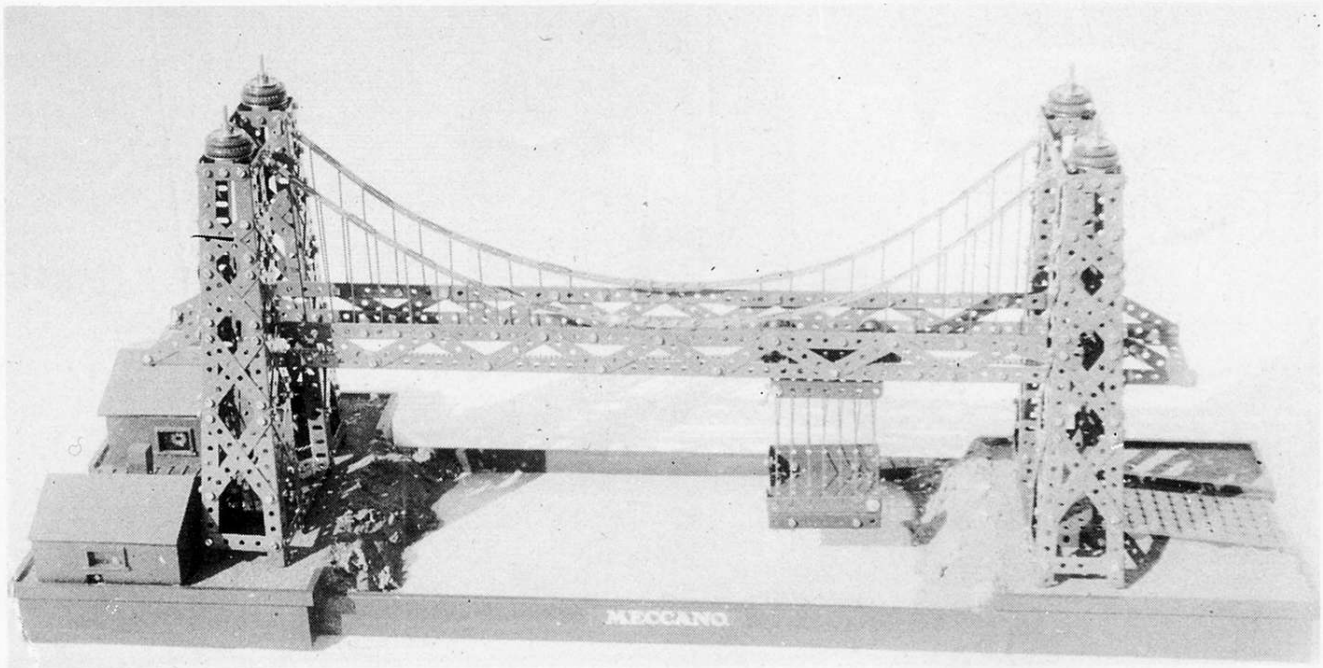
# MINIATURE SUPERMODEL!




**This main view shows to advantage the high degree of realism, and excellent proportions of Mr. Staveley's Transporter Bridge.**

## A refreshing and original approach to an old Meccano favourite, by VIC STAVELEY

## Photographs by Norman Mason

THIS latest version of the ever-popular Meccano Transporter Bridge IS different, there's no doubt at all about that! Vic Staveley of Blackpool has achieved the best of all that Meccano has to offer in terms of realism, detail, reliable automatic operation and impressive construction, in a model that is immediately distinguished by it's diminutive size.

In fact, it's only three feet long, including the oversize baseboard; this too is exceptional amongst platforms for Meccano constructions in that it is arranged in the form of a diorama. This provides an ideal, some may say beautiful, setting for a fine model, greatly enhancing the already very lifelike appearance.

Although this model is fully comparable in terms of realism to even the pre-war Supermodel 21 Transporter Bridge, it disproves for ever the myth that copious quantities of parts are required to make an advanced model of this nature. The four main pylons are constructed in an almost identical manner by cross-bracing commonly available 12½" Angle Girders with 3½", 3", 2½" and 2" Perforated Strips, arranged so that the four Angle Girders in each pylon lean towards the top to form a 1½" square, from the base area of 2½" square.

Each pair of pylons are connected by a 3½" x 2½" Flanged Plate at the bottom, and two compound 6½" Strips at the top. 2½" Strips are used to connect the next to the bottom holes of the 12½" Angle Girders, except on the sides facing inwards, 1½" Strips perform a similar function at the top. Decoration is provided by short Axle Rods, each carrying a Bush Wheel, 1" Motor Tyre, 1" Plastic Ring and a 1" Pulley, in that order, held in place at the top of each pylon by a transverse 1½" x ½" Double Angle Strip and Spring Clip.

The bridge span is again constructed from the parts most likely to be present in abundance in most Meccano outfits, and it consists of a lower run of Angle Girders, with an upper run of Perforated Strips. 2½" Strips are used to brace the entire span, in the manner depicted. Four 12½" Strips are curved gently downwards, from the two inward facing 6½" compound Strips, meeting at the centre of the span, overlapping five holes, secured at the centre hole by an Angle Bracket to the strips forming the upper run the span on each side. Mr. Staveley has employed thick wire carefully bent, to simulate the supportive steel hawsers of the original. However, Meccano Cord would easily suffice for this purpose if thick wire was not to hand.

The trolley 'crab', from which the travelling gondola is suspended, is formed quite simply from two 3½" x ½" Double Angle Strips joined by two 1½" Perforated Strips, two 3" Axle Rods each carry two ¾" Flanged Wheels, these run along the elongated hole flanges of the Angle Girders composing the lower run of the bridge span. A length of Chain is passed around small Sprocket Wheels supported on Axle Rods journalled seven holes from each extremity of the span, and each end of the Chain is affixed to either end of the trolley.

A small rubber band, used between the Chain and the trolley for fixing purposes, has the advantage of maintaining tension resulting in smoother running. The gondola car floor is composed of a 3½" x 2½" Flanged Plate extended to either side by 3½" Strips, forming a compound 3½" x 3½" square floor with two 2½" flanges. To these flanges are affixed the sides, each comprising one 3½" x ½" Double Angle Strip and a 5½" Perforated Strip, bent to form a 3½" x 1" Double Angle Strip. The lugs of the latter hold 1" x 1" Angle Brackets which support the 3½" Strips extending the floor. Meccano Cord is used to great effect in representing the supporting cables.

Mr. Staveley used the two buildings clearly shown in the view of the model shown above, to conceal the driving motor and automatic reversing gearbox. A 12 volt DC electric motor is situated in the smaller building, a Worm Gear on the motor output shaft drives a 19t Pinion on an Axle Rod that passes under the approachway to the other building containing the gearbox. This is a standard design, using a slide piece pivotally attached to one hole of a 57t Gear to actuate a forward-reverse sliding layshaft via a short Strip pivotting on an Axle Rod, above; a Bolt head on the Strip fitting between the boss of the 38t Gear and Collar, as shown.

With every revolution of the 57t Gearwheel, which is situated just below, and driven by, the Worm in the illustration, the short Perforated Strip held in the Slide Piece is compelled to move to & fro, shifting the layshaft into for-

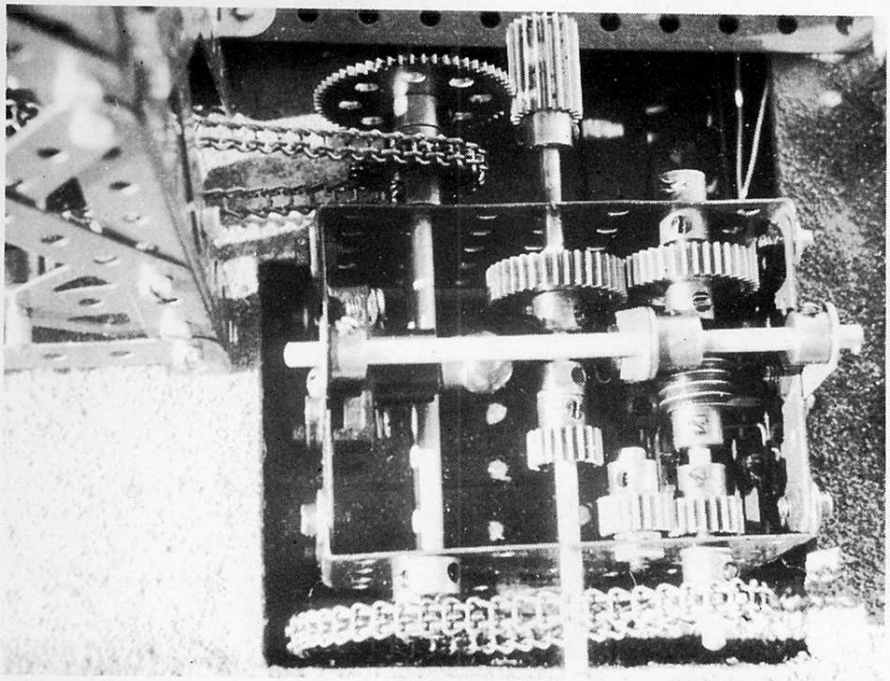
ward, then reverse modes. The Chain drive is then taken from the output shaft, thence via a slip clutch to the trolley drive Sprockets. A slight overrun at each end of the gondola's travel results in the clutch slipping, thus introducing a 'realistic' delay before reverse drive is engaged, allowing time for loading and unloading.

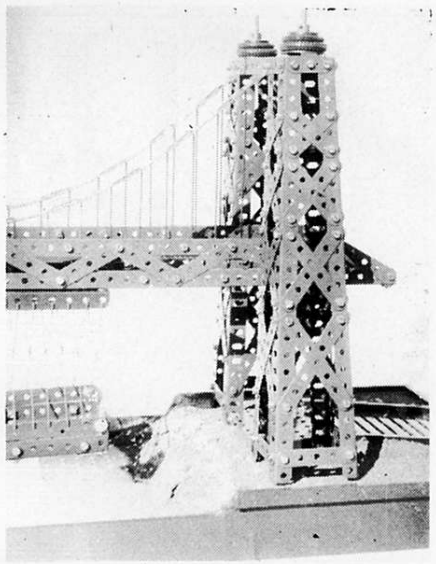
The scenic dioramic setting in which the model is placed provides extra interest, the 'river' is represented by blue paint on the baseboard itself, the buildings & pylons stand on thin plywood covered with standard 'grass' scenic material as used in model railway layouts etc; and the sandy 'banks' are represented by carefully moulded papier mache, again finished by using more standard landscape materials.

At no point are the pylons fixed to the scenic baseboard, it would be highly unlikely that one would find the towers of a real Transporter Bridge fixed to the ground by Angle Brackets and Bolts etc. Vic has taken great care to ensure that this does not occur in his model either. The pylons are affixed only to the Flanged Plates between them, these Plates are then secured to the baseboard by concealed Bolts.

A brilliant red/green colour scheme has been adopted, this even extending to the 1" Motor Tyres and Plastic Rings mounted atop the towers! However, the overall effect is nothing less than splendid, in view of which I'm sure that this & other minor 'deviations' from original finish will be readily forgiven by the crowds of onlookers who will see this fine model operating at Meccano Exhibitions this summer!

**Plan view of automatic reversing gearbox, normally concealed within one of the two model buildings incorporated in the baseboard.**





**The gondola car approaches the end of it's travel. The famous Transporter Bridge at Runcorn provided inspiration for this design.**

# FIRESIDE FUN

## MECCANO WORD SEARCH

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Search for a word either across, down or obliquely. Circle around word to form shape of a perforated Strip e.g. No. of letters in word equals No. of holes in Strip.

WORDS TO BE FOUND

SCREWDRIVER
COMPI "SSION
AXLE
ANGLE
ARM
SUPPORT
SEMI
WINDMILL
WORM
NUTS
THROW
GRUB
END
LOAD
UNIVERSAL
SMALL
SET
RATCHETS
DRIVING
ADAPTOR
FUNNEL
CYLINDER
PINS
MOTOR
JIB
BALL
WASHER
CRANKSHAFT
PERFORATED
HOOK
GEARS
FAN
QUADRANT
SECTION
N.E.M.S.
DOG
LIST
QUIET
BANDS
VALVES
RODS
BRAIN
MOTION
CLUTCH
HINGED
HANK
ANCIENT

47 words to find in total:— almost all Meccano or associated terms.

*DEVISED BY KATHRYN BEADLE*

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TRANSPORTER BRIDGE
BY VIC STAVELEY