Sept. 16, 1969 R. E. PAIGE 3,466,776

MOVING MESSAGE SIGN

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Fig. 1

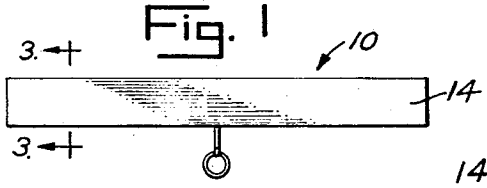


Fig. 2

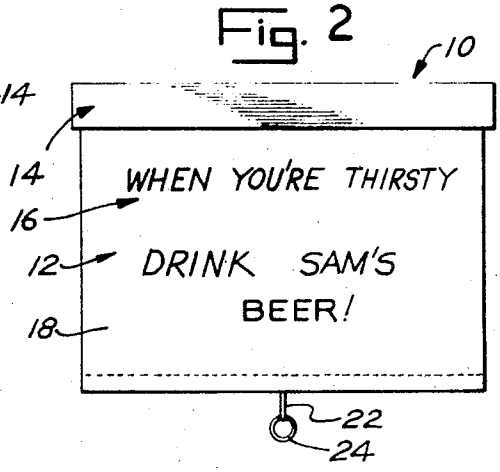


Fig. 3

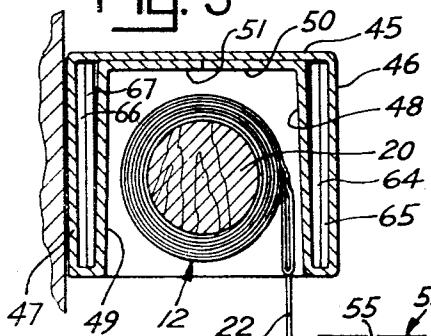


Fig. 4

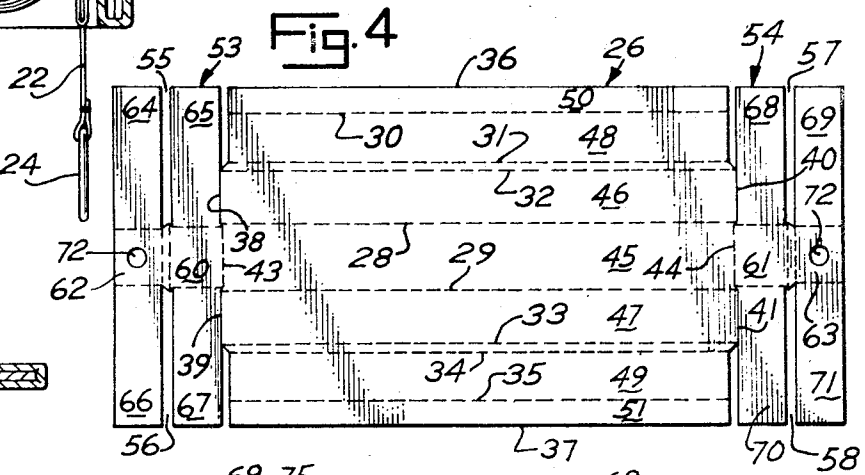


Fig. 9

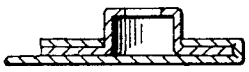


Fig. 5

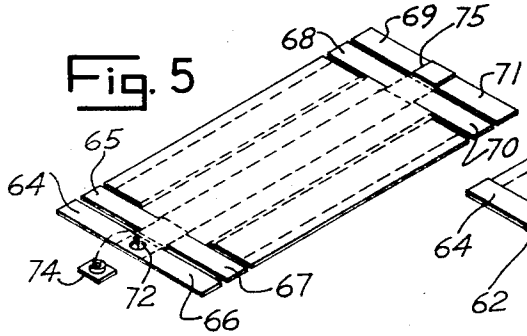


Fig. 6

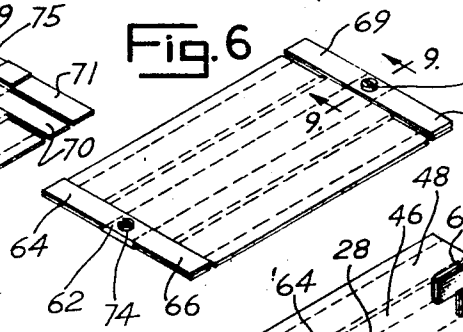


Fig. 7

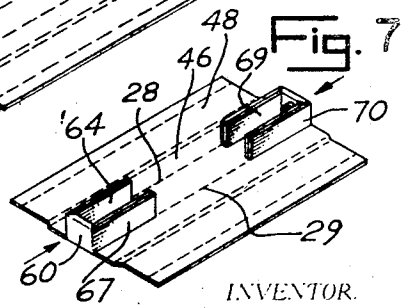
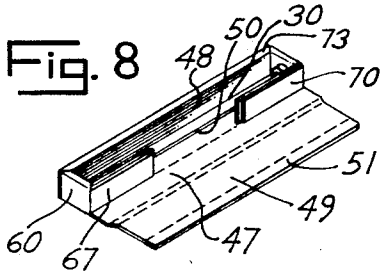


Fig. 8



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Fig. 10

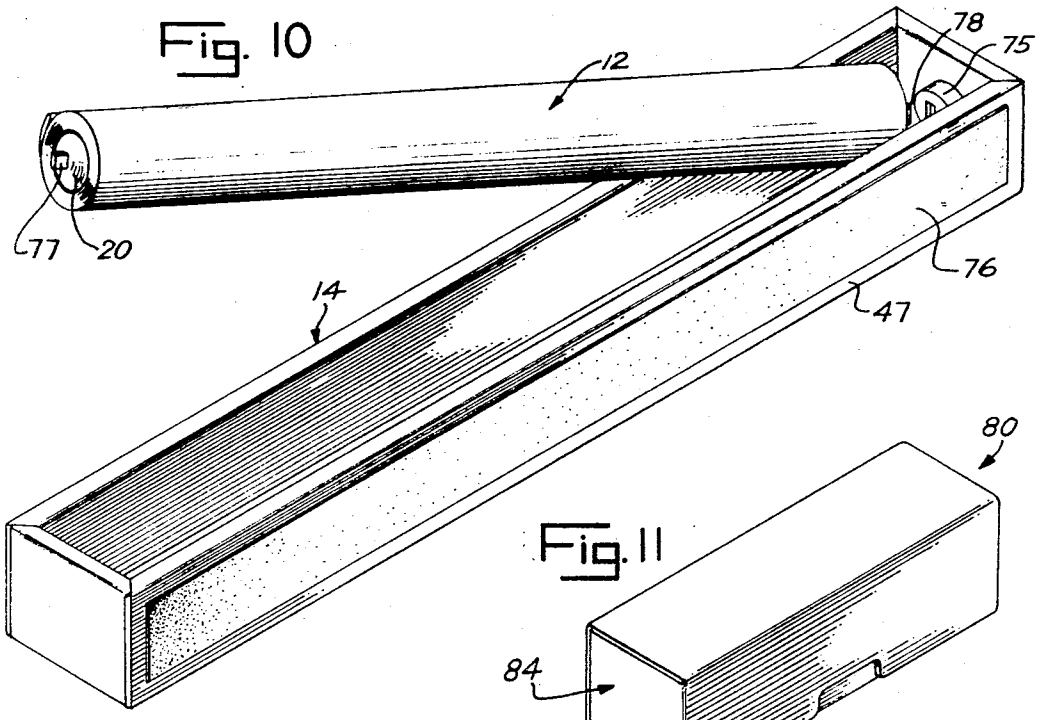


Fig. 11

Fig. 12

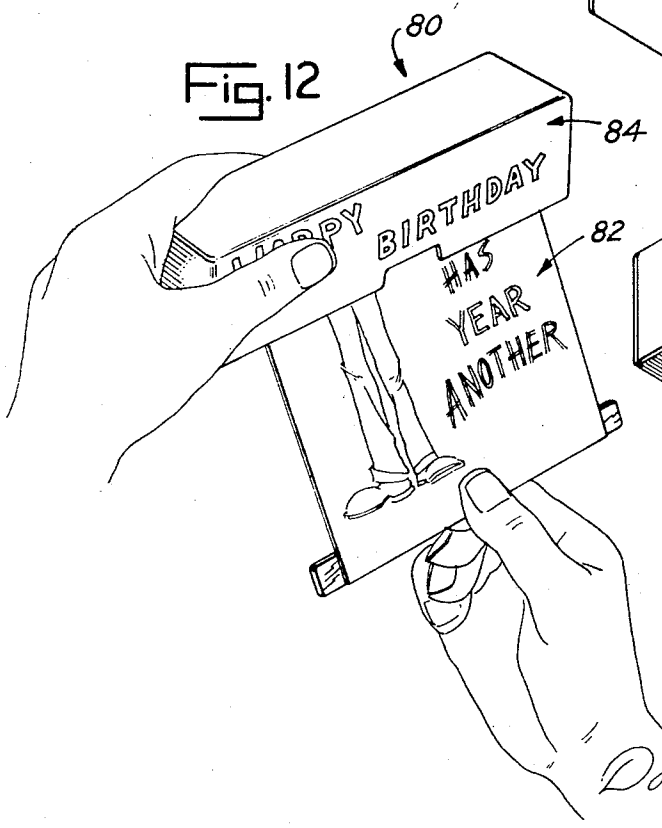
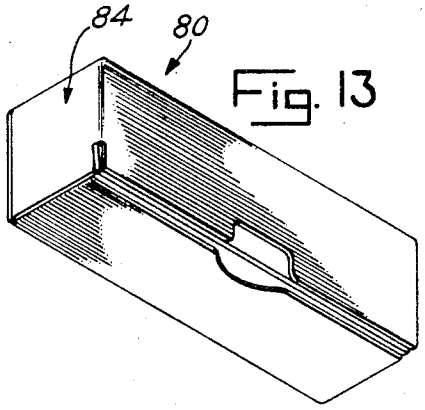


Fig. 13



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Fig. 14

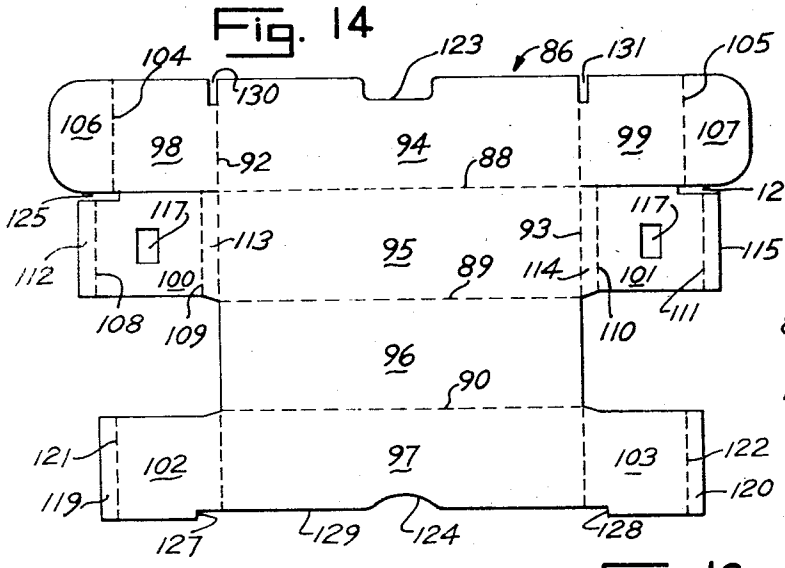


Fig. 19

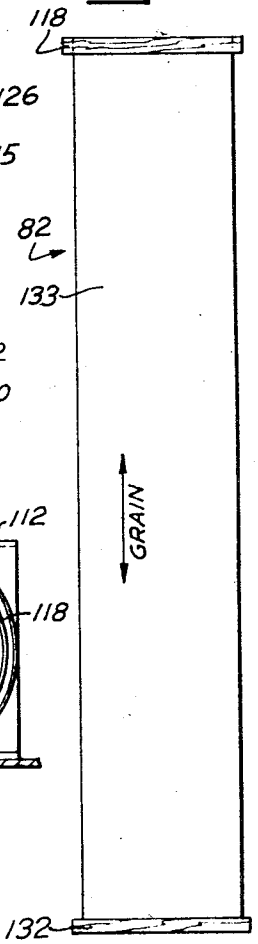


Fig. 15

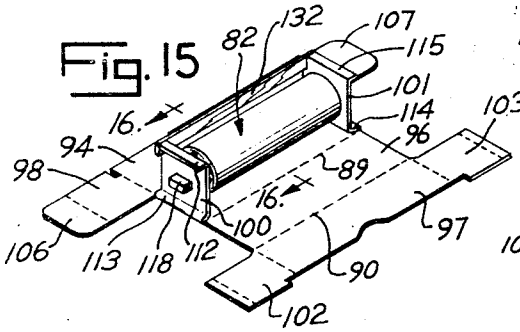


Fig. 16

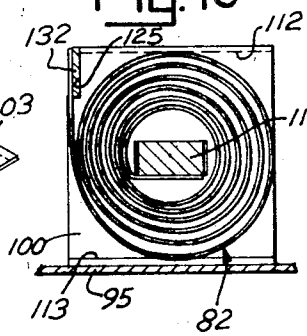


Fig. 17

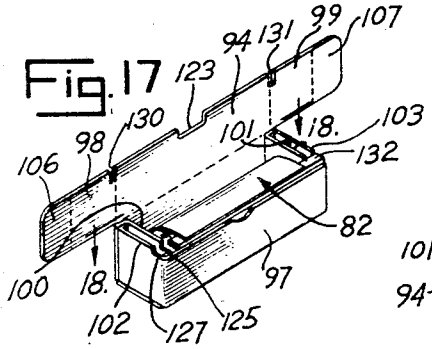


Fig. 20

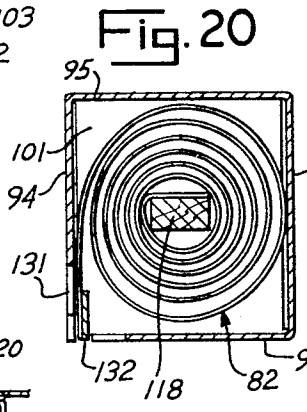


Fig. 21

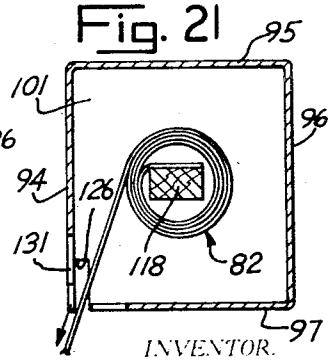
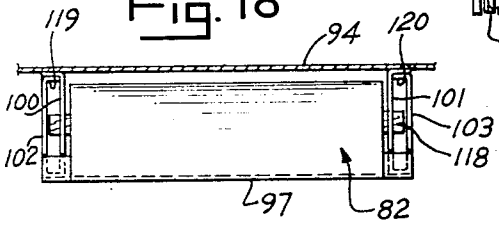


Fig. 18



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Fig. 22

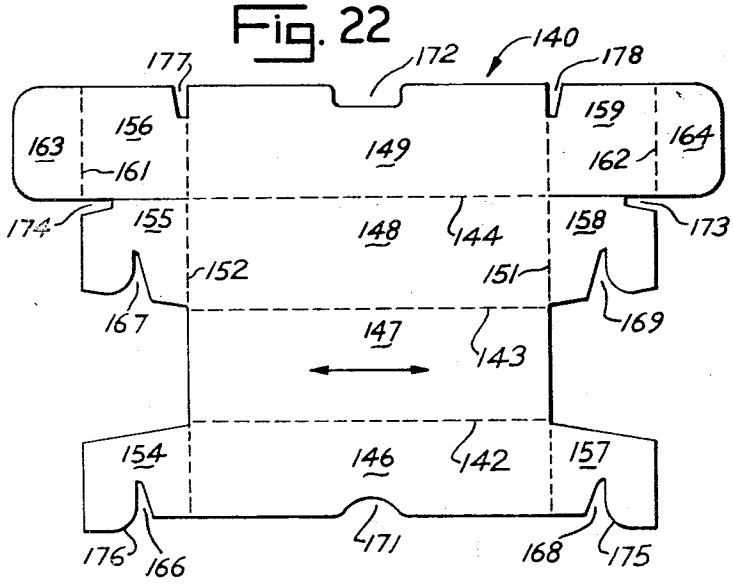


Fig. 23

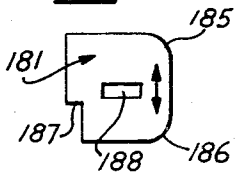


Fig. 24

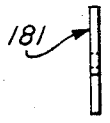


Fig. 25

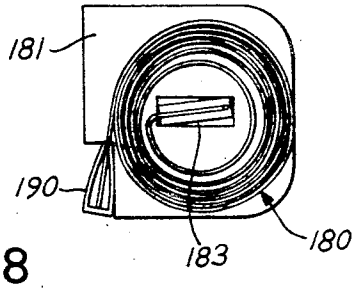


Fig. 26

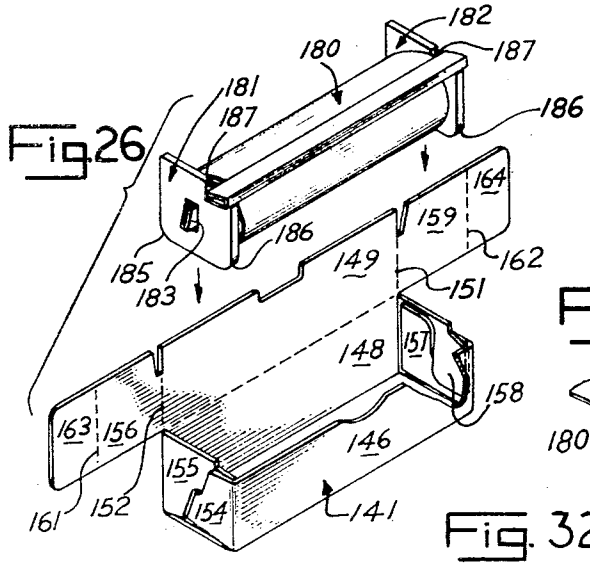


Fig. 28

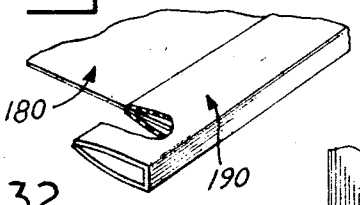


Fig. 33

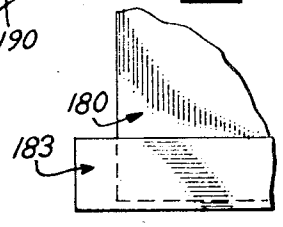


Fig. 32

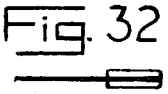


Fig. 27

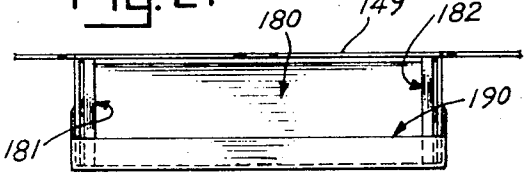


Fig. 31

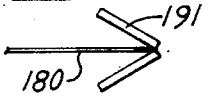


Fig. 29

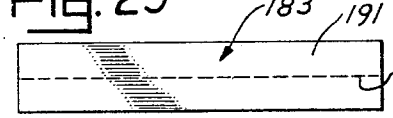


Fig. 30



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United States Patent Office 3,466,776
Patented Sept. 16, 1969

3,466,776

MOVING MESSAGE SIGN

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Filed Dec. 14, 1967, Ser. No. 690,662
Int. Cl. G09f 11/29; E06b 9/08
U.S. Cl. 40—85 18 Claims

ABSTRACT OF THE DISCLOSURE

A moving message sign which, according to a first embodiment, employs a message-bearing member which is wound on a spring-loaded roller and is normally concealed within an appropriately decorated box. The message-bearing member is pulled down to expose the message or other indicia printed or otherwise provided on it. Upon being released, the message-bearing member is automatically rewound on the spring-loaded roller so that it, once again, is concealed. In a second embodiment, the message-bearing member of the moving message sign functions both as a means for displaying a message and is the spring mechanism for rewinding it. In this case, the message-bearing member is formed from a springy material which normally is loosely rolled on a fixed support member and is tightened about the fixed support member when it is pulled down out of the box to expose the message or other indicia provided on it. Upon being released, the message-bearing member functions as the spring mechanism for rewinding it into the box.

This invention relates to a moving message sign activated by a pulling action, by the viewer.

The moving message sign, according to a first embodiment of the invention, employs a message bearing member which is wound on a spring-loaded roller and normally concealed within an appropriately decorated box. The message bearing member is pulled down to expose the message or other indicia, described more fully below, printed or otherwise provided on it. Upon being released, the message bearing member is automatically rewound on the spring-loaded roller so that it, once again, is concealed. According to a second and preferred embodiment, the message bearing member of the moving message sign functions both as a means for displaying a message and as the spring mechanism for rewinding it. More specifically, the message bearing member, in this case, is formed from a springy material which normally is loosely rolled on a fixed support member and is tightened about the fixed support member when it is pulled down out of the box to expose the message or other indicia provided on it. Upon being released, the message bearing member functions as the spring mechanism for rewinding it into the box.

From the above brief description, it can be seen that the message bearing member of the first embodiment of the invention generally resembles and functions in the same manner as an ordinary window shade. Its application, however, is in an entirely different or foreign environment and in a fashion such as to provide a new and unexpected result, as set forth more fully below. The message bearing member of the second embodiment, on the other hand, functions in a manner exactly opposite the manner in which an ordinary window shade functions. For example, an ordinary window shade normally is tightly wound or rolled about its roller, and is pulled down in a fashion such as to unroll it. This latter action twists the spring hidden within the roller, to prepare it to rewind or reroll the shade, when released. As indicated above, the message bearing member of the moving message sign is loosely

rolled about a fixed support, and is tightened about the fixed support when it is pulled down.

A moving message sign of one or the other of the described constructions can be used in a whole host of different applications. For example, to mention but a few of their many applications, the moving message sign can be housed in a decorative box, for a gag item for the novelty, giftwares and stationery fields. Upon pulling the message sign out of the box, a message such as, for example, "Help, I'm a prisoner in a shade factory!" would appear, or, "Congratulations on your performance at the Bowl." Many different one and two part gags can be provided and, in the latter case, the opening line can be printed on the box and the conclusion, or punch line, on the message sign.

The moving message signs also can be used as a point of sale device. An example of this application would be to provide a decorative box indicative of the product and a message directed to the product on the message sign.

Another application is for a safety sign. The message sign can be of a reflective material or fabric which glows, with the message, "Send Help" printed on it. The message sign preferably would be housed within a specially designed box which is adapted to be easily affixed to the inside of the trunk lid of an automobile. The message sign would be safely stored within the box which is affixed to the trunk lid and would always be readily available and not subject to being lost or misplaced. When an emergency arises, the trunk lid would be raised and the message sign pulled down so that it is clearly visible to the driver of an approaching automobile, as a warning sign and/or an appeal for help.

Still another application is as a greeting card. For example, "Happy Birthday" can be printed on the outside of the box housing the message sign, and the latter can have another message printed on it which is presented to the viewer when the message sign is pulled out of the box.

It also can be used as a calendar for the home or office. A one month or a twelve month calendar can be provided in a wide variety of decorative or imprinted boxes that are adapted to be easily removably affixed to a support surface such as a wall. The calendars normally are concealed, and are pulled down for viewing.

Still another use is as a specialty advertising item. A portion of a message is provided on the outside of the box, and the balance of the message is on the message sign. The "appearing" and "disappearing" feature adds considerably to the appeal and the impact of the message.

The outside of the box also can be appropriately imprinted, and the message sign can carry a full color or black and white reproduction of a famous scene in a city, or at a fair, or the like. In other words, the message sign can be advantageously used as a souvenir postcard or the like.

Still another application is as a disappearing "pin-up." Your favorite pin-up girl, photograph, sketch or the like can be kept in your room, locker or barracks, concealed within the box for privacy and pulled down for enjoyment.

A moving message sign constructed in accordance with the second and preferred embodiment of the invention is particularly applicable for use as a device for exposing a "gag" or joke in a fashion such as to provide a quick exposure of the gag or joke, a pleasant amusing impact on the reader, and a subsequent release or upward feeding back, or rewinding, of the message sign.

Accordingly, it is an object of the present invention to provide new and novel moving message signs which are activated by a pulling action, by the viewers.

Another object is to provide new and novel moving message signs of the above type which are applicable for use in a whole host of different applications such as, for example, gag items, point of sale devices, safety signs, greet-

ing cards, calendars, postcards and specialty advertising items, to mention but a few of their many uses.

Another object is to provide new and novel moving message signs of the above type which can be easily and inexpensively fabricated. In this respect, another object is to provide an improved box for housing the message bearing member thereof.

Still another object is to provide new and novel moving message signs of the above type having a message bearing member which functions both as a means for displaying a mesage and as a spring mechanism for rerolling itself, into the box.

A still further object is to provide a new and novel spring mechanism.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises an article of manufacture possessing the features, properties, and the relation of elements which will be exemplified in the article hereinafter described, and the scope of the invention will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings in which:

FIG. 1 is a front plan view of a moving message sign exemplary of a first embodiment of the invention;

FIG. 2 is a front plan view of the moving message sign of FIG. 1, illustrating the message bearing member thereof extended or withdrawn from the box;

FIG. 3 is a sectional view, taken along lines 3—3 of FIG. 1;

FIG. 4 is a plan view of a blank from which the box for the moving message sign of FIG. 1 is constructed;

FIGS. 5–8 are perspective views, generally illustrating the manner in which the blank of FIG. 4 is folded to form the box;

FIG. 9 is a sectional view, taken along lines 9—9 of FIG. 7;

FIG. 10 is a perspective view, illustrating the manner in which the message bearing member is placed within the box;

FIG. 11 is a perspective view of a moving message sign exemplary of a second embodiment of the invention;

FIG. 12 is a perspective view of the moving message sign of FIG. 11, illustrating the message bearing member thereof extended or withdrawn from its box;

FIG. 13 is another perspective view of the moving message sign of FIG. 11, further illustrating its construction;

FIG. 14 is a plan view of a blank from which the box for the moving message sign of FIG. 11 is fabricated;

FIG. 15 is a perspective view, generally illustrating the manner in which the blank is folded to fixedly support the message bearing member;

FIG. 16 is a sectional view, taken along lines 16—16 of FIG. 15;

FIG. 17 is a sectional view, further illustrating the manner in which the blank is folded to form the box;

FIG. 18 is a sectional view, taken along lines 18—18 of FIG. 17;

FIG. 19 is a plan view of the message bearing member prior to its being loosely rolled and affixed within the box;

FIGS. 20 and 21 are sectional views taken transversely through the moving message sign, and generally illustrating the manner in which the message bearing member thereof is normally loosely rolled within the box and the manner in which it is tightened about its support when extended or withdrawn from the box;

FIG. 22 is a plan view of another blank from which a box for the moving message sign of FIG. 11 can be fabricated;

FIG. 23 is a side plan view of one of the flutes used to position and retain the message bearing member within the box;

FIG. 24 is an end plan view of the flute of FIG. 23;

FIG. 25 is a side plan view of the message bearing member with one of the flutes affixed to it;

FIG. 26 is a perspective view generally illustrating the manner in which the message bearing member with the flutes affixed to it is positioned or seated within the box;

FIG. 27 is a top plan view of the box, with the message bearing member positionally seated therein;

FIG. 28 is a partial perspective view, illustrating the plastic grab bar affixed to the one end of the message bearing member;

FIG. 29 is a top plan view of a support bar which is affixed to one end of the message bearing member;

FIG. 30 is an end plan view of the support bar;

FIG. 31 is a view generally illustrating the manner in which the support bar is folded and affixed to the end of the message bearing member;

FIG. 32 is a partial side plan view of the message bearing member with the support bar affixed to it; and

FIG. 33 is a partial top plan view of the message bearing member with the support bar affixed to it.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring now to the drawings, in FIGS. 1–10 there is illustrated a moving message sign **10** exemplary of a first embodiment of the invention. The sign **10** includes a message bearing member **12** which normally is concealed within the open interior of a box **14** and which is adapted to be pulled out of the box **14** to display a message **16**, such as the message, "When you're thirsty drink Sam's beer!" to the viewers. The message bearing member **12** includes a length of rollable material **18** which may be, for example, fabric, paper or plastic, and which is fixedly secured along one edge thereof to a spring-loaded roller **20**. The message **16** is printed or otherwise provided on the surface of the material **18** which is exposed when the material is unrolled, or pulled out of the box **14**. The message bearing member **12** therefore has a construction like that of an ordinary window shade and, in fact, a window shade can be used, if desired. In this respect, it can be generally stated that the moving message sign **10** involves the use of a well-known object, a window shade, in a foreign environment and in a fashion such as to provide a new and unexpected result.

More particularly, window shades generally are affixed to a window casing, in an appropriate fashion, and are pulled down and releasably locked in an extended position, until such time as its use no longer is desired. It is then released and permitted to re-wind itself, upon its supporting roller, in the well-known manner. The window shades can be opaque to completely block-out sunlight, or alternatively, they can be translucent to allow light to penetrate them to softly light a room. Window shades, of course, also can be used to prevent people from seeing into, or out of, a window. Accordingly, it is apparent that the use of a window shade to provide a moving message sign is an entirely new application, completely foreign to the environment in which they are generally intended for use.

More particularly still, the window shade-type message bearing member **12** is supported within the open interior of the box **14**, by means of the spring-loaded roller **20**. The box **14** can be of numerous different constructions so long as the message bearing member **12** can be supported within its interior, in a concealed fashion, and can be unrolled by pulling it out of the box. A short length of string **22** having a ring **24** affixed to its one end advantageously can be affixed to the free end of the message bearing member **12** for pulling it out of the box **14**.

A primary consideration in using the moving message sign **10** in numerous ones of the above-mentioned applications is its costs. For example, when used as a gag item for the novelty, giftwares, and stationery fields, the moving message sign **10** must be fabricated inexpensively, otherwise the retail price at which it can be profitably

sold will be too high to stimulate sales and, more importantly, repeated sales. Accordingly, while the box **14** can be of any one of a number of different constructions, it preferably is fabricated from a single blank of sheet material, such as the blank **26** illustrated in FIG. 4.

The blank **26** is rectangular-shaped and preferably is a relatively heavy-weight paperboard material. The blank **26**, furthermore, is cut and scored in a fashion such that there is virtually no waste, as will be apparent from the description below. Also, all of the cut and score lines extend horizontally and vertically so that they can be easily provided on the blank. The construction, in addition, is such that no adhesives or other fastening means is required to maintain the box **14** erect. More specifically, the blank **26** is cut and scored with horizontal score lines **28–35**, vertical cut lines **38–41** and vertical score lines **43** and **44** so as to provide a top wall **45**, outer side walls **46** and **47**, inner side walls **48** and **49**, locking flaps **50** and **51**, and end wall sections **53** and **54** which are integrally affixed to the opposite ends of the top wall **45**, along respective ones of the score lines **43** and **44**. The horizontal score lines **28** and **29** extend across the entire width of the blank **26**, and the end wall sections **53** and **54** have cut lines **55** and **56**, and **57** and **58**, in them, respectively, which extend inwardly from the opposite side edges **36** and **37** of the blank to the score lines **28** and **29** and form outer end walls **60** and **61**, inner end walls **62** and **63**, and end flaps **64–71** integrally affixed to the outer and inner end walls **60–63**. Each of inner end walls **62** and **63** has an aperture **72** provided in it, for receiving roller supports **74** and **75** (FIG. 6) in a manner described more fully below.

The blank **26** is folded, as illustrated in FIGS. 5–8, to form the box **14**. The roller supports **74** and **75** first are placed on the blank **26**, with the projecting portion thereof extending through the apertures **72** in the inner end walls **62** and **63**. It may be noted that the flange portions of the supports have dimensions which generally correspond to those of the end walls **60–63** and are sandwiched between the outer and inner end walls **60** and **62**, and **61** and **63**, when the latter are folded in overlapped relationship, as illustrated in FIG. 6. The roller supports **74** and **75** thereby are prevented from turning, when the message bearing member is pulled down, since they are securely confined. Next, the overlapped pairs of outer and inner end walls **60**, **62** and **61**, **63** are folded, along the score lines **43** and **44**, respectively, so that they stand perpendicular to the top wall **45**. The end flaps **64–71** then are folded, along the score lines **28** and **29**, so that they extend inwardly toward one another, as illustrated in FIG. 7.

The outer side wall **46** now is folded, along the score lines **28**, to extend upwardly, perpendicular to the top wall **45**, and the inner side wall **48** is folded, along the score lines **31** and **32**, so as to extend into the interior of the box, parallel to the outer side wall **46**. The width of the area between the score lines **31** and **32** substantially corresponds to the thickness of the overlapped end flaps **64** and **65**, and **68** and **69**, so that a smooth, flat face surface **73** (FIG. 8) is provided. The locking flap **50** is folded, along the score line **30**, so as to extend toward the center of the box, atop the top wall **45** as can be best seen in FIG. 3.

The outer side wall **47**, inner side wall **49** and the locking flap **51** are folded in a similar fashion, to sandwich the end flaps **66** and **67**, and **70** and **71**, between them and with the locking flap **51** extending toward the center of the box, atop the top wall **45**.

The locking flaps **50** and **51** each have a width which substantially corresponds to one half of the width of the interior of the box **14** so that their ends abut one another, as illustrated in FIG. 3, to lock the box **14** in the described erected condition. Accordingly, no adhesives or other fastening means is required. It also may be noted that the roller supports **74** and **75** are affixed within the box **14**, without the need of fastening means. The overlapped ends flaps **64–71** and the double thickness provided by the outer and inner side walls **46–49** and by the outer and inner end walls **60–63** reinforce the walls of the box **14** so that a strong, durable box is provided.

After the box **14** is erected, the message bearing member **12** is positioned within it, by releasably locking the end pins **77** and **78** (FIG. 10) of the roller **20** about which it is rolled within respective ones of the roller supports **74** and **75**.

The moving message sign **10** can be easily and quickly removably affixed to a support surface such as a wall, a locker door or the like, by means of an adhesive strip **76** (FIG. 10) affixed to the outer wall **47**. Other fastening means also can be used, if desired.

As indicated above, the moving message sign **10** can have numerous different messages or other indicia provided on its message bearing member **12**. For example, gags, sales slogans, warning signs, and appeals for help can be printed or otherwise provided on the message bearing member **12**. These messages normally are concealed, and are only made visible to a viewer, when the message bearing member **12** is pulled down out of the box **14**. The message bearing member **12** can be left extended and the message on it enjoyed for as long as desired, for the message bearing member **12** releasably locks in the extended position, until released, in the same manner as a window shade. When it is desired to again conceal the message, the message bearing member **12** is pulled down and then released to permit the spring-loaded roller **20** to rotate and thereby reroll the message bearing member about it.

When used as a warning sign and/or an appeal for help, the surface of the message bearing member preferably has a reflective material provided on it or, alternatively, a day-glo fabric or the like is used so that it is clearly visible to approaching automobiles. As indicated above, in this case, the box advantageously is adaptable to be affixed to the trunk lid so that the message bearing sign is readily available. When needed, the trunk lid merely is raised and the message bearing member **12** pulled down out of the box **14**.

In many cases, calendars are desired in an office, home or the like, however, the appearances of the calendars detract from the decor of the room. Using a moving message sign **10**, a calendar can easily be blended in with the decor of the room so that it does not stand out, by providing a decorative surface on the box **14** which matches or blends with the wall covering. The calendar normally is concealed within the box **14**, and can be pulled down out of it when needed. Thereafter, it can be easily and quickly retracted.

The box **14** can be easily printed or otherwise prepared with an appropriate surface, since the surface can be provided on it while it is in the form of the blank **26**. The same is true with respect to the message or other indicia provided on the message bearing member **12**, since the latter can be unrolled and made to lay flat while the message is applied to it.

In FIGS. 11–21, there is illustrated another moving message sign **80** which is exemplary of a second embodiment of the invention. The moving message sign **80** is particularly adapted to expose a gag or joke which, once read, is not intended to hang down for a long period of time. Instead, it is adapted to provide a quick exposure, a pleasant amusing impact on the viewer, and a subsequent release and rapid retraction of the message back into the box in which it is contained.

More specifically, the moving message sign **80** includes a message bearing member **82** which normally is contained, supported and concealed within a general closed box **84**. In this case, the box **84** also can function as the mailing envelope for the moving message sign **80**, if desired.

As in the case of the moving message sign **10**, the cost of fabricating the moving message sign **80** is of primary consideration since it must be fabricated inexpensively, otherwise it will have limited sales appeal. The box **84** therefore also is designed so that it can be easily and inexpensively fabricated from a single blank of paperboard material, with the least amount of waste as possible, and can be erected and the message bearing member **82** supported therein, without the need of adhesives or other fastening means. The blank **86** from which the box **84** is formed is illustrated in FIG. 14. The blank **86** has horizontal score lines **88–90** and vertical score lines **92** and **93** formed on it, which divide the blank **86** into four equal size side walls **94–97** and end flaps **98**, **99**, **100**, **101**, **102** and **103** which are integrally affixed to the opposite ends of the side walls **94**, **95** and **97**, respectively. The side wall **96** does not have end flaps.

The end flaps **98** and **99** have vertical score lines **104** **105** formed on them, respectively, which score lines provide tuck flaps **106** and **107** on the ends of the end flaps. Vertical score lines **108** and **109** are formed on the end flap **100**, and similar vertical score lines **110** and **111** are formed on the end flap **101**. These score lines **108–111** permit the end flaps **100** and **101** to be folded so as to form spacers **112**, **113** and **114**, **115** on respective ones of them, to space these end flaps inwardly of the opposite ends of the side wall **95**, as illustrated in FIG. 15 and for reasons described more fully below. A support post aperture **117** also is provided in each of the end flaps **100** and **101**, for receiving and fixedly supporting the opposite ends of a support post **118** for the message bearing member **82**. Spacers **119** and **120** also are provided on the ends of respective ones of the end flaps **102** and **103**, by means of vertical score lines **121** and **122**.

Finger notches **123** and **124** preferably are provided in the outer edges of the side walls **94** and **97**, respectively, so that the message bearing member **82** can be more easily gripped to pull it out of the box **84**. Locking notches **125** and **126** also are provided in the edges of the end flaps **100** and **101**, respectively, and cooperate with similar locking notches **127** and **128** provided in the edges of the end flaps **102** and **103**, to prevent the message bearing member **82** from being fully retracted into the box **84**, as described more fully below. These latter locking notches **127** and **128** are provided by a notch **129** formed in the edge of the blank **86** and extending across the width of the side wall **97** and a short distance into each of the end flaps **102** and **103**. Locking slots **130** and **131** also are formed in the edges of the end flaps **98** and **99**, adjacent the score lines **92** and **93** and cooperate with the locking notches **125–128**. The ends of a gripping bar **132** affixed to the one end of the message bearing member **82** seat within these locking notches **125–128** and the locking slots **130** and **131**, to prevent the message bearing member **82** from fully retracting into the box **84**.

The message bearing member **82** preferably is formed of a length of springy paper material **133**, such as 1-ply Bristol board. Other materials having a springy effect when wound in the manner described below can be used, however, here again a paper material is perferred because of its relatively low cost. The message bearing member **82** also is preferably formed so that the grain, or fibers, of the paper extends in the direction of its length, as illustrated in FIG. 19. It can be formed so that the grain runs acros the width of the paper material **133**, however, more springiness and hence more power to quickly retract the message bearing member **82** is provided when the grain runs in the direction of its length. The support post **118** is fixedly secured to the one end of the paper material **133** forming the message bearing member **82**, by means of an adhesive, staples, eyelets or any other suitable means. The support post **118**, in this illustrated embodiment, comprises simply a wooden stick which is rectangular or square-shaped in cross-section so that it can be fixedly secured against rotation within the support post aperatures **117** and will support the message bearing member **82** within the box **84**. Other support posts, such as the one described below, which will function in the above described fashion also can be used, if desired. However, the described wooden stick is extremely inexpensive and functions entirely satisfactorily. The gripping bar **132** likewise can be simply a wooden stick and can be affixed to the opposite end of the paper material **133** in any suitable fashion, for example, in any one of the different manners described above. The gripping bar **132** also can be attractively colored, to add to the appearance of the moving message sign **10**.

As indicated above, in the case of the moving message sign **80**, the message bearing member **82** functions both as a means for displaying a message and as a spring mechanism for retracting the message bearing member, back into the box **84**. This latter function is provided by winding the paper material **133** forming the message bearing member **82** tightly, but not so tight that the paper material **133** is creased, around the support post **118**. When wound in this fashion, the paper material **133** has a natural tendency to unwind, when released. It is this mechanical principle which is relied upon to cause the message bearing member **82** to function as the spring mechanism for retracting the message bearing member **82** back into the box **84**, as described more fully below. Accordingly, the need for a spring-loaded roller or the like is completely eliminated, and the moving message sign **80** can be fabricated very inexpensively.

In winding the paper material **133** about the support post **118**, only the excess portion thereof should be wound about it. That is, if it is desired to pull, for example, an 8 inch length of the paper material out of the box **84**, the remaining or excess length thereof is wound about the support post **118** and the paper material then secured within the box **84**, by engaging the ends of the support post within respective ones of the support post apertures **117**, with the 8 inch length extending out of the box. When the end of the 8 inch length is released, the tightly wound excess portion will pull the 8 inch length into the box, as it unwinds. The length of the paper material **133** will vary, depending upon the extent or length to which it is to be pulled or drawn out of the box **84**, its width, the speed at which it is to be retracted and the particular material which is used. Accordingly, these factors must first be determined and then the required length determined, by experiment with several differenth lengths until satisfactory results are obtained.

The moving message sign **80** is formed by first folding the end flaps **100** and **101**, along the respective score lines **108** and **109**, and **110** and **111**, so that these end flaps extend upwardly, perpendicularly disposed with respect to the side wall **95** and spaced inwardly of the ends of the side wall **95**, as illustrated in FIG. 15. Next, the message bearing member **82** is wound about the support post **118**, in the manner described above to provide the desired extendable length, and the ends of the support post **118** inserted within the support post apertures **117** formed in the end flaps **100** and **101**. Once the ends of the support post **118** are secured within the support post apertures **117**, the ends of the gripper bar **132** can be seated atop the locking notches **125–128** formed in the end flaps **100–103**, as illustrated in FIG. 16, and the message bearing member **82** released. It will unwind, however, the gripper bar **132** will prevent the message bearing member **82** from completely unwinding.

Next, the blank **86** is folded, along the score line **89**, so that the side wall **96** is perpendicularly disposed with respect to the side wall **95**, and is folded again, along the score line **90**, so that the side wall **97** is perpendicularly disposed with respect to the side wall **96**. The side wall **97** now rests atop the spacers **112** and **115** on the end flaps **100** and **101**.

The blank **86** then is folded, along the score lines **121** and **122**, so that the spacers **119** and **120** on the end flaps **102** and **103** extend perpendicularly downwardly, and then folded again, along the score lines **92** and **93**, so that the end flaps **102** and **103** enclose the opposite ends of the support bar **118**. During these folds, the spacers **119** and **120** are tucked in so as to rest atop the spacers **113** and **114**.

The blank **86** next is folded, along the score line **88**, to position the side wall **94** to close the remaining open side of the box **84**. The end flaps **98** and **99** are folded, along the score lines **92** and **93**, to overlap the end flaps **102** and **103**, and are again folded, along the score lines **104** and **105**, so that the tuck flaps **106** and **107** can be tucked in the slots between the edge of the end flaps **102** and **103** and the side wall **96**. Once the tuck flaps **102** and **103** are inserted, the box **84** is completely formed and will remain erect.

The message bearing member **82** of the moving message sign **80** can have a message **134**, such as the birthday greeting, "Another year has passed," printed or otherwise provided on it, so that the moving message sign comprises a novel birthday greeting card. Also, characterizations and other designs likewise can be provided on the message bearing member **82**, as well as on the box **84**. Two part messages and/or gags can be provided, by providing the opening line on the box **84** and the conclusion or punch line on the message bearing member **82**. Accordingly, these variations, as well as those set forth more fully above, can be easily applied to the moving message sign **80** to adapt it for a whole host of different applications.

The moving message sign **10** can be mailed, using the box **84** as its mailing envelope. Alternatively, it can be giftwrapped in the event the box **84** is decoratively designed or has part of the message to be conveyed to the viewer printed on it, so that the mailing addresses and postage do not detract from its appearance.

Prior to pulling the message bearing member **82** out of the box **84**, the message bearing member is loosely wound about the support post **118**, that is, it is in its unwound condition, and fills the entire box so that it is prevented from expanding further by the confines of the box, as illustrated in FIG. 20. The end of the message bearing member **82** is prevented from being fully retracted into the box **84**, by the gripping bar **132** which seats within the locking notches **125–128** and the locking slots **130** and **131**. It may be noted that the gripping bar **132** is generally concealed by the side wall **94**, so that it is protected from damage during mailing.

To view the message on the message bearing member **82**, the box **84** is held in one hand, the gripping bar **132** gripped between two fingers of the other hand, and the message bearing member **82** pulled out of the box, as illustrated in FIG. **12**. As the message bearing member **82** is pulled out of the box, the convolutions or coils of the excess portion thereof, that is, that portion which is not intended to be exposed, are tightly wound, as illustrated in FIG. **21**, since the support post **118** is fixedly secured against rotation. When the pulling force on the message bearing member **82** is released, the coils of the excess portion will again unwind and thereby function as a spring mechanism to retract the message bearing member **82** back into the box, until the gripping bar **132** again seats within the locking notches **125–128** and the locking slots **130** and **131** to limit its travel.

While the construction of the moving message signs **10** and **80** have been described in detail, it is apparent that numerous modifications can be made to the boxes **14** and **84** and to the message bearing members **12** and **82**, without departing from the teachings of the invention. For example, in FIGS. 22–33, there is illustrated an alternative manner in which is a moving message sign like the moving message sign **80** can be formed. This disclosed construction is preferred, primarily because of the ease at which the whole operation is performed. In addition, the box still is formed from an inexpensive, single blank of sheet material, without the need of adhesives or the like and, furthermore, these blanks can be shipped and or stored "flat" so that shipping and/or storage thereof does not present a problem. The box also can be assembled more rapidly than the box **84**, and the message bearing member thereof can be more easily and quickly rolled and positioned therein, all as fully described below.

In FIG. 22, the blank **140** of sheet material from which the box **141** (FIG. 26) is formed is illustrated. It can be seen that this blank also is generally rectangular shaped and has horizontal score lines **142–144** formed on it, dividing the same so as to provide side walls **146–149**, and vertical score lines **151** and **152** which further divide the same so as to provide end flaps **154–156** and **157-159** which are integrally affixed to the opposite sides of the side walls, respectively. It may be noted that the side wall **147** does not have end flaps on it. The end flaps **156** and **159** also have vertical score lines **161** and **162**, which further divide them so as to provide tuck flaps flaps **163** and **164** on respective ones of them. Locking slots **166–169** also are provided in the end flaps **154–158**, respectively, which locking slots interlock with one another to erect the box **141**, as described below. Finger notches **171** and **172**, locking notches **173–176**, and locking slots **177** and **178** like those formed in the blank **86** also are formed in the blank **140**.

To form the box **141**, the end flaps **154**, **155**, **157**, **158** first are folded upwardly, along the respective score lines **151** and **152**, so that they stand perpendicular to the rest of the blank **140**. The blank is then folded upwardly, along the score line **143**, so that the side walls **148** and **149** stand generally perpendicular. Next, the side wall **146** is folded upwardly, along the score line **142**, so that it also stands generally perpendicular, and the locking slots **166** and **167**, and **168** and **169**, interlock with one another to affix or lock the end flaps **154**, **155** and **157**, **158**, together. When folded in this fashion, the box **141** appears as illustrated in FIG. 26. The message bearing member **180**, with flutes **181** and **182** affixed to it, as described below, now is positioned within the box. The side wall **149** now is folded, along score line **144**, to close the box, and the end flaps **156** and **159** are folded, along the score lines **151** and **152**, respectively, to close the ends of the box, and are further folded, along the score lines **161** and **162**, to permit the tuck flaps **163** and **164** to be inserted to fully form the box. When fully folded, the box **141** looks the same as the box **84**, as shown in FIG. 11. From this description, it is apparent that the box **141** can be folded, and the moving message sign formed, far easier and more quickly than the moving message sign **80**. As indicated above, for this reason, this construction is preferred.

The message bearing member **180**, in this case, also has a pair of flutes **181** and **182** removably affixed to each of the opposite ends of its support post **183**, which flutes function to support the message bearing member **180** and/or the support post **183** against rotation when positioned within the box **141**. These flutes **181** and **182** therefore replace the end flaps **100** and **101** and the spacers **112–115** of the box **84**. The flutes **181** and **182** are identical to one another and, as can be best seen in FIGS. 23 and 24, they are generally square-shaped and of a size so as to fit snugly within the box **141**. The lower corners **185** and **186** thereof advantageously are rounded so that they can be more easily inserted into the box. One of the upper corners is notched so as to provide a locking notch **187** which functions in conjunction with the locking notches **173–176** on the end flaps **154–158**, and a support post aperture **188** is centrally provided therein, for receiving an end of the support post **183**. These flutes can be formed of various types of material which preferably are light in weight and relatively strong so that they do not add materially to the weight of the moving message sign,

and the support post apertures **188** are not subject to damage when the message bearing member **180** is pulled out or retracted into the box. For reasons indicated above, the cost of the flutes also is of considerable importance hence a material such as 200 pound test C-flute Kraft corrugated material, paperboard, plastic, or wood, preferably is used.

The flutes **181** and **182**, in addition to making it easier and quicker to insert the message bearing member **180** into the box **141**, also can be advantageously used to roll the message bearing member **180**. For example, the flutes **181** and **182** can be affixed to the ends of the support post **183** before the message bearing member is rolled, and placed within a jig (not shown) which is adapted to be rotated. The gripping bar on the opposite end of the message bearing member is held with sufficient tension so that the message bearing member is tightly wound or rolled about the support post **183**, as the jig is rotated. When the excess portion thereof, as defined above, is wound onto the support post, the wound roll is removed, along with the flutes, and placed within the box **141**, generally as illustrated in FIG. 26. If desired, the jig can be further adapted to support the box **141** in a fashion such that the rolled message bearing member **180** can be removed from the jig and seated within the box, simultaneously. It can therefore be seen that the use of the flutes **181** and **182** provides substantial advantages.

In FIG. 28, a gripping bar **190** is illustrated which comprises an elongated length of hollow material which is generally triangular-shaped and is slotted at its apex so as to receive and to lockingly grip the end edge of the message bearing member **180** therein. The gripping bar **190** preferably is of plastic since it is relatively inexpensive and is attractive, however, it can be of other materials such as metal. A gripping bar **190** also is preferred over using one of wood, such as the gripping bar **132**, since it can be more easily and quickly affixed, without the need of additional fastening means such as staples or an adhesive.

The end edge of the message bearing member **180** also can be tinned like a calendar to provide a gripping bar on it, if desired.

In FIGS. 29–33, there is illustrated a support post **183** formed from a generally rectangular-shaped blank **191** of heavy paperboard material which has a score line **192** formed lengthwise thereof, dividing the same in half. The blank **191** is folded over, along the score line **192**, as illustrated in FIGS. 31 and 32, about the end edge of the message bearing member **180**, so as to captivate it between the two halves thereof. The end edge of the message bearing member **180** can be fixedly secured therein, by means of staples, eyelets, adhesive or other fastening means.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above article without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statemeents of the scope of the invention, which, as a matter of language, might be said to fall therebetween.

Now that the invention has been described, what is claimed as new and desired to be secured by Letters Patent is:

1. A moving message sign comprising, in combination: a box-like container which is open along one of its sides; a generally rectangular-shaped sheet of material having one end thereof fixedly secured to a spring-loaded roller supported within said box-like container, said roller being adapted to retract said sheet of material back into said box-like container; indicia provided on said sheet of material; said sheet of material normally being convolutely rolled about said roller and generally concealed within said box-like container, and adapted to be unrolled as it is pulled out of said box-like container to visibly display said indicia, said roller being prepared to reroll said sheet of material to retract it back into said box-like container as said sheet of material is being pulled out of said box-like container, said box-like container being formed from a single blank of sheet material which is cut, scored and folded so as to form a top wall, a pair of side walls and a pair of end walls, said side walls each having an inner side wall integrally affixed to it which is folded interiorly of said box-like container, each of said inner side walls having a lock flap integrally affixed to it which is folded atop the interior surface of said top wall with its end extending toward the other one of said lock flaps, said lock flaps being proportioned to lie flat atop the interior surface of said top wall with their ends abutting one another to lock said box-like container erect.

2. The moving message sign of claim **1**, further including a pair of roller support means having a head portion and a flange portion for supporting respective ones of the ends of said spring-loaded roller, said pair of end walls of said box-like carton each being folded double and having one of said roller support means sandwiched therebetween with said head portion extending through an aperture therein so as to be engageable by said end of said roller, whereby no additional fastening means are required to secure said roller support means within said box-like container, said flange portion being rectilinear in shape and substantially coextensive in area to the area of said end walls so as to prevent them from rotating.

3. A moving message sign comprising, in combination: a box-like container which is open along one of its sides; a generally rectangular-shaped sheet of material having one end thereof secured to support post means which is fixedly secured against rotation within said box-like container; indicia provided on said sheet of material; said sheet of material normally being loosely convolutely rolled about said support post means and generally concealed within said box-like container, and adapted to be unrolled as it is pulled out of said box-like container to visibly display said indicia, said sheet of material having a portion thereof tightly rolled about said support post means as its free end is pulled out of said box-like container under the stress of the full force applied to it, said tightly rolled portion having a natural tendency to unwind and functioning as a spring mechanism to retract said sheet of material back into said box-like container to be re-rolled when the free end of said sheet of material is released.

4. The moving message sign of claim **3**, wherein said sheet of material comprises a heavy-weight paper.

5. The moving message sign of claim **4**, wherein said heavy-weight paper comprises a 1-ply Bristol board material.

6. The moving message sign of claim **4**, wherein the grain of said paper is disposed to extend lengthwise thereof.

7. The moving message sign of claim **3**, wherein said box-like container is formed from a single blank of sheet material which is cut, scored and folded so as to form a generally closed box-like container having four side walls, and two end walls, at least one of said side walls having a flap integrally affixed to each of its opposite ends which is adapted to be folded so as to be positioned in spaced relation to and concealed by one of said end walls, a support post aperture in each of said flaps for receiving the end of a support post, said one end of said sheet of material being secured to a support post and said sheet of material and said support post being supported and retained within said box-like container by engaging the ends of said support post within respective ones of said support post apertures, said support post and said

support post apertures being shaped so as to secure said support post against rotation therein.

8. The moving message sign of claim 3, wherein the free end of said message bearing member is adapted to engage the opposite side walls of said box-like container to prevent said free end from being fully retracted into said box-like container, so that said free end can be easily grasped to pull said message bearing member out of said box-like member.

9. The moving message sign of claim 8, wherein said message bearing member has a wooden stick-like gripper bar affixed to its free end, said gripper bar engaging the opposite side walls of said box-like container to prevent said free end from being fully retracted into said box-like container and providing means which can be easily grasped to pull said message bearing member out of said box-like container.

10. The moving message sign of claim 9, wherein said box-like container is formed so that said gripper bar is generally concealed by one of its side walls.

11. The moving message sign of claim 3, wherein said box-like container is formed from a single blank of sheet material which is cut, scored and folded so as to form a generally closed box-like container having four side walls, and two end walls, and wherein there is further included a pair of flutes which are adapted to be fixedly seated against rotation within said container, said flutes each having an aperture for receiving one of the ends of said support post means, said support post means and said apertures being shaped so as to secure said support post means against rotation therein.

12. The moving message sign of claim 3, further including a hollow, generally triangular-shaped grasping bar which is slotted at its apex affixed to the free end of said message bearing member by extending and lockingly gripping said edge of said free end within said slot formed at its apex, said gripping bar being adapted to engage the opposite side walls of said box-like container to prevent said free end from being fully retracted into said box-like container, so that said free end can be easily grasped to pull said message bearing member out of said box-like member.

13. The moving message sign of claim 3, wherein said support post means comprises a rectangular-shaped blank of sheet material which is scored lengthwise thereof so as to divide it in half, said halves of said blank being folded over so as to receive the end edge of said message bearing member therebetween and fixedly secured thereto.

14. A moving message sign comprising, in combination: a message bearing member formed of a length of springy paper material and having indicia provided thereon, on at least a portion of it, a box-like container, said message bearing member being loosely rolled in a coil-like fashion with one of its ends fixedly secured within said box-like container and its other free end extending out of said box-like container and being retained in a fashion such that said free end can be easily grasped to pull said message bearing member out of said box-like container, said loosely rolled coils being tightened as said message bearing member is pulled out of said box-like container and functioning as a spring mechanism to retract said message bearing member back into said box-like container when said free end is released.

15. A moving message sign of claim 14, wherein the grain of said springy paper material extends lengthwise of said message bearing member.

16. A spring mechanism formed from a length of springy paper material, said springy paper material having one of its ends fixedly secured to support means which is fixedly secured against rotation and having a predetermined portion of its length tightly rolled about said support means, the remaining portion of its length forming an extendable and retractable portion, said tightly rolled portion of said length of springy paper material having a natural tendency to unwind and thereby function as a spring to retract said extendable and retractable portion of said length of springy paper material.

17. The spring mechanism of claim 16, wherein the grain of said springy paper material extends lengthwise thereof.

18. A moving message sign comprising, in combination: a message bearing member formed of a length of springy paper material and having indicia provided thereon, on at least a portion of it, a box-like container, a pair of flutes each having a support port aperture therein and adapted to be fixedly seated against rotation within said container, a support post fixedly secured to one end of said message bearing member and having its end seated within said support post apertures in respective ones of said flutes so as to prevent said support post from rotating, said message bearing member being loosely rolled in a coil-like fashion about said support post and having its free end extending out of said box-like container in a fashion such that said free end can be easily grasped to pull said message bearing member out of said box-like container, said loosely rolled coils being tightened about said support post as said message bearing member is pulled out of said box-like container and functioning as a spring mechanism to retract said message bearing member back into said box-like container when said free end is released.

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