The Thomas Transmission Road Train.

A New Transport Unit.

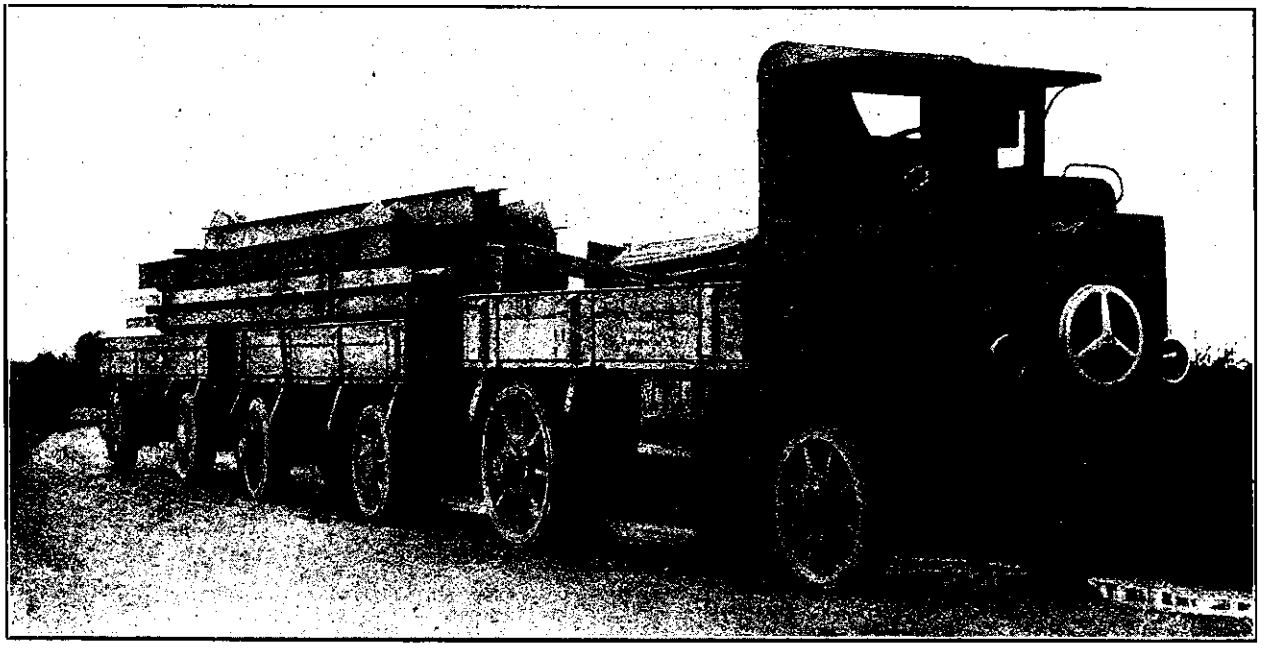
Well known as the Thomas Transmission principle has become in motor traction circles during the last few years, both as a means of propulsion for road vehicles, and as a helpful factor in solving the difficulties of light suburban traffic on the railways, there has taken place still another development that is not as yet so generally known. This is the road train.

Our photograph shows one of these new units "Somewhere in France," and reports to hand indicate that the performance of these trains has more than justified their employment.

follows:—The tractor proper starts up and operates in the ordinary Thomas Transmission way, i.e., both mechanically and electrically, and it is so arranged that not only is an infinitely fine gradation of speeds possible, but that by far the largest proportion of the running shall be by direct mechanical drive.

The novelty of the whole unit lies in the trailers which are by their own motors more or less self-propelled. The method is simple. Power is transmitted from the gasoline motor to an electrical machine mounted on the tractor, and this in turn drives the motors mounted on the trailers. At will, the auxiliary drive on the trailers can be cut out, and only used when it is desirable that on hills and bad sections of road, the tractive effort should be divided as equally as possible between the several vehicles.

The steering of the first trailer is governed by



A Road Train—Thomas Transmission Principle.

We are of course all familiar with the ordinary tractors and trailers, and know the immense loads these machines can and do handle wherever even a moderate road surface is available. It is on the war worn roads of France, however, that the trailer has lost a great part of its usefulness, for such is the condition of the road surface, that in many instances the tractor has the greatest possible difficulty in making its objective, even after the trailer has been detached and side-tracked, to wait indefinitely for future transport.

Broadly stated, the road-train may be described as a tractor with one, two, or three trailers attached, each trailer being in itself motor propelled by power generated on the main tractor. It is of course the principle of gasoline and electrical propulsion by which the Thomas Transmission unit is worked that makes this possible.

Briefly described the action of the train is as

the position of the rear axle of the tractor, and the steering of the second trailer, by the position of the rear axle of the first, and so on.

The tractor and trailers are capable of driving equally well in either direction, and of being coupled together in any order. To obtain this result there is mounted on each trailer a reversing switch to change over the connections to the armatures of the motors, and when travelling "astern" special provision is made for steering the train from the then leading axle of the trailer.

The ease with which this machine and its trailers can be operated is stated to be remarkable, and its adoption is considered to be a great advance towards the solution of some of the transport difficulties at the front.

We are indebted to Messrs A. D. Riley & Co., the New Zealand Thomas Transmission Agents, for the advance photograph shown above.