

Jan. 29, 1963

C. E. ADLER

3,075,460

INDEXING DEVICE FOR PRINTERS

Filed May 11, 1959

3 Sheets-Sheet 1

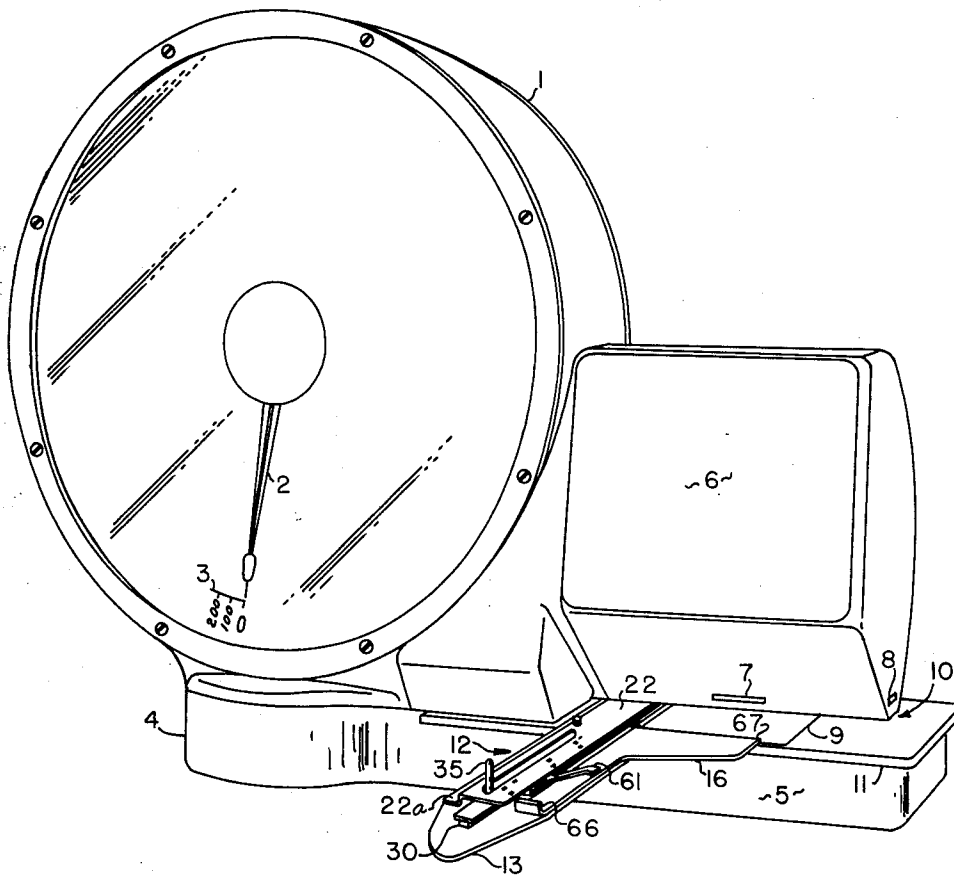


Fig. I

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3 Sheets-Sheet 2

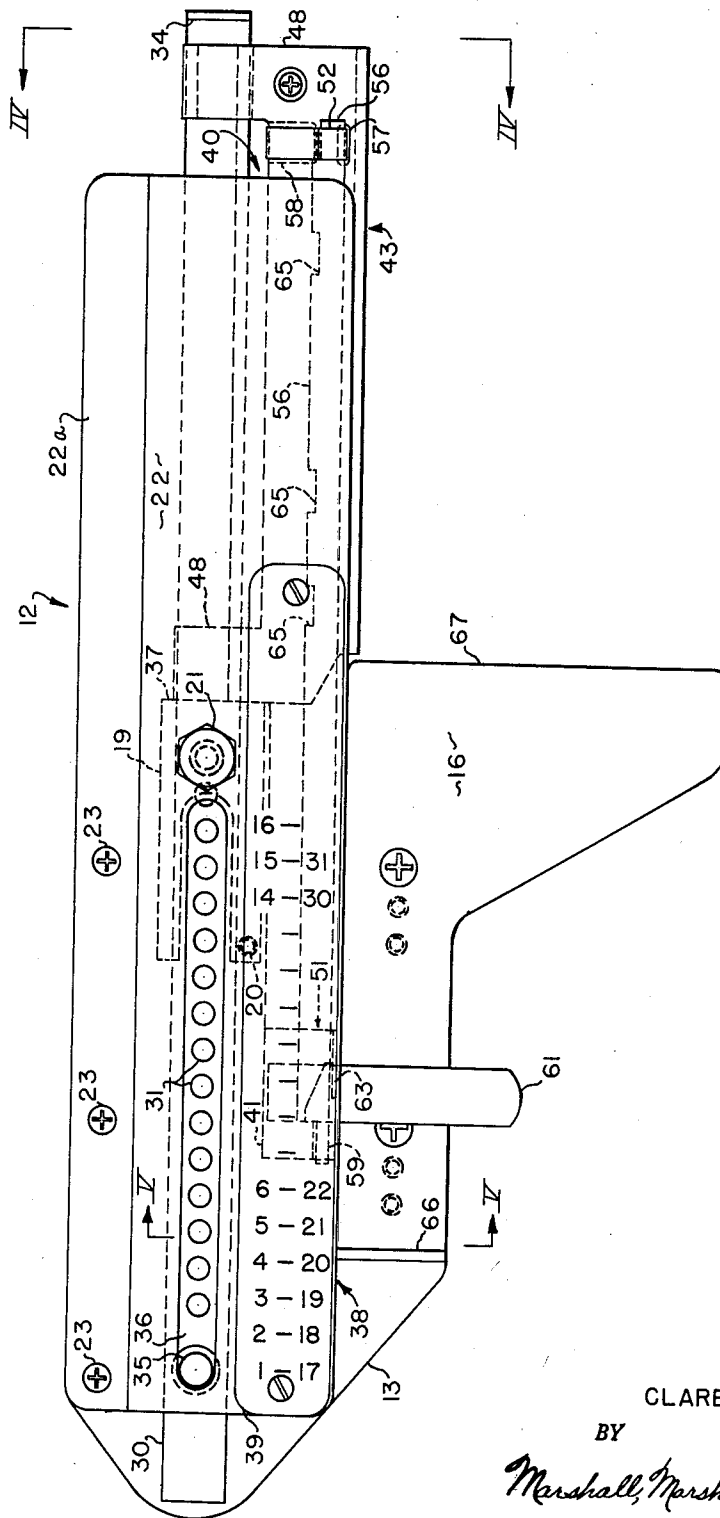


Fig. II

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3 Sheets-Sheet 3

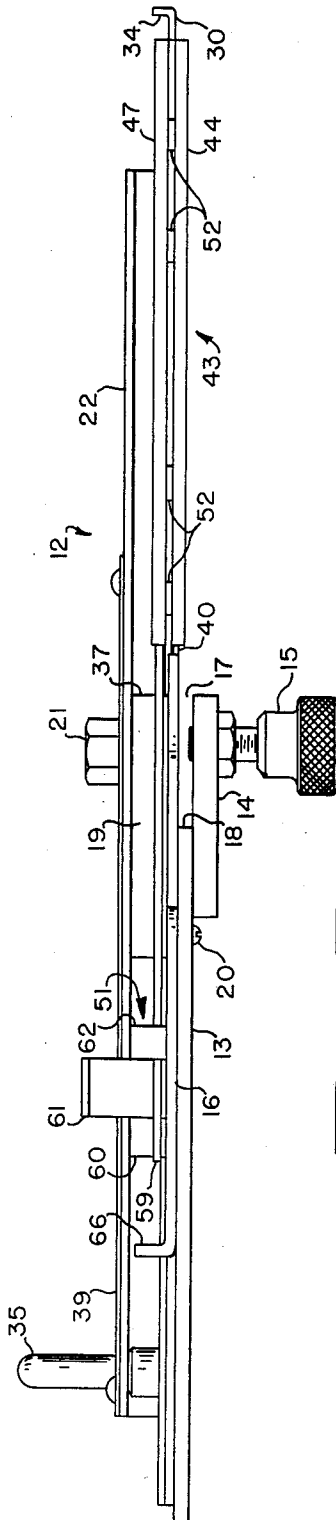


Fig. III

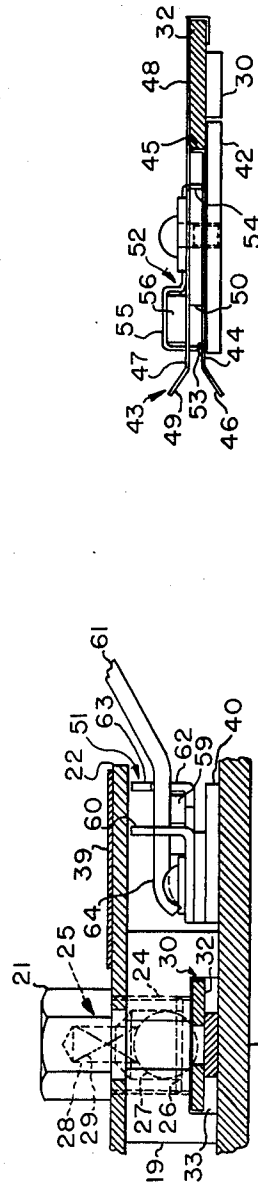


Fig. IV

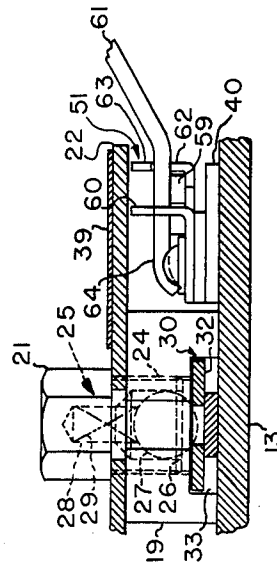


Fig. V

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3,075,460

INDEXING DEVICE FOR PRINTERS

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Filed May 11, 1959, Ser. No. 812,417
5 Claims. (Cl. 101-407)

This invention relates to printers, and in particular to means for transporting an element, such as a ticket, to be printed into and from a printing station inside the housing of a printer.

Printers of the industrial type disclosed in copending U.S. application Serial No. 693,975, filed November 1, 1957, now U.S. Patent No. 2,922,361, have slotted tables upon which tickets to be printed are placed. Mechanism, such as a roller, for pressing a ticket against printing type is located below the table and printing members which carry the type are located in a printing station enclosed by a housing above the table, the roller running in the slot to press the ticket against an inked ribbon and the ribbon in turn against the face of the type.

The feeding of tickets into the interior of the housing is complicated by the widely varied demands of the users of industrial printers. Nearly all of the users have relatively strict requirements of accuracy for the feeding of tickets so that data printed by the printers registers properly in the spaces provided for such data on the tickets.

Some users print the same data, such as the weight of an object, on the same ticket in more than one place. This means that each of the tickets must be advanced at least twice into accurate register with the printing station.

Many users have small, hard to handle tickets which must be so inserted in the printer that the insertion cannot be accomplished by hand.

Other users print data in many places on tickets which are in the form of large record sheets. For example, in the dairy industry, a monthly record sheet is provided for each farmer who brings in milk. A blank space is provided on the sheet for each day of the month, and it is desired to print in the proper space the weight of the milk delivered on a particular day. This means that each of the sheets may have to be accurately registered in thirty-one different positions in the printer during a particular month.

It is, accordingly, the principal object of this invention to provide a device for transporting at least part of an element, such as a ticket, into and from a printing station inside the housing of a printer, which device will accommodate relatively large and small elements as well as those of ordinary size and will feed any of such elements into one or more accurate registries with the printing station.

Another object of the invention is to facilitate the printing of small, hard to handle tickets.

A further object is to provide a device for transporting at least part of an element, such as a ticket, into and from a printing station inside the housing of a printer, which device is readily attachable to and readily removable from the printer and is easily adjustable relative thereto to facilitate aligning tickets of all sizes with the printing station.

Still another object is to provide means of rugged construction and low cost for carrying at least part of an imprint receiving ticket from an accessible location into accurate register with a printing station located within the housing of a printer.

An additional object is to provide an indexing device for locating a ticket to be printed in an enclosed printing station which device will satisfy all of the demands relating to ticket feeding of the foregoing user of industrial printers.

Other objects and advantages will be apparent from the following description in which reference is had to the accompanying drawings.

According to the invention, an indexing device is provided which is readily attachable to and readily removable from the ticket table of a printer and which is easily adjustable relative to the printer to facilitate aligning tickets of all sizes with the printer's printing station. The device includes a pair of stops that are adjustably spaced relative to each other and a shuttle which is mounted for reciprocation in a path between an accessible loading position exterior of the printer's housing and the printing station which is inside the housing, the length of the path being determined by the distance between the stops. Means are provided for guiding a ticket into the shuttle while the shuttle is in its loading position to facilitate the loading of successive elements each into the same relative position or positions in the shuttle. Once the indexing device is set up in alignment with the printing station and by properly locating the stops relative to each other and a ticket is placed in its correct position in the shuttle as determined by the foregoing guide means, reciprocation of the shuttle carries at least part of the ticket from a point outside of the printer into the printer to accurately juxtapose that portion of the ticket to receive an imprint with the printing station, the accurate juxtapositioning being reproducible with successive tickets.

A preferred form of the ticket indexing device is illustrated in the accompanying drawings.

In the drawings:

FIG. I is a perspective view of a weighing scale dial mechanism showing the location of an industrial printer embodying ticket indexer or shuttle of the invention as it is mounted on a weighing scale;

FIG. II is an enlarged plan view of the ticket indexer which is illustrated in FIG. I;

FIG. III is an elevational view of the device shown in FIG. II;

FIG. IV is an enlarged vertical sectional view taken along the line IV-IV of FIG. II; and

FIG. V is an enlarged vertical sectional view taken along the line V-V of FIG. II.

These specific figures and the accompanying description are intended merely to illustrate the invention and not to limit its scope.

For the purpose of illustration, the printer is shown in connection with an ordinary dial type weighing scale. Such a scale comprises a dial housing 1 that contains automatic load counterbalancing and indicating mechanism which includes an indicator 2 that is rotated through increments of angle which are proportional to increments of weight applied to the scale and that indicates such weights on a stationary indicia-bearing chart 3. The dial housing 1 is mounted on the top of a scale column 4 of which only the top portion is shown in FIG. 1. Mechanical chart reading mechanism which is shown and described in U.S. application Serial No. 643,708, filed March 4, 1957, now U.S. Patent No. 2,948,463, is located within the dial housing 1 and is connected to a printer which is contained within its housing 5 and case 6 and operated according to the scale readings. The printer may be operated by any of the usual means for setting up printing members, such as type wheels or sectors, or by hand. The mechanism within the printer housing 5 and case 6 is shown and described in detail in the hereinbefore referred to U.S. application Serial No. 693,975.

The type carrying printing members are located within the case 6 and define an interior printing station at the bottom of the case 6, the printing station being located from positions exterior of the case 6 by means of index marks 7 and 8 on the case, index mark 7 indicating the width of the matter that may be printed and index mark

8 indicating the height of the matter that is printed. A ticket or other element 9 is placed in a narrow opening or slot 10 in register with the printing station and between the bottom of the case 6 and the top of a table 11 atop the housing 5 which supports the ticket to receive an imprint in juxtaposition with the type bearing printing members in the printing station, the table being in the form of a ledge extending from the printing station.

The feeding of the ticket 9 into the interior of the case 6 is complicated by the widely varied demands of the users of industrial printers. Many users have relatively strict requirements of accuracy for the feeding of the tickets so that data printed by the printers registers properly in the spaces provided for such data. The sizes of the tickets vary from user to user. Some users print the same weight data on the same ticket in more than one place. Many users have small, hard to handle tickets. Other users print data in many places on large tickets in the form of record sheets such as those used in the dairy industry where a blank space is provided on a sheet for each day of the month, and it is desired to print in the proper space the weight of the milk delivered by a particular farmer on a particular day. In order to satisfy all of the foregoing demands relating to ticket feeding of the users of industrial printers, the indexing device or ticket shuttle 12 of the invention is provided for correctly and easily locating the ticket 9 to be printed in the printing station.

The indexing device or ticket shuttle 12 includes a base 13 to which is attached a stationary clamp member 14, through which is threaded a thumb screw 15, and a plate 16, the base being so sandwiched between the clamp member 14 and the plate 16 and the clamp member 14 and the plate 16 so extending beyond the base that a space 17 is provided at the thumb screw. The table top 11 is received in the space 17 against a leading edge 18 on the base 13 and when the thumb screw 15 is tightened the indexing device is securely fastened in a stationary position on the table, the leading edge 18 of the base 13 being transverse to the elongated body of the indexing device to locate the device square on the table. The position of the indexing device 12 on the table depends on the size of the ticket and where on the ticket the printed matter is to appear; the indexing device 12 is located by placing a ticket 9 in it as hereinafter described and by lining up the area on the ticket which is to receive the imprint with the index mark 7 on the front of the case 6. This is a rough adjustment. Final adjustment is made after trial and error printing to determine the exact place in which the indexing device 12 is to be fixed.

The base 13 supports a detent mechanism that includes a block 19 which has a shape as viewed in plan of an elongated horseshoe (FIG. II). One leg of the horseshoe-shaped block 19 is secured to the base 13 by means of a screw 20 and the main body of the block 19 is secured by means of a cap screw 21 to a cover plate 22, the block 19 spacing the cover plate 22 from the base 13 and the cover plate 22 having a foot portion 22a (FIGS. I and II) which is bent out of the plane of the main body of the cover plate and which is fixed to the top of the base by means of screws 23. The cap screw 21 is received in a threaded hole 24 (FIG. V) that goes vertically all of the way through the main body of the block 19 and is provided with a hole 25 that has a relatively large open end 26 for the reception of a detent ball 27 and a relatively small closed end 28 for the reception of a spring 29. The spring 29 urges the ball 27 out of the open end 26 of the hole 25 against an elongated slider 30 having a row of evenly spaced dimples 31 (FIG. II) in one or the other of which the ball 27 is received to hold the slider in an adjusted position relative to the base 13. The slider 30 is slidable on the base 13 and has a flange 32 extending from each side at its top which flanges are received in and guided by a track formed by means of a groove 33 (FIG. V) in the bottom of the block 19.

The slider 30 at its end remote from the base 13 has an upturned stop surface 34 and at its other end a handle 35. The handle 35 extends through a slot 36 in the cover plate 22 and is movable in a path the length of which is determined by the length of the slot. The stop surface 34 is located in selectively adjustable positions relative to a stationary stop surface 37 which is provided by the end of the block 19 that faces the stop surface 34, each of such positions being determined by the detent mechanism hereinbefore described. The handle 35 registers with indicia 38 on a strip 39 on the cover plate 22 to indicate each of the positions of the stop 34.

The slider 30 also functions as a track on which a ticket shuttle is slidable; the shuttle comprising a plate 40 having a relatively narrow portion 41 (FIG. II) which is slidable on the base 13 and a relatively wide portion 42 (FIG. IV) which is slidable on the under side of one of the flanges 32 of the slider 30 from a point which begins at the stop surface 37 on the block 19 and ends at the stop 34 on the slider 30. The wide portion 42 of the plate 40 carries a ticket holder 43 which includes a lower ticket guide 44 having a small upturned edge 45 (FIG. IV) at each of its ends that are slidable along a flange 32 of the slider 30 and a downturned edge 46, an upper ticket guide 47 having at each of its ends an extended portion 48 which is hooked over the slider 30 to be slidable on the upper surface of the slider and on a flange 32 of the slider and an upturned edge 49 adjacent the downturned edge 46, and a spacer 50 which separates the guides, the ticket guides 44 and 47 and the spacer 50 forming a holder with a mouth that opens to the left as viewed in FIG. IV.

The ticket shuttle is reciprocable along the slider 30 in an accurate path, downward motion being limited by contact of the narrow portion 41 of the plate 40 with the base 13 and contact of the extended portion 48 of the ticket guide 47 with the upper surface of the slider 30, upward motion being limited by contact of the wide portion 42 of the plate 40 with the under side of the flange 32 of the slider 30 and contact of a bracket 51, carried by the left hand end of the plate 40 as viewed in FIG. III, with the under side of the cover plate 22 and contact of the hooked ends of the extended portions 48 of the ticket guide 47 with the under side of the flange 32 of the slider 30, sidewise movement to the right as viewed in FIG. IV being limited by contact of the upturned edges 45 of the lower ticket guide 44 with the edge of the flange 32 of the slider 30, and sidewise movement to the left as viewed in FIG. IV being limited by contact of the hooked ends of the extended portions 48 of the ticket guide 47 with the edge of the flange 32 of the slider 30. The slider 30 which provides the track on which the ticket shuttle is reciprocable is itself slidable in an accurate path because of the rather close fit of the slider 30 within the groove 33 in the block 19 (FIG. V). The length of the path in which the ticket shuttle is reciprocable is determined by the distance between the stationary stop 37 and the positionable stop 34, the right hand one of the extended portions 48 of the ticket guide 47 as viewed in FIG. II contacting the positionable stop 34 at one end of the path and the other one of the extended portions 48 and the plate 40 contacting the stationary stop 37 at the other end of the path. An extended portion 48 is shown in contact with the stop 37 in FIG. II.

Four resilient ticket clamps 52 are located in the open mouth of the ticket shuttle. Each of the clamps is formed from one piece by bending; it has a down turned end 53 (FIG. IV) which clamps the ticket between it and the lower ticket guide 44, an end in the form of a relatively large hook 54 which is closely wrapped around the spacer 50 and thus anchored, and an upper portion 55 which receives an actuating bar 56. The down turned end 53 of the clamp 52 extends through a hole 57 in the upper ticket guide 47 as shown in FIGS. II and IV and the hook 54 on the clamp 52 is located in a

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notch 58 (FIG. II) in the lower ticket guide 44. Each of the ticket clamps 52 and each of the means for mounting them are identical.

The left end of the actuating bar 56 as viewed in FIGS. II and III has a relatively narrow extension 59 which is juxtaposed to an upright part 60 of the bracket 51 and a handle 61 which is received between such upright part 60 and a second and similar upright part 62 of the bracket 51 which is spaced from the first upright part 60 both as seen from the side in FIG. III and from the front in FIG. V. The second upright part 62 has a horizontal hold down extension 63 closely overlying part of the handle 61. The left end of the actuating bar 56 is held in position by the bracket 51, movement to the left as viewed in FIG. V being limited by contact of the extension 59 on the actuating bar 56 with the first upright part 60 of the bracket 51, movement to the right as viewed in FIG. V being limited by contact of the actuating bar 56 with the second upright part 62 of the bracket 51, movement to the left as viewed in FIG. III being limited by contact of the handle 61 with the first upright part 60 of the bracket 51, movement to the right as viewed in FIG. III being limited by contact of the handle 61 with the second upright part 62 of the bracket 51, downward movement being limited by the bracket 51, and upward movement being limited by contact of the handle 61 with the horizontal hold down extension 63 on the bracket 51 and, when the handle 61 is depressed, by contact of the handle 61 at 64 (FIG. V) with the underneath side of the cover plate 22. The other end of the actuating bar 56 is held in place resiliently by means of the ticket clamps 52, the bar 56 being received in the upper portions 55 of the clamps 52 as best shown in FIG. IV and each of the clamps being received in a notch 65 (FIG. II) in the actuating bar. The four clamps 52 are shown in FIG. III; only one of the four clamps 52 is shown in FIG. II to better show the notches 65 in the actuating bar 56. Finger pressure on the right hand end of the handle 61 as viewed in FIG. V pivots the upper left hand edge of the actuating bar 56 upwardly. As viewed from the other end in FIG. IV, it is the upper right hand edge of the actuating bar 56 that is pivoted upwardly. This lifts the ticket clamps 52 up by bending them to release a ticket from the ticket holder 43 or to permit the ticket holder to be loaded. Release of finger pressure from the handle 61 permits the spring ticket clamps 52 to return to their normally clamped positions. The handle 61 also functions as a grasping means for reciprocating the ticket holder by hand.

The indicia 38 (FIG. II) are in two rows; one row starts with "1" and goes to "16" and the other starts at "17" and goes to "31" for the thirty-one days in a month. These indicia are used, for example, in printing the weights of milk brought in by farmers on tickets in the form of monthly record sheets. In the dairy industry, a monthly record sheet is provided for each farmer who brings in milk. A blank space is provided on the sheet for each day of the month, the spacing between the blank spaces being the same as that between the detent dimples 31, and it is desired to print in the proper space the weight of the milk delivered on a particular day.

In operation, a record sheet which corresponds to a particular farmer is selected and is loaded into the ticket holder 43 while the clamps 52 are held open by finger pressure on the handle 61 and while the ticket holder is in its loading position which is its position when it is against the stationary stop 37. The ticket is loaded into the ticket holder 43 by guiding it along an upturned indexing surface 66 on the plate 16 that extends transverse to the path of the ticket shuttle to facilitate the loading of successive tickets each into the same relative position in the shuttle, the indexing device 12 being located on the table top 11 as hereinbefore described. The blank space on the ticket which is to receive the first imprint, i.e., the one corresponding to the first day of the month, is located correctly

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at the printing station within the case 6 when the handle 35 on the slider 30 registers with "1" in the row of indicia and when the ticket shuttle is reciprocated into the case 6 as far as it will go, i.e., until the ticket holder 43 contacts the positionable stop 34. In order to print the weight of the milk in the space provided therefor for the second day of the month, the ticket is loaded into the holder 43 in the same way; however, in this case the handle 35 on the slider 30 is moved to register with the "2" in the row of indicia 38 so that ticket shuttle requires a greater movement in order to reach the positionable stop 34 than it did when the handle 35 was at the "1" in the row of indicia. The handle 35 is positioned at the "3" to print in the space provided for the third day of the month and etc. until "16" is reached in the row of indicia, each day the ticket being fed into the printer case 6 farther than the day before. Each time the ticket is loaded into the ticket holder 43 while the clamps 52 are held open by finger pressure on the handle 61 and while the ticket holder 43 is in its loading position, moved to the printing station by forward pressure on the handle 61 until the ticket holder 43 contacts the positionable stop 34, moved back after the printing operation to its starting position, and then removed from the holder after the clamps are again opened by finger pressure on the handle 61.

The second row of indicia is provided in order to double the capacity of the indexing device 12 without making it any longer. On the seventeenth day of the month, the handle 35 on the slider 30 is moved to register with "17" on the second row of indicia. This is the same registration as that when the handle 35 is moved to register with the "1" on the first row of indicia. However, with the row of indicia "17"-"31," a second indexing surface 67 on the plate 16 is used, the second surface 67 extending parallel to the first indexing surface 66 to facilitate the loading of successive tickets each into the same relative position in the shuttle, i.e., the same relative position with respect to the second indexing surface 67. Using this arrangement of indicia and index, the position of the positionable stop 34 is the same for the "17" position as for the "1" position, however, the ticket starts from an advanced point relative to index 66 so that its position relative to the positionable stop 34 is advanced in the "17" position as compared to the "1" position. The handle 35 is positioned at the "18" to print in the space provided for the eighteenth day of the month and etc. At the end of the month, a weight print for each day appears on the ticket in a single row starting with the print for the first day at the top of the ticket and continuing on down with even spacings to the last day of the month at the bottom of the ticket.

The loading position of the ticket holder 43, i.e., its position shown in all of the figures is accessible from a position located outside of the printer case 6, part of the indexing device 12 as shown in FIG. I extending through the slot 10 into the interior of the case 6. In those instances where the ticket 9 is in the form of a large monthly record sheet as used in the dairy industry, only a portion of the ticket may be carried by the shuttle into the interior of the printer, part of the large ticket remaining outside of the case 6 during the printing operation. The ticket holder 43 is reciprocable in a path extending from the loading position through the slot 10 into the interior of the printer, the length of the path being determined by the distance between the stationary stop 37 and the positionable stop 34 which is held in selectively adjustable positions by means of the detent mechanism hereinbefore described.

Forward movement of the ticket holder 43 feeds the ticket clamped therein to accurately juxtapose that portion of the ticket to receive an imprint with the printing station, the accurate juxtapositioning being reproducible with successive tickets.

It should be understood that the foregoing operation in

connection with a ticket in the form of a large record sheet of the type used by the dairy industry is a special situation in which the spacing of the areas on the ticket to receive imprints are the same as the spacing between the dimples 31 of the detent mechanism and in which the blank space on the ticket which is to receive the first imprint, i.e., the one corresponding to the first day of the month, is located correctly at the printing station when the handle 35 on the slider 30 registers with "1" in the row of indicia and when the ticket shuttle is slid into the case 6 as far as it will go. The indexing device or ticket shuttle 12 of the invention accommodates relatively large and small tickets as well as those of ordinary size and feeds any of such tickets into one or more accurate registries with the printing station.

In operation, when the tickets are of more or less ordinary size as for example the one shown in FIG. 1, the ticket 9 is loaded into the ticket holder 43 in its loading position, index 67 being used to guide the ticket into the holder to facilitate the loading of successive tickets each into the same relative position in the holder. Then, the indexing device 12 is located in a rough adjustment on the table 11 by moving it until the space on the ticket to receive a weight print is lined up with index mark 7 on the front of the printer case 6 and then the thumb screw 15 is tightened to hold the indexing device 12 in place. Next, the positionable stop 34 is so located in a rough adjustment by finger pressure on handle 35 that when the ticket holder 43 is advanced to contact the stop 34 the space on the ticket to receive the weight print is lined up with index mark 8 on the side of the printer case 6. Then, the exact position of the indexing device 12 on the table 11 and the exact position of the positionable stop 34 is determined by trial and error printing. Since most users of industrial printers use tickets of the same size over an extended period, the adjustments when made are usually good for some time. When the final adjustment of the positionable stop 34 has been made, the position of the handle 35 relative to the indicia 38 is noted so that should the stop 34 be moved it can be returned to its same position by reregistering the handle with the correct indicium. Accurate juxtapositioning of the ticket with the printing station is reproducible with successive tickets. Larger tickets are loaded into the ticket holder 43 along the indexing guide surface 66, but the operation from that point on is the same as the foregoing. Nearly all of the users of industrial printers have relatively strict requirements of accuracy for the feeding of tickets so that data printed by the printer registers properly in the space provided for such data. The indexing device 12 of the invention satisfies all of the demands relating to ticket feeding of such users of industrial printers and accommodates relatively large and small tickets as well as those of ordinary size. Small, hard to handle tickets which cannot be inserted into the printer by hand are handled easily by the indexing device 12 of the invention, such tickets being carried completely into the interior of the printer.

Some users of industrial printers print the same data, such as the weight of an object, on the same ticket in more than one place. This means that each of the tickets must be fed at least twice into accurate register with the printing station. This is accomplished easily by means of the indexing device 12 of the invention. After the final adjustment of the positionable stop 34 has been made in connection with the printing of the data on a first place on the ticket, the position of the handle 35 relative to the indicia is noted. Then the stop 34 is repositioned to so locate it that the printing of the data occurs in the correct position on a second place on the ticket and the position of the handle 35 relative to the indicia is noted again. In operation, the handle 35 is located at the first noted indicium of the indicia 38, the ticket is loaded at the same index 66 or 67 which was used in setting up the indexing device 12, the ticket is advanced to the printing station, the first print is made, the handle 35 is relocated at the

second noted indicium of the indicia 38, the ticket is repositioned to the location determined by the positionable stop 34, and the second print is made. The ticket holder 43 then is returned to its loading position by means of finger pressure on the handle 61 to transport the ticket from the printing station to the accessible position that is on the outside of the printer, i.e., the position of the ticket 9 which is shown in FIG. 1, and the printed ticket is removed.

The embodiment of the invention described in connection with the drawings is to be regarded as illustrative only since the invention is susceptible to variation, modification and change within the spirit and scope of the appended claims.

Having described the invention, I claim:

1. An indexing device for locating an element to be printed in a printing station comprising, in combination, a base, a stop surface on the base, a stop located in a selectively adjustable position relative to the stop surface, a shuttle mounted for reciprocation in a path determined by the stop surface and the stop, a plurality of guide surfaces extending transverse to the path and spaced from each other longitudinally of the path each for guiding an element into the shuttle while the shuttle is in a loading position to facilitate the loading of successive elements each into the same selected relative position in the shuttle, there being as many of the relative positions in the shuttle as there are guide surfaces, and means for securing an element in the shuttle.
2. An indexing device for locating an element to be printed in a printing station comprising, in combination, a base, a stop surface on the base, a stop, means on the base for locating the stop in selectively adjustable positions relative to the stop surface, a shuttle mounted for reciprocation in a path determined by the stop surface and the stop, a plurality of guide surfaces extending transverse to the path and spaced from each other longitudinally of the path each for guiding an element into the shuttle while the shuttle is in a loading position to facilitate the loading of successive elements each into the same selected relative position in the shuttle, there being as many of the relative positions in the shuttle as there are guide surfaces, a set of indicia for each of the guide surfaces, the indicia in each set identifying the positions of the stop, only that set of indicia which corresponds to the particular guide surface selected to guide the element into the shuttle being read, and means for securing an element in the shuttle.
3. An indexing device for locating an element to be printed in a printing station comprising, in combination, a base, a stop surface on the base, a member mounted on the base to slide in a path extending from the base, a stop on the member remote from the base, detent means on the base cooperating with the member for locating the stop in selectively adjustable positions, a shuttle slidably mounted on the member and on the base for reciprocation in a path extending generally parallel to the path in which the member is mounted to slide, the shuttle contacting the stop surface and the stop at the respective ends of the path in which it is reciprocated, and means for clamping an element in the shuttle.
4. A ticket indexing device comprising, in combination, a base, a stop surface on the base, a member slidably mounted on the base, a stop surface on the member remote from the base, detent means on the base cooperating with the member for locating the stop surface on the member in selectively adjustable positions, a ticket clamp mounted for reciprocation in a path extending between a loading position at the stop surface on the base and the stop surface on the member, a plurality of guide surfaces extending transverse to the path and spaced from each other longitudinally of the path each for guiding a ticket into the clamp while the clamp is in its loading position to facilitate the loading of successive tickets each into the same selected relative position in the clamp, there

being as many of the relative positions in the clamp as there are guide surfaces, and a set of indicia for each of the guide surfaces, the indicia in each set identifying the positions of the stop surface on the member, only that set of indicia which corresponds to the particular guide surface selected to guide the ticket into the clamp being read.

5. A ticket indexing device comprising, in combination, a base, a stop surface on the base, a stop located in a selectively adjustable position relative to the stop surface, a ticket clamp mounted for reciprocation in a path determined by the stop surface and the stop, the ticket clamp being reciprocable between a loading position at the stop surface on the base and the stop and having a relatively wide mouth opening transversely to the path for receiving tickets of several sizes and movable between open and closed positions for releasing and clamping, respectively, the tickets, and a guide surface extending transversely to the path as an aid for locating a ticket in the clamp while the clamp is in its loading position to

facilitate the loading of successive tickets each into the same relative position in the clamp.

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