VOL. XLVI. No. 4 APRIL 1961

MECCANO MAGAZINE

1/3

OLD-TIMER RUNS AGAIN

FOR BOYS
AND GIRLS

BAYKO

Bayko Main Outfits

No. 11 Outfit	10/6
No. 12 Outfit	18/6
No. 13 Outfit	26/–
No. 14 Outfit	39/6

Bayko Accessory Outfits

No. 11c Accessory Outfit	8/3
No. 12c Accessory Outfit	10/9
No. 13c Accessory Outfit	18/6

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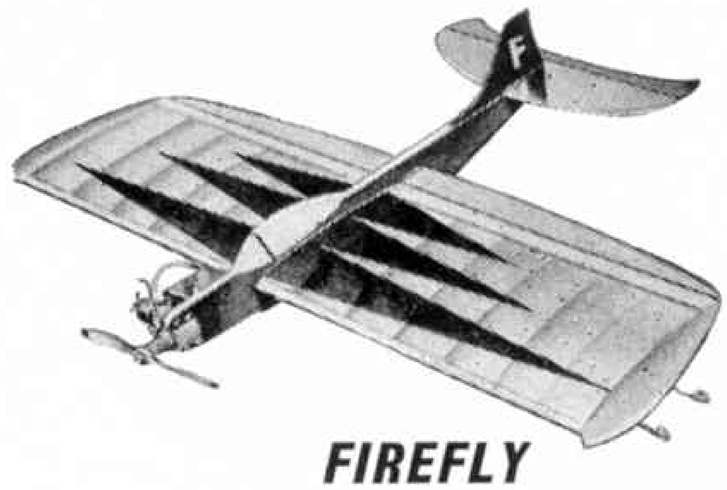

FIREFLY

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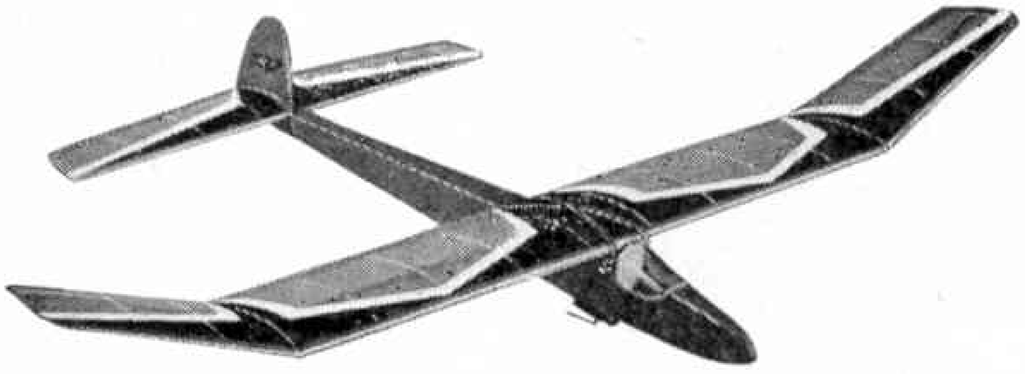

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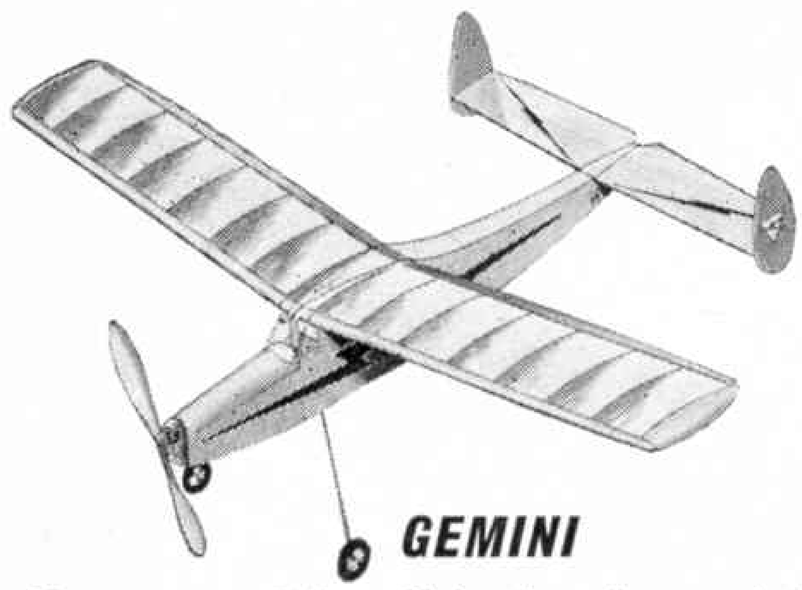

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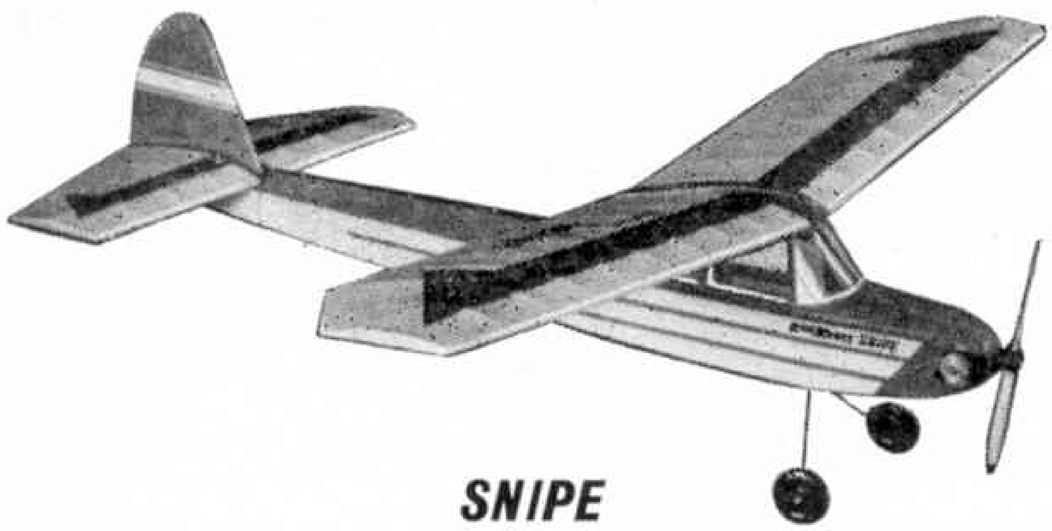

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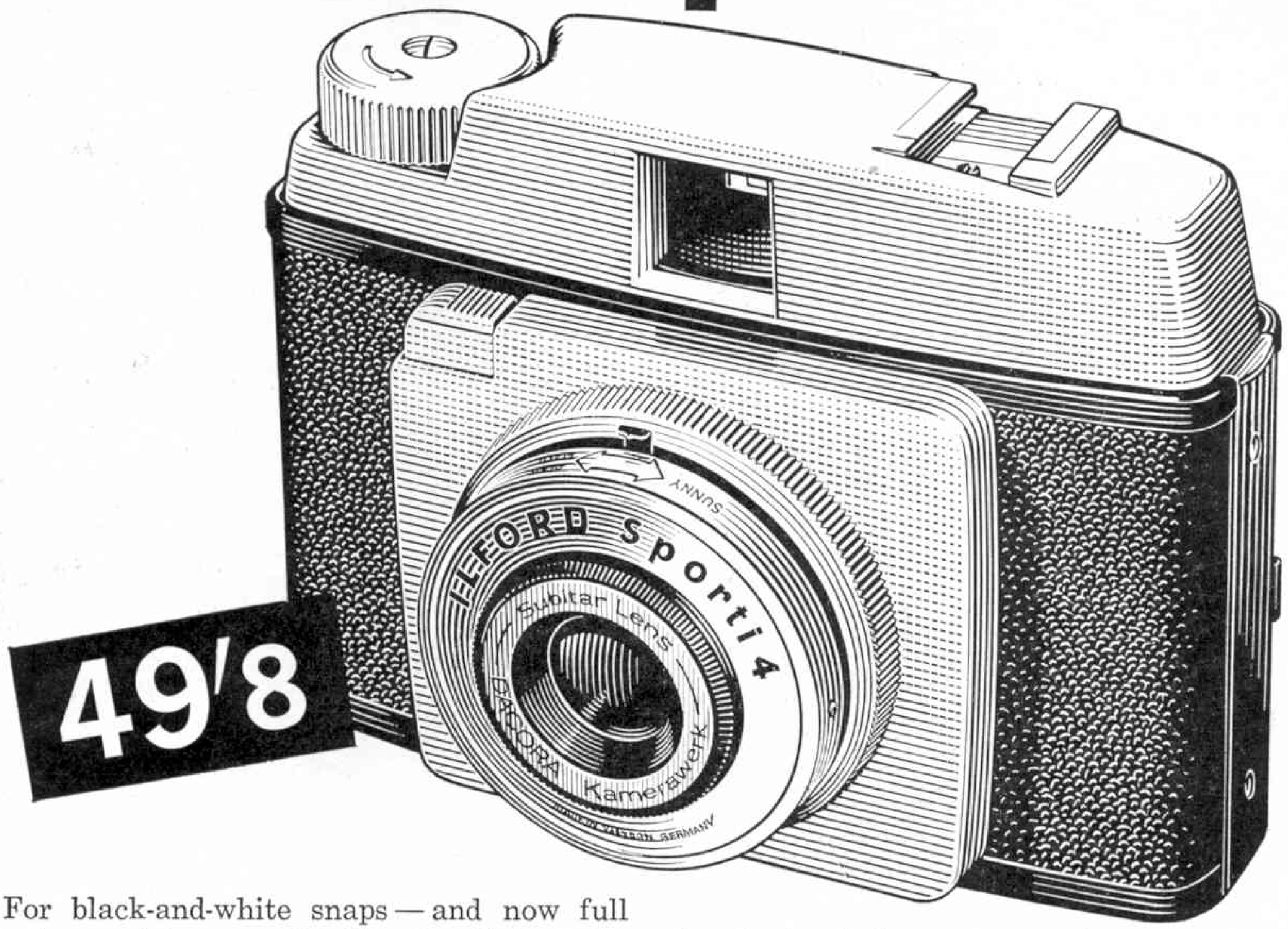

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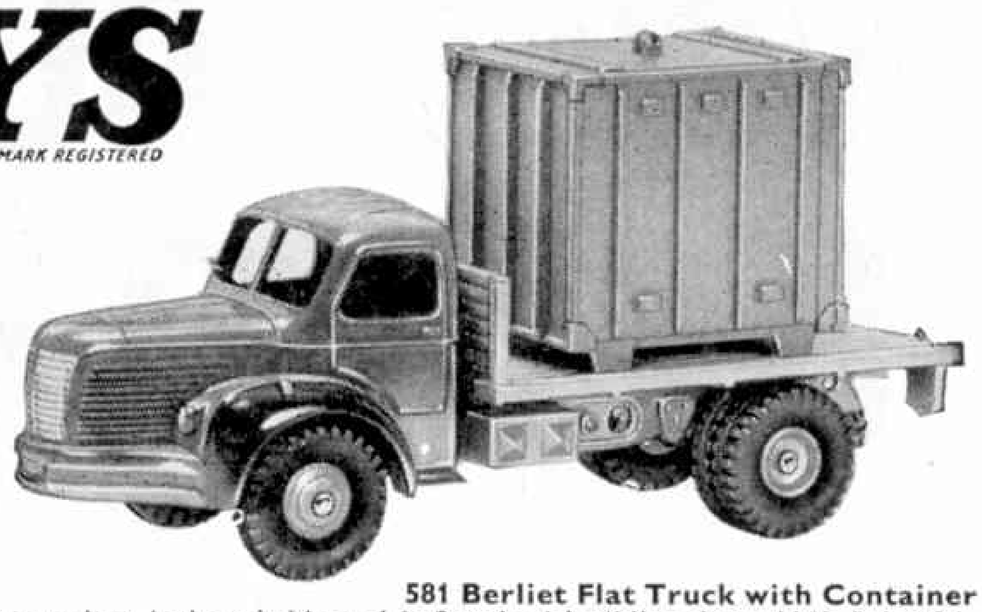
★ ★ ★



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579 Simca Glaziers Lorry
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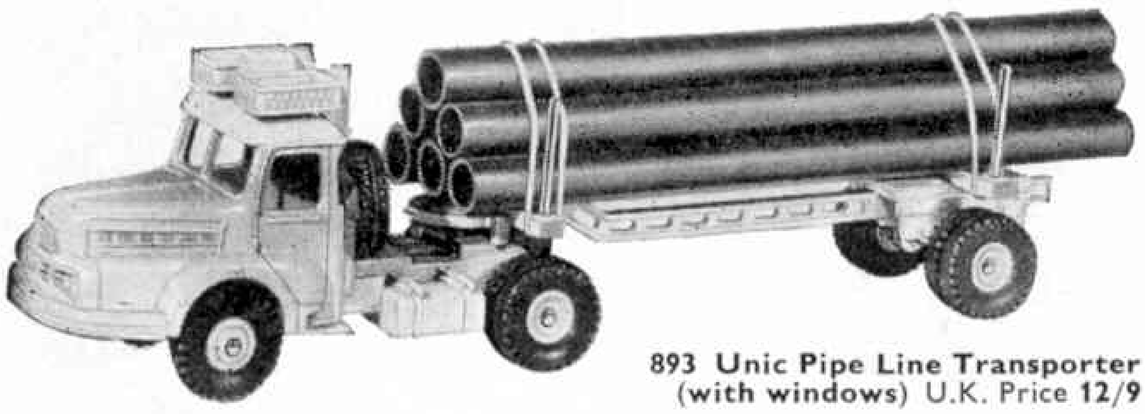

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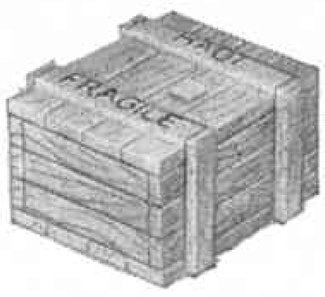
846

847



849

850

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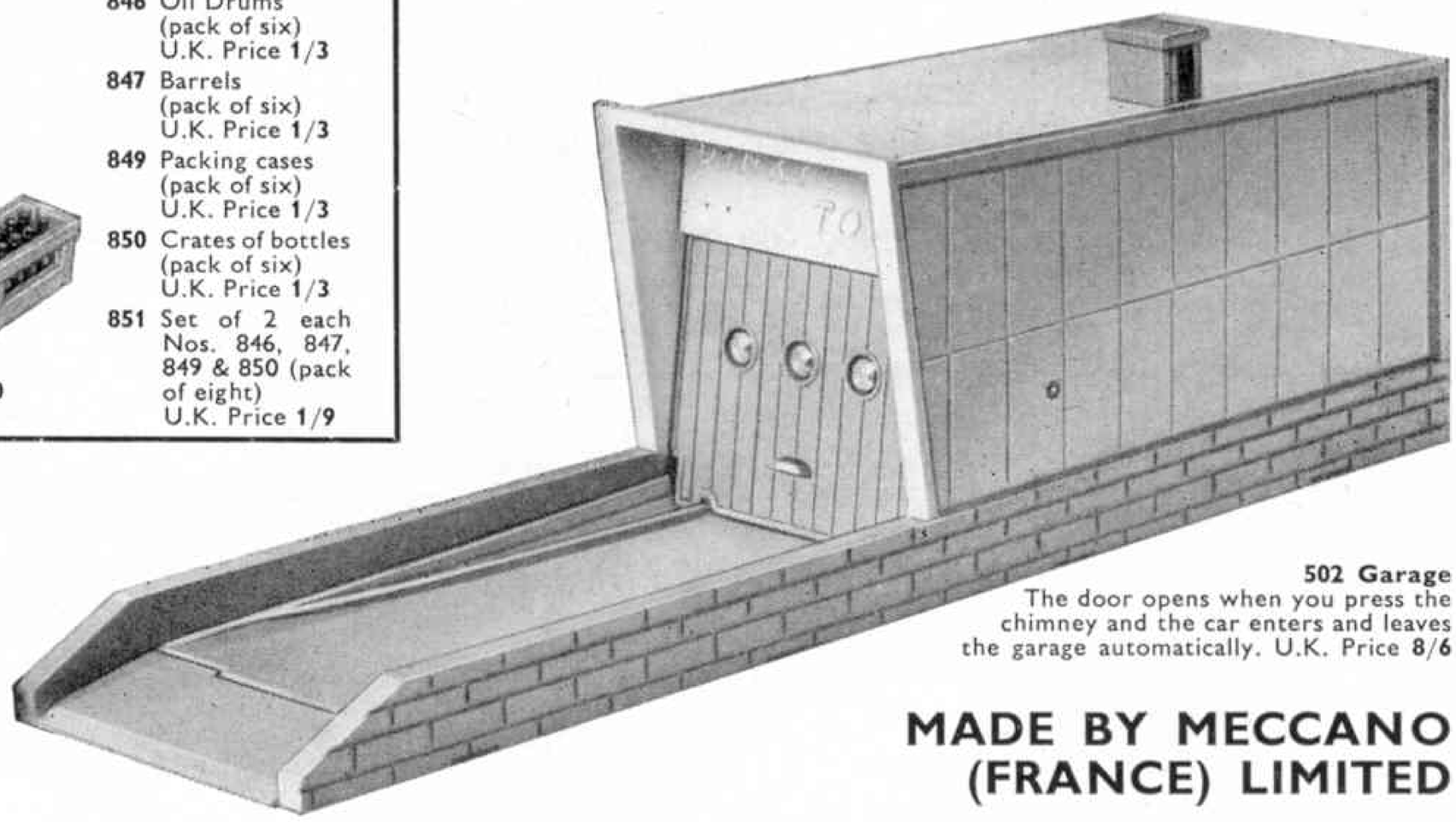

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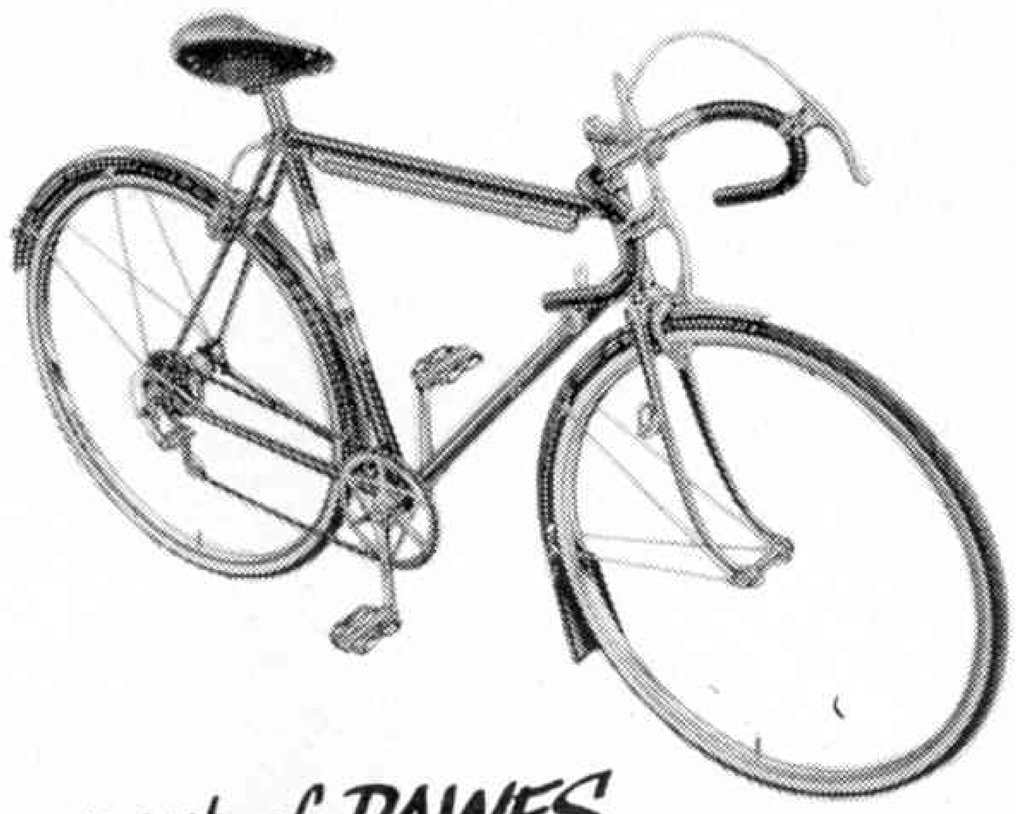

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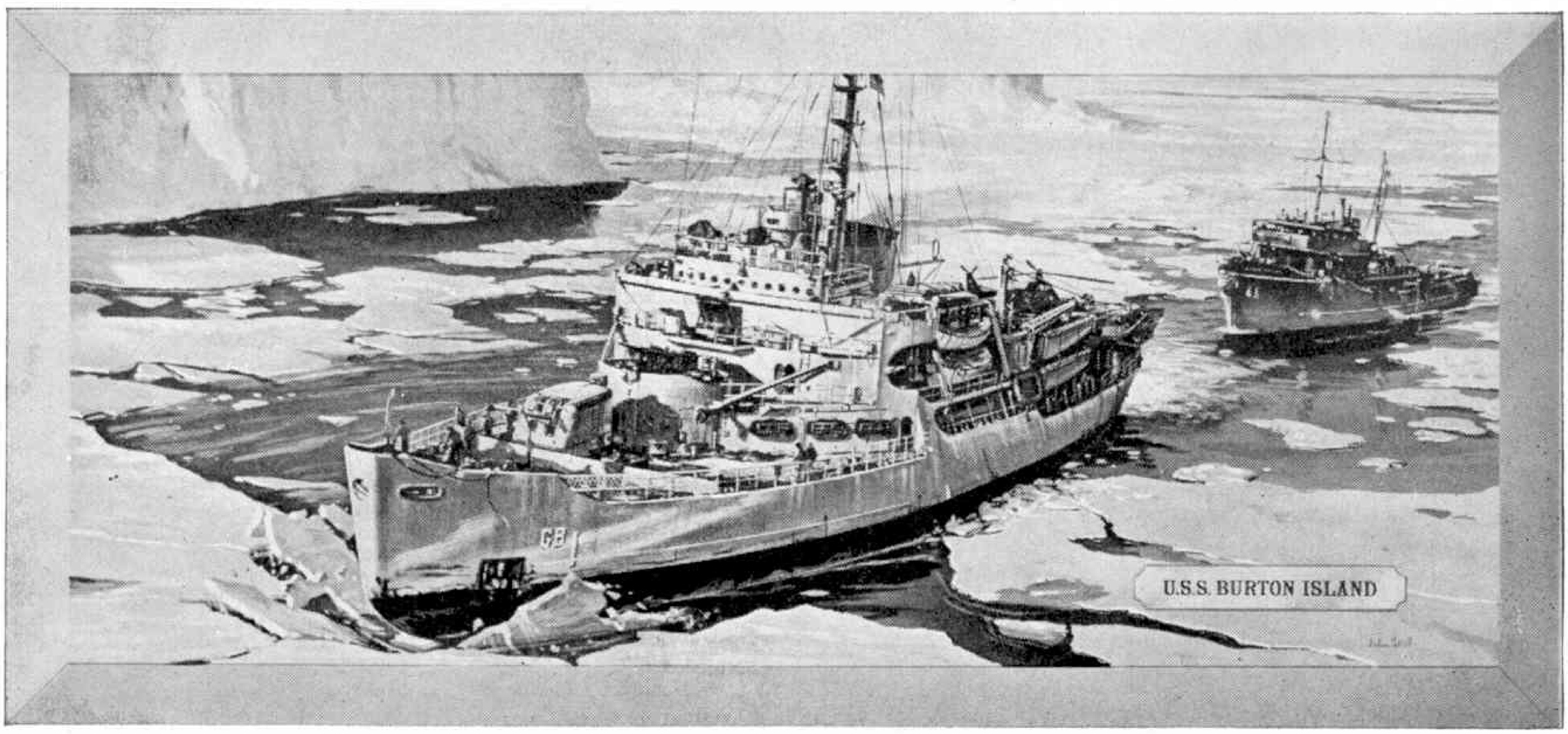

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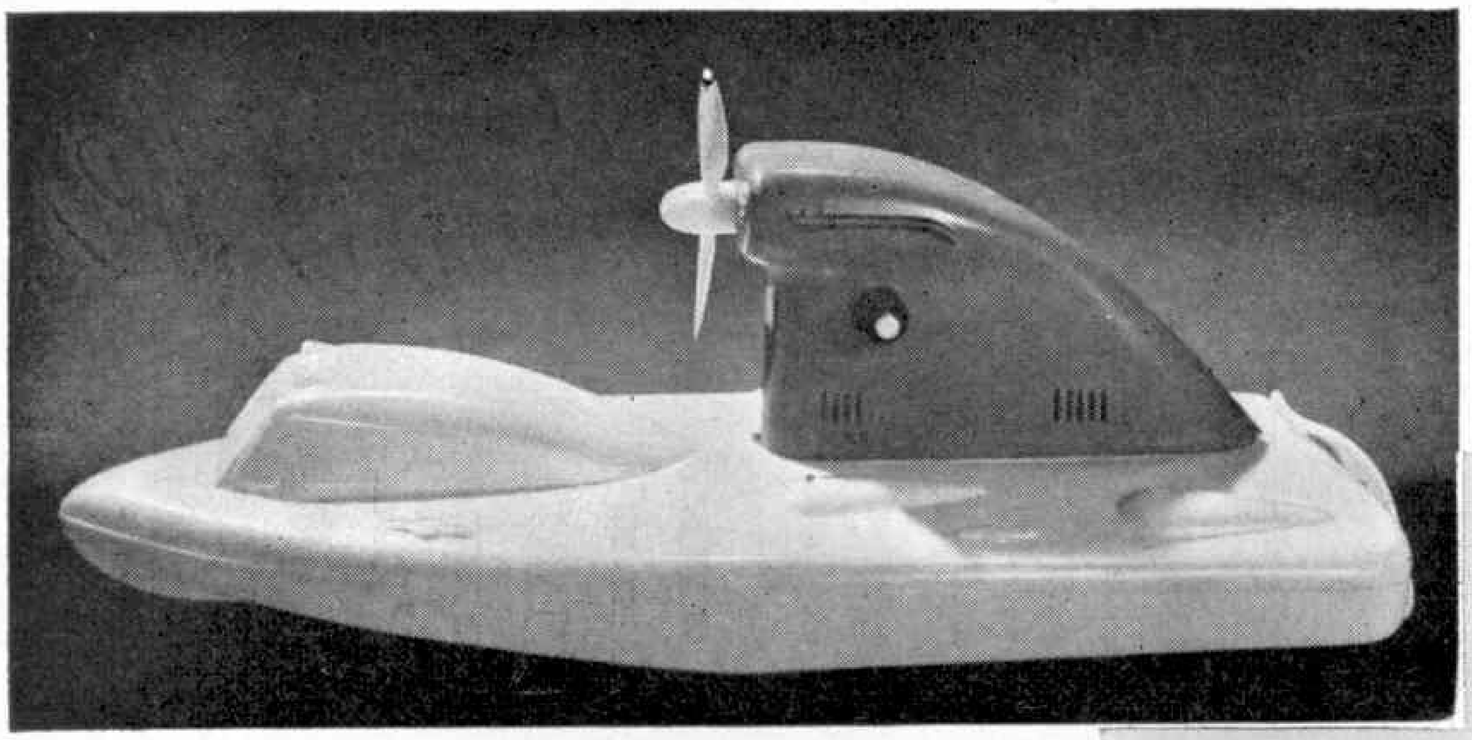

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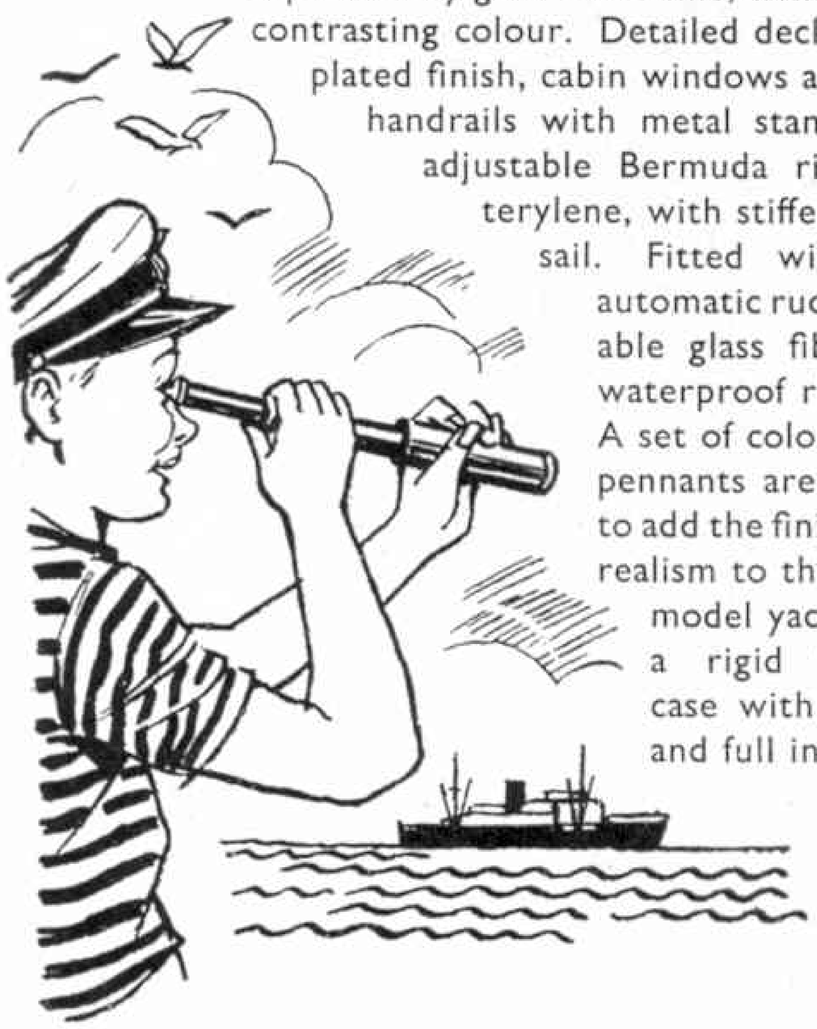

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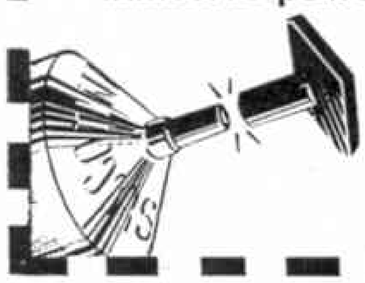

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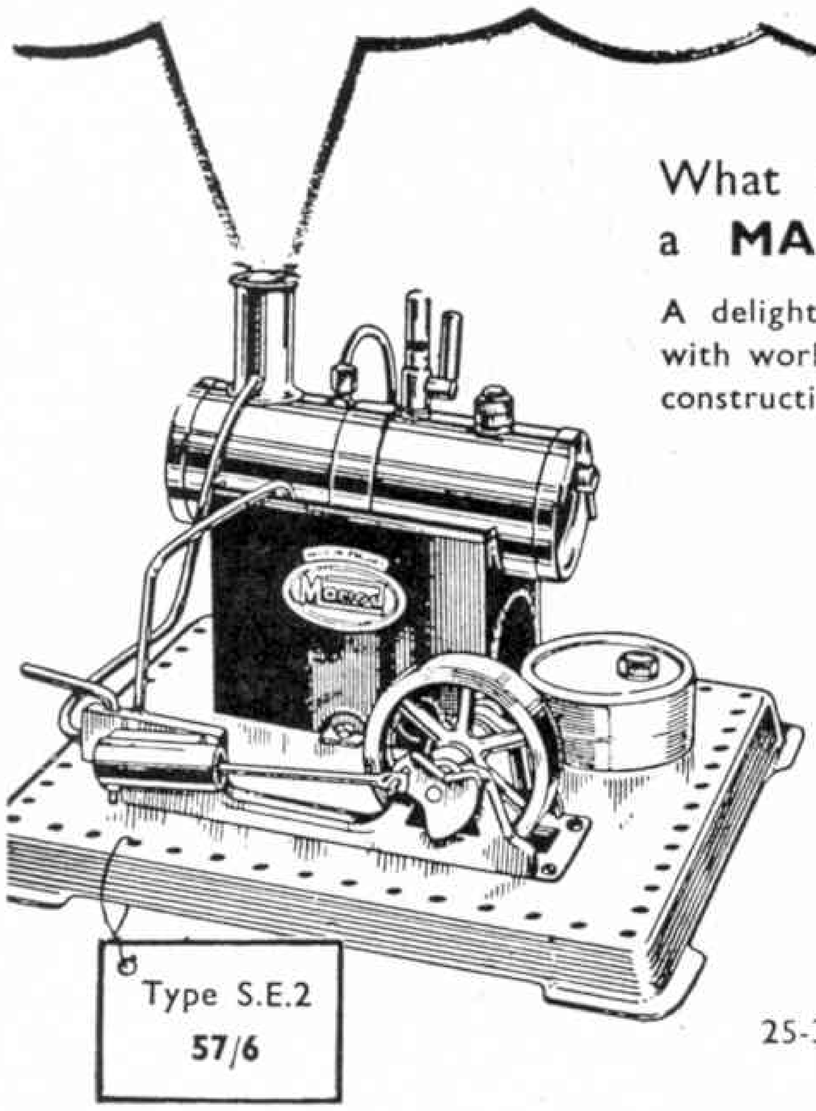

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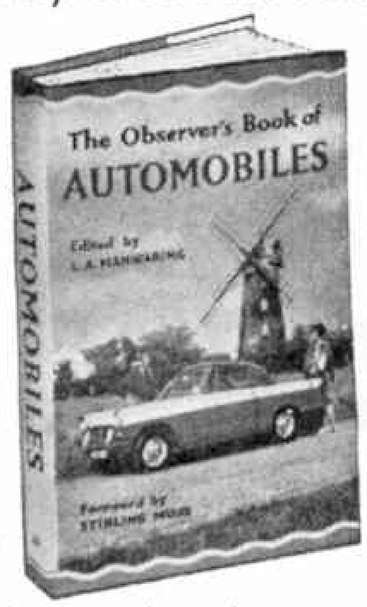

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MECCANO MAGAZINE

Volume XLVI **No. 4** **APRIL 1961**

ONE of the constant queries which arise in letters to this Office concerns the manufacture of Meccano Ltd's world-famous series of Dinky Toys models. Great interest is shown in the way in which these miniature vehicles are produced at the rate of millions a year. I often think that those who inquire about this matter while, perhaps, realising the tremendous amount of work which is put into the actual making of the models do not appreciate how much liaison is necessary between Meccano Ltd. and the firms who produce the actual cars. This is, of course, a very important matter in these days when detail is of the utmost importance in producing miniature cars. To give an inside view into all this, the centre section of next month's *Meccano Magazine* will be devoted to an article and pictures describing the production, at Meccano Ltd's factories at Binns Road and Speke, Liverpool, of one of the latest and most appealing modern cars. What that car will be readers will find out in next month's Magazine when pictures of our own production methods, and those at the factory where this interesting car is produced, will appear side by side.

The May edition will, in fact, be a bumper 60-page issue, and I am sure that readers who have so far enjoyed the greater latitude which the new-size Magazine allows in the way of picture display, etc., will really appreciate this special number.

Now a word about this month's Editorial page picture, which shows a youngster being taught how to handle a coracle. By no means everyone, I am sure, realises that coracles, in which ancient Britons transported themselves thousands of years ago, are still used today by salmon fishermen on the River Teifi at Cenarth, Cardiganshire. The modern coracles, like their predecessors, still have a basket-like framework, but are covered with pitched calico instead of skins. They are very light and can easily be carried on one's back. An expert can move one very swiftly by the single paddle which has an exceptionally long handle.

THE EDITOR.

Next Month: SHIPS' FIGUREHEADS

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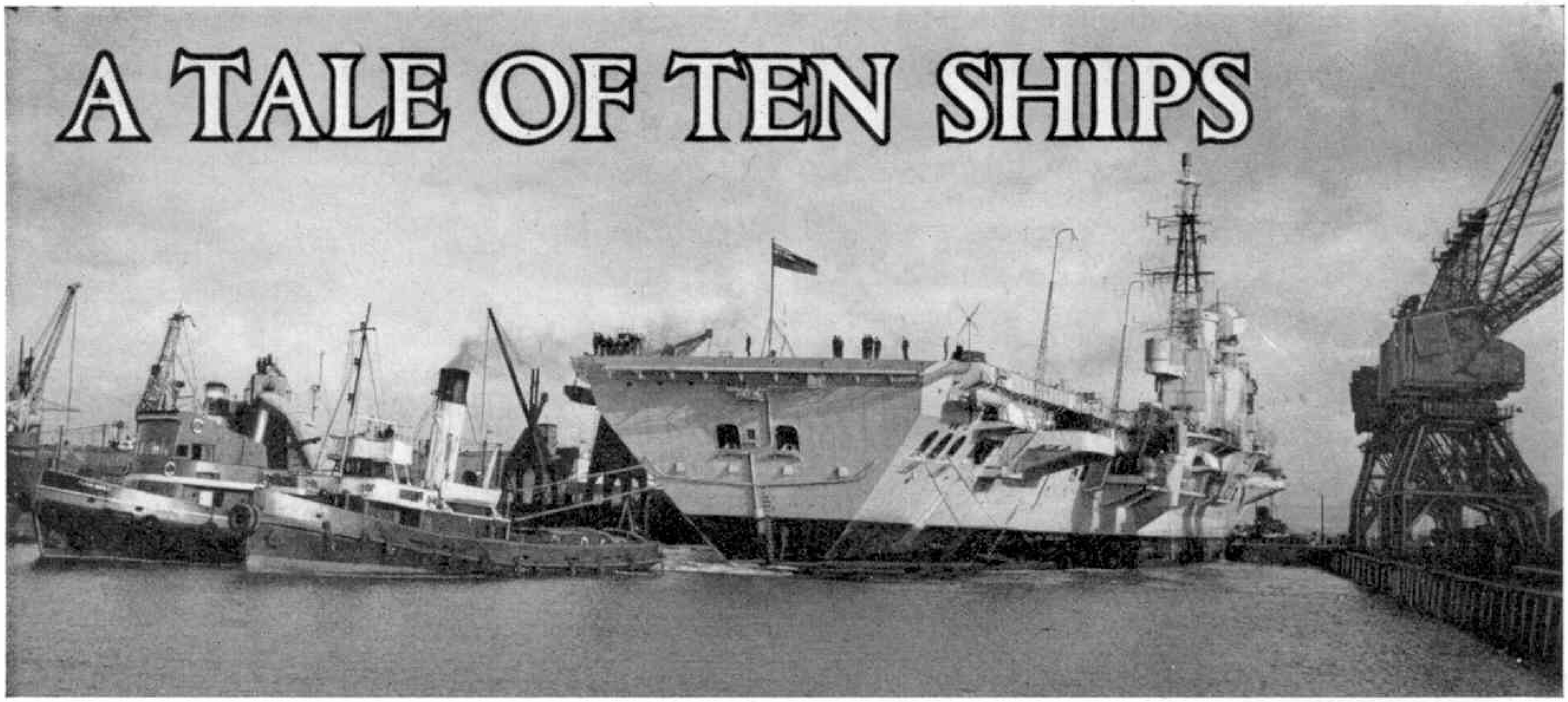
OUR FRONT COVER

In September 1885, Britain's first electric street tramcar was ceremoniously started on its journey at Blackpool, writes Jack Gahan. To mark the 75th anniversary of the event last year Blackpool Corporation Transport Department brought four historic trams out of retirement and restored them to their original condition and livery. Among them was car No. 59, shown on the front cover—one of the famous "Dreadnought" type found only in Blackpool. It was one of a fleet of twenty, built between 1898 and 1901. All had been withdrawn by 1935.

The restored trams were used last summer, carrying crowds of holidaymakers once again, and reviving many memories of turn-of-the-century Blackpool. They proved immensely popular.

A TALE OF TEN SHIPS



● *The first new aircraft carrier to join Britain's fleet for some years,* H.M.S. Hermes *was built by Vickers-Armstrongs at Barrow and completed in November 1959. She has a crew of over 2,000 men, and in addition to up-to-the-minute equipment she carries, among other things, a chapel, a fully-equipped laundry, television, cinema, a barber's shop, canteen, bookstall, libraries and a soda fountain. Hammocks have been done away with and bunk accommodation is provided for the crew. In addition to her armament, the business end of the* Hermes *consists of a strong force of Scimitars and Sea Vixens, which form a potent strike arm. But the story we are telling this month is not just about the ship itself, but about the ten vessels which, between 1796 and the present day, have borne the same eventful name. The article that follows is reproduced by courtesy of the Editor of* The Vickers Magazine, *to whom we are also indebted for use of the photographs.*

TEN ships bearing the name *Hermes* have joined the Royal Navy through the years. The name is apt enough for a ship; it is particularly so for Britain's newest aircraft carrier. For was there not St. Hermes (alias St. Elmo), the curious phenomenon of light seen occasionally on ships' masts, of which De Loier wrote in his *Treatise to Spectres,* "They shall see the fire which saylors call St. Hermes, fly upon their shippe, and alight upon the toppe of the mast"; and was there not Hermes Trismegistus, to whom was ascribed a host of inventions? Yet, curiously, the first use of the name *Hermes* by the Royal Navy was more or less fortuitous. It so happened that in 1796 Commander (afterwards Vice-Admiral Sir) John Chambers White of the *Sylph* captured a 201-ton Dutch sloop rigged as a brig off the Texel. She was the *Mercurious* and it was natural enough that when the ship joined the Royal Navy she should be renamed *Hermes,* which is another name for the god Mercury.

Our heading block shows H.M.S. Hermes, latest in the line of the ten ships whose histories are related in this article, escorted by tugs.

The first *Hermes* foundered at sea, with all hands, in 1797 and in the following year an armed vessel of about 330 tons (her armament was twenty-two guns) was bought. This, the second *Hermes,* was sold in 1802. Again within a year the name was perpetuated when a sloop, built at Whitby and named *Majestic,* was purchased and renamed *Hermes.* Her career seems to have been a quiet one. She finished Naval service as a store ship in the Mediterranean and was sold in 1810.

Fought privateers

Then came one of the more spectacular ships to bear this famous name—the 512-ton Sixth Rate built at Portsmouth and launched in 1811. Commanded by Captain (afterwards Vice-Admiral) Philip Brown, the fourth *Hermes,* with her twenty guns and 121 men, captured an American ship laden with naval stores, and two vessels from New York and Baltimore carrying tobacco and ivory. This fourth *Hermes* ran down *La Mouche,* a French privateer, and assisted at the capture of the American privateer *Sword Fish.* In 1814, then commanded by Captain (later Rear-Admiral) the Hon. William Henry Percy, *Hermes,* in an unsuccessful attack on Fort Bowyer, Mobile, U.S.A., was grounded. Disabled, she was burned by Captain Percy to prevent her falling into enemy hands.

It was sixteen years before another *Hermes* joined the Royal Navy. She was a steam vessel of some 730 tons, built at Blackwall in 1824 and originally named *George the Fourth.* Bought by the Navy, she did nothing more exciting than packet service, became a coal depot ship at Woolwich under the new name of *Charger,* and was broken up at Dartford in 1854. Presumably her name was changed—in 1834—to make way for a new *Hermes,* a paddle wheel steam sloop whose career was in marked contrast to that of her immediate predecessor.

Captain David S. Tibbits, D.S.C., Royal Navy, who is in command of *Hermes* paid the following tribute to the ship after she had encountered a full Atlantic gale in the Bay of Biscay during her shake-down cruise: "It is a source of great satisfaction to her officers and crew that she rides well in these conditions and she handles well, both when turning at sea and when entering and leaving harbour."

The following details about H.M.S. Hermes are given in Jane's Fighting Ships:

Displacement	**22,500 tons (standard) 27,500 (full load)**
Length	**744¼ feet (overall)**
Beam	**130 feet (overall)**
Draft	**28 feet**
Guns	**10 40 mm. A.A. (Twin)**
Aircraft	**45**

This sixth *Hermes*, built at Portsmouth and launched in 1835, served five years on the Mediterranean Station, four years on the North American Station and four particularly exciting years, commanded by the gallant and resourceful Commander Edmund G. Fishbourne, on the Cape of Good Hope and East Indies Station. Commander Fishbourne, sailing for the Cape of Good Hope, "united in the hostilities of 1851 against the Kaffirs, and rendered services to the value of which the strongest testimony was borne in the Dispatches of the Governor, Lieutenant-General Sir Harry Smith". He then sailed for the East Indies, where he gained fresh laurels by his conduct during the Burmese War. For his services Fishbourne was promoted Captain.

In 1854 *Hermes*, with H.M.'s Plenipotentiary, Sir George Bonham, on board, sailed up the Yangtse-Kiang, as far as Nanking, for the purpose of assuring the rebels of Britain's neutrality. Off Nanking the Tartars sent a fire raft out toward her, which she avoided by getting rapidly under weigh. On her passage down the river she found it necessary to shell the heights in front of Chin-Kiang-Foo, which were crowded with stockades. Later, at Shanghai, she sent her boats up the same river to seek out deserters from H.M.S. *Salamander*. They courageously advanced as far as Chin-Kiang but failed to discover the missing men.

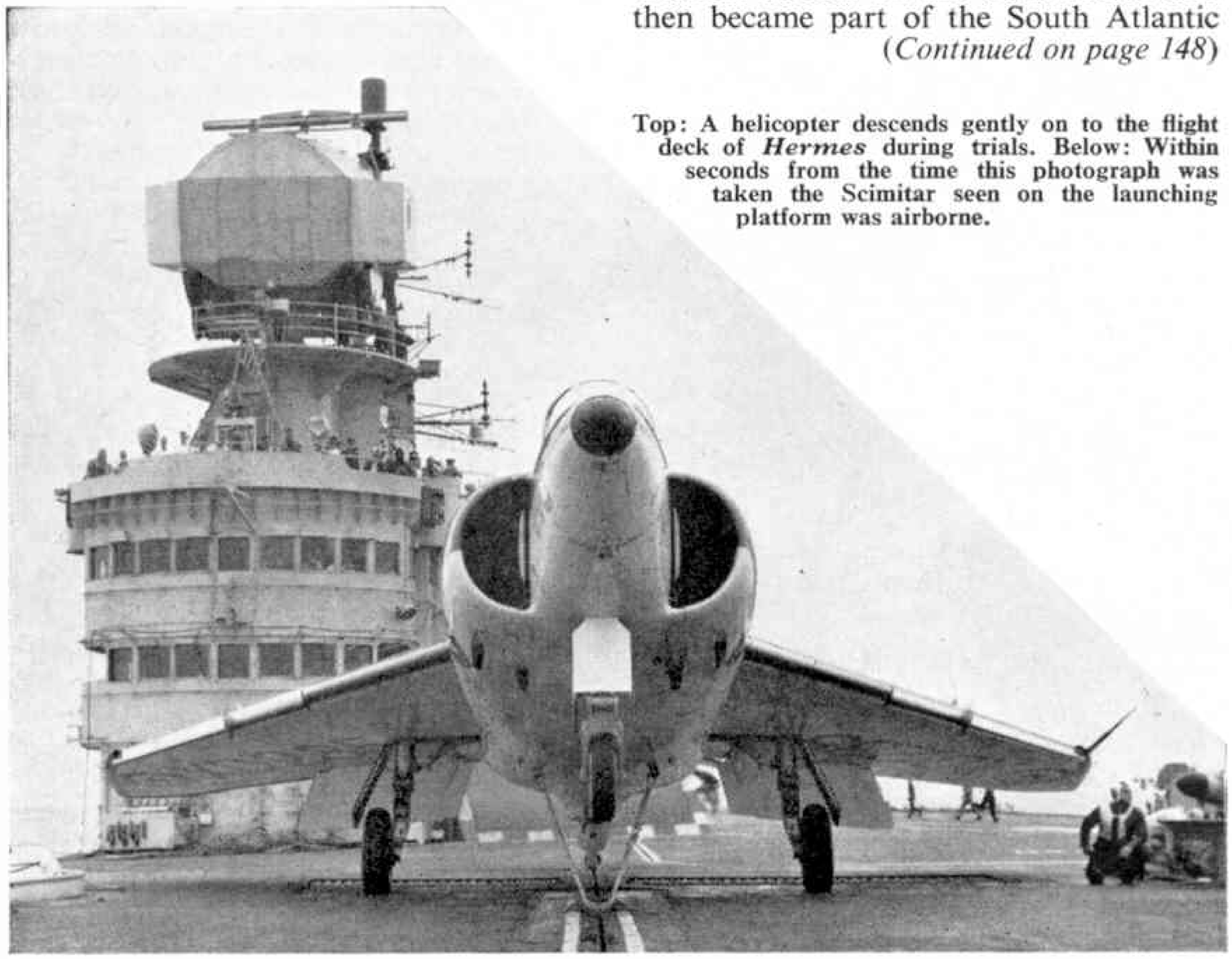
Captain Fishbourne continued in *Hermes* until, having been in commission four years and five months (in which period she had steamed 75,000 miles and consumed 7,000 tons of coal) she was paid off at Woolwich in 1854. Another five years' service and she was sold for breaking-up.

Became seaplane carrier

The seventh *Hermes* (1,726 tons), named the *Minotaur* when launched at Chatham in 1816, was renamed *Hermes* 40 years later and was employed as a cholera ship at Gravesend. She was broken up at Sheerness in 1869 and it was as long as 28 years before another *Hermes* was laid down. This was the 5,600-ton, twin screw, protected cruiser (eleven guns, 477 men) commissioned in the last year of the nineteenth century. She served for fifteen years in many parts of the world and for many purposes. She was, at least for a short part of her life, the first "aircraft carrier" *Hermes*. Immediately before the first world war she was the Depot Ship of the Naval Wing of the Royal Flying Corps and when war came she was used as a seaplane carrier in operations off the Belgian coast. In October 1914 she was torpedoed and sunk off Calais.

It was 1919, however, when the first vessel specially designed by the Admiralty as an aircraft carrier was launched. And once again, when she was commissioned in 1924, there was a *Hermes* in the Royal Navy. Built at Elswick by Armstrong-Whitworth, this 10,850-ton carrier added lustre to her name. At the start of the second world war she helped protect the transport of the British Expeditionary Force to France. From Dakar, with the French battleship *Strasbourg* she hunted German raiders on the trade routes and then became part of the South Atlantic

(*Continued on page 148*)

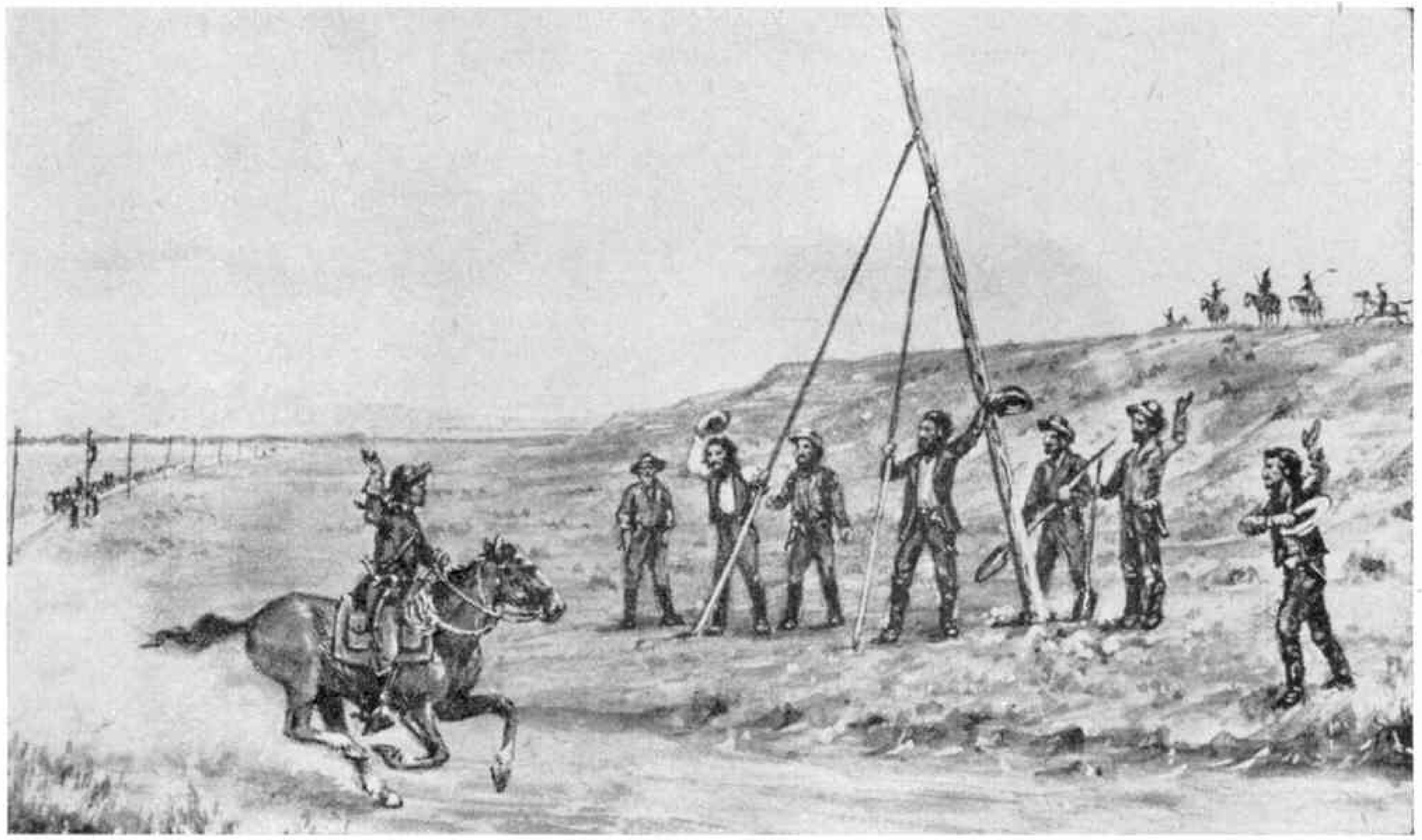


Top: A helicopter descends gently on to the flight deck of *Hermes* during trials. Below: Within seconds from the time this photograph was taken the Scimitar seen on the launching platform was airborne.

The Thrilling Story Of

THE PONY EXPRESS

TOLD BY
L. BRUCE MAYNE



IT all started in 1848 at John Sutter's flour mill on the American River in California. In the bright sunshine of a January day Jim Marshall made a discovery which was to shake America and send a tremor round the world. Glinting in the tail race of the mill was a small piece of yellow ore. Within a week the workmen at the mill had recovered more than a hundred dollars' worth of gold from the river.

Word of the strike soon got out and a local gold-rush started. Slowly the news spread eastwards and by the spring of 1849 the "Forty-niners" were on the long trail, the slow haul by ox-wagon and mule team to the Californian gold field.

More and more people arrived by land and sea and in 1850 California gained statehood. Its people, however, were cut off from relatives "back East" by 2,000 miles of prairie, desert and mountain, and letters from home were taking months to reach the settlers.

In 1851 Major George Chorpenning, Jr. and his partner, Absalom Woodward, held a government contract to carry mail across the 700 miles between Sacramento and Salt Lake City. Woodward was killed by marauding Piute Indians but Chorpenning carried on running the tediously slow "jack-ass" mail-service. In 1860 Chorpenning's contract was withdrawn and the firm of Russell, Waddell and Majors took over.

This same company had, in May 1859, secured the mail contract between St. Joseph and Salt Lake City so that in 1860 they were carrying mail by stage coach and mule train from the Missouri to the west coast.

It is not clear who first thought of a fast mail-service across the continent, but legend has it that it was William Russell, who happened to be in Washington when the matter was being discussed, who claimed that his company could put the mail through in ten days. Whether this story is true or not it is certain that by the spring of 1860 the company had set up relay stations across the country and had planned the operation with military thoroughness.

The top picture, taken from a painting, shows a "Pony Express" rider waving to a work crew building the first transcontinental telegraph line, completed in 1861. Photograph by courtesy of the U.S. Information Service. (Left) A "Pony Express" rider attacked by Indians. Picture from the Radio Times Hulton Picture Library. (Drawn for Radio Times by F . R. Exell.)

A little after four o'clock on April 3, 1860, Jim Randall, a small, wiry, young man mounted a gaily-decorated, buff-coloured pony outside the Alta Telegraph Company's office on Montgomery Street, San Francisco. To the full-throated cheers of the crowds lining the streets, he galloped down to the wharf and boarded the steamboat for Sacramento.

Three hours later, some 2,000 miles away, Johnny Frey mounted a pretty sorrel mare named Sylph, sped down to the river and also boarded a ferry-boat.

A gigantic relay race whose course stretched half way across America had begun; the service it was to supply was called the Pony Express.

Jim Randall, who had ridden out of San Francisco with the cheers of the populace ringing in his ears, handed on the mail pouch—called a mochilla—to Billy Hamilton in Sacramento, and this is where the ride really started. Randall and his flag-bedecked pony were merely part of the ceremonial attached to the inaugural run. The colossal, east-bound cross-country race against time actually began when Billy Hamilton rode out of Sacramento on a Californian-bred horse at 2.45 a.m. on April 4, carrying with him the good wishes of the few citizens who had braved the heavy rain. The rest of the townsfolk were tucked up in bed.

Hamilton changed horses at Folsom and careered into Placerville, which had once been called Hangtown, at 6.45 a.m. People of the little township turned out in force to see the Pony Express rider go through. Hamilton leapt from one horse to another, hardly touching the ground. And the crowd kept on cheering until the rider, astride a fresh horse, was out of sight.

Most difficult stage

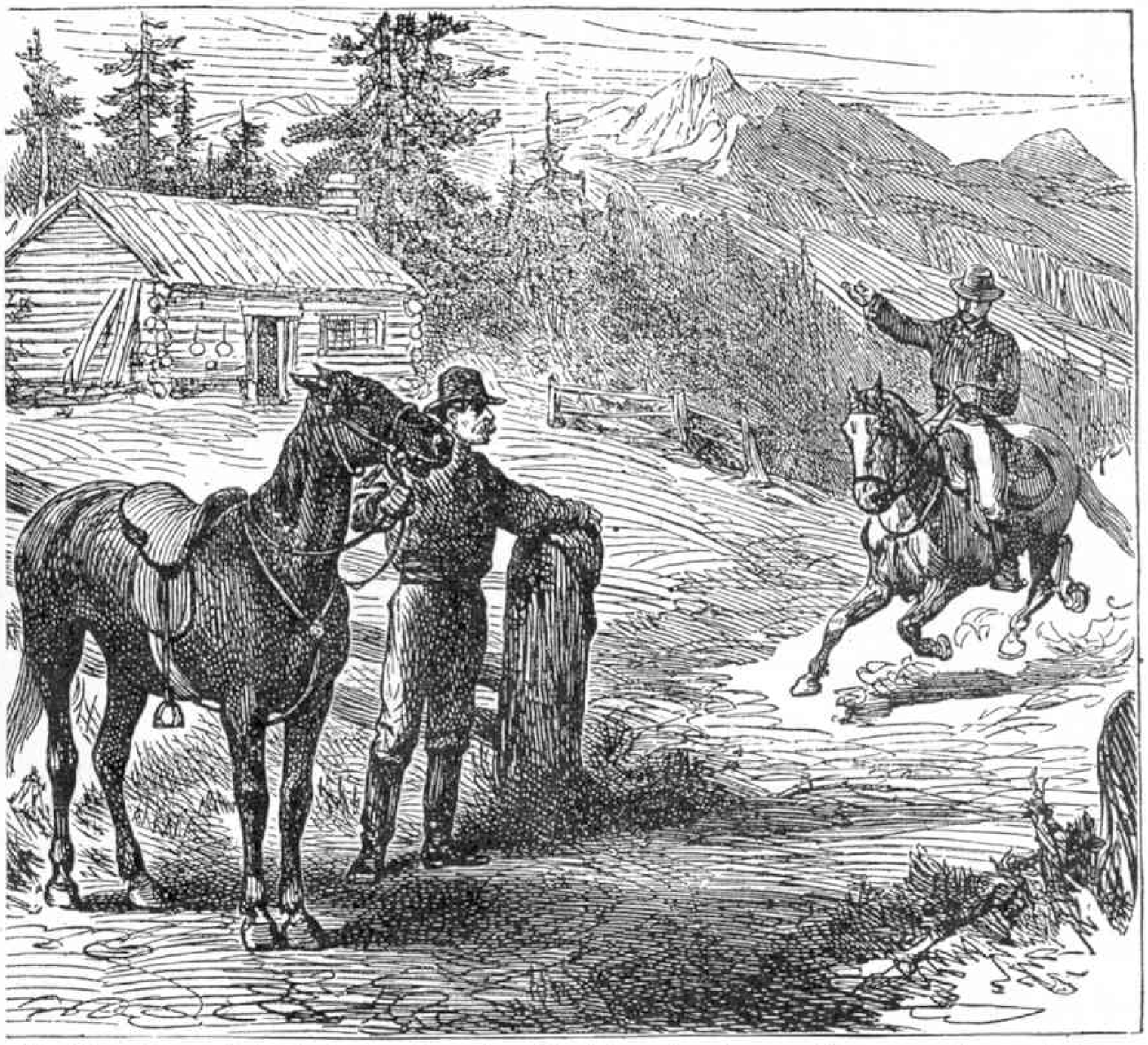
At the end of his 60-mile beat Hamilton handed the mochilla, on schedule, to Warren Upson who had the most difficult stage of all to cover. Many of the passes of the Sierras had been blocked by an unexpectedly heavy fall of spring snow, and the stage coaches had stopped running. Even with six sturdy horses—all selected for stamina rather than speed—lined up along the route, it seemed unlikely that Upson could fight his way through alone.

Plunging into drifts and leading his horse over the most difficult and dangerous parts of the trail, he battled up to the 3,000-ft. summit of the highest pass. The hardest part of his stage was behind him now. At Carson City, Pony-Bob Haslam took charge of the mochilla. And so it went on, the pouch being handed on from one rider to the next.

At a quarter to midnight on April 7, Howard Egan arrived in Salt Lake City ahead of schedule. The mail had come through snow-blocked passes and over rain-lashed plains even more quickly than the planners had anticipated. The Pony Express had put Salt Lake City within six days of California.

While the east-bound mail was speeding on its way to Salt Lake City the horses of the west-bound riders were also swallowing up the miles with flashing hoofs. After leaving St. Joe, Frey followed the trail across North-West Kansas to the first way-station, where he changed horses. Through the peaceful Indian villages of Troy and Hiawatha he thundered to the first home-station at Seneca, where he handed the mochilla to the next rider.

From Seneca the trail led to Marysville, Fort Kearney, Fort Macpherson, through Western Nebraska to Fort Laramie and Casper, up the Sweetwater River to South Pass, across the Badlands of Wyoming and through Salt Lake City. At 5.45 p.m. on April 13, four days after leaving Salt Lake City, Billy Hamilton, who had ridden out of Sacramento with the east-bound mail on April 4, was returning to his home-station.



The "Pony Express" in the Rocky Mountains. The illustration shows a rider approaching a relief post, where a new pony is waiting to be mounted.

Bells, rockets and a band

Crowds lined the streets, and the balconies of shops and houses were dangerously overcrowded. As he came down J. Street, Hamilton was greeted with cheers, pistol shots, a cannon and a brass band.

Billy Hamilton was the centre of another procession in San Francisco, although it was nearly midnight when the "Antelope" tied up at the wharf. Bells were rung, rockets were fired and a brass band played "See the Conquering Hero Comes". Flaring torches and flickering bonfires lit up the faces of the joyful, cheering crowds lining the streets.

There were only 25 letters in the mochilla which Hamilton dropped at the Express office in Montgomery Street, but those letters had taken only ten and a half days to cover 2,000 miles. The link between the Missouri and the Pacific Coast had been forged.

Through summer drought and winter storm, through Indian ambush and snow-filled mountain passes, through icy rivers and across sun-baked deserts the riders, who were all small men, saw that the mail got through.

In all, there were about 80 riders in the saddle day and night. Horses and fodder had to be lined up across the continent, and stations had to be protected from hostile Indians and renegade white men. Riders and station-keepers risked their lives for a mere twenty pounds of mail in each mochilla. Yet, strangely enough, only one mochilla was ever lost and only one rider lost his life in the service.

On October 20, 1861, the trans-continental telegraph line was completed. A few days later the Pony Express was officially disbanded, although it continued to run until the twentieth of the following month.

In eighteen months it had made 160 round trips between St. Joe and Sacramento and had covered 650,000 miles.

(*Continued on page 148*)

A Unique Fire-Fighting Float

By Trevor Holloway

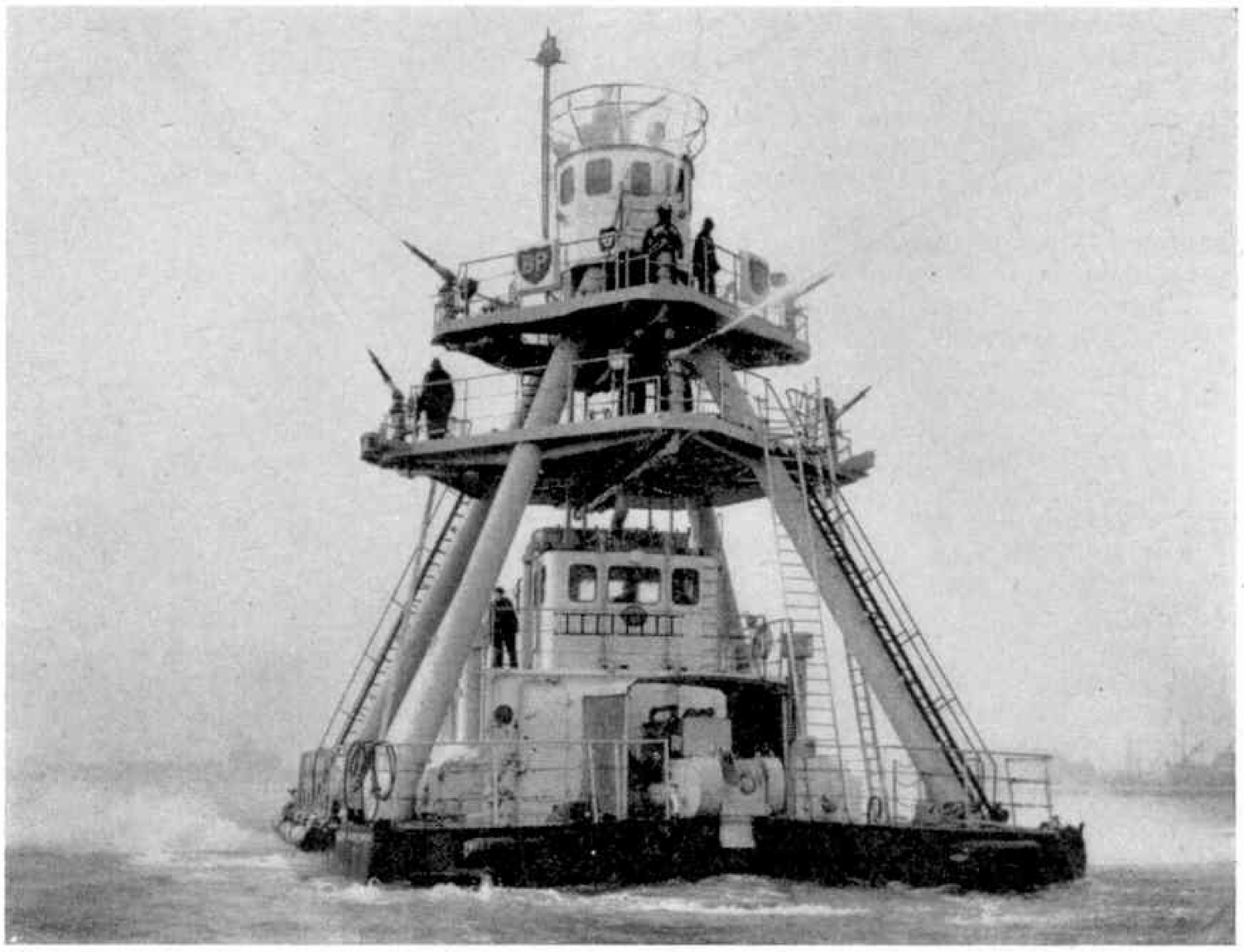
FOR many years the B.P. Tanker Company has owned and maintained a fireboat at Swansea to protect the great oil basin there to which come big tankers from the Middle East. More than 5,000,000 tons of crude oil and petrol are handled at Queen's Dock each year.

With the growth of the Swansea tanker terminal in size and importance the B.P. Company decided that more modern and efficient fire-fighting equipment was urgently necessary. Close co-operation by the company's engineering department and Merryweather and Sons, Ltd., fire-fighting equipment manufacturers, resulted in the introduction of the unique catamaran fire float, *BP Firemaster*, illustrated here.

This unusual craft has two major advantages over the normal type of fire-fighting vessel—it can move in any direction, and can maintain its position in spite of the powerful backward thrust of the water jets, even when the maximum number of jets operate in one direction.

These important advantages are due to the fact that the craft is equipped with two propellers which rotate through 360 degrees. Both propulsion units are outboard and are operated independently by 6-cylinder, 140-b.h.p. diesel engines. They can be started and operated from the wheelhouse. No rudders are necessary.

One of the propulsion units of the "BP Firemaster" showing the stem in an elevated position.



The "Firemaster" is pictured here during her trials in Swansea Harbour.

The fire float consists of two pontoons each 60 feet long, 14 feet wide and 7 feet 6 inches deep, joined at deck level and also connected below water level by elliptical tubes, forming a catamaran having an overall width of 36 feet. Rising from the deck is an open pyramid formed by four welded, tubular supports surmounted by a control cabin from which the firemaster controls operations.

* * * *

Immediately below the control cabin are platforms or decks, at 23 feet and 30 feet above the waterline, on each of which are fitted 4-inch worm gear monitors—fore and aft, starboard and port. Above the control cabin, which is 40 feet above the waterline, is a central 4-inch worm gear monitor capable of operating in any direction.

The nine monitors are individually manned and are so arranged that seven can be used simultaneously in any direction. They can deliver 3,100 gallons of water a minute.

An essential deterrent in any oil fire is foam. This can be delivered at the rate of 12,500 gallons a minute, but arrangement is such that any specified number of monitors can deliver foam while others deliver water. Water is drawn from the harbour and the tanks hold sufficient foam to last an hour and 20 minutes.

Instructions from the control cabin are transmitted to the two pumprooms (one in each of the catamaran's twin hulls) by electrically operated telegraph, and by a talk-back system between control cabin, monitor stations, wheelhouse and pumprooms.

In spite of its unusual design, the vessel tilts only one degree when full delivery of water is being made from seven monitors in one direction. Large pneumatic wheels at the ends of each pontoon facilitate movement of the float along the hull of a burning vessel.

The permanent crew consists of a navigator and motor starter. Fire-fighting personnel, supplied by Swansea Fire Service, can reach the jetty to man the float in three or four minutes.

In the central wheelhouse the steersman is shown operating the Marconi talk-back system.

LIGHTHOUSES IN ANCIENT DAYS

ALTHOUGH modern lighthouses have been brought to a wonderful state of efficiency, with lights which need no human attention, and fog signals which come into operation automatically, it is well to remember that lights and beacon towers of some description have aided mariners for more than 2,000 years.

The Romans built a number of lighthouses both in the Mediterranean and in Northern Europe, to guide the shipping which plied back and forth serving the needs of their empire.

At Dover there still stands what is probably the most remarkable Roman building north of the Alps. It is the Pharos, standing within the precincts of Dover Castle, by the west end of the castle church. It is situated close to the edge of the cliffs overlooking the harbour, occupying a well-chosen site to guide shipping into the haven which, in Roman times, lay considerably to the eastward of the present dock area.

Built in eight stages

Although it now has a rather ill-defined outline, due to crumbling, and the repairing of the brickwork over many centuries, it has been established by experts who have studied the structure that it was originally built in about eight vertical stages, each one a few feet smaller in diameter than the one below—rather like a large wedding cake. It was on this principle that all Roman lighthouses were constructed.

The present building is an octagonal tower, 62 feet high, of which the top 20 feet are of medieval construction. The complete Roman tower was probably nearly 80 feet high. As it is situated nearly 400 feet above sea level, it must have been clearly visible, showing a smoke cloud by day and a beacon fire by night, from the coast of France, or Gaul, as it was then known—a distance of about 21 miles.

It has been difficult to establish the date of the building of the Pharos at Dover, but taking into consideration the military and trading activity which followed the Roman occupation of Britain, it is clear that a need for such a light tower existed in the first century A.D. Since Dover was one of the principal ports for cross-channel shipping, the

BY
J. MANNERING

Romans would have been quick to build such an important aid for their navigators.

On the heights to the west of Dover there was, until the beginning of the last century, the ruins of a similar tower. A drawing of Dover Harbour, dated the middle of the sixteenth century, and now in the British Museum, shows a complete tower on these cliffs. It is probable that the Romans built a beacon tower on the tall cliffs on both sides of the port, to lead their shipping into the haven between.

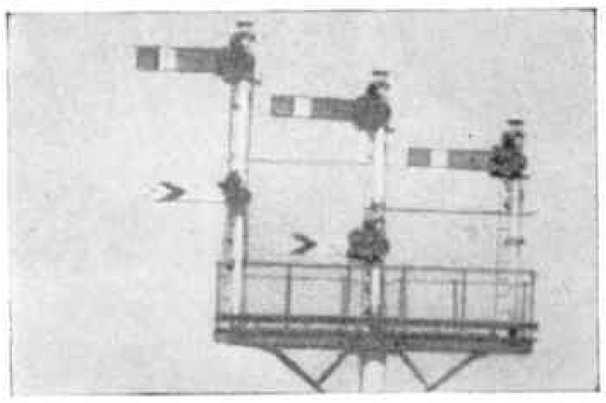
Until the middle of the seventeenth century, there was a very fine example of a Roman light tower at Boulogne which was considerably larger than that at Dover. It rose to a height of 200 feet in twelve or thirteen octagonal stages and was clearly the opposite number to the towers at Dover, for Boulogne was the principal port of departure for channel shipping in Roman times. The Boulogne tower is shown in the Cowdray House picture of the seige of Boulogne by the English in 1544. Probably the finest Roman lighthouse was that at Alexandria, on the island of Pharos. Built in 280 B.C. it was 300 feet high and consisted of three stages. The first was on a square base, 100 feet across; the second was an octagonal tower and the third stage was in cylindrical form. This magnificent lighthouse was destroyed by an earthquake in 1303 A.D.

All these towers were simply the means of raising a beacon fire sufficiently above the sea level to be visible many miles out at sea.

Coming to more recent times, there still stands, at Calais, a building known as the Tour du Guet. This served Calais as a lighthouse until 1845, when a taller tower, with a more powerful light, was built nearer to the harbour. It was not, of course, a beacon tower at that date, but had a glazed lantern within which burned a powerful paraffin light.

The Tour du Guet was not a Roman building. Constructed in the thirteenth century it was damaged by earthquake in 1580 and rebuilt in 1606. Damaged again in the last war it has been carefully repaired. Now, standing in the Place d'Armes, in the middle of re-built Calais, it remains a fitting tribute to Man's efforts to guide and assist those whose livelihood is the sea.

The Pharos, at Dover Castle (top) was built by the Romans, probably in the first century A.D. Its opposite number on the French coast, at Boulogne, was standing in the seventeenth century. Right: The Tour du Guet, standing amid the modern buildings of Calais, was used as a lighthouse until 1845. Photographs by J. Mannering, Dover.



RAILWAY NOTES

Contributed by R. A. H. Weight

SOUTHERN PROGRESS ON HIGHWAYS AND BYWAYS

THE big scheme constituting phase two of the Kent main line electrification programme is, for the most part, due for full completion in the summer of 1962. It includes some secondary routes and a considerable amount of track and station extension work to provide for quicker and more frequent services, with an expected considerable increase in passenger traffic. It is probable, however, that electric trains will be running regularly over parts of the course on the London side of Folkestone and Dover later this year, as progress has been rapid. They have actually begun along the coast line from Dover through Deal to Ramsgate, including the Minster (Thanet) triangle, although with little variation so far from the previous steam schedules.

Links have thus been established between the termini of the Chatham main line, phase one electrification scheme—which was completed in 1959— at Dover and Ramsgate, and these will no doubt be developed as the pattern of new services comes into being. The whole will form a comprehensive modernised network.

The scheme now in hand covers the main line to Folkestone and Dover from Sevenoaks, 22½ miles from Charing Cross, the present suburban electrified limit, through Tonbridge–Paddock Wood–Ashford; Paddock Wood–Maidstone (West), joining the existing electric service to Strood and London via Gravesend; the short downhill branch from Folkestone Junction to the Harbour Station; Ashford–Canterbury (West)–Minster, for Ramsgate and the extension of the present electrification as far as Maidstone (East) from London via Swanley–Otford, along the one-time London, Chatham and Dover Railway route to Ashford, Kent, an important focal point.

The S.R. standard third-rail D.C. traction system will be employed and many long-welded conductor rails have been placed in position. The new-type electric locomotives are fitted with pantograph equipment, as well as third-rail shoes, to take current from overhead wiring installed in certain sidings etc. Multiple-unit, self-motored passenger train sets will be mainly used.

S.R. 4–4–0 No. 30935 "Sevenoaks" of the Schools class is seen leaving Dorking Town on a train from Redhill to Reading. Photograph by Derek Cross.

At the time of writing, considerable traction variety is regularly in use along the Tonbridge main line, which for long stretches has just the two, up and down, tracks. Suburban electric trains mentioned previously run frequently from Charing Cross or Cannon Street as far as Sevenoaks. In the four-track station there, another service of similar stopping trains terminates. These use an entirely different route from Holborn Viaduct terminus (London, City) by way of the Catford loop, part of the Chatham main line through Shortlands–Bromley (South)–Swanley, thence via Otford and a station on the outskirts of Sevenoaks quaintly named Bat and Ball!

There are diesel-electric multiple-unit London–Hastings trains that diverge at Tonbridge, seven and a half miles on the country side of Sevenoaks, after traversing a long tunnel and descending to the Medway valley, often at high speed. At present, however, there are severe restrictions as a large-scale refettling of the track and reconstruction of the roadbed is in progress. Complete week-end closures and consequent diversion of traffic at Tonbridge to the Redhill or Oxted routes towards Croydon and London Bridge are in operation. Some of the express or other through Kent Coast trains are headed by diesel locomotives, although steam light Pacifics and Schools engines are still seen. While steam heating is required, until about May, and the locomotive-hauled coaches used are not equipped for electric warming, a type 2 D5000 class diesel locomotive is coupled behind a type 3 D6500 class (fitted only for electric heating) to warm the train and heat water from its oil-fired steam boiler. One of the accompanying photographs was taken on a day when the *Golden Arrow* was so double-headed. Otherwise, a type 3 unit is adequate alone, or a type

2 within certain load limits. There is also mixed diesel and steam haulage of freight trains, with various classes of steam tender or tank engines on branch line working as well as local passenger trains in East Kent.

Some single line byways

The five-mile branch from Dunton Green, station before Sevenoaks on the London side, curving away to the south-west with fine views of the North Downs and their wooded heights—although always within about 25 miles from Charing Cross—presents quite a rural aspect and terminates at the small, old-world town of Westerham. On a recent visit the two-coach push-and-pull train was hauled by ex-South Eastern and Chatham 0–4–4T, No. 31520, relieved in the afternoon by sister engine No. 31533, also from Tonbridge Depot. Patronage is rather sparse so, not being scheduled for electrification or other development, this line may possibly be shortly closed.

The same fate threatens the pretty, rather remote and hilly 11½-mile Hawkhurst branch, diverging southward from the main line at Paddock Wood and operated mainly by similar engines and carriages, although elderly tender locomotives of moderate weight such as C class 0–6–0s are permitted.

Much in use with frequent services is the unique six-mile suburban electric line (nearly all) single track, connecting West Croydon, on one of the secondary routes from London to Epsom etc., with Wimbledon, on the trunk lines from Waterloo. London to West Sussex and Portsmouth double tracks are traversed through Mitcham Junction. This interesting byway, within about 12 miles of Central London, has six stations or halts, some open country, housing estates, factories and a large power station. After watching the *Atlantic Coast Express* pass I travelled from Wimbledon to West

Two diesel-electric locomotives, Nos. D6500 and D5004, double-head the "Golden Arrow" out of Victoria for Dover, via the Chatham route, during the Sunday closure of Sevenoaks Tunnel. Photograph by S. Creer.

Croydon, then resumed my southward journey along the Brighton main line from East Croydon, a busy railway centre about a mile away.

Westward Ho! from Brighton

Two well-provided, long-distance trains run daily between Brighton and Plymouth (S.R. operated throughout) and Brighton and Cardiff. In the latter case, worked by the Western Region west of Salisbury, the coaches include a miniature buffet car provided alternately by S.R. and W.R. Both trains travel the same route between Brighton and Salisbury, where locomotives are changed. Engines and crews stationed at Brighton take the Plymouth train outward, returning from Salisbury in the afternoon on the Cardiff train, or vice-versa. During my last part-way journeys we had Schools 4–4–0, No. 30902, *Wellington*, looking smart, in each direction on such duty, although West Country Pacifics are probably more usual. A 4-coach portion from Portsmouth was attached at Fareham on the outward trip; another was similarly detached eastbound.

The routes are interesting in many ways. From Brighton the West Sussex coast line is used with three calls to take up passengers, including one at Chichester with its fine new station. Through Havant we are on the electrified tracks of both London–Portsmouth services. Soon afterwards, the third rail is left behind as we go over the north side of a triangular junction, avoiding Portsmouth and proceeding by way of Fareham and Netley to St. Denys, where the London–Bournemouth main line is joined at the approach to Southampton. There are passing opportunities of seeing great ships, yachts, and varied railway or maritime activities. After a call at Southampton Central we soon branch off again into the country, bound for Romsey and the Waterloo–West of England trunk route on which we run into Salisbury, the next stop.

The Cardiff train thereafter makes connection with Paddington to Weymouth and West of England trains at Westbury (Wilts.), joins the original Bristol main line before reaching Bath Spa, curves round in Bristol over junction networks to call at Stapleton Road Station; on via Filton Junction to the London–South Wales main tracks and through the Severn Tunnel.

A Waterloo to Basingstoke train at Woking. The locomotive is 4–4–0 No. 31768 of the "L" class, built for the former South Eastern and Chatham Railway in 1914. Photograph by B. C. Bending.

French Railway Enterprises

To convey tourists and their cars to spots close to their holiday areas French Railways are running a Car-Sleeper Express between Paris and Biarritz this season as well as Paris, Avignon and Milan. A service from Boulogne, on the Channel coast, to Lyons and back will operate on certain dates, or daily, from the end of March to October, in connection with the Dover–Boulogne Car Ferry and passenger ship services. Single-berth sleeping compartments will be provided on these services from Paris in addition to less expensive "couchette", "single" or "double" accommodation. There will also be a new type of double-deck open truck on which cars will be conveyed.

The Gateway To A Technical Career

A SURE way to success in life today is a technical qualification. It is possible for a youth to have two thousand pounds' worth of education for nothing, except the determination to work hard for three years. At the end of this period, he can earn over £9 a week, with his living expenses paid. And he can achieve this in the Army.

There is nothing remarkable about the buildings at the Army Apprentices' School at Arborfield, near Reading. There is nothing remarkable about the boys when they join at the age of fifteen or so. Mostly they are just good lads from Secondary Modern Schools throughout the country. What is astonishing is to see the apprentices mastering Ohm's Law, using complicated tools for the repair of delicate

By
Humphry Gore

instruments, and assembling an internal combustion engine, having first stripped it and measured the parts for wear.

Like any other big organisation the Army is becoming increasingly technical and mechanised. To keep the tanks operational, the radar sets working, the lorries on the road, the guns firing, the radio sets in communication, and a thousand and one delicate instruments in good repair, the Army has a highly-specialised arm—the Royal Electrical and Mechanical Engineers, or R.E.M.E. Backbone of the Corps are the senior N.C.O.s and Warrant Officers, a large proportion of whom were once Army apprentices.

Referring to an Army apprentice's chances of further advancement a distinguished General once said that the only limits to his promotion and success are his own ability and perseverance. Ex-apprentices serving today include one Brigadier, three Colonels, 30 Lieutenant-Colonels, 600 junior officers, and more than 1,000 Warrant officers.

New boys at any school are apt to feel homesick and lost at first. Each new arrival at Arborfield is put under the charge of a more experienced apprentice to guide him through the first few weeks, after which the newcomer finds himself one of the crowd.

Arborfield follows the normal academic year with three terms and a total of ten weeks' holiday. Half the total training is technical, with general education and military training each taking up a quarter of the curriculum.

No paper qualification for entry is required, but a technical bent and a good report from a boy's headmaster are great assets. Most boys are accepted for training in the trade of their choice but if, for example, a would-be Control Equipment Technician is weak in mathematics he would be advised to adopt a trade, such as that of Vehicle Mechanic, where the standard of mathematics required is not so high.

About one-tenth of entrants, mostly from Grammar Schools, have a few subjects at G.C.E. "O" level, and a further 10 per cent. pass G.C.E. while at the Apprentices' School. When a sufficiently high standard has been reached, boys are encouraged to obtain City and Guilds Certificates. Suitable apprentices may even spend one day a week at the local Technical College and sit for their Ordinary National Certificate.

Of course, it is not all work. Games are played on two afternoons a week and there is boxing, athletics and cross-country running. Average physique is required, but glasses are no handicap to an apprentice, provided he has good colour perception—a Control Equipment Technician or Vehicle Mechanic, for instance, must be able to differentiate between a number of variously-coloured wires.

In leisure time

There are many voluntary activities to which the permanent staff of the School devote much of their spare time. There are some eighteen different pursuits, from archery and angling to weight-lifting and woodwork. Four bands and a guitar club cater for apprentices who are musically inclined. Chess and drama clubs attract the seriously minded; metalcraft, woodwork and photography clubs exist for those of a more practical turn of mind. The library is well stocked with light reading as well as technical books, newspapers and periodicals, which include the *Meccano Magazine*.

At the age of seventeen and a half a boy in the Army becomes a "man", and is paid as such—up to £6 2s. 6d.—a week, plus extra pay for apprentice rank and various qualifications. However, at Arborfield he is still an apprentice and must abide by the rules, so there is less freedom for him than if he were in a unit, or working as a civilian. But the sacrifice is worth while because of the training which is available and the qualifications which can be obtained.

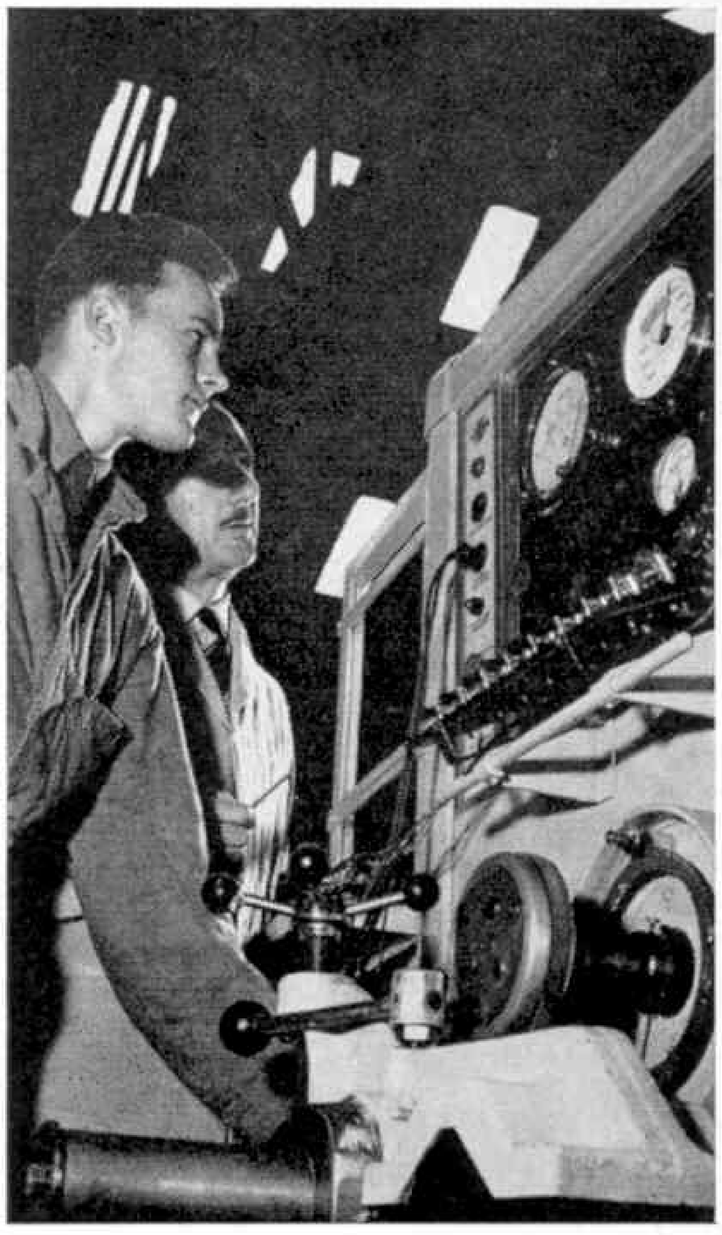
Agreement on service

Naturally, the Army only provides this training if an apprentice agrees to serve for some time—nine years, plus three years on the reserve—after his eighteenth birthday. This means that a young man in his late twenties can be well up the ladder of Service promotion (Staff Sergeant or Warrant Officer Class II), or he can go into civil life, recognised as a skilled tradesman by the trades unions.

The E.T.U. or the A.E.U. regard a man as fully skilled two years after he had left the School.

Not every boy who joins likes the life. During the first three months discharge can be purchased for £20; after that, it is more expensive. Some boys may not prove suitable, but as long as they try every help is given and many a doubtful starter has won through in the end.

There is much more to soldiering than learning a trade. The ability to give orders as well as to obey them, the organising of a task, or of a body of men, self assurance and honesty in dealing with others all come into it. Instruction is given by experienced and carefully-selected regular officers, N.C.O.s and civilian teachers.



An apprentice at Arborfield receives expert instruction at the electrical test bench.

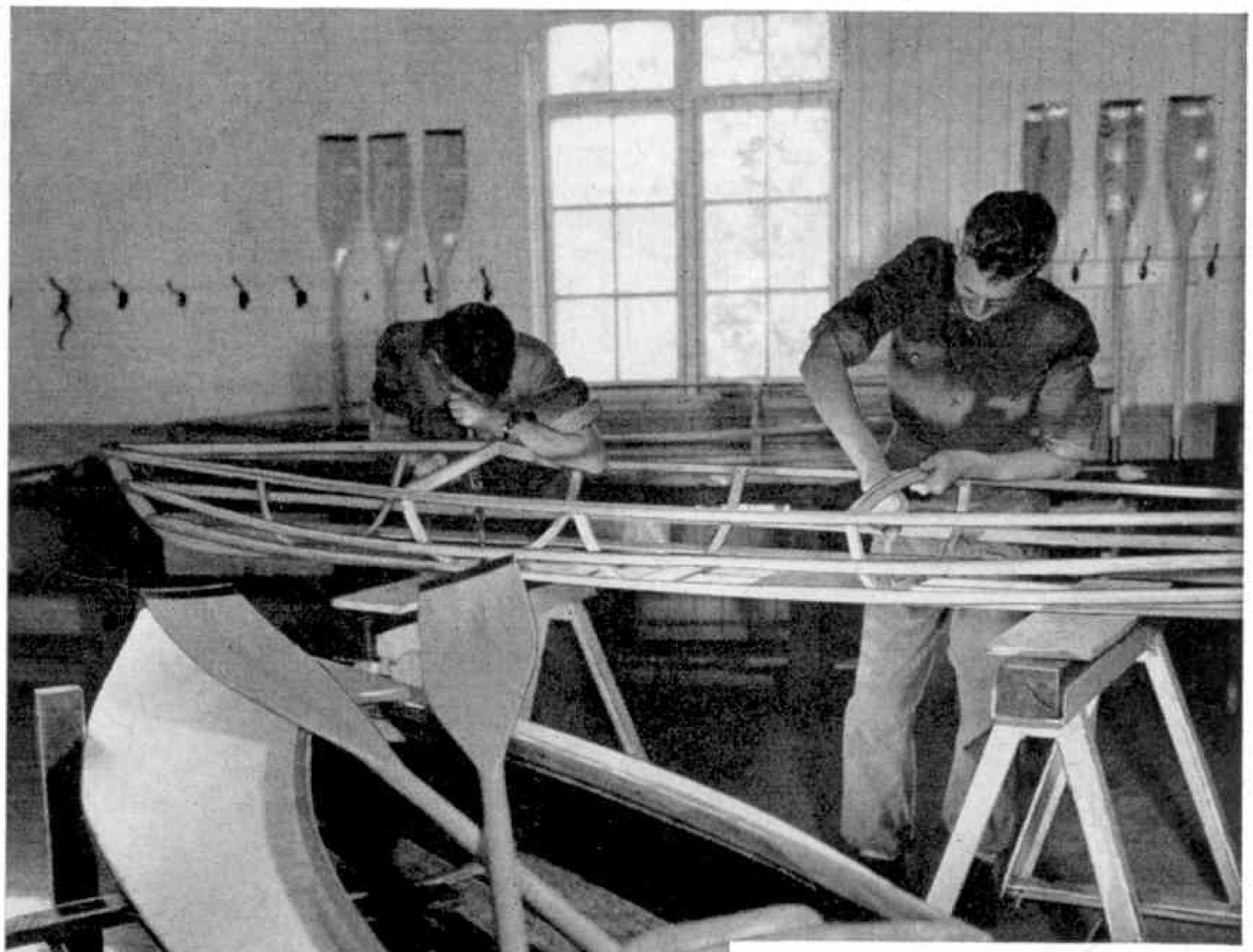
How it works

To a layman, the equipment in the laboratory-classrooms and workshops seems excellent. The importance of "seeing how it works" is demonstrated by skeletonised vehicles, machines and parts of radio sets. There is even a model of a R.E.M.E. Field Workshop, in which Dinky Toys vehicles are used for demonstration purposes.

There are several ways of learning a trade but the Apprentices' School at Arborfield manages to turn an uncertain schoolboy into a confident, trained man, equally suitable for military or civilian life.

The library at the Army Apprentices' School contains technical pictures, histories and autobiographies as well as light reading, newspapers and periodicals.

A popular recreational activity at Arborfield is carpentry. Here, apprentices are at work on the framework of a canoe.



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ROAD AND TRACK

The Ford Zodiac in a picturesque setting.

THIS season, for the first time since 1953, the Grand Prix cars in World Championship Events will race to a new formula which will remain in force until the end of the 1964 season. The maximum engine capacity will be 1½ litres unsupercharged, whereas from the start of the 1954 season until the end of 1960 the maximum capacity was 2½ litres. It has also been laid down by the Federation Internationale Automobile that the new Formula 1 cars shall not weigh less than 450 kilograms complete with lubricant and coolant, but not fuel.

There is no doubt that the new formula has given designers a big headache since it was first proposed, in 1958, at the Royal Automobile Club in London, for the reduction in engine size, linked with the weight limitation, will push development almost exclusively into the field of increased engine power and will be a very expensive proposition. Furthermore, smaller engines in heavier cars will limit maximum speed and there is a danger that the performance of Formula 1 cars in 1961 will be so much reduced as to make the major races lose their spectator appeal.

I must confess I like to see full-blooded racing cars in action such as the Mercedes-Benz Grand Prix cars of 1954 and 1955, the 250 F. Maserati, the Vanwall, when it was on the crest of the wave in 1958, and the Ferraris of the same year. But we must progress and it may well be that the entry of Porsche into Formula 1 racing, and the debut of the 1½ litre rear-engined Ferrari will give Cooper, Lotus and B.R.M. a run for their money, following the 1960 season when Ferrari only won one World Championship event out of

PETER LEWIS

writes about events in the motoring world

nine, and the 1959 season when the Italian marque won two Championship events out of eight. Every one of the remaining races, in both seasons, was won by a British car—eleven by Cooper, two by Lotus and one by B.R.M.

There is no doubt that Formula 1 racing will be all the better for more marques on the starting grid and more intense and closer racing between British and foreign cars, and it may well be that we shall not be too concerned about the new look in Formula 1, either in engine size, reduced speed or smaller cars. Porsche are, of course, the dark horse, for the Germans never enter the fray until they are certain that their cars are capable of winning. It is up to our designers, with their "know how" in chassis design, to keep Britain in the lead until such time as we are able to produce new and more efficient 1½ litre power units. For at present, and probably for most of the 1961 season, it will be a matter of using existing 1½ litre designs.

SILVERSTONE MAIN EVENT

The principal event of the Silverstone International Meeting on May 6 will be run to another new formula—the Intercontinental Formula for racing cars up to a capacity of 3 litres. This formula came into being following the storm of disapproval that greeted the new Formula 1, and should provide a very interesting and spectacular grid on May 6, for Cooper, Lotus, B.R.M., Ferrari and Scarab have announced their intention of supporting the Intercontinental formula as well as the new 1½ litre formula. They should all be at Silverstone for the 80 lap, 233 mile race. As I have indicated, there is a great deal to be said for the "heavies".

DISC BRAKES ON FORDS

When the Ford Motor Company introduced power-assisted front wheel disc brakes as a production option for the Zodiac, Zephyr and Consul it was acknowledged as a welcome move towards safer motoring for the masses. There

Seen here is the prototype rear-engined Formula 1 B.R.M. (1961)

Racing Personalities: W. E. WILKINSON

"Wilky" Wilkinson—an aptitude for making friends.

IN every sport there are back room boys who are rarely mentioned, in spite of their invaluable contributions.

In motor-racing it is the drivers—understandably so—who capture public imagination, and they are the first to acknowledge the tremendous enthusiasm and devotion to duty of the racing mechanics. For, without the overalled mechanics, always ready at a moment's notice to work all hours of the day and night to get their driver's car ready, there would not be any motor-racing.

One of the best known mechanics, partly because of his long association with Scotland's team of Ecurie Ecosse Jaguars, and partly because of his cheerful aptitude for making friends wherever he goes, is W. E. "Wilky" Wilkinson. He is never too busy—not even on the starting grid with only a few minutes to go before the flag drops—to put a harassed journalist in the picture, or to answer a barrage of questions from enthusiasts in the paddock after a race.

When David Murray launched Ecurie Ecosse in Edinburgh, in 1952, it was "Wilky" who was given the responsibility of seeing that the dark blue X.K.120 Jaguars, driven by Ian Stewart, Sir James Scott-Douglas and Bill Dobson were tuned to the highest possible level—and maintained that way. The story of Ecurie Ecosse, and of victories at home and abroad, has been a triumph for "Wilky", for no team of cars has been better prepared. And what a magnificent victory it was in 1956 when the Ecurie Ecosse D type Jaguar of Flockhart and Sanderson won the Le Mans 24 Hour Race. The following year Ecurie Ecosse did it again, but this time the Jaguars that "Wilky" tuned were first and second. Soon afterwards, the Scottish Jaguars raced in the Monza 500 Miles Race and earned the admiration of motor-racing enthusiasts everywhere.

And behind all this is "Wilky", who is not only a wizard tuner and fine all-round mechanic but was a driver of no mean repute before the war. He raced for the last time in 1951. Unlike most mechanics, he knows what it feels like to sit behind the wheel of a racing car and to battle for the lead, which is probably why he has such a sympathetic and understanding approach to drivers' problems. Now he has joined B.R.M. for 1961 as Manager of their Racing Section, but he will still advise on the tuning and maintenance of the Ecurie Ecosse cars, for during the season they will be garaged at Bourne with the B.R.M.'s.

One thing is certain. When the B.R.M.'s are wheeled on to the grid they will have been prepared meticulously, for "Wilky" is a perfectionist.

is no doubt that disc brakes are very necessary on fast cars, and the current range of Zodiac, Zephyr and Consul represents rapid motoring for Mr. Everyman.

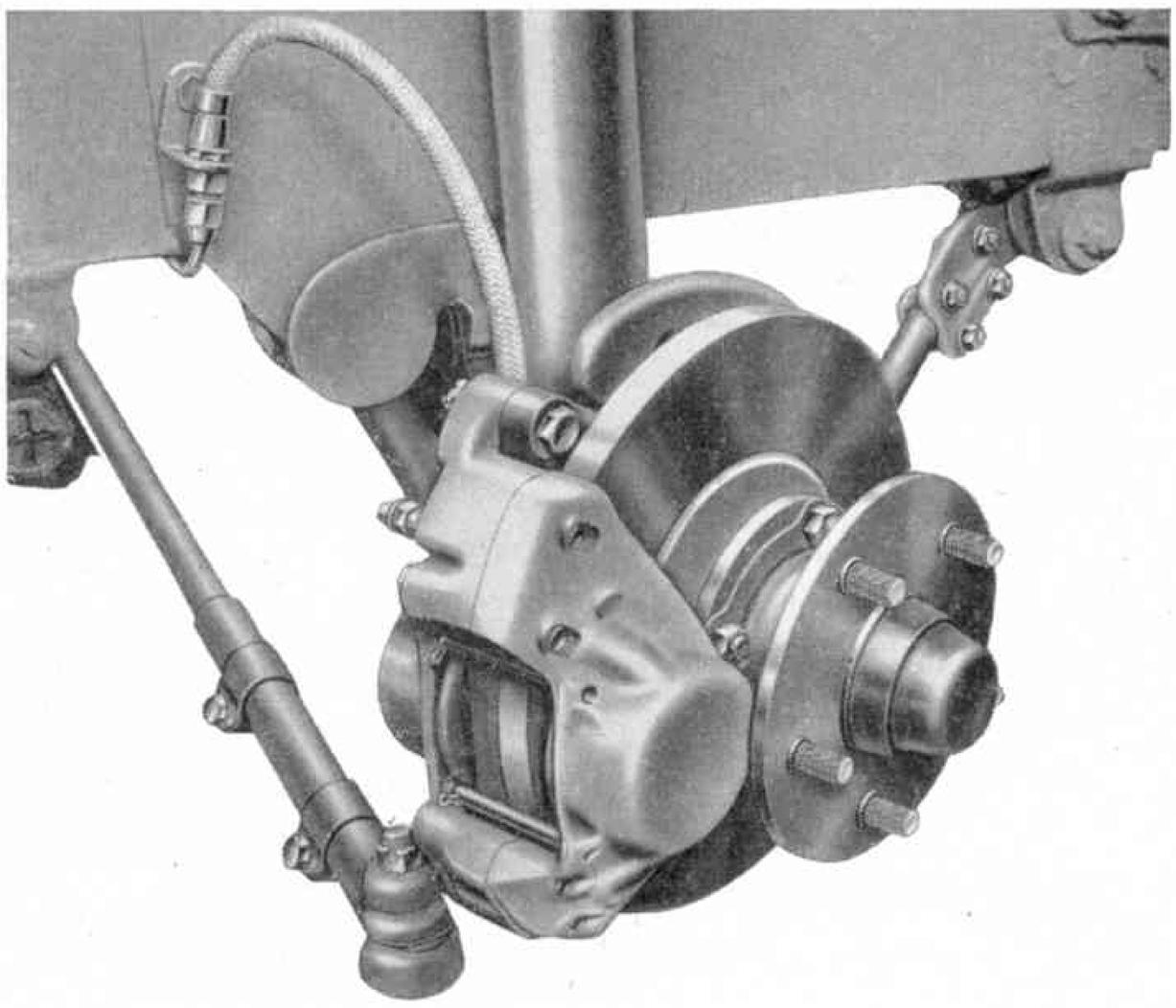
The disc brakes, of Ford-Girling design, cost £29 15s. 0d., including Purchase Tax, and make the total price of a disc-equipped Consul only £803—a very good buy indeed when one considers the tremendous advantage of disc brakes over ordinary brakes.

The theory of the disc brake—and it works very well—is that there is no heat dissipation as inside the enclosed drum of a conventional brake. Therefore, a disc brake has excellent anti-fade characteristics and does not become dangerously inefficient under heavy and sustained braking. These Ford discs have been tested and proved the hard way—in the exacting field of international rallies.

I was most impressed with a disc-braked Ford Zodiac I used for a heavy week-end of motoring recently. The new low-line Zodiac, with its robust 2,553 c.c. oversquare 6 cylinder O.H.V. engine, developing 85 B.H.P. at 4,400 r.p.m., is a highly-desirable property at any time and can cruise tirelessly in the 80's, with a maximum of over 90 m.p.h., as well as show most cars a clean pair of heels on acceleration.

I am not too keen on three-speed gearboxes but the box on the Zodiac is excellent, with well-spaced ratios and a steering column gear lever that is firm and positive in use. In fact, the Zodiac is equally at home being hustled along with the urgency of a sports saloon or meandering sedately on a Sunday afternoon. The comfortable seating position and the well-laid out instruments make this a most pleasant car to drive.

The roadholding and steering of this very comfortable full six-seater car on today's congested roads is excellent, and there is very little that one can fault in this product of Dagenham—particularly now it can be fitted with disc brakes. A luxurious, rapid motor-car at £957.



Disc Brakes are now fitted as a production option on the front-wheels of the Ford Zodiac, Zephyr and Consul.

Easter Customs—

(*Continued from page 130*)

A similar seasonable sport, less strenuous but still involving early rising, was the Easter morning archery contest in which assorted sheriffs, mayors, aldermen, and "gentry of the county" competed against one another before sitting down to a sumptuous breakfast. The principal dish was "calf's head and bacon", which, although apparently egg-less, sounds decidedly more appetising than the banquet served to members of the legal profession at Gray's Inn during the reign of "Good Queen Bess". On that occasion, the star dish was—and again I quote—"A savoury mess of eggs, served with green sauce".

It is not difficult to picture some decidedly "greenish" lawyers staggering home after several helpings of *that!*

Flying Missile Base

AIR NEWS

By JOHN W. R. TAYLOR

BOEING'S new B–52H Stratofortress, illustrated below, is by far the most formidable bomber ever built. Its main weapons consist of four Douglas Skybolt air-launched ballistic missiles, carried in pairs under its inner wings. When launched at a height of around 50,000 feet these missiles would follow a normal rocket trajectory above the atmosphere, at tremendous speeds, to destroy predetermined targets more than 1,000 miles away.

By firing Skybolts, instead of dropping ordinary bombs, the B–52H need never fly near enough to its targets to risk interception by enemy short-range fighters or anti-aircraft missiles. As protection against long-range fighters, it carries an automatic defence system that includes rockets and a six-barrel cannon capable of firing at the rate of 6,000 rounds a minute.

The B–52H is powered by eight of the new Pratt & Whitney TF–33 turbofan engines, each developing 18,000 lb. of thrust. They give it a top speed of well over 600 m.p.h. and range of more than 10,000 miles, even without flight refuelling.

AIR FERRY TO BRISTOL?

An idea of how hovercraft may one day change our travelling habits has been given by P. & A. Campbell Ltd., operators of the Bristol Channel White Funnel fleet. In a recent statement to the Press they announced that when a suitable hovercraft has been developed they will consider operating it as a ferry across the Bristol Channel.

This raises the question of whether hovercraft, which travel only a few inches or feet above the surface, are really aircraft. The Britten-Norman Cushioncraft carries the markings G–APYH, showing that the Air Registration Board regards it as a flying machine. Indeed, one can argue that it is more of an aircraft than the average aeroplane, because it travels through the air all the time, whereas an aeroplane has to run along the ground on wheels for take-off, so that it is also partly a land vehicle!

MORE MYSTERIOUS MARKINGS

Last month we had a picture of a Viscount in the markings of SAS, who have not ordered any. This month, we have a Britannia in the insignia of Cathay Pacific Airways, which is an even bigger surprise.

The reason is that Cathay's Lockheed Electras had to be sent back to America for major modifications; so the airline hired a Series 102 Britannia from B.O.A.C. to fill the gap for a time. It was used on the company's Hong Kong–Singapore–Manilla–Sydney service, and the picture below was, in fact, taken at Sydney.

HUSTLING HUSTLERS

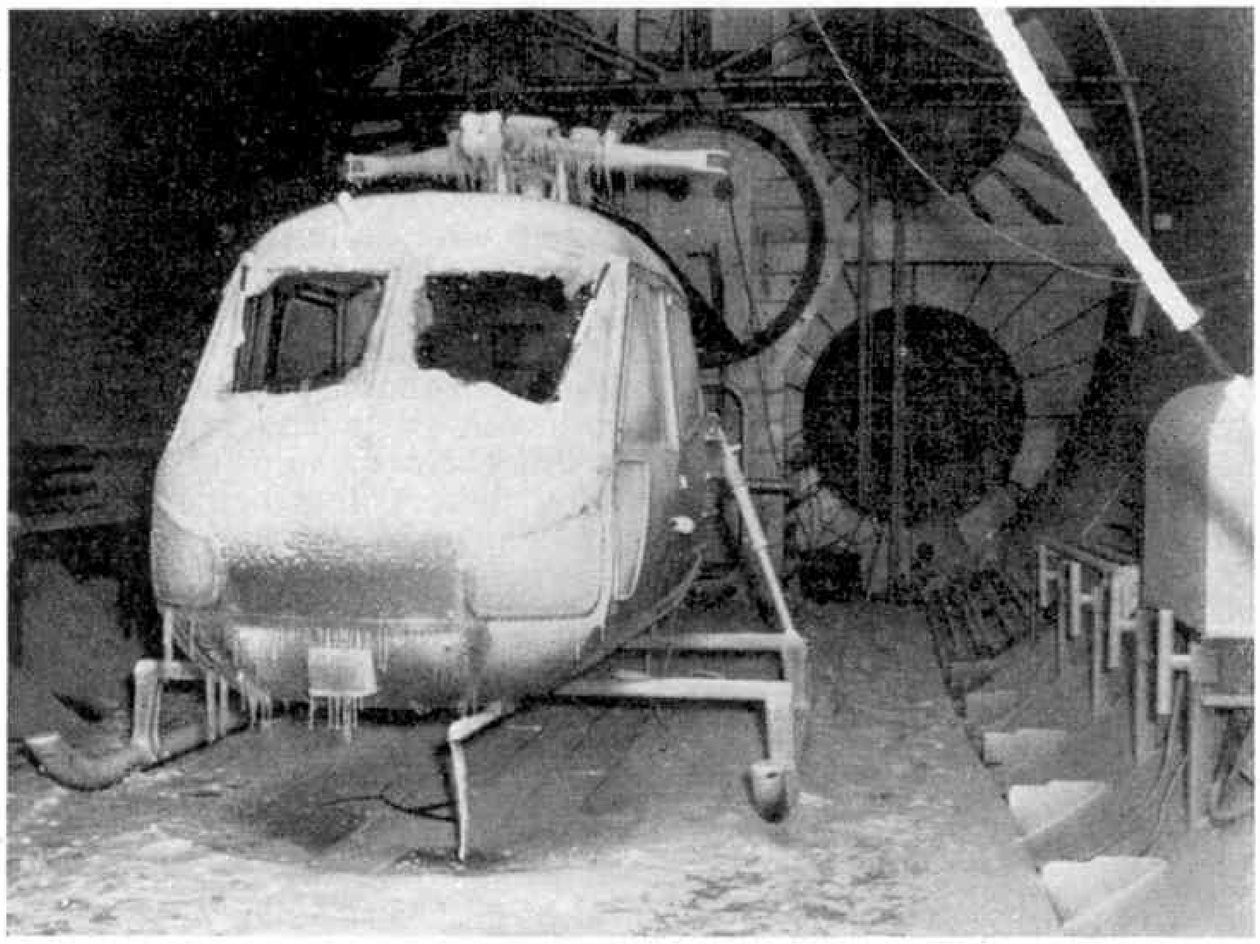
Convair B–58A Hustler bombers of the 65th Squadron, 43rd Bomb Wing, U.S.A.F., have shown their paces recently by setting up six new speed and payload records.

On January 12, Major Henry J. Deutschendorf flew B–58 No. 442 around a 2,000 km. (1,242 mile) course at a speed of 1,061 m.p.h., carrying a two-ton payload. Two days later, Major Harold E. Confer flew a 1,000 km. course in B–58 No. 441 at 1,284 m.p.h.—nearly twice the speed of sound—with a similar load. These speeds were so much greater than the old records, held mainly by the Russians, that they also established new records in the "no payload" and "one-ton" categories.

An interesting fact is that all the records

(Above) The Boeing B–52H equipped with a full complement of four Douglas Skybolt ballistic missiles. Latest of the B–52 series, it has improved range and performance.

(Right) This series 102 Britannia airliner carries the insignia of Cathay Pacific Airways.



(Above) The aircraft with a difference — the DC–3 fitted with test equipment.

(Left) The Westland Scout during simulated cold weather trials held recently in the Vickers (Weybridge) stratosphere chamber.

were set during climbs. Deutschendorf, for example, began his run at 14,000 feet and ended at 50,000 feet.

CLEANING THE BEACHES

If, like me, you have ever found yourself covered in greasy black patches after sitting on the beach at the seaside, you will welcome the news that something is being done at last about this unpleasant oil contamination. A technique known as "oil sinking" has been perfected in Germany and is being made available to coastal resort authorities in Britain by Southern Counties Aerial Contracts.

This company has brought a Cessna 180D lightplane, the cabin of which contains a hopper capable of carrying 1,000 lb. of chemicals. By opening a gate in the bottom of the hopper, while flying over the sea at 100 m.p.h., the pilot can spread the chemical quickly and accurately over oil-covered patches of water, taking only one-eighth of a second to "dust" 100 square yards. Experience has proved that this prevents the oil from being washed ashore.

DC–3 WITH A DIFFERENCE

Aircraft spotters living around Burbank, California are accustomed to watching needle-nosed Starfighters fly from the Lockheed factory; but even they must have wondered if their eyes were playing tricks when they saw for the first time the DC–3 illustrated at the top of this column.

The 8-ft. pointed nose sticking out in front of the flight deck is, in fact, that of an F–104G, the latest version of the Starfighter. What is more, there is a complete full-size replica of an F–104G cockpit inside the cabin of the DC–3, plus banks of test equipment and instruments. The bulge above the flight deck houses an infra-red gunsight of the type fitted to the fighter.

By packing all this into the DC–3, Lockheed are able to study in flight, for hours at a time, how the advanced radar and fire-control equipment of the F–104G will behave under various operating conditions.

U.S. TESTS AUTOLAND

Further proof of Britain's leadership in the development of automatic landing systems for airliners is given by the news that the U.S. Federal Aviation Agency has ordered a complete set of this equipment for testing in one of its DC–7 aircraft.

Known as Autoland, the equipment links the aircraft's automatic pilot with a special instrument landing system. It is so accurate that hundreds of safe landings have been made at Bedford by piston-engined and jet aircraft in all kinds of weather conditions, without the pilot needing to touch the flying controls.

Autoland, which was perfected jointly by the Ministry of Aviation and private industry, is being manufactured by Smiths Aircraft Instruments Ltd., and Murphy Radio Ltd. It is expected to be used as routine on airline services by aircraft like the D.H. Trident in a few years' time, leading to greatly increased safety and on-schedule operation in bad weather.

SURVIVES —35°C. FREEZE-UP

Modern aircraft are expected to be able to operate safely and efficiently from the Arctic to the tropics, and the Westland Scout helicopter has recently been proving that it can do so, before entering service with the Army.

The Scout, seen in the lower picture on this page, with icicles dripping from its nose and rotor head, was subjected to a temperature of minus 35°C. in the cold chamber at Vickers-Armstrongs' Weybridge works. Various functional tests were made while it was in the chamber, in artificial snowstorms and high wind conditions, and a full servicing programme was carried out by men from the Army's Central Servicing Development Establishment. Amazing as it may seem, the helicopter's Nimbus shaft-turbine engine started first time, without difficulty, immediately after the machine was removed from the cold chamber.

While all this was happening, another Scout was flown out to Aden in a Beverley of R.A.F. Transport Command to obtain preliminary information on hot weather performance, and to find out what damage might be caused to the rotor blades, airframe and engine components while operating under sandy conditions. During its eleven days there, it logged a total of nineteen flying hours. At no time was the flying programme delayed, no spares were needed and no unserviceability was recorded.

WORLD'S BIGGEST YO-YO

Fliers have thought up some pretty hair-raising tricks over the years to keep the public amused; but a stunt now being performed by Lieutenant Gene Pedrick, of the U.S. Army's helicopter demonstration team, takes some beating.

Pedrick ties a 70 lb. (*Cont. on page 148*)

DINKY TOYS NEWS

Tractor-Trailer And A 4-Berth Caravan

HERE we are at the beginning of another month only this time it is a month with a difference or, at least, judging from the British climate, a month with a tradition. We have all heard of April showers, but it is touch and go whether or not in this country we shall get showers, or a flood, or a drought!

BY THE TOYMAN

Even so, the attraction of the rapidly-lengthening evenings and the seasonal urge to get out and about make the prospects of coming holidays most agreeable. And, of course, when one thinks of holidays, particularly in these days when camping is so popular, one thinks very often of caravan holidays. The spirit of adventure which is to be found in holidays of this nature can now be expressed through Dinky Toys layouts, for the Dinky Toys Four-Berth Caravan, introduced this month, provides an ideal means of doing this. This fine caravan is shown in two illustrations in this month's notes.

No. 188 in the Dinky Toys list, it is available in alternate finishes of blue and cream or pale green and cream—both striking colour schemes. It is equipped with perfectly-detailed interior fittings which include cupboards, seats, sink unit, and dining table, all cream coloured. The model is also fitted with wheel suspension, and has glazed windows and an opening door. It carries a universal towing bar at the front and a small jockey wheel which comes into use when the model is detached from the towing vehicle.

The overall length of the model Caravan, including the towing bar, is 5¼ inches and it is almost 2 inches high and 1¾ inches wide.

You will thus see that it is a very attractive model indeed and it certainly should be a very popular item to use in collectors' summer schemes.

A well-chosen site

In the illustration on page 129 the new Caravan is seen parked at the edge of a small lake, probably in hilly country. The occupants are returning from a hike in the hills, and I have no doubt at all that the nearby sheep were exploring the immediate area of the Caravan while they were away.

There are a number of points to show that this is a well-chosen camping site, and I wonder if enthusiasts can work them out for themselves before reading about them.

Actually, these points become rather obvious when you think about them for a while, but perhaps the most important is that the Caravan is parked by a lake so that there is plenty of water to be had. Also, you will notice from the barn on the left of the picture that there is a farm in the vicinity from which the campers will be able to obtain fresh produce. Last, but not least, the camp site is sheltered from the wind by the trees in the background, which also give a certain amount of seclusion to the spot. Taken by and large,

Among the list of recent winners in the Dinky Toys £2 monthly competition is G. P. Whittaker of Caernarvon, North Wales, who is pictured here.

The Tractor-Trailer McLean, latest Dinky Supertoys introduction, makes its way along a steep mountain road. The silver grey Tractor has ribbed sides with full detail, including the rivet heads.

This illustration of the Dinky Toys four-berth Caravan in a suitable sylvan setting shows how it can be introduced into layouts with great effect.

I would say this is a very good camping site indeed.

Now to introduce the second Dinky Toys release this month. It is, in fact, a Supertoy, No. 948, Tractor-Trailer McLean, and it can be seen in the illustration at the foot of the previous page.

This also is an up-to-the-minute model in every way, being a fine reproduction of an interesting road unit widely used in the United States. The actual vehicle is owned by the McLean Trucking Company of Winston-Salem, in North Carolina, and is a huge transporter with an overall length of 45 ft. 3 in. It is 12 ft. 5½ in. high and 8 ft. wide. The powerful diesel tractor which hauls the truck has a wheelbase which measures 11 ft. 8 in. The width of the Tractor itself is 7 ft. 10⅜ in. and it is 9 ft. 1⅛ in. high.

You can well imagine that this massive vehicle is indeed a very impressive sight as it thunders along the important American highways. It can, of course, link up very well now in Dinky Toys layouts with the Wayne School Bus (No. 949) reference to which was made in these Notes in February, and Dinky Supertoys No. 958 Snowplough which was illustrated and referred to in detail in the Dinky Toys News in January.

Going back to the Tractor-Trailer McLean, the Dinky Toys model has an overall length of 11⅝ inches, a width of 2 1/16 inches and a height of 3 1/16 inches. It has fourteen wheels, the tractor itself having dual wheels at the back and the trailer being supported at the back by twin axles carrying eight wheels. At the forward end of the Tractor are two small supporting wheels which clear the ground when the Tractor is in movement but allow it to rest firmly on the ground once it has been disconnected from the Trailer.

The Tractor itself is fitted with windows and is finished in a deep red gloss while the Trailer is a silver grey in colour with neatly-ribbed sides and dual opening doors at the back. Both Tractor and Trailer carry the McLean transfers in the correct positions and I feel there is no doubt that this latest Supertoy will make a magnificent addition to any enthusiast's collection.

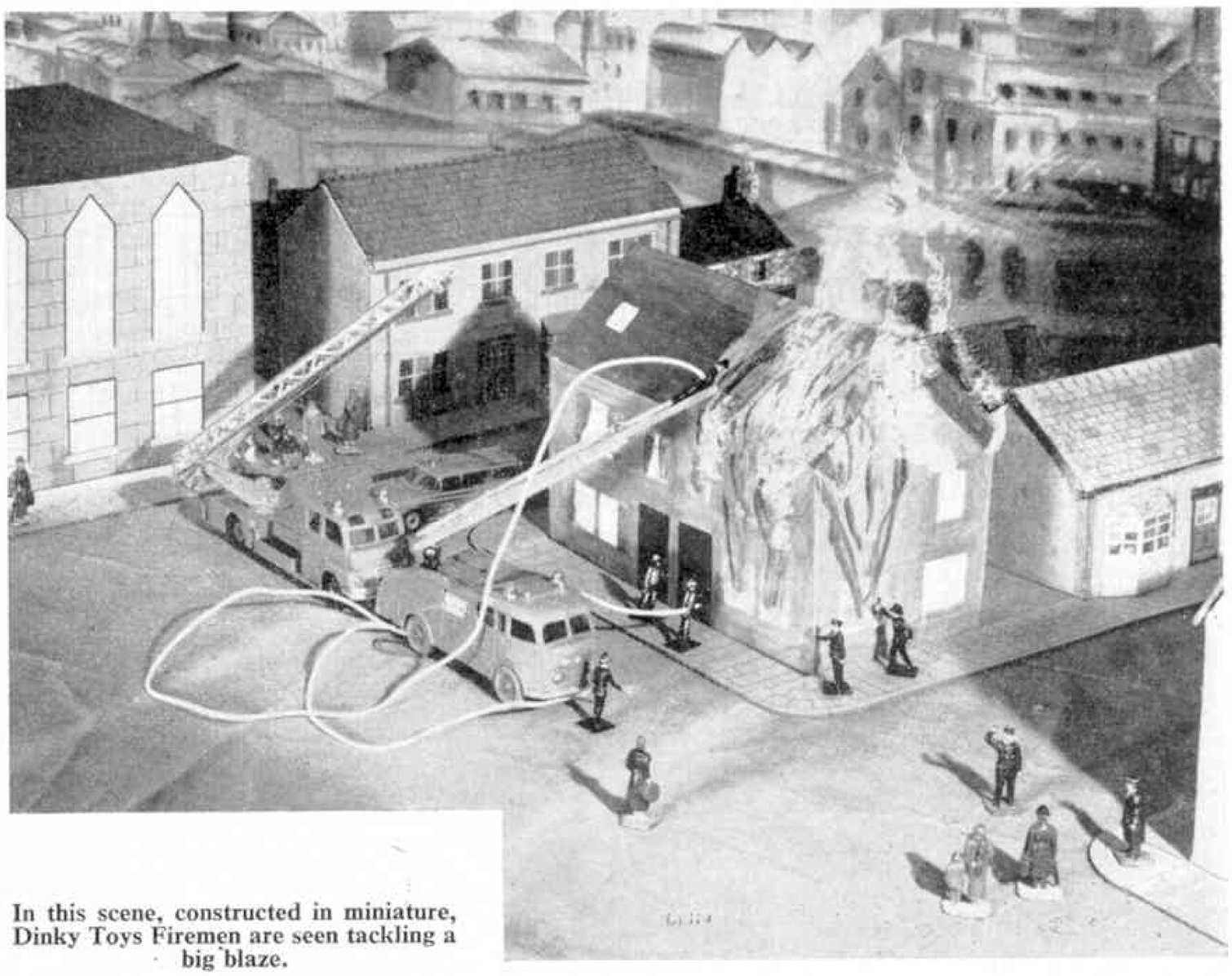
The picture at the foot of the previous page shows the Tractor-Trailer McLean climbing up a steep mountain road which is little more than a hard-packed clay track. Notice how it is forced to keep well over to what, in the United States, is the wrong side of the road, probably because there

The third article in Patric Baker's popular series "They Were Different Then" will appear in the May issue of the Meccano Magazine.

DINKY RHYMES

No. 131 Cadillac Eldorado Tourer.

In days of old, discovering gold,
The Dons showed great bravado;
Life had one flaw—they never saw
The modern Eldorado.



In this scene, constructed in miniature, Dinky Toys Firemen are seen tackling a big blaze.

Dinky Toys News

—(*Continued from previous page*)

is a danger of the road collapsing if the heavy vehicle ventures too near the edge.

And now I want to draw your attention to the scene at the bottom of the previous page. It shows the final item released by Dinky Toys this month—a set of fire personnel.

There are six miniature figures in the set which is No. 008 on the Dinky Toys list. They are highly detailed in plastic and

This view of the four-berth Caravan clearly shows the jockey wheel and towing bar.

appear in authentic fire service uniform. The set consists of an officer, two firemen each holding a nozzle to which a length of plastic hose can be attached, and one with a clip around his waist so that he can be fixed to the top of the fire ladder still carrying his hose. There is also a fireman wielding an axe, another wearing breathing apparatus and, finally, a member of the brigade who appears to have no particular job but who fits into the scene quite well.

Judge For Yourself

A SURPRISE STOP

Mr. Smart had just caught his usual morning bus. It moved off, and then, because a dog ran suddenly in front, stopped so suddenly that Mr. Smart was thrown off.

By a Barrister

He claimed compensation from the bus company on the ground that his injuries were caused by their driver's incompetence. Did he win? (For answer, see page 148).

. . . Mr. Smart was thrown off.

EASTER CUSTOMS

WHEN Mr. John F. Kennedy, President of the United States, attends Washington's celebrated egg-rolling contest, held each Easter on the smooth, emerald lawns of the White House, he will be participating in a pastime which originated, strange as it may seem, within the sedate, stately Cathedrals of England.

The word "within" is used literally, for the practice of knocking hard-boiled eggs together conker-wise until all but the toughest cracked was observed actually *inside* the sacred buildings, with bishops, deans, canons, and choristers all sharing enthusiastically in the fun. It must have been a wonderful spectacle, and one can only regret that the excessive zeal of a boisterous minority—choir boys, perhaps, who preferred lobbing to rolling!—made it necessary eventually to evacuate the nave in favour of the cloisters. From these, in due time, the "sport" moved to field and hill-side where those who wished to do so had their Easter fling.

Yet, although man may at times handle what he casually calls "hen-fruit" in this disrespectful fashion, the fact remains that there is within him a deep-rooted veneration of the egg. To primitive minds, the breaking of the shell, and the emergence of a living creature from the shattered remains, seemed miraculous; as, indeed, it is!

* * * *

Long before Christianity came to our shores our ancestors marked the Spring Equinox with festivities and religious rites, in which eggs—placed on the altars of the gods of Fertility—figured prominently. The Norsemen called the time *Eostur*, "the season of the Growing Sun", and there is very little difference between "Eostur" and "Easter". Certainly, the early Christians had no difficulty at all in adopting—and adapting—the egg. It became for them a marvellous, ready-made memento of Christ's Resurrection.

"As the tiny bird shatters the shell", they said, "so our Lord and Master shattered His tomb", and they presented eggs to their families and friends in commemoration of such a marvellous event. The custom—and a pleasant one it is—remains to this day, although its origin and its true significance are not always remembered, as is the case with so many other things.

At first, it would seem, the eggs were presented in their natural, rather colourless, hues. Before long, however, people decided to improve on what nature had provided. The Greeks coloured their eggs crimson, the Austrians favoured green. Some painted their eggs silver; others etched elaborate engravings on the shells. Occasionally, as in the case of King Edward the First, who distributed no fewer than 450 hard-boiled eggs covered with gold leaf among members of the Royal Household on Easter Day, 1307, valuable materials were used. For the most part, however, the eggs were simply coloured and, indeed, coloured so simply that anyone who cares to experiment with them has every prospect of success. Here are a few suggestions:

By J. R. ELLISON

Add cochineal to the water in which your egg is boiled. This induces a really splendid blush! (On the *egg*, of course!)

Alternatively, try out various dyes—one at a time, preferably—and see what emerges.

Boil the egg in an onion skin. This is said to produce "a delicately mottled appearance, much appreciated by members of the fair sex".

Wrap strips of non-colourfast material around the egg before immersion. A variation on this theme, and one said to be popular in Switzerland, is to secure fronds of fern to the shell. These are removed after boiling, and should leave behind what are described as "intricate and pleasing patterns".

Other ideas can be thought up, I am sure, although it is inadvisable to put them into practice without first asking permission.

As to obtaining the basic ingredients for such, our country parishes used to have an interesting, although somewhat strenuous, scheme. The idea was to catch a hare, without resorting to either shooting or snaring, before ten o'clock on Easter Sunday morning. This accomplished, the creature was then presented to the Vicar who, in turn, rewarded the successful hunters with—and I quote from an ancient document—"A calf's head; a groat; *and a hundred eggs*". (My italics!)

Should you decide to emulate this feat in your parish, however, may I suggest that you make your intentions clear in good time? Times have changed—and not everyone has a calf's head, a groat, and a hundred eggs waiting in the larder! It would be infuriating to catch your Easter Hare for nothing!

(*Continued on page 125*)

Another New Feature

For M.M. Readers

PHOTOGRAPHERS' PAGE

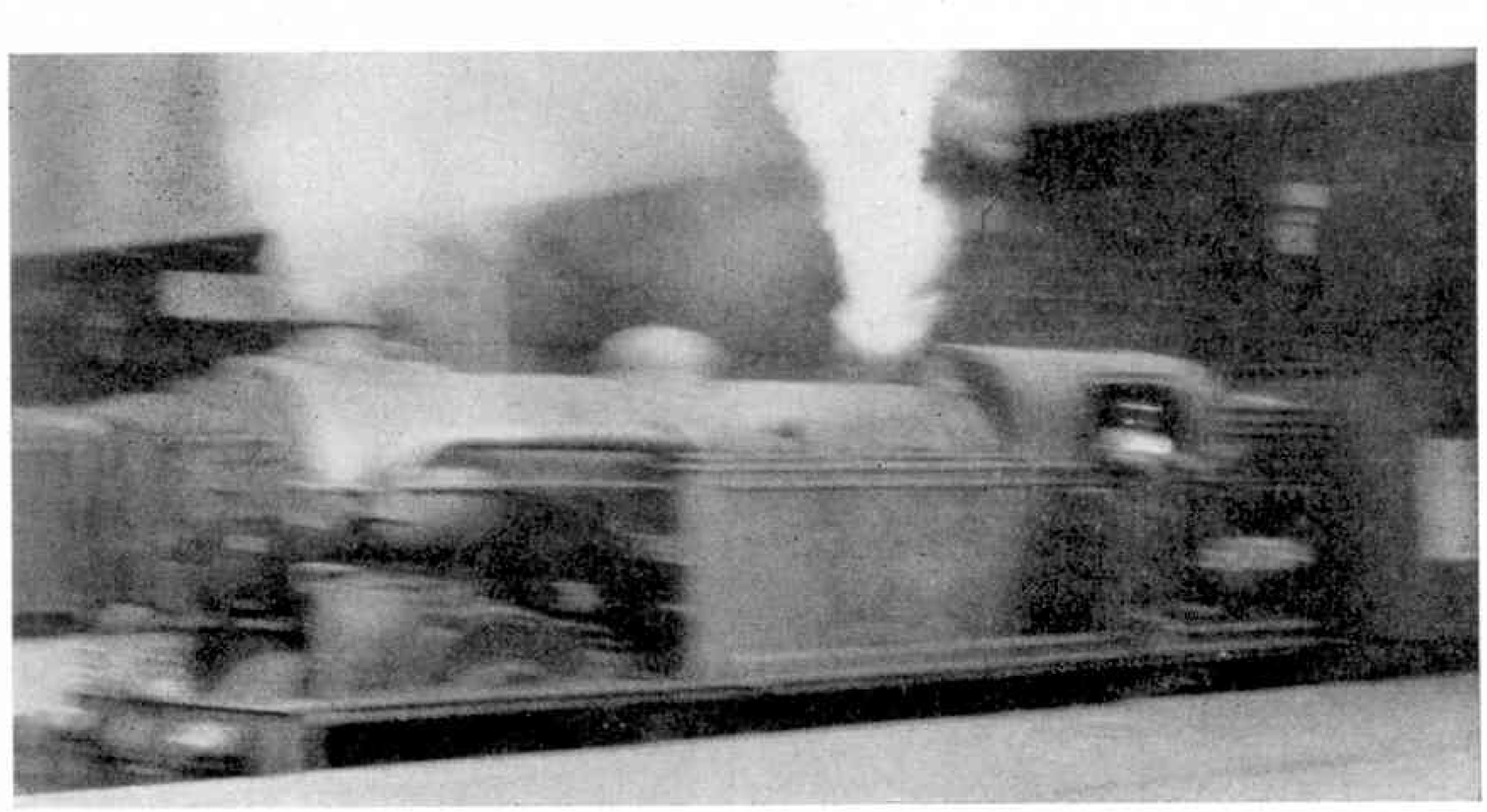
PHOTOGRAPHY is one of the best of all hobbies. By itself it is great fun, but combined with another hobby it will add immeasurably to your enjoyment of both.

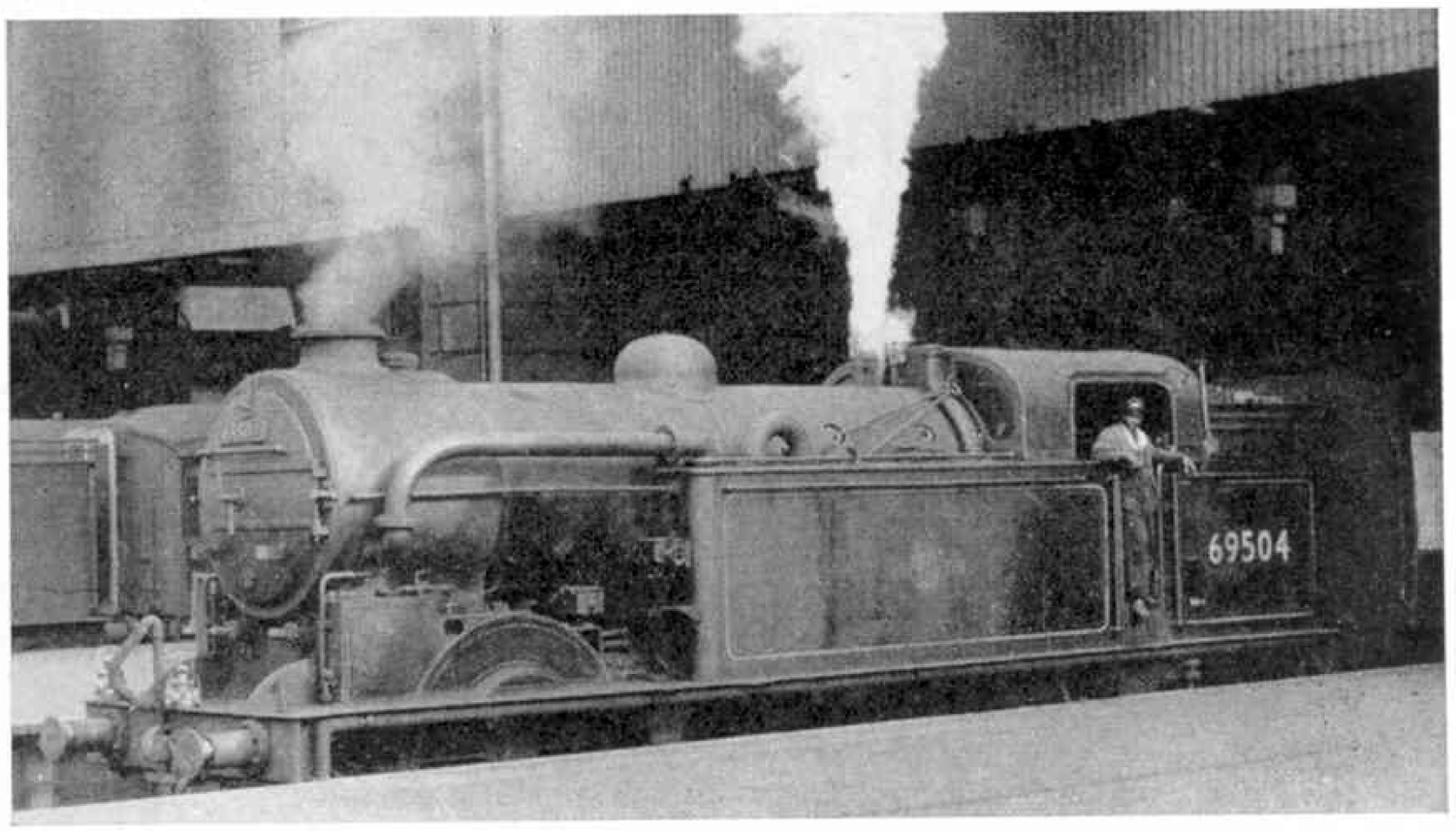
If you are interested in railways, how much more fun it is to take your own pictures when out loco-spotting. If you are a keen Meccano model-builder, then photography can record all your best efforts. Anything from Dinky Toys to ocean liners can be photographed with a simple camera, and good pictures can be taken almost as easily in the living room, at night, as they can on the beach on a lovely summer's day—provided we understand something about our cameras and how to get the best results out of them.

A common cause

Holding the camera, for instance, seems simple enough. Yet holding it wrongly is one of the commonest causes of disappointing results. Look at our picture at the foot of the page. Note how blurred it is and how some of the outlines of the engine appear to be double. Now, compare this picture with that at the top. The only difference in the way in which they were taken is that the camera was held *firmly and steadily* while the second photograph was being taken. The unsatisfactory picture was entirely due to camera shake, or letting the camera wobble about when the picture was actually being taken.

A muzzy print caused by camera shake—failure to hold the camera firmly at the moment the picture is being taken.





A good, sharp print showing in detail the scene which the camera should have recorded for the picture at the foot of the page. Keeping a steady hand brought the correct result.

One of the most important rules for taking good pictures is to hold the camera very steadily, with both hands if possible, when you are going to take a picture. A box camera can be held firmly against your tummy for extra steadiness, or an

BY

H. G. FORSYTHE

eye-level camera might be pressed firmly against the side of your face. Even more important is to *squeeze* the shutter release lever or button *gently* when taking the photograph. Never push it or jab it sharply.

Do take care, also, that whatever it is you want to photograph is nicely framed in your camera viewfinder before you press the shutter release. It is often quite easy to look sideways through the viewfinder at parts of the scene that your camera lens is not covering—important parts of the picture you really want are left out; heads are "cut off" and buildings "lean over" dangerously.

Make this a rule

Such unsatisfactory results are easily cured. Just make it a rule always to look straight into your viewfinder. Look straight down into it if you have a box camera or, if the viewfinder is one of the "look through" kind, make sure you *are* looking straight through it.

Never be in a rush to take your pictures. Sometimes, of course, you might have to hurry or you will miss a news photograph, but I will tell you more about that kind of picture later on. As a general rule, take your time to look in the viewfinder, carefully compose your picture, then, and only then, press the shutter release. In other words, "shoot" with your camera just as you would shoot a gun, taking the same care in aiming and firing.

In next month's Photographers' Page I shall be telling you something about how photography works, how to choose the right films for the best results and how to avoid "Photographer's Nightmare."

Later on in the year we shall be talking about photographing trains, how to take pictures of Meccano models, developing your own films, and other interesting topics which will enable you to get the best from your camera.

BOOK REVIEW

The **ABC of London Transport Railways** (Ian Allan, 2/6d.), follows the usual ABC plan of providing lists in numerical order of rolling stock numbers and details. Not only tube stock, but that used on what are known as surface line trains of London Transport is included, and details are given of the steam locomotives still maintained for service purposes. In addition to numbers useful notes on the various types of vehicles are included.

Among the Model-Builders

By "Spanner"

A Wonderful Meccano Model

MANY *Meccano Magazine* readers will have seen, and perhaps have put a copper or two in, one of the automatic grab crane gift machines that feature in many amusement arcades. Dropping the penny in enables the operator to manœuvre the crane grab in an endeavour to pick up one of the prizes enticingly displayed inside the glass container. Now, a reader of the *Meccano Magazine* has built a model based on one of these machines and, although it is not provided with the glass container in which the prizes are shown in the actual machine, it functions in a very realistic manner when a coin is inserted.

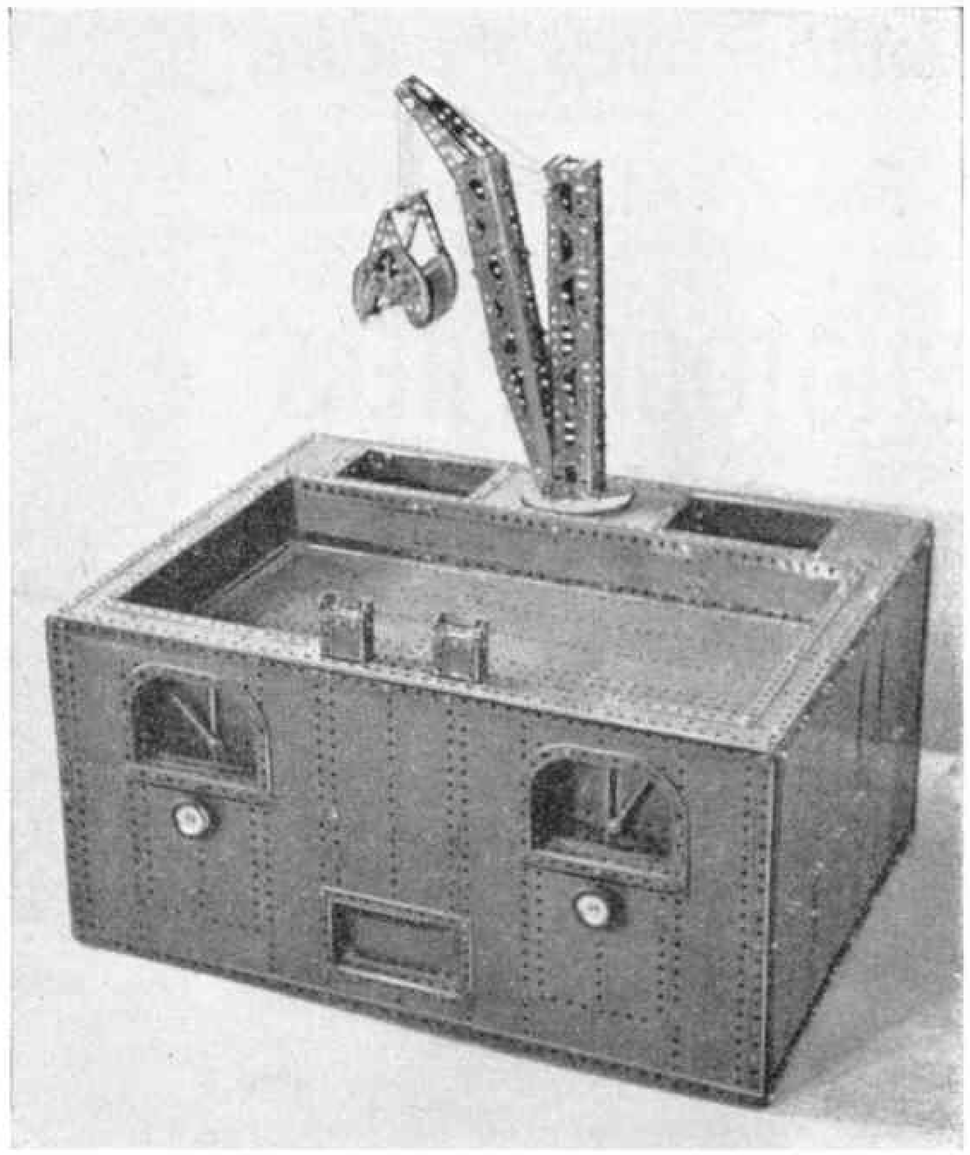
The model is illustrated on this page. It is an excellent example of the adaptability of Meccano, and of the unlimited range of subjects open to a clever model-builder who has the parts available and is prepared to devote the time necessary to think out, and plan for himself, the intricate mechanism required to operate a complicated machine such as this.

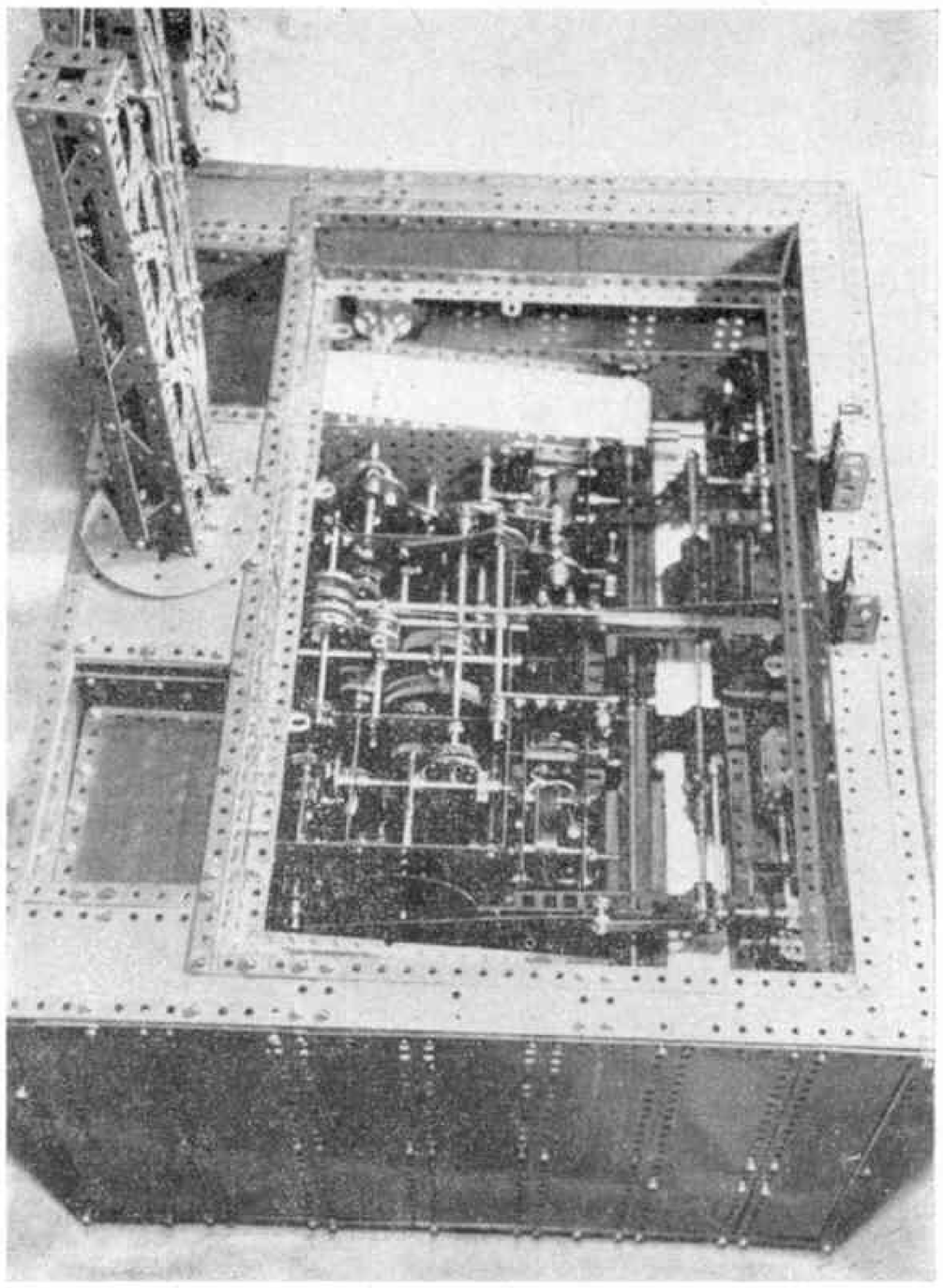
The builder of this very attractive and unusual model is J. M. Sturrock who lives at Dundee. He tells me it took him the best part of sixteen months' leisure time to design, build and carry out all the many adjustments required to get the model functioning just right! Sturrock also tells me that when he first planned his model he intended that its details should follow the original machine very closely, but as he thought the construction would be too easy he decided to make it more difficult, and interesting, to construct by designing and incorporating several new mechanisms of his own.

The operation of the model is as follows: On the front of the machine are two small "selector" cranes and two knobs. On turning the left-hand knob the "selector" crane above it swivels. On turning the right-hand knob the jib of the little "selector" crane above it is raised and lowered. Before the penny is inserted in one of the two slots provided, these two "selector" cranes are swivelled to any desired position. On inserting a penny in either of the slots the main crane automatically takes up the same position as that of the two smaller "selector" cranes above the operating knobs. The crane grab is then lowered into the well of the casing in which small gifts of various suitable types can be placed. With practice and skill the two small "selector" cranes can be set so that the crane grab will pick up any desired gift. The grab then closes and is hoisted, and the jib returns to the vertical. The crane then swivels either right or left, and the operator has to guess which way it will go.

If the crane swivels to the left and the penny had been put in the left-hand slot, the penny is automatically returned, but if the crane turns left and the penny was in the right-hand slot, the coin is not returned, and so on. In all cases, however, the operator still gets any gift the grab has picked up, as the grab lowers over one of two discharge doors, the door opens, the grab opens and the gift falls into the machine. A conveyor belt carries it to a door at the front of the machine, which opens and displays the gift together with the penny, if the latter is returned. The crane then reverts to its original position and all doors close. The entire sequence is completely automatic and some idea of the intricate mass of gears and other mechanisms that carry it out can be gained from accompanying illustrations.

I am unable to describe this splendid model in detail, but mention it here to show the scope which is available for ingenious model-builders, who wish to get off the beaten track of ordinary model-building, provided they keep their eyes open for novel subjects and





(Above) The very attractive and ingenious model automatic amusement machine built by Mr. J. M. Sturrock, of Dundee, which is described on this page. (Below) A view of the machine with the top plating removed to show the mass of internal gearing.

are prepared to put in some really patient work experimenting with mechanisms and amending and reconstructing until they achieve the desired goal. In this way, the full joy of Meccano can be realised and the full value of the system appreciated.

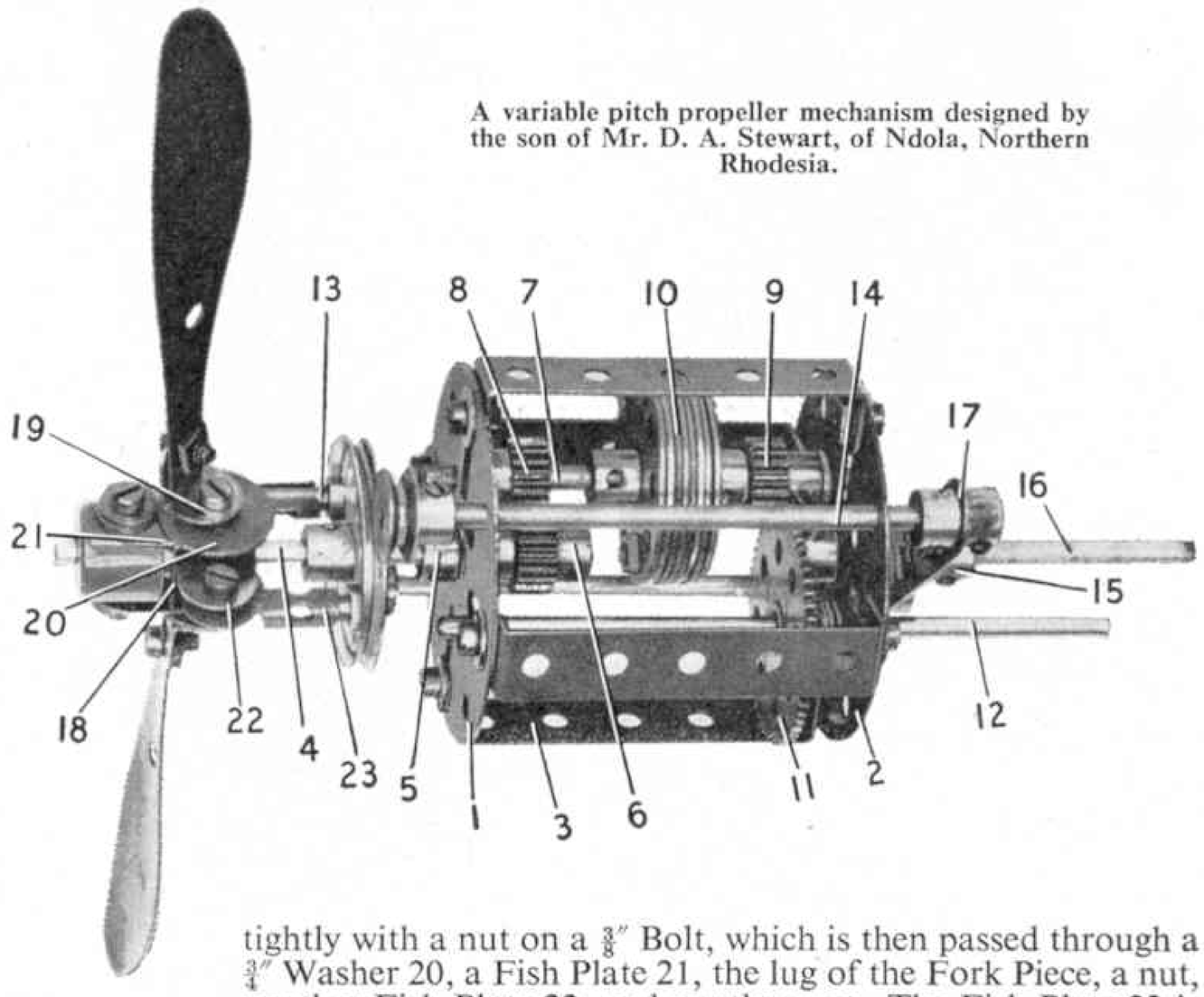
Variable Pitch Propeller

I received from Mr. D. A. Stewart, of Ndola, Northern Rhodesia, details of a variable pitch propeller mechanism designed by his 12-year old son, who is a very keen Meccanoite and is fond of experimenting. The mechanism is illustrated on the right and it is constructed as follows.

Two Face Plates 1 and 2 are connected to each other by four 2½" × ½" Double Angle Strips 3. A 3½" Rod 4 is placed loosely in the boss of the Face Plate 1, with a Collar 5 and a ½" Pinion 6, secured to it as shown. A 3" Rod 7 journalled in the Face Plates as shown carries two ½" Pinions 8 and 9, the former engaging with the ½" Pinion 6. The Rod also carries six Wheel Discs 10, which are locked between two Bush Wheels. A 57-teeth Gear Wheel 11 on a 4½" Rod 12 is arranged to drive the ½" Pinion 9. On the Rod 4 a 1½" Pulley Wheel, which has two Threaded Pins 13 attached to it is placed. Two 4" Rods 14, each has a 1½" Pulley secured to it in such a position as to allow one rim of the Pulley to run in the groove of the 1½" Pulley Wheel. The Double Arm Crank 15 carries a 2" Rod 16, and it is extended by a 2½" Strip 17, one end of which is located between two Collars on Rods 14.

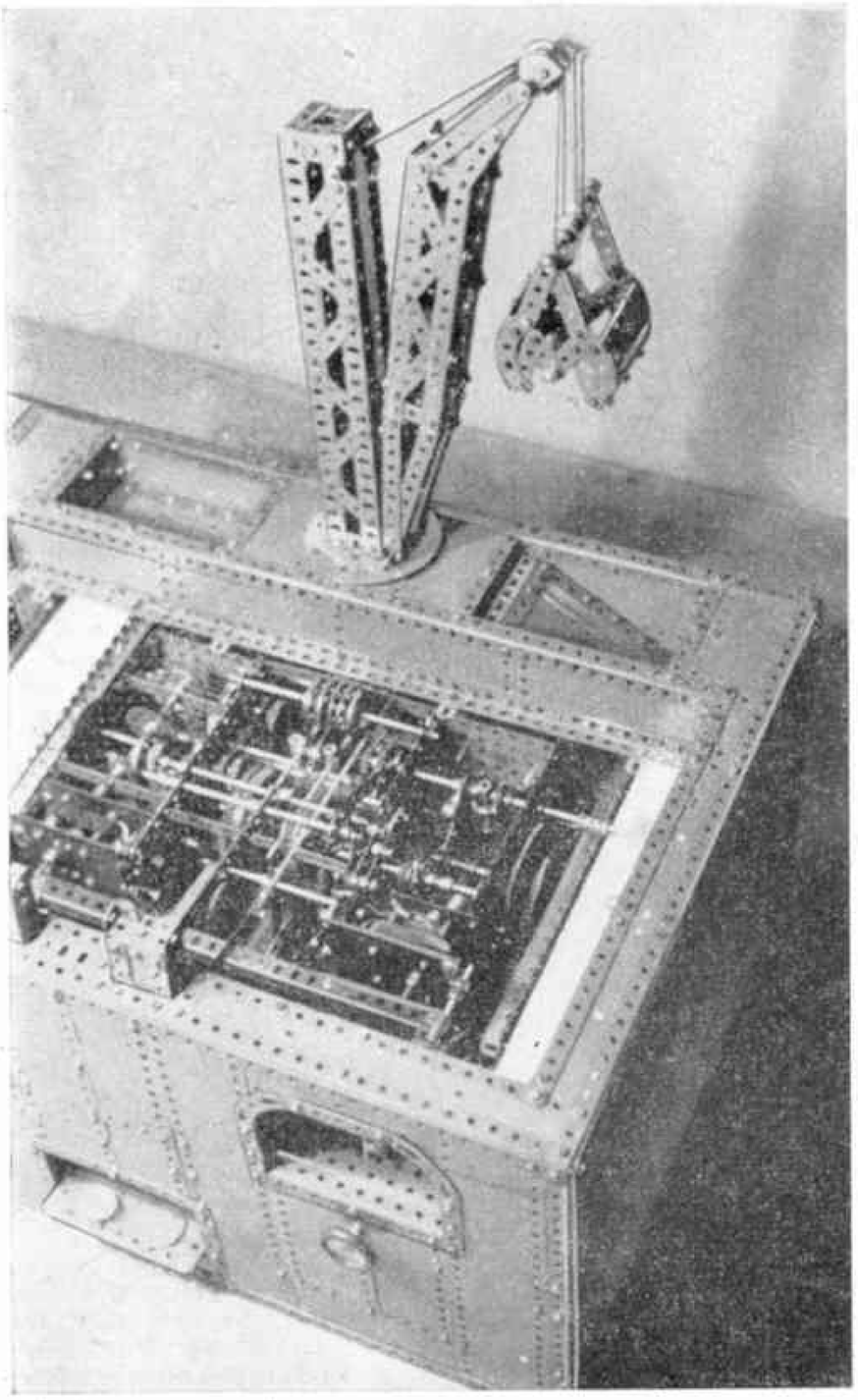
A large Fork Piece 18 is fixed at a point ⅛" from the end of the Rod 4. A Chimney Adaptor, with two Fish Plates 21 bolted to it, is placed over the Fork Piece boss. An Angle Bracket 19 is secured

A variable pitch propeller mechanism designed by the son of Mr. D. A. Stewart, of Ndola, Northern Rhodesia.



tightly with a nut on a ⅜" Bolt, which is then passed through a ¾" Washer 20, a Fish Plate 21, the lug of the Fork Piece, a nut, another Fish Plate 22, and another nut. The Fish Plate 22 is locked between the latter two nuts, but is free in the lug of the Fork Piece and the Fish Plate 21.

A Rod and Strip Connector 23 is lock-nutted to each hole of the Fish Plate 22 and pushed on the Threaded Pins 13. Propeller Blades are bolted to the Angle Brackets 19. When the Rod 16 is pushed forward the Propeller Blades will turn axially so as to vary their pitch.



Another view of the automatic grab crane amusement machine.

Meccano Competition: Final Reminder

We wish to remind all Meccano enthusiasts that the current Model-Building Competition closes for entries on April 29. Anyone who intends to send in an entry for the contest, and who has not yet done so, must now hurry, otherwise his entry may reach us too late to be considered.

All a competitor needs to do is to decide on the type of model he would like to build and then set to work to construct it as neatly and realistically as he can. He can be assured that his model will have just as good a chance of success in the competition as any others submitted, no matter how big or elaborate they may be, because when the judges make their awards they will take into consideration the quantity of parts used in a model, and the age of the competitor whose work it is.

For this reason it will be necessary for each competitor to make sure that his name and address, and the age he will be on April 29 next, is stated clearly in block letters on the back of each photograph or drawing he sends.

Further, in order to ensure that each competitor has a fair chance, entries from model-builders under 14 years of age on April 29 next will be placed in one Section and those from competitors over 14 years of age on that date will be grouped in a separate Section. A separate set of Prizes, details which are given in the panel at the foot of this page, will be awarded in each Section.

Entries must be posted in time to reach Liverpool on or before April 29.

In choosing the subject for his model a competitor will be well advised to select something that he can construct strongly and realistically from the parts available to him. It would not be wise to select, for example, a giant locomotive as the subject if only a small Outfit is available. It would be far better to choose something more simple, such as a small crane, which could probably be built up far more realistically and fitted with satisfactory operating mechanism. Competitors should always remember that strength, neat construction and a careful endeavour to reproduce the essential details of the prototype, are far more valuable than mere size alone.

THE PRIZES

The following prizes will be awarded in each of the Sections A and B:

First Prize, cheque for	..	£4	4	0
Second Prize, cheque for	..	£2	2	0
Third Prize, cheque for	..	£1	1	0

Five Prizes each of 10s. 6d.
Five Prizes each of 5s. 0d.

Certificates of Merit also will be awarded.

ANOTHER FINE NEW MODEL

Fire Escape with Extending Ladder

IN building the model Fire Escape shown in Fig. 1, it is best to commence with the chassis. For this two compound angle girders 1 and 2 (Fig. 3) are required, and they are each built up with two 12½″ Angle Girders, overlapped nine holes. These compound angle girders are joined together at the rear ends by 5½″ × ½″ Double Angle Strips 3 and 4.

To the lugs of the Double Angle Strip 3, a 2½″ Curved Strip 5 (Fig. 2), a 2½″ Strip 6 and a 2½″ × 1½″ Flexible Triangular Plate are bolted. The lugs of the Double Angle Strip 4, support a 2½″ Strip 7, a 1½″ Strip 8 and a 2½″ × 1½″ Flexible Plate, extended by a 2½″ Curved Strip 9 and a 2½″ × 1½″ Triangular Flexible Plate. The Curved Strips 5 and 9 are joined together by a 2½″ Stepped Curved Strip. A 5½″ Strip is bolted to the upper ends of the Strips 6 and 7, and the same bolts secure two 5½″ × 2½″ Flanged Plates. The rear end is a 5½″ × 2½″ Flexible Plate edged by 5½″ Strips, and it is attached to the sides by Angle Brackets.

A 5½″ × 2½″ and a 2½″ × 2½″ Flexible Plate 10 and 11 are bolted to each Angle Girder 1 and 2, and to the uppermost edge, a 5½″ and a 2½″ Strip and three 3½″ × 2½″ Flanged Plates are attached. Angle Brackets are placed at each end of the compound strip; two are bolted to the 5½″ × 2½″ Flanged Plate and the other two to the 5½″ Angle Girders 12. The fronts of the rear mudguards are each formed by bolting a 2½″ Strip 13 (Fig. 1) and a 2½″ compound strip 14 to the Flanged Plate.

The Cab

Attach a 3½″ × 2½″ Flanged Plate 15 to the front ends of the Angle Girders 1 and 2 with Angle Brackets. The bumper 16 is spaced away from the Plate by four Washers on each ⅜″ Bolt. Two 2½″ × 2½″ Curved Plates 17 are secured to the Flanged Plate 15. Semi-Circular Plates 18 are fastened by Angle Brackets to the Flanged Plate 15 and the Curved Plates 17. Two 3½″ Strips 19 join the Semi-Circular Plates together, and are extended by two 2½″ × 1½″ Flexible Plates 20, placed between a 4½″ Strip and a 4½″ × ½″ Double Angle Strip 21 that is secured to the 3½″ Strip by Obtuse Angle Brackets.

The radiator grille is represented by three 3″ Formed Slotted Strips, attached by ⅜″ Bolts. The centre one has a 4½″ Strip behind it to support 1″ Pulley Wheels mounted on ⅜″ Bolts that form the headlamps. To the Angle Girder 12, bolt two 2½″ Strips 22 and 23 and a 5½″ Strip 24. The Strip 24 is bolted at its front end to the Double Angle Strip 21 and a 2½″ Strip 25, which in turn is connected to the 2½″ Strip 23 by a 2½″ Strip. A 5½″ Strip 26 is bolted to the Strips 23, 24 and 22. The 3½″ × 1½″ Triangular Flexible Plate is attached to the Strip 24 by the bolt 27. Two 2½″ × 2½″ Flexible Plates are bolted to the Angle Girder 12 and the Strip 26, to represent the cab door.

With Angle Brackets attach two 2½″ × ½″ Double Angle Strips 28 (Fig. 2), set at right-angles to each other, to the Strip 26. Bolt a 4½″ Strip 29 to the Double Angle Strip and the Semi-Circular Plate, and secure two 2½″ × 1½″ Triangular Flexible Plates to this Strip with Angle Brackets. Two 2½″ Stepped Curved Strips finish off the mudguards, which are fastened to the chassis by 1″ × ½″ Angle Brackets bolted to the Double Angle Strips 28.

Two 4½″ × 2½″ Flexible Plates form the cab roof, and are fixed in place by Angle Brackets. The rear of the cab is filled in by a 4½″ × 2½″ and two 2½″ × 1½″ Flexible Plates, strengthened by two 3½″ Strips and a 4½″ Strip. The ladder cradle consists of two Flat Trunnions bolted to the 3½″ Strip. Two Reversed Angle Brackets are bolted to the Trunnions and to the other lugs of these a 3½″ Strip is attached. Fishplates are bolted to each end of this Strip.

Bolt two 4½″ compound strips 31 and 32 (Fig. 3) to the 2½″ × ½″ Double Angle Strips 33 fastened to the Angle Girders by the Bolts 34. Fixed to the Strip 32 are two Trunnions. A 3½″ Strip 35 is bolted to the Angle Girders 1 and 2 and supports a Flat Trunnion 36. Secure two Double Brackets 37, to the Angle Girders 1 and 2, and fix in each of them a Coupling carrying a 1½″ Rod 38 and a Crank. The Cranks are connected together by means of a 4½″ Strip 40 lock-nutted to them at each end. A 4½″ Rod 41 is placed through a 1½″ × ½″ Double Angle Strip attached to the Double Angle Strip 21 (Fig. 2), and the Flat Trunnion 36 (Fig. 3), with a Bush

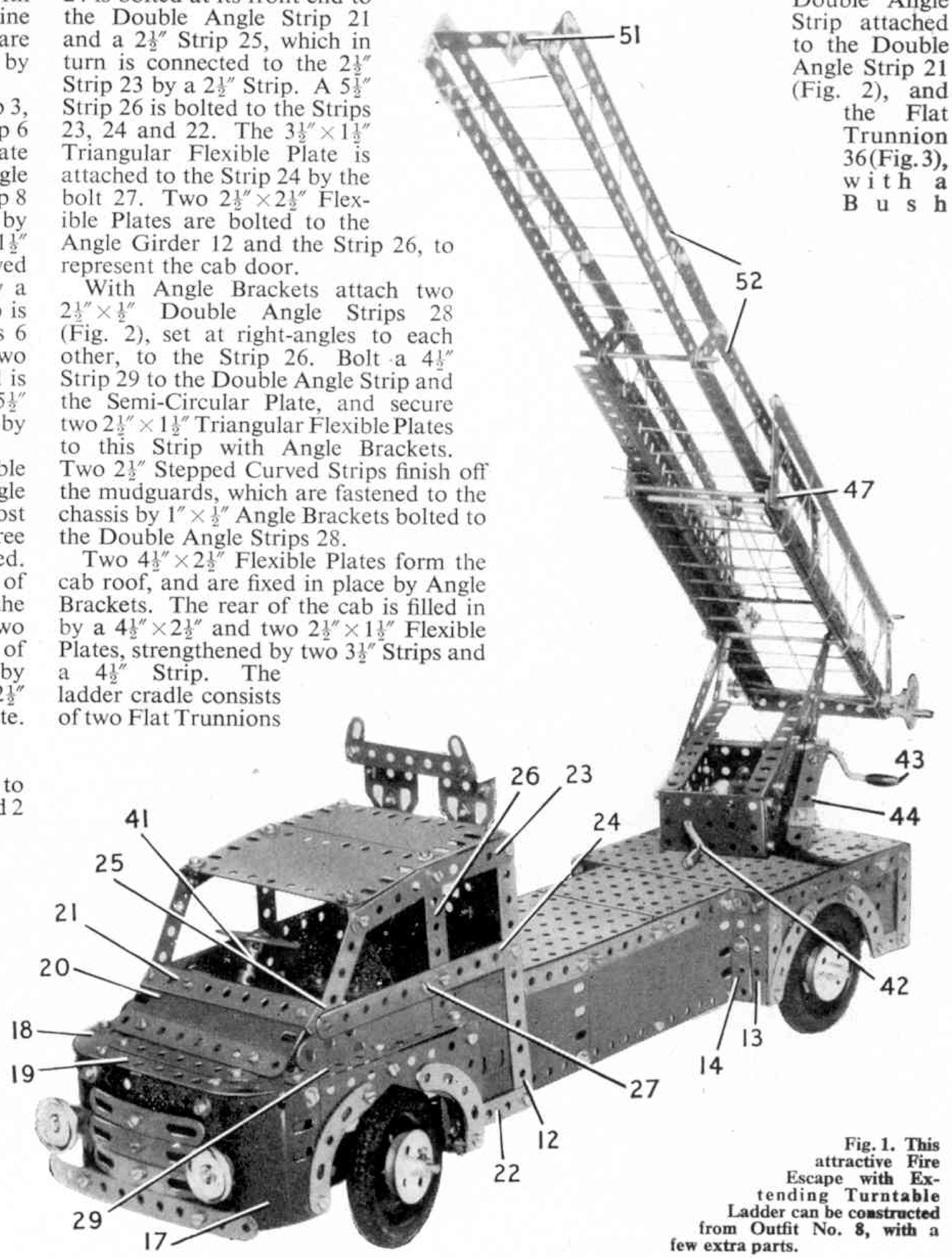


Fig. 1. This attractive Fire Escape with Extending Turntable Ladder can be constructed from Outfit No. 8, with a few extra parts.

Wheel and a Steering Wheel secured to its ends. Bolt a 2½″ Strip extended by a 2″ Formed Slotted Strip to the Bush Wheel. A bolt in the slot of the Slotted Strip is fastened to the Strip 40 with two nuts. Place 2″ Pulleys with Tyres, loosely on the Rods 38, using 1⅛″ Flanged Wheels to retain them in position. The rear wheels are secured on a 5″ Rod placed in the Angle Girders 1 and 2.

The Turntable

A 3″ Pulley Wheel bolted to the 5½″×2½″ Flanged Plates, holds a 2″ Rod in its boss. Two Flanged Sector Plates connected together at each end by 2½″×1½″ Flanged Plates, are bolted to another 3″ Pulley. This unit is then placed on the 2″ Rod, using a Collar to hold it in place. A ½″ Pinion is secured at the end of the 2″ Rod. A Worm Wheel on the Crank Handle 42 is arranged to engage with the ½″ Pinion. Bolt a 3″ and a 5½″ Strip to the sides of the Flanged Sector Plates and place another Crank Handle 43, with a ½″ Pinion attached to it, in the Sector Plates. A 2½″ Strip 44 with an Obtuse Angle Bracket at one end, is bolted to a Double Bracket that is pivotally mounted on a ¾″ Bolt fixed in one of the Sector Plates as shown in Fig. 1. The Obtuse Angle Bracket contacts the ½″ Pinion on Crank Handle 43 and forms a ratchet device to hold the ladder in position when raised.

The Escape Ladder

Two pairs of 12½″ Angle Girders 45 are bolted together by their elongated holes leaving a gap between their other flanges as seen in Fig. 2. The two pairs of Girders are joined at the bottom with a 3½″×½″ Double Angle Strip 46 and with a 3½″ Screwed Rod 47 at the top. The 12½″ Strips 48 are attached to the Angle Girders 45 with 2½″×½″ Double Angle Strips 49.

Each side of the extending portion of the escape is built from a 12½″ Angle Girder, extended by a 12½″ Strip overlapped by four holes. The two sides are joined together by two 3″ Screwed Rods 50, and by a 1½″ × ½″ Double Angle Strip and a Double Bracket 51. Two 12½″ Strips 52, overlapped seven holes, are attached to the Angle Girders and Strips of the ladder by 2½″, 2″ and 1½″ Strips. On a 3½″ Rod 53, place a ½″ loose Pulley. Cord is taken from the 3″ Rod 50, around the ½″ loose Pulley and fastened to the 4″ Rod 54. This Rod carries a Bush Wheel fitted with a Threaded Pin, and a ½″ Pulley and a Collar are used to hold it in position.

Cord is fastened to the Double Angle Strip 46 and attached to the Crank Handle 43 and raises or lowers the ladder when the Crank Handle is turned.

Parts required to build the model Fire Escape: 8 of No. 1; 13 of No. 2; 6 of No. 2a; 6 of No. 3; 6 of No. 4; 18 of No. 5; 2 of No. 6; 6 of No. 6a; 10 of No. 8; 2 of No. 9; 2 of No. 10; 2 of No. 11; 19 of No. 12; 2 of No. 12b; 3 of No. 12c; 1 of No. 14; 2 of No. 15a; 1 of No. 15b; 1 of No. 16; 2 of No. 17; 2 of No. 18a;

(*Continued on page 148*)

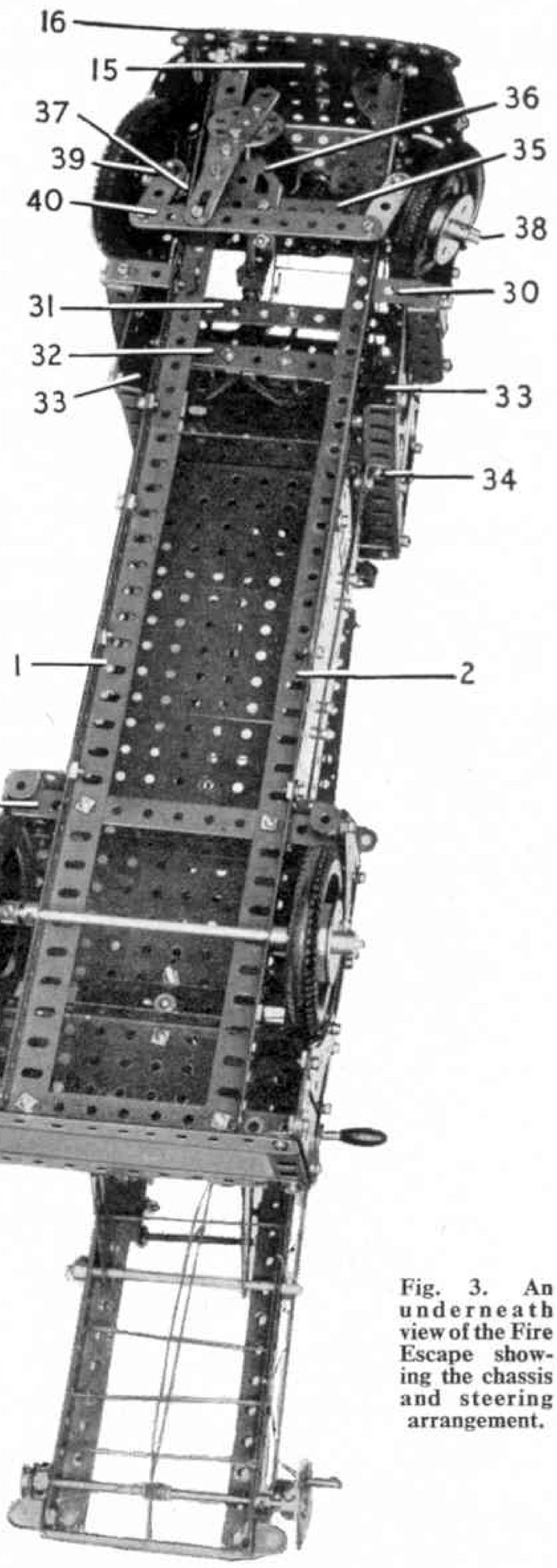


Fig. 3. An underneath view of the Fire Escape showing the chassis and steering arrangement.

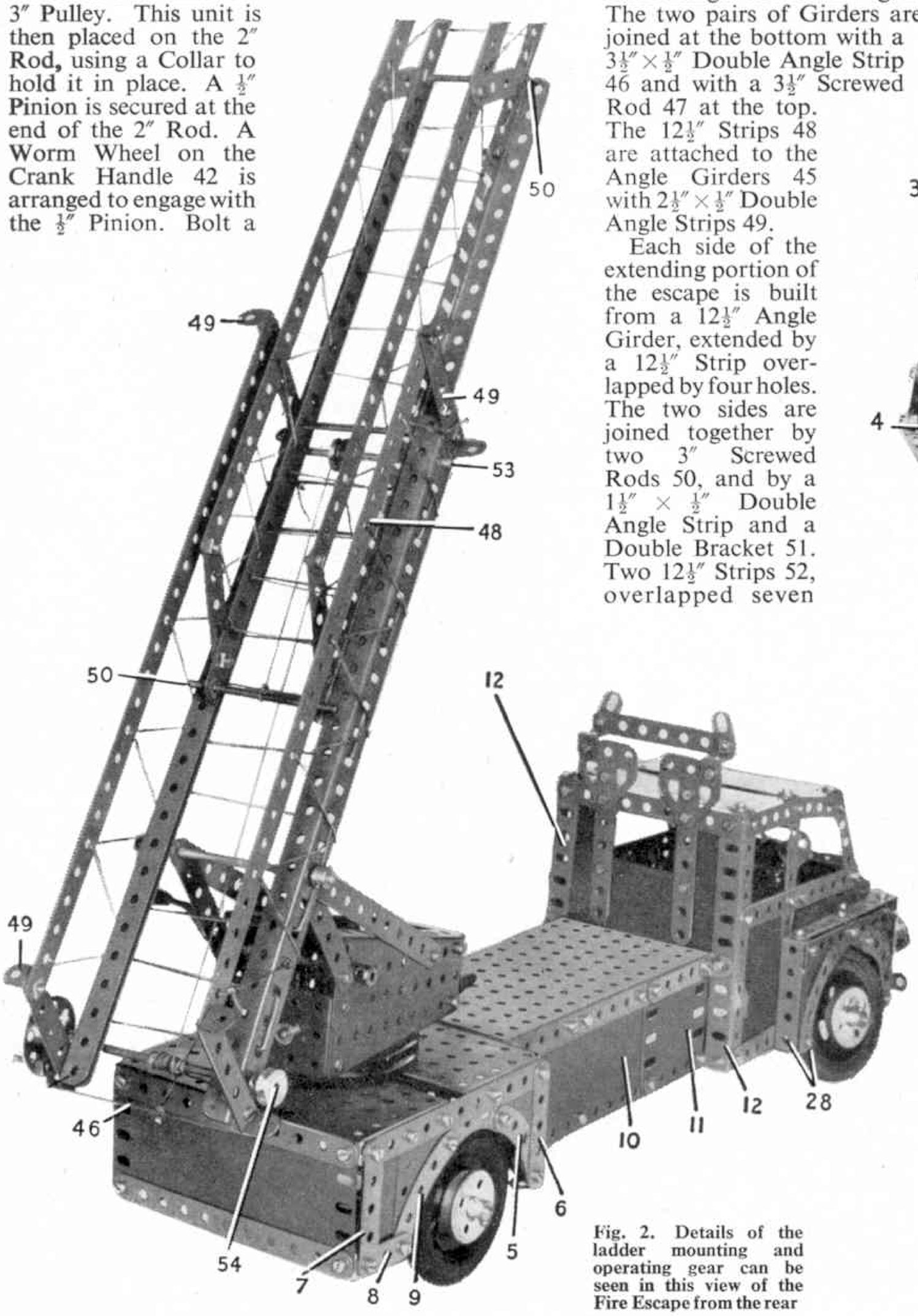


Fig. 2. Details of the ladder mounting and operating gear can be seen in this view of the Fire Escape from the rear

WITH THE SECRETARY

Club and Branch News

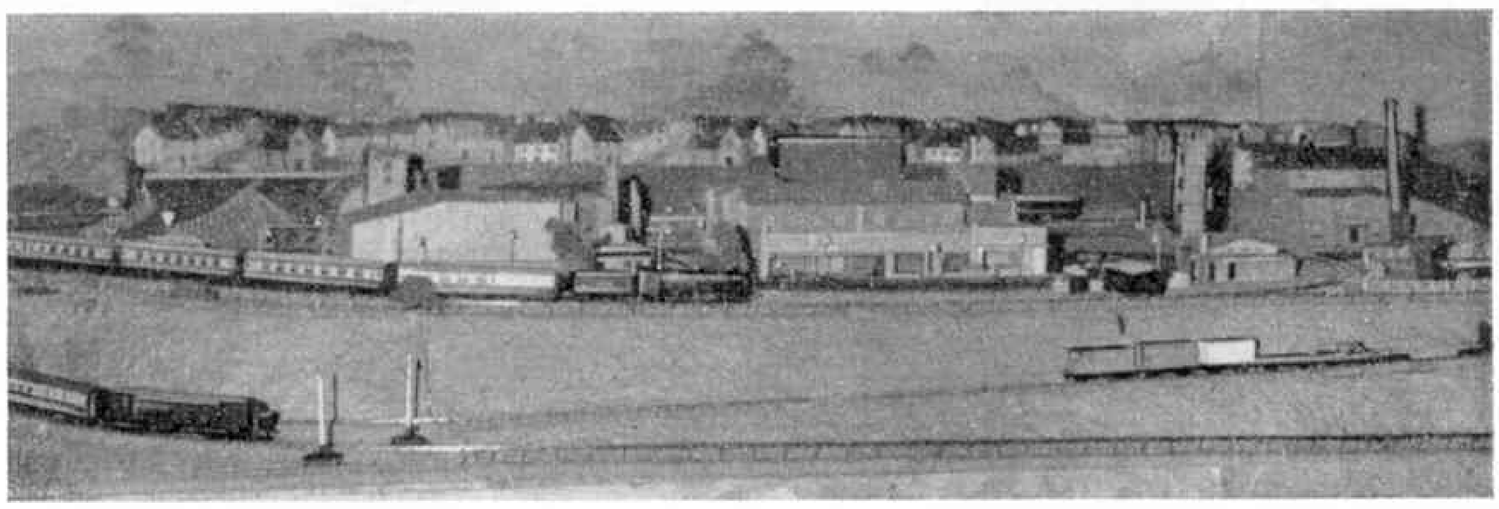
REVIEWING THE WINTER'S WORK

WITH the winter sessions now over, it is a good plan for Club committees to hold a "stocktaking" meeting—not to check and evaluate the Club equipment, but to review the winter's activities while they are still fresh in mind. In their review, the committee should treat the two winter sessions as one, and set what has been accomplished against what had been planned, noting where the programmes lagged, and why. They should also take account of which programmes proved popular and which did not, and again why; consider how much new members have successfully "settled in" and, if they have not, seek the reason for the failure.

The Club's financial position also should be reviewed—with an eye on the cost of any proposed summer outings. And in the light of all that the general discussion reveals, the committee can determine the Club's policy for next season.

The booking of guest speakers for next winter is another matter that must be given early attention. If this matter is left until a week or two before the October–December session is due to begin the committee will most likely find that their chosen speakers are by then fully booked up.

Two interesting views of the Hornby-Dublo layout of the North End (Portsmouth) H.R.C. Branch No. 538. The Branch members in the background of the upper photograph are (left to right): Mr. A. J. Nicholson (Chairman), Mr. R. G. Enfield, the main constructor of the layout; and Messrs. Garland, D. Watson, P. Williams, A. Rose, R. A. Scutt and S. Kerens.



Meccano Club recently affiliated

ASHBURTON METHODIST YOUTH M.C.—*Leader:* The Rev. Ronald W. Clements, 34 West Street, Ashburton, S. Devon.

CLUB NOTES

ASHTEAD FREE CHURCH M.C.—A visit to the Science Museum, London, was greatly enjoyed. The father of one of the members helped to make one of three films viewed at a special film show. At another meeting members heard a very interesting talk on *Two-Stroke Engines* by Mr. Hiscott, and at the following meeting there was a fine display of Meccano models, the subject being *Something about Transport*. *Secretary:* B. A. Mayes, 54 Newton Wood Road, Ashtead, Surrey.

30TH BRISTOL LIFE BOY TEAM M.C.—The Club has now got into its stride, and some excellent model-building is being accomplished. A Meccano models display in which eight members took part included models of such varied subjects as a crane, windmill and giraffe. A Meccano Guild tableau is being planned as a feature of a Life Boy Team Display to be given this month. The tableau will take the form of working models, with boys constructing Meccano models in the arena. *Secretary:* Mrs. G. H. Horlick, 44 Hartgill Close, Hardcliffe, Bristol 3.

CONSETT AND DISTRICT Y.M.C.A. M.C.—Meccano model-building has continued, and at the time of writing large models of a dockside crane and of a battleship are about half completed. A similar stage has been reached with a model of a V2 Locomotive, 5½-inch gauge, and a representation of the Palladium stage which, when ready, will be equipped with scenery and have dolls dressed as chorus girls, etc. *Leader:* Mr. John R. Goodrum, 7 Tees Grove, Leadgate, Consett, Co. Durham.

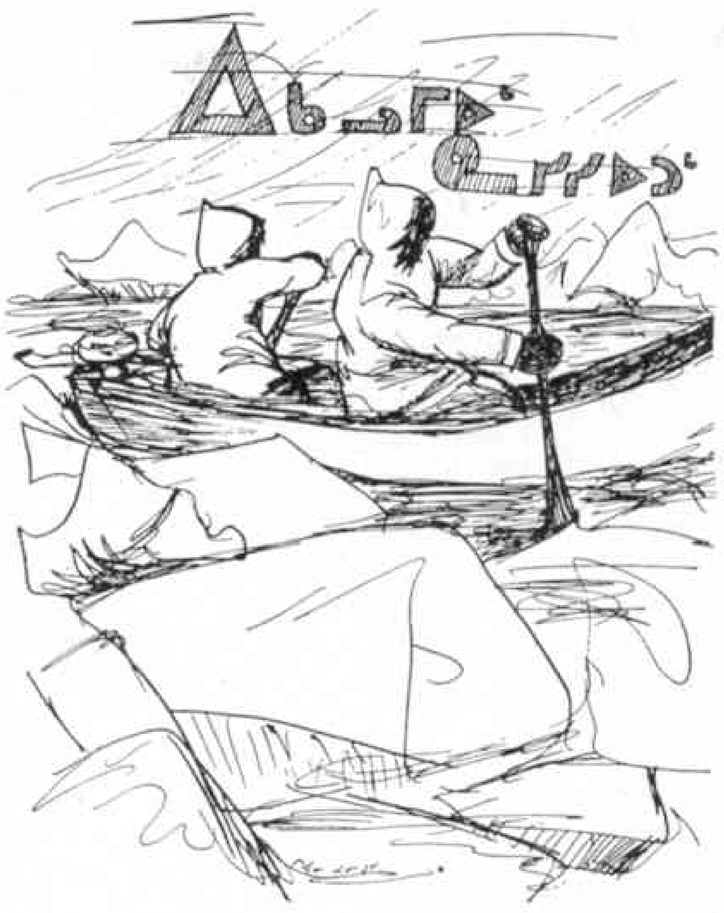
AUSTRALIA

MAYLANDS M.C.—The Club display at the Maylands School Hobbies Exhibition was notable for its fine array of Meccano super models, which included the Baltic tank locomotive, blocksetting crane, four-wheel drive chassis, 1A motor chassis, fire engine and Meccanograph. Recent "Models of the Month" winners have included an original model destroyer built by Howard Montagu and a sports car with epicyclic gear-box constructed by Lionel England. "Ideas of the Month" awards have gone to Alan Vidler, for his remote control gear-box, and to Warren Bransby in respect of his "Penny in the Slot" mechanism for operating several electrical models at the same time.

The winners of the Club's 1960 annual awards, for various aspects of Club work, are Warren Bransby, Alan Vidler and Trevor Criddle, with a well-earned "highly commended" to Ross Porteous. *Secretary:* Warren Bransby, 90 Crawford Road, Maylands, Western Australia.

SOUTH AFRICA

CAPE PENINSULA M.C.—A nicely-varied programme has been drawn up for the first half of this year, with Meccano model-building, talks on *Cycling* and on *Motor Racing*, and visits to places of interest. *Secretary:* Antony Ritchie, "Eldoret", Crescent Road, Kenilworth, South Africa.



First Magazine For The Canadian Eskimos

CANADA's Eskimos, scattered across half a million square miles of the Arctic, are a once-primitive race who have now broken into printer's ink with the first magazine printed entirely in the Canadian Eskimo tongue. Canada's Department of Northern Affairs has just produced this novel periodical.

As it is only 50 years since a syllabic written version of the Canadian Eskimo language was created by a missionary, the present production, in two separate dialects, is truly an amazing step forward. It must be remembered that only half a century ago the Canadian Eskimos were still a stone-age people. The fact that different tribes were so widely scattered over such an enormous territory, and were constantly on the move in pursuit of sea and land animals and fish, made the missionary's teaching slower and more difficult.

By Francis Dickie

This first magazine marks a triumph in cumulative knowledge by the Eskimo. Until today the syllabics were confined to letters, brief messages, and the Bible. In future, the entire population will, for the first time, read their language in modern magazine form.

Canada's first Eskimo magazine editor is Mary Panegoosho, born at Pond Inlet in 1939. Mary went to work as a nurse's assistant at Hamilton, Ontario, Mountain Sanatorium when she was fifteen. She has been with the Department of Northern Affairs for two years.

The magazine she edits is published in three editions: "Inuktitut" in the eastern Arctic dialect in syllabics, "Inuktitun" in the western Arctic dialect in Roman characters, and the third in English. Both Eskimo words mean "The Eskimo Way". The English edition will be issued later.

The first magazine was greeted with great enthusiasm by the Eskimos. Reluctant as they are to show even their best work, such as carvings, it was most gratifying to receive some contributions for the issue.

The editorial team consists of Eskimo members of the Eskimology Section of the Northern Welfare Service. The total number of copies printed in Eskimo is 3,500, one for each Eskimo family, 2,000 being printed in the eastern Arctic dialect and 1,500 in the western. These circulation figures are relatively fixed and may only increase slowly as the Eskimo population itself grows. The magazine will be published every four months.

* * * *

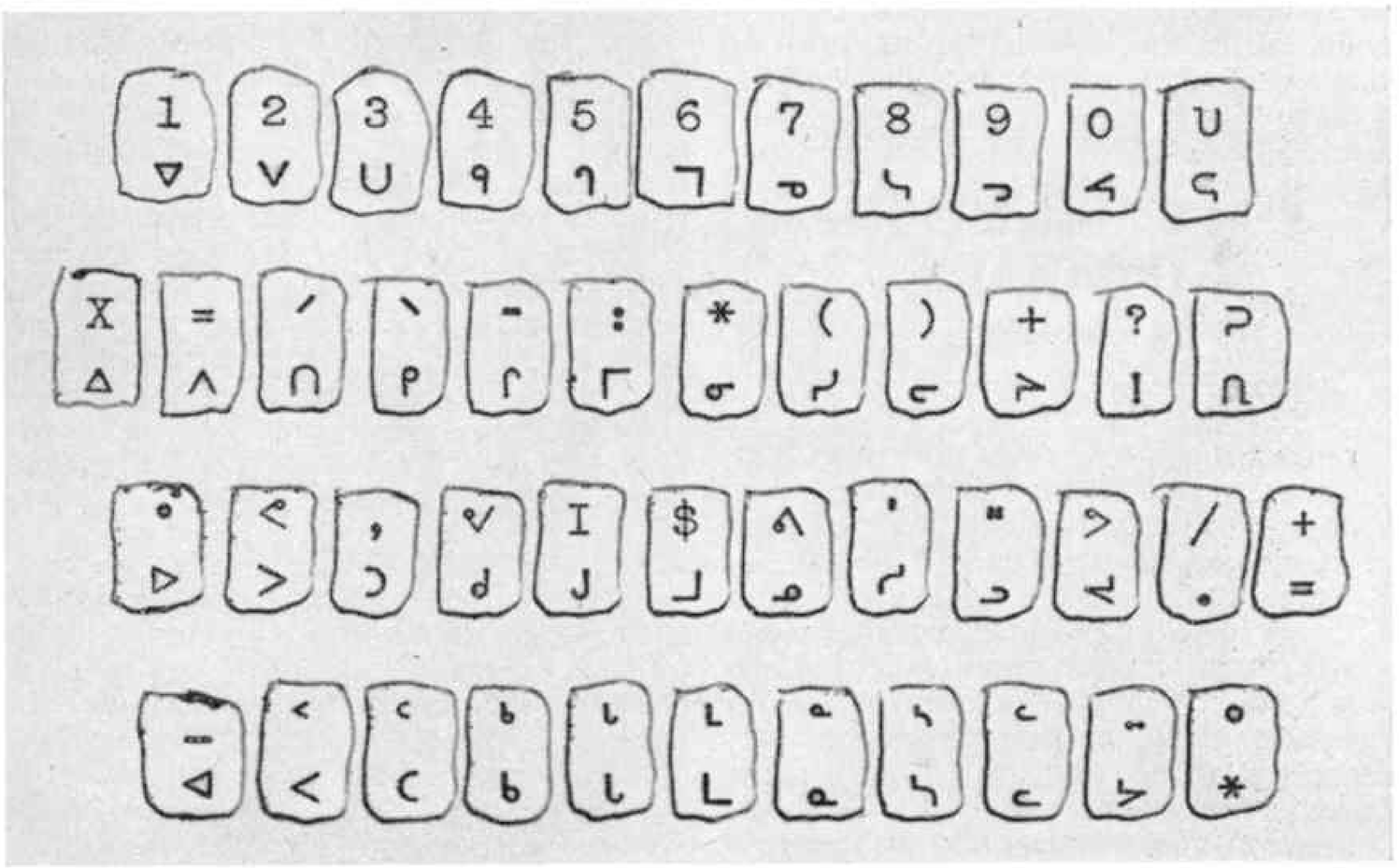
The Canadian Eskimos knew no written language until 1885, when the Rev. Edmund J. Peck, D.D., a missionary, adapted a system of syllabics to the Eskimo tongue. The syllabic system, in which sounds are represented by little hooks and crooks resembling shorthand, was first devised by the Rev. James Evans 100 years ago for use with the Cree Indians.

The typewriter used is a Remington Rand which looks like any other typewriter except that it is fitted with syllabic keys. It was designed by Leo Manning, an Eskimo linguist. The photograph shows the Eskimo letters on it—46 keys.

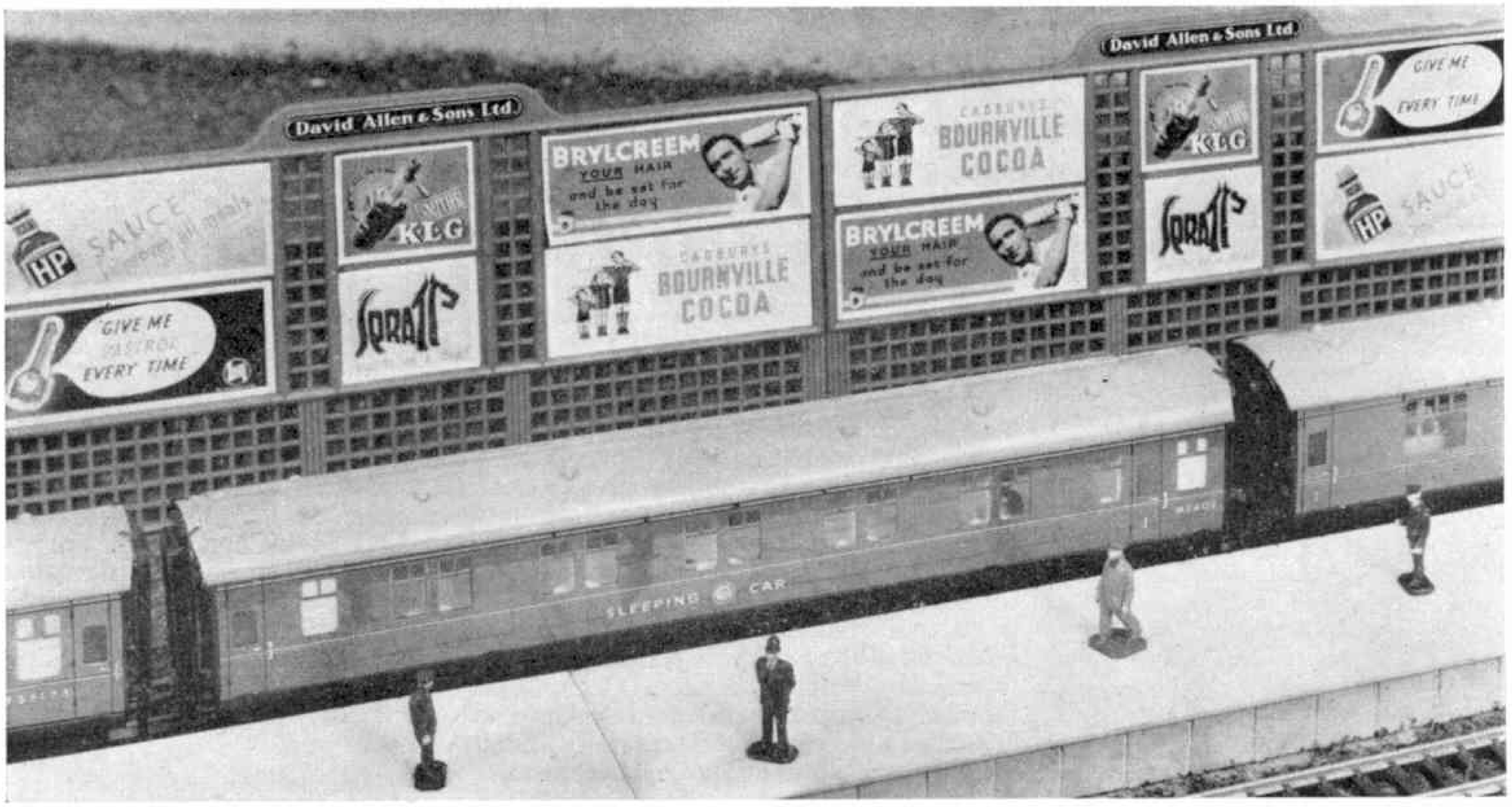
The first issue included an Eskimo's account of a recent goodwill mission to Greenland, Eskimo folk-tales sent in by people from Igloolik, and a hunting story. There were numerous other articles and a children's page. There were excellent illustrations, all drawn by Eskimos.

This first Canadian Eskimo magazine is a singular accomplishment and the Department of Northern Affairs is sparing neither effort not expense in its development. By airplane, boat and dog-team, it will reach 3,500 non-paying subscribers, the most widely scattered people in the world.

One of the illustrations in the first Magazine for the Canadian Eskimos.



The cover design for the eastern edition of the Eskimo magazine is seen at the top of the column. Right: The keyboard of the special typewriter on which the magazine is printed.



SLEEPING CARS AND BRAKE VANS

I THOUGHT it would be a good idea this month to have a talk about running trains which include some of the new items mentioned last month—namely, Composite Sleeping Cars and Passenger Brake Vans. The inclusion of a Composite Sleeping Car especially in a miniature train adds considerably to its interest and importance.

A Sleeping Car can be added to a train of standard corridor stock, for real sleepers are often conveyed in this way. The position of your Sleeping Car in a train can vary, but probably the most popular arrangement will be to tuck it away comfortably in the centre of your train formation. Actually, its position may vary according to your working

Hornby Railway Company

By the Secretary

arrangements, as we must not forget that, after arrival early in the morning, passengers can remain in sleeping cars until certain fixed times, usually 7.30 a.m. or 8.0 a.m. but there are some exceptions. For this reason it is sometimes the rule at destinations to place sleeping cars alongside a convenient platform not in use for the time being, so that passengers may remain relatively undisturbed until ready to leave the car.

Space considerations and station layout in miniature may not permit this detail of working, but if they do, the operations necessary to park the Sleeping Car or Cars temporarily may well affect the marshalling of a miniature train. Whatever its position, a Hornby-Dublo Sleeping Car will add to the glamour of a miniature "overnight" express. There is always a certain amount of bustle and what I may call "atmosphere" about the entraining of sleeping car passengers, so you can make good use of groups of figures on your platform before the departure of your *Sleeping Car Express*. Things are quiet on the platform in the picture above, because the empty stock has only just been drawn into the platform, but you will notice that there is already a Dublo Policeman on duty—one of the No. 050 set of Railway Personnel—just to keep an eye on things.

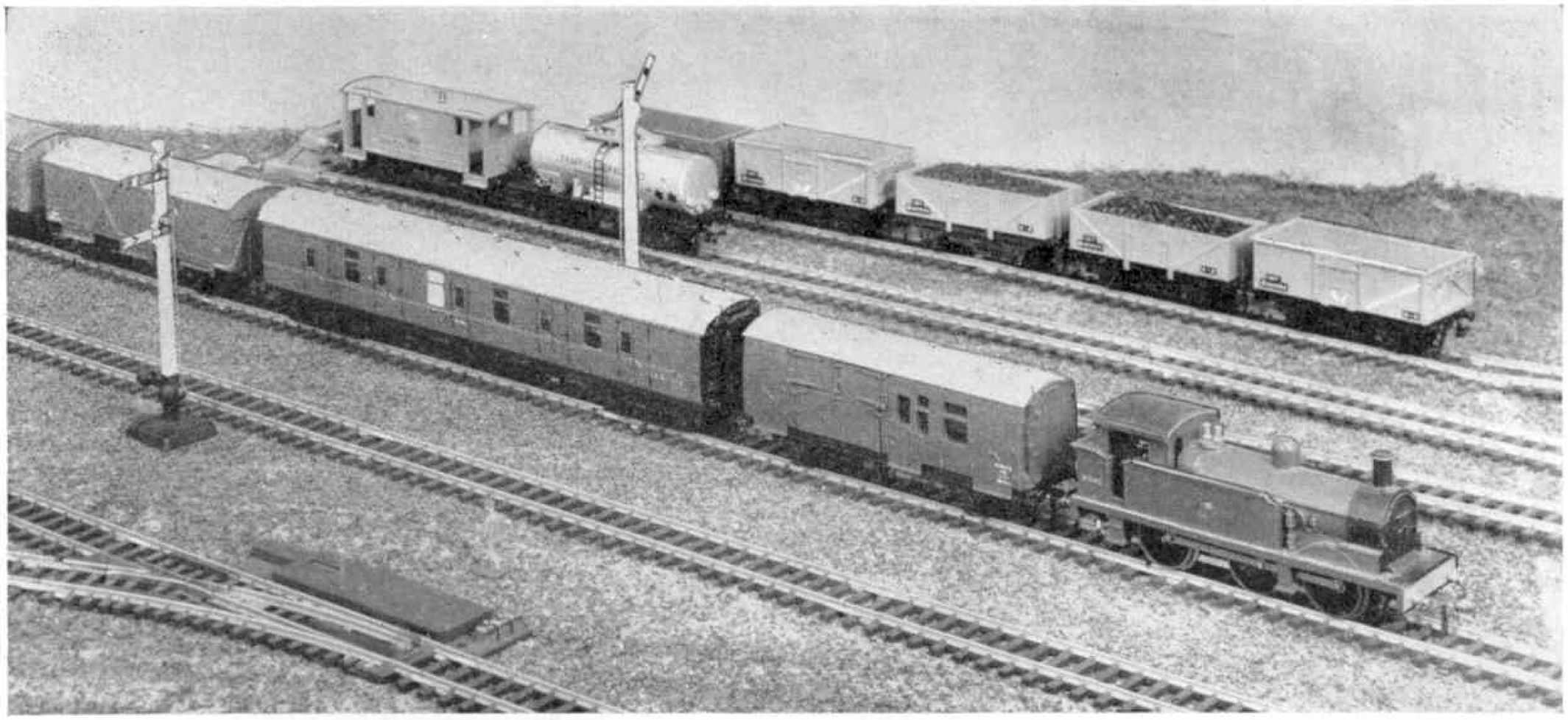
A good load

Those of you who are fortunate enough to have several Sleeping Cars among your stock can readily make full use of them because certain long-distance services, especially those between London and the North, can involve complete trains of sleeping cars only, with perhaps a passenger brake van to complete the formation. The *Night Scotsman* from King's Cross to Edinburgh is an example of this sort of make-up. Such a train in miniature would provide a good load for your *Golden Fleece* or other Hornby-Dublo A4 Locomotive, or perhaps a Co–Co Diesel. Similar formations are found on the West Coast Route, and a *City* or *Duchess* 4–6–2 will probably be your first choice for running a train of this kind.

It may be of interest to many of you, I think, to read of the trouble taken to ensure that a newly-built or newly-repaired sleeping car is completely fit for its job. When one of them is ready to be handed over for regular service and traffic, how does it run? How does it feel in real conditions? What about those minor rattles and squeaks, which only running conditions can reveal? This is how the Western Region people set about finding out; in fact, I am indebted to Western Region for the details that follow.

On the London side of Swindon Station, a sleeping car stands in a siding. When the London train comes in, the car is coupled on to the end and six men get into it. There are two Inspectors, one from the Swindon Carriage and Wagon Department, the other from the Operating Department at Paddington; an electrician, a finisher who puts the final touches and makes last-minute adjustments to the

The photograph at the top of the page shows a Hornby-Dublo Sleeping Car alongside the platform. Soon the train of which it forms part will be ready for a long-distance "overnight" run.



The 0-6-0 Tank heads a train of vehicles for miscellaneous and parcels traffic. Notice that the new Hornby-Dublo Passenger Brake Van is the second vehicle from the engine.

woodwork; a trimmer to deal with the upholstery, which in this case is mainly the corridor and compartment carpets, and a cleaner who cleans up after the other three have done their work, that is, if they do discover any minor faults on their journey to London.

None could be more painstaking and hawk-eyed than the two Inspectors. Once the train has moved off, they start examining the compartments. Every corner and every screw is minutely examined and any situation which might create an irritating noise to the passenger is rectified. Doors, locks, fittings, the bells for calling the attendant, water, ventilation, light, windows, every detail is checked with an attention which might seem finicky to the outsider, unless he happens to be a passenger trying to sleep but prevented from doing so by some barely audible, but irritating, noise. All the time the train is speeding toward London, the whole coach is being put through a severe third degree. In less than an hour and a half, the team of men have uncovered the smallest defects.

As much care and attention, though of a different kind, is given to Hornby-Dublo Sleeping Cars, and other vehicles, at all stages of production and assembly. Even in mass-production conditions critical inspection at all stages is necessary to ensure that each Sleeping Car, for instance, is really fit to take its place in a train on your Hornby-Dublo railway.

Now for the Passenger Brake Van, a useful vehicle that can be attached to the front or rear of almost any passenger train on your railway. On a long-distance corridor express it may well form an alternative vehicle to the Brake Second that usually forms the head or tail of the train. In actual practice a brake van can occasionally be found in the centre of a long train formation, but usually this only takes place when the train consists of two sections, and has to be divided at an intermediate stopping place so that the two sections can carry on to their respective destinations. Where this sort of working is carried out in miniature some interesting marshalling and shunting problems may be encountered, and the location of Uncoupling Rails and other equipment at the intermediate station will have to be considered in relation to the movements to be carried out.

Tank wagon and other traffic is being dealt with in this yard by the Hornby-Dublo 0-6-0 Tank, a useful engine for such duties.

Express parcels train

Another possible use for the Passenger Brake Van is to form part of a train of miscellaneous vans, for parcels and traffic of a similar kind. A single Brake Van may well be used in this way, as is suggested in the upper illustration on this page. On the other hand, several of these Vans together may well form a long-distance express parcels train, perhaps requiring the services of one of your best express passenger locomotives to haul it.

Another kind of overnight long-distance service for which the Passenger Brake Van will be found very useful is a *Postal Special*, such as run nightly between Euston and Aberdeen, and Paddington and Penzance, in which it can be run with the T.P.O. Mail Van.

Model Railway In A Loft

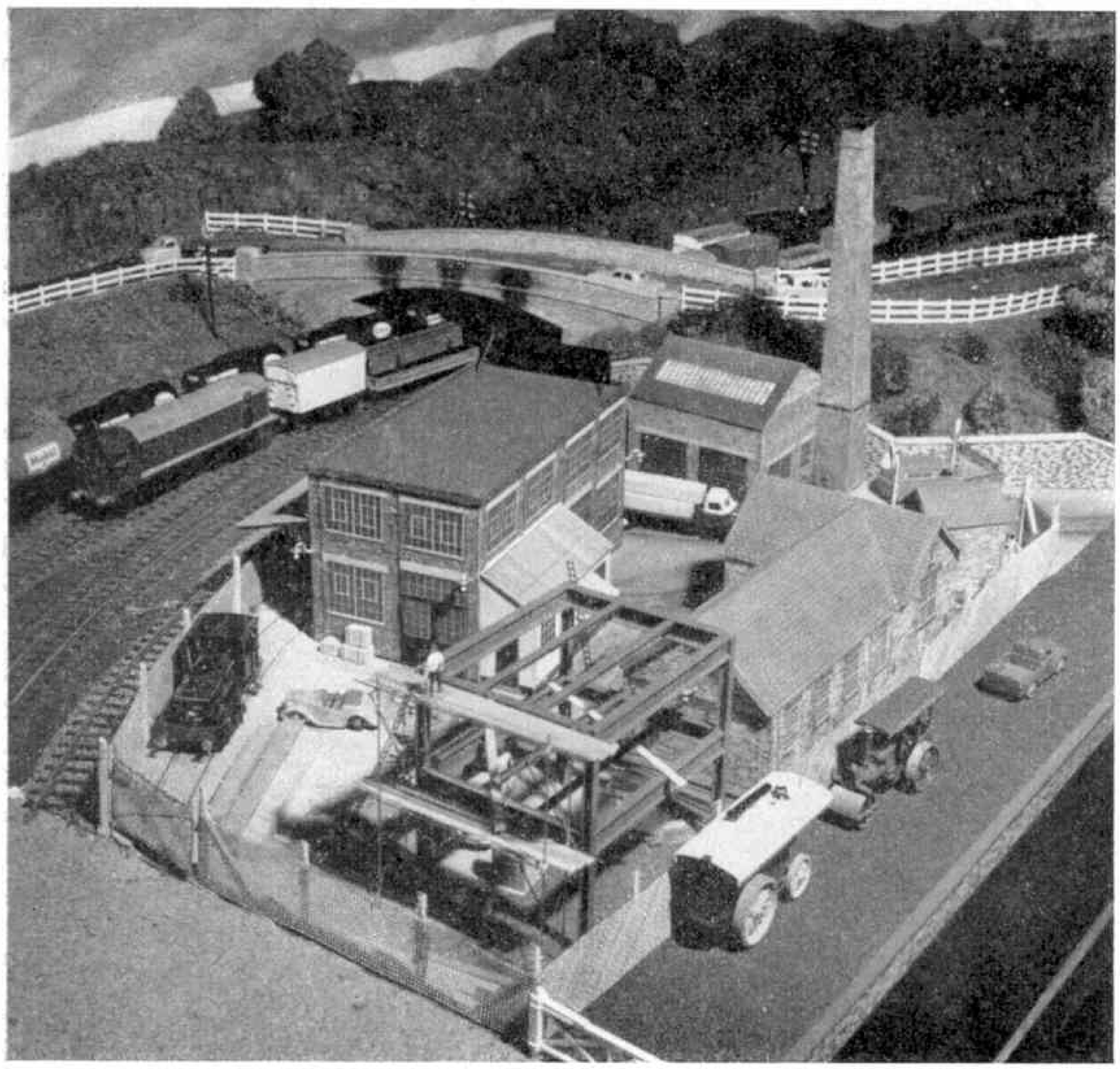
THE *Hodgeston-Barmere Railway*, of which parts are shown in the pictures on this page, belongs to P. O. Kerr, of Rugby. It is now a Two-Rail system of considerable extent, but the idea behind it began with the purchase some years ago of a Hornby-Dublo Three-Rail Train Set.

BY LAYOUTMAN

The original layout occupied a baseboard 8 ft. by 4 ft., but later developments soon outgrew this board and in the end the railway came to fill the room in which it was situated. For various reasons there were certain snags in its location and with the introduction of the Hornby-Dublo Two-Rail system it was decided to start again with Two-Rail equipment in a different situation. This time, the space in the loft of the house was chosen, a floor being laid there and the necessary lighting and electrical supply points provided.

With a space of 18 ft. by 14 ft. now becoming available, a good deal of scheming was carried out to develop the layout plan, a long continuous run being required, with terminal station facilities and with plenty of possible variations in train working. So the present system began, with a double track main line throughout, arranged on two levels in such a manner that there are virtually two complete overlapping circuits, one of which is carried out in tunnel below the other for a good deal of its length. The general result has been found satisfactory and some effective scenic situations have been built up as a result.

A realistic scene on the Hornby-Dublo Two-Rail layout of P. O. Kerr, Rugby, showing a road bridge and effective scenery. This and the lower photograph on this page are by M. Bostock.



Hodgeston station is a two-platform affair and forms the main traffic centre. There are four tracks through the station, non-stopping trains taking the two centre roads clear of the platforms. In one direction from this station the line curves round and descending to a lower level reaches *Barmere*, which is roughly on the opposite side of the main oval to *Hodgeston*. Just before reaching *Barmere* a branch is thrown off to serve a low-level terminus *Lawley*, in the centre of the layout.

From *Barmere* the line carries on, passing into the tunnel section previously referred to. In the course of this "underground" passage it is carried underneath *Hodgeston* and finally emerges, to climb and regain its original level and run round into *Hodgeston* again. Intermediately, a branch is taken off to serve *Colbridge*, which is situated paralled to *Lawley*, but at a higher level. The *Colbridge* branch, in fact, passes over the *Lawley* branch.

A goods loop

In this way the main line goes twice round the baseboard, but there is also a goods loop covering only one circuit. The marshalling yard and the motive power depot situated at *Hodgeston* are reached from this loop, which is a convenient arrangement from the traffic point of view.

Examples of most of the range of Hornby-Dublo locomotives are in service. There are about 60 items of goods rolling stock and some 26 coaches.

Industrial premises, complete and under construction, are a lineside feature here. The Bo-Bo Diesel Locomotive has just passed under the road bridge in the background.

"TOMMY DODD" OFFERS ADVICE ON

Curves and Couplings

ALTHOUGH we have had talks before on the different groups of locomotives and rolling stock included in the Hornby Gauge 0 Train System, I find there is still a certain amount of doubt in the minds of beginners, and others, as to how the various items in the System are related to one another. I think, therefore, that another chat on this subject will be useful.

Generally speaking, there are three groups of Train Sets in the Hornby System, those of the Nos. 20/21 group, those of the Nos. 30/31 group and finally those numbered in the 40/50 group. Although the engines and vehicles contained in the Train Sets of these groups, and the corresponding items of rolling stock that are available for separate sale, all run on Hornby Gauge 0 rails, it is necessary to distinguish between the Curved Rails, Points and Crossings that are suitable for the components in each group.

In each of the smaller Train Sets in the Hornby range, Nos. 20/21 and 30/31 respectively, the Curved Rails included are of the 1-foot radius kind and six of these are required to form a circle. In the other Sets, listed as Nos. 41/45 and 51/55, the Curved Rails are of the 2-foot radius kind and 12 are required to form a circle. Naturally, the radius of the curves employed affects the space required for a given layout and a space of 3 feet 3 inches by 2 feet 6 inches is required to accommodate the oval of track included in the Train Sets with 1-foot radius Curved Rails. The space needed for the 2-foot radius components in the bigger Train Sets is 5 feet 4 inches by 4 feet 6 inches.

A point to note is that although any of the locomotives and rolling stock in the System can be run on a layout incorporating 2-foot radius curves, the components of the larger Train Sets incorporating such curves cannot be operated over 1-foot radius layouts. Although an individual engine or piece of rolling stock might be pushed round such curves by hand, difficulties would arise in any attempt to run them over such curves or points in the ordinary way. Layouts with 1-foot radius Curved Rails require 1-foot radius Points and Crossings, while 2-foot radius Points and Crossings are necessary where 2-foot radius Curved Rails are in use. The two types cannot be mixed in the same layout with success. Such a layout might not fit together very well.

Another point of difference concerns the type of couplings used in the various groups of locomotives and rolling stock. Those on the Nos. 20/21 components are of the simplest kind, easily managed by the beginner. Those on the Nos. 30/31 components are different in design, each coupling forming a combined tongue and loop, readily coupled with one another. Although the Nos. 30/31 components are in general slightly larger than the Nos. 20/21 items, they can be used with one another because their couplings, although different in type, can be made to couple together.

Automatic couplings of an entirely different type distinguish the components of the 2-foot radius Train Sets and the Nos. 41/50/51 vehicles obtainable separately. These cannot be coupled to the Nos. 20/21 and 30/31 stock. They are, in general, of larger proportions and the smaller types could not, in any case, be run successfully with them.

A standard fitting

It should be noted that the front ends of the No. 40 Tank and the Nos. 50/51 Locomotives are not fitted with automatic couplings. A plain hook and link is the standard fitting, but this can readily be used in conjunction with the automatic type of coupling, provided that the loop of the latter is placed over the hook of the plain hook and link coupling, as illustrated here. In the foreground you see a No. 50 Goods Brake Van coupled in the way I have mentioned to a No. 40 Tank. The illustration also shows the difference in the coupling arrangements at the rear end of the No. 40 Tank and the front end of the No. 51 Locomotive respectively.

BOOK REVIEW

In **Railways,** published by Basil Blackwell, the author, G. C. Allen, traces briefly the railway developments in this country from the earliest days until 1960. Early rail lines or tramroads that were used for moving coal, and the subsequent development of the railway idea, are first considered. Due attention is given to the Liverpool and Manchester Railway and to the triumph of the steam locomotive at the Rainhill trials held to determine the form of motive power to be used.

General conditions of travelling before the railway age, when there was no real travel habit, are dealt with and there follows the story of the development of steam railways. Famous routes are considered, their numerous alternatives are mentioned and the developments of the golden age of British railways are covered in a series of concise summaries. Individual companies of old are mentioned, then comes the period of the railway groups and the more recent nationalisation of our main lines into the British Railways system of today.

Necessarily, the modernisation plan at present in hand, electrification and other subjects are referred to, and the book includes an appendix and a useful index. Price 8s. 6d.

Farewell To The Irish Narrow Gauge

By

Dr. E. M. Patterson, F.R.S.E.

GEOGRAPHICALLY and historically, Ireland and the Irish have always been a little different from the rest of Britain, and this has nowhere been more marked than in the gauges of their railways. Their standard gauge of 5 ft. 3 in., fixed by an 1846 Act of Parliament, is six and a half inches wider than in Great Britain, and almost 600 miles of track, representing 16 per cent. of the total, were laid to the narrow gauge of 3 ft. 0 in. Indeed, in the remoter parts of Ireland the narrow gauge was virtually the standard.

As in Great Britain, the Irish narrow gauge lines, their rolling stock and their operating methods held a deep fascination for many railway enthusiasts, a feeling that grew into affection the better one came to know the lines and the men who worked them. But, because of their susceptibility to competition by road vehicles, the Irish railways became the victims of closures and abandonment, an irreversible process that has been accelerated in the last decade and has left, since the end of 1959, only one single narrow gauge section —the 53 miles of the former West Clare Railway.

Towards the end of 1960 Coras Iompair Eireann, the nationalised transport undertaking in the Republic of Ireland, announced that they would cease to work their West Clare section at the end of January 1961. So the last survivor, running across the windswept peat bogs and grey limestone scars of the Atlantic seaboard, has gone and Ireland's railways have become the less picturesque by its departure.

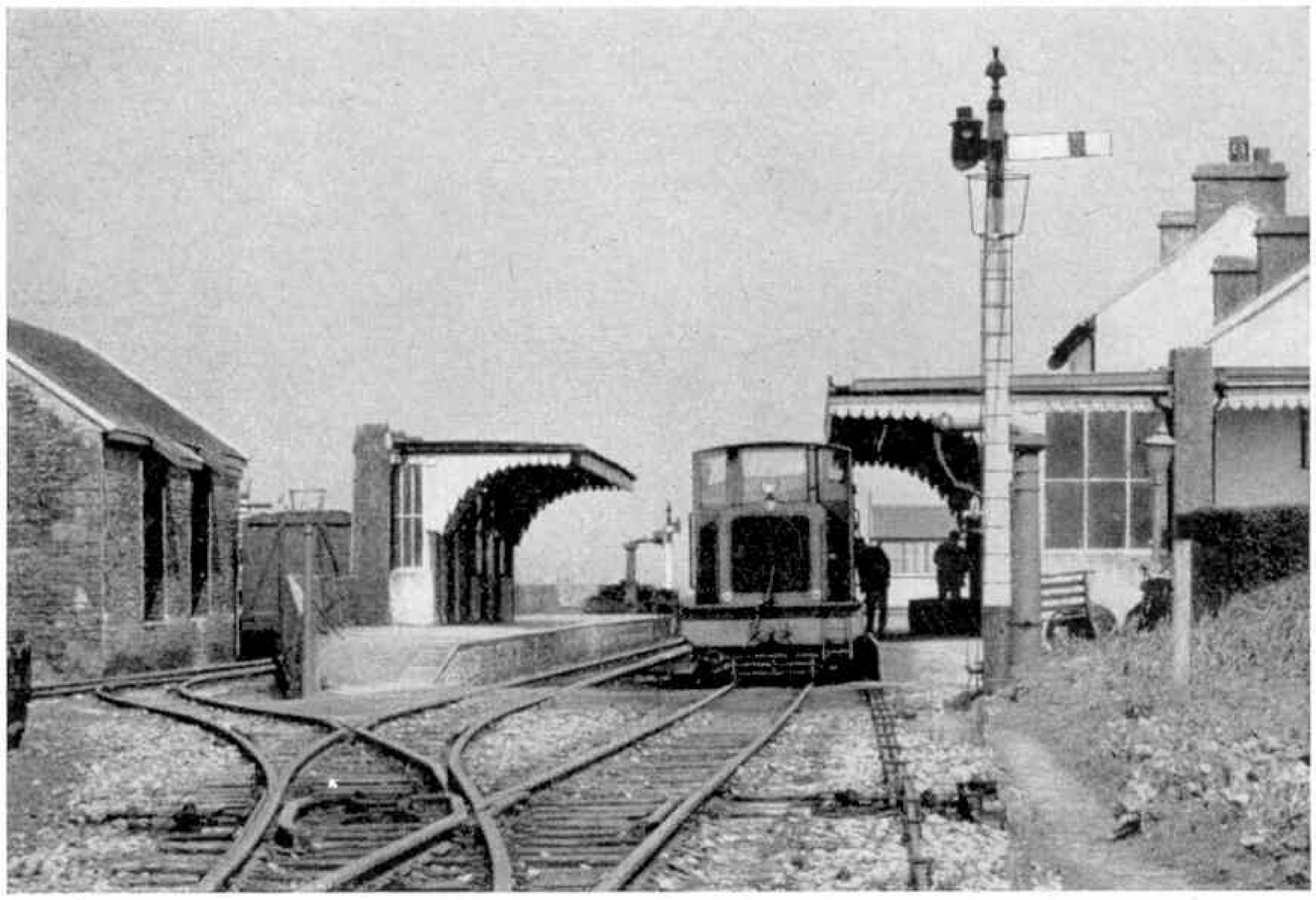
Prevented exchange

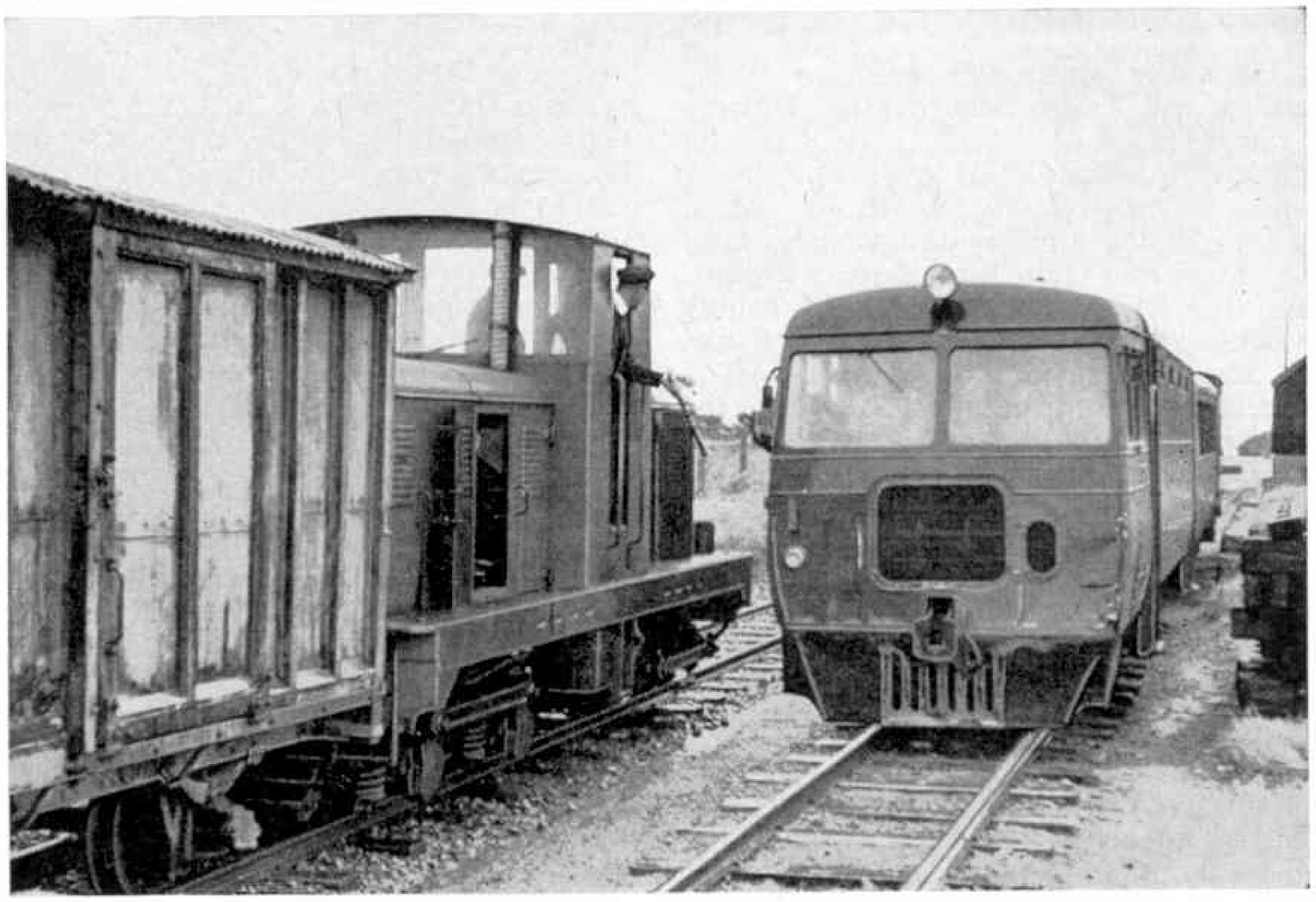
Railway building in Ireland began near Dublin on the 4 ft. 8½ in. gauge in 1834. Two years later the second line, its rails 6 ft. 2 in. apart, ran out from Belfast, and a third was mooted at 5 ft. 2 in. gauge. The Board of Trade in London became alarmed at a long-term prospect of a galaxy of gauges and, after due consideration, enforced a standard gauge in Ireland of 5 ft. 3 in. The penalties of this august decision have been felt ever since, for it effectively prevented the interchange of rolling stock with Great Britain.

The sub-standard gauge of 3 ft. 0 in. appeared in North-East Ireland in the 1870's, among the iron-ore mines of County Antrim. Its success lay in reduced costs of laying and working, and it showed then that light railways had a definite place in the economy of the less populous districts. So successive narrow gauge lines were built, not as an integrated whole but as separate, and generally quite independent "systems," each serving a particular area. By 1880, three lines were working in Ireland, all in Antrim. Ten years later their total had swelled to sixteen, and altogether eighteen were built, with extensions added until as recently as 1920.

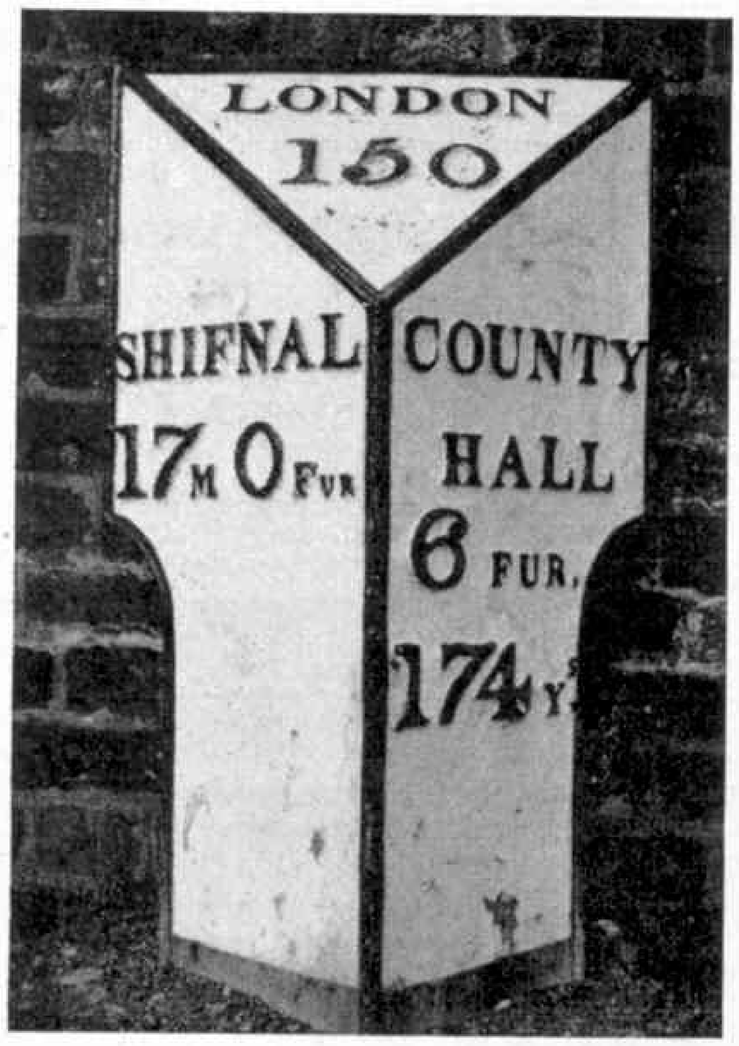
From their cradle in the Antrim hills, the narrow gauge lines spread into Tyrone, Donegal, Clare, Kerry and Cork. The little Arigna coalfield, by Lough Allen, fostered the Cavan and Leitrim Railway and two electrically-operated lines worked near Dublin and Newry.

(*Continued on page 148*)





Two views on the West Clare section of the C.I.E.'s line. A diesel locomotive at Miltown Malbay (top) with goods train, awaits the clearance of the single line southward. Below: The driver of diesel locomotive F. 503 hands over the staff to the driver of railcar 3388, waiting in the passing loop at Kilmurry. Photographs: Top by J. R. Cook, Dun Laoghaire, Eire. Bottom, by the Author.



MILESTONES

Many readers will recall that in the Meccano Magazine *of last December, correspondent J. B. Paul of Burton-on-Trent wrote about a series of milestones, which he had seen in Pembrokeshire, giving distances in miles and yards. He asked if anyone knew of similar milestones. Other readers were quick to point out that oddities in milestones were not confined to Pembrokeshire, and a selection of their pictures and comments is given on this page.*

I WAS interested in Mr. J. B. Paul's letter and photograph of a milestone marked in miles and yards in Pembrokeshire. In answer to his request for other examples of similar milestones, I can recall several. Four miles from Bristol there is a stone inscribed: "To Q. Charlton Church 7 furlongs 15 poles." On another road near Bristol there is a notice stating that the distance to Bristol is 10 miles and that the distance to Marshfield East-Gate is 2 miles and 1 furlong. The most precise one I know is in Shrewsbury. It tells us that the distance to Shifnal is 17 m. 0 fur., to the County Hall 6 fur. 174 yards and to London 150 m.

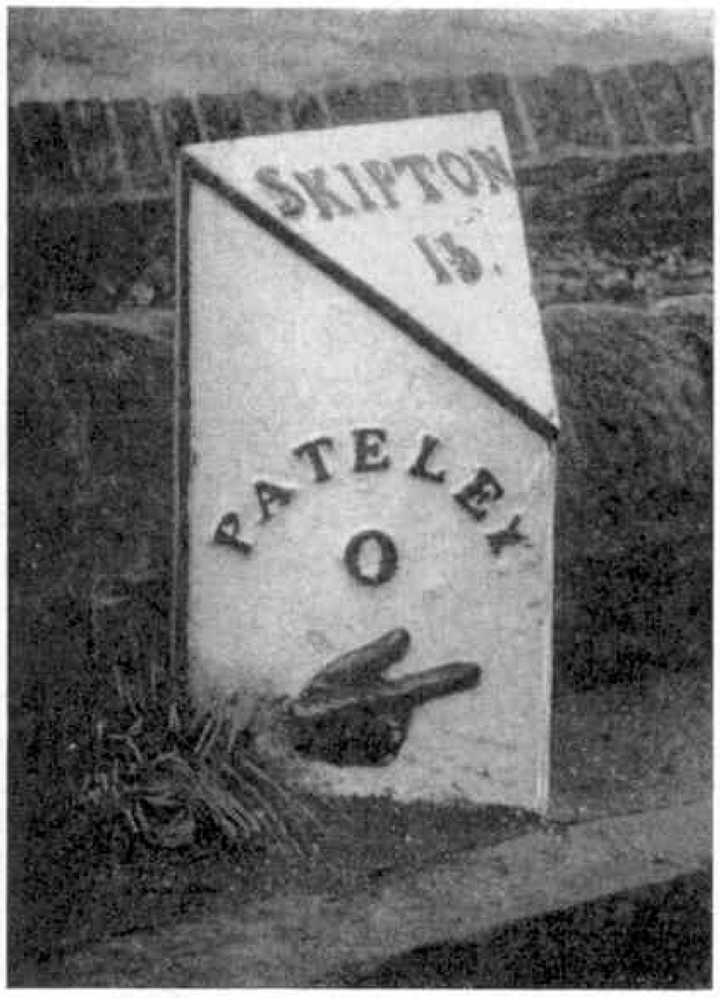
J. V. SMITH (Bridgwater).

Having seen in my son's December *M.M.* a photograph of a milestone giving distances in miles and yards, I was reminded of an unusual milestone known to me. This is to be found just outside the town of Pateley Bridge, near Harrogate. After previous milestones have been passed showing the lessening distances to Pateley Bridge, this stone indicates that the traveller has now arrived at the point where the distance is "0". I had occasion to re-visit the district recently and took the opportunity of photographing this milestone. I am not aware of any similar "zero" stone elsewhere.

W. L. DELVE (Great Crosby, Liverpool).

I have not seen any milestones like that illustrated in the December *M.M.*, but I can recall some, in Westmorland, in which the distance on one side of the stone was given in miles and fractions of a mile (quarters, threequarters, etc.). On this same subject I am enclosing a picture of the only milestone I have seen which gives an altitude above sea-level. This is at Townfoot, Alston, in Cumberland, which claims to be the highest market town in England. As the photograph shows, this particular part of the town—incidentally, the lower end—stands at 921 feet above sea-level. The milestone also incorporates an Ordnance Survey Bench Mark.

GEOFFREY N. WRIGHT (Limpley Stoke, Somerset).



On the right, the picture taken by Mr. Delve at Pateley Bridge. Extreme right: a photograph of another unusual milestone taken by Mr. C. Woolf of Newquay, father of "M.M." reader M. G. Woolf, who sent the picture along.

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FOR OTHER STAMP ADVERTISEMENTS SEE ALSO PAGE 146

For Stamp Enthusiasts

Israel

By F. E. Metcalfe

AS far as collectors in the British Commonwealth are concerned, their own stamps are by far the most sought after, especially the modern issues, as quite a nice collection can be got together without bursting one's economy altogether, which, I am afraid, would be the case if one aimed at a similar display of the earlier issues. At the same time, as I know from conversations with collectors, some of them like to "break out" and go in for a foreign country or two, and it is for this reason that I regularly refer to these along with our own issues.

Collectors of British Commonwealth stamps will remember how popular were those of Palestine when that country was under a mandate to Britain. When the mandate ended, in May 1948, the name of the country was changed to Israel, and in the same month—on May 16 to be exact—a new set of stamps appeared, depicting various ancient Jewish coins. These stamps did not take on, and when they were replaced the following year by stamps bearing other coins, etc., nobody seemed to mind very much. But people certainly were concerned later on, when Israel stamps had become popular, and these collectors wanted to buy copies of the first issue. Such was the demand that sets were bringing up to £100 or more. They have dropped quite a lot since then, for actually the stamps were not as scarce as the peak prices indicated. They are still worth having, however, and you will be lucky on today's market to get a well centred mint set at under £30—which means that such stamps are not for the likes of most of us!

Other early Israel stamps are also still expensive, in spite of the slackening off of publicity which was, to some extent, the cause of such fancy prices in the middle 'fifties. I don't know of any stamps which, by and large, are better designed and illustrate more interesting subjects, but while they are prime favourites in the United States they are not, perhaps, as popular in Britain as their designs merit. I think the reason for this is that the big prices the early issues bring frighten off collectors. I will attempt to show, however, that there are plenty of Israel stamps which are within the financial reach of even those who are hard-up, and if you are one of the many stamp enthusiasts looking for a new country to collect, I would suggest that that tight little Middle East country might be worth consideration.

But I am also going to suggest that you make it a double affair, taking Palestine to start with, and then just picking up what copies of Israel come your way. Why I suggest Palestine is because, up to the present, those who have gone in for the Israel issues have not bothered much about the stamps issued during the mandate, and while the latter can be picked up at relatively low prices at the moment, so could the first Israel "Coin" issue. I know of a set which cost 25/– or thereabouts and which, when the lucky owner found it tucked away in a cubby hole in his desk, was sold at auction for £75.

I am not saying that by buying Palestine stamps now such a windfall will come your way. Indeed, I must warn you over the high values, the 250m. to £1, which were issued in 1941. Apparently quite a few of these were in Post Office stocks when the change-over took place. As is often the case, some of them came on the market later at prices well below face value, and even now it is still possible to buy them at a bit under face. But that is all right if you are on your guard. Taking care to pay only market, as distinct from face, value you will have three nice stamps for the Palestine portion of your collection. As stocks must be getting low by now, any change in prices (and stamps *do* change in price) can hardly help but be upwards.

You will have plenty of fun looking for the various overprints which appeared between 1920 (two years after the first

Palestine stamps were issued) and 1927. Then came what I suppose you would call the pictorials—stamps showing Rachel's Tomb, the Sea of Galilee, etc. Here you can find some very nice shade varieties, etc., all quite cheap used. Yes, you can have a lot of fun for very little cost collecting the mandate stamps.

Now we come to the Israel issues, and what a feast of colour they are, and with what exotic designs. I have already mentioned the rare first coin issue, and how it is beyond the reach of most of us, but there are stamps depicting coins, which were issued later, which can be picked up for very little. And not just stamps depicting coins. If you are a thematic collector you will be able to find Israel stamps which will fit into almost any subject collection you can think of.

But apart from the designs themselves, it is the clean colours which are so attractive. Of course, as is to be expected of such an up-to-date country, the designers are of the modern school of art. Fortunately, nobody tries to emulate Picasso, and the modern designs of Israel stamps all mean something we ordinary people can understand.

There is one important point to remember, if you are going in for mint Israel stamps. Try to get copies with what they call "tabs" on. These tabs are labels attached to the bottom row, and they are so much sought after that a set of stamps with tabs may be worth quite a lot more than one without. Of course, if you are just picking up used copies, as you can—for this is generally the cheapest way of collecting Israel—stamps with tabs attached will rarely come your way.

Flowers and fruit figure quite a lot on Israel stamps. We all know where Jaffa oranges come from, and a stamp issued in 1956 to mark the Fourth International Congress of Mediterranean Citrus Fruit Growers reminds us of the fact. Note from the illustration what a clean-cut design we get, with none of those fancy frills which all too often appear on the designs of our British stamps.

Another interesting design shown here, from a stamp issued recently in connection with re-settlement, is one described as *Operation "Magic Carpet"*. There were, in fact, two stamps, the other showing a resettled family all lined up ready to labour for their future. I am sorry there is not room to illustrate this also, for it is one of many worth examination. So to conclude: if you want a country where stamp designs are of outstanding interest, try Israel.

Stamp Gossip

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A NEW oil well drilled 8,300 feet below the ocean floor in 56 feet of water, 35 miles off the Louisiana coast, has been brought into production by remote control without the use of divers.

The well has been drilled by Shell Oil Company, the largest offshore producer in the Gulf of Mexico.

The new technique employed is hailed as a significant step forward in obtaining more oil and gas from the outer continental shelf of the United States. It is the result of several years' work by the Exploration and Production Research Division of Shell Development Company at Houston, Texas.

The technique makes it possible to place the equipment necessary for controlling the flow of crude oil and gas on the bottom of the sea over the completed well. Subsequent production operations are carried out by remote control from the surface of the ocean.

Hitherto, when a successful offshore well has been drilled it has been necessary to erect a permanent structure over it with foundations on the sea bottom, and raise it high above the surface of the water to avoid destructive action by waves. This holds what is known as the "Christmas Tree", an assembly of valves and fittings controlling the flow of oil. The deeper the water, the more costly the structure. The need for surface platforms supporting above-water "Christmas Trees" is now eliminated. Possible navigational hazards are avoided, and there is also a considerable saving in the costs of maintaining navigational lights at the spot.

The research work involved not only experiments with many types of underwater equipment, and various operating ideas, but also an extensive study of wave action, both surface and underwater. The technique will be developed further.

FOR OTHER STAMP ADVERTISEMENTS SEE ALSO PAGE 144

spaces are provided for the stamps), they are neatly arranged on a blank page and details are written above a full set, or underneath, where there is something to be said of interest regarding an individual stamp. I have also previously stated how

easy it is to acquire a knack of printing by hand well enough to embellish a collection. Well, I recently received a letter from a young collector who said he had practised quite a lot, but his printing still did not look at all well. When I asked what kind of a pen he used I had a suspicion what was wrong, and sure enough I found that it was a ball point pen.

So here is a warning I should have given before now—such a pen is no use at all for this particular job. You need an ordinary, and what is now regarded as old-fashioned, pen and if you use a J nib, you can, with ever so little practice, do quite a good job. But don't practice on good album leaves, unless you have some which have been used and are to be discarded. The sooner you get your collection into a plain loose-leaf album, the sooner you will have one which looks really your own and not merely like those of everybody else who uses a printed album.

STAMP DESIGNS

Without wishing to detract at all from the merits of our own stamps, it must be admitted that it came as a shock to many collectors to hear that our current £1 stamp had been awarded the gold medal, at Monaco, as being the best design of its period. How many other stamps the judges can have seen up to making their decision is a moot point. It is a fact, though, that British stamps on the whole have never been credited with much artistic merit, in spite of the British postal authorities having done their utmost, once an issue was decided upon, to engage those they considered to be the best designers available. Now, of course, after this award they can have a chuckle at the expense of their many critics.

What have these critics had against our stamps? Well, you will probably have a copy of the "Europa" issue handy. Just compare that fussy, over-elaborate design with, say, the strictly austere design of the Chinese stamp illustrated on this page. Which do you like? Which do you think shows real art? This question of design is not a mere academic issue, for there is a lot more to stamp collecting than just buying copies and sticking them in an album, and I am very glad to see, from many letters received from *M.M.* collectors, that they appreciate this point.

SPORT

No doubt some readers are keen on skating and hockey, so the Spanish stamp featured here will interest more than just our stamp collectors. The word hockey, by the way, is the same in Spanish as in English, and the title of the stamp reads, "Hockey sobre patines"—in other words,

"Hockey on Skates". The stamp illustrated is one of a Sports set of 14 (ten ordinary and four air stamps) issued by Spain last October. It is a magnificent issue, as several correspondents have remarked. The sports depicted are cycling, football (of course), ice hockey, horse-jumping (and some fine horsemen there are in Spain), gymnastics, and pelota (a game of great popularity, somewhat similar to our fives). I think these stamps are outstanding both in colouring and design. There is not a single unnecessary line drawn on any of them.

THE PRESS

We all know how important newspapers are, even if we are not always in full agreement with those we read. British people are particularly addicted to them. We buy more newspapers per head than any other nation and all the records for big newspaper circulations are held in Britain. For this reason a stamp issued some time ago, to commemorate the 150th anniversary of the first newspaper to be

(*Continued on page 148*)

By E. W. Argyle

Locomotives On Stamps

THE Monaco stamp above depicts locomotive "No. 3" of the Paris–Rouen Railway, although the stamp designer has omitted to include the boiler fittings, except for the dome. Known as "La Petite Buddie" in France, this locomotive was on view at the South Bank Exhibition, London, in 1951–52. It was built in 1843 at the William Buddicom and William Allcard works near Rouen and gave its name to a whole series of French engines. Allcard and Buddicom, two Englishmen, opened these works in the 1840's. The same locomotive is also shown in the lower portion of the French stamp issued in 1943 to commemorate the centenary of the Paris–Rouen Railway.

The electric locomotives seen crossing the bridge are of two distinct Swiss types. One is the passenger express type AE47, built between the years 1927–34, with serial numbers 10,901 to 11,207. The other is the so-called crocodile-type of goods locomotive, CE–8111, numbered 14,301 to 14,314 and 14,318.

A Tale of Ten Ships—

(*Continued from page 115*)

hunting group covering convoys.

After the fall of France she was ordered to keep a watch on the French fleet at Dakar. In July 1940 action was taken against the battleship *Richelieu* at Dakar. A motor boat from *Hermes* succeeded in getting through the boom and four depth charges were dropped under the battleship's stern with the object of damaging her propellers and steering gear.

Ocean Interceptor

This first-ever genuine British aircraft carrier came under the orders of the Commander-in-Chief, East Indies, in 1941 and did a great deal of valuable hunting, escorting and intercepting in the Indian Ocean. In 1942 she was ordered to sail from Trincomalee harbour, Ceylon, because of expected Japanese air attack. Unfortunately she was spotted by a Japanese reconnaissance plane and, attacked by some fifty aircraft, she was sunk off Batticaloa. Her commanding officer, Captain R. F. J. Onslow, eighteen other officers, and 268 ratings were lost.

And so to the tenth *Hermes*, a far cry—with her remarkable radar system, her angled flight deck, her fast, powerful striking force of Scimitar aircraft—from that sloop of 1796. Her motto *Altiora peto* (I seek higher things) is eloquent of her aim to serve even more illustriously than her nine predecessors.

The Pony Express—

(*Continued from page 117*)

It had helped to keep California in the Union by carrying Lincoln's first message to Congress to the west coast in seven days and seventeen hours. And its operations resulted in a loss of 200,000 dollars for its owners—a loss from which the company never recovered.

The Pony Express has become a legend of the Old West, but its true story is more remarkable than any fiction.

Air News—(*Continued from page 127*)

yo-yo to one of the landing skids of his Bell H–13 helicopter, waits until it has run down the rope and then makes a sudden vertical climb which starts the yo-yo climbing up again. By repeated, perfectly-timed changes of altitude, he keeps it running up and down the rope and manages to make the trick look as easy as playing with a normal-size yo-yo on the ground.

Fire Escape with Extending Ladder—

(*Continued from page 135*)

2 of No. 19b; 1 of No. 19g; 1 of No. 19h; 4 of No. 20; 4 of No. 20a; 2 of No. 22; 1 of No. 23; 1 of No. 23a; 2 of No. 24; 2 of No. 26; 1 of No. 32; 206 of No. 37a; 196 of No. 37b; 38 of No. 38; 2 of No. 48; 10 of No. 48a; 4 of No. 48b; 2 of No. 48c; 2 of No. 48d; 2 of No. 51; 2 of No. 52; 4 of No. 53; 2 of No. 54; 10 of No. 59; 2 of No. 62; 2 of No. 63; 1 of No. 80a; 2 of No. 80c; 4 of No. 90; 6 of No. 90a; 1 of No. 111; 5 of No. 111a; 6 of No. 111c; 1 of No. 115; 4 of No. 124; 4 of No. 125; 3 of No. 126; 3 of No. 126a; 4 of No. 142a; 1 of No. 185; 8 of No. 188; 6 of No. 190; 3 of No. 191; 3 of No. 192; 2 of No. 200; 2 of No. 214; 3 of No. 215; 8 of No. 221; 2 of No. 224.

Stamp Gossip—(*Continued from page 147*)

printed in Venezuela, is of interest, particularly if you know a bit of Spanish (good practice if you are learning). With the aid of a magnifying glass it is quite easy to read the part of a front page of the *Caracas Gazette* reproduced on the stamp, illustrated on page 147. You know, such stamps as these *really* are interesting, and what a pleasant way of learning history they provide.

INDIA

I have been reading in one of the stamp magazines that Indian stamps are not as popular as they were because of that country's stamp-issuing policy. I feel I should tell collectors of Indian stamps that in my view such a statement is nonsense, as not only are the issues of that great country very popular but, as I know at first hand, the vogue is increasing all the time. It *should* increase, for not only does the Indian Post Office issue really interesting stamps, but these stamps are always of low face value, are relatively few and far between, and are always available in quantities sufficient to prevent cornering (something which so often happens with the stamps of many countries). Thus, even the collector with the most modest purse can afford to buy all that are issued, and so Indian stamps are being increasingly collected.

Mr. Kooka, of Bombay, has kindly sent me a first day cover, with attractive postmarks, and the stamps belong to the issue made January 6 last. The portrait depicted is of Tyagara, the "Musician of the South". I am afraid I do not know much about the man who has been honoured by this stamp issue, but I understand he was also a very holy man. It will be noticed that the lettering is in English only, and I have read that this is the first stamp, under the present regime, on which Hindu has been omitted. This is not so, as there have been several stamps featuring only English wording. What I like about these Indian commemorative stamps is that they generally deal with important events in Indian life, and thus are stamps with a real purpose.

TIP OF THE MONTH

As most collectors know, Kenya recently brought out a new set up to £1 top value. Used stamps are becoming available, and can be picked up at well below face value. I do not think this issue will have a very long life, for political changes mean changes in stamps. Make sure now to get your set together, while the going is good.

Farewell to the Irish Narrow Gauge—

(*Continued from page 142*)

Although, by 1960, the West Clare was the sole survivor of the eighteen narrow gauge lines, it had a bad start in life. Underpowered engines made nonsense of the timetables, and the chaotic operating inspired Percy French to poke fun at, and immortalise, the West Clare's inefficiency in a music hall ballad. Better engines remedied the shortcomings, but the inimical motor-bus made inroads into the potential traffic in the 1930's. The line survived the war but by then rolling-stock and wheezing steam locomotives were alike vintage specimens and in no fit state to continue.

It seemed the end of the system was very near when, under Coras Iompair Eireann, the section was dieselised and rejuvenated. Railcars such as those on the Donegal road gave a good passenger service, and diesel-mechanical engines hauled the goods. But the reprieve was short-lived. With buses and lorries better able to move men and goods at a profit, and with rebuilt roads to carry them, the inevitable closure came. Within an old man's span of 90 years the Irish narrow gauge railways have come and gone.

ANSWER TO "JUDGE FOR YOURSELF"

The judge held that in stopping suddenly to avoid the dog, the bus driver had only done what any other reasonable driver would do. Mr. Smart should have realised, as should any passenger, that the bus might at any moment have to stop or speed up, and should have been holding on more firmly. So Mr. Smart lost his case.

Fireside Fun

"Are you sure the altimeter is working properly?"

Summerfield

The preacher prefaced his sermon by announcing that the subject would be about liars. "How many of you," he asked, "have read the 29th chapter of Matthew?"

A shower of hands went up.

"That's why I chose the subject," said the preacher. "There is no such chapter."

* * * *

"Are you the plumber?"

"Yes, mum."

"Well, please be careful while you are doing your work. All my floors are highly polished."

"Oh, don't worry about me, mum. I shan't slip, I've got nails in me boots."

Doctor: The thing for you to do is to stop thinking about yourself. Lose yourself in your work. By the way, what is your occupation?

Patient: I'm a cement mixer.

* * * *

Forger: But, yer worship, I couldn't 'a done it. I can't even sign my own name.

Judge: You're not charged with that.

* * * *

Teacher: The names of your parents, please?

Small Boy: Papa and Mama.

* * * *

Freddie (aged five, in a sweetshop): How many of these sweets do I get for a penny, please?

Assistant: Oh, six or seven.

Freddie: I'll have seven, please.

* * * *

"I remember you," said the annoyed housewife. "You're one of those hobos I gave some pie to last summer."

"That's right, lady," the tramp replied. "There were three of us. I'm the lone survivor."

* * * *

Window placard in a pet shop: Lonely kitten desires position with little girl—will do light mousework.

* * * *

"My ancestors all followed the medical profession."

"Doctors?"

"No, Undertakers."

"Was the bed comfortable enough?", the hostess asked her guest in the morning.

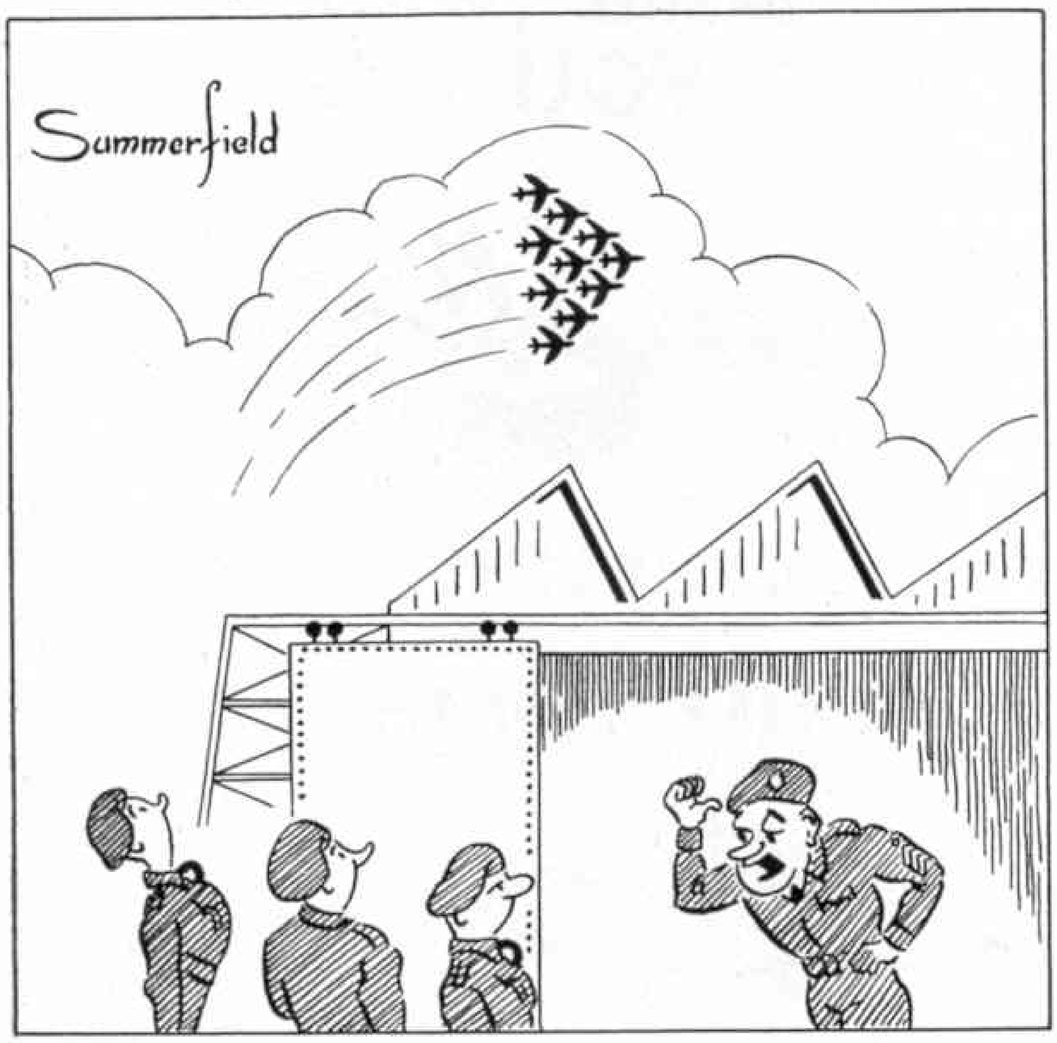
"Oh, it was fine," the guest replied groggily. "I just got up from time to time and rested."

* * * *

Asked by his brother about the meaning of truth, a six years-old answered: "It means—which one of us did it."

'I wish you'd stop throwing your weight around!"

Summerfield



"Learn to pack 'em in the 'anger as neat as that and there might be room inside for my bike!"

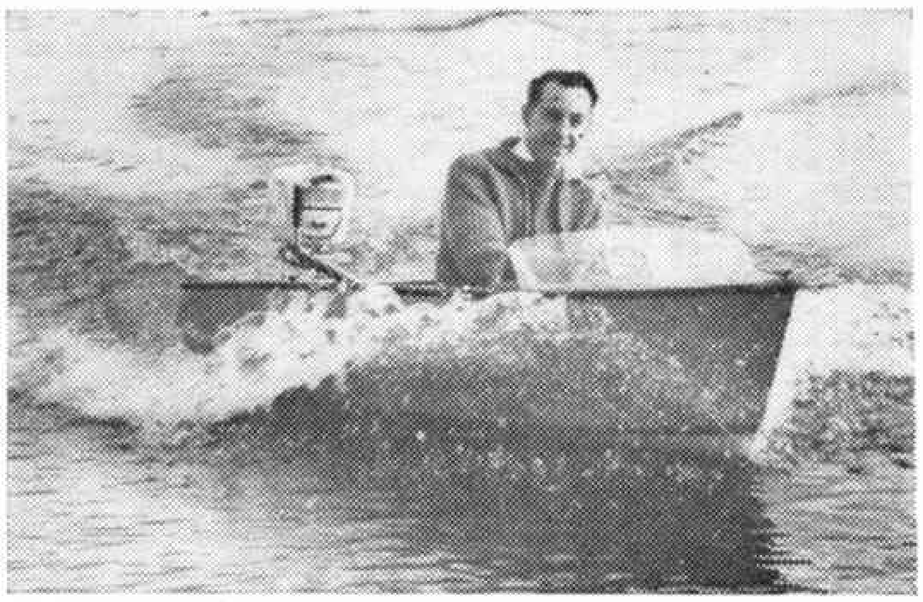
Householder (to caller): If our radio is so loud that it annoys you, why don't you go and live in some other street?

Caller: But, Madam, I do.

* * * *

"Jock" exclaimed an irate Aberdonian "your boy threw a lump of coal at my boy."

"That's a wee laddie for you," came the reply. "When he feels there's a principal at stake he doesn't think of the expense."



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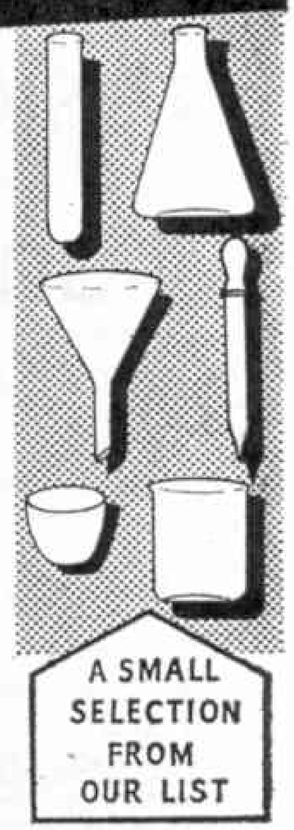

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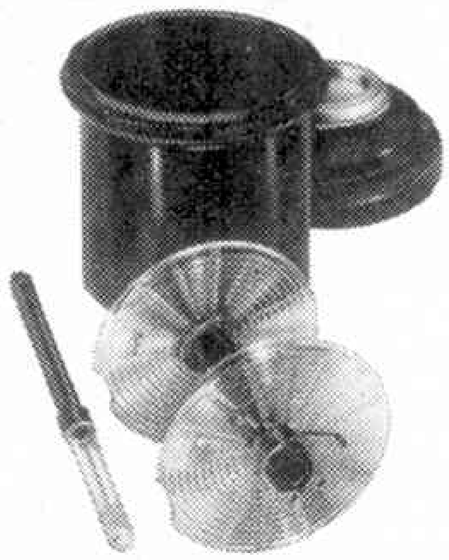

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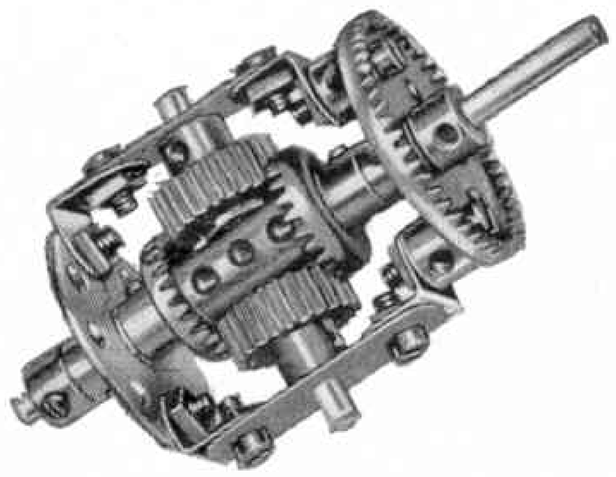
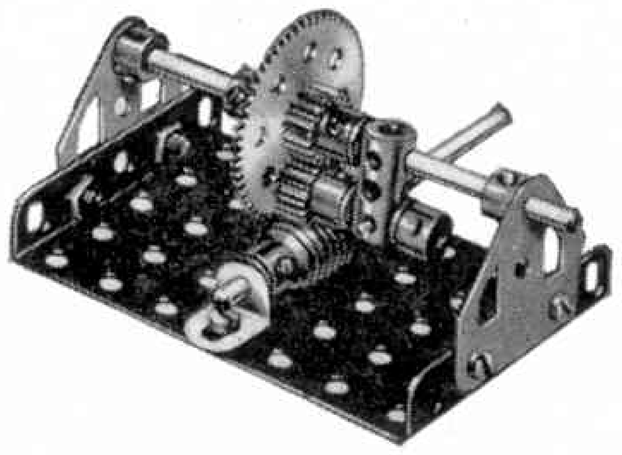


No. 20 Differential Mechanisms for Motor Vehicle



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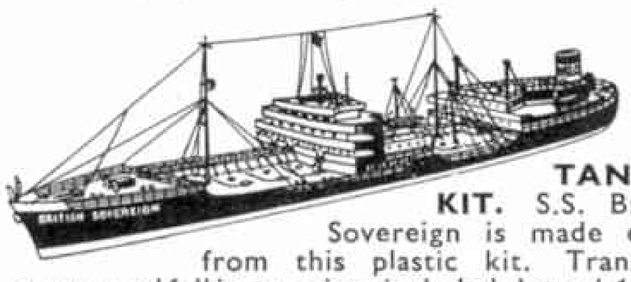

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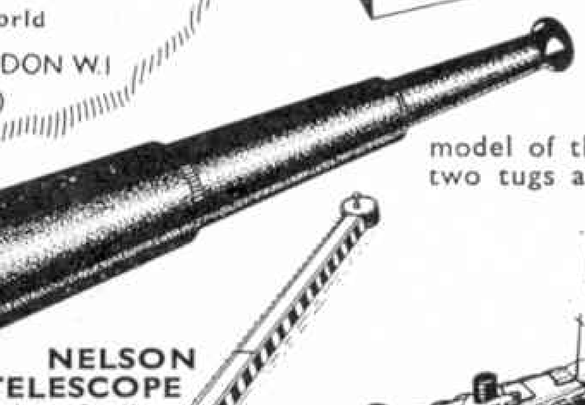

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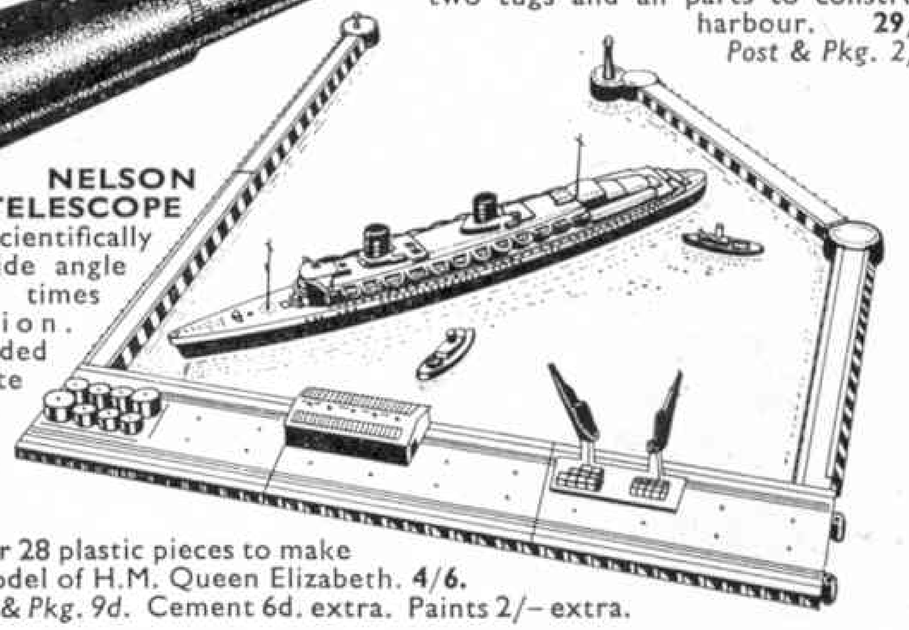

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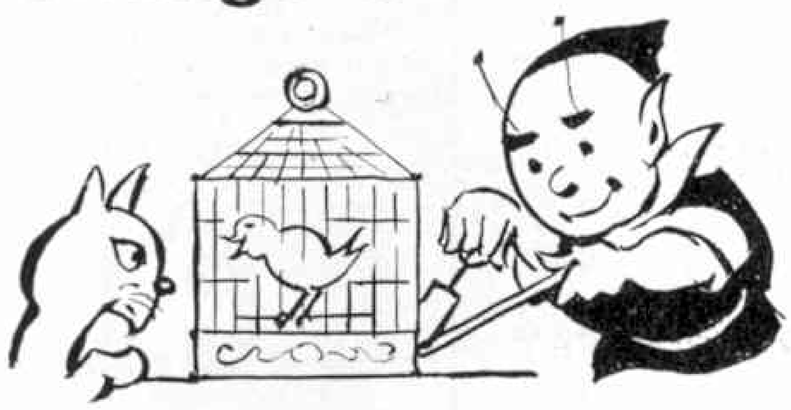
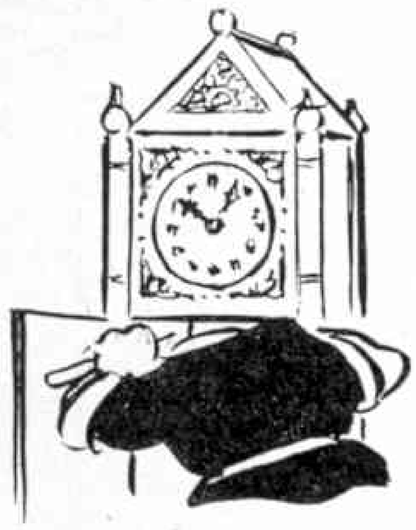


(*c*) keep things GOING.....



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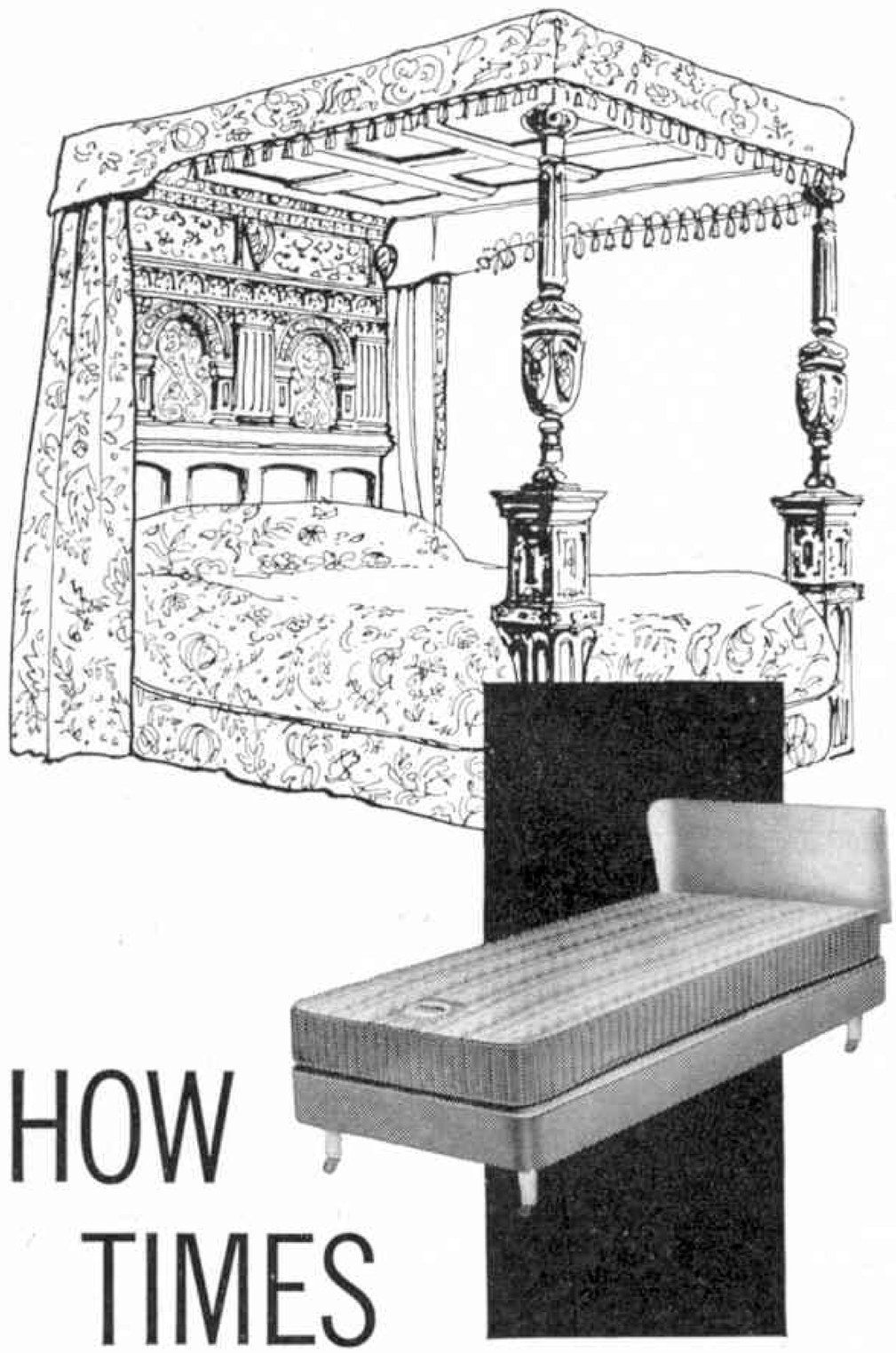

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HORNBY-DUBLO 2-RAIL LOCOMOTIVES

The Hornby-Dublo System offers an excellent choice of precision-engineered locomotives, ranging from the old faithful 0-6-0 Tank to the large "Pacifics" and the latest Co-Co Diesel. They make an impressive collection. Seven from the range are illustrated here.

HORNBY-DUBLO LOCOMOTIVES & TENDERS (2-RAIL)

		£	s.	d.
*2206	0-6-0 Tank Locomotive B.R. (black)	1	16	0
2207	0-6-0 Tank Locomotive (green) ..	1	16	0
*2211	"Golden Fleece" Locomotive and Tender E.R.	3	19	6
2217	0-6-2 Tank Locomotive	2	12	6
2218	2-6-4 Tank Locomotive B.R. ..	3	12	6
2221	"Cardiff Castle" Locomotive and Tender W.R.	4	4	0
2224	2-8-0 8F Goods Locomotive and Tender L.M.R.	4	6	6
*2226	"City of London" Locomotive and Tender L.M.R.	4	9	0
*2230	1,000 b.h.p. Bo-Bo Diesel-Electric Locomotive B.R.	3	1	0
2231	0-6-0 Diesel-Electric Shunting Locomotive	2	18	6
2232	Co-Co Diesel-Electric Locomotive	4	2	6

* *Not illustrated*

MADE BY MECCANO LIMITED, LIVERPOOL

Just the job for sunny summer days

NEW

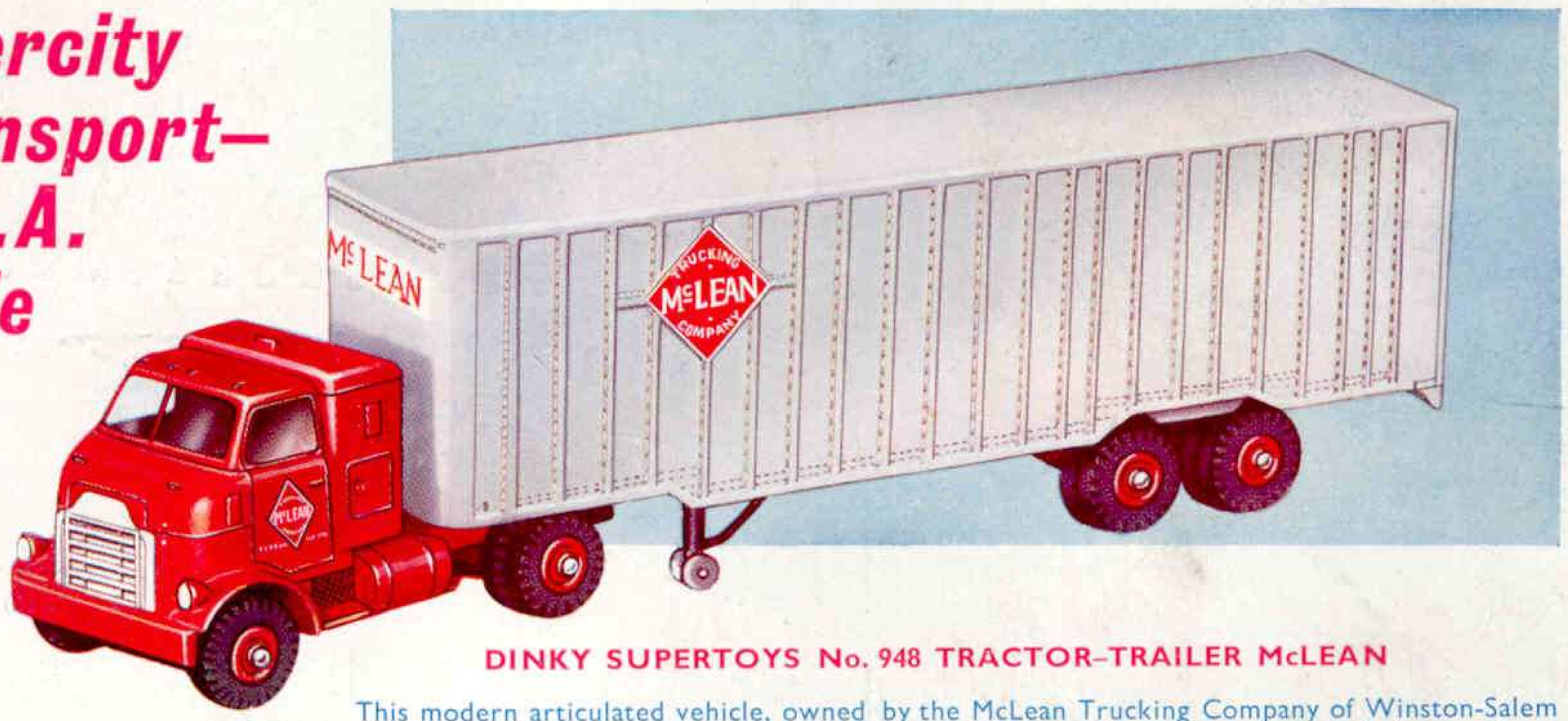
DINKY TOYS No. 188 FOUR-BERTH CARAVAN

This realistic model is equipped with detailed interior fittings ranging from a dining-table to a draining-board. It also has an opening door, spring suspension, glazed windows and rooflight.
A balanced towing hook provides the means for attaching the model to any Dinky Toys passenger car.
Length: $5\frac{1}{4}$ in.

U.K. Price **5/6**

NEW

Intercity transport—U.S.A. style



DINKY SUPERTOYS No. 948 TRACTOR–TRAILER McLEAN

This modern articulated vehicle, owned by the McLean Trucking Company of Winston-Salem in North Carolina, U.S.A., is used for transporting goods from place to place. It is sometimes known as a "McLean Intercity Road Unit" and is a very impressive vehicle indeed as it thunders along a highway. It has an overall length of 45 feet 3 inches.
Similar to the prototype, the trailer of the model is detachable and fitted with opening doors at the rear, and there are windows in the cab. The tractor unit and trailer base are die-cast in metal and the trailer body is moulded in polystyrene.
Length: $11\frac{5}{8}$ in.

U.K. Price **16/6**

DINKY TOYS & DINKY SUPERTOYS

MADE BY MECCANO LIMITED

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