United States Patent

Lichtenstein et al.

[15] **3,682,407**

[45] **Aug. 8, 1972**

[54] TAPE CARTRIDGE FOR MACHINES

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[22] Filed: **March 3, 1970**

[21] Appl. No.: **15,978**

[52] **U.S. Cl.** **242/67.3,** 197/133, 197/151, 235/2, 242/55, 242/74

[51] **Int. Cl.**.....**B65h 17/02,** B41j 15/02, B41j 15/06

[58] **Field of Search**.....242/192, 199, 200, 67.3

[56] **References Cited**

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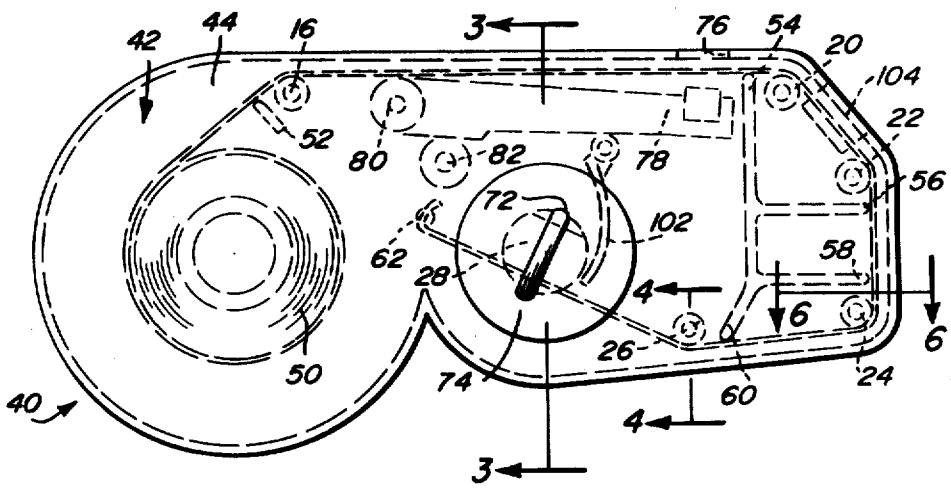
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[57] **ABSTRACT**

An instant load cartridge for use in any machine utilizing tape, ribbon, film or other such web-like material transported from a supply spool to a take-up spool and passing over or over and under a plurality of spools, guides or the like already existing in the machine including a sealed casing having a supply spool with the web-like material thereon, guide means for the web-like material, and means to retain the web-like materi-al adjacent to an existing take-up reel on the machine so that the web-like material may be quickly connected to the take-up reel by use of an existing retaining key whereby the cartridge may be instantly loaded into the machine thereby eliminating the necessity of manually threading the web-like material through the existing machine for reducing the time required to replenish the supply of the web-like material in the machine.

7 Claims, 8 Drawing Figures



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SHEET 1 OF 2

Fig . 1

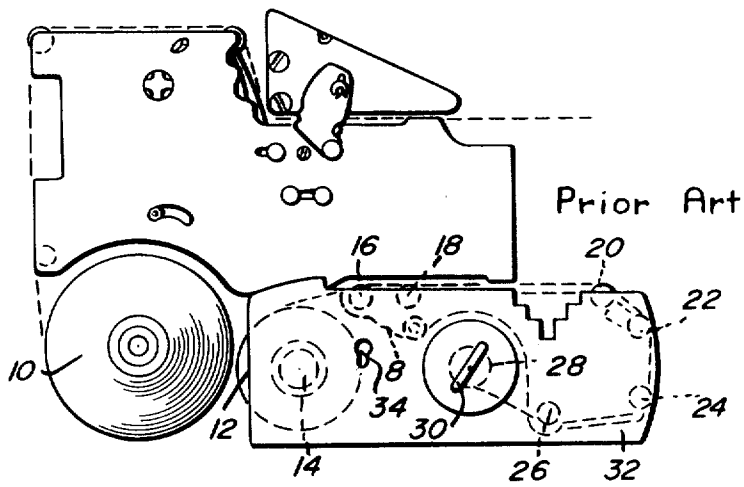


Fig . 7

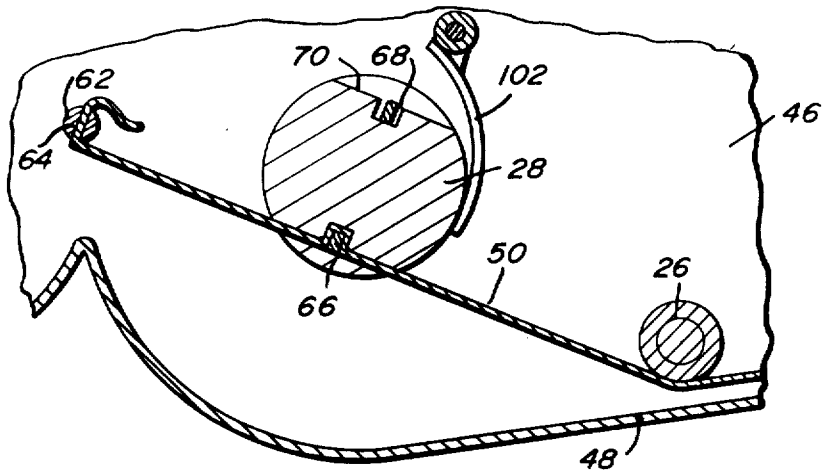
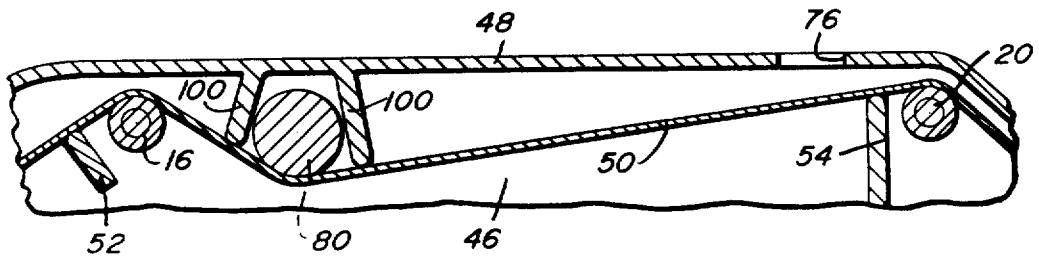


Fig. 8



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Fig. 2

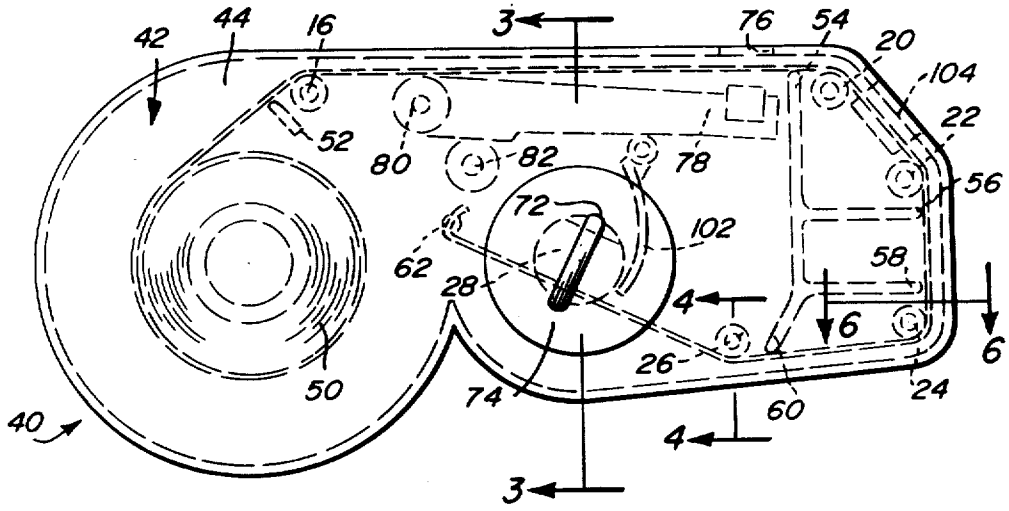


Fig. 3

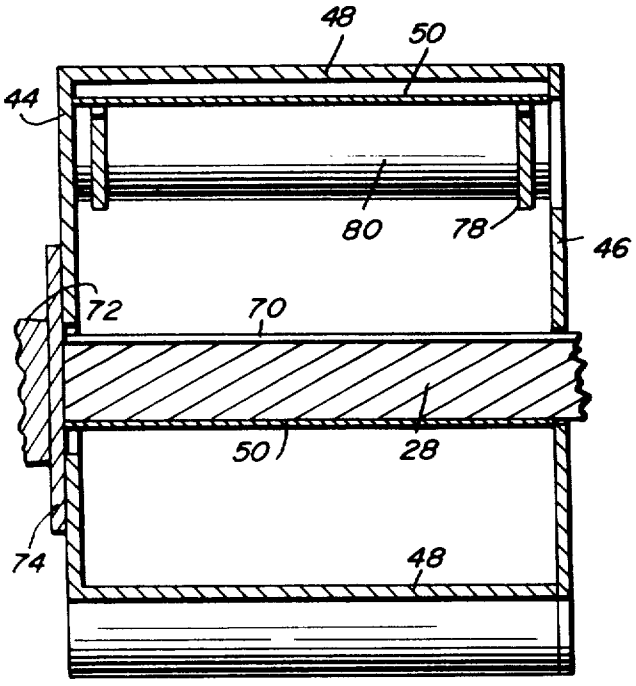


Fig. 4

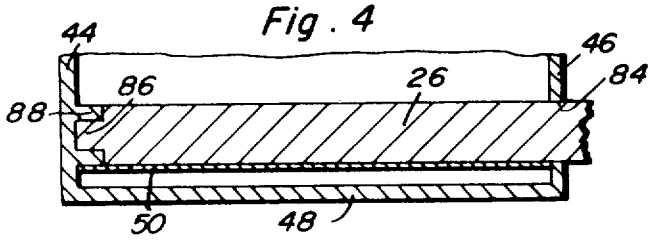


Fig. 5

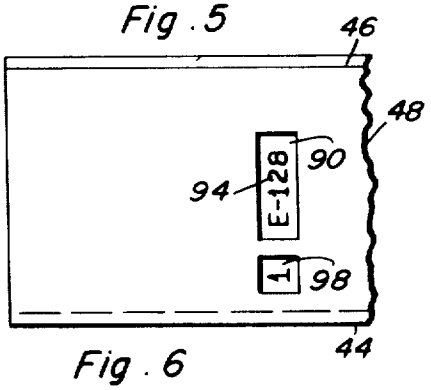
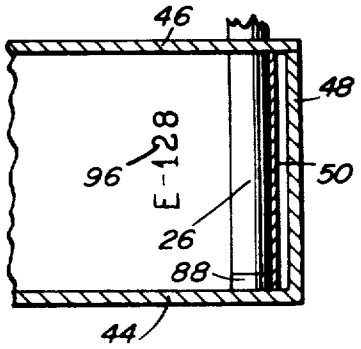


Fig. 6



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TAPE CARTRIDGE FOR MACHINES

The use of various types of web-like materials such as tape, ribbon, film and the like is quite prevalent in numerous machines with the tape, ribbon, film and the like normally being provided on a supply reel, spindle, spool, roller or the like and extending over, around or under guides in the form of reels, spindles, spools, rollers or the like and being ultimately wound upon a take-up reel, spindle, spool, roller or the like. When the supply of tape becomes exhausted, it is necessary for an operator to remove the tape from the take-up reel or in some instances to remove the entire take-up reel and tape wound thereon, replace the tape on the supply spool, or in some instances to replace the entire supply spool with tape thereon and thread the tape over, around or under the various guides incorporated into the machine and ultimately attach the free end of the tape to the take-up reel. This operation requires the expenditure of considerable time depending upon the manual dexterity of the person performing this operation and the particular orientation of the various components with which the tape must be associated.

One example of such a tape is in cash registers employed in various retail establishments. In supermarkets, grocery stores and other business establishments that have heavy customer traffic, there is usually provided a plurality of check-out counters each of which is equipped with a cash register. After the individual purchases of the customer has been rung up and totalled, the customer makes payment for his purchases and receives a receipt in the form of a segment of tape having the purchases itemized thereon and totalled. This tape is torn from a customer receipt tape which is printed by the cash register in a known manner. Also, at the same time, the cash register prints at least the same information on a detail tape which stays in the cash register. It is quite annoying to customers for the check-out counter operator to have to delay the check-out operation while the detail tape is being replaced inasmuch as this requires considerable time and in actual practice, the particular check-out counter is closed to customers when the detail tape is being replaced.

In one particular cash register presently available and employed in many stores, the detail tape must be threaded over, around and under six rollers from the supply spool and then connected to the take-up reel by the use of a retaining key.

It is an object of the present invention to provide a tape cartridge for instantly loading a detail tape into a cash register thus eliminating the necessity of the cash register operator to expend considerable time re-threading the detail tape through the guide rollers of the cash register with it only being necessary for the operator to remove the retaining key, remove the cartridge with the exhausted tape therein, insert a new cartridge, then insert the retaining key in place and rotate the retaining key approximately two turns in a clockwise direction to secure the detail tape to the detail tape take-up reel. This materially increases the efficiency of operation of the cash register and reduces inconvenience to the customers of a business establishment.

Another object of the present invention is to provide a tape cartridge constructed to enable employment with existing cash register structures without modification thereof.

A further object of the present invention is to provide a tape cartridge which includes a sealed housing to prevent the cash register operator from tampering with the tape, with the cartridge also including identifying indicia such as a code number or the like to enable foolproof security check on the operation of the cash register.

Yet another important object of the present invention is to provide a tape cartridge which is constructed of relatively inexpensive material and is quite simple in construction and operation and will increase efficiency of cash register operations which in turn will improve customer relations as well as improve the working conditions of the cash register operator.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a schematic elevational view of an existing cash register structure illustrating the customer receipt tape and detail tape. In this view the marking assembly, hereinafter referred to as numeral 78, has been omitted for added clarity.

FIG. 2 is a side elevational view of the tape cartridge of the present invention which will be utilized for the detail tape without modifying the cash register structure of FIG. 1 except that the tape roller support plate, referred to as numeral 8, is removed and disposed of.

FIG. 3 is a vertical sectional view taken substantially upon a plane passing along section line 3—3 of FIG. 2. This view illustrates the structural details of the tape cartridge.

FIG. 4 is a detailed sectional view taken substantially upon a plane passing along section line 4—4 of FIG. 2 illustrating further structural details of the tape cartridge.

FIG. 5 is a plan view of a portion of the tape cartridge illustrating an indentifying code number thereon.

FIG. 6 is a detailed plan sectional view taken substantially upon a plane passing along section line 6—6 of FIG. 2. This view illustrates further structural details of the tape cartridge and a concealed identifying code number therein.

FIG. 7 is a detailed sectional view, on an enlarged scale, illustrating the manner in which the end of the tape is attached to the take-up reel by employing the retaining key presently used on cash registers.

FIG. 8 is a detailed sectional view, on an enlarged scale, illustrating the tape passing over and under certain of the rollers or spindles on the cash register.

While the tape cartridge of the present invention is particularly adapted for use in a cash register and the invention has been disclosed specifically in conjunction with a cash register, it is pointed out that it is within the scope of this invention to utilize the concepts incorporated into the tape cartridge in conjunction with various other business machines employing a web-like tape or the like therein. Referring specifically to the drawings, FIG. 1 illustrates diagrammatically the structure which confronts a cash register operator when the door which covers the tape receiving area is opened. A supply roll of customer receipt tape 10 is provided and

extends over guide rollers and extends forwardly through a slot in the cash register for enabling the cash register operator to grasp the free end thereof and tear it off and present it to the customer as a receipt. As illustrated, the customer receipt tape is laterally accessible and the supply thereof can be replenished by the cash register operator without any substantial difficulty. However, the conventional detail tape **12** is not discharged from the machine but is retained as a permanent record of the transactions of the cash register and is employed when the transactions are checked against the money in the cash register drawer. The arrangement of the detail tape varies but in one typical cash register, the detail tape **12** is provided on a roll which is mounted on a stud **14** and the tape is then pulled off the top of the roll forward over studs **16**, **18**, **20**, **22**, **24** and **26**. The detail tape **12** is then brought under the take-up reel **28** and the retaining key **30** is then inserted to secure the detail tape **12** to the take-up reel **28**. The retaining key **30** is then rotated approximately two turns to start the detail tape **12** on the take-up reel **28**. The entire assembly is covered by a door **32** generally in the form of a cover plate which may be hingedly connected in any suitable manner with the door being retained in place by a lock structure **34** which prevents unauthorized personnel from normally gaining access to the detail tape. However it frequently occurs that unauthorized personnel have, through devious means, obtained keys to operate the lock **34**.

To remove the used portion of the detail tape from the cash register, it is of course first necessary to unlock the lock **34** and open the door **32**. There is always a small portion of the used detail tape that is not wound on the tape take-up reel **28**. The detail tape must be manually torn between the used and the unused portion and the used portion must be wound, manually, onto the take-up reel **28**. The used detail tape is then removed from the cash register. The take-up reel **28**, being an integral part of the cash register, remains in the cash register. The unused detail tape, remaining in the cash register, is then reconnected to the detail tape take-up reel **28** as described in the preceding paragraph.

The tape cartridge of the present invention is illustrated in FIGS. **2**, **3**, **4**, **5**, **6**, **7** and **8** and is generally designated by reference numeral **40** and includes a casing or housing **42** having an outer side wall **44**, an inner side wall **46** and a peripheral wall **48** extending between the side walls **44** and **46**. The housing **42** may be constructed of plastic material and is preferably of unitary one-piece construction. Disposed in one portion of the housing **42** is a supply of detail tape **50**. The detail tape **50** is wound into a spiral roll having a hollow interior for receiving the supply spool spindle or stud **14** of the cash register which is also received through a suitable opening in the inner wall **46** of the housing **42**. The detail tape **50** then extends over guide member **52** which extends between the walls **44** and **46** and orients the detail tape **50** so that it will pass appropriately over the stud or roller **16** on the cash register. Additional guide members **54**, **56**, **58** and **60** are provided interiorly of the housing **42** and each of these guides extend transversely between the inner surfaces of the walls **44** and **46** and are provided with rounded outer edges. The end of the tape **50** is attached to an anchor member **62** which is in the form of a slotted rod with the terminal end of the detail tape **50** extending through the slot **64** and being anchored therein such as by a frictional gripping action. The detail tape **50** is retained in a straight line condition so that it will be in engagement with and generally tangential to the take-up reel **28** so that one of the prongs **66** of the retaining key **30** will anchor the detail tape **50** to the take-up reel **28** by urging the detail tape **50** into one of the grooves **68** in the flat opposed side surfaces **70** of the take-up reel **28**. The retaining key **30** is conventional in construction and includes a handle **72** and a plate **74** with two parallel prongs **66** affixed thereon. One of the prongs is shorter than the other but both of them extend over a major portion of the length of the take-up reel **28** and secure the detail tape **50** in position in the same manner as the conventional tape **12** is secured to the take-up reel. The take-up reel **28** and the retaining key **30** are presently employed in cash register structures. Before a new tape cartridge **40** is inserted into a cash register, the retaining key **30** is removed. This is followed by the removal of the old tape cartridge. When the new cartridge is inserted, it is only necessary to insert the retaining key **30** and turn it for approximately two revolutions which will disconnect the detail tape **50** from the anchor member **62** and start the detail tape **50** on the take-up reel **28**.

The peripheral wall **48** of the housing **42** is provided with an appropriately located aperture **76** therein for enabling printing on the detail tape **50** by the pivoting marking assembly **78** which pivots about shaft or stud **80** in a direction towards the aperture **76**. After operation, the marking assembly **78** returns to its original position. This position of "rest" being determined by the stop roller **82**. The marking assembly **78**, an existing part of the cash register, includes an inked ribbon which remains outside and tangent to the top of the tape cartridge **40**. The inner wall **46** of the tape cartridge **40** having open areas for receiving the ribbon marking assembly **78**.

FIG. **4** illustrates a typical construction of one of the studs or rollers provided on the cash register such as the roller or stud **26** which projects through an opening **84** in the inner wall **46** and which has a reduced axial outer end **86** that is normally received through the outer wall of the cash register structure which is in the form of a plate-like structure interiorly of the door **32** which interconnects the ends of the various rollers and studs. This plate-like structure is referenced as numeral **8** of FIG. **1**. As disclosed earlier, this support plate **8** is removed and disposed of when the tape cartridge **40** of this invention is utilized. The outer wall **44** is provided with a cylindrical projection **88** which telescopically receives the shouldered end **86** of the roller **26** to provide stability and support for the roller **26** during the operation of the cash register. Also, the cylindrical projection **88** defines a guide for the detail tape **50** to retain the tape in position for positioning over the roller **26** when the tape cartridge **40** is inserted into the machine.

The top surface of the peripheral wall **48** is provided with a tear-off tab **90** which has an identification code or number **94** thereon. An identical identification code or number **96** is formed on the interior of the cartridge such as on the inner surface of the peripheral wall **48**

adjacent to the roller or stud **26**. This code number **96** identifies the cartridge and the user cannot determine the code inside of the cartridge without mutilating or destroying the cartridge. When the cartridges are given to a user, the tear-off tab **90** is removed to provide a record of those cartridges that were provided a particular user for subsequent check of receipts as explained in more detail hereinafter. Also space is provided on the upper surface of the cartridge wall **48** adjacent to the tear-off tab **90**, as designated by the numeral **98**, for providing an area on which indicia may be written such as sequence numbers for use in the security check as described in more detail hereinafter.

FIG. **8** illustrates a structure similar to that of FIG. **2** but in this arrangement the detail tape **50** extends under the roller **80** rather than over it and guide ribs **100** are provided on the inner surface of the peripheral wall **48** to guide the detail tape **50**.

FIG. **8** illustrates one of many variations in the orientation of the detail tape, ribbon, film or other web-like material so that it may be employed with various cash registers, business machines and any other machines employing material of this type.

In some installations, it may be necessary to adapt existing machines in a limited manner but primarily, the tape cartridge is to be employed with existing machines such as cash registers without any modification or alteration thereof to the existing mechanical mechanism thus increasing the speed and convenience with which the machine can be loaded. In many instances this loading can be accomplished in a matter of seconds. Also, the tape cartridge provides additional security against pilferage to the owner of a business who employs the cartridge in a machine where money or securities or other items of cash value are placed or in which incoming monies are tabulated.

There has been a continuing problem of pilferage of monies or securities that have been "rung up" or processed in a cash register. Recognizing this problem, most manufacturers of cash registers incorporate an optional feature in their machines generally referred to as "accumulative total." This "accumulative total" feature supposedly provides a fool-proof method which enables the owner of the cash register to determine that monies that have been "rung up" or processed through the cash register have been reported. A new cash register having this feature will reflect an accumulative total of zero. All sales processed through this cash register continue to add to the accumulative total so that at any instance the total of the detail tapes submitted to the owner, plus the total on the detail tape at the time of a check of the cash register should be in accord with the amount reflected by the accumulative total reading of the cash register. However, this feature is not fool-proof inasmuch as the cash register company builds into each of the cash registers the capability of resetting the accumulative total. While it is true that special tools are required for resetting the accumulative total, there is a distinct possibility that such special tools can and do get into the hands of persons that have no qualms about resetting an accumulative total. For example, if an owner of a store adds the total of the detail tapes from any cash register and checks the accumulative total reading on that cash register and they agree, then the owner would normally assume that no pilferage has occurred. However, someone employing special tools could easily reset the accumulative total of the cash register. While the cash register company assures that the special tools are available only to mechanics employed by the cash register company, from a practical standpoint, there is a distinct possibility that such tools can be obtained and the accumulative total reset thus rendering this security feature on existing cash registers unreliable.

In view of this problem, some cash register companies provide the accumulative total feature in a unit protected by a lead seal. The seal that is used is similar to the seal used on a postage meter or watthour meter. The seal must be broken in order to gain access to the mechanism of any of these devices. Here again, the special tools and seals required to reseal the accumulative total unit compartment are available, supposedly, only to certain cash register company employees. It is still possible for a dishonest cash register company employee to secure the necessary tools and seals and this employee would be able to reset the accumulative total and reseal the unit. So here again the accumulative total feature does not solve the problem of pilferage from cash registers. Of course, the cash register operator would have to provide a detail tape registering the lower total that would be reflected on the accumulative total which has been reset. This is a quite simple matter for the user of the cash register since he may employ a cash register exactly like those used in the store at some outside location and merely run a detail tape reflecting a lower total so that there would be the same total on the accumulative total and on the totals of the detail tapes from any given cash register. Whenever a cash register is checked, the accumulative total shown in the cash register should equal the total of all of the detail tapes processed through that cash register plus the total shown on the detail tape being employed at the time of checking.

Even an inventory check may not uncover pilferage. For example: The owner of a jewelry business will average two times mark-up on cost. That is to say, merchandise that cost $1.00 will be sold for $2.00. What will the shortage of $120,000.00, pilfered in cash by the jewelry store manager, reflect in inventory? By pilfering $120,000.00 in cash from the business the jewelry store manager has actually pilfered $60,000.00 in inventory and he has actually pilfered $60,000.00 in profits! A physical inventory can only reflect the inventory shortage of $60,000.00. It cannot reflect the $60,000.00 in profits pilfered by the jewelry store manager. But a physical inventory will not necessarily reflect any shortage and/or pilferage! Why is this? The jewelry store manager is smart and knows that an inventory check could reveal an inventory shortage of $60,000.00 and consequently result in an investigation of his operation. To avoid this the jewelry store manager has taken $60,000.00 cash of the pilfered $120,000.00 cash and has replaced the missing inventory. Now, a physical inventory will not reveal an inventory shortage. The detail tape totals check with the accumulative totals of each of the cash registers employed in the jewelry store. The owner of the jewelry store is satisfied that no shortage, either inventory or cash, exists. The jewelry store manager has just pilfered the jewelry store owner of $60,000.00!

In addition to offering a convenience feature and reducing the time necessary to reload the cash registers, the tape cartridge of this invention introduces an additional security feature. For example, when the tape cartridge **40** is delivered to a store such as a branch store of a chain of stores, the identification code **94** on the tear-off tab **90** identifies this cartridge. Since the tear-off tab **90** is removed before the cartridge is delivered to the store, there is no method, short of destroying the cartridge by which the user can determine the identification code **96** inside the cartridge. Thus, the owner of the business would make a record by copying down the identification code **94** and then removing the tab **90** before the cartridge is delivered to the store. Thus, the owner of the business would have a record of all detail tape cartridges sent to a particular store. Thus, when the detail tapes which are returned to the owner from the store are received and opened, the owner of the store can be certain that the detail tapes were detail tapes actually processed in one of his cash registers; as will be shown later; during the course of a business day and is not a detail tape omitting or altering sales as was the case in the previous discussion of the accumulative total feature type cash registers. The owner of the store will know this because the detail tape has a customer sequence number printed on it and when checking the detail tape, it is quite easy to determine that all customer sales or numbers are sequential. In other words, if a customer number and sale was rung up when the cartridge was removed from the cash register, the customer number for that particular sale would not appear on the detail tape in the cartridge which would readily be detected by the owner of the store. However, the cartridge of the present invention is constructed so it is virtually impossible to remove it and then reinstall it notwithstanding, even if the cartridge was reinstalled, there would be a break or hiatus in the customer sequence number unless someone knowledgeable having the proper tools immediately reset the cash register to produce the correct customer number prior to processing the next sale. In this event, the removal and reinstallation of the cartridge would be detected by a spring-loaded device **102** which applies tension on the detail tape **50** as it accumulates on the take-up reel **28**. A marking pen could be provided on the tension member **102** to imprint a continuous line spaced inwardly from the edge of the detail tape **50** and would provide evidence as to how many times the sealed cartridge **40** has been removed from and installed in the cash register.

In an effort to pilfer by providing a bogus detail tape in an authorized tape cartridge, the user of the cash register would obtain an additional cash register of exactly the same type as those being used in the store. He would place an unauthorized detail tape in the cash register in the store and place the authorized tape cartridge in the unauthorized cash register. The unauthorized cash register would have its customer number set to correspond with the customer number of the authorized cash register being employed in the store. At the end of the business day the operator of the cash register would have to reset the accumulative total of the authorized cash register in the store to reflect the lower total that would appear on the authorized tape cartridge in the unauthorized cash register. However, such procedures would not be successful without being detected inasmuch as the owner of the business would instruct the operator of the store which sequence of cartridge to use as determined by the sequence numbers **98**. Then, without notice and without any schedule known to the store operator, a security service employed by the business owner will visit the store, produce proper identification and remove the sealed tape cartridges then in use in the authorized cash registers and exchange them for additional tape cartridges which have been brought by the security service and whose identification codes have been recorded by the store owner. Thus, under the circumstances, the authorized cash register in the store from which money was being pilfered would not contain the correctly numbered sealed tape cartridge **40** and, in fact, would not contain any of the tape cartridges sent to the store by the business owner thus preventing this manner of undetected pilfering.

In large establishments such as supermarkets or the like there may be more than twenty or thirty cash registers. An additional cash register can be brought in by the manager and used and not be detected by the store owners since there is no check on the detail tapes. That is to say, the store manager does not have to produce a detail tape from this additional unauthorized cash register; which he is using for pilfering; because the owners are unaware that this register exists!

The tape cartridge of this invention with the code number and sequence number thereon will clearly preclude the introduction of an additional cash register into a store having a multiple of cash registers for this reason: Let us assume a supermarket opens for business using thirty cash registers. Detail tapes bearing the sequence numbers **1** through **30** are the first tapes to be utilized. The security service, employed by the supermarket owner, visits the supermarket on the first day of operation and removes the detail tapes then in use which would be detail tapes with the sequence numbers **1** through **30**. The security service asks the manager to install new detail tapes in all thirty cash registers. These detail tapes would bear the sequence numbers **31** through **60**. If an unauthorized cash register is being employed by the store manager, one of these tapes (a tape bearing the sequence number of **31** through **60**) is being utilized in the unauthorized cash register and the supermarket manager cannot produce that detail tape unused to the security service and his pilfering is immediately detected.

The identification code may be composed of letters, numbers or any combination thereof and may additionally employ a fingerprint which will provide an even better security check since this absolutely precludes reproduction of the tape cartridge, including the identification code **96** therein, itself. In any event, the identification code **96** is molded as part of the cartridge and because of this there is no possible way to remove the identification code from one cartridge and place it in another cartridge. The location of the identification code **96** is, as shown in FIG. **2**, completely concealed. The identification code **96** is in a cavity enclosed by tape cartridge sides **44** and **46**, tape cartridge peripheral wall **48** and tape cartridge guide members **58** and **60**. There is no possible way, short of destroying the tape cartridge **40**, to learn the identification code **96**.

Any suitable indicating means may be provided on the detail tape to indicate that the end of the tape is being approached. This indication would be visible through a window **104** in the tape cartridge **40**. The detail tape **50** becomes visible to the cash register operator as it passes by window **104**.

Other features that could be incorporated into a cash register and associated with a cartridge of this type include:

A print-out clock which would record the time a sale was processed through a cash register.

A locking device that would prevent removal of the detail tape cartridge **40** from the cash register when the electrical power has been disconnected from the cash register. This locking device, or solenoid, would prevent a person from disconnecting the cash register from a source of electrical power in an effort to remove the detail tape cartridge **40** and defeat the continuous marking device discussed in other portions of this disclosure.

A continuous marking device affixed to tension member **102** (as described earlier in this disclosure) which would leave a tell-tale mark on the detail tape **50** indicating how many times the detail tape cartridge **40** had been removed from the cash register.

In addition to the features just described, the structure of the detail tape cartridge **40** itself is such that removal and reinstallation of the detail tape cartridge **40** is almost impossible! The aperture in the inner wall of the detail tape cartridge **40** closely receives the take-up reel **28** when the detail tape cartridge **40** is installed in the cash register. Any convolutions of the detail tape **50** on the take-up reel **28** would preclude removal of the detail tape cartridge **40** without also removing the detail tape **50** from the take-up reel **28**. This is true because the combined diameters of the take-up reel **28** plus the detail tape **50** now exceed the diameter, which initially only accepted the take-up reel **28**, in the inner wall of the detail tape cartridge **40**. Once the detail tape cartridge **40**, and the detail tape **50** therein, have been removed from the take-up reel **28**, it is virtually impossible to reinstall the detail tape cartridge **40** and the detail tape **50** in such a manner as to associate the detail tape **50** with the take-up reel **28**.

While the cash register has been used as being illustrative of a machine in which the advantages of the present invention are effective, the concept of this invention may also be incorporated into any machine utilizing tape, ribbon, film or other material that is moved from a supply reel in a linear manner onto a take-up reel over or over and under various guide structures such as reels, spindles, spools, rollers or other structures. These structures are used to facilitate the loading of the tape, ribbon, film or other material and to provide a security for the material in the cartridge.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A tape cartridge for use in a machine of the type utilizing a flexible tape transported from a supply spool to a take-up spool or reel over or over and under a plurality of guide members comprising a housing having a peripheral wall including an inner wall having open areas incorporated therein for enabling positioning of the housing onto the supply spool and take-up spool or reel as well as the guide members on the machine and an outer wall having an opening therein for access to the take-up spool or reel, a supply roll of tape, ribbon, film or other material mounted in said housing, an anchor for the free end of the tape in spaced relation to the supply roll, guide means for the tape, ribbon, film or other material for retaining the tape, ribbon, film or other material in predetermined relation to the openings, said guide means cooperatively aligned with said anchor to maintain the anchored end of the tape, ribbon, film or other material adjacent to the take-up spool or reel whereby a retaining key provided to be associated with the take-up spool or reel of the machine inserted through the opening in the outer wall of the cartridge will anchor the tape, ribbon, film or other material to the take-up spool or reel and retain the cartridge in position.

2. The structure as defined in claim 1 together with an identification code number interiorly of the cartridge oriented in a manner to prevent knowledge of the code number without destruction of the housing, and a removable indicating means on the exterior of the housing having the same code number thereon for removal after the code number has been recorded, and a sequence number receiving space on the exterior of the housing to enable a plurality of cartridges to be numbered in a sequence.

3. The structure as defined in claim 1 wherein said anchor includes a slotted member extending transversely of the housing and frictionally and detachably securing the tape thereto for winding on the take-up spool or reel.

4. The structure as defined in claim 1 wherein said guide means includes a plurality of transversely extending ribs terminating adjacent to the periphery of the housing for retaining said tape in position in relation to the guide members on the machine.

5. The structure as defined in claim 1 wherein said housing is of sealed, enclosed construction whereby access to the flexible tape disposed interiorly thereof is prevented without destruction of the housing.

6. The structure as defined in claim 1 wherein said housing, tape anchor and guide means are of unitary structure thus enabling the tape cartridge to perform its function without utilizing any mechanical, electrical, electro-mechanical or moving parts.

7. The method of providing a record of a multiple of business transactions on a machine involving transfer of monies, comprising the steps of:

a. enclosing a supply roll of tape in a housing adapted to preclude access thereto when sealed, except access by a recording apparatus on the machine, without destruction of the housing;

b. positioning a portion of the tape in the housing for engagement with a take-up spool or reel on the machine;

c. sealing said housing;

d. removably installing said housing in the machine;

e. retaining said housing in the machine by inserting a retaining key of the machine into an opening in said housing and into association with the take-up spool of the machine, thereby anchoring the tape to the take-up spool; and

f. operating the machine whereby the transfer of monies is recorded by the recording apparatus on the tape.

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