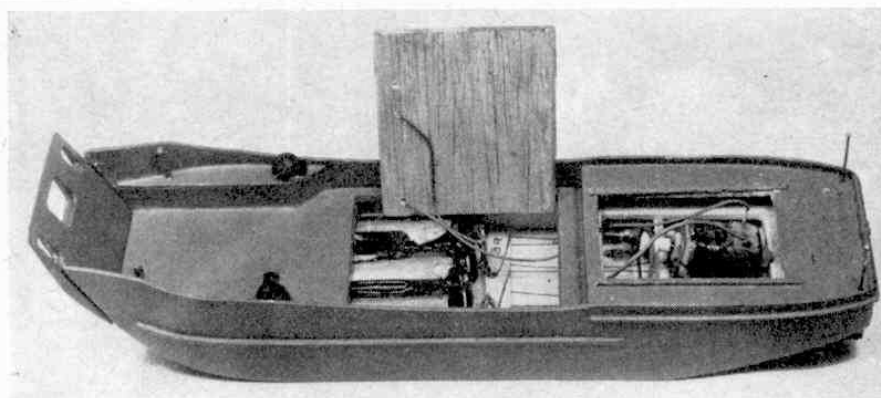


## A simple working Car Transporter

This little model is cheap and easy to make and performs extremely well. Takes small Dinky and similar die-cast cars



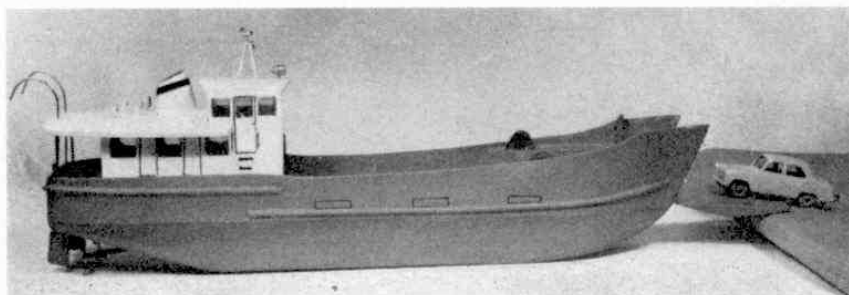
THIS SIMPLE LITTLE WORKING MODEL first appeared as a full-size plan ten years ago in "Model Maker" and there have been many requests since for the plan to be made available again. With its obvious tie-up with small die-cast cars and its very simple and inexpensive construction, Meccano Magazine seems an ideal place to reintroduce it, so here we are.

The design is based very broadly on the "Thames Transporters" built by the Thames Launch Works Ltd. at their yard at Eel Pie Island. Scale is approximately 1/72, which means it fits the smaller die-casts and is also close to 00 railway size, making it an attractive subject for a bit of scenic work with a dock or creek, etc. One sheet of  $\frac{1}{8}$  in. balsa and one of  $\frac{1}{16}$  in. are the main requirements, plus some scrap (a balsa pack would be fine) and a few inches of brass tube. The electric motor (any inexpensive one up to 1 in. wide), pulleys, and other odds and ends are available through most model shops.

First trace the main or landing deck on the  $\frac{1}{8}$  in. sheet; cut out and cut the battery and motor hatches.

Cut and cement in place B1, B2, B3, B4, and the stern plate, all  $\frac{1}{8}$  in. A wedge across the stern plate makes a good joint, as sketched. Cement in the stern tubes, 16 s.w.g. brass tube; these are so short that there should be little chance of their being out of straight, so that bushed tubes are unnecessary. Cut and cement in a  $\frac{1}{8}$  in. sheet motor mounting plate at the same angle as the shaft tubes; the motor (we used an Orbit 205) can be glued or screwed to this. Use a small (Ripmax white) pulley on the motor and  $\frac{1}{2}$  in. (blue) pulleys on the shafts. Cut B2 away as necessary to ensure that the pulleys or the rubber band round them do not foul. Now add the after deck (line up carefully) and the rudder tubes. If you have a 18g tube, use it, but 16g can be used to save buying two sizes. Cement the tubes thoroughly and re-cement when the first application is dry.

Now cut the "straight" part of the sides, grain along, from  $\frac{1}{16}$  in. sheet and cement in place. The bottom from B2 to B1 can be added to make it easier to hold; cover the bottom with 3 in. wide strips, grain from side to side. Trace and cut the end side pieces,



Two evenings should suffice to make this model—plus another two for painting. Picture of the insides, above, shows the motor and pulley arrangement, and also that the battery has had its card case removed. Wires to underside of hatch are for the car-operated main motor switch.

Simple propellers cut from tin, using an old pair of scissors or, if available, tinsnips, are efficient and drive the model at a smart clip. Take care when cutting the tin not to cut your hands!

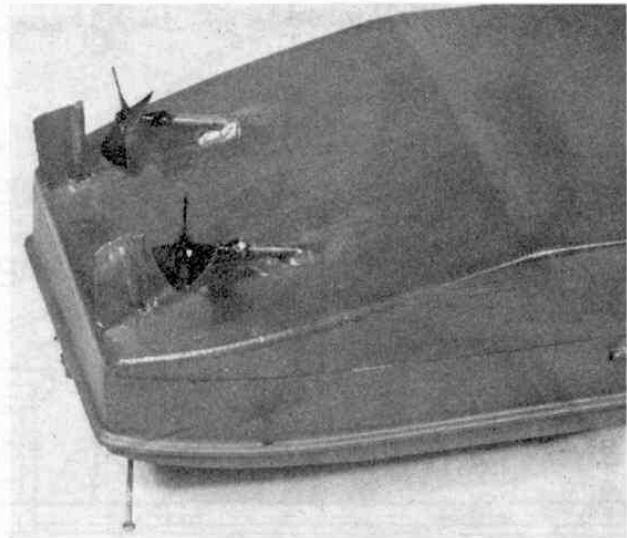
grain vertical, and allow  $\frac{1}{16}$  in. in length for trimming exactly to fit. Cement and pin the bow pieces to the flat part of the sides and the deck, but before the cement is dry slip a 2 in.  $\times$   $1\frac{1}{4}$  in. rectangle as a packing piece between the extreme bow ends; this will put a slight rake on the sides and leave the bow aperture square. Sheet the bottom in and allow to dry before removing the packing piece. The stern pieces just need pinning to the curve until dry, when the after ends can be cleaned up and the transom added. To complete the basic hull, cut and cement in the winch platforms at the bow and add the rubbing strips from thin strips of  $\frac{1}{16}$  in. A capping of thin card or paper can be glued round the bulwarks if desired.

The ramp door is cut from a scrap of  $\frac{1}{4}$  in. sheet or two laminations of  $\frac{3}{8}$  in. and sanded to shape. Note the cut-outs at the "top" end. The door can be cemented in place or hinged with a scrap of silk and retained in the up position by rubber bands to the winches. Since the model rides with the door clear of the water, leakage is no problem; if a lot of weight is to be carried it is best to move the battery aft so that the ship is trimmed slightly stern down—not an unusual trim with the full-size version.

Cut superstructure parts (it helps to avoid splitting if you cut the windows before cutting each part out) and assemble. Note that the after part of the wheelhouse extends below the top of the sides. Cut the cabin top (grain fore and aft) and warm to the approximate camber; note that the centre butts to the wheelhouse but the sides extend forward slightly. The wheelhouse top is straightforward. Carve the funnel from  $\frac{1}{2}$  in. scrap. Cement a thin card vertical coaming round the after deck hatch to position the superstructure, and cement acetate sheet behind all windows.

Details are few—a central bollard aft and two mooring posts forward, a small tripod mast, nav. lights, two lifebelts, and four cowl vents dress the model adequately. These can all be made from scraps of dowel, wire, etc. or pirated from an old plastic kit model which has had its day. Two large pins or thin wires attached to the hull only make awning stanchions, and if desired a pair of davits can be fitted at the stern and an anchor davit at the bow. Scuttles, doors, ladder rungs, etc. can be drawn on with a mapping pen after painting.

Sand the model all over and apply several coats of sanding sealer, inside as well as out. Tissue covering is desirable but with four coats of sealer and two of



paint is not essential. Use flat grey paint for hull, deck, inside of bulwarks, ramp, etc., red oxide for hull below waterline, and white for superstructure.

An Ever-Ready 1289 4 $\frac{1}{2}$ v. flat battery will just slip in the hull; position it to trim the model and cement a couple of scraps of wood to the bottom to prevent movement. If the battery is a tight fit, one side of the case can be stripped off. Connections can be made with paper clips; a switch is useful and can be contrived by using one of the cars, the weight of which will hold contacts together. Alternatively, if a strip of wood is glued beneath the car it can be arranged to close contacts when the car is twisted slightly. Other forms of switch will also suggest themselves.

When painting is completed, make and fit the rudders in place and solder washers to the heads or bend loops in the ends of pieces of wire and solder to the rudder heads, forming tillers. A slip cut from an ordinary eraser can then be glued under the tillers for friction adjustment. The propellers are cut from tinsplate, cleaned up with a file, and soldered to the shafts. Twist each blade to approximately 15 degrees; more twist can be put in experimentally to find top speed and economic battery life, depending on the motor used.

The all-up weight of the model, with cargo, should be about 10 ozs. which will bring it to within  $\frac{1}{8}$  in. of the waterline. Weight without cargo but with battery was almost exactly 7 ozs. on the original.

## Full-size working plans overleaf

**PROOF BY THE PEN** (Continued from page 171)

The certainty of the findings is due to the fact that, in this age of mass production, no two machines can ever leave a factory absolutely identical. Furthermore, with the wear and tear that is inevitable in the everyday commercial life of such a machine, minute differences in the impressions left by the type can be distinguished. The actual type letters show signs of wear which are identifiable under mag-

nification and, when a comparison type is obtained, can be enlarged for production at court with the distinctive points indicated as with fingerprint identification.

So far no murder enquiry has been solely solved by typewriter identification but, as the science of the document examiner continues to develop, the day will come when this latest branch of their work provides the vital evidence in a capital case.

# Car Transporter

Designed by Vic Smeed

