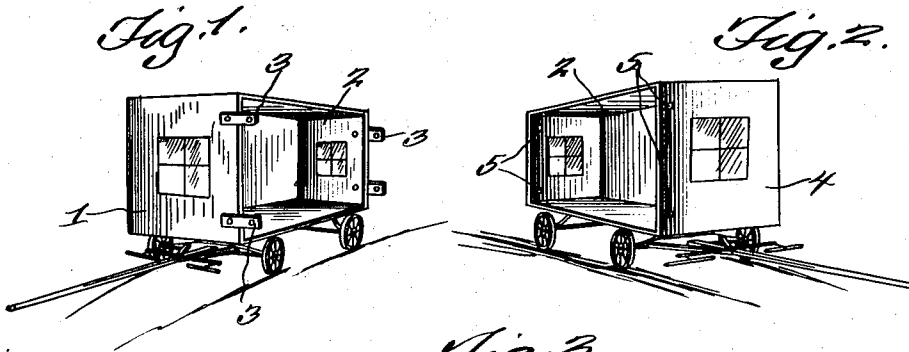
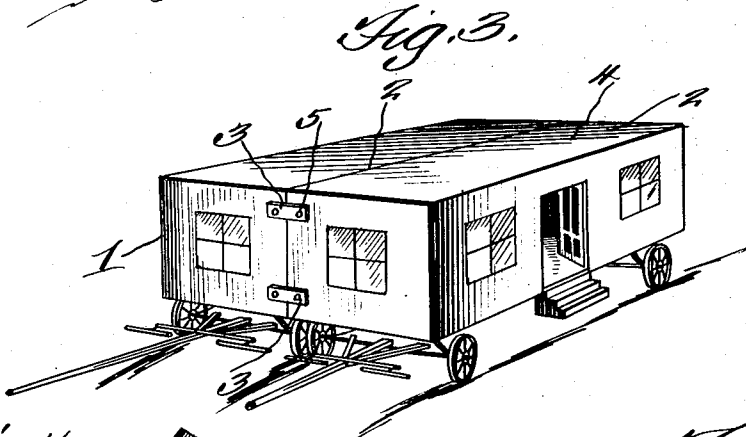
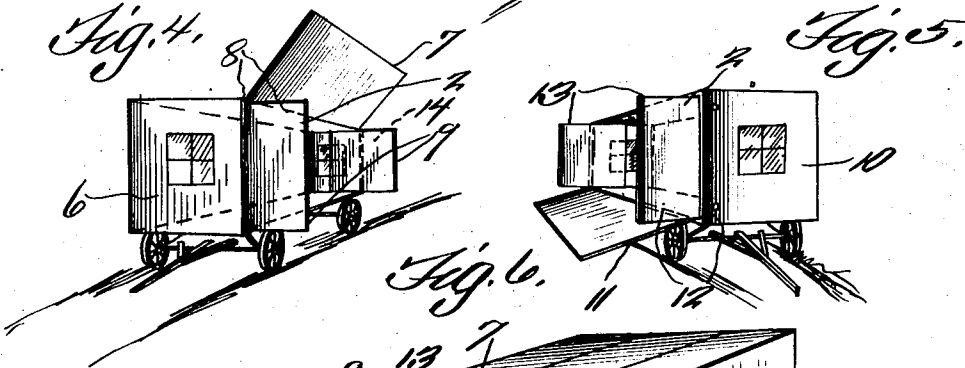
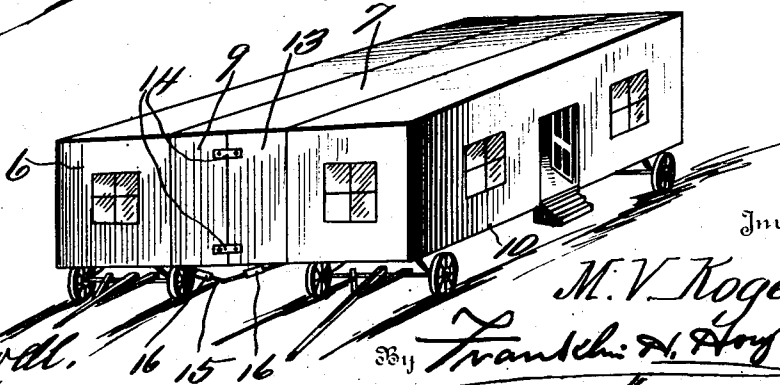


M. V. KOGER.
COMBINATION VAN WAGON.
APPLICATION FILED MAR. 30, 1915.

1,156,693.

Patented Oct. 12, 1915.

3 SHEETS—SHEET 1.



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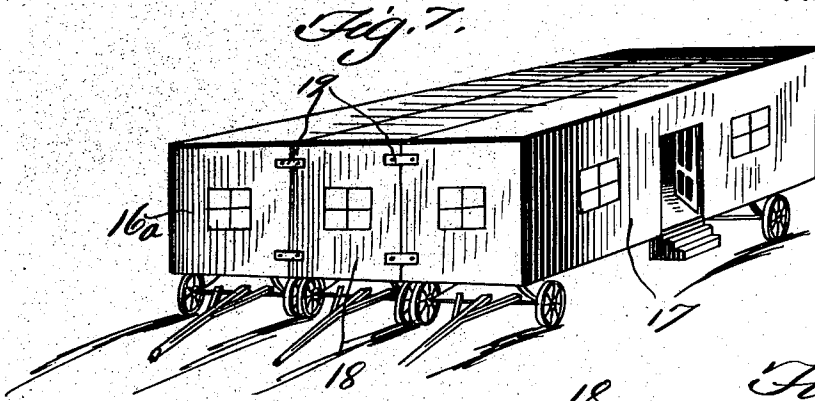
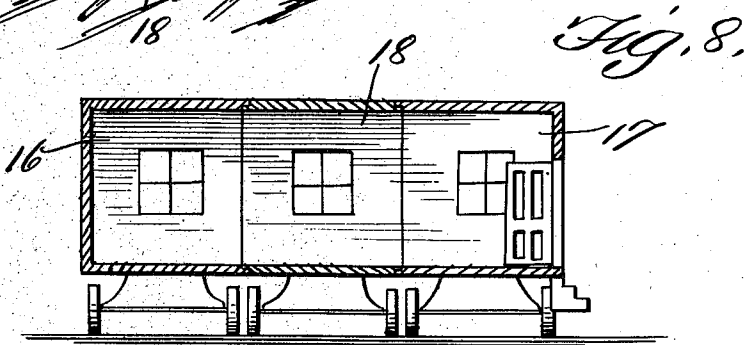
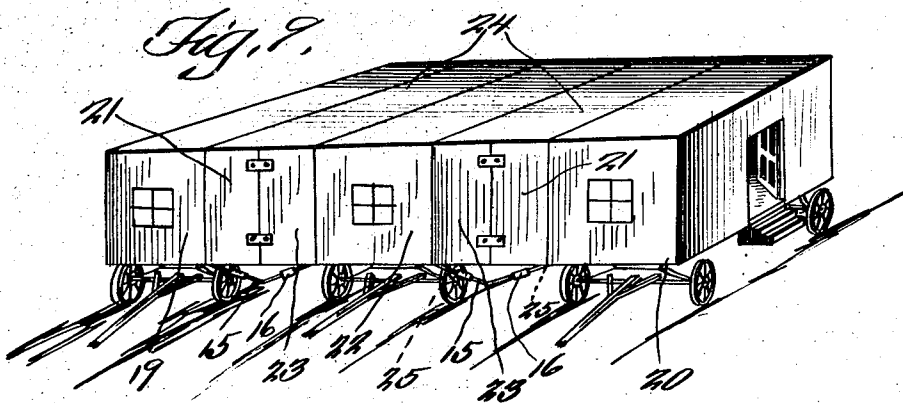
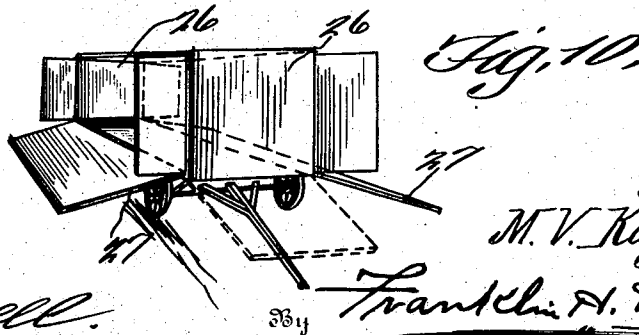
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3 SHEETS—SHEET 2.



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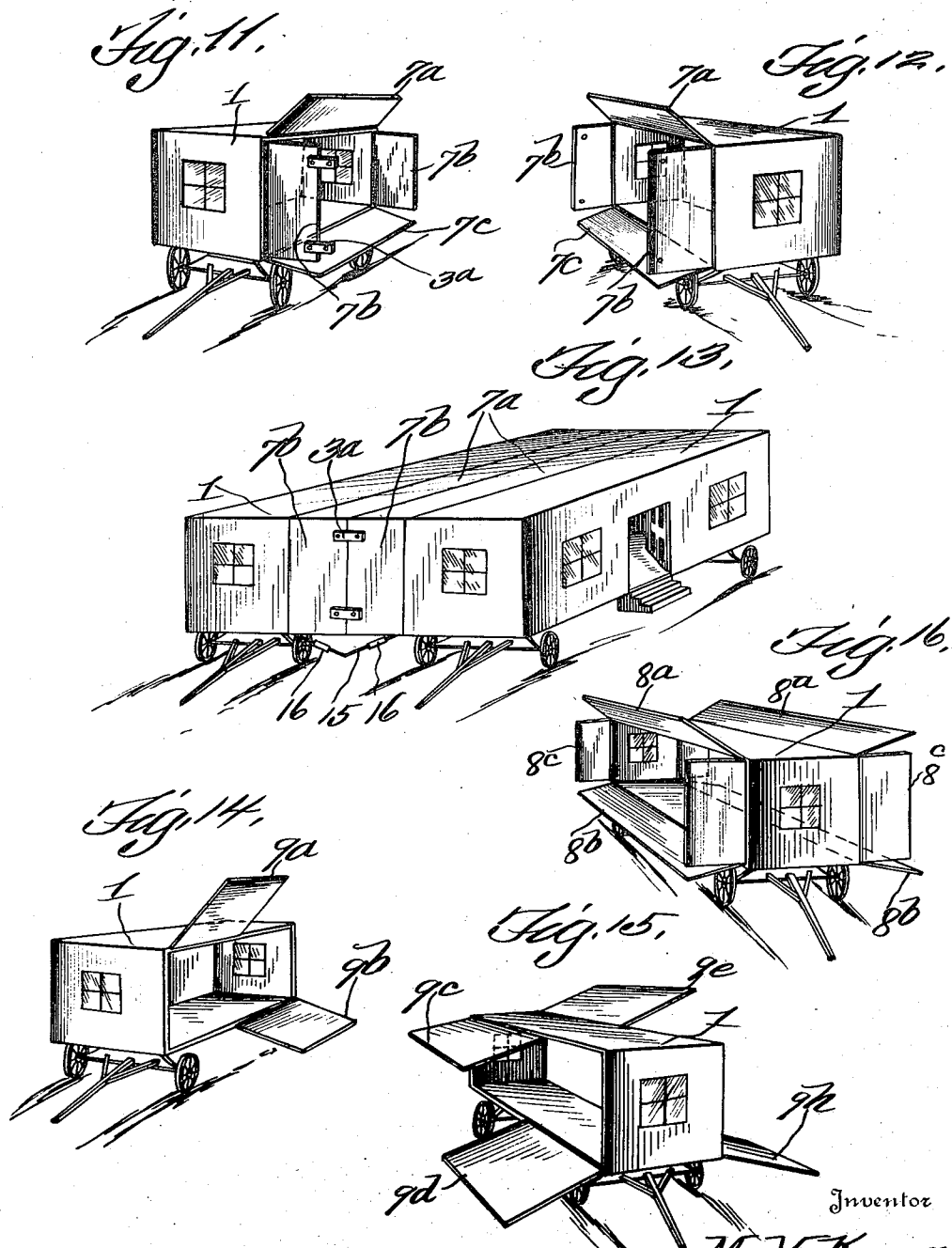
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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COMBINATION VAN-WAGON.

1,156,693.

Specification of Letters Patent.

Patented Oct. 12, 1915.

Application filed March 30, 1915. Serial No. 18,162.

To all whom it may concern:

Be it known that I, MARVIN V. KOGER, a citizen of the United States, residing at Rogersville, in the county of Hawkins and State of Tennessee, have invented certain new and useful Improvements in Combination Van-Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in demonstrative cars adapted especially for educational extension work in colleges, schools, etc., and consists in the provision of a combination car made up of sections, which may be easily and quickly adjusted together, making rooms of varying capacity for any use for which the same may be adapted.

My invention comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, in which:

Figure 1 is a view of a wagon or van having one side open. Fig. 2 is a similar view of a similar van with one side open, the two sections being adapted to be connected together to form a room of double the capacity of a single van. Fig. 3 is a perspective view showing the two van wagons in Figs. 1 and 2 connected together. Fig. 4 is a perspective view of a van showing one side hinged to be utilized as a ceiling extension. Fig. 5 is a similar view showing a side hinged to the bottom for an extension floor. Fig. 6 is a detail view of the two forms shown in Figs. 4 and 5 connected together. Fig. 7 is a perspective view showing two wagon van sections with an intermediate section without side walls. Fig. 8 is a sectional view transversely through the form shown in Fig. 7. Fig. 9 is a view showing a combination of the sections, slightly modified from the other

forms. Fig. 10 is a view showing bottoms and sides. Fig. 11 is a view showing a van with an angled top, extension ends and bottom. Fig. 12 is a similar view with swinging doors upon the inner side. Fig. 13 is a view showing the forms illustrated in Figs. 11 and 12 connected together. Figs. 14, 15 and 16 are modified forms of the van.

Reference now being had to the details of the drawings by numeral, 1 designates a van car having an open side 2 and bars 3 projecting from the marginal edges of the open edge and mounted upon a truck. In Fig. 2, I have shown a similar van wagon, designated by numeral 4, and having its corresponding face open. In the ends adjacent to the edges thereof are formed the apertures 5 for the reception of bolts which are adapted to pass through the bars 3, the van section 4 being mounted upon a truck similarly as shown in Fig. 1. When the two van wagons are connected together as shown in Fig. 3, they will form a wagon of double the capacity of either one of the wagons shown in Figs. 1 and 2.

In Fig. 4, I have shown a van 6 mounted upon the usual truck and provided with a side 7 which is hinged at 8 to the upper marginal edge of the top and which, when extended, is adapted to form a ceiling or intermediate section, as shown in Fig. 6, when two wagons of similar construction are brought together. Doors 9 are mounted in the van car 6 near the ends and are adapted to form the ends of an intermediate compartment, as shown in Fig. 6 when extended.

In Fig. 5 a van wagon 10 is shown similar in construction to the wagon shown in Fig. 4 with the exception that the side 11 is hinged at 12 along the marginal edges of the bottom and forming, when adjusted in the manner shown in Fig. 6, flooring for the extension intermediate the two wagons 6 and 10. Doors 13 are mounted in the van wagon 10 and, when extended, come together as shown in Fig. 6 and are held by the straps or bars 14. In order to brace the hinged side 11 which forms a floor when connected as shown in Fig. 6, brace rods 15 are provided and which have a turn buckle 16 for drawing the same taut.

In Figs. 7 and 8 of the drawings, I have illustrated van wagons 16 and 17, similar to

the vans shown in Figs. 1 and 2, and an intermediate van wagon 18 with open sides, and straps 19 are adapted to fasten the sections together, as shown in Fig. 7 of the drawings.

In Fig. 9, I have shown a combination of van wagons consisting of the end van wagons 19 and 20, similar in construction to the wagons 6 and 10, with roller doors 21 and an intermediate van wagon 22 having roller doors 23 therein and hinged sides 24 and hinged sides 25 forming respectively the tops and bottoms for the sections intermediate the central and the end van wagons, thus making a room of five times the capacity of a single van.

In Fig. 10, I have shown a slight modification of the construction of my van car, in which the ends 26 are hinged as well as the sides 27 and so arranged that they will fold or collapse when not in use.

Fig. 11 shows a van having hinged doors 7^a and 7^c, one hinged to the upper and the other to the lower edge of the van opening and sliding doors 7^b having fastening bars 3^a secured thereto, and in Fig. 12 is a similarly constructed van. These vans, as shown in Figs. 11 and 12 when connected together in the manner shown in Fig. 13, form a van of three times the capacity of a single van.

In Fig. 14, I have shown alternately arranged hinged sides 9^a and 9^b, while in Fig. 16 are hinged sides 8^a, 8^b and hinged doors

8^c, and in Fig. 15 is a van showing hinged sides 9^c, 9^d, 9^e and 9^b.

From the foregoing, it will be noted that, by the provision of a combination van wagon, I have provided means whereby rooms of various capacities may be easily and quickly constructed and easily adapted for various uses, such as demonstrative cars to be used for educational extension work of universities, colleges, schools, etc., and rooms for any uses to which they may be put, the different sections being easily taken apart and set up when desired and, being in units, may be moved from one place to another by any power.

What I claim to be new is:—

A combination van wagon made up of sections, each having hinged walls forming the sides of the van and movable extension ends, means for fastening said movable ends together, the side of one section being hinged at the top and the side of the other hinged at the bottom and adapted to be held in alinement with the tops and bottoms respectively of the sections to form a closure for the space intermediate the latter.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

MARVIN VASTINE KOGER.

Witnesses:

JOSEPH WRIGHT,
S. C. BEARD.