

ELECTRIC TRUCK COMING TO FORE

This Type Invaluable for Short Hauls and Work Through Streets of City

DOWN THE COST

Before another year is over the electric truck will have given the attention it deserves," commented J. Dawson, president of the Oneida Philadelphia Motor Co., who was discussing the new unit drive electric truck.

Truck transportation has divided itself distinctly into two classes. In one class the electric truck is ideal. In the other the gasoline-powered commercial car is necessary. The class is city work, general haul, through congested traffic, in wholesale and retail districts. Speed is necessarily restricted and the character of the work is not severe. All requirements are anywhere near the same. The electric truck can be built with a saving of 50 per cent over the gas truck. It is longer lived, more reliable and is much more economical because of its utter simplicity. The small number of parts which are likely to wear or require repair.

This leaves for the general haul, second field, or long distance haul, done largely off city streets and where the requirements are more severe.

Forty Years' Experience

The Ames truck, built by a concern which has been manufacturing for forty years, comes in four models, one, two and one-half and five tons, with wheel bases ranging from 130 to 150 inches and chassis lengths from 194 to 212 inches. The four-cylinder Continental motor is used. It is a Timken axle-driven truck with full floating axle except in the one-ton, which is shafting. A distinctive feature of these trucks is the Cotta transmission.

Compact Tractor

The New Britain tractor is a small, compact tractor, intended to do any job a horse will do, such as mowing, plowing, discing, harrowing, pulverizing, drilling, seeding, mowing, spraying, etc. It can also be hitched up to work for sowing, grinding, ensilage, etc. In fact, anything that a six-horsepower stationary engine would do, comes in sizes to meet varying requirements.

Special Coal Truck

Rockway truck is made in four models, one and one-half, two and one-half, three and one-half and five-ton capacity, with wheel bases ranging from 170 to 174 inches. It is worm driven. Their exhibit they are making a special show of their K-4 special coal truck, built with an especially short wheel base for small turning radius. It is equipped with mechanically elevated body so the coal can be unloaded through gravity either in a manhole or over terraces to the cellar.

Dirt in Motorcars Causes Rust and Wear

Dirt is undesirable no matter where it is, but the average automobile owner has yet to learn that dirt on the running gear does more than merely cover up some painted or unpainted metal. Joints seemingly as tight as a mechanic can get them allow dirt to pass through. The reason for the dirt being so undesirable near working parts of the chassis is not so much because it doesn't look well, but because it eventually gets to a moving surface and starts rapid wear. If you own a watch with a screw back on it and you keep that watch in one of your pockets where odd things are put occasionally, just remove that screw back and notice the dirt that has worked its way in.

INTERNAL GEAR DRIVE

Republican Trucks Show Clever Method of Power Transmission

Republican trucks are of the Republic-Torbenson internal gear-driven type with extra large nickel steel gears carrying the entire load, on drop forged I-beam with the power transmitted through live shafts and internal gears. An advantage claimed for this type of gear is that it permits the use of high-speed rotating parts from the engine to the driving wheels where the reduction in speed and increase in power is effective in the wheels themselves. The axle is provided with the Powrlok differential, which prevents one wheel from spinning where it encounters soft ground and permits the other wheel to continue to propel the truck, thus avoiding skidding and stalling.

USE SAME ENGINE

Overland Trucks Get Fine Results in All Their Recent Models

The Overland one-ton truck features the exhibit of the Overland-Harper Co. Upon the chassis of the sturdy model four have been mounted panel, stake and express bodies of standard size. The same engine which has given wonderful pulling power to the Overland four-passenger car, is used in the truck. The motor is simple, compact, accessible, powerful and economical. Clutch, transmission and universal joint are all encased with the motor and run in a single bath of oil. Each unit has been made accessible and easy to get at, in order to reduce repair expense and thereby increase its utility. Many other features that have made the passenger car economical and efficient to operate are incorporated in the light truck.

Own Designs Developed

The Selden series A trucks were designed and built by their own engineer after exhaustive field work. They are made in one and one-half, two and one-half and three and one-half ton models of the worm-drive type. The three and one-half ton model is typical of all, the frame construction as a unit being of the flexible type. An important Selden feature is the absence of bolt or rivet holes in the top or bottom flanges of the frame rails as well as of rivets in the entire frame construction.

HAVE SUBURBAN CAR Dodge Bros. Have Truck Peculiarly Adapted for Farm Use

Dodge Bros. business cars include a suburban car, finished in natural wood, intended primarily for use on country estates and around a farm; a standard panel car—a special long-wheel base panel car—for instance 140 inches long, a standard undertaker's wagon, a standard screen car and a similar model fitted with seat and step, a two-and-one-half ton Dodge-Graham unit with cab and stake body, an ambulance and a one-and-one-half ton Dodge-Graham unit with canopy body.

TWO DISTINCT TYPES

Vim Motortrucks Showing a Line of "Heavies" and "Lights"

The Vim Motortruck Co. is showing a representative line of both light delivery and heavy duty trucks. There are nine models shown, including the half-ton light delivery chassis, the half-ton open express, the half-ton closed panel and the half-ton fore-and-aft panel body models. Also, the Vim special model, designed with longer wheelbase, longer and roomier body, with special heavy spring suspension and oversized tires, this model being especially suitable for the type of hauling where the goods are bulky and light in weight.

Electric and Gasoline

The Overland brings out an electrically propelled truck in addition to its gasoline truck, claiming that by so doing they meet every condition of short hauls in congested streets or for high-speed intercity work or transcontinental work.

Louisville to Solve Return-Load Problem

Operators of motortruck routes radiating out of Louisville have organized for the purpose of establishing a central depot, to which the shipper may send his goods destined for farms or towns on the routes. Small shipments coming into Louisville also will be distributed from the depot. An expert on transportation matters has been engaged to take charge of the return loads problem in that territory.

LIGHT DELIVERY WAGON

Chevrolet Has Many Distinctive Features for Successful Road Work

The Chevrolet, a General Motors product, is made as a light delivery wagon and a one-ton worm drive truck. The delivery wagon has a 102-inch wheel base, 4-cylinder valve-in-head type motor cast on block, Zenith carburetor, Remy ignition, selective sliding gear transmission, wood wheels, semicantilever springs, with extra wide leaf or driving plate and electric lighting and starting.

Model "T" in Use

After several years of practical testing the Ford model "T" one-ton truck is in general use, using the dependable model "T" motor, insuring ease of operation, fuel economy and low maintenance cost. The final drive is of the worm type, a unique feature for such a low-priced truck. The front spring is semi-elliptic in one piece, while the rear is in two pieces made of vanadium steel, and it is equipped with a large emergency brake, acting as both rear wheels, in addition to the transmission service spring.

Here's Something New

The Huffman is a brand-new truck, recently put on the market, and is made with both worm drive and internal gear drive, in one size, one-and-a-half-ton capacity. It embodies standard units and principles of construction.

FILLS Wide Demand

Graham Bros. truck builder is an answer to the demand for one-ton delivery of unusual flexibility. It embodies Dodge Bros. dependable power plant and Graham Bros. truck rear system, using Torbenson internal gear drive.

"For Men Who Know"



Motor Trucks 1 to 4 Tons

Continental Red Seal Motor All Standard Units Salesroom Open Evenings.

H. L. Smith Motor Co. 2035 Market Street Philadelphia.

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Par-Mee Safety Impulse Starter

For Trucks, Tractors or Any Magneto-Equipped Motors

FITS ANY MAGNETO

Cannot back fire when cranking, thereby eliminating BROKEN ARMS AND OTHER INJURIES to operators. It takes the place of the ordinary magneto coupling. Will start motor on quarter turn of the crank. SAVES GASOLINE. SAVES WEAR AND TEAR ON MOTOR. Can be installed in one hour.

On Exhibition at Truck Show On International Harvester Trucks Retail Price \$10.00

Write for full information and descriptive catalogue.

Safety Impulse Starter Co. 325 N. 15th Street

BELL-SPRUCE 5870

GEO. G. MEELEY, President

HARRY PARKIN, Secretary and Consulting Engineer

At your service

HERE IT IS! The New 3/4-1-Ton Model



Rainier

WORM DRIVE MOTOR TRUCK

In construction, materials, workmanship—in fact in everything except size—this new Rainier is on a par with the finest and most reliable heavy truck. Every unit, every part, is designed for strength and durability, selected for its ability to withstand the severe strain of hard, continuous service under the most exacting conditions.

Note these specifications, usually found only in the highest priced trucks:

Continental Red Seal Motor; Rear Axle, Timken-David Brown worm and gear; Brown-Lipe Clutch and Transmission; Hickory Wheels, 34x4 1/2 pneumatic tires on demountable rims—non-skid on rear.

WM. J. DOUGHERTY
910 N. Broad Street
See Space 16 at Truck Show

At your service

"For Men Who Know"



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See the NASH TRUCKS at the Show

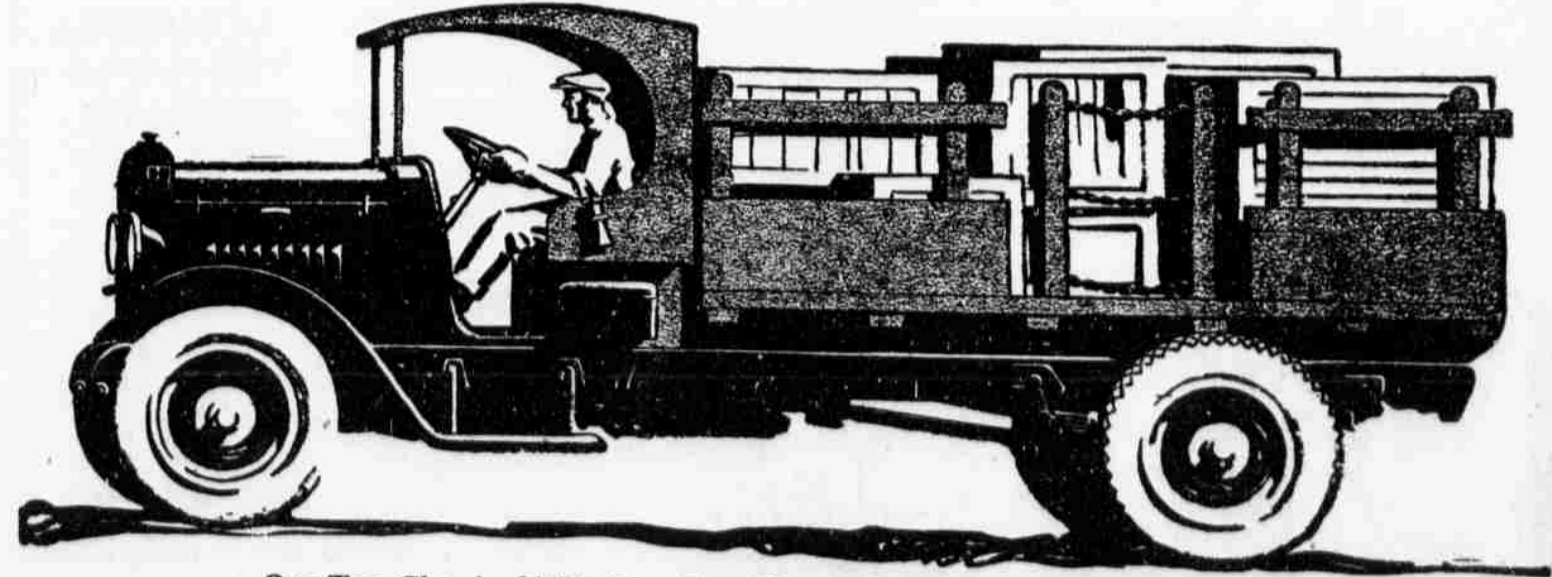
The motor truck has made every highway a possible freight and express route. Motor truck transportation is now an invaluable part of the national distribution system.

The great power and unusual dependability of Nash trucks has played and is playing an important part in this development.

In the service of many lines of business from coast to coast they are daily carrying their loads punctually and at a minimum cost.

NASH MOTORS

VALUE CARS AT VOLUME PRICES



One-Ton Chassis, \$1650; Two-Ton Chassis, \$2250; Nash Quad Chassis, \$3250 Prices f. o. b. Kenosha

PHILA. NASH MOTOR CO. 342 N. Broad Street

Locust 6420

Ready for the Body; Not an Extra to Buy

Gramm-Bernstein Worm-Drive Trucks carry, at the listed sale price, \$500 to \$550 worth of equipment, according to type and size.

This equipment is all essential to truck efficiency and economy. Any truck must have it. On the Gramm-Bernstein it is listed as follows:

- Standard Gramm-Bernstein cab, with doors and storm curtain.
- Exceptionally rugged metal ventilating windshield.
- Front fenders and steps.
- Sturdy radiator guard, attached to frame independent of radiator.
- Radiator shutter, operated from seat—facilitates starting, saves gasoline.
- Boyce motorometer, to indicate temperature of engine.
- Army truck type towing hooks at front and rear, spring trailer drawbar at rear, on all capacities above 1 1/2 ton.
- Electric generator, electric side lights with dimmers and non-glare high beam dash light; bullseye tail light, protected in frame; electric horn.
- Patented Gramm-Bernstein always-in-mesh transmission, with extension oil sump.
- Patented dirt-proof wick oilers on all spring bolts.
- Metal license brackets, front and rear.
- 100,000-mile hub odometer.

Real Saving at the Start; Real Saving in the End

Without question, the complete equipment of the Gramm-Bernstein chassis is an important item of added value. It is even more. For it represents an out-and-out saving, of \$500 to \$550, in the cost price of a truck.

We believe all business men will agree to that. But that is not the basic reason for choosing Gramm-Bernstein. We want our buyers to go deeper right down to fundamentals:

We want them to satisfy themselves, first and foremost, that Gramm-Bernstein is a better truck for their particular work.

We want them to know that it is a greater value.

We want them to consider, not only the individual units, but the sound engineering and manufacturing experience that selects and brings them together.

We want them to assure themselves, beyond the last least doubt, that Gramm-Bernstein is longer-lived, that it does more work, and harder work, at lower cost.

These facts are easy to arrive at. They are easy because they are facts, and

because any of our dealers can supply them.

No business man is justified in making a truck investment without first accurately informing himself.

You can't go far into Gramm-Bernstein records without discovering that high duty at low cost is their big outstanding feature.

You will find, also, a really remarkable volume of repeat orders. Nothing but owner-satisfaction can account for that.

And owner-satisfaction goes directly back to what we have said above.

Call in your dealer and have him lay the Gramm-Bernstein facts before you.

The Gramm-Bernstein Motor Truck Co., of Philadelphia, Pa. 217-19-21 NORTH 22D STREET

Pioneers Since 1901—Builders of the First Liberty (U. S. A.) Truck



GRAMM-BERNSTEIN