

Aug. 3, 1965

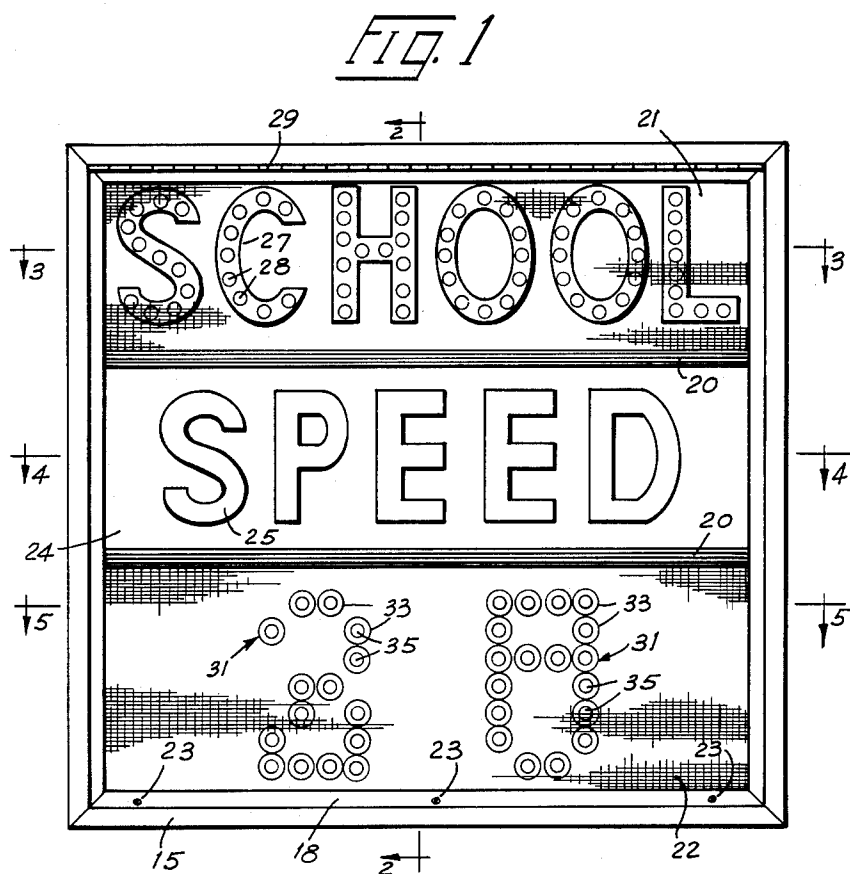
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3,197,904

SPEED ZONE SIGN

Filed June 28, 1963

3 Sheets-Sheet 1



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FIG. 2

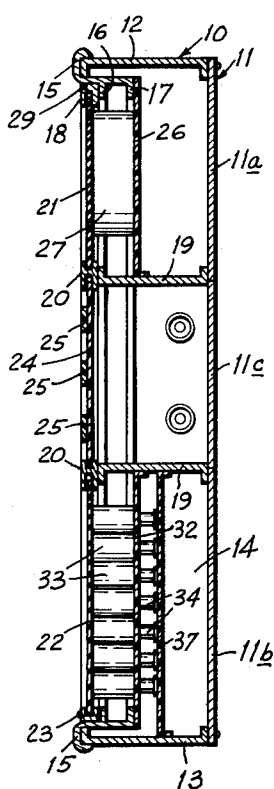
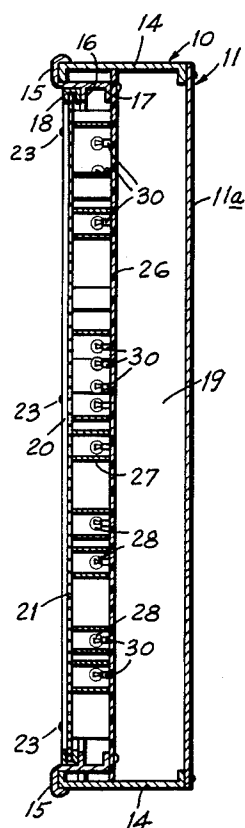


FIG. 3



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FIG. 4

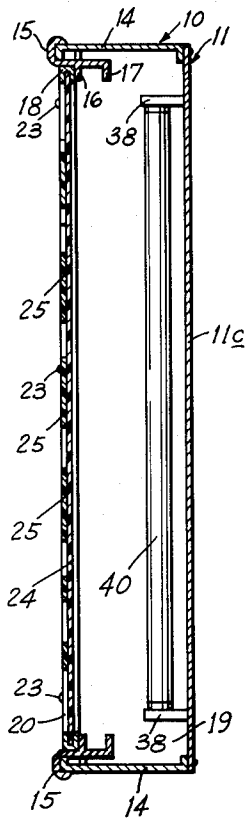
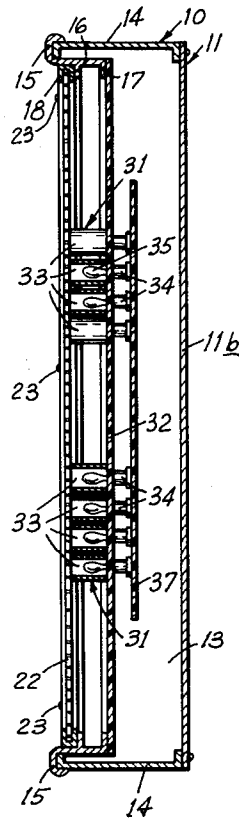


Fig. 5



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3,197,904

SPEED ZONE SIGN

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3 Claims. (Cl. 40—130)

This invention relates to a novel speed zone sign, for applications along streets or highways.

The present invention is concerned with a novel structure for a speed zone sign, such as might be used to designate a school zone or other restricted speed zone wherein the maximum speed allowable on the street will vary during the day or during various periods of the week or year. The sign shown in the drawings as an example is assigned for a school zone, where the speed limit might be lowered during school hours, while a higher speed might be allowed during evenings, on weekends, and during vacation periods. The sign structure has application to other restrictive areas along streets, such as alongside playground areas, shopping areas, or any other area wherein the maximum allowable speed is varied during certain periods.

It is a first object of this invention to provide such a sign which will have a striking appearance due to alternate fields of dark and light backgrounds. The sign is preferably used as a flashing type sign with the displays alternating between the various indications contained on the face of the sign.

Another object of this invention is to provide a structure which will allow ready access to any portion of the sign, while presenting a minimum of complication in fabricating the sign or adapting it to various applications.

Another object of this invention is to provide a sign structure with definite areas on the face thereof for the designation of the indicated material.

These and further objects will be evident from a study of the accompanying drawings, taken in conjunction with the following detailed description of one specific example of the sign structure. It is to be understood that various modifications could be made in this structure without deviating from the basic concept contained therein.

In the drawings:

FIGURE 1 is a front view of the completed sign structure;

FIGURE 2 is a sectional view of the sign structure as seen along line 2—2 in FIGURE 1;

FIGURE 3 is a sectional view of the sign structure as seen along line 3—3 in FIGURE 1;

FIGURE 4 is a sectional view of the sign structure as seen along line 4—4 in FIGURE 1; and

FIGURE 5 is a sectional view of the sign structure as seen along line 5—5 in FIGURE 1.

Referring now to the drawings, the sign structure according to the present invention includes a supporting framework generally designated by the numeral 10. The framework 10 includes a back panel generally shown as 11, a top wall 12, a bottom wall 13, and two side walls 14. The top, bottom and side walls 12, 13 and 14 are joined together at their ends to provide a rectangular outer shell for the structure. The back panel 11 includes two removable panels 11a and 11b which are fixed along the top and bottom walls 12 and 13 respectively. The panels 11a and 11b are also fastened to intermediate partitions 19 which extend across the side walls 14 and which are fixed thereto as part of the framework 10. The back panel 11 is completed by a central fixed portion 11c which is welded or otherwise fastened to the side walls 14 and the intermediate partitions 19, as can be best seen in FIGURE 2.

Along the front edges of the walls 12, 13, and 14 is

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fastened an outer peripheral frame 15 which includes an inwardly recessed ledge 16 and a rear ledge 17. The ledges 16 and 17 are directed inwardly along the entire periphery of the framework 10, as can be seen in FIGURES 2—5.

Mounted against the recessed ledge 16 is an inner peripheral frame 18 which is rectangular in configuration and which includes a pair of intermediate sections 20 corresponding in location to the intermediate partitions 19 of framework 10. The intermediate sections 20 of the frame 18 divide the three areas of the face of this sign. The top area is covered by a louvered screen 21 which is mounted in the inner frame 18. The lower section of the sign is covered by a second louvered screen 22 which also is mounted within the inner frame 18. The inner frame 18 is connected to the outer frame 15 by means of a top hinge 29 and by a plurality of screws 23 along the bottom edge of the inner frame 18.

The central portion of the sign is comprised of a translucent sheet 24 of plastic or glass, which carries thereon a series of opaque letters 25. The sheet 24, which is a translucent background material for the central portion of the sign, is also mounted in the same inner frame 18 that carries the screens 21 and 22. This can be best seen in FIGURE 2. The letters 25 can be permanent or changeable, and in the particular sign illustrated in the drawings are used to spell out the word "Speed."

A mounting board 26 is fastened between the rear ledge 17 and the intermediate partition 19 at the top section of the sign. This mounting board 26 will normally be of insulating material, and carries a series of lamp sockets 30 that are fastened thereon between the board 26 and the screen 21. Also fixed to the mounting board 26 are channeled letters 27 made of metal or other suitable material outlining the desired letters along the top section of the sign. These letters are permanent in character, and in the example illustrated spell out the word "School." Mounted within the sockets 30 and surrounded by the channeled letters 27 are lamps 28 which are located so as to spell out the same word as indicated by the letters 27.

At the bottom section of the sign are two lamp banks generally designated by the numeral 31. The two lamp banks in this instance are utilized to designate speed limits. The lamp banks are mounted upon a mounting board 32 which carries a plurality of cylinders 33 which surround the individual lamps 35. The lamps 35 are mounted in sockets 34 carried by an insulating board 37 fastened between the ledge 17 and the intermediate partitions 19 as can be seen in FIGURE 2. The lamp banks 31 as shown are designed for the indication of a limited number of numerals so as to allow the banks 31 to designate speed limits of 20, 25, 30, or 35 miles per hour. Should a larger range of numbers be desired, additional lamps 35 could be provided in the lamp banks 31 in the usual manner.

Mounted on the central section 11c of the back panel 11 are two fluorescent tubes 40 carried by sockets 38 in the usual manner. The tubes 40 provide a lighted display through the translucent sheet 24 to thereby silhouette the opaque letters 25.

The structure just described provides a readily adaptable sign structure for speed zone signs wherein the speed must be limited during certain periods of time. The entire apparatus is readily accessible from the front by releasing the screws 23 or equivalent fasteners that might be substituted therefor. The release of the inner frame 18 allows it to be swung upwardly about the hinge 29 so as to provide access to the lamps 28 of the upper sign section, the lamps 35 of the lower sign section, and the tubes 40 of the central sign section. The framework 10 provides sufficient room rearward of the mounting board 26 and the insulating board 37 for the reception of the

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various wiring harnesses or controls that might be housed within the framework 10. Access to the wiring circuits can be gained by removal of the sections 11a and 11b of the back panel 11. The entire structure has a simple and neat outward appearance, and provides upper and lower sections having a dark background due to the louvered screens 21 and 22 and having lighted letters and numerals due to the lamps 28 and 35. The central portion of the sign has a light background due to the translucent sheet 24 and the lighted tubes 40, and dark letters due to the opaque letters 25. Thus the sign presents a definite contrast to the approaching motorist so as to better gain his attention.

The controls for the sign are not shown in detail since many various controls that are well known in this art could be utilized. The sign can be either remotely controlled or controlled at the site as may be desired. It is contemplated that the tubes 40 will be lighted continuously so as to always indicate the word "Speed." It is further contemplated that the numerals in the lamp banks 31 will be alternated on and off with the letters in the upper portion of the sign which spells out the word "School." As an example, during school hours, the letters that spell out "School" will be alternately lighted along with a numeral such as "20." During the evening hours, the lamps 28 will not be lighted, and the lamp banks 31 can be used to constantly display an appropriately higher speed limit such as "30." Controls could be provided so as to provide a fishing of the lamps in lamp banks 31 at any time if such an indication is desirable.

While the sign has been disclosed in particular with regard to a school zone sign, it is to be emphasized that the structure can be used in many various applications wherein the speed limit of a street or highway must be modified during periods of the day, week, or year. Therefore the invention is not to be restricted by the above disclosure, except as it is defined in the following claims.

Having thus described my invention, I claim:

1. In a speed zone sign:

an upright framework having top, bottom and side members joined to one another in a rectangular configuration;

first and second parallel intermediate transverse members fixed across the side members of said framework parallel to the top and bottom members thereof, said intermediate members having front edges recessed within said framework relative to the front edges of the remaining framework members;

an outer frame fixed to the front edges of the top, bottom and side members of the framework including recessed inwardly facing ledges having front surfaces that are coplanar with the front edges of said intermediate members;

first, second and third sheets of light transmitting material bounded by a common frame and mounted within said outer frame against the front surfaces of said ledges and said front edges of said first and second intermediate members, each of said sheets being extended over an individual open area bounded by said framework members and said intermediate members;

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first electrically lighted display means mounted within the framework immediately behind said first sheet of light transmitting material comprising an electrically lighted display formed by lamps mounted within channels formed in a fixed letter display;

second electrically lighted display means mounted within the framework immediately behind said second sheet of light transmitting material comprising a changeable numerical display formed by lamps mounted within open ended cylinders;

said third sheet of light transmitting material being made of translucent planar material having a dark lettered display mounted thereon;

and lamp means mounted on said framework rearward of said third sheet of light transmitting material.

2. A sign as defined in claim 1, wherein said first and second sheet of light transmitting material comprise louvered screening, the rear surface of said screening being abutted by said channels and cylinders respectively.

3. In a speed zone sign:

an upright framework having top, bottom and side members joined to one another in a rectangular configuration;

intermediate transverse members fixed across the side members of said framework parallel to the top and bottom members thereof, said intermediate members having front edges recessed within said framework relative to the front edges of the remaining framework members;

a frame fixed to the front edges of the top, bottom and side members of the framework including recessed inwardly facing ledges having front surfaces that are coplanar with the front edges of said intermediate members;

individual sheets of light transmitting material bounded by a common frame and mounted within said framework against said ledges and said front edges of the intermediate members, each of said sheets being extended over an individual open area bounded by said framework members and said intermediate members;

and electrically lighted display means mounted within the framework directly behind said sheets of transmitting material and directed therethrough.

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