

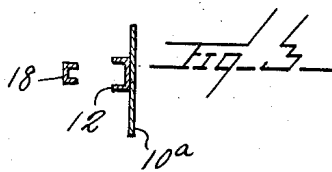
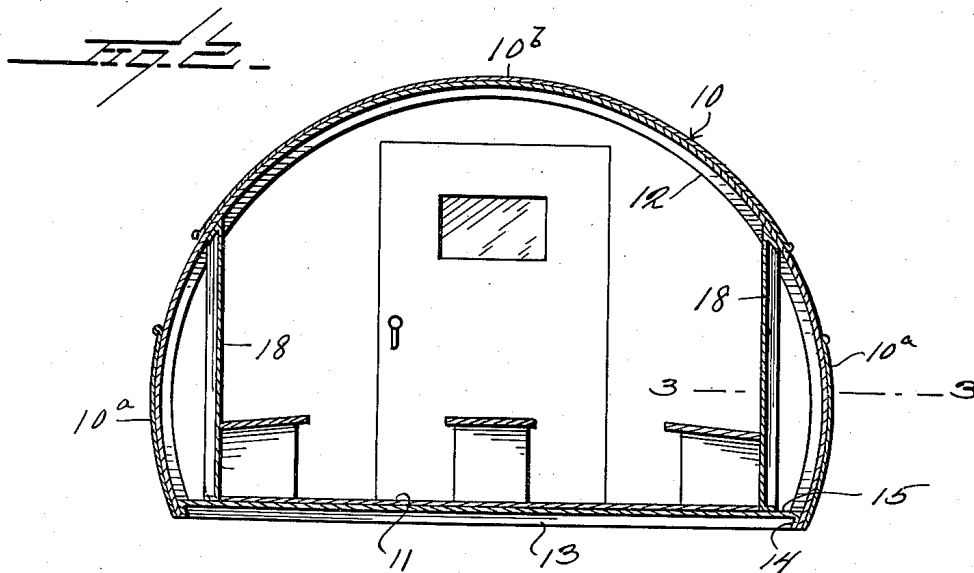
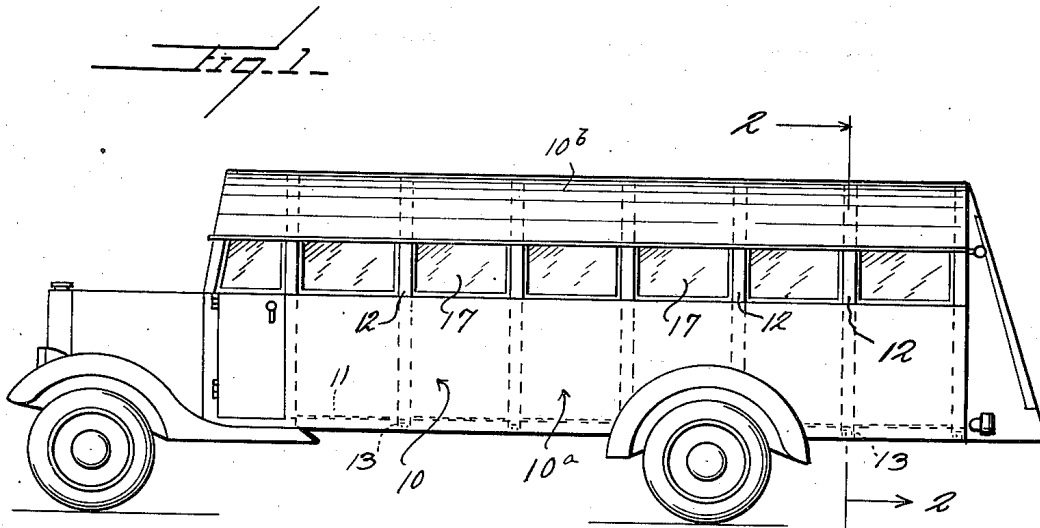
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SCHOOL BUS

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## SCHOOL BUS

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### 1 Claim. (Cl. 296—28)

This invention relates to buses and particularly to the construction of the body of the bus. While the invention is particularly directed to the construction of buses, yet I do not wish to be limited thereto as the principle of the invention might be applied to other vehicles.

The general object of the invention is to provide a bus body which is particularly strong and which is particularly simple in construction and may be readily and economically built.

Another object is to provide a bus in which the outer sheathing of the bus is supported by a plurality of arched channel irons and by an equal number of floor supporting channel irons and in which the arched roof of the bus body is supported by means of a series of vertically disposed channel iron studs.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawing wherein:

Figure 1 is a side elevation of a bus constructed in accordance with my invention.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a section on the line 3—3 of Figure 2.

Referring to the drawing, it will be seen that the outer shell 10 of the body is composed of sheet metal and extends arcuately over the floor 11 of the bus. At uniformly spaced intervals there are disposed a plurality of arcuate frame bars 12 which are shown as channel irons. The lower ends of these channel irons abut against the ends of an equal number of transversely extending floor beams 13 which are channel-shaped in cross-section, the webs of these beams being downwardly angled, as at 14, at the ends of the beams. The side flanges of the channel irons 12 are cut away at 15, so that the web at the ends of the arcuate channel irons 12 fits down and abuts against the angular ends 14 of the floor beams 13.

The outer shell 10 of sheet metal is welded, riveted or otherwise attached to these arcuate channel irons 12, as shown in Figure 2, openings 16 being left in this shell for the windows 17. Preferably this shell 10 will be made in three sections, the two lower sections 10<sup>a</sup> and the upper or roof section 10<sup>b</sup> so that the channel irons 12 cross the spaces between the sections 10<sup>a</sup> and the section 10<sup>b</sup>. The floor beams 13 support the floor 11. Extending straight downward from a point opposite the lower edges of the shell section 10<sup>b</sup> are the channel iron studs 18 which at their

lower ends are abutted against the beams 13. To this end, the flanges of the studs 18 may be cut away at the ends and the web of the channel iron be bent over, as shown clearly in Figure 2, so as to abut against the floor and the web of the corresponding frame 12. The upper ends of the studs 18 are disposed within the flanges of the arcuate channel irons 12 and are attached thereto whereby the upper ends of the studs are braced against movement longitudinally of the bus.

I have shown this bus as provided with longitudinally extending seats and a middle longitudinally extending bench, but obviously the arrangement of the seats in the interior of the bus may be altered, without departing from the spirit of the invention as defined in the claim.

It will be seen that a bus of this character is very strong by reason of its approximately semi-cylindrical character and thus may be made of relatively light material. At the same time, the body is extremely rigid by reason of the plurality of stanchions or frames 12 which support the body at very close intervals. The curved surface of the body permits the bus to roll over in case of accident without injury to the body. The studding 18 separates the lateral seats or benches from the outer portion of the bus body so that in case of accident, there will be less liability of the persons inside the bus being injured by reason of the fact that they are separated from the side walls of the bus. The side walls may be dented in to a considerable extent without injury to the persons riding in the bus. Furthermore, the upward, outward and then inward curvature of these side walls acts to resist impact. A further advantage in giving the bus a cylindrical contour is that it can be built wider and longer than the present day body and yet be well balanced. Furthermore, each vertical stud 18 makes the transversely extending arcuate frame members 12 about twenty times as strong as the frame member would be without the studding.

What is claimed is:—

A bus body of the character described, including a plurality of transversely extending floor beams disposed at spaced intervals, an equal number of arcuate channel irons constituting body supporting beams having their ends abutted against the floor beams at the ends thereof and attached thereto, the arcuate channel irons extending integrally outward and upward from the ends of the floor beams and then inward and upward so as to arch over the floor beams, a sheet metal covering for the body formed in three sections extending longitudinally of the vehicle, two

of the sections extending upward and outward from the lower ends of the arcuate beams and being attached thereto and the third section extending over the roof supporting portion of the body and being attached to the arcuate beams so as to form a transversely arcuate roof, the last named section being spaced from the first named sections to provide window openings between the arcuate beams, and studs equal in number to the

arcuate beams extending vertically upward from the flow beams and being attached thereto at their lower ends, the upper ends of the studs being disposed between the flanges of the arcuate beams and being attached thereto, the studs being spaced throughout their entire extent except at their upper ends from the arcuate beams.

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