Latest Dinky Toys Achievement

AUSTIN 7 COUNTRYMAN

What lies behind the planning and the making of a new Dinky Toys model? In this article *The Editor* takes the reader through the detailed steps which are necessary before a new Dinky Toys miniature can find its way into countless thousands of homes throughout the world.

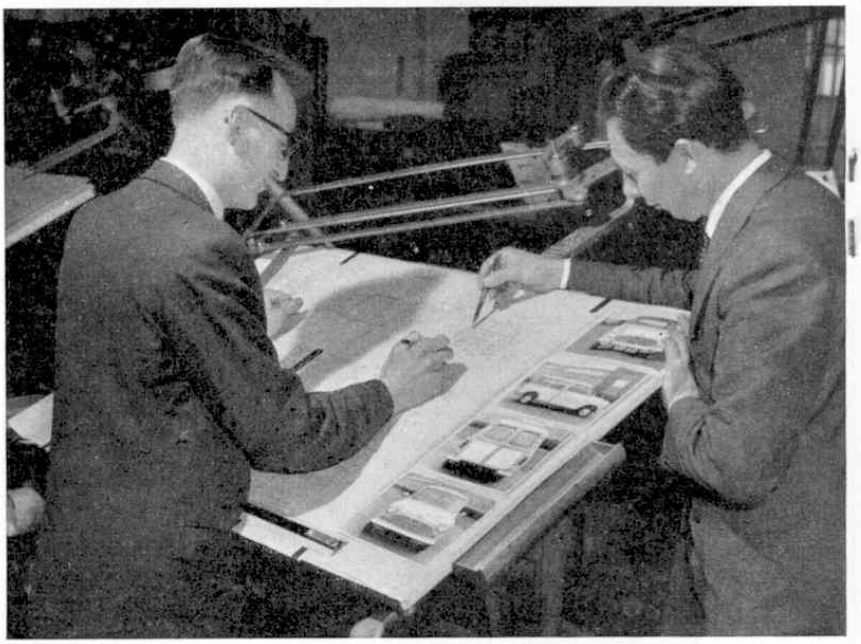
THE fine new Dinky Toys model of the Austin Seven Countryman released by Meccano Limited in April is pouring off the production lines at the rate of thousands a week. Neatly packed in the striking red and yellow boxes which are the hallmark of Dinky Toys, the new model is being distributed to dealers not only in this country, but also in many countries abroad.

Its appearance is the culmination of many months of effort and close co-operation between the Austin Motor Company and Meccano Limited.

The actual Austin Seven Countryman is the half-timbered brother to the sensational Austin Seven Saloon. By comparison with the saloon, which became world-famous overnight, the Countryman has an extended wheelbase and a longer tail. The Dinky Toys model, beautifully finished in Austin Speedwell blue, has four-wheel suspension, transparent windows and "finger-tip" steering.

Just what is involved in the making of a Dinky Toy when it is decided to produce a sparkling, up-to-the-minute model such as the Austin Seven Countryman?

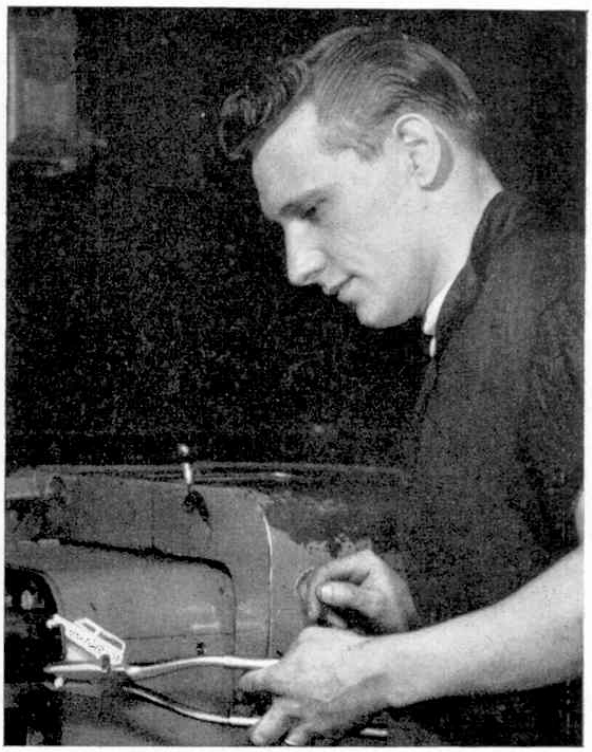
The most important thing in these days, when toy cars have got to be exact replicas of their grown-up brothers, is complete liaison between the makers of the actual car and the makers of the toy itself. This very essential part of the job was carried out to the full between the Austin Motor Company and Meccano Limited in the production of this fascinating new model.



A discussion on the Austin Seven Countryman in the Drawing Office at the Binns Road Factory of Meccano Limited (top picture). Below: The patternmaker at Binns Road prepares a wooden model of the new vehicle.

It called for the interchange of precise information, much of which was of a confidential nature, and it meant that long before the actual model was put on the market some of the secrets of that car had to be known by keymen at Meccano Limited, where the thousands of replicas were ultimately to come off the production lines.

Production planning, began, of course, long before the model was announced. The all-important initial step was to approach the Austin Motor Company for photographs of the vehicle and general arrangement drawings. From these, new drawings were prepared for the Dinky Toys model itself at Meccano Headquarters in Binns Road, Liverpool, where design draughtsmen are continuously at work preparing drawings for a wide variety of new models. The miniature cars themselves are turned out both at Binns Road and at another huge factory at Speke, on the fringe of Liverpool. With these two factories to draw upon Meccano Limited are able to put millions of models on to the market every year.



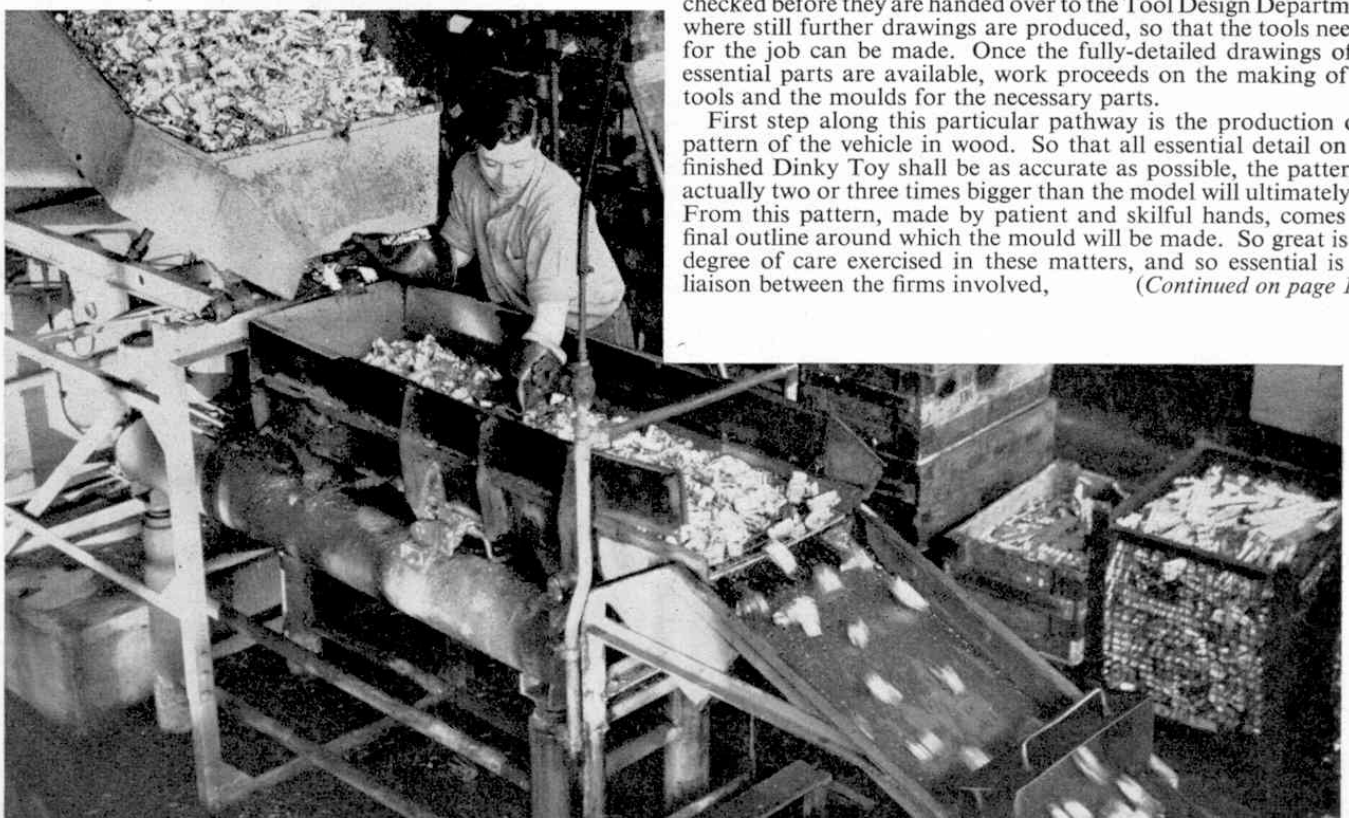
Removing the metal body of the new model from the die-casting machine.

Above: The toolmaker at work. In the lower picture you see hundreds of metal castings of the new model going through the separator.

Let us pursue further the specific example of the Dinky Toys model of the Austin Seven Countryman. While plans are being drawn of the car body, fully-dimensioned drawings have also to be prepared of the base, which carries the wheels and the arrangement for springing and "finger-tip" steering, and the interior of the car, which must accommodate seating, dashboard, steering wheel, etc.

Once the plans have been drawn up they must be meticulously checked before they are handed over to the Tool Design Department, where still further drawings are produced, so that the tools needed for the job can be made. Once the fully-detailed drawings of all essential parts are available, work proceeds on the making of the tools and the moulds for the necessary parts.

First step along this particular pathway is the production of a pattern of the vehicle in wood. So that all essential detail on the finished Dinky Toy shall be as accurate as possible, the pattern is actually two or three times bigger than the model will ultimately be. From this pattern, made by patient and skilful hands, comes the final outline around which the mould will be made. So great is the degree of care exercised in these matters, and so essential is the liaison between the firms involved, (*Continued on page 170*)



Here are more pictures from the Meccano Factories in Liverpool. Above: Putting the body castings in place on holders ready for spraying. Below: (right) The final touching up process which ensures protection in the finish of the vehicle and (left) the last inspection which precedes the trial run. A vehicle that has just passed the final scrutiny is seen on its journey down the test chute.

Assembly of the base and body of the new Dinky Toys model.

that when the pattern has been made it is taken to the car manufacturer for a last-minute, final check up on even the most minute details to ensure that the body casting which is to follow shall be as near perfect as is possible.

Once the patternmaker's work has been approved, plaster casts are made to establish the form of the mould. Related to this is the production of the die-casting tool which will eventually produce the hundreds of thousands of castings of the new model.

The actual body of the Austin Seven Countryman—and, of course, all Dinky Toys models—is cast in zinc alloy. This is of immense strength to withstand the knocking about which children can give to toys, and to cope with such situations as dropping a toy or knocking it off a table by accident. The bodies are formed within the mould by a die-casting machine when molten metal is forced at great pressure into the cavity formed by the die-casting mould. The metal solidifies almost instantly and is cool enough to be ejected from the tool without fear of distortion taking place.

Once the car body leaves the die-casting section, it proceeds to the Roto-Finishing machine which consists of a very large hexagonal barrel, revolving horizontally. There is a line of these huge steel barrels which are filled and emptied from a mobile hopper running along their front. Each barrel is loaded with castings and a measured quantity of stones which to all outward appearances are rather like the small pebbles you find on the sea shore during the summer holidays. Each barrel, too, holds a quantity of water but, although it is fairly well packed, there is always room for movement inside as the barrel revolves. The stones, being of mildly abrasive character, come into contact with the zinc bodies and remove the sharp edges, giving them a very fine, smooth finish.

After barrelling, the trimmed castings and stones are discharged into the hopper which moves them along to a separator specially designed to free the castings from the stones of the Roto-Finishing plant. Castings and stones are dropped on to a separator tray which has a wire mesh deck. This is rapidly vibrated by hydraulic power and the mesh is so adjusted that the stones fall through to a lower deck, leaving the castings on top. Both stones and castings are shaken along on their respective levels to receiving hoppers, where the castings are collected for the next process and the stones are returned to one or other of the Roto-Finish barrels.

The next process for the castings is the giant phosphating plant where they are dipped in a chemical solution to ensure maximum adhesion when the enamel is applied. During all the processes mentioned and, indeed, until the end of their

The striking realism of the Dinky Toys model of the Austin Seven Countryman—and the Morris Mini-Traveller, which is referred to on the next page—is seen in the photograph above, where the models have been used to represent a scene outside a distribution centre.

Real Austins this time—pictured outside the Austin Factory in Birmingham.