Dec. 13, 1938. P. W. WASCHAU 2,140,253

PRICE REGISTER

Filed Jan. 6, 1937

Fig. 1.

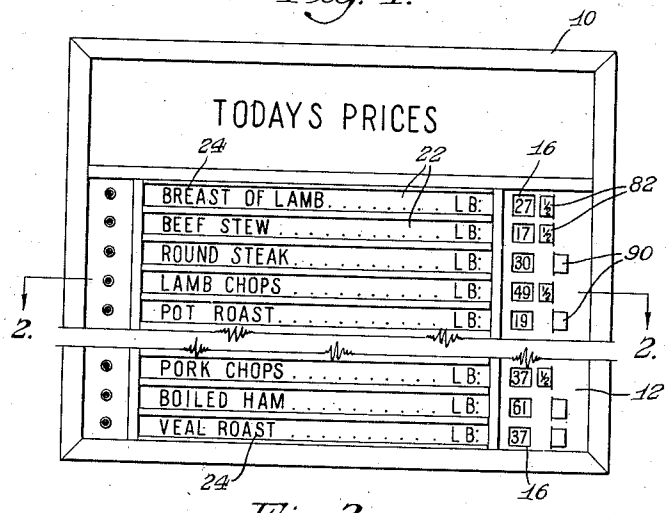


Fig. 2.

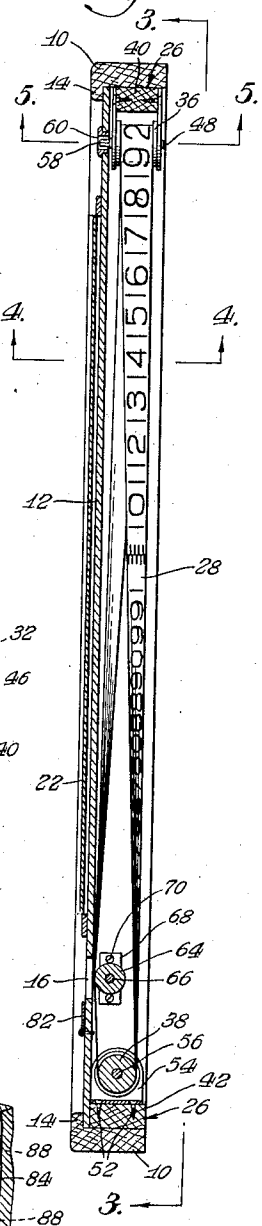


Fig. 3.

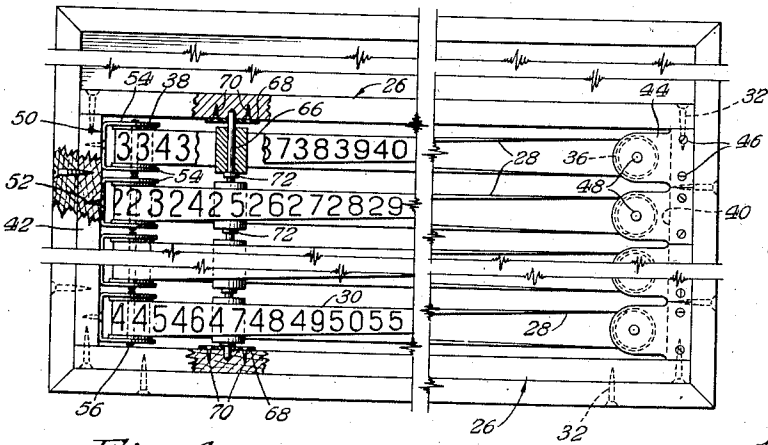


Fig. 4.

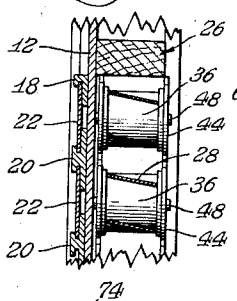


Fig. 5.

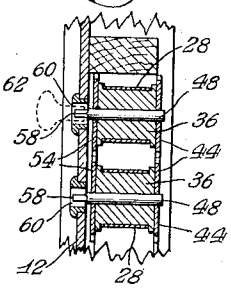


Fig. 6.

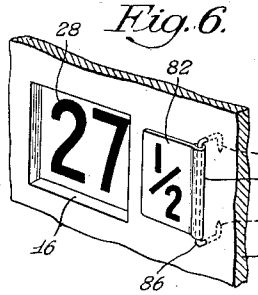
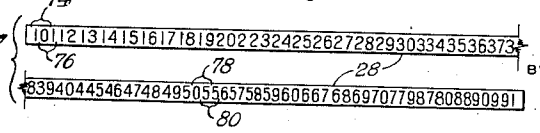


Fig. 7.



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Patented Dec. 13, 1938 2,140,253

UNITED STATES PATENT OFFICE

2,140,253

PRICE REGISTER

Paul W. Waschau, Chicago, Ill.

Application January 6, 1937, Serial No. 119,342

4 Claims. (Cl. 40—96)

My invention relates to the pricing of merchandise, and includes among its objects and advantages the provision of an improved price register.

An object of my invention is to provide a price register in which means is employed for listing a large number of items for sale and in which the items may be individually priced and the prices easily and quickly adjusted to indicate the correct price of each item.

Another object is to provide a price register employing a plurality of sight openings and a price belt for each opening in which novel means is employed for individually adjusting the belts from a position outside the register.

Another object is to provide a price belt having a novel arrangement of numbers so arranged and related to the sight opening associated with that belt as to provide a large range of price changes with relatively few digits on the belt.

A further object is to provide a price register in which a simple mechanism is associated with each sight opening and cooperating with the price belt associated with that opening for indicating fractional prices less than a cent.

In the accompanying drawing:

Fig. 1 is a fragmentary elevational view of a register according to the invention;

Fig. 2 is a sectional view along the line 2—2 of Fig. 1;

Fig. 3 is a view taken from the position indicated by line 3—3 of Fig. 2 with certain parts removed;

Fig. 4 is a sectional view along the line 4—4 of Fig. 2;

Fig. 5 is a sectional view along the line 5—5 of Fig. 2;

Fig. 6 is a perspective view illustrating one of the sight openings; and

Fig. 7 is a view illustrating one of the price belts.

In the embodiment selected to illustrate my invention, I make use of a frame 10 of generally rectangular configuration. A front panel 12 is associated with the frame 10, which panel lies within the frame adjacent a flange 14. I provide the panel 12 with a plurality of sight openings 16. On the outer face of the panel 12 I mount a plurality of retaining flanges 18 and 20 which removably support strips of paper 22 upon which items for sale are printed, as indicated at 24 in Fig. 1. The flanges 18 represent the first and last flanges in the assembly of Fig. 1, and each flange supports one edge only of its associated strip 22 while the intermediate flanges 20 support one edge of two adjacent strips 22. In cases where the register is constructed of wood, the flanges 18 and 20 may be glued to the panel 12.

Within the frame 10 I mount an inner frame 26 which supports a plurality of endless price belts 28. These price belts carry numerals, as indicated at 30 in Fig. 3, and the belts are so arranged as to move across the sight openings 16 for exposing numerals on the belt to indicate the correct price of the items listed on the strips 22.

In Fig. 3, I indicate the inner frame 26 as being secured within the frame 10 by means of screws 32. Each belt 28 runs over two spools 36 and 38. The spools 36 are mounted on the vertical reach 40 of the inner frame 26, while the spools 38 are mounted on the vertical reach 42 of the same frame. Each spool 36 is positioned between two metallic plates 44 secured to the reach 40 by screws 46. Each plate in each pair is provided with an opening for rotatably receiving one end of the shaft 48 fixedly connected with its associated spool. The ends of the spools terminate substantially in contact with the inner faces of the plates so as to be restrained from endwise movement but may rotate freely as when the belt is being adjusted.

To the vertical reach 42 I connect a U-shaped bracket 50 for each of the spools 38. The bights of these brackets are secured to the reach 42 by screws 52, and the spools 38 are positioned between the flanges 54 of the brackets. Each flange in each bracket is provided with openings for loosely receiving the shaft 56 associated with its respective spool 38. Referring to Fig. 3, it will be noted that the shafts 56 rotate about axes at right angles to the shafts 48.

In Fig. 5, I illustrate one end of the shafts 48 as extending beyond their respective flanges 54 and provided with square ends 58 which are aligned with key openings 60 in the panel 12. Thus, the spools 36 may be rotated through the medium of a suitable key, as indicated at 62, for adjusting the price belt. In arranging the axes of the shafts 56 at right angles to the shafts 48 I locate the shafts 48 in such a manner that the price belts may be adjusted from the face of the register, thereby eliminating the necessity for making adjustments from positions inside the device. The angular relation between the shafts 48 and 56 puts a twist in the belts, but portions of the belts are arranged to lie in parallel relation with the inner face of the panel 12 adjacent the sight opening 16. To insure precise parallel relation between the portions of the belts moving across the sight opening 16 and the panel 12 I

provide an idle roll 64 for each belt 28. In Fig. 2, I illustrate the idle roll 64 shown therein as being positioned inside the belt 28 directly opposite the sight opening 16 associated with that belt for holding the belt in close relation with the inner face of the panel. Fig. 3 illustrates the idle roll 64 as being mounted upon a shaft 66 which has its ends journaled in supporting plates 68 secured to the horizontal reaches of the inner frame 26 by screws 70. The idle rolls 64 rotate freely on the shafts 66, and the weight of the rolls is carried by flanges 72 on the shaft 66.

Fig. 7 illustrates the novel arrangement of the numerals as they appear on each of the price belts 28. These numerals are so arranged and cooperate in such a manner with their associated sight opening 16 as to give a large range of prices with relatively few digits. The numerals are so proportioned and spaced with respect to their associated sight opening as to permit two digits to be exposed through the sight opening. In any group of three digits the belt may be adjusted to present two two digit numbers before the sight opening.

In Fig. 7, I have illustrated one of the belts 28 as being severed for the sake of compactness. The numbering reads as follows: 10, 11, 21, 31, 41, 51, 61, 71, 81, 92, 02, 23, 24, 25, 26, 27, 28, 29, 30, 33, 43, 53, 63, 73, 83, 94, 04, 45, 46, 47, 48, 49, 50, 55, 65, 75, 85, 96, 06, 67, 68, 69, 70, 77, 98, 78, 08, 89, 09, 91. With a total of 100 digits we attain a price reading ranging from 1 to 99, both inclusive. A price of ten cents is indicated by the numerals 74, while a price of one cent is indicated by the numerals 76. A price of five cents would be indicated by the numerals 78, while a price of fifty-five cents would be indicated by the numerals 80. Since a total of 100 digits provides 99 different prices ranging from 1 to 99, the length of the belt is materially reduced, which makes for compactness.

In case of prices including a fractional part of a cent, I have mounted a leaf 82 adjacent each sight opening 16. This leaf includes a loop 84 which is loosely mounted on the bight of a staple 86 driven through the panel 12 and clinched, as indicated at 88. Each leaf includes a fractional marking on one side and is plain on the other. When pivoted in the direction of its respective sight opening, as illustrated in Fig. 6, the fractional number appearing thereon may be read in combination with the price exposed through the sight opening, but when pivoted away from the sight opening, the fractional number cannot be read, as indicated at 90 in Fig. 1.

While the frame 10 is illustrated as being open at its rear, a closing panel may be attached to the frame. In most cases, the frame 10 would be positioned with its open side adjacent a wall which dispenses the necessity for a closure. While the device is illustrated as being constructed of wood, the cabinet may be shaped of sheet metal without departing from the spirit of the invention.

Without further elaboration, the foregoing will so fully explain my invention that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

1. In a price register, a panel having a sight opening, a web movable across said sight opening, digits carried by the web, to be selectively exposed through the sight opening through movement of the web, said digit bseing so spaced as to be visible in groups of two through said sight opening, the spacing between the digits being such that the digits in a group of three may be selectively combined to provide two two digit numbers therefrom, a flap hingedly connected with said panel adjacent the sight opening, and digits having fractional value carried on one face of the flap.

2. In a device of the type described, a panel having a sight opening, a horizontal web movable across said sight opening, digits carried by said web, to be selectively exposed through the sight opening through movement of the web, said digits being equally spaced and arranged vertically on the web, a flap hingedly connected with said panel adjacent the sight opening, and digits having fractional value carried on one face of the flap.

3. A price register comprising a cabinet provided with a sight opening, a pair of roller elements mounted inside the cabinet, one of said roller elements being rotatable about an axis paralleling the face of the cabinet provided with the sight opening, the other of said roller elements being mounted for rotation about an axis at right angles to the said face of the cabinet, a belt mounted upon said roller elements, said belt having a reach lying in a horizontal plane, digits carried by said belt, to be selectively exposed through the sight opening, said digits being equally spaced along the belt, and presented vertically across the sight opening, but readable in a horizontal direction.

4. A price register comprising a cabinet provided with a sight opening, a pair of roller elements mounted inside the cabinet, one of said roller elements being rotatable about an axis paralleling the face of the cabinet provided with the sight opening, the other of said roller elements being mounted for rotation about an axis at right angles to the said face of the cabinet, a belt mounted upon said roller elements, said belt having a reach lying in a horizontal plane and another reach lying in a vertical plane and extending across said sight opening, digits carried by said belt, to be selectively exposed through the sight opening, said digits being equally spaced along the belt and presented vertically across the sight opening, but readable in a horizontal direction, the said face of the cabinet being provided with a second opening, a shaft carried by the said other of said roller elements and accessible through the said second opening, to permit turning of the roller element and shifting of the belt.

PAUL W. WASCHAU.