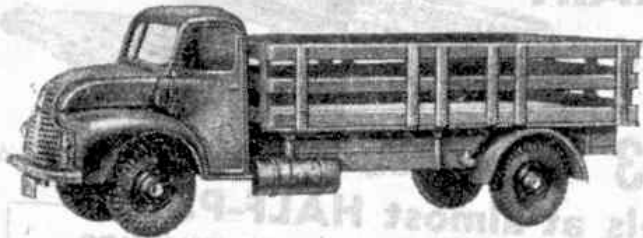


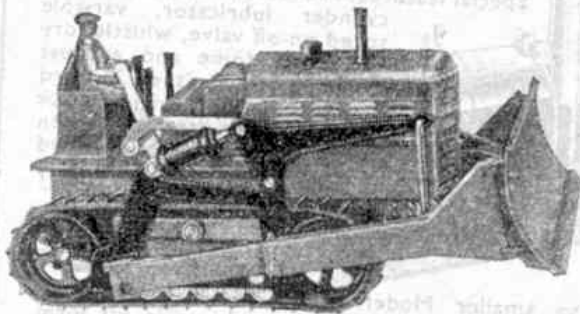
# SUPERTOYS



**Dinky Supertoys No. 531  
Leyland 'Comet' Lorry**  
Price 5/- each (including tax)



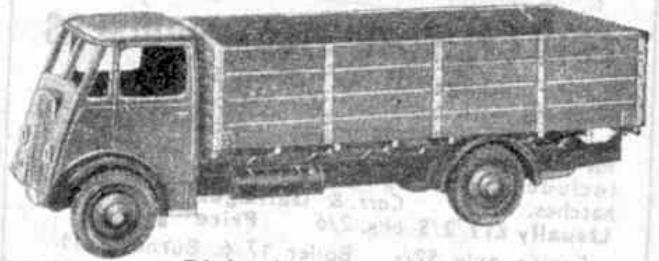
**Dinky  
Supertoys  
No. 751  
Lawn Mower**  
Price 5/- each  
(including tax)



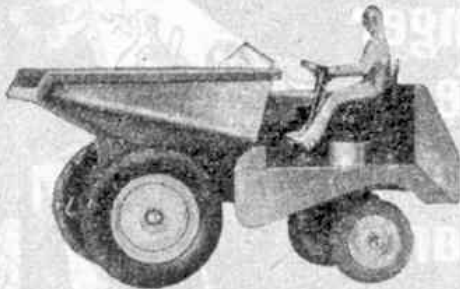
**Dinky Supertoys No. 561  
Blaw Knox Bulldozer**

This wonderfully realistic miniature runs on  
crawler track and the blade is raised or  
lowered by a lever.

Price 10/8 each (including tax)



**Dinky Supertoys No. 511  
Guy 4-ton Lorry**  
Price 4/5 each (including tax)



**Dinky Supertoys No. 562 Dumper Truck**  
Adjustable front wheels, tipping bucket,  
reversible driving seat

Price 6/- each (including tax)



**Dinky Supertoys No. 504  
Foden 14-ton Tanker**  
Price 8/6 each (including tax)



**Dinky Supertoys No. 521  
Bedford Articulated Lorry**  
Price 5/- each (including tax)



**Dinky Supertoys No. 551  
Trailer**  
Price 2/8 each (including tax)

MADE IN ENGLAND BY MECCANO LIMITED

# The Fork Lift Truck

## Handling and Stacking Made Easy

At practically every stage of almost every industry things have to be handled. They must be picked up and carried, hoisted, stacked, taken down and loaded on trucks at successive stages of the processes through which they pass. This handling begins with the raw materials taken into a factory and continues right to the delivery of the finished goods.

It is surprising to find how much time and labour go into all this. Reliable figures indicate that more than a fifth of the average cost of producing the world's manufactured articles lies in handling charges, and nearly a third of the time required to produce all manufactured goods is devoted to picking up, carrying, putting down and similar operations. In certain industries the proportion of time and cost spent in this is astonishingly large. For instance, it has been calculated that in mechanical engineering 59 tons of material have to be handled for every ton of manufactured product.

It must be borne in mind that handling costs add nothing to the value of a product, although of course they increase its price. In addition they absorb a large amount of labour that could be used in other ways to far better advantage. Means of reducing handling time and labour therefore are of the greatest importance. One of the finest aids in bringing this about is the fork lift truck, which every day is finding more and more uses in industry.

The beginning of the development of the fork lift truck can be traced back to the ordinary hand truck, something like a porter's barrow. This allowed material

to be moved with reasonable speed and ease, but there still remained the problem of loading it and unloading it, to say nothing of the handling still necessary for stacking or in making ready for work on it. The next step was to design a truck with a low platform that could be run under the material resting on battens so as to leave the necessary space beneath it. A mechanical device operated through the handle of the truck then raised the

platform sufficiently to lift the load off its battens, and a similar reverse movement lowered it into the new position to which it was taken. In many instances the materials to be dealt with were loaded on pallets, platforms of wood with battens fitted underneath, and they stayed on these during transfer and storage.

The final stage in the development of the fork lift truck came when the need for raising the load to greater heights was realised. The first machine of this type was developed in Liverpool docks during the first World War,

but no further progress was made for some years, as labour was then comparatively cheap. Growing costs revived the idea and gave us the fork lift truck as we have it to-day. In this the truck platform is replaced by forks that can be inserted under the load to be moved, and the forks are mounted on a carriage that can be raised to any convenient height on a mast. The addition of this vertical movement gave a machine for which countless uses in the handling of material can be found, and greatly reduced the time and labour required for these operations.

An outstanding example of the modern



A Coventry Climax fork lift truck raising a motor car on its lifting carriage. The illustrations to this article are reproduced by courtesy of Coventry Climax Engines Ltd.



Stacking with the fork lift truck. The cases are carried on pallets, which are raised and placed in position by the machine.

fork lift truck, made by Coventry Climax Engines Ltd., Coventry, is shown at work in the illustrations on this page, and on page 422 there is an illustrated description of the fine model of this truck now included in the Dinky Toys Series.

In this fork lift truck a petrol or diesel engine provides the power required both for running and for lifting. The machine is made in a range of models handling up to 6,000 lb., or nearly 3 tons, and raising loads to heights of up to 12 ft. It is provided with pneumatic tyres on its three twin wheels. Steering is effected through the twin rear wheels, and the truck is driven in exactly the same way as the motor car. The use of closely spaced rear wheels gives what is practically a three point contact with the ground, a plan that results in stability when moving over an uneven surface.

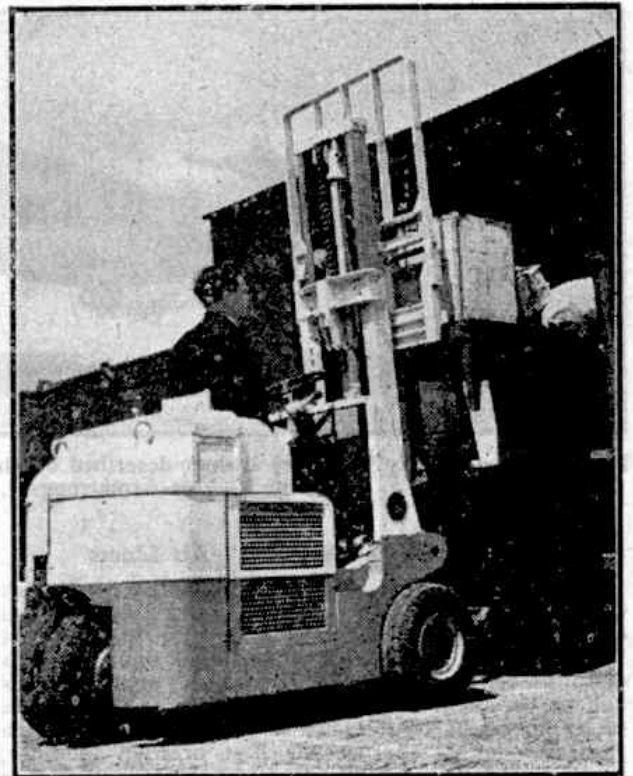
A special feature of the truck is the hydraulic steering mechanism, which avoids the use of linkage joints, which are liable to wear and require constant maintenance. Another effect is the elimination of road shocks to the steering wheels when travelling over rough ground. There are two forward speeds and two

reverse, controlled by two gear levers, and the final drive is through a worm and worm-wheel and a differential. Hydraulic brakes are provided on the front driving wheels, and there is a hand brake for parking.

In the standard model the load is carried by two fingers or forks extending from the front of the truck. These are tilted and lifted by the power unit through hydraulic mechanism operated by a pump, the valves of which are worked by means of two hand controls conveniently placed for the operator.

The fork lift truck is particularly suitable for use with pallets consisting of a flat wooden or steel framework with an upper surface on which material is stacked and a lower one that rests on the ground. Between the two is a space into which the forks can enter, and the framework is suitably braced to give strength and rigidity.

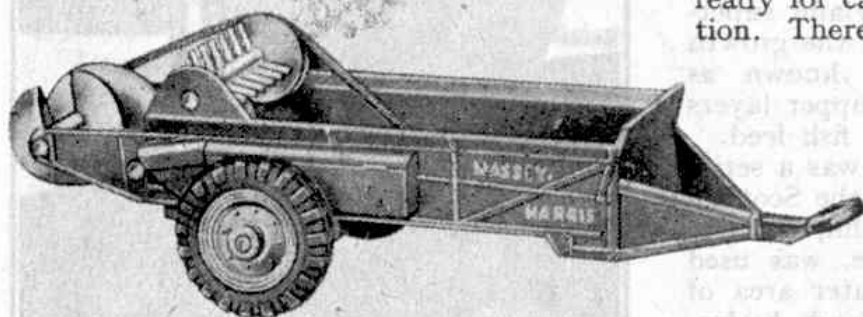
It is interesting to watch a Coventry Climax fork truck in operation and to see how easily and speedily it carries out its work. When picking up a load the tilt lever is depressed so that the mast carrying the lifting forks tilts slightly forward, bringing the top surfaces of the forks parallel with the ground. The forks are then lowered sufficiently to enable them to enter under the load, which they do with the minimum of (Continued on page 430)



Loads can be placed inside a railway van, or taken out of it, by the fork lift truck.

# New Dinky Toys

Coventry Climax Fork Lift Truck, Ford "Fordor" Sedan,  
Massey-Harris Manure Spreader, Grass Cutter

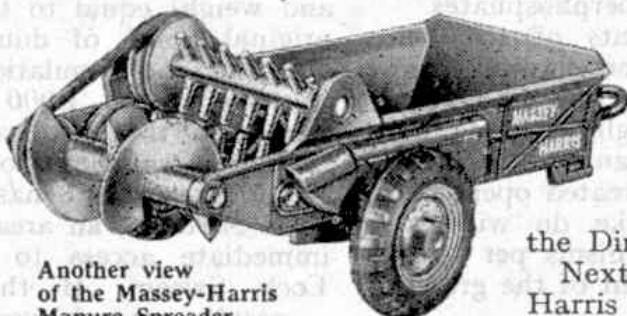


Massey-Harris Manure Spreader, Dinky Toys No. 27c.

**T**HIS month we have a good range of new Dinky Toys, all very interesting and entirely different in type. The first is the Coventry Climax Fork Lift Truck, Dinky Toys No. 14c, an outstanding production. Its prototype is the ingenious machine described and illustrated on page 416 of this issue, which has been introduced to reduce the handling costs of materials of all kinds and to speed up operations in works, warehouses and docks.

The Dinky Toy runs on three wheels, two in front and one behind, so that three-point suspension is provided, giving stability on uneven ground. A miniature driver is seated at the car type steering wheel. The carrying and lifting mechanism is in front of the machine. The carriage has a good backrest and two projecting fingers or forks that slide under the load to be lifted, and it is raised up the mast on which it is mounted by turning a handle at the side.

It is easy to run the truck forward, to pass the forks under the load to be lifted, and then to raise this by means of the handle until it is clear of the ground and



Another view of the Massey-Harris Manure Spreader.

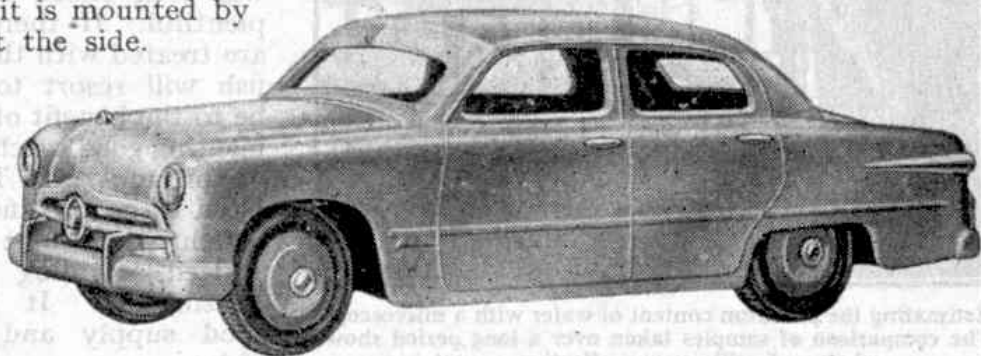
ready for carrying to its intended destination. There if necessary it can be raised to the full height of the mast. This model is indeed a handsome addition to the Dinky Toys series.

The Grass Cutter, Dinky Toys No. 105e, is a simple but attractive addition to the gardening range. It is a miniature of the light type of lawn mower used in thousands of small gardens. The drive is taken from the side wheels instead of from the roller, as in the larger Lawn Mower, Dinky Toys No. 751. The cylinder, with its six blades, revolves in a most realistic manner, and underneath there is the sole plate over which the blades pass in turn.

This miniature will be recognised at once as just the companion for the Garden Roller and Wheelbarrow—already included in

the Dinky Toys range.

Next we come to the Massey-Harris Manure Spreader, Dinky Toys No. 27c, an attractive miniature of an agricultural implement that has fascinating movements. Those who have the splendid Massey-Harris Tractor, Dinky Toys No. 27a, naturally look for something to haul with its aid. The Harvest Trailer, Dinky Toys No. 27b, has proved very popular for this purpose. The Manure Spreader introduced this month will prove equally fascinating when



Ford "Fordor" Sedan, Dinky Toys No. 139a.

towed behind the Tractor, and its mechanism will give it added interest.

The original of this fine new model, like the Dinky Toys Tractor, is a Massey-Harris product. Its use saves hours of labour on the farm, while ensuring that the manure used is spread evenly over the fields. The actual spreading is carried out by means of a distributor worm mounted at the rear; and two cylindrical beaters provided with rows of teeth, one fitted above the other, beat out the manure and feed it on to the distributor worm. The distributor worm and the two beaters rotate smartly as the spreader is hauled along over the fields, the various drives being carried out by means of sprockets and chains; and there

the makers on its sides. In front there is a substantial yoke with an eye that engages with the rear hook of the Massey-Harris

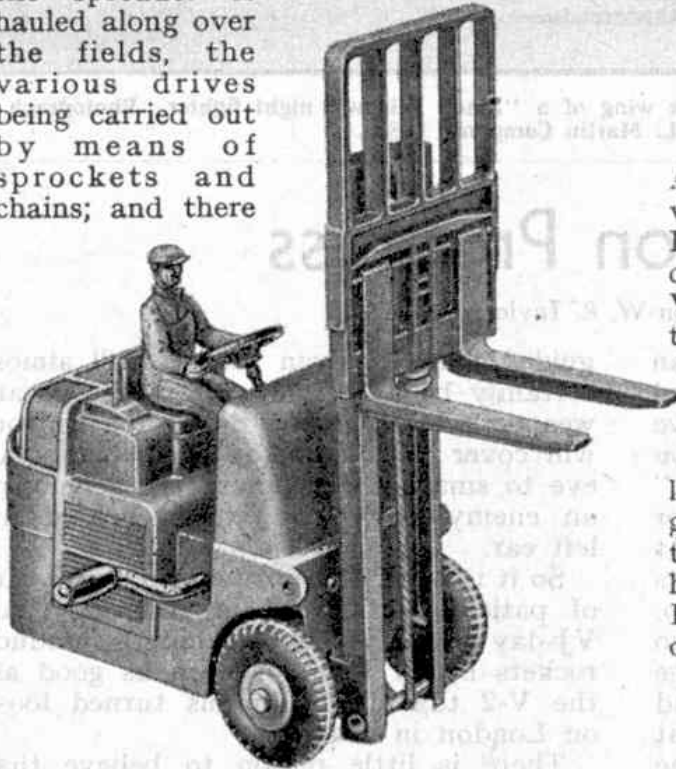


Grass Cutter, Dinky Toys No. 105e.

Tractor.

The car reproduced in our fourth new Dinky Toy this month is the 1949 product of the Ford Motor Company. This

American car is a large and handsome vehicle with many outstanding features. Its 100 h.p. engine is v-shaped, with eight cylinders, and is of entirely new design. Various types of body are available and the one chosen for the Dinky Toys miniature is the "Fordor" Sedan, every external feature of which is beautifully reproduced. It has the up-to-date styling characteristic of many of the latest motor cars, with the now familiar grille set low in the front. In the model this is finished in correct tone, as are the heavy front and rear bumpers. Every Dinky Toy enthusiast will be delighted to own this outstanding miniature.

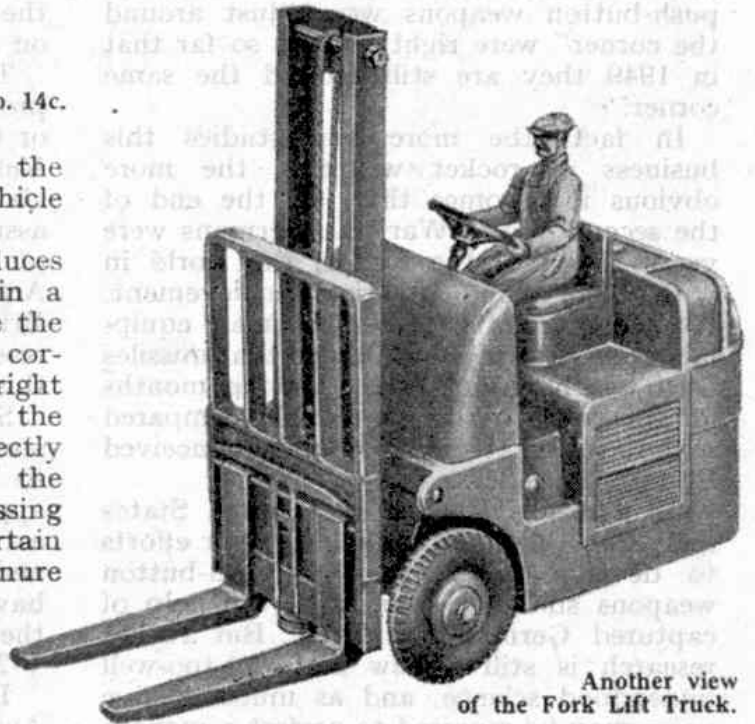


Coventry Climax Fork Lift Truck, Dinky Toys No. 14c.

is also a mechanism that carries the manure backward in the body of the vehicle to supply the beaters.

The Dinky Toys miniature reproduces the chief features of the original in a strikingly realistic manner. There are the two beaters, armed with teeth and correctly placed, and behind them, right at the back of the implement, is the distributor worm. All of these are correctly driven from the two road wheels of the vehicle by means of Spring Cord passing over pulley wheels, which gives certain and attractive movement as the Manure Spreader is hauled along behind its Tractor.

The body of the Manure Spreader is handsomely enamelled in red, with yellow wheels, and has the name of



Another view of the Fork Lift Truck.

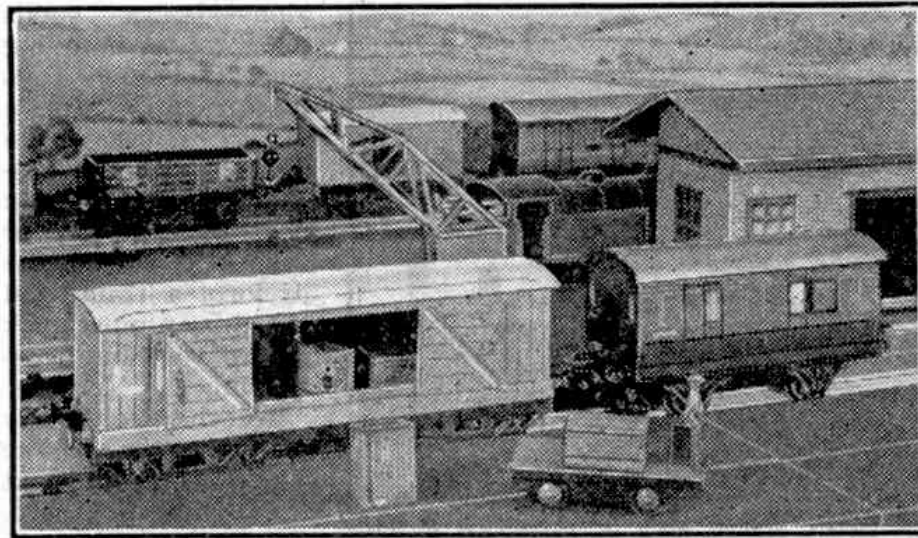
# Loading Hornby Goods Trains

**A**FTER a Hornby Train owner has become used to the running of his train and begun to develop his railway and the operations carried out on it, one of the first things he does, usually, is to provide loads of some sort for his goods wagons.

Many younger boys do tend to overload their wagons, particularly by filling them up with materials like small stones or sand; or even, on special occasions, with coal. Another point is that if a wagon filled with any of these loose materials is overturned, there is liable to be domestic trouble!

Such materials can be used in the form of a thin layer fixed in position. Cut and bend to shape a false bottom of card, something like the lid of a box, to fit inside each open wagon. The top surface of this "lid" should be coated with glue, and then have sand or stones, or other materials, sprinkled on. When the glue has set, the loose material should be removed.

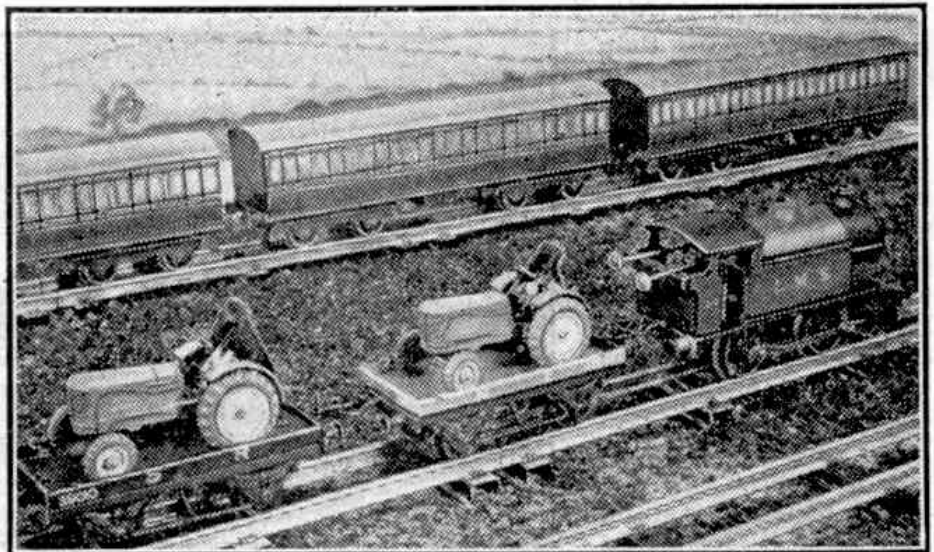
Good use can be made of various Meccano Dinky Toys for loads, as well as for their normal use alongside the railway. The lower illustration shows part of a consignment, in miniature, of Massey-Harris Tractors loaded on Hornby Flat Trucks. The upper picture shows an interesting use of the B.E.V. Electric Truck, which is a handy vehicle for either goods or passenger station work.



Parcels traffic in full swing. A Dinky Toys B.E.V. Electric Truck is a useful vehicle on a Hornby railway platform.

The simplest loads for ordinary open Wagons are found in quite common articles such as empty matchboxes, cotton reels and various similar things that can be found in every household. These can be used as they are, or ingenious boys can convert them with the aid of a little glue, card or wood strips and paint, into quite respectable cases, crates, drums and so on. Goods of this kind look well in wagons, or they can be loaded into Hornby Vans which have sliding or opening doors that make this possible. In addition a varied collection of such merchandise gives a fine busy look to the goods platform or loading bank.

These loads have the advantage of lightness so that they do not have any noticeable effect on the running of the engine. The power of clockwork engines is restricted, so we must arrange our loads accordingly.



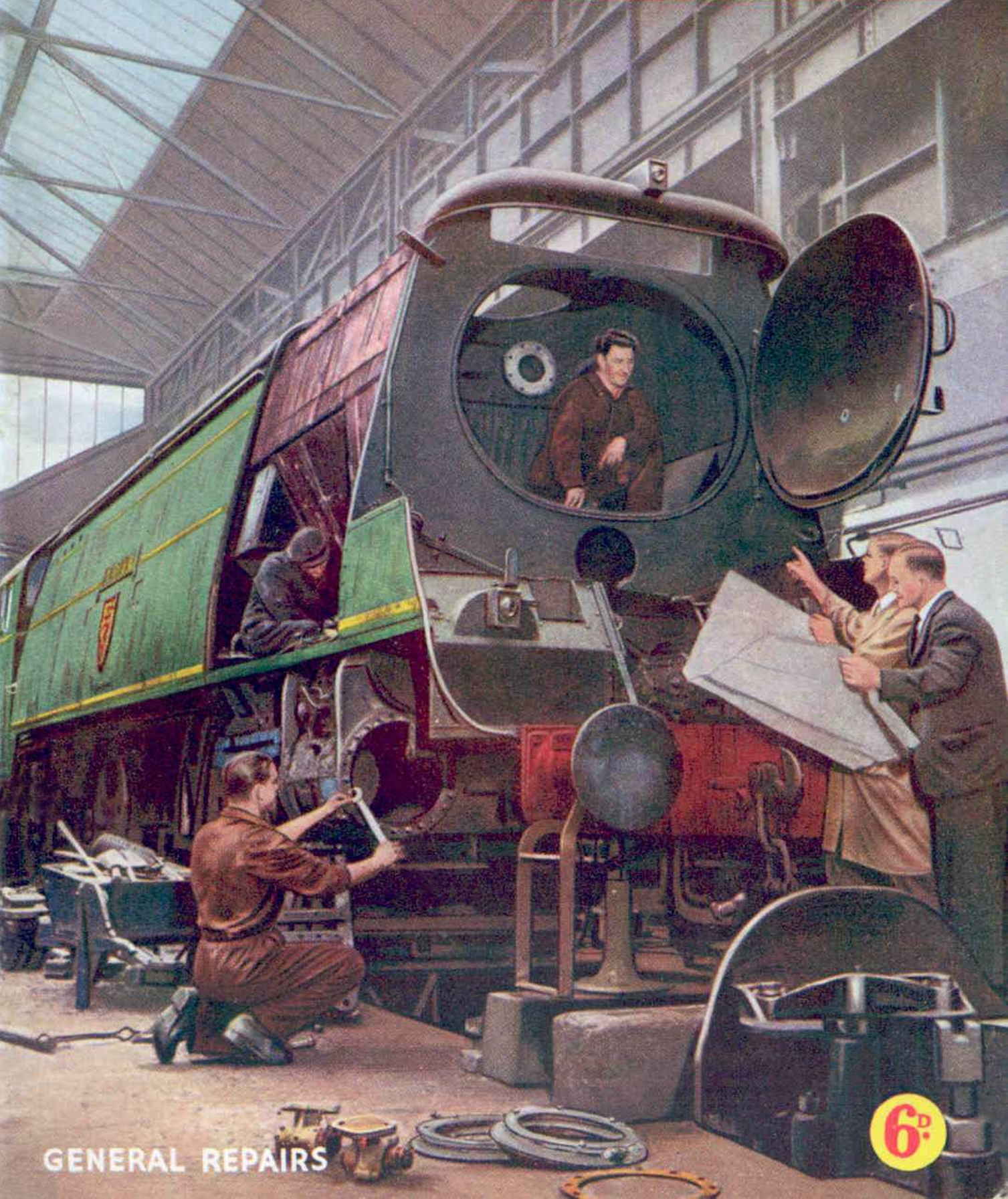
Dinky Toys Massey-Harris Tractors ready for their journey on a Hornby railway. The Hornby Flat Truck is ideal for such loads.

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DECEMBER 1949

# MECCANO

## MAGAZINE



GENERAL REPAIRS

6<sup>d</sup>

# DINKY TOYS



Wheelbarrow  
No. 105b  
Price 1/2 each



Coventry Climax Fork  
Lift Truck, No. 14c  
The loading carriage is raised  
by turning a handle.  
Price 5/9 each



B.E.V. Electric Truck  
No. 14a  
Price 1/11 each

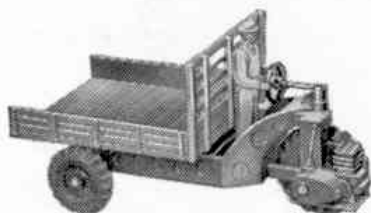


The Standard "Vanguard"  
Saloon, No. 40e  
Price 1/9 each



Massey-Harris Tractor  
No. 27a  
Price 3/2 each

**NEW**  
READY DURING THE  
MONTH



Motocart  
No. 27g

This interesting three-  
wheeled farm truck has a  
high-fronted tipping body.

Price 4/6 each



Bedford End Tipper  
No. 25m  
Price 4/3 each



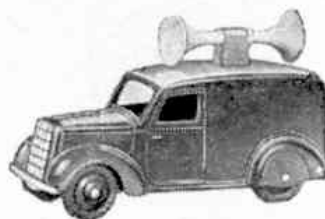
Ford "Fordor" Sedan  
No. 139a  
Price 2/6 each



Harvest Trailer  
No. 27b  
Price 2/10 each



4-wheel Hand Truck  
No. 105c  
Price 1/11 each



Loud Speaker Van  
No. 34c  
Price 1/3 each



Grass Cutter  
No. 105e  
Price 1/8 each



Bedford Refuse Wagon  
No. 25v  
Sliding covers, tipping mechan-  
ism, opening rear door  
Price 4/9 each



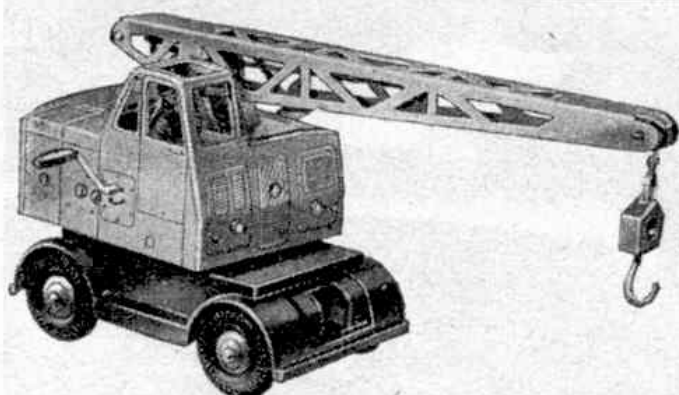
Massey-Harris Manure  
Spreader, No. 27c  
Price 3/9 each

All the above prices include Purchase Tax

MADE IN ENGLAND BY MECCANO LIMITED



# SUPERTOYS



**NEW**

READY DURING THE MONTH

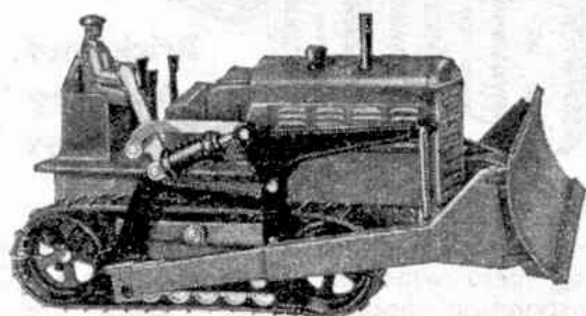
**Dinky Supertoys No. 571  
Coles Mobile Crane**

This fine model of a mobile crane has hoisting, jib-raising and slewing movements.  
Price 9/11 each



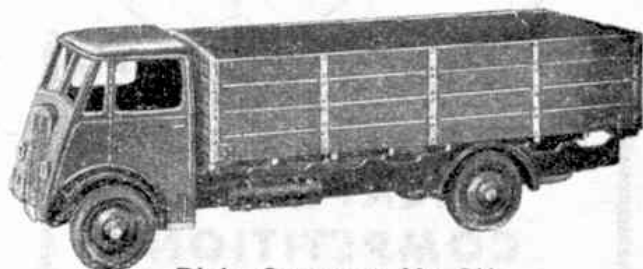
**Dinky Supertoys No. 514  
Guy Van**

Large capacity van body, with opening double doors at rear.  
Price 5/8 each



**Dinky Supertoys No. 561  
Blaw Knox Bulldozer**

This wonderfully realistic miniature runs on creeper track and the blade is raised or lowered by a lever.  
Price 10/8 each



**Dinky Supertoys No. 511  
Guy 4-ton Lorry**

Price 4/5 each.



**Dinky Supertoys No. 504  
Foden 14-ton Tanker**

Price 8/6 each



**Dinky Supertoys No. 562 Dumper Truck**  
Adjustable front wheels, tipping bucket, reversible driving seat.

Price 6/- each

All the above prices include Purchase Tax

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