The Sun.

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THE FIRST SHOW OF COMMERCIAL CARS

New York to See Business Vehicles in Exclusive Array.

MOTORS IN ALL SIZES

Every Degree of Power and Capacity and So Likely to Meet Every Desire.

The show that opens to-morrow in the Madison Square Garden marks a distinct epoch in automobile construction in this country. It will be the first strictly commercial vehicle display that has been undertaken here, and although there are electric vehicles, motorcycles and accessories to add to the show there will be as the chief drawing card a display of motor trucks and vehicles intended for use by municipalities on a scale not hitherto displayed. The automobile show in the Grand Central Palace was of cars of both kinds, but to-morrow's show will be exclusively to call attention to the commercial vehicle.

These are of both types, gasolene and electric, and are the product of some of the leading manufacturers whose names have already been established as makers of pleasure cars. With them, however, it is in the main not an adaptation of the pleasure car to a new use, but another separate department, with the machines built according to the intended use of them.

To accomplish the opening of the commercial vehicle show was a considerable feat. Pleasure cars and a very large number of them have held forth in the Garden since January 7, when an exhibition, the greatest at least numerically if for no other reason, was begun there. Exhibits of sixty-six different types of pleasure cars were shown there, and when the No. 1 show ended last night the work of removing these vehicles began at once. All day to-day the plan is to keep at work taking these machines from the building and the motor vehicles will be assembled there in time for the opening this evening.

It probably will not be a fancy show. There will not be the same elements of luxury about it as marked the earlier exhibition. It will be a solid business affair, and the appeal doubtless will be to the business men. If the makers of commercial vehicles have not been mistaken, the last three years have shown a decidedly increasing demand for motor driven service cars. They will have a very good opportunity to approve or disapprove this theory of theirs by the way in which the show is received this week.

They expect not only that business men of this city and district will be there, but that men from out of town will come in to see what there is to be shown for their particular needs. The commercial vehicle, of which this present exhibition will be the first, will have other exhibitions. There will be separate shows in Boston and Chicago of commercial vehicles and business men the country over will be sought after to show them what they can get for the needs of their various organizations.

There are so many of these commercial vehicles that they could not all be displayed at the same time as the pleasure cars; but that is not the whole reason why they have the building to themselves this week. It is because it is believed that the present activity in this line calls for an entirely separate exhibition and that business men who are looking for cars will like to have plenty of elbow room to move about and examine the different things shown there. It is thought that buyers are ready now to invest in these cars, and the entire Garden will bristle with statistics of upkeep, of economy, and other matters which will be put forth to the man who thinks that he ought to have motor trucks but is not quite sure whether it is a profitable step to make the change.

The commercial vehicle side of the industry has suffered a little through the keen demand for passenger cars which was so marked in the last two or three seasons. The makers did not push the freight models so hard because they had all they could do to supply the other sort. They were ready to take orders if any one would give them, and they supplied the demand, but they did not go after the business in the same earnest way until this year. The collection of comercial vehicles should be a most comprehensive gathering.

They will include all kinds and sizes, from the little Brush package cart of 600 pounds capacity to the Hewitt ten ton truck, able to take two carloads of coal of the size commonly used by some of the coal railroads less than ten years ago. Taxicabs, sightseeing autos and omnibuses will all be there from the ten and twenty passenger Macks to the seven passenger Atlas or five passenger Autocar and Thomas, the four passenger Franklin and others.

This side of the show may tend to interest the women, although strictly it will be a men's show so far as the commercial vehicles are concerned. The women's chief interest in the coming week should be in the electric cars, of which a large number of luxurious types will be shown.

Sizes in commercial vehicles run to meet all needs. Thus, Hewitt builds two, three, five and seven ton trucks in addition to the big ten ton car mentioned. Mack builds from one to seven tons varying by two tons. Knox shows one to five tons, varying by ton sizes. Sampson shows two, four and five ton sizes. The Macks run four and five tons, the Morgans five tons, the Kissels four tons. The Packards, Alcos, Garfords, Grabowskys and Whites run up to three tons capacity only. The Autocar stops at one and a half tons, the Atlas, Case, Franklin, Fuller and Cartercar are built up to three-quarter ton capacity. This offers the merchant every chance to select a truck to meet his needs.

The figures indicate that more makers consider the three ton size favorable rather than the other sizes, although the five ton is a close second, with the two ton third. It is not possible to get at actual averages from an exhibition, for each vehicle counts one and there is no relation between the number of vehicles exhibited and the vehicles sold. It seems likely that many more of the smaller cars are sold, because the merchants who need small cars are more numerous and the cost of the vehicle is less. On the other hand the saving in haulage cost is undoubtedly more noticeable with the larger trucks, because of the large number of horses and men saved by this substitution.

In the matter of powers the trucks are interesting for the lesson of economy they teach. Instead of the enormous powers that might be expected from comparison with some passenger cars we find the ten ton Hewitts getting along with 36 horse-power, as do the smaller Grabowskys. The Knox 48 and 40, the Garford 42, the Grabowsky 45, the Stearns and the White 30s are examples of the larger powers. The Thomas, Franklin, McIntyre, Autocar, Cartercar and the Case trucks with 18 horse-power are examples of the smaller powers, unless the little Brush with its 6 or 8 horse-power is mentioned.

High speeds are not needed in truck work, and by proper gearing a small economic motor can move great loads, particularly when fitted with high grade bearings so as to prevent the power being eaten up by the friction of the driving mechanism.

An average based on an incomplete list indicates that the average truck power is well under 30 horse-power, while the average truck capacity is slightly under three tons. This is a horse-power for each 200 pounds load capacity, and since the weight of the vehicles themselves is nearly as much as their carrying capacity each horse-power is moving about 400 pounds of gross load, four to six times as much as its passenger vehicle brother. Part of this lower power is possibe because motors are beiter than ever before, partly because truck users must be depended upon to keep their motors in better tune than the usual pleasure driver, and partly because the owner is as much interested in his fuel bill as he is in breaking time records.

The engines differ in the number of cylinders quite a little also. While the majority have four cylinders a goodly proportion use but two, probably more than 40 per cent., thus again showing that economy and simplicity rather than style determine the selection of the power of the freight vehicle. This selection is not a matter of different makers but of economy, as shown by the fact that a goodly number of makers like Autocar, Hewitt, Sampson and others use both kinds on their product.

In transmissions the matter of simplicity comes in also. A large proportion of planetary transmissions are used although the majority use sliding gears.

The final drives are usually by side chains so as to secure the lighter parts and the advantage of the dead rear axle. Wheel sizes are generally large, thus reflecting horse vehicle practice and the highest grade passenger vehicle experience. Solid tires are almost the only kind used and often in twin application to the same wheel, so as to provide tire widths of seven to ten inches. This great exhibit at the Garden should be seen by every student of the business in order that a fair idea of its magnitude and growth may be obtained.

The following makes will be exhibited: Mercedes, Morgan, Stearns, Pierce-Arrow, Knox, Peerless, Hewitt, Autocar, Reliance, Rapid, Sampson, Grabowsky, Studebaker, White, Packard, Mack, General Vehicle, Alco, Buick, Pope-Hartford, Reo, Franklin, Atlas, Bruch, Overland, McIntyre, Garford, Kissel, Randolph, Lansden. Several electric carriages will be shown, among them being the Waverly, Anderson, Hupp-Yeats and Ward.

AS TO ELECTRIC INFANTS.

John Lansden Rises to Defend This Type of Power Wagon.

"Formerly storage battery units, and especially electric wagons, were regarded and even to-day are referred to as in their infancy," says J. M. Lansden, Jr., of the Lansden Company. "In Cleveland this 'infancy' is represented by one car out of every four. In New York out of thousands in use there are probably upward of 500 electric wagons in daily service which have paid for themselves, some of them several times over, and the average of which is over five years. One company alone has more than 200.

"This infant has proved by repeated public tests that it is the cheapest to feed. Every contest where both gasolene and electric trucks have competed has shown conclusively that the cost of power for the electric is approximately only one-half that of the gas. In the matter of development the gas truck is in many cases only a modified touring car no more adapted for continuous business service than an old one horse shay. The gas machine from its very nature retains, and of necessity is always likely to have, every element of unreliability that was present ten years ago. The only improvements have been in detail, because the elimination of the unreliable in a gas engine would be to eliminate the engine itself.

"On the other hand even the old style lead battery has seen a modification and development in details, so that its cost per mile has been decreased and its mileage per charge (for a given battery weight) has been increased. Mr. Edison has perfected a new nickel-steel fool proof battery of extraordinary life and capacity which weighs only about 50 per cent. of the best lead batteries at any given capacity. Vehicle manufacturers have had the necessary time and service expecience to refine and practically perfect their designs. Here is actual progress and real development in vital essentials.

"The electric wagon can no longer be slandered, and instead of being considered an infant it now compels the consideration given any robust and healthy man. It is settled in its ways and disposition and is absolutely certain to perform its daily work continuously without a gasp or a breakdown.

"Furthermore and of the greatest importance there are designs accepted as standards of production to-day which have back of them more than seven years of actual, continuous service. There is no uncertainty in regard to the modern electric. It has absolutely established itself as the most economical and efficient of all transportation units. Its operating costs may be figured in advance over a period of years far more definitely than horse service costs.

"It seems to me that those who are considering the use of some type of business wagon could assume with more safety the responsibility of adopting a full grown, well developed youth of steady habits than to entrust their precious business interests to a reckless and precocious infant, the least of whose faults is that he invariably shows his irresponibilities when most relied on, even though his father naturally does claim him the 'best child on earth.'"

EFFICIENCY IS THE DEMAND

COMMERCIAL VEHICLE MUST SHOW 100 PER CENT.

Eventual Economy and Many Other Features Are Important, but Unvarying Reliability Is What the Consumer Must Have—Motor Truck Principles.

The commercial motor vehicle must show 100 per cent. efficiency in the lay sense, not the engineering terminology. It is of no value to a man in business lines to have a conveyance which is efficient anywhere from 80 to 90 or even 95 per cent. He must have something on which he can depend, something which will deliver the goods, and that is not meant in its slang sense.

In some forms of business even the smallest delay, for whatever cause, may mean a great financial loss. The failure to reach a steamship on time with goods designed for it at sailing naturally would give any vehicle causing such a slipup a decided black eye. If a machine is laid up in the garage when it should be out on the road doing its work it is causing a dead loss and working damage to the business of its owner.

A maker of electric power wagons discussing the commercial vehicle situation surprised one of his hearers when he said that the appeal to the business man to make a change from his horse drawn system was not made on the line of economy. As a matter of fact it costs a great deal of money to make the change and commercial vehicles are not cheap. But it can be pointed out to him that in the course of time these machines will pay for themselves and that, although the first cost may be a wrench, it is worth while to take this step in order to enjoy the profit later on.

There is always much talk of how establishing a commercial vehicle service will reduce the number of men necessary on wagons and will substitute for a number of horses and wagons a single motor vehicle with capacity to do all that this other did and perhaps more. But all this costs money, and on no account can it be urged to the intending user as more economical; that is to say, at the beginning. But the big argument that is to be put up to the man in commercial lines is efficiency and eventual saving, and too much emphasis cannot be put on this point.

The man with a good commercial vehicle is determined to demonstrate to the business man that efficiency is the true desideratum, and for that he should pay, and pay willingly, especially when he has the prospect before him of making such great future economies in his business that the machines will pay for themselves and more.

Horses and wagons are not necessarily cheap, and they do require a great deal of attention, just as commercial vehicles do. But there have to be more of them, naturally, than of commercial vehicles; and naturally again, they cannot do the work in a day that an engine or a machine can. They cannot carry the loads and they cannot go the distances.

It is often urged that a commercial vehicle stands without hitching, that it does not take cold if it stands out in the wind, that it requires no food when it is not working, and that when it is idle it requires no attention. And these things are in a degree true. To be sure, an electric vehicle requires just as many hours for charging as it took hours to run out the supply of juice, and this is a point which gasolene men urge against the electric vehicle.

They point out that their form of commercial vehicle has the advantage of a more compact fuel supply, and that when a gasolene vehicle has exhausted its supply of fuel another can be obtained and introduced in just as many moments as it takes to pour the gasolene into the tank, and that it is not a question of keeping the machine for many hours attached to a charging apparatus which, in fact, requires the services of an extra shift of men.

The gasolene people contend that their car, too, has not the limited radius of the electric vehicle, and that for long hauls it certainly has all the advantage, especially when road conditions are not of the best. They contend that the jarring of the electric on rough roads is bound to have an unfavorable effect on the particles in the battery, and that eventually they will deteriorate.

Their chief argument, however, is on the matter of fuel and radius and these points also have to be considered by the man who is contemplating introducing a commercial vehicle service.

On the other hand, the advantages of electric over gasolene vehicles are set forth in no uncertain terms under the head of economy and other advantages. It is said that there is greater simplicity of construction and fewer repairs and lower cost of insurance; the machines require less care, there is a small loss of power and no experienced chauffeur is needed. Freedom from insurance limitations, once urged, is not so strong a barrier, especially in this city, where recently it has been arranged to admit gasolene vehicles to piers and terminals.

The economy of time with the electric is in simplicity of adjustment, the instant readiness, less time likely to be spent in the repair shop and the development of power regardless of conditions of weather. The electric is simple to operate and there is no danger of fire or explosion, although that is a very remote possibility in the gasolene vehicles. There is no danger of freezing and no tanks to leak, and the fact that there is no odor and small noise, especially in the smaller trucks is also a thing that is urged in favor of the electric vehicle.

One maker of electrics says that with him the truck business is a wagon business. The Edison storage battery, he contends, has proved its capabilities and there is no longer a question of its reliability. With him it is solely a question of building a chassis and installing the batteries and then building wagon bodies such as may be required by the various dealers.

The batteries are guaranteed for a term of two years. Whatever else is likely to come up is a feature of the wagon business—damages to bodies through accident or from other causes or else things that may happen to the tires—but in every case or practically every case it has nothing to do with the automobile feature of the business at all, he says.

It is easy to cite advantages of commercial vehicle delivery over horse vehicle trucking. The cheap upkeep of the motor vehicles once established, the fact that they consume nothing while idle, that they require less stable room and fewer men to care for them and need no attention on days of rest or when idle, that they have a much longer life than the horse vehicle and that especially in small package delivery the motor vehicle does the work of two or more wagons are features in the economy of money.

As to time, the motor vehicle is much quicker than the horse, can return to the distributing centre at high speed, can work an unlimited proportion of the day, requires no day of rest, is easily handled in congested traffic at good speeds. As garages are permitted where stables would not be, stabling can be done more conveniently and nearer to the distributing centre. Motor vehicles are always ready to develop power despite all weather and road conditions and also can be worked overtime for holiday trade. They take up less space in the stable and in the street as well as in the loading space at the warehouse.

Because of their capacity fewer wagons can be used and they will accomplish more work than the horse drawn system, fewer men can be used to take care of the same delivery unit and beyond all that it is a good advertisement for any man in the commercial line. Hygienically it is a better thing for the community, and because of the greater exactness of machinery it can be determined definitely just what the costs are, which very few if any of the enterprises using horse drawn vehicles seem to be able to determine.

All these matters are suggested to the man whose interest it is designed to attract, and beyond all these things stress is laid always on the matter of efficiency. The machine does these things and does them unvaryingly; that is if it is a good machine, and because it does them without any departure from standard it can be depended upon all the time. If it could not be depended upon it would not have any actual value to the consumer, and in fact its future would be far from bright.

The business of making commercial vehicles is one that has been in existence for a number of years and with some makers has long passed the experimental stage. In the main the manufacture of commercial vehicles has been taken up with a rush, as something new to supplement trade in pleasure cars.

Light delivery wagons, so-called, made by superimposing a box on a pleasure chassis is about the idea that some of the commercial vehicle makers have of manufacturing a car for work, but they will have to get over this, and it stands to reason that the manufacturer of motor trucks is going to go through the same processes as did the maker of pleasure vehicles. That business after lying almost dormant for a while expanded with so sudden a rush that there was a tendency among the makers to give free rein not only to their imaginations but to the capacities of factories, and a good many of them overextended themselves in their output.

The natural reaction had an unpleasant effect on the trade, but this lesson, which was learned by experience in the making of pleasure vehicles, seems to have been forgotten entirely when it comes down to the commercial side of the vehicles. The natural thing seems to be that there is a sudden realization of the money to be made out of commercial vehicles and with this in mind a great many half baked motor trucks have been cast out on the market.

They will not last. They will not give satisfaction and they will pass out, but that is the history of development of any industry. There are some which have been in business for a number of years some who are among the very earliest in the commercial vehicle trade, and these have been making experiments toward a definite end for a number of years.

It is the general opinion that the making of a competent motor vehicle for business purposes requires several years of testing just as was the case with the pleasure car. Few people are willing to give credence to claims made for a touring car in its first year and they all prefer to wait a little while and see how the car stands up. With the extra work required of a commercial vehicle it stands to reason that the test will be all the harder and it ought to be a matter of two or three or perhaps four years of use before it is conceded a motor truck has made good.

The development of a pleasure chassis to business ends is acknowledged to be a mistake, except if the truck is going to be of the very lightest kind. Package wagons so called, which are intended to deliver small parcels, really do not need much power, nor do they need a heavy body or running gear, but it must be remembered that the point of the thing is that they have to run every day and that they may not be laid up, and if they are too lightly constructed ten chances to one a weak spot will show itself before very long, and a commercial vehicle laid up in a garage is of no commercial value.

The objection to the gasolene vehicle is given by some makers of electrics that it is not reliable enough in its engine. That is to say, that gasolene cars are always likely to play tricks and that unless a very experienced chauffeur is used he will get the machine in trouble before very long.

On the other hand the gasolene people say that unless the conditions are almost ideal the electric is not desirable. That is to say, if it is a case of making deliveries in the city, where a large number of stops should be made in each block and where the mileage for the day is not long, then the gasolene people say the electric car has its advantages. A gasolene engine would probably heat up a great deal through these many stops and starts, and anyway its power and radius would not be of any particular advantage.

But the gasolene makers also say that the greater speed at which they can travel and the consequently greater number of deliveries that can be made in a day is a big advantage to them. The rejoinder to this by the electric vehicle people is that great speed burns up tires, and as a large number of the gasolene cars are pneumatic tire equipped and expensively equipped too, that the cost of tires is so great that it more than offsets all the value of the greater speed. With the calm and even traction of the electric vehicle the tire expense is bound to be smaller, and as this has all to be figured in the average of costs they say they have the statistics to prove that they are intensely superior to the gasolene vehicle.

They reduce the whole proposition to this, that the gasolene car can move faster, but what's the use? The gasolene folks say that you cannot use ordinary plain water in the Edison electric battery. It must be distilled water. And that is a fact. But the electric makers say that distilled water is not hard to get and that any garage can contain a supply large enough for several weeks of use for all the cars that are in there and not take up much room with it either. In one local garage a pleasure electric car that does an average of sixty miles a day has a five gallon tank which holds water enough for three weeks of use.

There seems to be room enough in the field for both kinds of commercial vehicles although the electric people are quite as intolerant of their rivals as the gasolene folks are of theirs. It certainly has proved to be the case that within the city limits the electric vehicle has found a large number of friends, and in fact an increasing number. There is a larger numerical opposition to the electric vehicle because there are so many more makers of gasolene cars in the first instance and so many of them have recently turned over to the commercial vehicle as a side issue of great importance.

It has been said, and said, often that the commercial vehicle business will be the important thing in the future of automobiles. Undoubtedly it will be great, because anything which operates as a saver of time and money is bound to attract business men. It will probably never succeed in shelving the pleasure car business because there is a legitimate and proper demand for vehicles for touring and such like purposes.

But the growth of the commercial vehicle business cannot be quite as rapid as some people seem to think it ought to be. If the market is gorged with all sorts of inferior cars it stands to reason that these will have to be disgorged before the field is clear for the proper kind of commercial vehicles. Whatever that proper kind is, whether it is gasolene or electric, remains to be seen, but those people who have rushed into this business headlong without considering whether they were making anything that would last are bound to meet with grievous disappointment.

If at the end of the season a car shows that it is not able to keep up further that sort of vehicle will get the go by from all men who look into things a little bit before they purchase. And so it would be a rather better thing if makers of commercial vehicles spent a year or two in experimentation before they put anything on the market for sale. This would be easily possible, especially in the case of a manufacturer who already made a pleasure vehicle and who had a source of income regularly from that.

The idea that a commercial car can be made by substituting a business body for a touring body is all right if the work is to be very light. But even if it is light it has to be continued over so long a period that it is bound eventually to have a bad effect on the car. A pleasure car chassis has to stand a large amount of strain, but the load is not placed in exactly the same way, and it is a matter of figuring out stresses and strains and loads and thrusts that has to be considered before even the plan for a commercial vehicle is complete.