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[54] **DISPLAY DEVICE**
6 Claims, 2 Drawing Figs.

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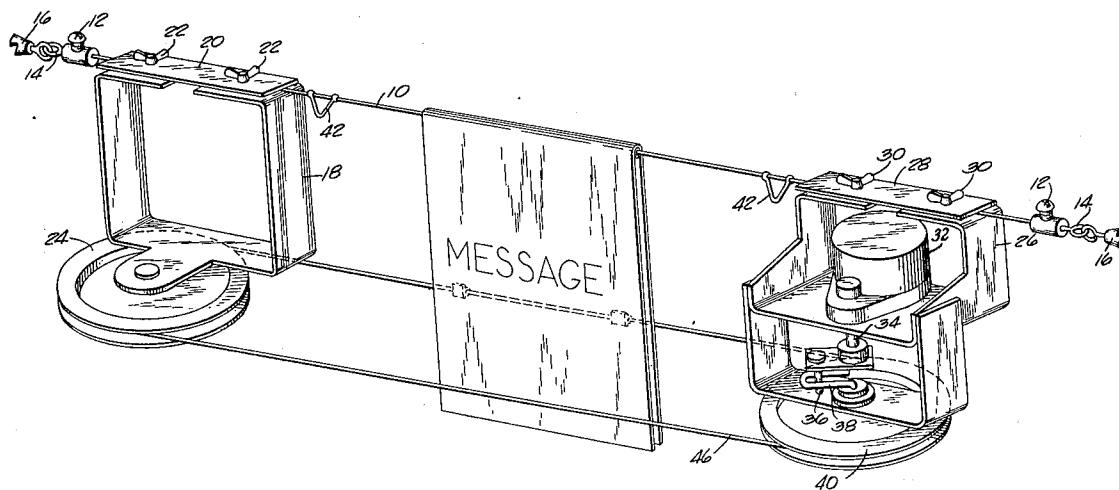
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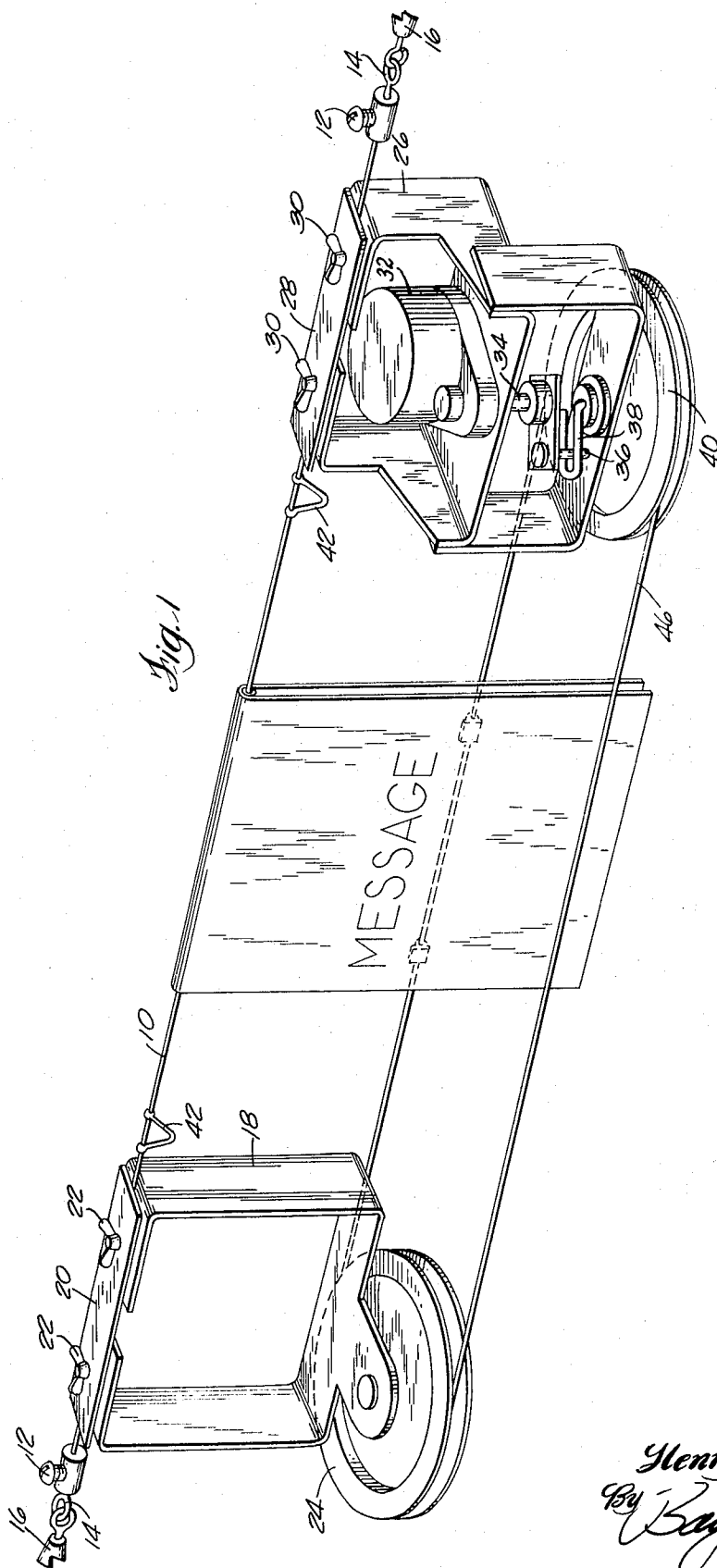
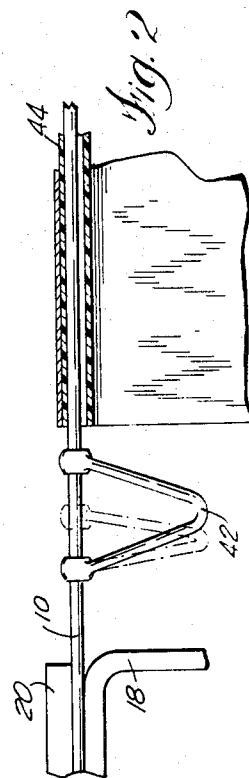
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ABSTRACT: A fine cable is stretched taut between suitable supports with a bracket at one end supporting a non-directional AC motor driving a drive pulley and a bracket at the other end supporting an idler pulley. A suitable message is supported on a plastic tube slidable on the cable and is connected to a line running around the pulleys. A simple spring is fixed on the cable adjacent each bracket so the traveling message strikes the spring with the resultant impact being fed back to the motor and causing reversal of the motor direction. Therefore, the message travels back and forth on the cable.





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DISPLAY DEVICE

BACKGROUND OF INVENTION

Traveling messages of this general type are not new but heretofore have involved rather complex arrangements and have had distracting hardware associated with the traveling message. Furthermore, the installation and initial costs were considered too high.

SUMMARY OF INVENTION

With the simple construction described briefly above and more fully hereinafter, I have achieved a very simple and reasonably priced construction which has no exposed hardware traveling with the message and which travels on fine cable while being powered by light or fine line which is almost invisible in the usual environment where these devices are operated such as supermarkets.

DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of the entire assembly.

FIG. 2 is a detail view showing the manner in which the U- or V-shaped springs are mounted on the cable at each end of the travel and also shows the manner in which the message is supported on the plastic tube.

DESCRIPTION OF PREFERRED EMBODIMENT

The cable 10 is preferably stretched taut across a supermarket well above the counters and the like so the message to be carried thereon will appear to be floating in air. At each end of the cable there is a cable clamp 12 to secure the eyelet 14 to which a turnbuckle 16 is attached at each end. The other end of each turnbuckle is anchored to the wall and the turnbuckles permit the wire to be drawn tight. Preferably the wire is the stainless steel aircraft type since this has great strength with a small diameter and, hence, is difficult to discern.

In FIG. 1 at the left end of the cable there is a bracket 18 clamped on the cable 10 by means of the simple plate 20 held down against the cable by means of wing nuts 22. The lower portion of this bracket projects laterally and provides a pivot support for the idler pulley 24. At the right end of the cable the motor bracket 26 is mounted in a similar manner by clamping plate 28 on the cable by means of wing nuts 30. This bracket supports the motor 32 which drives shaft 34 and this, in turn, drives the bell crank arrangement including the depending pin 36 loosely engaged in the U-shaped coupling 38 attached to and driving the drive pulley 40. A loose fit is desired between the pin and the coupling 38. Adjacent each end of the cable at the brackets there is mounted a simple U-shaped spring 42 which is slidable along the cable and normally tends to position itself closely adjacent the corresponding bracket. Between these springs the message is mounted on the cable. The message is folded over a plastic tube 44 to pro-

vide a low-friction support for the message. The message then hangs down on either side of the line 46 running around the pulleys and is secured to the line by suitable adhesive or the like. Therefore, as the line 46 is driven the message will also be driven.

The motor 32 is a nondirectional, synchronous AC motor. Therefore, it can start or run in either direction. Let us assume that the motor is running in such a direction as to be moving the message towards the left. Finally the message will impact against the spring 42 to flex it to the dotted line position shown in FIG. 2 whereupon the spring will cause the message to rebound which, in turn, will drive the line 46 in the opposite direction and deliver sufficient impact to the motor to cause it to reverse direction and here the loose coupling between the motor and the drive pulley allows the motor to get started in the reverse direction before picking up the load. If the first impact does not achieve reversal there will be another impact and finally reversal will occur. It must be remembered that anytime a motor such as this is stalled it can start in either direction.

Sometimes the traveling placard bearing the message may impact on the bracket with sufficient force to cause the motor to reverse without the action of the springs but the springs are thought desirable in that they impart the rebound action which obtains more positive reversal.

What is claimed is:

1. A mobile display device comprising, a cable stretched taut between supports, spaced brackets mounted on the cable, an idler pulley mounted on one bracket, a drive pulley mounted on the other bracket, a motor mounted on said other bracket, a line reeved over the pulleys to be driven thereby, a message-bearing placard slidably mounted on the cable and connected to the line to be driven thereby, and means for reversing the motor when the message reaches spaced locations between the brackets.
2. A display device according to claim 1 in which springs on the cable between the placard and each bracket determine said spaced locations.
3. A display device according to claim 2 including a drive coupling having appreciable lost motion and mounted between the motor and the drive pulley.
4. A display device according to claim 3 in which the placard is mounted on a tube which slides on the cable.
5. A display device according to claim 1 including a drive coupling between the motor and the drive pulley, the coupling having appreciable lost motion to facilitate the motor reversal.
6. A display device according to claim 1 in which the brackets are clamped on the cable to determine the limits of travel of the placard independently of the spacing of the supports to which the cable is attached.

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