

Note the Reduced Price—

£125 complete

including Speedometer.

F. V. & H. G. GRAVELY,
AUTOMOBILE ENGINEERS,
WISBOROUGH GREEN,
BILLINGSHURST, SUSSEX.

BREAD DELIVERY BY LIGHT VANS.

Trojans have Greatly
Restricted the Sphere of
Horses for Bread Delivery
in the Business of H. L.
Groom & Son.



For speedy, inexpensive delivery the Trojan van is particularly suitable, the body height and depth not being too great for any man to reach the load.

CONSIDERING the efficiency of mechanical vehicle design, it is a matter of wonder to many business houses and retail tradesmen that so much difficulty is experienced in finding a vehicle designed specially to curtail the sphere of the horse. The latter is admittedly the most economical on short hauls with frequent stops, but with the right kind of motor van the economic field of the horse could be considerably reduced. After the horse comes the Ford. But though in initial cost the Ford is low compared with British light vans, when working under horse-favouring conditions it is not always sufficiently cheap to operate—even allowing for its better speed—to make the change-over a business proposition.

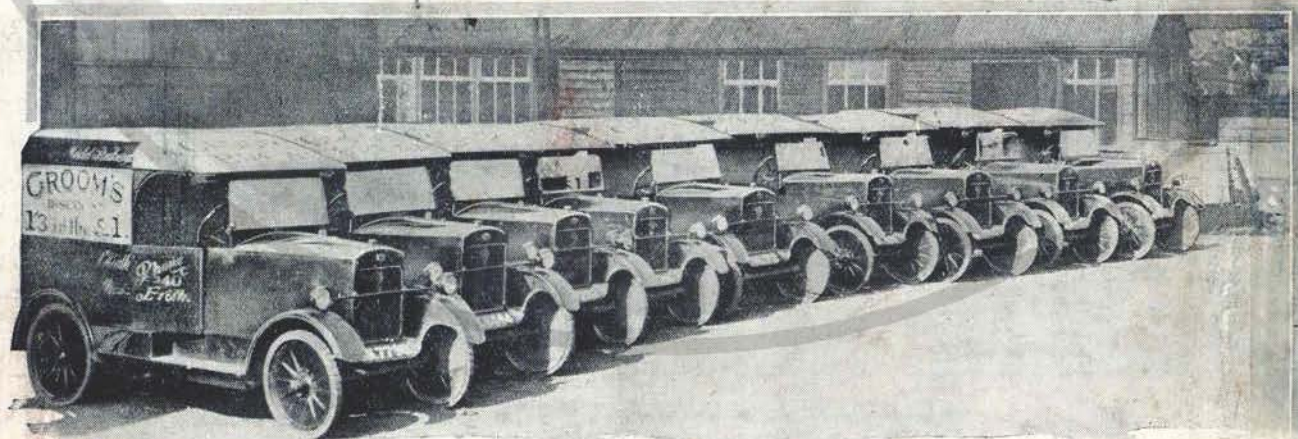
These difficulties have been faced by many firms, and they have been partially solved by Messrs. H. L. Groom and Son, Ltd., of Erith, who require a large transport fleet for distributing the bread and cake of which they are wholesale manufacturers.

Limitations of Horses.

Some few years ago this company decided that their

delivery round had become so extensive as to be beyond the capacity of horses; it extended from Gravesend to Greenwich, and some deliveries required a journey of twenty-five miles. Eventually Ford vans were purchased and worked for two years, at the end of which period the owners came to the conclusion that their cost of running did not compensate for the saving in time over horse delivery effected by their use. They were discarded and replaced by horses.

Since that time Messrs. Groom have been watching for the advent on the market of a suitable vehicle, convinced that their field would not long be neglected. Then came the Trojan, with its low first cost, simple design, and promise of low operating expenses. One was purchased and found satisfactory, and later another. This second proving its value, a fleet was quickly built up, and to-day the firm run ten Trojans. They still have forty-four horse vans, but these are confined to short journeys. As mechanical conveyance proves superior to the horse on any particular round, the horse is withdrawn and a new van purchased.



Apart from their utility as cheap-running machines, the Trojan vans present a smart appearance, which in the case of Groom's fleet is enhanced by tasteful and "telling" finish.

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Keeping Test Costs.

On an average the Trojans cover twenty-five miles a day, carrying a 5-cwt. load, whilst the horse rounds extend to about fifteen miles with 8 cwt. How the actual running costs compare may be judged from the accompanying comparative tables. They are the average for three months:—

HORSE AND VAN, 8-CWT. CAPACITY.	Per week.	TROJAN, 5-CWT. CAPACITY.	Per week.
Cost of food and bedding	£ 17 9½	Petrol and oil	£ 9 8½
Shoeing	0 3 8	Tax (£10 per annum)	0 3 10
Harness repairs ..	0 1 0½	Insurance (£10 per annum)	0 3 10
Van repairs	0 1 2¼	Depreciation (25% per annum)	0 15 3
Stable wages and van cleaning	0 6 8	Garage labour for adjustments, cleaning, refilling with fuel, etc. ..	0 4 0
Depreciation on horse (20% per annum)	0 3 8	Tyres	0 2 10½
Depreciation on van (10% per annum)	0 3 1		
Total cost of running one horse and van one week	£1 17 1¼	Total cost of running one Trojan motor van one week	£1 19 6

The difference is slight, but when the standing charges such as relative outlay on garages and stables are included, the motor vehicles have a distinct advantage, especially on a mileage basis.

Here it might be mentioned that the fuel consumption of these Trojans is 33½ miles per gallon. For the purpose of engine lubrication, oil is mixed with the petrol in a proportion of 1½ pint of oil to one gallon of petrol. This mixture costs 1s. 11½d. per gallon.

Greater Loading Length Wanted.

Users of transport vehicles are probably better able to suggest detail improvements than are manufacturers whose attention is generally absorbed with obtaining mechanical efficiency. One suggestion from the firm under review is worthy of close consideration. Studying the Trojan van, it was pointed out that the loading space extended for only one-third of the total

length of the vehicle, whilst the driver's cab and the bonnet occupied two-thirds. "Why," it was asked, "do not light van manufacturers consider the driver-beside-engine principle? If it has been adopted on the largest machines, where the loading length is relatively greater, how much more is it necessary on the smaller?"

We commend this view to designers of small vans for light goods, although if the engine was at the front, it might have to be placed slightly also to the side to give the driver adequate room.

Solid Tyres Preferred.

Discussing the solid tyres on the Trojan and their effect in reducing resiliency, we were informed that the shock absorption by the springs was such as to render pneumatics unnecessary, and this firm prefers to run on solid tyres. It was explained that at week-ends these vehicles have to carry much heavier loads than normally, and it was found, when operating the Fords, that tyres with some hundreds of miles' life still in them under normal working would often burst when taking peak loads. It was a serious inconvenience when this delay occurred always at the busiest time of the week. Then, too, the cost of solid tyres is less, as they are only £7 10s. per set fitted, yet last twice and three times as long as do pneumatics.

Speaking of other features of the Trojan, Messrs. Groom stated that the mechanical starter was a great advantage, as it had no complicated electrical connections to give potential trouble, and as a van has some fifty to eighty calls a day, according to the route, a starter is most essential, or the men would certainly leave their engines running.

As the company is changing over from horse to motor conveyance



Mr. H. Jobey is greatly interested in following the characteristics of the Trojan fleet and his method of supervision is based upon his experiences with American motor manufacturing firms.



Some idea of the size of the Trojan van may be obtained from the left-hand illustration, and the right shows the partition that has been built in by Grooms to keep the load separated from road dust.

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the prospect of dispensing with old servants, because they could not drive a car, was unpleasant, and the simplicity of the Trojan design has relieved this situation considerably. Gear changing is one of the chief difficulties to be mastered, but the simple arrangement of variable gears on the Trojan eliminates the former, and a few lessons in steering and engine control convert a man brought up among horses into a trustworthy motor driver. Two great advantages of this arrangement are that there is no pause in the change-over, and the horse-drivers know the rounds.

Many changes are made to the standard vehicles to suit the peculiar needs of the firm, but they are so slight that they are carried out in the owner's workshops. Before painting the bodies, which they do themselves, a wooden partition is fitted between the driver and the interior of the van body. This is done with the commendable desire to keep the load of bread, cake, and flour free from dust. As the accumulators were situated on the line of the partition, it has been found necessary to place the accumulators in a more advanced position; but, apart from this, no essential mechanical organ has been touched.

To enable the vehicle to carry heavier loads, it was decided to add an extra leaf to the rear springs, but this idea has now been abandoned in favour of a large rubber buffer to fit between the springs and the bottom of the body. The effect will, it is anticipated, be most satisfactory.

Increased Delivery Area.

The Trojans have now been in use for five months, and although it is early as yet to judge of their lasting qualities, there is every reason to believe depreciation and repairs will not be high. There has been no accidents so far. Careful costs are being compiled, and we look forward to publishing those for a complete year when they are available.

Increased business has naturally resulted from the change to modern delivery methods as the area to be exploited is enlarged. Thirteen thousand loaves alone are delivered each day, and the care the firm take to secure hygienic conditions, and the advantages of the mechanically propelled conveyance in this respect, will appeal to the public as forcibly as the smartness of the vans.



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