

Green Pennant Special

JUNE 1991

OFFICIAL NEWSLETTER OF THE OMNIBUS SOCIETY OF AMERICA, INC.

RUN 97

TIPS on TRIPS by Greyhound

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GREYHOUND
Lines

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PROGRAM: GREYHOUND & TRAILWAYS BUS SYSTEMS by
JOHN LE BEAU AND MEL BERNERO

DATE: JUNE 7, 1991 **TIME:** 7:00 PM

LOCATION: WELLES PARK FIELD HOUSE
2333 W. SUNNYSIDE AVE.

Welcome to another issue of The Green Pennant Special. It is through this publication that we endeavour to keep the membership informed on happenings in the organization and the transit industry.

*** MAY MEETING ***

The May meeting of The Omnibus Society of America was held on May 3, 1991 at the Welles Park Field House located at 2333 W. Sunnyside in Chicago. The meeting began at 7:00 pm.

Our program for the evening was a slide presentation by Russell Schultz on trackless trolley systems in North America. Russell took us from Boston to Seattle, and from Toronto to Mexico City on a fast paced and interesting journey covering many of the trolley bus systems currently being operated.

*** JUNE MEETING ***

The June meeting of The Omnibus Society of America will be held on June 7, 1991, at the Welles Park Field House located at 2333 W. Sunnyside in Chicago. As usual, our meeting will begin at 7:00 pm.

Our meeting for the evening will be a slide presentation by John LeBeau and Mel Bernero on Greyhound and Trailways intercity carriers.

Return with us to the days when Greyhound and Trailways were two separate companies and passengers had their choice of riding either "THE DOG" or "BIG RED" from many cities and towns.

The affiliates of the two companies will also be covered: Vermont Transit, TNM&O, Burlington Trailways, SET, etc.

So come join us for a trip back in time as we "Go Greyhound".

*** 30th ANNIVERSARY ***

This year OSA will celebrate its 30th anniversary with a dinner/meeting at the Old Warsaw at Harlem and Lawrence and a number of trips over the

weekend of August 2 through the 4th. Please see the enclosed flyers for information on the planned festivities.

*** CTA CORNER ***

BEGINNING MAY 13th CTA buses began stopping on request at any intersection along owl-service routes between midnight and 5:00 am.

Late-night riders can hail a bus at any intersection along the designated routes. Riders can also exit the bus at any intersection upon demand. CTA buses will continue to make designated stops along all routes.

CONSTRUCTION OF A NEW South Side bus facility at 74th and Wood, which will house and service 250 buses from 15 routes will begin this summer.

The facility, which will replace the one at 69th and Ashland, will have indoor parking for all buses. Buses waiting to enter the garage will not have to park on the street.

THE CTA CULTURE BUS began its 15th season on May 12th. The service will operate every Sunday and holiday until September 29 from in front of the Art Institute, Michigan at Adams street.

Buses on all three routes leave the Art Institute every 30 minutes from 10:30 am to 5:00 pm on round trips that last from 75 to 90 minutes each. (cont. on page 3)

GREEN PENNANT SPECIAL STAFF

Melvin Bernero - Editor
William Shapotkin - Assistant Editor
John LeBeau - Circulation Manager
Andris Kristopans - Staff
William Shapotkin - Reporters

Green Pennant Special is distributed to the members of The Omnibus Society of America at no additional charge and is published in lieu of the regular meeting notice. There is no set frequency of issue.

(cont. from page 2)

CTA CORNER

Fare for the Culture bus is \$2.50 for full-fare riders and \$1.25 for reduced-fare riders. Each ticket provides unlimited rides throughout the day on all three routes.

THE CTA HAS SEEN A 6.6 percent ridership decline the first three months of 1991 over the same period last year which resulted in CTA revenues for the three month period being short of budget projections by \$3 million, or 3 percent.

This downturn in ridership and its corresponding decline in revenue is being blamed on the current recession.

The CTA is worried that if the economic downturn proves to be a long one, fare increases and service cuts loom as possibilities.

AN UNUSUAL BILL was recently introduced in the Illinois State Senate. The bill deletes a provision in the law that requires members of the Chicago Transit Authority Board to be persons of recognized business ability. (say what ???)

*** METRA HAPPENINGS ***

CONTINUING A TRADITION of issuing \$5.00 all day passes for special events, METRA issued a special all day pass in connection with the welcome home parade for Desert Storm troops held on May 10th down Michigan Avenue in Chicago.

The parade pass was valid on all train lines in the system except the South Shore and was good on any train scheduled to arrive or leave downtown Chicago after 9:30 am.

METRA IS ALSO ISSUING special weekend passes good both Saturday and Sundays between the Memorial Day and July 4 weekends. Again, the pass costs \$5.00 and is good all day both days on all trains, except the South Shore. If the past is any indication, the pass for July 4th, to watch the fireworks in Grant Park will be of a special design.

THE NEW COUNTY JUDICIAL Offices Facility in Du Page County is scheduled to open to the public on July 15 and with that opening comes an opportunity for Metra to pursue it experimental "reverse commuter market."

The proposed Metra stop would be at County Farm Road. The county has indicated it would not be a traditional stop as they do not want the County Complex parking lot serving as a traditional commuter lot. There would be no eastbound trains stopping at this stop during the morning rush hour. Westbound train stops would begin at approximately 7:40 am.

Winfield Village Trustee Dick Ryan suggested that the County and Metra put this proposed stop further east of County Farm. This would accomplish two things: It would put the stop more within walking distance of the buildings and would not hamper traffic on County Farm.

Below are examples of the two special passes mentioned in the article.



*** NICTD CORNER ***

A TANKER-TRUCK THAT overturned in Gary Friday morning May 17th, shut down part of the South Shore, causing trouble for commuter's on the southeast side and in northwest Indiana.

(cont. on page 4)

(cont. from page 3)

NICTD CORNER

The tanker, carrying a non-toxic, tar-based material headed for the USX Steel plant in Gary overturned on the South Shore tracks along U.S. Route 20 on Gary's east side about 4:00 am.

City and railroad officials blocked off the area, stranding the entire South Shore fleet of trains east of Gary.

Metra set up a bus shuttle to move stranded riders from the Hegewisch South Shore station at 130th and Brainard to the Metra Electric train station at 115th/Kensington. More than 2,400 people were transported from the Hegewisch South Shore station to the Metra Electric station.

***** POSTAL CORNER *****

SOLICITATIONS TO OBTAIN a permanent hub location for the U.S. Postal Service's "Eagle Air Network" were issued on May 16 with proposals due back in on more than 40 days.

The solicitation asks interested airport authorities or managers in four states -- Illinois, Indiana, Kentucky and Ohio -- to provide for the sale or lease of a new or existing airport facility for use as the Eagle hub over at least a 10-year period. Offers must include buildings and a mechanized system to sort mail, but would not include labor, ground service equipment or handling, or air and surface transportation.

The Postal Service currently uses a contractor to provide and operate the hub facility and the dedicated planes to transport Express and Priority Mail. With this solicitation, the Postal Service proposes to acquire, through lease or purchase, its own permanent hub facility.

Those responding to the solicitation must be willing to support the proposed project and use of the airport for a 24-hour air cargo operation with a location that provides:

- * An industrial type facility of approximately 273,000 square feet.

- * A total site of approximately 83 acres, including 27 acres for the main hub and support buildings and approximately 56 acres for aircraft parking and taxiing and with good access to interstate and

local highways.

- * Within one year of the contract award, a Category II Instrument Landing System (ILS) capability, and a runway of sufficient length to handle large aircraft such as DC-8s, Boeing 727s and Boeing 747s.

***** DIAL-A-RIDE *****

DRIVERS WHO WORK FOR Cook-DuPage Transport Company and who transport 2,000 disabled riders a day under a CTA contract went on strike Monday 20 but the company said everyone with reservations got a ride.

The company is the largest of four firms with CTA dial-a-ride contracts that transport 4,000 people a day.

Frank Stroud, general vice president of Local 707 of the independent Truck Drivers, Chauffeurs, Warehouse Men and Helpers Union, said 175 of Cook-DuPage's 200 drivers went on strike after negotiations stalled on their first contract.

***** METRA HAPPENINGS *****

MEMBERS OF A NORTHWEST Municipal Conference committee on Tuesday May 21, stopped short of backing the proposed Elgin, Joliet and Eastern Ry., commuter line - a move apparently appeasing both opponents and advocates.

Officials in Hoffman Estates, who have urged the conference to support the rail line, believe the action represents the first step toward approval.

Barrington area officials have voiced strong opposition to switching the 57-mile freight line to a suburb-to-suburb commuter line. They say it would disrupt their towns, create traffic jams and noise pollution and bring unwanted development to the area.

The technical committee will forward its recommendations to the transportation unit, which in turn may present a proposal to the full conference in September.

***** LATE NEWS *****

THE FIRST OF THE narrow CTA RTS buses have arrived for acceptance testing.

Now Comes the Eight-Wheel Coach

Gas-Electric Vehicle 38 Feet Long Turns in a 43-Foot Circle; Seats 44 Passengers and has Room for 52 Standees; High Efficiency and Economies Claimed for It

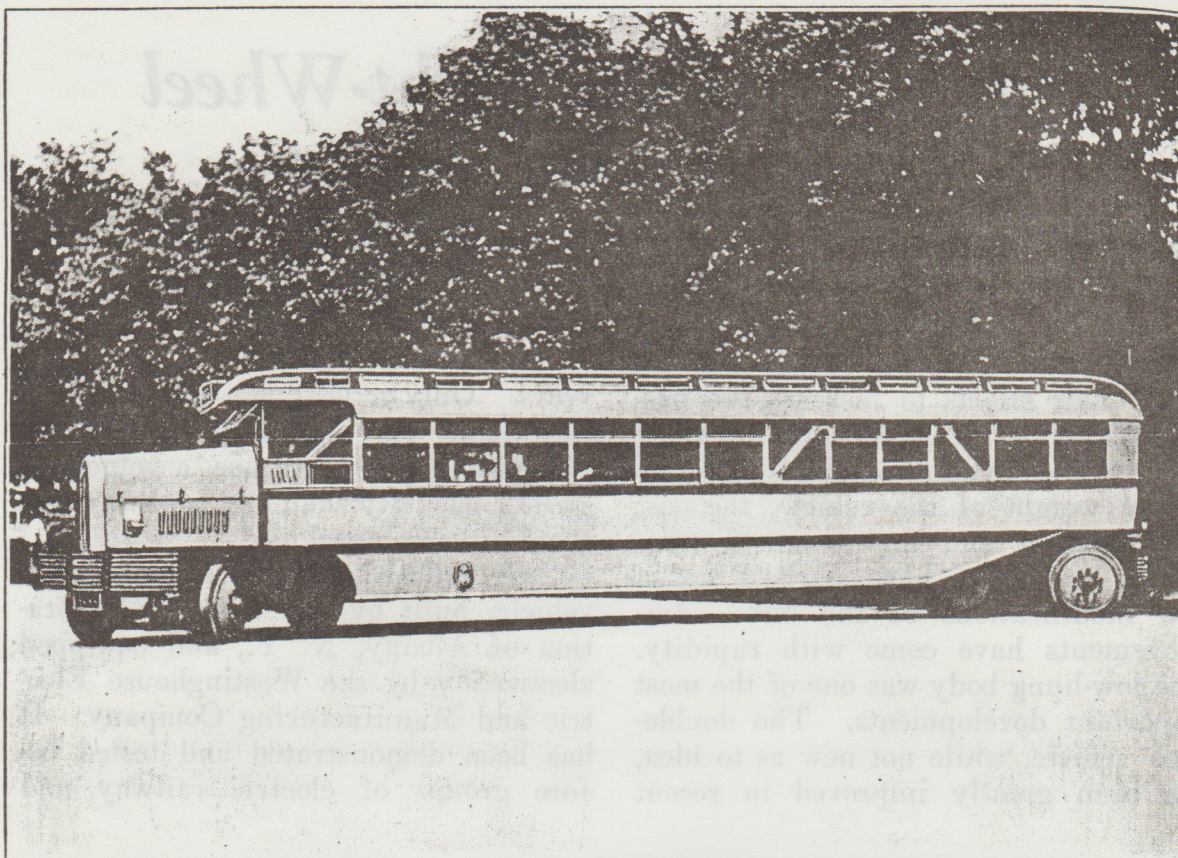
IN their efforts to increase the passenger-carrying capacity of their vehicles without adding too greatly to the weight of the vehicle, the cost of operation and maintenance, automotive engineers have devised not a few modifications of the bus. Improvements have come with rapidity. The low-hung body was one of the most important developments. The double-deck vehicle, while not new as to idea, has been greatly improved in recent

years. Only a year ago the six-wheel bus made its appearance, and now comes the eight-wheel bus, a vehicle of greater capacity than any highway carriage hitherto developed.

The eight-wheeler is a gas-electric vehicle, built by the Versare Corporation of Albany, N. Y., and equipped electrically by the Westinghouse Electric and Manufacturing Company. It has been demonstrated and tested before groups of electric railway and



The Versare-Westinghouse Gas-Electric Eight Wheel Coach



Versare Eight-Wheeler—Note Front Truck in Position for Turning

municipal officials, and has performed remarkably. It looks like a street car on rubber tires, but is capable of making sharper turns than can be made by a double-truck street car or by many types of buses.

The fact that this coach, which is 38 feet in over-all length, can turn around in an aisle the diameter of which is only 5 feet greater than the length of the coach, is not the least of its interesting features. This is accomplished by means of a patented steering system that permits each wheel to run on a true circle, and the wheels of the rear truck follow almost identically in line with those of the forward truck. The new coach was constructed only after exhaustive tests on an experimental chassis had conclusively proven the practicability of the steering mechanism.

The increased number of wheels, as

compared with the ordinary coach, makes possible very much heavier loads in either passenger or freight service with even reduced loads per inch of tire cross section. For truck applications, which are also being developed, a capacity of 15 tons can be carried without exceeding the legal load allowed on 8-inch solid tires. With eight springs absorbing the road shocks not only is the pounding effect on the road reduced but also the shocks to the body and chassis. This reduced pounding means longer life for all parts.

The eight-wheel vehicle has not made its appearance sooner because there was not a type of steering mechanism that would permit the operation of such a vehicle on narrow city streets and crooked roads. This was one of the first difficulties overcome by the Versare Corporation. The new coach is mounted on 30-inch wheels that are

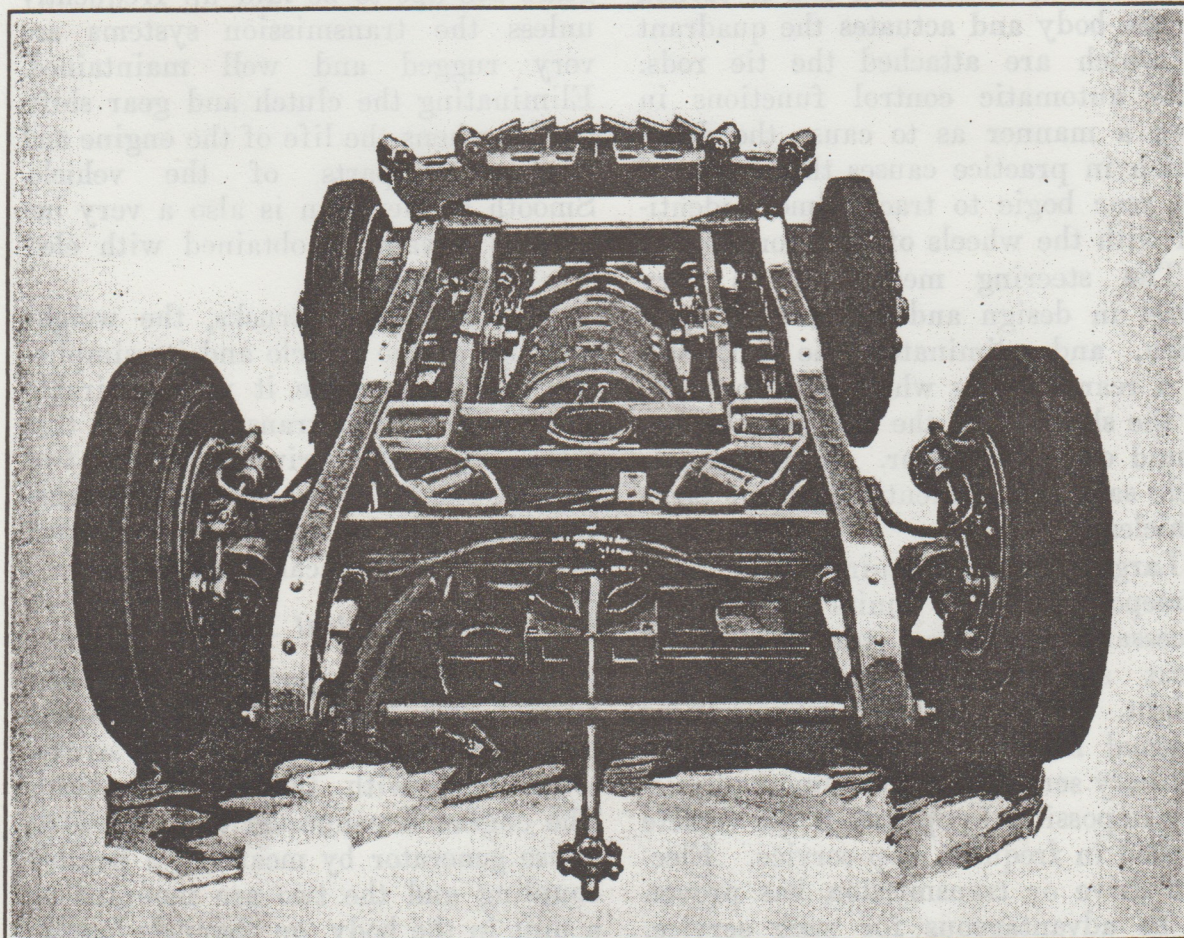
provided with rubber cushion tires. The framing is mounted on two bogies, one in front and one in the rear, that have a wheel base of 54 inches. The distance from center to center of bogies is 29 feet. The tread is 69 inches and the body width 8 feet. The coach is capable of seating 44 persons with room for 52 standing. The total unloaded weight of these vehicles, with seats provided for 44 passengers, approximates 18,000 pounds.

How the Steering is Accomplished

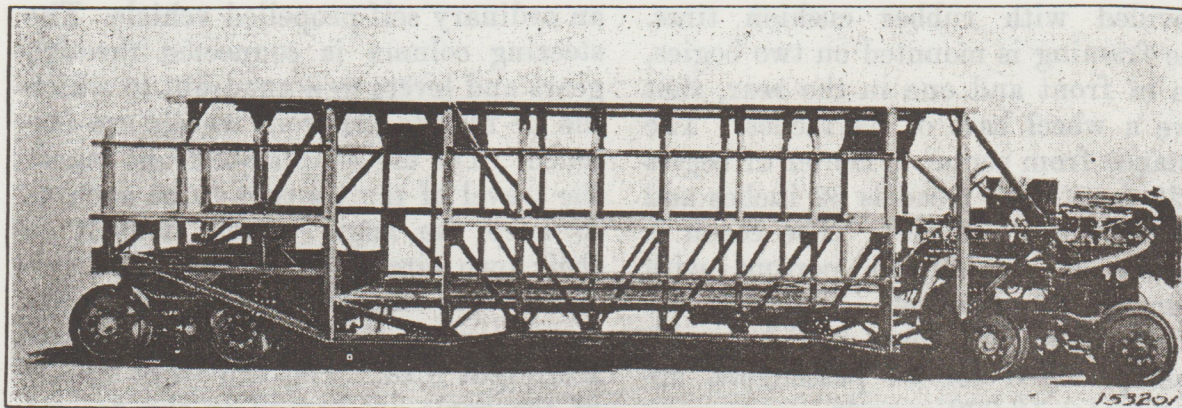
The swivel-type trucks, which are in reality small chassis in themselves, turn about a king pin placed slightly in the rear of the front axle of each bogie. The driver controls the front wheels of the forward bogie by means of a steering wheel in much the same manner as

an ordinary self-propelled vehicle. The steering column is connected through gears and levers to a quadrant to which the tie rods to the front wheels are fastened. The use of this quadrant causes the travel of the tie rods to be such as to keep the bogie wheels tangent to their own circle of turning. The two front bogie wheels are, therefore, only parallel when the coach is running on a straight road. The two front wheels of the bogie are turned in the desired direction by the driver and their pull causes the bogie to turn in the proper direction. The action of the bogie, therefore, is very similar to the action of the ordinary four-wheel vehicle.

The turning action of the rear bogie is very similar to this. Its two front wheels are controlled by an automatic steering device that permits articulated



One of the Versare-Westinghouse Trucks, Showing Motor Suspension and Air Brakes



Framing of the Body of Versare Eight-Wheeler

steering. Tie rods to the front wheels of the rear bogie are attached to a quadrant mounted slightly in the rear of and at the center of the axle. Control for this quadrant is provided by a telescoping rod attached to a point on the frame about 3 feet in front of the axle. In operation, the rod is turned by the body and actuates the quadrant to which are attached the tie rods. This automatic control functions in such a manner as to cause the delay which in practice causes the wheels of the rear bogie to track almost identical with the wheels of the front one.

The steering mechanism is very novel in design and efficient in operation, and eliminates the necessity of a rear steering wheel and operator, or the skidding of the rear wheels that would otherwise occur. It makes possible safe and efficient control of large vehicles.

Large vehicles requires very high horsepower engine units that make necessary mechanical transmission of great strength and resulting great weight. Such transmissions impose unusual hardships on an operator in ordinary service and are almost physically impossible to operate if the vehicle is used in frequent stop service. Electric drive or transmission has proven to be advantageous for such service. On eight-wheel vehicles it has the

added advantage of providing traction on four or more wheels, eliminating at the same time the use of many differentials and universal joints. This is a very important point when considering the fact that heavy vehicles in frequent stop service requiring such shifting of gears are apt to be laid up frequently unless the transmission systems are very rugged and well maintained. Eliminating the clutch and gear shifting lengthens the life of the engine and mechanical parts of the vehicle. Smooth acceleration is also a very important advantage obtained with electric transmission.

The swivel-type trucks, the weight and size of the vehicle and its simplicity, therefore, made it very desirable to provide electric transmission on this coach. An engine-driven generator, two motors, one on each bogie, and suitable control apparatus are, therefore, used instead of mechanical transmission.

The Electrical Equipment

The coach is equipped with a 110-hp., six cylinder engine. This engine has $4\frac{1}{2}$ inch bore and $5\frac{3}{4}$ inch stroke, constructed with the Ricardo head. The engine is connected to a Westinghouse generator by means of a flexible coupling and the two are mounted as a unit in the body, on channels lengthwise of the car over the front bogie.

The driver's seat is at the left of the generator which is connected to the rear of the engine. The generator has a continuous rating of 40-Kw. at 1200 rpm., and is a specially designed machine provided with a field winding arranged for supplying a small amount of separate excitation to assure a positive pick up and stable operation under all load conditions.

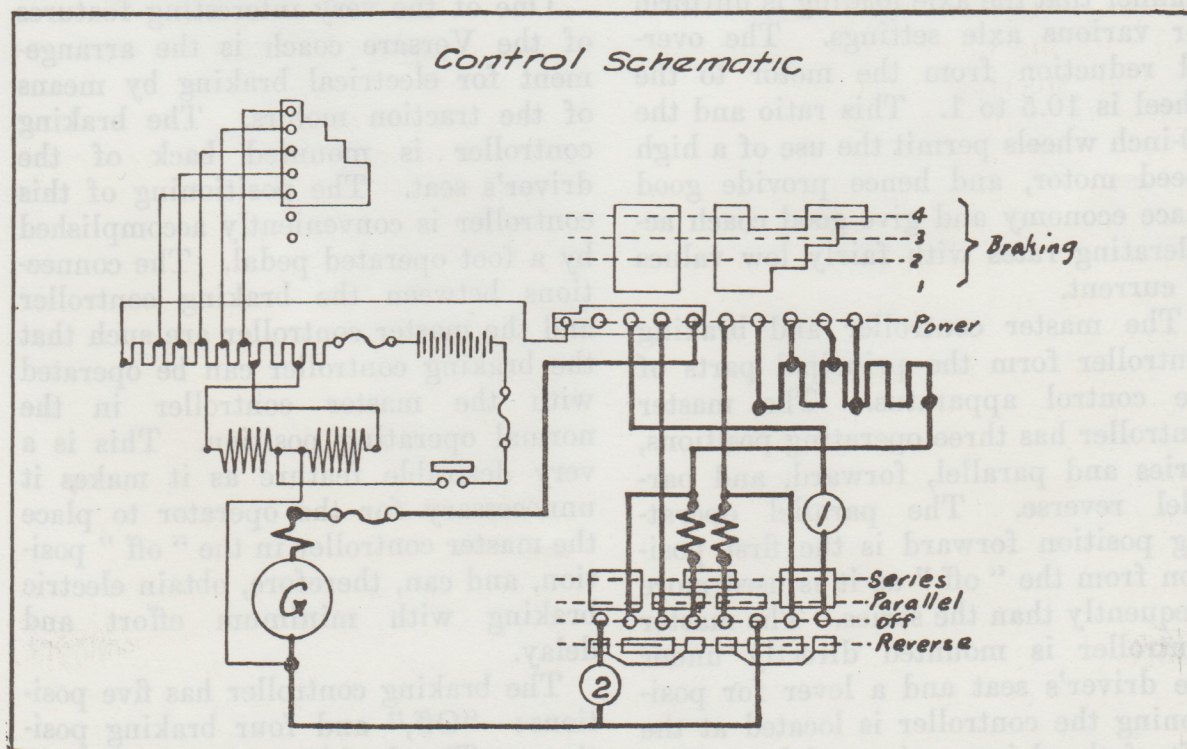
No series field winding is provided on the generator. A resistance is inserted in the generator field to permit varying of the field strength. This arrangement makes it possible to get a high engine speed in a minimum of time under abnormal load conditions, or whenever desirable. It also prevents overloading the engine when its pulling capacity has been impaired. During normal operation the field resistance is at a minimum.

This scheme provides a very flexible over-all reduction between the engine and the wheels of the coach, making the speed of the engine practically in-

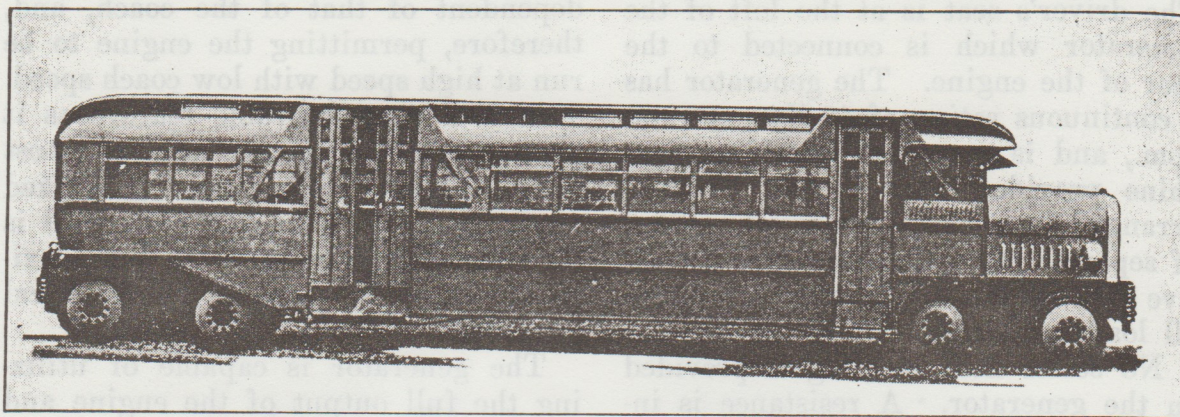
dependent of that of the coach, and, therefore, permitting the engine to be run at high speed with low coach speed. This is a very desirable feature as it gives maximum power at the most needed period of operation. A marked advantage in this scheme of control is its simplicity, giving as it does flexibility with few pieces of electrical apparatus.

The generator is capable of utilizing the full output of the engine and is able, without overheating, to supply full power to the two Westinghouse traction motors which are mounted on the bogies. The motors are of the vehicle type and have a nominal rating of 28 hp. at 175 volts. They are so constructed as to protect the commutator against dirt and water. This type of construction was necessary on account of the wheel splash and dirt encountered under a truck.

One motor is suspended between the axles on each bogie and is mounted on trunnions carried in links suspended



Control Schematic, Versare-Westinghouse Gas-Electric Eight Wheeler



Right Side of Versare Eight-Wheeler, Showing Door and Step Arrangement

from the truck frame. They are provided with a splined shaft for connection through a Spicer joint to a standard Eaton axle. A universal joint is located between the motor and the axle encased in an oil-tight ball and socket casing to permit the motor to adjust itself to the variations caused by an uneven roadway. Weight distribution on the axle of the bogies is taken care of by an equalizer connection between the springs of each bogie in such a manner that the axle loading is uniform for various axle settings. The overall reduction from the motor to the wheel is 10.5 to 1. This ratio and the 30-inch wheels permit the use of a high speed motor, and hence provide good space economy and give good coach accelerating rates with fairly low values of current.

The master controller and braking controller form the principal parts of the control apparatus. The master controller has three operating positions, series and parallel, forward, and parallel reverse. The parallel operating position forward is the first position from the "off" as it is used more frequently than the series. The master controller is mounted directly under the driver's seat and a lever for positioning the controller is located at the left of the driver. A special notching arrangement is provided on the lever,

which protects the control from rough handling by the driver. The master controller is ruggedly constructed and provided with blowout coils for handling the heavy current. Contacts are arranged for parallel operation in reverse, in order that traction may be obtained independently on either truck. Wheel slippage with series operation would practically stall the coach.

Braking by Electric Motors

One of the very interesting features of the Versare coach is the arrangement for electrical braking by means of the traction motors. The braking controller is mounted back of the driver's seat. The positioning of this controller is conveniently accomplished by a foot operated pedal. The connections between the braking controller and the master controller are such that the braking controller can be operated with the master controller in the normal operating position. This is a very desirable feature as it makes it unnecessary for the operator to place the master controller in the "off" position, and can, therefore, obtain electric braking with minimum effort and delay.

The braking controller has five positions:—"Off," and four braking positions. The braking scheme is very simple and is accomplished by cross-

connecting the motor field and shunting resistance across the two motors. The braking is intended merely to hold the coach at some constant balancing speed on grade and to adjust the speed to fairly reasonable values on the level. Blowout coils are placed on the braking controller, as very large currents may have to be interrupted in going from one position to another.

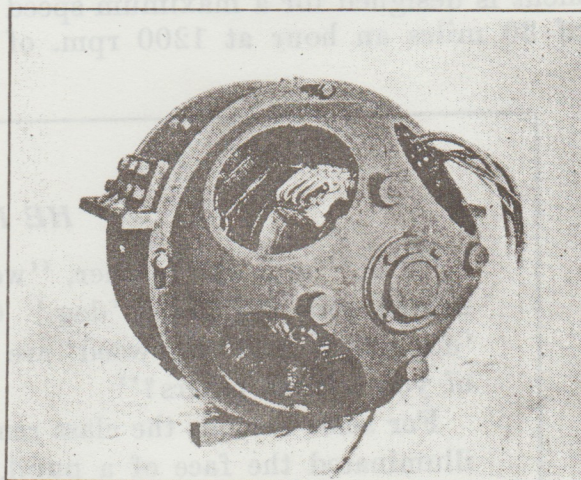
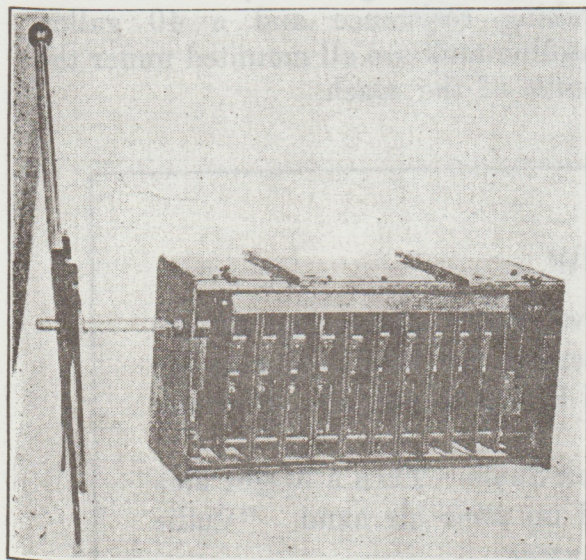
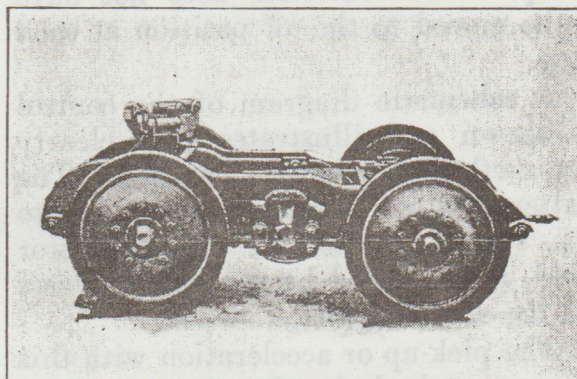
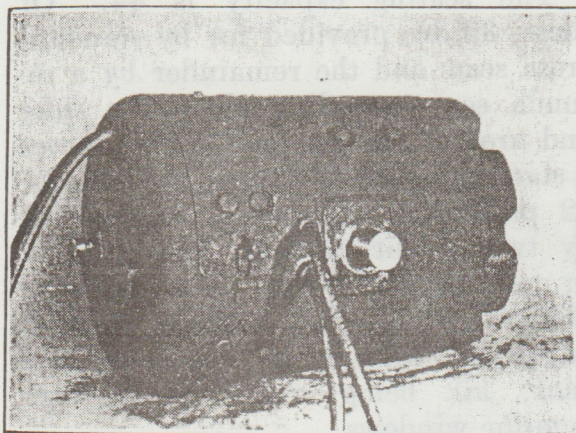
Standard automotive Westinghouse air brakes are used with a two-cylinder compressor drive off the engine. The valve handle is placed under the steering wheel. Brake chambers are

mounted on four, six or eight wheels as desired.

In addition to the electrical and air brakes a hand brake is incorporated. This lever is mounted at the left of the driver.

How the Coach Operates

The type of control is very simple in operation and can be mastered easily in a few minutes. The engine is first started, of course, as in ordinary practice. The driver then throws the motor control lever into one of the operating positions. He is then ready



Upper Left—Westinghouse 28 hp. Vehicle Type Motor; Upper Right, One of the Versare Trucks; Lower Left, Westinghouse braking controller; Lower Right, Westinghouse Type SK, 40 kw. Generator



to go. The engine throttle is practically the only control regularly used, the variations in engine speed being sufficient to produce the desired voltages and, hence, coach operating speeds. The field resistor unit is used only when climbing very steep hills or under abnormal load conditions, as the drooping characteristic of the generator is great enough to prevent overloading the engine during normal operation.

The master controller, connecting the motors to the generator, corresponds to the gear shifting device on the ordinary automobile, but has to be moved less frequently. In normal operation, the parallel position may be used entirely. The controller does not have to be moved to the off position at each stop.

A schematic diagram of the control is shown and illustrates very clearly the method of connections used. The battery, which supplies excitation to the special portion of the generator field, is connected by separate contacts on the engine ignition switch.

The pick-up or acceleration with this equipment is declared to be very satisfactory on all starts, whether made on the level or on steep hills. The equipment is designed for a maximum speed of 30 miles an hour at 1200 rpm. of

the engine. The balancing speed on the level is approximately 25 miles an hour with a reasonable engine speed.

Other Interesting Features

The floor of the coach is built up of two sheets of steel separated by V-shaped steel pieces laid across the full length of the body. This gives stiffness and strength. The window and door pillars are wood braced by longitudinal steel members and the roof is monitor type supported by V-shaped carlins giving 6 ft. 4 in. headroom. Seamless tubing diagonal braces are placed at, and opposite, each door.

The seating capacity is 44. Of these, 32 are provided for by standard cross seats and the remainder by a rotunda seat extending along the sides and around the rear end. This leaves a standing space of $11\frac{1}{2}$ sq. ft. each for 52 passengers. Lighting is furnished by twenty-four 15-watt, 32-volt bulbs in open shade fixtures. Ventilation is obtained by pure air entering through adjustable louvers in the sides and back, air being exhausted through monitor windows.

The air storage tanks, the electrical braking resistance and a 40 gallon gasoline tank are all mounted under the center of the coach.

HE KNEW

"Yes," said the teacher, "we have several plants and flowers named with the prefix 'dog.' Of course, the 'dog-rose' and the 'dog-violet' and 'dog-wood' are well known to you all. Can any of you tell me others?"

For some seconds the class remained dumb. Then a bright idea illuminated the face of a pupil, and up went his hand. "Collie flowers, miss!" said he.—*Victoria Buzzer.*