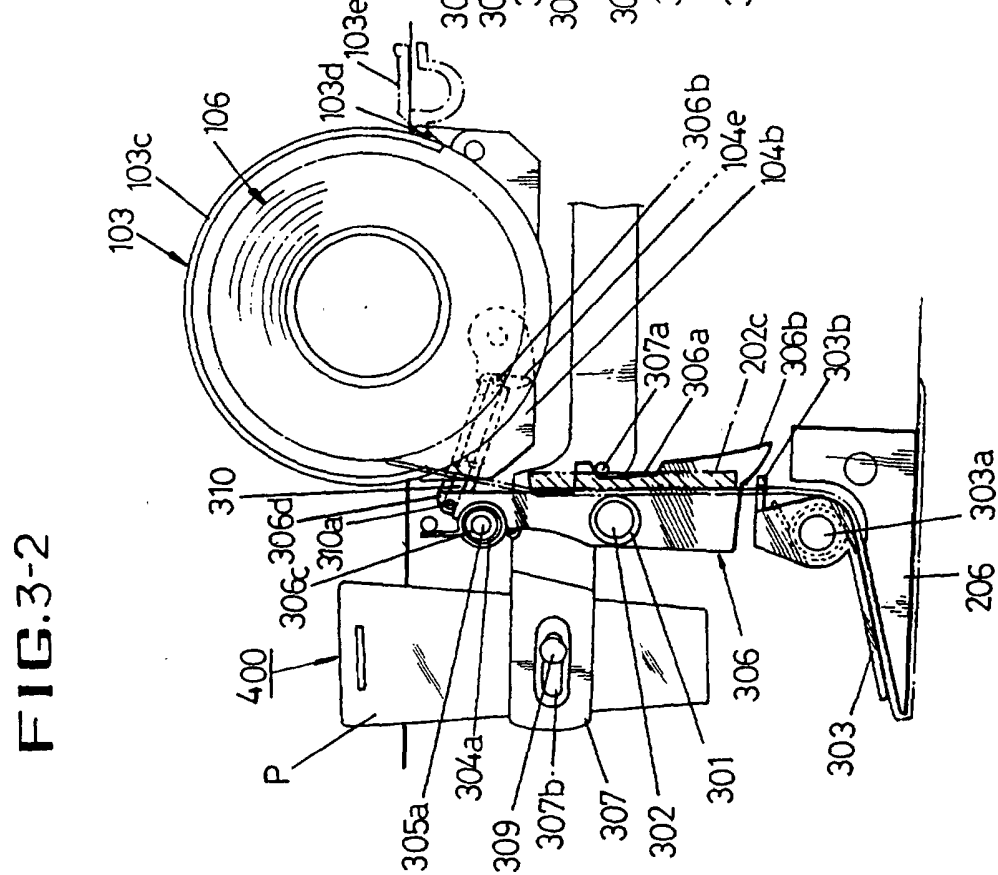


FIG. 3-2

FIG. 4-1

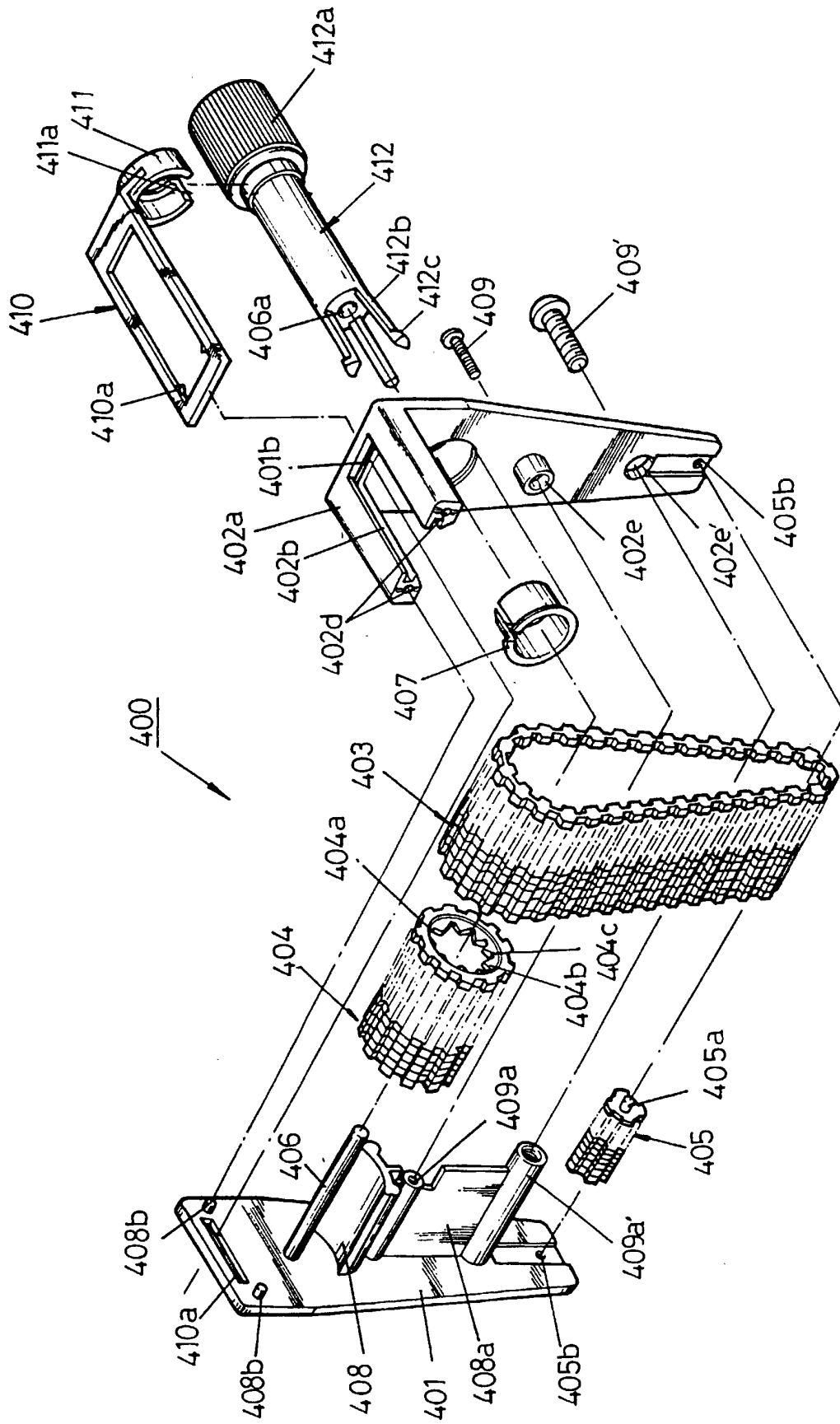


FIG. 4-2

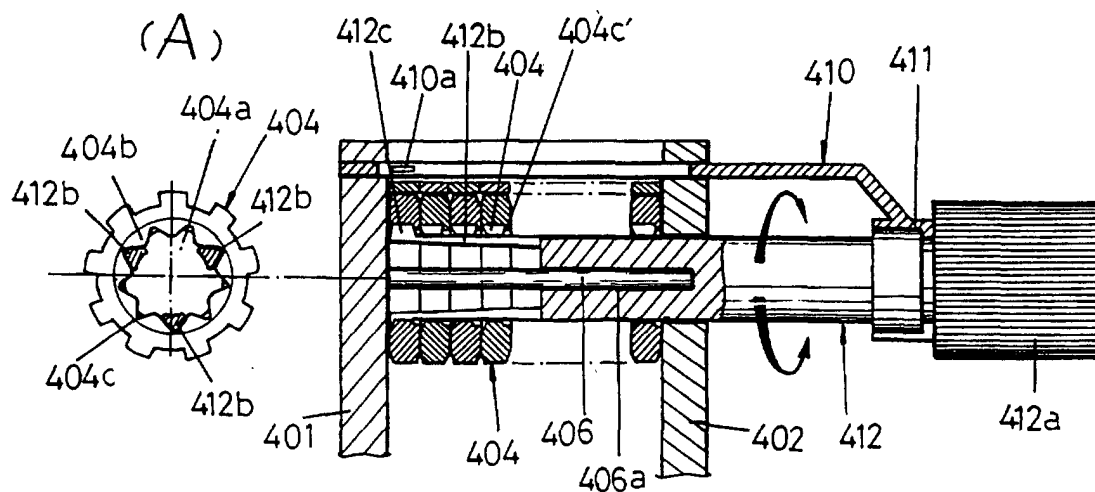


FIG. 4-3

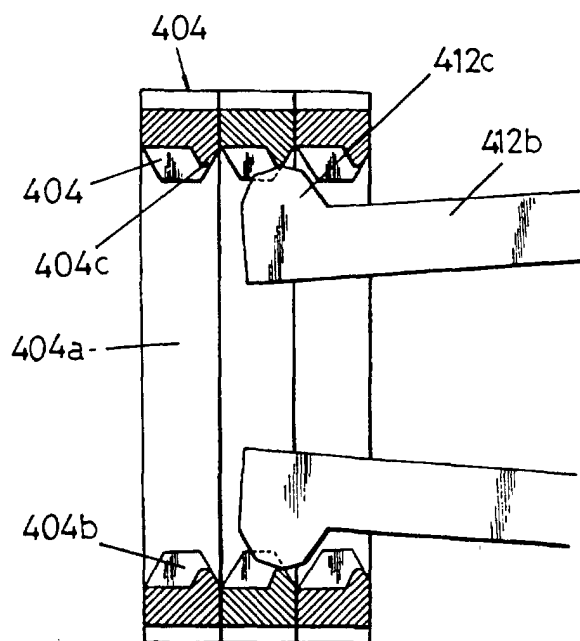
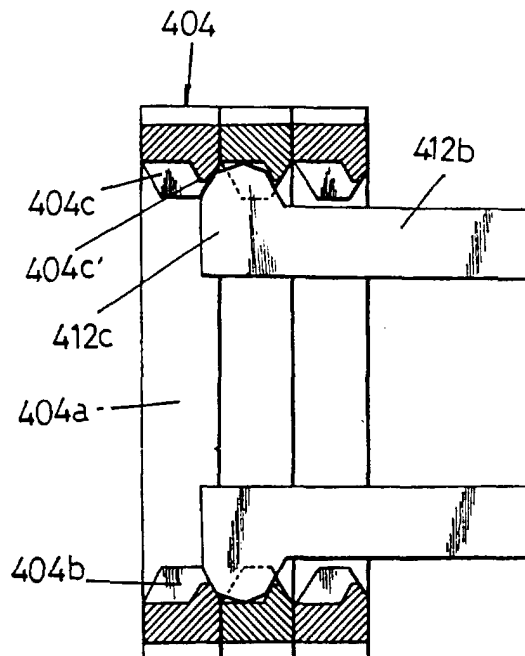


FIG. 4-4



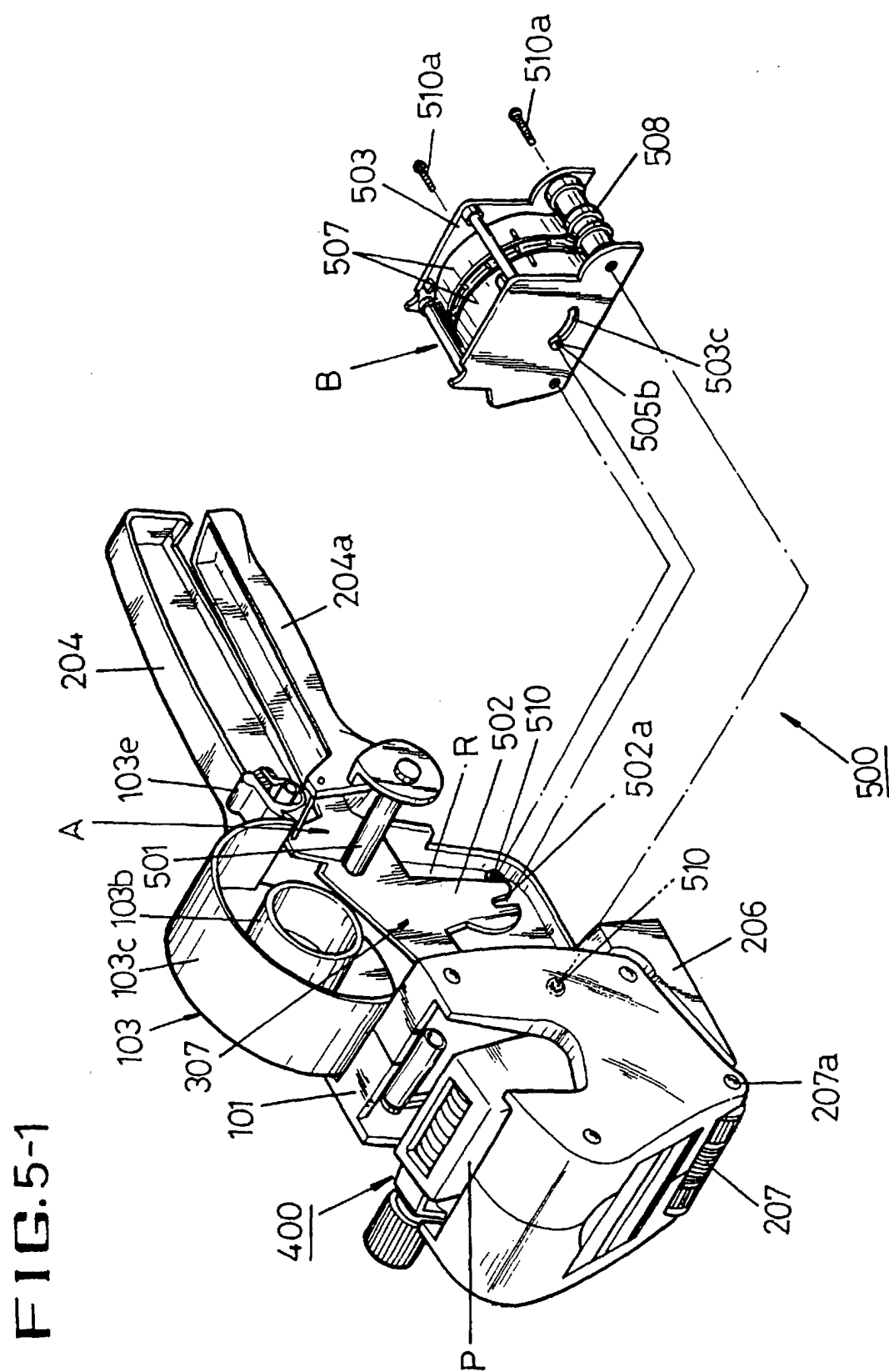


FIG.5-2

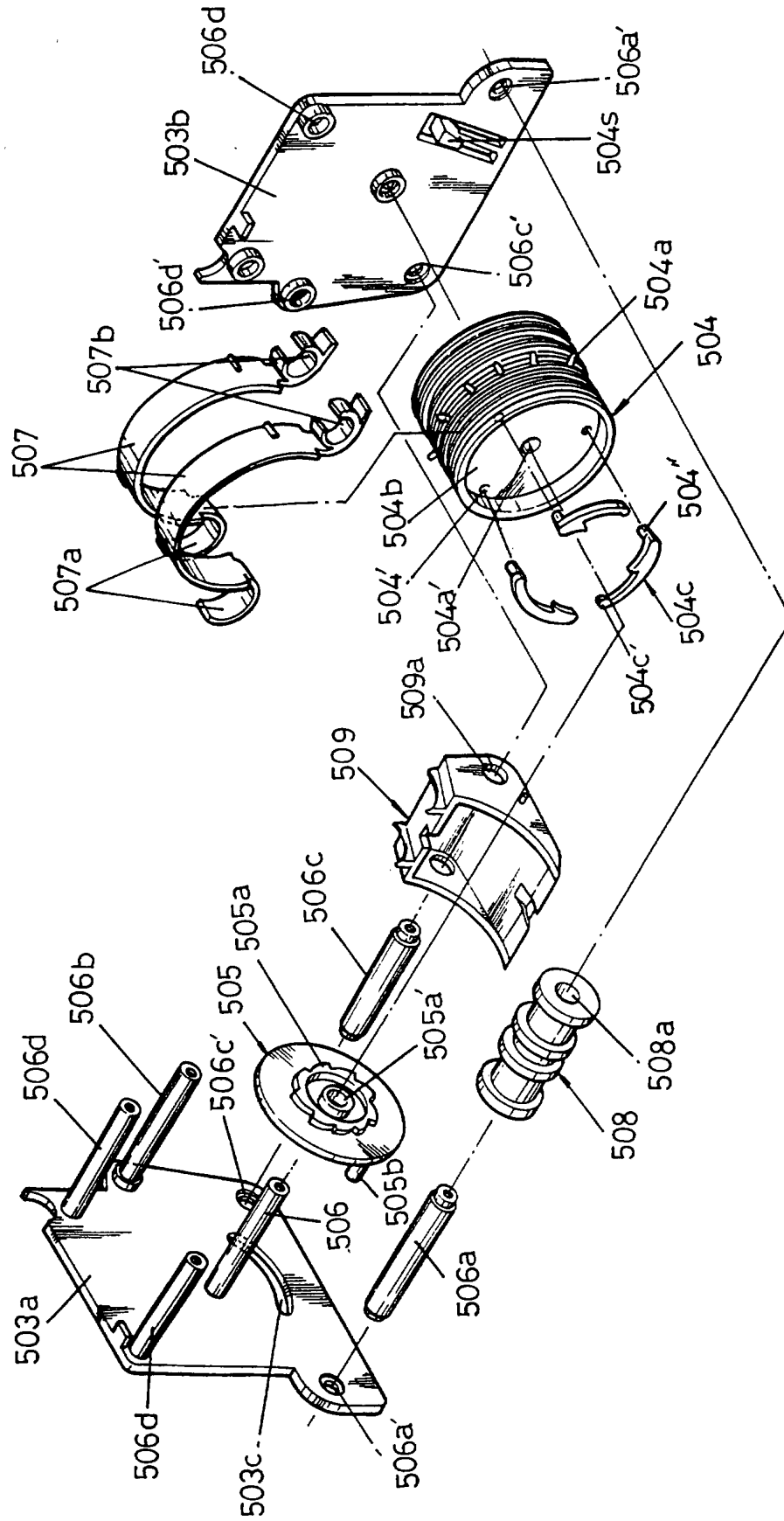


FIG.5-3

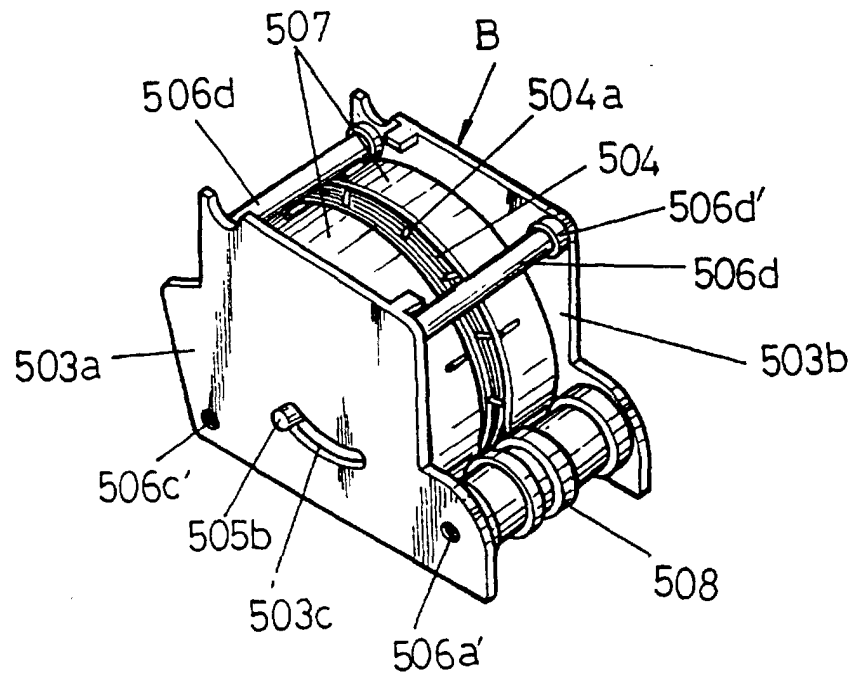


FIG.5-4

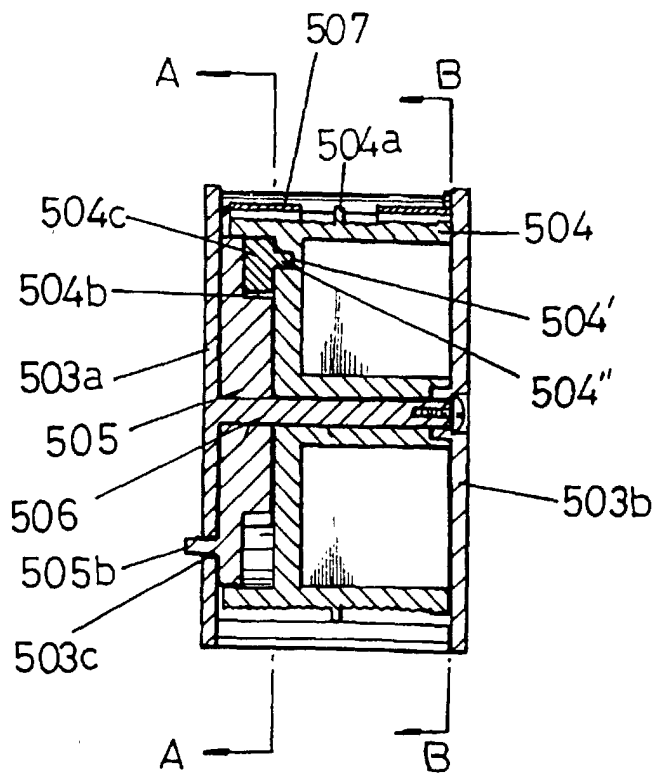


FIG. 5-5

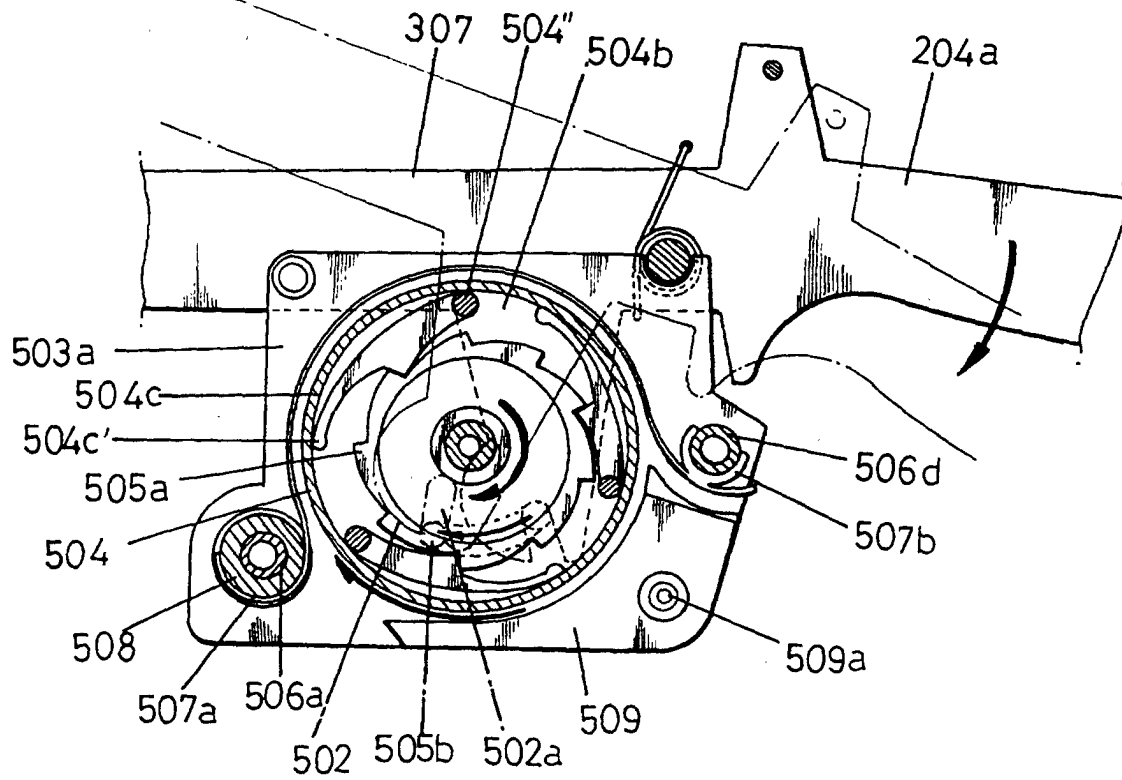


FIG. 5-6

