United States Patent [19]

Denley

[11] **3,901,372**

[45] **Aug. 26, 1975**

[54] **PROTECTIVE COVER WITH VIEWING WINDOW FOR PRINTERS**

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[73] Assignee: **Teletype Corporation**, Skokie, Ill.

[22] Filed: **July 22, 1974**

[21] Appl. No.: **490,827**

[52] **U.S. Cl.** ..... **197/186 R;** 197/194; 225/41; 312/208; 350/276 SL

[51] **Int. Cl.²** **B41J 29/8;** B41J 29/42

[58] **Field of Search** ..... 197/186 R, 186 A, 186 B, 197/127, 187, 190, 194; 225/41; 350/276 R, 276 SL; 312/208

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[57] **ABSTRACT**

A protective one-piece cover, particularly adapted for use with housings for printer apparatus and the like, is preferably molded out of a plastic material, and incorporates a non-glaring transparent viewing window, specified and optional "frosted", translucent surface areas for both diffusing ambient light and concealing portions of the apparatus therebelow, and a feed-out passageway that not only facilitates the initial manual insertion of paper in roll stock form, for example, upwardly through the cover, but provides a cutting edge for tearing off end sections of the fed-out paper. The passageway is further constructed to reliably retain even short, free end edge portions of the paper therewithin, and to prevent accidental re-entry of the free end of the paper into any closely spaced feed-in slot. The protective cover is also adapted to incorporate either an adjustable or fixed print column (or any other) indicator scale as a functional part thereof.

24 Claims, 8 Drawing Figures

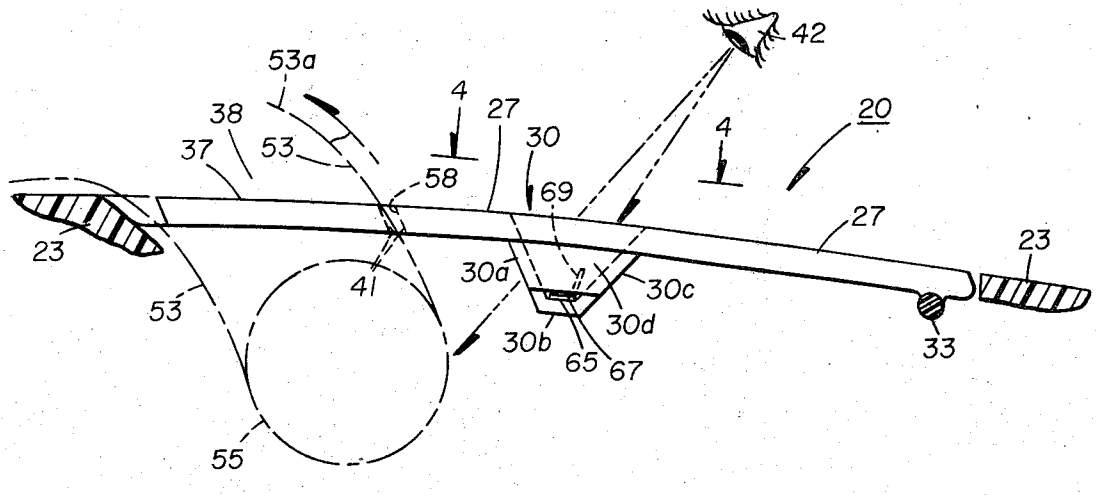


FIG. 1

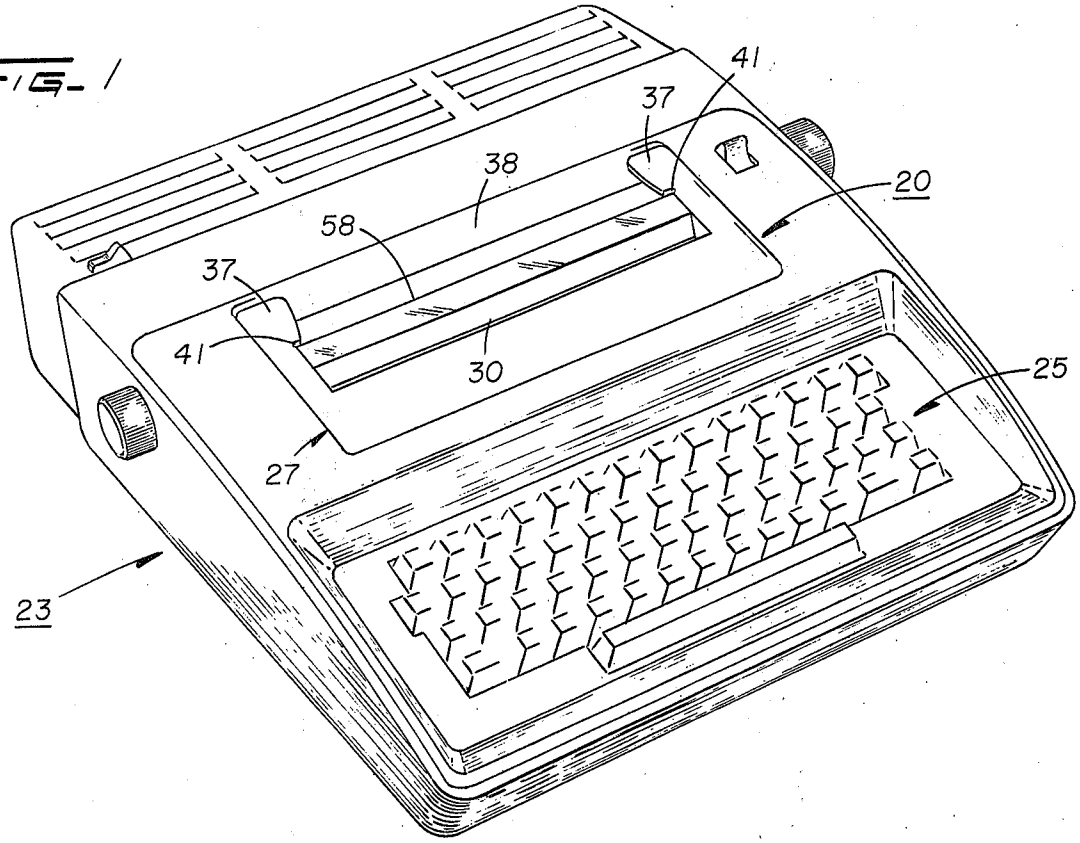

41
37
38
20
58
37
41
30
25
27
23

FIG. 2

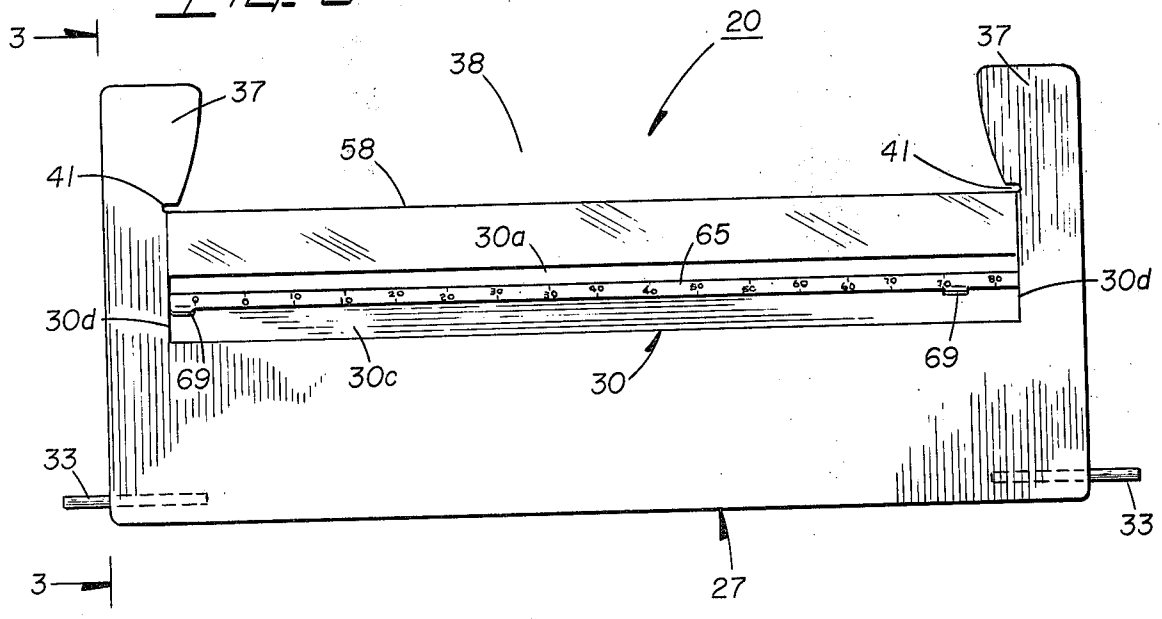

3
20
38
37
37
41
58
41
30a
65
30d
30d
69
30c
30
69
33
33
3
27

FIG. 3

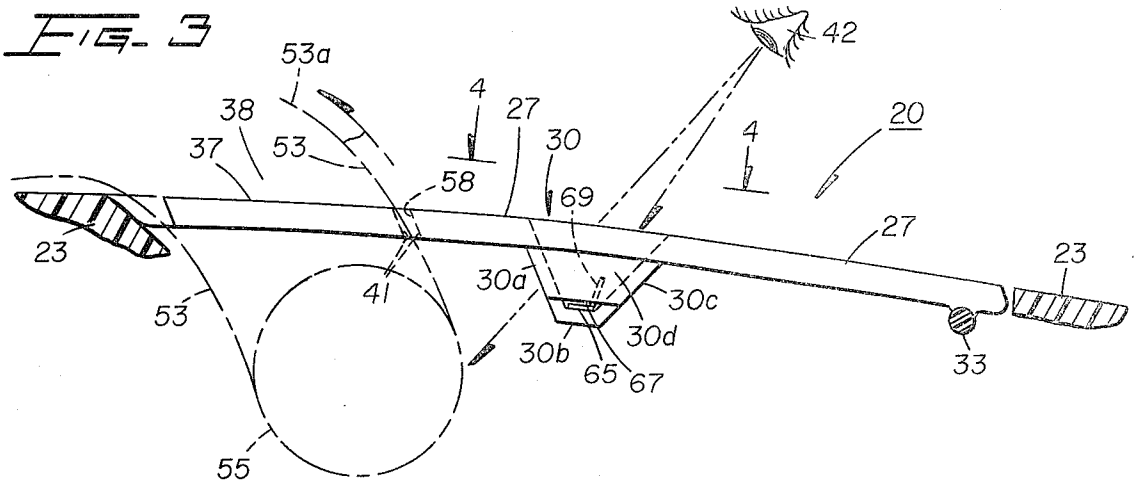


FIG. 8

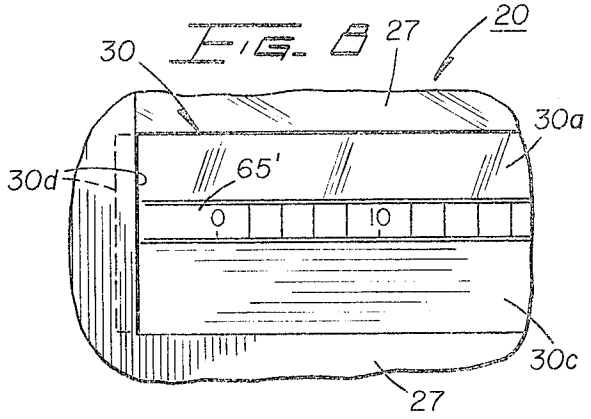


FIG. 4

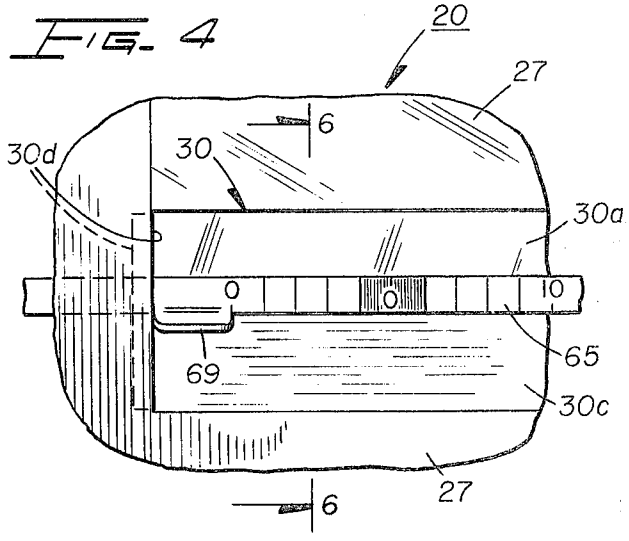
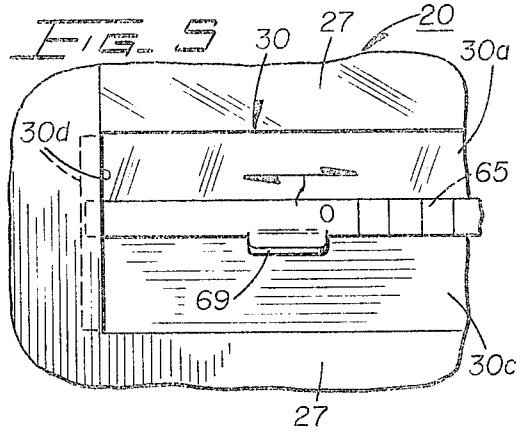


FIG. 5



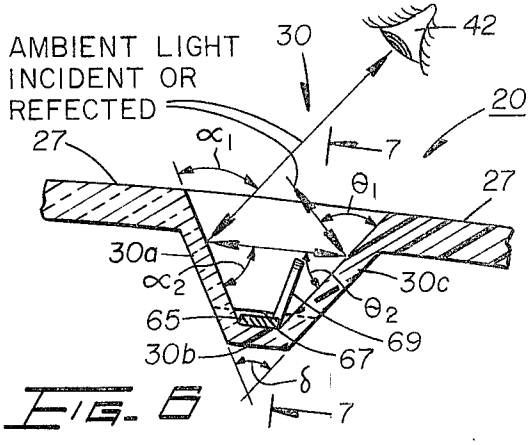
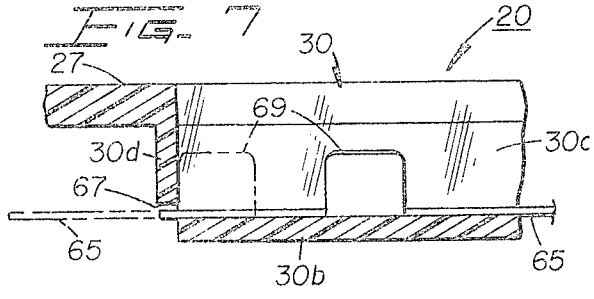


FIG. 6

FIG. 7



PROTECTIVE COVER WITH VIEWING WINDOW FOR PRINTERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to printer apparatus and, more particularly, to a protective cover, including a non-reflective transparent viewing window, for use as part of the housing therefor.

2. Description of the Prior Art

Protective see-through covers adapted for use as part of the housing for printer apparatus and the like, have generally consisted of either an entire transparent window or a specially shaped window formed as a part of a larger typically flat, rectangularly shaped glass or plastic member. Such protective covers are dimensioned to enclose a normally inclined opening formed in an upper surface of the printer housing, and are often pivotally secured thereto along one edge so as to allow ready access to the interior of the housing.

Particularly when molded out of a suitable plastic material, such covers have also been formed in other configurations, such as with two or more integral wall portions, angularly oriented with respect to each other, or formed so as to have a partial or continuous curvilinear profile. Such non-planar cover configurations have been selectively employed to more closely fit the outer contour of the enclosed apparatus, to improve the appearance of the housing from an aesthetic standpoint, and to orient a particular portion thereof functioning as a window at an angle more conducive to line-of-sight viewing therethrough by an observer.

Regardless of the form that the above-described types of protective covers have taken, a major difficulty with respect to an observer looking through the window thereof has been that any ambient light that is reflected off the window, regardless of its orientation, is at least in part reflected back into the observer's eyes, thus making it very difficult not only to clearly seen through the window, but to do so with minimal eye strain.

In an effort to minimize window glare heretofore, the windows have sometimes been mounted so as to be at least partially shaded from ambient light. Shaded transparent windows, however, have the disadvantage of making it more difficult to see the apparatus protected by the window, because of reduced lighting. The need for a shade-functioning member either associated with the housing, or comprising an outward extension thereof, also normally does not present a housing profile that is aesthetically attractive.

Another approach taken to minimize glare in one prior basically simple flat window, comprising the entire protective cover, has involved mounting the window at an appropriate angle relative to an adjacent wall portion of the housing (normally made out of a suitable metal in a stamping operation), with the latter wall thereafter being coated with an optically dark material, such as jet black or gray paint. Such a light diffusing surface has the disadvantage that a number of manufacturing steps are involved in the manufacture of the housing, plus the fact that a dark colored coating may often not be compatible with the color (or colors) employed for the remaining major portion of the housing.

There thus has been a definite need for a simple, one-piece protective cover that may be readily molded with an inclined, non-glare viewing window that does not require an outwardly protruding shade, or any light absorbing or diffusing material subsequently painted, coated or otherwise formed on a wall portion of the housing adjacent the window.

With particular reference to housings for printers utilizing rotatable platens, there has also been a problem heretofore with respect to the simple, thin paper feed-out slot normally associated therewith. More specifically, there has been a tendency for the slot-confined free end of a fed-out and torn-off section of paper to be withdrawn out of the slot and urged against the platen. This is generally caused by several factors, one being the natural longitudinal curvature acquired by the paper when stored in roll stock form. Another factor has been due to the electrostatic attraction exhibited by the platen under certain operating conditions. In any event, when the free end of the paper is drawn against the platen, the continued incremental rotation thereof results in a build-up of paper on the platen until a jammed condition develops.

Also in connection with the paper feed-out slot, it would be very advantageous if it were constructed so as to initially facilitate the manual insertion of the free end of the paper therethrough, without requiring the removal or hinged opening of the protective cover, as has generally been required heretofore.

Without preventive structure being associated with the protective cover, or otherwise associated with the housing, the natural curvature of the paper when in roll stock form can often also present a jammed platen condition in another way. Specifically, the fed-out paper can curl downwardly at such an angle that it will enter the feed-in slot formed in the printer housing, or between the latter and the protective cover, and thereby become progressively wrapped around the periodically rotated platen until a jammed condition occurs.

There has also been a need for an elongated print column indicator scale that could be positioned in close proximity to the protective cover viewing window so as to provide immediate identification to an operator of any given print column location, for example, along a print line. As many printers have an adjustable left print margin, it would also be desirable for such an indicator scale to similarly be adjustable so that the zero point on the scale would always coincide with the left margin setting for every printing operation.

SUMMARY OF THE INVENTION

It, therefore, is an object of the present invention to provide a new and improved one-piece protective cover, for use with an apparatus housing, of simplified, rugged and inexpensive construction, and which cover incorporates a non-glaring transparent viewing window, specified and optional light-diffusing, translucent surface areas, a unique web-retaining feed-through passageway, and an optional indicator scale as a functional part thereof.

In accordance with one preferred embodiment of the present invention, the above and other objects are realized in a one-piece protective cover that is particularly adapted for use as part of the housing of printer apparatus, and the like. The protective cover is preferably molded out of a suitable transparent plastic material, and is formed with a substantially planar major wall portion and a laterally disposed and recessed trough portion. The trough portion is formed, in part, by a first

wall that extends downwardly at an angle from the underside of the major wall portion of the cover, and defines a narrow, laterally disposed window. The lower edge of the window merges into a second, laterally disposed wall forming a narrow base that, in turn, merges into a third wall that extends upwardly from the base to the underside of the major wall portion of the cover, and at an oppositely inclined angle with respect to the window, so as to form the aforementioned trough-shaped recess. The lateral length of the trough (and viewing window) is chosen to be commensurate with the maximum width of paper that can be used with the printer. The trough terminates in end walls spaced a short distance from the respectively adjacent edges of the cover.

At least the upper surface of the third wall of the trough is preferably formed with a frosted or "textured" surface during the molding of the cover. The orientation of the third wall, relative to that of the window, is chosen so that the frosted surface thereof will be in the path of and diffuse any ambient light that would otherwise not only be reflected thereto, but be reflected therefrom back to and then off the window along the line-of-sight of an observer for all normal angles of viewing through the window. It is apparent, of course, that other selected areas, or the entire upper surface of the protective cover, with the exception of the narrow transparent window, for example, could be formed with a frosted finish so as to also serve the function of concealing selected or all portions of the apparatus enclosed within the housing that need not be observed.

In accordance with another aspect of the invention, the protective cover is formed with a web or paper feed-out passageway that includes two laterally spaced cut-back notches which merge into respectively flared-out paper supporting flanges. These flanges are separated so as to define an appreciable opening therebetween, this opening facilitating the initial manual insertion of free-end edge regions of the paper within the notches. By properly dimensioning the thickness of the protective cover in the area of the notches, as well as the lateral width and angle of such notches, even only the short edge regions confined within the notches at the free end of the paper are reliably held captive, such as after an end portion of the paper has been torn off along an upper cutting edge formed in the cover. As such, the free end of the paper is prevented from being withdrawn downwardly out of the slot and wrapped about the periodically rotated platen until a jammed condition occurs.

The flared-out flanges in printer applications also advantageously prevent the otherwise often troublesome problem of the free end of the fed-out paper curling downwardly so as to enter a spaced, parallel feed-in slot formed in the housing. This condition would likewise lead to a progressive build-up of paper on the periodically rotated line-feeding platen until a jammed condition would develop.

In accordance with still another aspect of the invention which is particularly applicable for use with printer apparatus, the upper surface of the narrow wall forming the base of the recessed trough in the cover, is employed to either support a slidable print column indicator scale thereon, or to provide the surface on which scale markings (or indicia) are formed as an integral part thereof. However implemented with the cover, such as indicator scale, by extending along and in close proximity to the non-glare window, readily identifies the location of any given print column along a print line to an operator.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of an illustrative matrix printer and, in particular, of the housing therefor, which incorporates a protective cover, including a non-glare transparent window formed as an integral part thereof, embodying the principles of the present invention;

FIG. **2** is a plan view of the protective cover forming part of the printer housing of FIG. **1**;

FIG. **3** is an enlarged, sectional detail view, taken along the line **3—3** of FIG. **2**, and illustrates the manner in which the non-glared window is formed as one side wall of an integral, recessed trough in the protective cover;

FIGS. **4** and **5** are enlarged, fragmentary detail views of the protective cover, and respectively illustrate in particular two different lateral positions of an adjustable print column indicator scale which is supported on the base of the trough formed in the cover;

FIG. **6** is an enlarged, fragmentary detail sectional view, taken along the line **6—6** of FIG. **4**, of the trough formed in the protective cover, and of a portion of the adjustable print column indicator scale, including one of two outwardly extending tabs formed as an integral part thereof;

FIG. **7** is an enlarged, fragmentary detail sectional view, taken along the line **7-7** of FIG. **6**, illustrating the construction of the narrow slit formed in one end wall of the protective cover trough as molded, so as to allow one end region of the adjustable print column indicator scale to slidably pass therethrough, and

FIG. **8** is an enlarged, fragmentary detail plan view of the protective cover, illustrating in particular a portion of the base of the trough on which a fixed indicator scale is fabricated.

DETAILED DESCRIPTION OF THE INVENTION

It should be understood at the outset that the unique protective cover **20** as embodied herein has universal application, but for purposes of illustration, it is shown in conjunction with a housing **23** to enclose an illustrative dot matrix printer **25.** As the cover **20** is only associated directly with the housing, no details of the printer mechanism per se are required in order to appreciate and fully understand the unique features and significance of the present invention.

With attention first directed to FIGS. **1—3**, it is seen that the cover **20** is molded as a one-piece unit, preferably out of a suitable transparent plastic material, such as an acrylic or a polycarbonate resin, and is formed with a major, substantially planar wall portion **27** and with a recessed, laterally disposed portion essentially defining a trough **30.** The major wall portion **27,** which has a slight curvature thereto only for the purpose of being compatible with the adjacent profile of the housing **23,** includes two integral pins **33** which extend outwardly from opposite edges of the cover (best seen in FIG. **2**). These pins are adapted for mounting in suitable resilient snap-in brackets (not shown) secured to or otherwise formed as an integral part of the printer housing **23,** and allow the cover **20** to be pivoted outwardly from the adjacent surface of the housing so as

to allow ready access to the enclosed printer mechanism.

The major wall portion **27** of the cover also is formed with two mutually disposed flanges **37** that extend outwardly in parallel, and in the same common plane, so as to define a substantial, rectangular opening **38** therebetween. The significance of the opening **38,** as well as of two cutback notches **41** respectively formed in the inner corners of the flanges **37,** will be described in greater detail hereinbelow.

With respect to the integral, laterally disposed and recessed trough **30,** it is formed, in part, as best seen in FIGS. **3** and **6,** by a narrow elongated wall **30***a* which defines a transparent viewing window. This window extends downwardly at an acute angle from the underside of the major wall portion **27** of the cover **20.** The lower edge of the window **30***a* in a preferred embodiment merges into a second narrower, elongated horizontal wall (or base) **30***b*. The latter wall, in turn, merges into a third wall **30***c* which extends upwardly to the underside of the major cover portion **27,** and at an oppositely inclined angle with respect to the window **30***a*. It is thus seen that the walls **30***a*, *b*, and *c* form the recessed trough **30** as an integral part of the cover **20,** with end walls **30***d* of the trough terminating a short distance from the respectively adjacent edges of the cover.

It is apparent, of course, that the wall defining window **30***a* and the wall **30***c* could simply extend downwardly at oppositely inclined angles until they merged to form a V-shaped trough. The use of the wall **30***b* as a base portion of the trough, however, not only provides more usable space within the housing, but it serves another very useful function described in greater detail hereinbelow in connection with a print column indicator scale.

In accordance with the principles of the present invention, at least the upper surface of the third wall **30***c* of the trough **30** is specially treated, preferably to have a frosted or textured finish, and is oriented at a predetermined angle relative to the wall-defining window **30***a*, so as to diffuse any ambient light that either directly strikes the upper surface of the wall **30***c*, or is reflected thereto from the window, relative to all possible line-of-sight angles of viewing through the window by an observer (one such viewing angle being represented by an eye **42** of an observer shown in phantom in FIG. **3**).

Considered more specifically, and with particular reference to FIG. **6,** in accordance with the fundamental principles of optics, the light diffusing wall **30***c* should be spaced from the transparent window **30***a*, and be oriented at an angle δ relative thereto, such that for any possible line-of-sight viewing angle α_1, relative to the plane of the window, not only will (1) any incident ambient light ray that initially strikes the window along any possible viewing angle α_1 be reflected at a complimentary (equal but opposite) angle α_2 to the wall **30***c* and be diffused, but (2) any incident ambient light ray that initially strikes the wall **30***c* an an angle θ_1, and could otherwise be reflected at angle θ_2 back to the window, will be diffused. As such, any diffused light that may be reflected back to the window **30***a* will, in turn, only be reflected off the window as diffused light along any possible line-of-sight viewing angle α_1 and, hence, will not be sensed as a concentrated or glaring light ray reflection (or reflections) by an observer.

With the protective cover **20** thus constructed, any otherwise bright or annoying reflections which would interfere with a clear view through the window **30***a* are eliminated. This results in any object, such as the printing area extending along and aligned with the window **30***c*, always being clearly seen by an observer in a manner that actually gives the impression that no transparent window is even present.

A significant advantage of the protective cover **20** is that the wall **30***c* is not only formed as an integral part of the one-piece protective cover **20,** but the upper surface thereof may be readily formed with a frosted light diffusing finish during the molding of the protective cover. As such, the plastic cover **20** may be fabricated with a non-glare window **30***a*, and be assembled on the housing **23,** normally made out of stamped metal stock, in a considerably simpler and less costly manner than if the wall **30***c*, for example, was formed as part of the metallic printer housing. In the latter case, the housing wall in question would have to be subsequently treated so as to diffuse reflected light, such as by the application of a special paint or coating applied thereto, or by mounting an auxiliary member or plate formed with a suitable matt finish, for example, on such a wall.

In connection with the frosted light diffusing finish being inherently formed on the upper surface of the wall **30***c* during the molding of the cover **20,** it should be appreciated that such a finish may also be readily formed on any other surface areas of the cover. For example, in one preferred embodiment of the invention, all upper surfaces of the cover **20,** with the exception of the window **30***a* and a narrow rectangular portion of the remaining major surface area, identified by the numeral **27'** in FIG. **3** (defined between the trough **30** and the opening **38,** and coextensive therewith), were formed with a frosted finish during the molding operation. With the cover **20** so constructed, the major portion of the printer mechanism was concealed from view. The reason for maintaining the rectangular portion **27'** transparent (and of predetermined width), in addition to the window **30***a*, was to allow at least the previously printed line to be observed, if desired, in certain printing applications, albeit the infrequent viewing through the wall area **27'** would be subject to ambient light being reflected off the surface thereof. The width of the window **30***a* should normally be chosen so as to present a viewing band across the paper that is at least slightly greater than one print line width for any normal height of, and position of viewing by, an operator.

It is obvious that the window **30***a* could be made wide enough to allow an observer to view two or more adjacent print lines therethrough with no glare, provided the depth of the trough **30** was correspondingly increased to accommodate a reflected light diffusing wall **30***c* of the necessary width. This would not always be possible, however, with compactly housed apparatus. In any event, the resulting clarity of view through the window, as compared to the remainder of the cover, gives an observer a good indication of where to look for the most recently printed information.

The non-reflective frosted surfaces of the protective cover are readily produced in practice by initially making the associated mating surfaces of the molding dies porous. This may be readily accomplished, for example, by a sand blasting operation. The degree of opaqueness exhibited, and the amount of light diffused,

by the frosted surfaces of the cover may be directly controlled by the degree of porosity or roughness (depth and fineness of the microscopic protuberances) formed in the die surface (s) in question. With respect to most metals used to form molding dies, the desired porous die surfaces can also be produced by a chemical (acid) etching process in a well known manner. It, of course, is appreciated that the one-piece cover embodied herein may also be made of die-cast glass, with the frosted surface(s) being similarly produced during the casting operation.

In accordance with another aspect of the invention, and with particular reference to FIG. **3**, the free end **53***a* of a roll of paper **53** in passing over a printer platen **55** (shown only in phantom), for example, is line feed advanced through and guided by the aforementioned cut-back notches **41** (best seen in FIG. **2**). By properly dimensioning both the thickness of the protective cover **20** in the area of the notches **41**, and the lateral length of such notches, they will reliably retain therewithin the associated edge regions of any torn-off free end of the paper **53** until the next manual or printer-initiated advancement of the paper. In practice, it has been found with respect to one illustrative cover that if each notch **41** has an effective width, as measured through the thickness dimension of the cover (i.e., along the exit path of the paper), in the range of 0.100 to 0.150 inch, and a lateral length of the range of 0.115 to 0.125 inch, most commercial paper used for printing, having widths between 8.4 and 8.5 inches, will be reliably retained within the notches. The above defined width dimension of the notches through the cover may be readily controlled, of course, by both the thickness of the cover and the angle at which the notches are formed therein.

It should also be apparent that the width of each notch, as measured between the parallel walls thereof, the type of paper employed, and the size and speed of rotation of the platen, as well as the position and peripheral spacing thereof relative to the notches, also have a bearing on the most effective dimensions for and angle of inclination of the notches for any given application.

To facilitate the severing or tearing-off of successive end sections of the paper from the remainder of the roll, an edge **58** of the cover **20** (best seen in FIG. **2**, and defined between the two notches **41**), is beveled so as to form an upper, laterally disposed acute-angled corner which defines a relatively sharp cutting edge.

As also best illustrated in FIG. **2**, the notches **41** merge into the aforementioned flared-out flanges **37** which, in part, define the opening or passageway **38** therebetween. The spacing between the flanges is chosen so as to readily allow the free end of the paper **53** to be slightly bowed or skewed initially while being drawn manually upwardly through the passageway **38**, while the edges of the paper at the same time are being inserted within the respective notches **41**, in preparation for automated line feed advancement of the paper thereafter.

The flanges **37** advantageously also serve another important function in connection with printers utilizing a rotatable platen. More specifically, the flanges prevent the free end of the fed-out paper (exhibiting a natural curvature, when wound in roll stock form) from curling downwardly toward the housing at such an angle that it could otherwise possibly re-enter a parallel spaced feed-in slot formed in the housing and, thereafter, be attracted to the platen. If that were allowed to happen, of course, each successive platen initiated advancement of the paper from the supply roll would result in an equal amount being wrapped around the platen until the build-up of paper would fill the normal space between the platen and any adjacent structure, such as the print head. At that time, the printer apparatus would jam, unless it incorporated an overload protection feature. As previously mentioned, the tendency of the free end of the paper to be drawn to the platen, either upon being withdrawn from the feed-out slot or upon re-entering the feed-in slot, is often aided not only by the natural longitudinal curvature of the paper, but because of the platen acquiring an electrostatic charge under certain operating conditions.

In many printers, the left margin along which printing is to commence is adjustable. As such, the first print column position may vary, depending upon a given printer application. In order to allow an operator to readily ascertain any particular print column position along any given print line, regardless of the margin setting, the protective cover **20**, in accordance with one preferred embodiment, as depicted in FIGS. **4–7**, is also adapted to incorporate a print column indicator scale **65** of an adjustable, auxiliary type, which is slidably mounted on the upper surface of the wall **30***b*. As thus positioned, the scale advantageously extends along and in close proximity to the transparent window **30***a*.

Each terminating end region of the scale **65** extends through an accommodating slot **67** formed at the intersection of the adjacent end wall **30***d* and the base-wall **30***b* of the trough **30**, best seen in FIG. **7**. With the adjustable scale **65** being properly dimensioned and formed out of either a suitable plastic or metallic material so as to be somewhat resilient, the scale may be initially bowed slightly so as to allow the free ends thereof to be respectively inserted within, and thereafter retained by, the slots **67**.

As also best seen in FIGS. **4–7**, the adjustable indicator scale **65** is preferably formed with an integral, outwardly extending tab **69** near each end thereof. These tabs are of sufficient size not only to allow an operator to grasp the tab and, thereby, laterally slide the indicator scale back and forth along the base of the trough **30***c*, but to function as stops so as to both restrict the degree of lateral displacement of the scale within the trough **30**, and insure the retention thereof within the end slots **67**.

When an adjustable scale is not reuired, but a scale for some purpose is nevertheless desired, the base or wall **30***b* of the trough in the protective cover **20** may simply be molded with suitable scale markings (or indicia) formed on or otherwise secured to the upper surface of the wall **30***b*. Such a non-adjustable type of indicator scale is generally represented by the reference numeral **65′** in FIG. **8** and, in accordance with the invention, may be formed, for example, by embossing the scale markings (or indicia) in the upper surface of the wall **30***b* during the molding of the cover. Alternatively, the scale markings (or indicia) may be formed as frosted areas during the molding of the cover, with the remaining areas of the wall **30***b* being left transparent to form a visually distinguishable background, or vice versa. A semi-permanent, non-adjustable indicator scale **65′** may also be readily formed on a tape or strip of suitable material which is then secured to the upper

surface of the wall 30*b* of the trough by means of any suitable adhesive material, such as epoxy or glue.

In summary, a unique protective cover 20 has been disclosed and is claimed herein which is particularly adapted for use with housings for printer apparatus and the like, and which cover incorporates a transparent viewing window, made non-glaring by a specially oriented and juxtaposed wall portion of the cover having the upper surface thereof formed with a frosted, translucent, light-diffusing finish. Other optionally selectable surface areas of the cover may also be made with a frosted, translucent finish for not only diffusing light, but for substantially concealing portions of the apparauts therebelow. A feed-out passageway formed in the cover not only facilitates the initial manual insertion of paper in roll stock form, for example, upwardly through the cover, but provides a cutting edge for tearing off end sections of the fed-out paper. The passageway is further constructed to reliably retain even short, free end edge portions of the paper therewithin, and to prevent accidental re-entry of the free end of the paper into any spaced feed-in slot. The protective cover is also adapted to incorporate either an adjustable or fixed print column (or any other) indicator scale as a functional part thereof.

In view of the foregoing, it is obvious that various modifications may be made to the present illustrative embodiments of the invention, and that a number of alternatives may be provided without departing from the spirit and scope of the invention.

What is claimed is:

1. A protective cover, including a viewing window, particularly adapted for use as part of a housing for enclosing printer apparatus and the like, said cover comprising:

a first major wall portion dimensioned to substantially enclose an opening in an associated housing, and having a surface profile that allows at least the peripheral edges thereof to conform with the respectively adjacent peripheral edges of the opening in the associated housing, as mounted thereon, and

a second portion in the form of an integral, laterally disposed, recessed trough which further encloses said opening and includes first and second spaced side walls which extend downwardly from the underside of the cover at oppositely inclined angles toward each other, said walls at least cooperating to form a closed bottom of said trough, said trough having a predetermined lateral length and terminating at each end at least a short distance inwardly from the respectively adjacent edges of said cover, at least said first side wall of said trough being formed to be transparent for viewing therethrough, and said second side wall being formed with the upper surface thereof having a light diffusing finish and being disposed at such an angle with respect to the transparent window that it will diffuse any ambient light that would not only be reflected thereto, but otherwise be capable of being reflected therefrom back to and then off the window as glaring light rays along any one of all intended line-of-sight angles of viewing through the window.

2. A protective cover in accordance with claim **1** wherein a web-accommodating feed-out passageway is formed in said cover on one side of said trough.

3. A protective cover in accordance with claim **2** wherein said passageway is defined in part by two short, mutually disposed cut-back notches which respectively define the lateral extremities of said passageway.

4. A protective cover in accordance with claim **3** wherein said passageway further includes two mutually disposed flanges which extend outwardly and in parallel relationship from the respective notches as edge extensions of said major cover portion, and define an opening forming part of said passageway therebetween, each of said flanges forming at its inner end one of the two juxtaposed and laterally disposed side walls of the associated notch, with the inner edge of each flange tapering both inwardly and outwardly from the associated notch so as to form a support ledge of progressively increasing width for a section of web when fed upwardly through said notches.

5. A protective cover in accordance with claim **4** wherein said notches are formed at a predetermined inclined angle relative to the adjacent surface area of said major cover portion, and wherein the inner inclined wall of each notch is formed as a common extension between the notches so as to define an elongated, beveled edge having an acute angled upper corner which forms a relatively sharp web-cutting edge.

6. A protective cover in accordance with claim **1** which further comprises a pair of integral pins, said pins respectively extending outwardly from opposite edges of said cover so as to allow the latter to be pivotally mounted on an associated housing.

7. A protective cover in accordance with claim **1** wherein said first and second oppositely inclined side walls forming said trough merge into a narrow, base-defining third wall.

8. A protective cover in accordance with claim **7** wherein an elongated indicator scale extends along said third wall of said trough.

9. A protective cover in accordance with claim **5** wherein said cover is made of glass.

10. A protective cover in accordance with claim **1** wherein said cover is made of transparent plastic material, and wherein said light diffusing surface of said second wall comprises a translucent, textured finish formed during the molding of said cover.

11. A protective cover in accordance with claim **10** wherein not only said upper surface of said second wall, but other selected surfaces of said cover each has a translucent, textured finish formed during the molding of said cover so as to both diffuse light and conceal selected portions of an apparatus when enclosed therebeneath in an associated housing.

12. A protective cover in accordance with claim **7** wherein said cover is made out of a transparent plastic material, and wherein not only said upper surface of said second wall of said trough, but other selected upper surfaces of said major cover portion each has a translucent, textured finish formed during the molding of said cover so as to both diffuse light and conceal selected portions of an apparatus when enclosed therebeneath in an associated housing.

13. A protective cover in accordance with claim **12** wherein a web-accommodating feed-out passageway is formed in said cover on one side of said trough, said passageway being defined in part by two short, mutually disposed cut-back notches which respectively define the lateral extremities of said passageway, and wherein said passageway further includes two mutually disposed flanges which extend outwardly and in parallel relationship from the respective notches as edge ex-

tensions of said major cover portion, and define an opening forming part of said passageway therebetween, each of said flanges forming at its inner end one of the two juxtaposed and laterally disposed side walls of the associated notch, with the inner edge of each flange tapering both inwardly and outwardly from the associated notch so as to form a support ledge of progressively increasing width for a section of web when fed upwardly through said notches.

14. A protective cover in accordance with claim **13** wherein said notches are formed at a predetermined inclined angle relative to the adjacent surface area of said major cover portion, and wherein the inner inclined wall of each notch is formed as a common extension between the notches so as to define an elongated, beveled edge having an acute angled upper corner which forms a relatively sharp web-cutting edge, and wherein an elongated indicator scale extends along said third wall of said trough.

15. In a printer including means for periodically line-feed advancing an incremental length of a record medium in roll stock form on which alphanumeric characters are to be line printed, and wherein a housing substantially encloses the printer and includes an opening in one wall thereof so as to allow at least the width and lateral length of one print line to be observed, the combination further comprising:

a protective cover dimensioned to substantially enclose the opening in said housing, said cover being molded out of a transparent plastic material as a one-piece unit, said cover including:

a first major wall portion having a surface profile that allows at least the peripheral edges thereof to conform with the contour of the housing, as mounted thereon to partially enclose said opening;

a second cover portion in the form of an integral, laterally disposed, recessed trough which further encloses said opening and includes first and second spaced and parallel extending side walls which extend downwardly from the underside of the cover at oppositely inclined angles toward each other, said walls at least cooperating to form a closed bottom of said trough, said trough having a lateral length approximately equal to the maximum allowable width of a record medium accommodated by the printer, and terminating at each end in end walls which are spaced at least a short distance inwardly from the respectively adjacent edges of said cover, at least said first side wall of said trough being formed to be transparent for viewing therethrough, and said second side wall being formed with the upper surface thereof having a non-reflective, translucent, textured finish, and being disposed at such an angle with respect to the transparent window that it will diffuse any ambient light that would not only be reflected thereto by said window, but otherwise be capable of being reflected from said second side wall back to and then off said window as glaring light rays along any one of all intended line-of-sight angles of viewing through the window, and

a record medium-accommodating feed-out passageway formed in said cover, and being positioned a predetermined distance from the window side of said trough, said passageway being defined, in part, by two short, laterally disposed cut-back notches which are commonly aligned in parallel relationship with said trough, and respectively form the lateral extremities of said passageway.

16. In a printer in accordance with claim **15,** said passageway in said cover further including two mutually disposed flanges which extend outwardly and in parallel relationship from the respective notches as edge extensions of said major cover portion, and define an opening forming part of said passageway therebetween, each of said flanges forming at its inner end one of the two juxtaposed and laterally disposed side walls of the associated notch, with the inner edge of each flange tapering both inwardly and outwardly from the associated notch so as to form a support ledge of progressively increasing width for a section of the print medium when fed upwardly through said notches, and said notches being formed at a predetermined inclined angle relative to the adjacent surface area of said major cover portion, with the inner inclined wall of each notch being formed as a common extension between the notches so as to define an elongated, beveled edge having an acute angled upper corner which forms a relatively sharp cutting edge for said print medium.

17. In a printer in accordance with claim **15,** said protective cover having not only said upper surface of said second wall of said trough, but other selected surfaces of the major cover portion formed with a translucent, textured finish during the molding of said cover so as to both diffuse light and conceal selected portions of an apparatus enclosed within the housing therebelow.

18. In a printer in accordance with claim **16,** said first and second oppositely inclined walls of said trough merging into a narrow, essentially horizontal third wall-defining base.

19. In a printer in accordance with claim **18,** said cover further including an elongated scale extending along said narrow, horizontal base of said trough.

20. In a printer in accordance with claim **19,** said elongated scale being formed in the upper surface of and as an integral part of said base of said trough.

21. In a printer in accordance with claim **20,** said trough of said protective cover being formed at each end with a narrow slit that extends through each end wall at the intersection with said base, and said protective cover further including an elongated, slidably adjustable indicator scale supported on said base, with the ends of said scale respectively extending through the adjacent slits formed in said end walls.

22. In a printer in accordance with claim **21,** said elongated indicator scale including an integral, outwardly extending tab formed near each end region thereof, said tabs functioning both as stops to limit the lateral displacement of said scale within said trough, and to retain said scale within the slits thereof.

23. In a printer in accordance with claim **22,** said passageway in said cover further including two mutually disposed flanges which extend outwardly and in parallel relationship from the respective notches as edge extensions of said major cover portion, and define an opening forming part of said passageway therebetween, each of said flanges forming at its inner end one of the two juxtaposed and laterally disposed side walls of the associated notch, with the inner edge of each flange tapering both inwardly and outwardly from the associated notch so as to form a support ledge of progressively increasing width for a section of a print medium when fed upwardly through said notches, and said cover further including a pair of integral pins, said pins

respectively extending outwardly from opposite edges of said cover so as to allow the latter to be pivotally mounted on the associated housing.

24. In a printer in accordance with claim **23,** said notches partially defining said passageway being formed at a predetermined inclined angle relative to the adjacent surface area of said major cover portion, and the inner, inclined wall of each notch being formed as a common extension between the notches so as to define an elongated, beveled edge having an acute angled upper corner which forms a relatively sharp cutting edge for said print medium, and said protective cover further having not only said upper surface of said second wall of the trough, but also other upper preselected surface areas of said cover, formed with a translucent, textured finish during the molding of said cover, with the exception of said window and an area defined between said trough and said beveled cutting edge and coextensive therewith, said last mentioned area being dimensioned and located so as to allow at least the lateral space associated with the print line preceding the print line observed through said window to also be observed.

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