

## SPECIFICATION

## Labeller

5 The present invention relates to labellers particularly hand-held manually-operated labellers.

According to the present invention there is provided a labeller including a housing provided with a carrier strip holder for mounting a carrier strip roll onto which a number of labels are stuck; an actuating mechanism having an operating part which extends into the housing and is pivotally secured to said housing and driving means for driving said operating part; a carrier strip feeding mechanism which is housed in said housing for feeding a carrier strip a predetermined distance when said carrier strip feeding mechanism is driven by said operating part; a printing apparatus which is supported by the operating part and contacts and parts from a carrier strip receiving surface as said operating part pivots to print a label on said carrier strip and to move away from said carrier strip, the printing apparatus being slightly rockable relative to the operating part so as to compensate for any inclination of the printing face of the printing apparatus relative to the surface of the label to be printed; and a carrier strip turnback part which reverses said carrier strip to separate labels stuck on said carrier strip one by one from said strip when the carrier strip is forwarded by said carrier strip feeding mechanism; the printing on labels by said printing apparatus and the feeding of the carrier strip by said carrier strip feeding mechanism being alternately carried out.

35 Preferably the printing apparatus is mounted on said operating part at one side only of said apparatus and an opening is provided in the side of said housing opposite to said one mounted side of said printing apparatus, the arrangement permitting a carrier strip to be laterally inserted into said labeller without obstruction by said operating part.

Since the printing apparatus is supported on one side only, said operating part need not be of forked construction as is conventional. Thus it is known for printing apparatus which prints numerals and symbols to be held between the forked operating ends of the lever. However, the construction of such a lever is complicated and therefore the spaces in the labeller are not effectively utilized. Assembly of the labeller is troublesome since it is necessary that the printing face of the printing apparatus should be set parallel to the label receiving surface provided opposite to the printing face. In the case that the housing is made as a side-opening type, the carrier strip cannot be inserted from the lateral side because the operating part of the lever obstructs insertion.

In a preferred form the invention provides a labeller in which only one side of the printing apparatus is supported by the operating part of the lever so that there is no lever operating part in the opening when the housing is opened.

Preferably the driving means is a lever made integral with the operating part.

In a preferred construction a hingedly mounted door for said opening is provided, the door being

pivotably mounted and restrained against pivoted movement by resilient means allowing limited pivotal displacement in response to external shocks applied to said door when open.

70 Yet more particularly the present invention provides in a preferred form a manually-operated labeller which has a housing incorporating a printing apparatus and a carrier strip feeding means which are adapted so that a carrier strip onto which labels are attached is reversed at a carrier strip turnback part and forced to intermittently advance a specified distance to separate a label from the carrier strip at the carrier strip turnback part and the surface of said label is printed by a printing apparatus at a position before the carrier strip turnback part, and impression and separation of said printing apparatus onto and from a label are carried out by swing operation of a lever, wherein said printing apparatus comprises a holding frame which is supported at its one side by an operating part of said lever, a printing mechanism which is provided in the holding frame and a coupling part which is provided on the frame plate at the lever coupling side of said holding frame, said coupling part having a cylindrical member which projects parallel to the printing face of said printing mechanism and a bearing part provided in said cylindrical member, said bearing part being formed by protruding the central part of the inner wall of said cylindrical member toward the center, said lever having the swing end at the fixing part of the holding frame and a fixing shaft, which is inserted into the cylindrical member, provided at said fixing part, said fixing shaft being engaged by said bearing part so that both sides of an array of types on said printing face swing to vary their positions around the bearing part as a fulcrum, and said housing being provided with an opening through which the carrier strip is inserted in the housing, at a side where there is no operating part of the lever.

105 Exemplary labellers according to the invention are illustrated in detail in the accompanying drawings wherein:

*Figure 1* is a cross sectional side view showing the interior of a manually-operated labeller in accordance with the present invention,

110 *Figure 2* is an enlarged cross sectional front view of the principal part of the printing apparatus of the labeller according to *Figure 1*,

*Figure 3* is a perspective view of the actuating lever of the labeller,

115 *Figure 4* is a perspective view showing the coupling side frame plate of the printing apparatus of the labeller,

*Figure 5* is a perspective view of the ink applying device of the labeller,

120 *Figures 6A, 6B and 6C* show perspective views of three embodiments of the slide member of the labeller,

*Figure 7* is a front view illustrating the printing operation of said printing apparatus,

125 *Figure 8* is a side view showing another embodiment of labeller,

*Figure 9* is a partly cutaway side view showing the position when the housing of the labeller shown in *Figure 8* is opened,

130

Figure 10 is a disassembled perspective view of the handle cover, hinge and opening door of the labeller shown in Figure 9,

Figure 11 is a plan view showing the position of the hinge when the opening door shown in Figure 9 is opened, and

Figure 12 is a plan view showing the position of the hinge shown in Figure 11 when the door is closed.

The following describes the labellers according to the present invention with reference to the accompanying drawings.

In Figure 1, housing 10 includes a main frame 11 and a handle 12 and the main frame 11 is provided with a carrier strip holder 111 and a notch 112.

Said housing 10 mounts a manually-operable actuating mechanism 20 including a lever 22 pivotally mounted on the main frame 11 and spring-biased by spring 21 so that a part of its lever 22

adjacent the handle 12 is biased away from the handle. The lever 22 is provided with first actuating means, for example, rack gear 221 provided on the operating part 22' of lever 22 in said housing 10 to actuate carrier strip feeding mechanism 30 upon pivotal operation of the lever and second actuating means, for example, engaging projection 222 which actuates label separating mechanism 70 described later upon pivotal operation of the lever. The swinging end of the operating part 22' of lever 22 is

provided with mounting part 223 on which printing apparatus 40 is mounted.

Said carrier strip feeding mechanism 30 comprises gear 31 which engages with rack gear 221 of said lever 22, resilient rotary claws 32 which are provided together on gear 31 so that they project radially from its centre, one-way clutch 33 provided with claw-teeth which internally engage with the rotary claws 32 to be rotated by rotation of said claws 32 in one direction only, tape feed drum 34 which rotates with rotation of the clutch 33, guide member 35 and pivoted pressure member 36 which operate to press carrier strip 60 onto drum 34, and stripper 37.

The coupling operation of said one-way clutch 33 is determined in accordance with the direction of pivotal movement of lever 22. Generally, clutch 33 idles during pivotal movement of lever 22 to approach handle 12 and engages to rotate feed drum 34 during pivotal movement of lever 22 away from handle 12.

Said guide member 35 is pivotally mounted at its centre so that its ends can both move up and down and, as shown in Figure 2, the upper end is adapted to be forced to contact tape feed drum 34 by clockwise rotation of member 35.

In this construction, the upper end of guide member 35 is separated from drum 34 by pivoting guide member 35 to the position as shown in broken line so that carrier strip 60 with labels 61 may be inserted in a lateral direction and the lower end of the guide member can be automatically pushed down by pulling carrier strip 60 in the feed direction to depress the upper end of the guide member 35 onto drum 34, that is, carrier strip 60 with labels 61 can be pressed onto drum 34.

Said carrier strip 60 on which labels 61 are stuck in

order is wound in the form of a roll and mounted on said carrier strip holder 111, and each said label 61 is separated from carrier strip 60 and advanced by reversing carrier strip 60 at carrier strip turnback part 71 of separating mechanism 70 and further forwarding the carrier strip 60.

Said printing apparatus 40 is mounted on mounting part 223 of said lever 22 and includes a holding frame 41 which lifts and lowers as lever 22 pivots and a printing mechanism 42 located in this holding frame 41. Coupling side frame plate 411 which forms part of holding frame 41 is provided with coupling part 43 which is coupled to operating part 22' of lever 22.

Printing mechanism 42 provided in said holding frame 41 has a required number of type belts 421 which are arranged in parallel so that the printing face of the printing mechanism, namely, the print types 421' positioned at the lower surface as shown in Figure 2 can be carried by conventional known mechanism.

Said coupling part 43 comprises a hollow cylindrical member 431 projecting laterally of frame plate 411 namely, parallel to the printing face, and having therein a bearing part 432, said bearing part 432 being formed by a projection, for example, by a reduction in the internal diameter of the cylindrical member 431.

Mounting part 223 of said lever 22 and holding frame 41 are coupled by a mounting shaft, for example, pin 23 which is inserted into cylindrical member 431 through the mounting hole of mounting part 223 as shown in Figure 2 and the inserted shaft part of this pin 23 is engaged by said narrow bearing part 432 in said cylindrical member 431. Spring 24 is disposed between frame plate 411 and fixing part 223.

In this embodiment, in addition to the above-mentioned construction, guide means which guides holding frame 41 is provided, for example, in the form of guide wall 113 formed on the inside wall of main frame 11 and said pin 23 is constructed so that flanged shaft 231 is fixed to lever 22 with screw 232 as shown in Figure 3. Accordingly, printing apparatus 40 is supported by pin 23 so that both the right and left sides as seen in Figure 2, that is both sides of the printing face can be slightly rocked about bearing part 432 as a fulcrum. Ink applying device 50 is provided opposite to said printing apparatus 40.

This ink applying device 50 has a swing lever 52 which is pivotally secured at its one end on the inside wall of housing 10, and provided with ink roller 51 on the other end. Swing lever 52 is biased by a spring, which is not shown in the drawings, so that ink roller 51 always comes into contact with print types 421' of the printing apparatus 40, and arranged so that it is displaced by the action of the printing apparatus against which the ink roller bears when said printing device 4 is lowered.

Moreover, as shown in Figure 5, said ink roller 51 is replaceably mounted on support shaft 521 of swing lever 52 and retained by resilient engaging guide member 53 so that it does not come off.

For this purpose ink roller 51 is provided with engaging groove 51' and guide member 53 is

shaped in a circular form to guide reciprocal movement of ink roller 51. In this construction, ink roller 51 can be directly removed from support shaft 521 by bending guide member 53 to disengage it from groove 51'.

Said label separating mechanism 70 has carrier strip turnback part 71 for reversing carrier strip 60 to separate label 61 which is printed by printing apparatus 40 from carrier strip 60. Slide member 72 is arranged at the side of carrier strip turnback part 71 so that the slide member is actuated to slide by the second actuating means of said lever 52 that is, engaging projection 222. At least one supporting projection 73 is provided at the extreme end of slide member 72 to support the rear end of label 61 separated from carrier strip 60. The slide member 72 is retreated when label 61 begins to advance, and starts to move forward when label 61 protrudes a specified amount, for example, one half of its length and partly supports the rear part of label 61 by means of supporting projection 73 as shown in Figure 1 when label 61 is fully advanced.

Said supporting projection 73 may support label 61 by spot contact or linear contact as shown in Figures 6A to 6C and is covered with an adhesion preventing agent such as silicone as required.

As label 61 is fully separated from the carrier strip 60 and supported at the rear end by supporting projection 73, the disadvantage of carrier strip 60 being pulled out by label 61 when label 61 is stuck onto an article is avoided.

This contrasts with the conventional labeller of this kind wherein the label is only partly separated from the carrier strip and protrudes for application to an article whilst being held by the carrier strip by reason of the rear end of the label being stuck to the carrier strip. Thus slackness in the carrier strip cannot be avoided since tension is applied to the label when it is applied to an article and therefore the carrier strip is pulled out in the label forwarding direction from the carrier strip turnback part and accordingly the label feed distance differs each time due to such slackness of the carrier strip and incorrect registration in printing is caused. This embodiment is advantageous in that these disadvantages can be avoided.

The operation of the labeller in accordance with the present invention is as described below. When lever 22 is forced to approach handle 12, slide member 72 retracts, printing apparatus 40 approaches carrier strip 60, ink roller 51 rubs the type face and moves out of the downward path of printing apparatus 40 and finally the printing apparatus 40 comes in contact with label 61 on the carrier strip 60.

When lever 22 is released and returned by biasing spring 21, rack gear 221 as the first actuating means drives one-way clutch 33 and feed drum 34 which are coupled and feed drum 34 forwards carrier strip 60 a predetermined distance while printing apparatus 40 lifts to return to its starting position and simultaneously ink applying device 50 is likewise returned.

Carrier strip 60 is reversed at carrier strip turnback part 71, label 61 on the carrier strip is forwarded to

impression roller 13 and slide member 71 advances to support label 61 as label 61 is forwarded.

Printing apparatus 40 is supported from one side only by the operating part 22' of the lever 22 and coupled by pin 23 so as to be slightly rockable and therefore, as shown with a broken line in Figure 7, the printing face at the lowest position can move to make close overall contact with the receiving surface 14 of the housing 10 and uniform printing on label 61 can be carried out even though the printing face and the receiving surface 14 which receives carrier strip 60 are not accurately parallel in all their relative positions.

The labeller according to the present invention has the following advantages.

As lever 22 is not made as a fork type, the construction of the actuating mechanism can be simplified.

Since relative inclination of the printing face and the receiving surface 14 and an inclination of printing apparatus 40 caused during lifting and lowering can be compensated for by rocking movement of printing apparatus 40, print types 421 which forms the printing face can be surely forced to contact label 61 to carry out clear printing.

Accordingly, the labeller of the present invention offers considerable advantages over the known type.

Since the printing apparatus is supported only at its one side by the lever 22 and the part of the side of housing 10 where there is no operating part 22' of lever 22 can be opened and closed, carrier strip 60 can be inserted laterally without being obstructed by operating part 22' of lever 22 as shown in Figure 1.

The following describes another embodiment of the present invention with reference to Figures 8 to 12. This embodiment is of the labeller with a modified opening of housing 10 which provides a greater impact strength. Parts of this embodiment similar to those of the first embodiment are identified by the same reference numerals.

The opening door of the side-opening type labeller has often been subject to shock due to dropping during insertion of the carrier strip or due to striking with other articles as a result of which the hinge of the opening door has been deformed and the opening door could not be smoothly operated. This embodiment provides a manually-operated labeller capable of absorbing such external shocks.

Figure 8 shows the labeller when its opening door is closed. In the figure, housing 10 is formed so that its one side is entirely openable and is provided with carrier strip holder 111 at its centre, handle 12 adjacent to the carrier strip holder, front chamber 15 containing the printing apparatus 40 continued to the carrier strip holder and central chamber 16 containing the carrier strip feeding mechanism 30 below carrier strip holder 111.

Handle 12 of said housing 10 is provided with handle cover 17 as shown in Figures 9 and 10 and said handle cover 17 has a projecting member 171 extending into central chamber 16.

Carrier strip feeding mechanism 30 and actuating lever 22 are pivotally secured to said projecting member 171 and an engaging claw which is not shown in the Figures is provided on the body of

actuating lever 22 whereby carrier strip feeding mechanism 30 is adapted as in said first embodiment so that carrier strip 60 is fed a predetermined distance only when actuating lever 22 is returned.

Support shaft 172 which pivotally mounts lever 22 on said handle cover 17 also mounts hinge 80 by which cover 90 for opening and closing central chamber 16 is hingedly mounted. Said hinge 80 comprises as shown in Figures 9 and 10, body 82 provided with shaft receiving hole 81 into which support shaft 172 engages, a coupling means formed on an end of body 82 such as, for example, shaft engaging groove 83 with U-shaped horizontal cross section and vertical lug 84 and horizontal lug 85 provided on the opposite side of said body 82 to shaft engaging groove 83. Said vertical lug 84 is formed as a resilient member which has a spring effect in the door opening and closing direction in order to apply pressure to its internal surface when door 90 is closed and said horizontal lug 85 is formed as a resilient member which can be bent independently of said vertical lug 84.

Two projections 173 and 173' are provided at the internal end and on the external surface of said projecting member 171 and the extreme end of said horizontal lug 85 is located in the space 174 between these two projections 173 and 173'. The arrangement is thus that the hinge and hence said shaft engaging groove 83 can rock slightly about said shaft 172 by virtue of the resilience of said horizontal lug 85 i.e. about an axis generally at right angles to the hinge axis.

Said door 90 is provided with a mounting part for a shaft 91 which engages into said shaft engaging groove 83 of said hinge 80 at a joint edge part with handle cover 17 so as to be pivotally mounted by said hinge 80 and a locking means such as, for example, engaging part 92 is provided at the swinging end of the door for maintaining the door closed. A cover 151 of front chamber 15 of said housing 10 mounts an operating means such as, for example, push button 93 which engages and disengages with said engaging part 92.

With the labeller in accordance with this embodiment constructed as described above, door 90 depresses vertical lug 84 in its closed position as shown in Figure 12 so that when engaging part 92 is released by push button 93, door 90 is slightly opened by the spring action of vertical lug 84.

When door 90 is opened, central chamber 16 is open and visible and carrier strip 60 can be mounted on carrier strip holder 111 and an end of the carrier strip can be pulled out and inserted in carrier strip feeding mechanism 30 and carrier strip reversing part 71.

If external shock is inadvertently applied to door 90 in the open position, door 90 tends to move in the arrowhead directions shown in Figure 9 and hinge 80 permits limited displacement of door 90 in such directions through resilience of the horizontal lug 85, the door 90 thereafter returning to its correct position; therefore subsequent opening and closing operations will not be adversely affected.

Mounting means other than projecting member 171 for mounting hinge 80 can be provided. Thus

mounting means can be provided on the housing for example, directly on the inside wall of the central chamber 16.

The embodiments of the labeller described are of the so-call sub-sticked label type. However the invention is applicable to labellers of the label hammering out type by which labels are hammered out from a window of the labeller by the hammering out member. In this latter case, said slide member 72 of separating mechanism 70 is not required.

#### CLAIMS

1. A labeller including a housing provided with a carrier strip holder for mounting a carrier strip roll onto which a number of labels are stuck; an actuating mechanism having an operating part which extends into the housing and is pivotally secured to said housing and driving means for driving said operating part; a carrier strip feeding mechanism which is housed in said housing for feeding a carrier strip a predetermined distance when said carrier strip feeding mechanism is driven by said operating part; a printing apparatus which is supported by the operating part and contacts and parts from a carrier strip receiving surface as said operating part pivots to print a label on said carrier strip and to move away from said carrier strip, the printing apparatus being slightly rockable relative to the operating part so as to compensate for any inclination of the printing face of the printing apparatus relative to the surface of the label to be printed; and a carrier strip turnback part which reverses said carrier strip to separate labels stuck on said carrier strip one by one from said strip when the carrier strip is forwarded by said carrier strip feeding mechanism; the printing on labels by said printing apparatus and the feeding of the carrier strip by said carrier strip feeding mechanism being alternately carried out.

2. A labeller in accordance with claim 1 wherein the printing apparatus is mounted on said operating part at one side only of said apparatus and an opening is provided in the side of said housing opposite to said on mounted side of said printing apparatus, the arrangement permitting a carrier strip to be laterally inserted into said labeller without obstruction by said operating part.

3. A labeller in accordance with claim 2 including a hingedly mounted door for said opening, the door hinge being pivotally mounted and restrained against pivoted movement by resilient means allowing limited pivoted displacement in response to external shocks applied to said door when open.

4. A labeller in accordance with claim 3 wherein the pivoted axis of mounting of said hinge is generally at right angles to the hinge axis.

5. A labeller in accordance with claim 3 or 4, wherein said hinge comprises a body which is pivotally secured at its part to a support means at the housing side, a coupling means which is provided on an end of said body to be coupled to said door and vertical and horizontal lugs provided at an opposite side to said coupling means, said vertical lug being formed as a resilient member which



actuating lever 22 whereby carrier strip feeding mechanism 30 is adapted as in said first embodiment so that carrier strip 60 is fed a predetermined distance only when actuating lever 22 is returned.

5 Support shaft 172 which pivotally mounts lever 22 on said handle cover 17 also mounts hinge 80 by which cover 90 for opening and closing central chamber 16 is hingedly mounted. Said hinge 80 comprises as shown in Figures 9 and 10, body 82 provided with shaft receiving hole 81 into which support shaft 172 engages, a coupling means formed on an end of body 82 such as, for example, shaft engaging groove 83 with U-shaped horizontal cross section and vertical lug 84 and horizontal lug 85 provided on the opposite side of said body 82 to shaft engaging groove 83. Said vertical lug 84 is formed as a resilient member which has a spring effect in the door opening and closing direction in order to apply pressure to its internal surface when door 90 is closed and said horizontal lug 85 is formed as a resilient member which can be bent independently of said vertical lug 84.

Two projections 173 and 173' are provided at the internal end and on the external surface of said projecting member 171 and the extreme end of said horizontal lug 85 is located in the space 174 between these two projections 173 and 173'. The arrangement is thus that the hinge and hence said shaft engaging groove 83 can rock slightly about said shaft 172 by virtue of the resilience of said horizontal lug 85 i.e. about an axis generally at right angles to the hinge axis.

Said door 90 is provided with a mounting part for a shaft 91 which engages into said shaft engaging groove 83 of said hinge 80 at a joint edge part with handle cover 17 so as to be pivotally mounted by said hinge 80 and a locking means such as, for example, engaging part 92 is provided at the swinging end of the door for maintaining the door closed. A cover 151 of front chamber 15 of said housing 10 mounts an operating means such as, for example, push button 93 which engages and disengages with said engaging part 92.

With the labeller in accordance with this embodiment constructed as described above, door 90 depresses vertical lug 84 in its closed position as shown in Figure 12 so that when engaging part 92 is released by push button 93, door 90 is slightly opened by the spring action of vertical lug 84.

When door 90 is opened, central chamber 16 is open and visible and carrier strip 60 can be mounted on carrier strip holder 111 and an end of the carrier strip can be pulled out and inserted in carrier strip feeding mechanism 30 and carrier strip reversing part 71.

If external shock is inadvertently applied to door 90 in the open position, door 90 tends to move in the arrowhead directions shown in Figure 9 and hinge 80 permits limited displacement of door 90 in such directions through resilience of the horizontal lug 85, the door 90 thereafter returning to its correct position; therefore subsequent opening and closing operations will not be adversely affected.

Mounting means other than projecting member 171 for mounting hinge 80 can be provided. Thus

mounting means can be provided on the housing for example, directly on the inside wall of the central chamber 16.

The embodiments of the labeller described are of the so-call sub-sticked label type. However the invention is applicable to labellers of the label hammering out type by which labels are hammered out from a window of the labeller by the hammering out member. In this latter case, said slide member 72 of separating mechanism 70 is not required.

## CLAIMS

1. A labeller including a housing provided with a carrier strip holder for mounting a carrier strip roll onto which a number of labels are stuck; an actuating mechanism having an operating part which extends into the housing and is pivotally secured to said housing and driving means for driving said operating part; a carrier strip feeding mechanism which is housed in said housing for feeding a carrier strip a predetermined distance when said carrier strip feeding mechanism is driven by said operating part; a printing apparatus which is supported by the operating part and contacts and parts from a carrier strip receiving surface as said operating part pivots to print a label on said carrier strip and to move away from said carrier strip, the printing apparatus being slightly rockable relative to the operating part so as to compensate for any inclination of the printing face of the printing apparatus relative to the surface of the label to be printed; and a carrier strip turnback part which reverses said carrier strip to separate labels stuck on said carrier strip one by one from said strip when the carrier strip is forwarded by said carrier strip feeding mechanism; the printing on labels by said printing apparatus and the feeding of the carrier strip by said carrier strip feeding mechanism being alternately carried out.

2. A labeller in accordance with claim 1 wherein the printing apparatus is mounted on said operating part at one side only of said apparatus and an opening is provided in the side of said housing opposite to said on mounted side of said printing apparatus, the arrangement permitting a carrier strip to be laterally inserted into said labeller without obstruction by said operating part.

3. A labeller in accordance with claim 2 including a hingedly mounted door for said opening, the door hinge being pivotally mounted and restrained against pivoted movement by resilient means allowing limited pivoted displacement in response to external shocks applied to said door when open.

4. A labeller in accordance with claim 3 wherein the pivoted axis of mounting of said hinge is generally at right angles to the hinge axis.

5. A labeller in accordance with claim 3 or 4, wherein said hinge comprises a body which is pivotally secured at its part to a support means at the housing side, a coupling means which is provided on an end of said body to be coupled to said door and vertical and horizontal lugs provided at an opposite side to said coupling means, said vertical lug being formed as a resilient member which



applies pressure to the inside wall of said door when the door is closed and said horizontal lug being formed as a resilient member which can be bent independent of said vertical lug and performs a seesaw operation in reference to a pivot against said coupling means and an end of said horizontal lug is located by said support means at the housing side to absorb displacement of said door by resilience of the horizontal lug.

6. A labeller in accordance with claim 5 wherein said support means is formed by a projection extended from a handle of the housing.

7. A labeller in accordance with any preceding claim, wherein said printing apparatus has a holding frame which is supported at its one side by the operating part, a printing mechanism provided in said holding frame and a coupling part provided in a frame plate at a coupling side to the operating part of said holding frame, and said coupling part has a cylindrical member which projects in parallel with the printing face of said printing mechanism and a bearing part provided by a narrowing of said cylindrical member toward its centre, whereby a mounting shaft carried by said operating part and inserted into the cylindrical member of said coupling part to engage said bearing part permits said printing apparatus to be moved about said bearing part as a fulcrum.

8. A labeller in accordance with any of claims 1 to 7 wherein said carrier strip turnback part is provided with a slide member which is driven by said driving means, said slide member serving to support a label forwarded and separated from said carrier strip on said carrier strip turnback part at its rear end and separating the label from a carrier strip to forward it to an impression roller.

9. A labeller in accordance with claim 8, wherein a part of said slide member which holds a rear end of the label by at least one supporting projection provided on said slide member.

10. A labeller in accordance with any of claims 1 to 9 wherein said carrier strip feeding mechanism has

(a) a feed drum which is rotated by a driving means provided on the operating part and

(b) a guide member provided between said carrier strip holder and the carrier strip receiving surface which depresses the carrier strip onto said feed drum and said guide member is pivotally secured at its centre to the housing and forced so that each end of the guide member is alternately depressed onto said feed drum by seesaw motion.

11. A labeller in accordance with any of claims 1 to 10, comprising an ink applying device for applying ink to the printing face of the printing apparatus, said ink applying device comprising an ink roller mounted on a swing lever, the ink roller being biased by means of a spring into contact with the printing face of the printing apparatus, and being moved by the depressing force of the printing apparatus applied to said ink roller against said spring when the printing apparatus performs a printing operation, so that the ink roller is separated from the printing face of the printing apparatus, said ink roller being provided with a hole in its axial

direction through which a support shaft provided on said swing lever is inserted remountably.

12. A labeller in accordance with claim 11, wherein an engaging groove is provided around the end of said ink roller and a resilient guide member is engaged with said groove to prevent axial movement of the ink roller.

13. A labeller in accordance with any of claims 1 to 12 wherein said driving means is a lever made integral with the operating part.

14. A labeller in accordance with any of claims 1 to 12 wherein said driving means is a member separate from said operating part.

15. A hand-operated labeller substantially as described with reference to Figures 1 to 7 of the accompanying drawings.

16. A hand-operated labeller substantially as described with reference to Figures 8 to 12 of the accompanying drawings.

Printed for Her Majesty's Stationery Office, by Croydon Printing Company Limited, Croydon, Surrey, 1982.  
Published by The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.