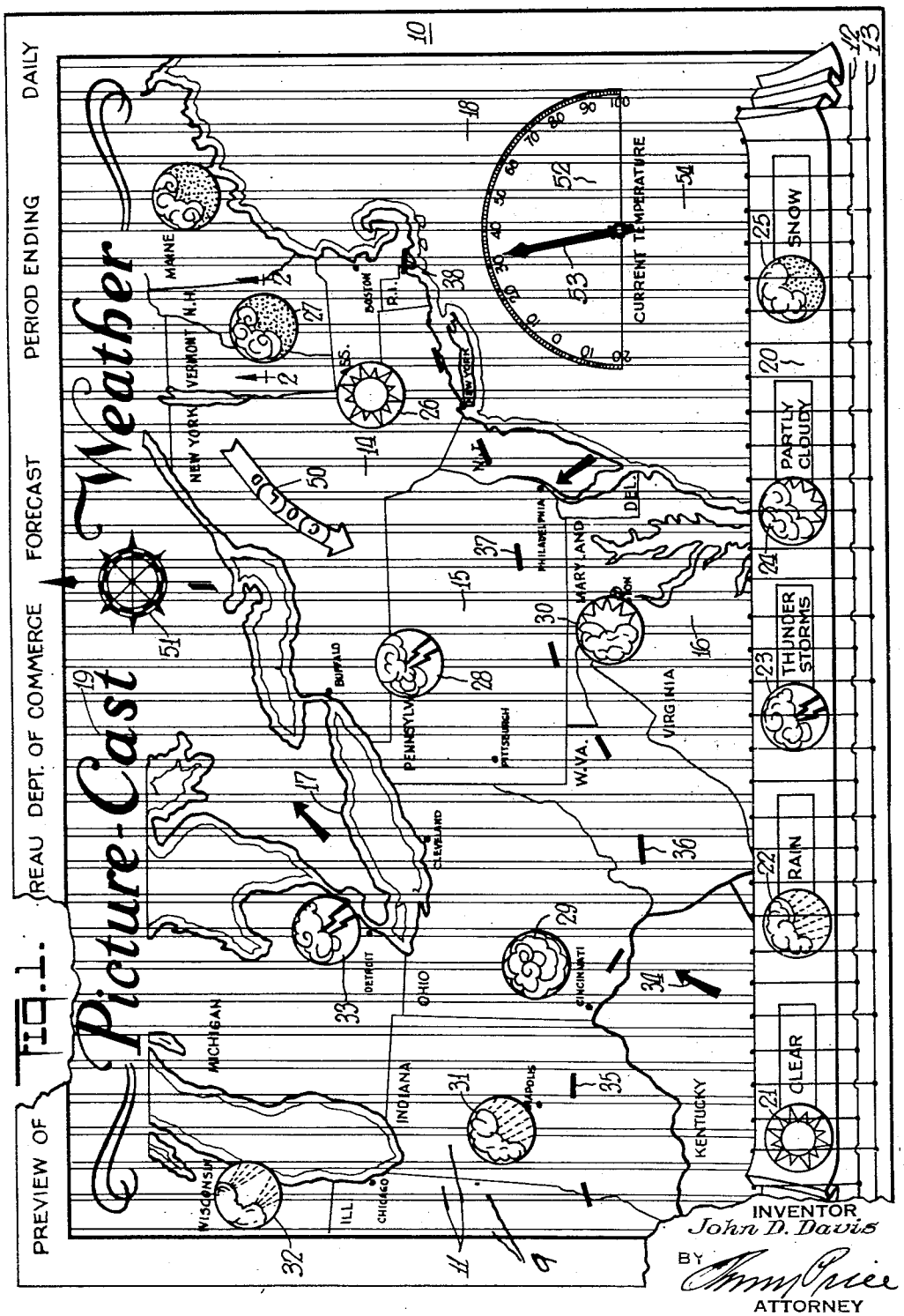
Sept. 11, 1951 J. D. DAVIS 2,567,189

TELEVISION REPORTING SYSTEM

Filed July 25, 1949 2 Sheets-Sheet 1



Sept. 11, 1951 J. D. DAVIS 2,567,189

TELEVISION REPORTING SYSTEM

Filed July 25, 1949 2 Sheets-Sheet 2

Fig. 2.

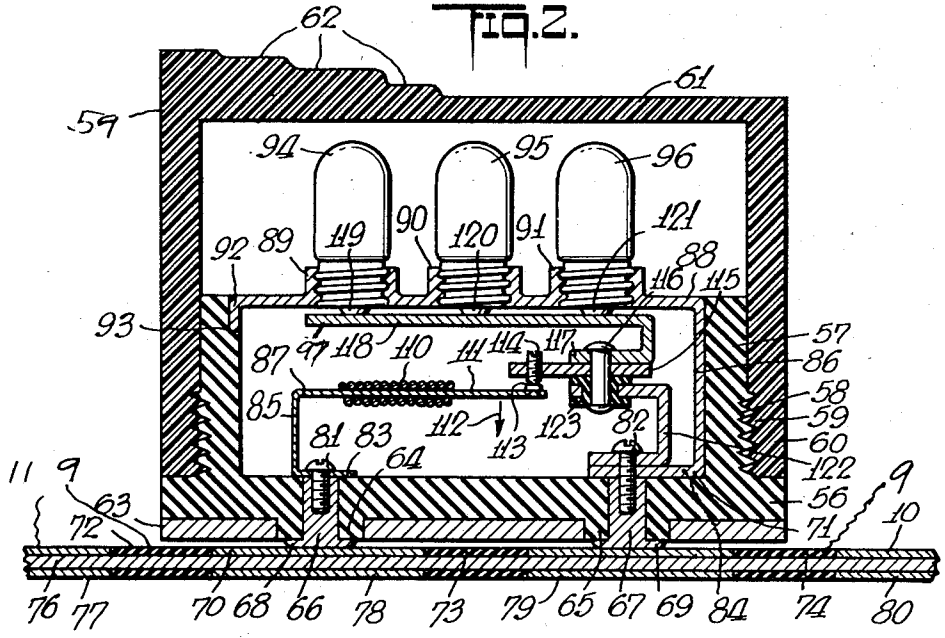


Fig. 3.

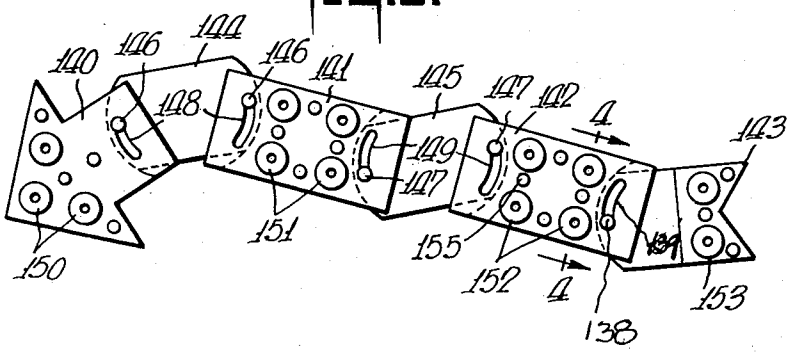
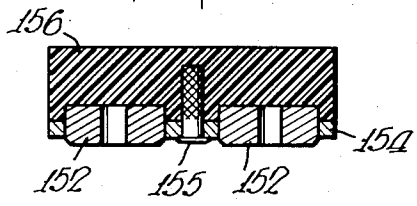


Fig. 4.



INVENTOR
John D. Davis
BY
ATTORNEY

Patented Sept. 11, 1951 2,567,189

UNITED STATES PATENT OFFICE

2,567,189

TELEVISION REPORTING SYSTEM

John D. Davis, Dobbs Ferry, N. Y.

Application July 25, 1949, Serial No. 106,605

8 Claims. (Cl. 35—40)

1

The present invention relates to a reporting system and it particularly relates to a television reporting system.

Although the present invention has broad application in respect to reporting of news, sports, time and other events, situations or information material, it will be particularly described and has a particular application to the reporting of weather and weather forecasts.

It is among the objects of the present invention to provide a readily manipulated, easily set up and immediately understood weather reporting system which may be used in connection with television broadcasts, and which may also be used in locations to show the status of the weather or future weather forecasts.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects, it has been most suitable, according to one embodiment of the present invention, to provide a conveniently aligned and decorated map having a plurality of legends to be placed thereon, which may be employed to indicate the current weather as well as the expected changes and future conditions thereof.

In one form of the invention, the map has a base structure which will enable ready and rapid attachment or positioning thereon of adjustable and removable weather symbols, showing cloudiness, rain, snow, sunshine and so forth, and also a plurality of adjustable and removable symbols showing weather fronts and general directions of movement of weather fronts and air masses.

In one preferred form, the various symbols may be provided with small magnetic inserts of a permanent, magnetic material and the back of the map may be provided with solenoids or other magnetic-attracting materials to hold such symbols in position.

The emblems may also be provided with bulbs or indicating elements to be fed from a source of current supply, as for example closely spaced conductor bars or tracks positioned over the map, and they might also be provided with flasher means to cause a constant flashing effect and to attract attention to a particular legend or symbol. This series of parallel spaced tracks upon the board may be alternately connected to opposite sides of a potential which will be sufficient to illuminate a lamp or other flasher or indicating device.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

2

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

Fig. 1 is a plan view of a type of weather map which may be utilized in the course of the process of the invention.

Fig. 2 is an enlarged, transverse, sectional view upon the line 2—2 of Fig. 1 and upon an enlarged scale as compared to Fig. 1.

Fig. 3 is a rear view of an adjustable arrow construction to show the direction of movement of weather fronts or winds upon an enlarged scale as compared to Fig. 1.

Fig. 4 is a transverse constructional view upon the line 4—4 of Fig. 3 upon an enlarged scale as compared to Fig. 3.

Referring to Fig. 1, there is shown a baseboard 10 having a plurality of closely parallel, spaced conduits 11 separated by insulation 9. These conduits 11 as indicated are diagrammatically fed from an electrical source 12 and 13 of 17, 50, 110 or even 220 volts A. C. or D. C.

The map 10, with suitable distortion, will show various states, such as New York at 14, Pennsylvania at 15, Virginia at 16, and the Great Lakes, for example, being indicated at 17, with the ocean being suitably represented in a contrasting color at 18.

At the top of the map will be a legend as indicated at 19, while at the bottom of the map there will be provided an explanatory chart, as indicated at 20, to give the explanation of the different symbols used.

There will be shown a symbol of the sun at 21, indicating clear, a symbol of a light cloud indicating showers at 22, a symbol of thunder storms at 23, a symbol of a partly obscured sun to indicate partly cloudy at 24, and a symbol of a snow cloud with falling snow at 25.

At desired positions in and about the map, these various symbols may be held in position by providing either pegs or preferably by providing a magnet in the back of the symbol and in back of the map. As shown, the weather is indicated by the sun symbol at 26 in Fig. 1, the snow symbol at 27, the thunder shower symbol at 28 and 33, the cloudy symbol at 29, the partly cloudy symbol at 30, and the rain symbol at 31 and 32.

At the same time the arrows which may be attached by pegs or by magnetic means, as indicated at 34, will indicate the direction of the wind, while the short bars as indicated at 35, 36, 37 and 38 will indicate the weather fronts.

The adjustable large arrow 50 will indicate the general movement of cold masses of air and the approach or movement of cold or warm weather.

The map as shown in Fig. 1 may also have a permanent legend, as indicated at 51, to indicate the direction or true north and it may also be provided with a scale and a moving pointer 53 to indicate the temperature in the zone or area, as indicated at 54.

Referring to Fig. 2, there is shown a typical symbol, for example indicating thunder storms shown at 23 in Fig. 1, in cross section which may be provided with a flasher arrangement. As shown, the symbol has a base 56 with an upwardly extending cup or flange 57 having a threaded portion 58. The threaded portion 58 engages the lower portions 59 on the interior of the skirt 60 extending downwardly from the plaque 61. The plaque is suitably painted or colored and has a decorative design, as indicated at 62, thereon, to indicate clouds, sun, lightning and so forth.

The magnetic metal base plate 63 will reinforce the base 56. The base 56, as well as the cup 60, are desirably of translucent or transparent plastic or glass materials.

Projecting down through the bosses 64 and 65 are the studs 66 and 67 carrying the electrical contact feet 68 and 69. The feet 68 and 69 are designed to rest upon the electrical conduit bars 11 indicated in Fig. 2 by numerals 70 and 71.

The electrical conduits 11, 70 and 71 constitute part of the electrical conduit system, indicated at 12 and 13 in Fig. 1, and they are desirably separated by the insulating strips *a*, 72, 73 and 74 and they are mounted upon the insulating backing 76. On the back of the board 10 there may also be provided the aluminum nickel alloy magnet strips 77, 78, 79 and 80, which may cooperate with the magnetic metal material 63 to hold the symbols, as shown in Fig. 2, in a desired adjusted position upon the board 10.

Attached to the studs 66 and 67 by the screws 81 and 82 are the U-shaped angle conductors 83 and 84. These conductors have upwardly extending, vertical legs 85 and 86 and reversely turned horizontal legs 87 and 88.

The leg 88 takes the form of a plate 97 having threaded necks 89, 90 and 91 and having a downturned end portion 92 fitted in the recess 93 in the skirt 57. In the threaded portions 89, 90 and 91 are screwed the lamps 94, 95 and 96.

These lamps 94, 95 and 96 will illuminate the top plate 61 and give a most striking appearance to the symbol.

The leg 87 consists of a thermostatic strip and is encircled by the coil 110 which when actuated will cause the thermostatic strip 111 to bend downwardly, as indicated at 112. This will cause the contact button 113 to separate from the adjustable screw contact 114. The contact 114 is screwed into the conducting leaf 115. The leaf 115 is riveted at 116 to the arm 117 of the plate 118 which contacts with the downwardly projecting central terminals 119, 120 and 121 of the lamps 94, 95 and 96. The arm 117 will be supported by the rivet 116 upon the arm 122. The arm 122 at its lower end is mounted on the screw 82, and its upper end supports the bottom end of the rivet 116 by the insulating collar 123.

As indicated in Fig. 2, the current will be supplied from the conductors 70 and 71 through the studs 66 and 67 of the brackets 83 and 84, the thermostatic device 110—111, the contact 113, the adjustable pin 114, and the arm 118 to the lamps 94, 95 and 96.

The auxiliary heating coil 110, which may be connected in the circuit, will heat the thermostatic strip 111 to cause it to move away from the stud 114 in the direction 112, frequently breaking the circuit at 113—114 and causing flashing of the lamps 94, 95 and 96.

The bracket 84 will support the arm 118 without being in electrical communication therewith. At the same time the magnetic plate 63 will hold the symbol in position on the board by attraction of the strips 77, 78, 79 and 80, which may be made of a permanent magnetic alloy.

In the adjustable arrow device of Fig. 3 there is shown a pointer section 140, the intermediate magnetic sections 141, 142 and a tail section 143, and the connecting sections 144 and 145. These sections 144 and 145 are connected by 138 rivets 146 and 147 fitting in slots 139, 148 and 149.

Inserted on the base of the elements 140, 141, 142 and 143 are a plurality of permanent magnetic inserts 150, 151, 152 and 153, which are held in position by the nonmagnetic plates 154 (see Fig. 4) retained by the rivets 155 in the plastic bodies 156. The arrows 34 and bars 35, 36, 37 and 38 on Fig. 1 may be of similar construction, as indicated in Fig. 4, to provide magnetic means for holding the device in desired, adjusted position, as shown on the map in Fig. 1.

It is thus apparent that the present application has devised a display board particularly for use in television or for permanent display, by means of which it is possible at all times by ready adjustments to give a visible picture of the weather to come, which is readable by the layman without necessity of charts or explanatory details.

The flashing members 94, 95 and 96 in the plastic casing 59 will give a most attractive display. The various conducting strips 11 may be made of paint or thin strips of aluminum and the electrical arrangement which is supplied at 12 and 13 may consist of a relatively low voltage as by a battery. The permanent magnet elements 63, 77, 78, 79, 80, 150, 151, 152 and 153 will assure that the symbols will be held in adjustable position upon the board.

The control board as shown in Fig. 1 may be provided with arrangements to provide separate controls for different sections of the board corresponding to different states or areas. Such area, for example, may be the metropolitan New York area or the New England states or middle Atlantic states which may be provided with individual electrical controls.

For example the flasher arrangement shown in Fig. 2 may be so constructed that it will only flash at a voltage of 6 volts, while if the voltage drops to 4½ volts the light from bulbs 94, 95, 96 will be steady and will not flash. This may be accomplished by providing connections to different sections or panels of the board of Fig. 1 to enable one or more batteries to be cut in or to be cut out or to cut in or out a resistance in the line or by regulating transformers. The heater coil 110 will not be effective to generate sufficient heat at insufficiently high voltages, such as 4½ volts or below 6 volts to actuate the flasher.

While there has been described a preferred form of the invention, it should be understood that the same may be altered in details and in relative arrangement of parts within the scope of the appended claims.

Having now particularly described and ascertained the nature of the invention, and in what manner the same is to be performed,

What is claimed is:

1. In a television broadcasting system a display board and a plurality of symbols to be adjustably and detachably mounted on said display

board, said board being provided with a plurality of closely spaced electrical conduit strips alternately charged positively and negatively and said symbols being provided with positive and negative legs to contact said conduit strips, said symbols each consisting of a transparent plastic casing having a screw mounting therein for an electric bulb and electrical connections to said screw mounting including a heat-actuated automatic make-and-break arrangement for causing flashing of said bulbs, each of said symbols having an internal frame threaded into said plastic casing, said frame having an elevated platform carrying said screw mounting and a base carrying said legs.

2. In a television reporting system, a display board showing a map of the area covered, a plurality of adjustable and removable symbols indicating weather at desired locations on said maps, said map and symbols being provided with cooperating means to hold said symbols in a desired adjusted position, said board being provided with a plurality of closely spaced electrical conduit strips alternately charged positively and negatively and said symbols being provided with positive and negative legs to contact said conduit strips, said symbols each consisting of a transparent plastic casing having a screw mounting therein for an electric bulb and electrical connections to said screw mounting including a heat-actuated automatic make-and-break arrangement for causing flashing of said bulbs, each of said symbols having an internal frame threaded into said plastic casing, said frame having an elevated platform carrying said screw mounting and a base carrying said legs.

3. In a television reporting system, a display board showing a map of the area covered, a plurality of adjustable and removable symbols indicating weather at desired locations on said maps, said map and symbols being provided with cooperating means to hold said symbols in a desired adjusted position, said means including magnetic means on said board and on said symbols, said board being provided with a plurality of closely spaced electrical conduit strips alternately charged positively and negatively and said symbols being provided with positive and negative legs to contact said conduit strips, said symbols each consisting of a transparent plastic casing having a screw mounting therein for an electric bulb and electrical connections to said screw mounting including a heat-actuated automatic make-and-break arrangement for causing flashing of said bulbs, each of said symbols having an internal frame threaded into said plastic casing, said frame having an elevated platform carrying said screw mounting and a base carrying said legs.

4. In a television reporting system, a display board showing a map of the area covered, a plurality of adjustable and removable symbols indicating weather at desired locations on said maps, said map and symbols being provided with cooperating means to hold said symbols in a desired adjusted position, said symbols being provided with internal illuminating devices, said board being provided with a plurality of closely spaced electrical conduit strips alternately charged positively and negatively and said symbols being provided with positive and negative legs to contact said conduit strips, said symbols each consisting of a transparent plastic casing having a screw mounting therein for an electric bulb and electrical connections to said screw mounting including a heat-actuated automatic make-and-break arrangement for causing flashing of said bulbs, each of said symbols having an internal frame threaded into said plastic casing, said frame having an elevated platform carrying said screw mounting and a base carrying said legs.

5. In a television reporting system, a display board showing a map of the area covered, a plurality of adjustable and removable symbols indicating weather at desired locations on said maps, said map and symbols being provided with cooperating means to hold said symbols in a desired adjusted position, said symbols being provided with internal illuminating devices and said board being provided with a plurality of electrical circuits to actuate said devices, said board being of a laminated structure and having separated magnetic metal strips and conductor metal strips, said conductor metal strips being positioned on the top of the board adjacent to the symbols and said magnetic metal strips being positioned on the bottom of the board away from said symbols.

6. In a television reporting system, a display board showing a map of the area covered, a plurality of adjustable and removable symbols indicating weather at desired locations on said maps, said map and symbols being provided with cooperating means to hold said symbol in a desired adjusted position, said symbols being provided with internal illuminating devices and said board being provided with a plurality of parallel closely spaced electrical conduits to illuminate said devices and said symbols being provided with internal flasher means, said board being of a laminated structure and having separated magnetic metal strips and conductor metal strips, said conductor metal strips being positioned on the top of the board adjacent to the symbols and said magnetic metal strips being positioned on the bottom of the board away from said symbols.

7. An illuminated weather laminated display board for use on television comprising a plurality of closely spaced negative and positive conducting strips on the top thereof, an intermediate insulation layer and permanent magnetic strips on the bottom thereof and a plurality of illuminated indicators to be positioned adjustably and removably on said board consisting of telescoping plastic shells screwed together and having contact legs projecting below the bottom thereof to contact said conducting strips and a metal base element to cooperate with said magnetic strips to hold said indicators in position.

8. The display board of claim 7 in which said indicators have an internal shell carrying a plurality of electric light bulbs and high heat actuated make and break arrangement to cause said bulbs to flick on and off.

JOHN D. DAVIS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
706,463	Smith	Aug. 5, 1902
2,317,590	Compere	Apr. 27, 1943

FOREIGN PATENTS

Number	Country	Date
555,952	Great Britain	Sept. 14, 1943
564,205	Great Britain	Sept. 18, 1944