

# TABLE TOP BATTLES



**This is the first of a series of articles which will deal with the building of scale model military vehicles and equipment to form a Wargames Army. Wargaming, apart from being a fascinating hobby in its own right, enables military models to be used rather than stand around gathering dust. Detailed information on military vehicles is not always easy to obtain, but this is no drawback, as Wargames models can be as simple or as detailed as you wish. After all, a real-life general is not too worried about the look of his forces, so long as they win the fight!**

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THE Second World War is the one that will be dealt with mainly, as it represents the period when the greatest strides in the military vehicle field were made. The 00 scale (1/76) is, of course, the most suitable on which to base any collection. A complete range of vehicles and men is modelled by Airfix at very reasonable prices and this scale has the added advantage that, should you wish to incorporate trains, most model railways are also to this scale. Aircraft (at 1/72 scale) are reasonably close enough in size to be utilised as well. Wargaming rules can, like the models, be as basic or as complex as you wish. Later in the series we will be giving you a few ideas on which you can base your own rules. First however, let us have a look at the approximate type of formation that we will need to develop for the sort of game where the tank is the most important feature. We must at the outset, adopt a somewhat false unit, based on the establishment of a division but, of course, with considerably fewer men than a *real* division. Though, naturally you are free to adopt any size you wish, it has been found that a model division with six to eight tanks and fifty men is adequate. If you examine most of the currently available 00 scale models, you will notice that they are all vehicles that fought in Europe after the D-day invasion of 1944. It is interesting to note the actual size and make-up of the British, United States and German divisions at that time, so that you will see the type of vehicles

required, and decide for yourself what size your own divisions will be.

The British and American troops were generally better equipped with transport, but suffered from the fact that the German tanks were superior to the American Sherman. Airpower was the deciding factor on the Allied side. A *British Armoured Division* comprised three tank regiments with a total of 190 Sherman tanks; three infantry regiments of about 800 men in each, all transported in halftracks (M-3 halftrack kit); carriers (bren carrier) and 15 cwt. trucks. Two regiments of artillery had a total of forty-eight 25 pdrs. which were either towed by the Quad Tractor or were self-propelled ('Sexton' will appear in a later article). One anti-tank regiment had forty-eight 6 pounders. Finally the division had detachments of Engineers, Signals troops, Reconnaissance, Transport and Medical services.

The *Infantry division* was formed from nine regiments of men, totalling about 7,200. These were transported by similar vehicles as described for the armoured division. When it was required that they should all be moved at once, extra transport had to be provided. The divisional artillery consisted of three regiments of towed 25 pounders having a total of seventy-two guns. Otherwise it was similar to the armoured division.

Commanded directly by the Army commander were *Independent Tank Brigades* of 190 Churchill tanks; these were used to support the infantry in

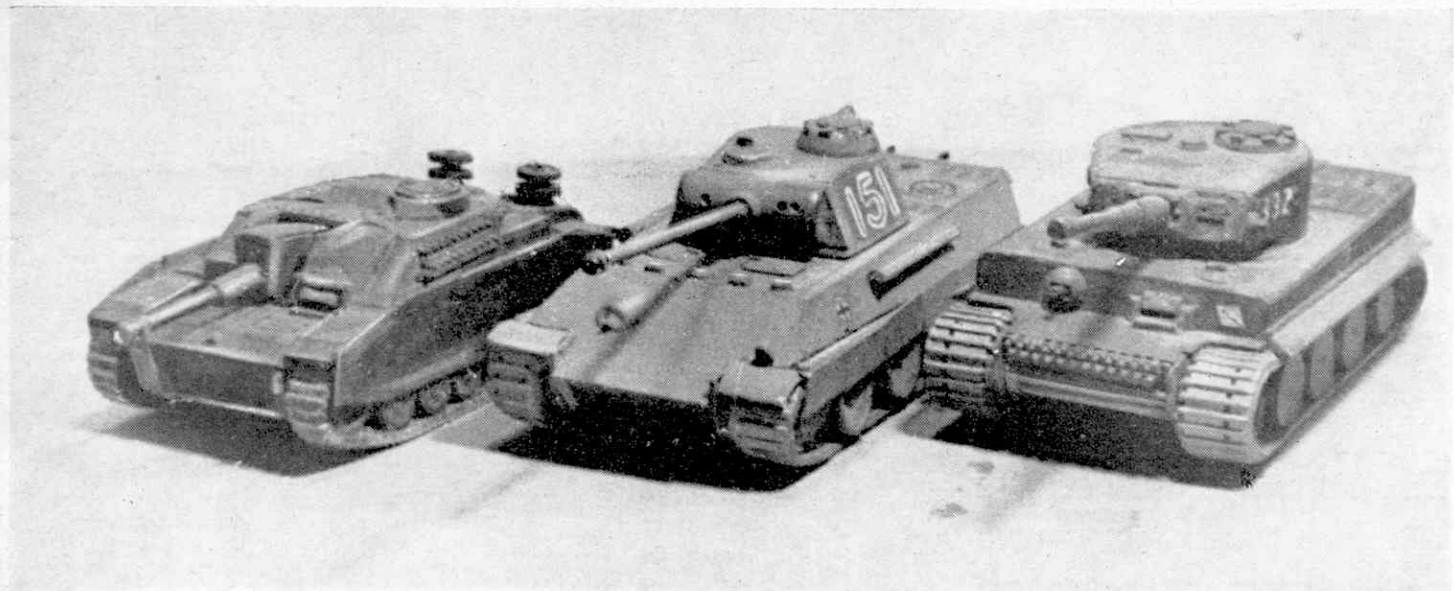


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1. A typical action scene from North Europe 1944. American infantry await the order to advance. They are using captured German half-tracks to supplement their own jeeps, Eager Beaver lorries and armoured cars. 2. German Panzers; the 'Tiger', 'Panther', and assault gun 'Sturmgeschütz III'. 3. An American GMC truck, an M3 half-track and a Dublo Dinky Austin lorry. The latter is in German hands. 4. The British Quad and 25 pounder, Churchill tank, and Bren carrier towing 6 pounder anti-tank gun. 5. A selection of the beautiful little Austrian made H.O. scale (1/90th) Miniatanks. The plastic mouldings incorporate incredibly fine detail which just cries out for some hand paint work, and since most of the parts of these models simply clip together, they can easily be taken apart for painting. The tyres in particular are greatly improved by a coat of matt grey/brown paint. Just about everything (except the tracks) seems to work on these models—even the tiny machine gun on the tank turret rotates and elevates! Big surprise is the low price particularly for an imported line of such high quality. The Bridge Layer (top) with completely operating bridge, costs only 4s. 9d. The Chieftain tank 2s. 6d. The impressive tank transporter costs 5s. 3d. and the La Crosse Missile truck 3s. All come packed in attractive transparent moulded display cases, and an illustrated catalogue is available from the U.K. distributors, Model Hobby Products, Mebro Works, Cuckoo Hall Lane, London, N.9. Price 3d. in addition to which you must send a stamped, self-addressed foolscap envelope. 6. The American Sherman tank was the main allied battle tank. It is accompanied here by the Roco model of the M-40 S.P. 155 mm. gun

attacks. *Medium Artillery Regiments* were also under Army command and were equipped with sixteen 5.5 inch howitzers towed by Matadors. The troops for the model division can be obtained by putting the heads of the 8th Army set onto the combat group or simply by using these figures without alteration, despite uniform difference for the European front.

*American Armoured Divisions* were formed with three Tank Battalions of Shermans, a total of about 186 tanks; three infantry battalions which had about 1000 men each, and were all transported by the M-3 halftracks or Jeeps; three artillery battalions were each equipped with twelve 'Priests' (which we will deal with in a later article). The division had all the usual other divisional troops. Their *Infantry Divisions* consisted of nine battalions of infantry which were transported in the same way as the armoured division, but in addition used the 3 ton GMC 'Eager Beaver' truck (we can use the under-scale ROCO-Peetzy model of this vehicle) and had eighteen 'Priests' and a similar number of 57 mm. anti-tank guns attached. They were exactly the same as the armoured divisions from here on but often their artillery battalions used towed 105 mm. howitzers instead of the self-propelled 'Priests'. The troops for the Wargames can be the 'U.S. Marine Corps set.'

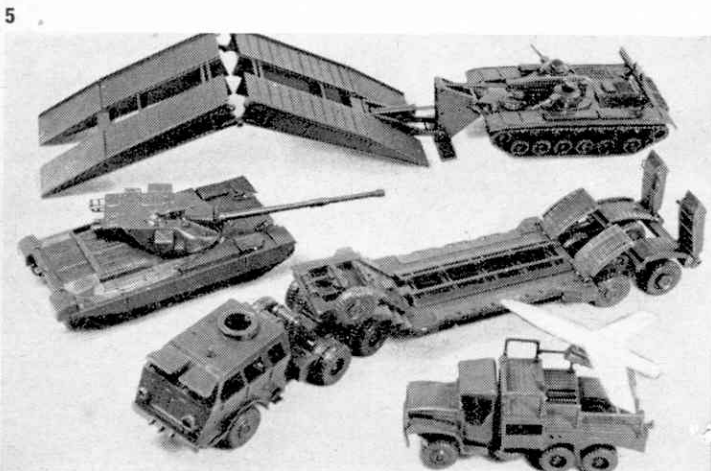
While the German name for an armoured division will be familiar to all, a brief description of the

*Panzer Division* will be appropriate. The main units were the two Panzer Battalions of 150 tanks, usually 'Panthers' or the 'Pz Kw IV'. These had four infantry battalions of about 1000 men each all transported in the armoured halftrack Sd Kfz 251. Unfortunately, we have no ready-made suitable models to represent these, so use 'captured' M-3's and the Dinky Dublo Austin Lorry (although obsolete, many of these Dinkys are still around). Forty self-propelled howitzers made up the three artillery battalions; while the one Panzer Jaeger battalion (anti-tank) was equipped with twenty-four assault guns and twelve towed or self-propelled 7.5 cm. anti-tank guns. (The German Armoured Car Sd Kfz 234 will represent the S.P. 7.5 cm. gun). The division then had all the other usual units similar to the British and American divisions.

The German mechanized infantry were known as *Panzer Grenadier Divisions* and were identical to the Panzer Division except that they had only one Panzer Battalion of assault guns instead of tanks. The infantry divisions were very poorly off, by comparison to their Allied counterparts, having to rely mainly upon horse-drawn transport to carry their six battalions. They also included an artillery battalion of twenty-four horse-drawn 15 cm. (6 inch) howitzers; but their anti-tank battalion used motor tractors to tow the thirty-one 7.5 cm. guns. Directly under Army control were *Independent Battalions* of

'Tiger' tanks and the heavy Tank-destroyer 'Jagd-panther'. These units had forty-five tanks in each, and were generally manned by the Waffen-SS, who were Nazi party members (unlike most of the ordinary German Wehrmacht soldiers.)

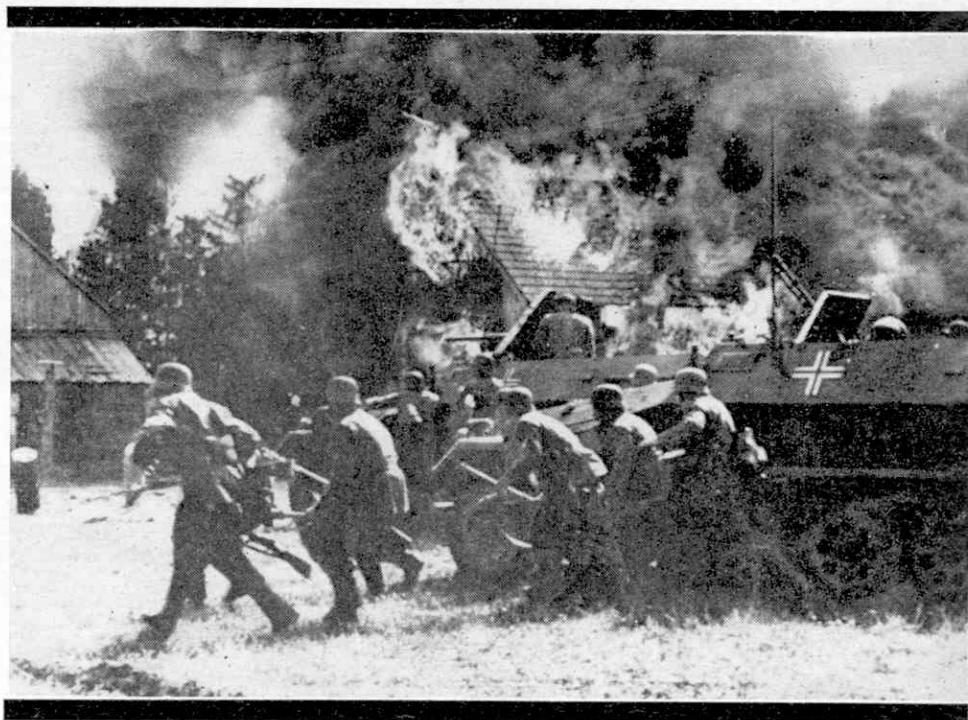
We will be covering all the equipment mentioned later in the series, but for those of you who wish to commence your study of armoured vehicles immediately, here are the names of some publications that will help you. The Royal Armoured Corps Tank Museum, which we will deal with later, produces the 'Illustrated Record of the Development of AFV's' an excellent series of booklets. The Curator will be pleased to send you a complete list of publications if you write to him. The address is Bovington Camp, Wareham, Dorset. 'German Tanks' by B. T. White published by Ian Allen Ltd. is a fine book available at your local bookshop. Finally Merberlen Ltd. of Hawthorn Hill, Bracknell, Berks, publish the Bellona Military Vehicle Prints. These are exceptionally useful as they are accurate drawings of tanks to OO scale. In addition to the drawings a complete technical specification and history are given, and the more recent issues include photographs of the actual vehicles. Other useful accessories are supplied by this firm, and a stamped addressed envelope to them will get you a complete list. Please remember when you are enquiring about books and information, to mention the Meccano Magazine. H.L.D.





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the rules of the  
game by H.L.D.



**L**AST month we gave you some ideas on the types of heavy equipment and formations used during World War 2. By scaling down these formations you can use them for battle-games, and in doing so we hope you will find the hobby of modelling military equipment a most rewarding and worthwhile pastime. Meccano Magazine will help you by describing the actual construction and painting of such models and next month we start off by showing how you can equip your American forces with essential artillery support. Now, here are a few basic battle-game rules. We must emphasise that these are only examples intended to help you form your own set of rules to suit your particular circumstances. Further ideas can be gained by reading 'Little Wars' by H. G. Wells—the book that started this type of game, and Donald Featherstone's books on War-gaming.

## Movement

In addition to your models and troops, you need a ruler and a pair of dice, moves being made when it's your turn to throw the two dice. The maximum distance travelled is determined by the dice. For instance one inch can equal every ten miles per hour of the vehicle's speed. This, in effect, represents all the chance factors that exist in any journey. For every point on the dice a vehicle moves a distance depending upon its maximum speed (i.e. 25 m.p.h. equals  $2\frac{1}{2}$  inches, thus a dice thrown ten points equals twenty-five inches).

The average road speed of those vehicles we have already mentioned can be grouped as follows:

- 10 m.p.h. Churchill VII.
- 20 m.p.h. Tiger I, Assault gun, Sherman, Matador and 5.5 inch howitzer.
- 25 m.p.h. Panther, Carrier Quads with 25 pdrs.
- 30 m.p.h. M-3 halftrack, Sd Kfz 234 Armoured car, most lorries.
- 35 m.p.h. Jeeps.

Tracked or semitracked (i.e. halftrack) vehicles usually are the only ones that can successfully travel off the roads. Wheeled vehicles can sometimes where the terrain is suitable. However, in all cases travel cross country is at half speed. A division can move as a unit but its overall speed is reduced to half that of the slowest vehicle. This allows for any traffic congestion that may be caused by a large unit on the move.

## The Battle

For the actual fighting: any gun can take three shots but only at one target. A tank with its fully rotating turret can engage a second target but can only have one shot at each. Before firing you must indicate your target. Again the dice decides whether or not it is a hit or miss. Above six being a hit, below a miss. Once you have taken your firing move you must wait until the opponent returns fire or moves away. Camouflaged anti-tank guns, or even dug-in tanks cannot be fired upon until they have given away their position by firing. They can, however, be overrun by advancing infantry. To prevent capture you can blow up equipment but each demolition is equivalent to one shot. Once equipment has been captured, the troops must be given time to familiarize with it before using it.

## Armour

The armour of real tanks is thickest in front where they are most likely to be hit. In exceptional circumstances it may be possible to attack them from the rear and this will result in the destruction of even the heaviest tank. However, the actual chance of this happening is small (and in battle-games it can lead to arguments). So let's assume a uniform armour thickness all round. Here is a table that sets out armour thickness of tanks for practical purposes, so that direction of attack does not matter.

Sd Kfz 234 armoured car : 20 mm.

Sherman : 30 mm.

Assault Gun (StuG 111) : 60 mm.

Panther : 80 mm.

Tiger I, Churchill VII : 90 mm.

The M-3 halftracks and the carriers are proof only against machine gun fire and high explosive blast, and the 'soft skinned' vehicles (lorries) can be destroyed even by machine guns. The following table shows the distance at which various calibre guns can penetrate armour and destroy the tanks.

Armour Thickness. Up to	20mm	30	40	50	60	70	80	90	100mm
6pdr./57mm Antitank guns;	12	12	12	12	12	12	9	6	2 in.
75mm Sherman, Churchill;	12	12	12	12	9	6	2		in.
75mm Assault gun, Sd Kfz 234;	12	12	12	12	11	9	6	2 in.	
75mm Panther;	14	14	14	14	13	13	12	12	in.
88mm Tiger.1.	14	14	14	13	13	12	9	6 in.	

In last month's caption to the photograph of the Roco Minitanks models, the impression may have been given that since the tracks do not move, the vehicles are therefore immobile. This is not the case, since beneath the tracked vehicles there are concealed four wheels which hold the tracks just clear of the ground and enable the model to be rolled. The wheels are designed so that they can be quickly unclipped when their removal is required. An enlarged Roco Minitanks catalogue is now available and costs 6d., plus a stamped and addressed envelope, from Model Hobby Products, Mebro Works, Cuckoo Hall Lane, London, N.9.

### Photographs

Above: German Panzer Grenadiers charge into action from their armoured halftracks

Left: a rare photograph of an M-3 American halftrack in German markings (Warpics Photo)



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Battlegaming Models  
By H.L.D.



IN February, the layout of the different Armies' divisions was given. From this we saw that the only readily available items of equipment with which the Battlegamer can equip his American forces were the Airfix models of the Sherman tank, Jeep, and M.3 half-track. Now, however, the ROCO Minitanks range is becoming increasingly available, and we can turn to their catalogue to see what is suitable to use in the 00 (1/76) scale for the World War II period. Luckily for the 'American Army', here we find all the artillery pieces we could wish for.

First, we find the 155 mm. Self-propelled Gun M.40 (ROCO No. 104). Before dealing with the model itself, here is a brief historical note. The M.40 was developed from an earlier 155 mm. SP Howitzer M.12 'King Kong' that had appeared in 1942. The M.12 chassis was that of the Sherman tank then in production, thus it had the original vertical volute suspension similar to that on the Airfix model of the Sherman. When the famous 155 mm. M.2 Gun 'Long Tom' became available it was decided to increase its mobility by mounting it on a suitable mobile carriage, and the latest Sherman chassis was adapted. This featured the horizontal volute suspension and wider tracks which account for the different appearance.

The M.40 entered service with the American artillery batteries attached to Central Command, in 1944. It served on all fronts and was again in action in Korea from 1950 to 1952. It was finally replaced in 1955 by the M.53 which is also represented in the ROCO range (No. 157). Some M.40's were used by the Royal Artillery, and one example is on display at their very interesting artillery museum at the Woolwich Arsenal Depot in South London.

This M.40 is one of the early models of the ROCO range, and is somewhat lacking in detail when compared to their recent issues. (Fortunately it is modelled to 1/80 scale, which is almost the same as 00 scale.) The main deficiencies are the missing buffers on the gun and the most important recoil spade. This spade prevented the running gear and suspension from being damaged by the recoil of the gun. The basic model costs 2s. 6d., but for an additional 2s. 6d. and the minimum of work, we can make it into a perfect replica of the prototype. Acquire one of the modern 155 mm. SP guns (No. 136), as it has a fully detailed spade and gun. From this the gun is removed and the circular platform and seats are cut away. Next carefully remove the rear 6 mm. of the gun mount-

ing, which should leave the gun as shown in the photograph. A shield, for the gun layer, is made from a piece of Plastikard and cemented on the left-hand side of the gun mounting. The original gun can now be removed from the M.40 and the new one stuck in its place. I do not think it worth the trouble trying to reproduce the traverse in such a model, but if this is required, the gun section of the 'Long Tom' model (No. 120) can be substituted. This, however, does not represent the best solution as the gun is not quite the same as the one on the real M.40 and it still costs 2s. 6d., leaving you without the spade mechanism.

Carefully remove the spade, making sure not to break any of the brackets. Take the two angled stays and cut away the single end pivot. Cement them back onto the spade the opposite way, so that the straight members are closest together. Cut 4 mm. lengths from the thin portion of the hydraulic rams and cement these vertically in the attachment points, where the thick ends were attached. Now cement the unit on to the base of the tail platform, making sure that, when this is lowered, the spade rests upon the ground. When set, the model can be painted and markings applied, leaving us with a highly detailed reproduction.

Every country has had its famous weapons, and when reproducing a model army it is necessary to include some of these more famous pieces, or the whole thing would seem wrong. Just as we could not have a British army without a 25 pounder gun, the Americans must have 105 mm. Howitzers. Luckily, we Battlegamers have been saved much work here as ROCO provide a wonderfully detailed model (No. 183) of this gun. It is fully operational, the trails split, the barrel elevates and traverses just as with the real thing. All that is needed is a coat of paint. This model scales about 1/80 so at 1s. 6d. is an excellent buy for an 00 scale army. The towing vehicle for these Howitzers is the M.3 half-track, as modelled by Airfix.

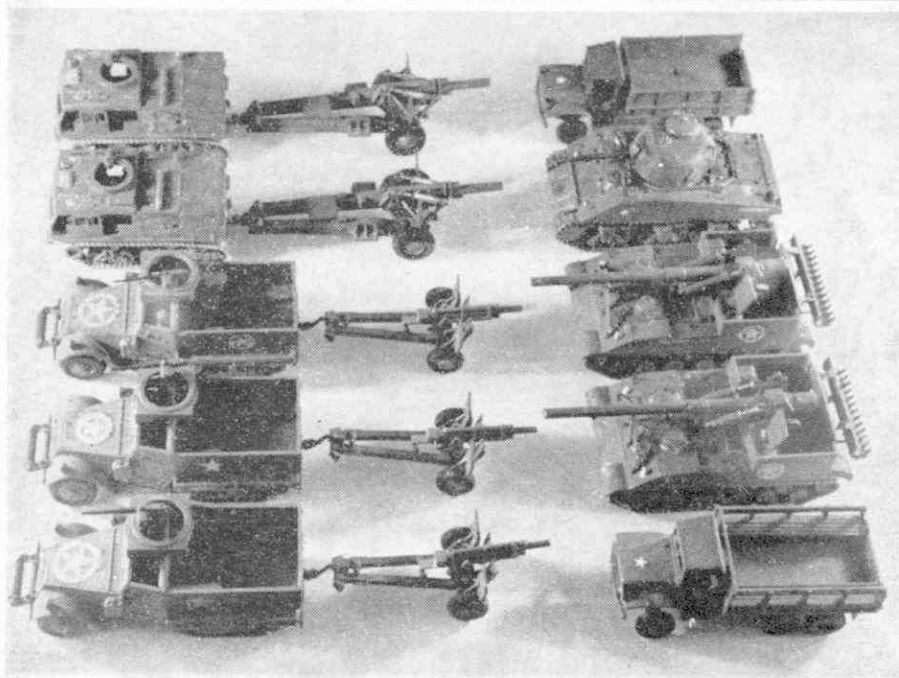
The M.2 105 mm. Howitzer was first introduced into service in 1935. It was the result of careful development of the model M.1 which appeared in 1928. The M.2 served throughout the War and later in Korea, without undergoing any major changes. It was capable of firing a high explosive shell weighing 33 lb. a distance of 12,500 yards. In 1942 the SP version, 'Priest' M.7, appeared on the 'Grant' tank chassis and these were used by Montgomery's force at the battle of El Alamein.

Another ROCO model which scales 1/80 is the American field Howitzer, 155 mm. M.1 (No. 187). Costing 2s. 6d. this highly detailed model is an excellent buy. Not only does the trail split, but the spades can be detached and carried on the side of the trails during travel. There is a travel steady that locks the barrel straight and a large jack that holds the wheels off the ground for more stable firing. The barrel traverses and elevates, with the buffers working most realistically. The M.1 was used by the Americans and their allies until the late fifties. Shell weight was 95 lb. and this could be fired a distance of 16,350 yards. For a towing vehicle ROCO M.4 tracked prime mover 'High Speed' 18 ton (No. 178) is based upon the chassis of the M.3/M.5 series of light tanks which entered production in 1942. They served in Europe from 1943, and usually towed the heavy 'Long Tom' and 203 mm. Howitzers. As can be seen from the photograph of the models prepared for this article, we have two 155 mm. M.1's, towed by M.4's to represent the heavy artillery battalion of the U.S. Infantry Division. The three 105 mm. M.2's towed by half-tracks represent the medium battalions, while the M.40's are attached to this particular division for special tasks such as the laying down of a barrage before an assault. The M.4 Sherman tank is an artillery observation post. Such OP tanks are essential as they must go forward near the front line to observe fire and report targets back to the batteries. Two ammunition supply trucks are also provided.

Many Battlegamers feel that artillery is too complicated and powerful, so they just don't use it. However, this limits them to using certain arms only. In the long run it inevitably reduces the realism, for every army is open to long range attack by artillery at some time. We can use artillery in Battlegames by making it just a bit more difficult to use, thereby decreasing its apparent power.

As shown last month no gun can fire more than fourteen inches. This is what we assume to be the maximum range of direct vision. To fire further, the gun must be layed with the help of information passed on by an Observation post not more than fourteen inches from the target. Again we assume each OP can signal only eighteen inches, but information can be passed on by different posts, thus increasing the range. An artillery piece is fired, as explained before as follows: indicate the target, and let the dice decide (one dice only); above four, a complete





hit; three, blast damage only, and below three, a miss. A one inch diameter circle is the area of damage caused by a 105 mm. or 25 pounder. Their ranges are from zero to twenty-one or twenty-three inches respectively. The 155 mm. M.1 and 5.5 inch Howitzers have a similar performance; a three inch damage circle and a range from six to twenty-five inches. The 155 mm. 'Long Tom' of the M.40 is the same but has a range from ten to thirty-four inches. The towed guns take one move to prepare for firing, as does the M.40 (a towed 'Long Tom' would take considerably longer). The medium field guns can fire once every move but the heavy ones only every alternate move.

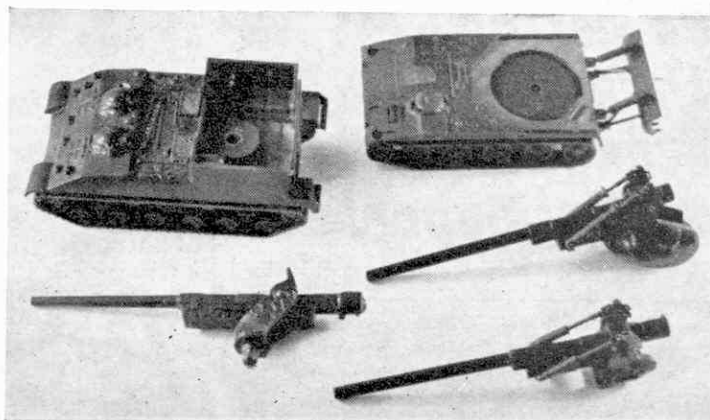
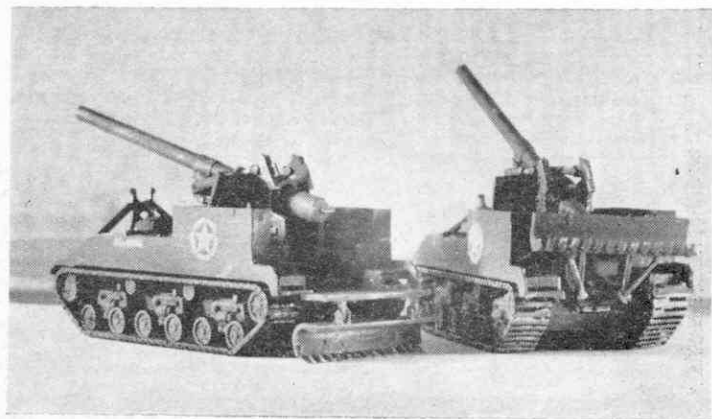
Opposite page: an M.40 SP 155 mm. ('Long Tom') in action in Korea, 1950.

Top: an M.40 on display at the American Armour Proving Ground, Aberdeen, Maryland (Warpics photo).

Left: the completed divisional artillery of an American Infantry division, as described in the text.

Below left: rear view of two improved M.40 models showing details of the spade fitting.

Below right: the basic ROCO model of the M.40 with its gun removed. On the right is the modern SP carriage from which we get a detailed gun and recoil spade. In the front right is the gun modified to fit the M.40.



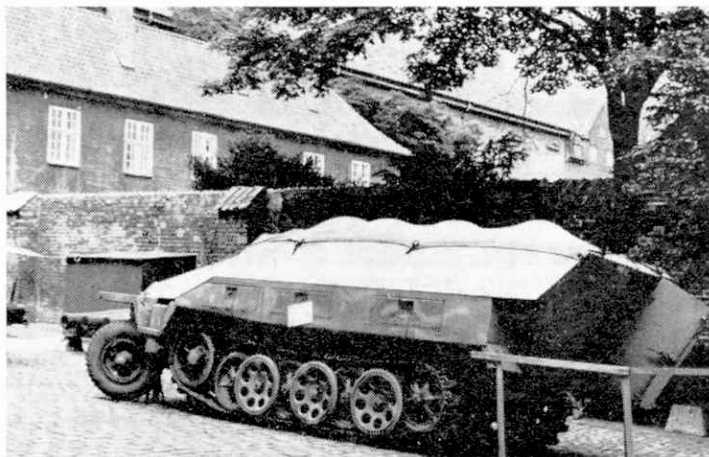
# Table Top Battles

By H.L.D.

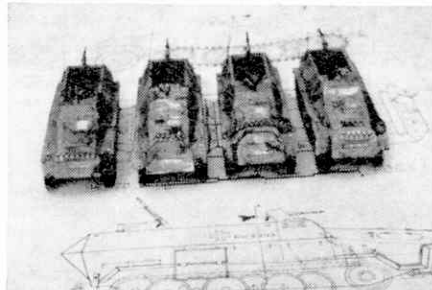
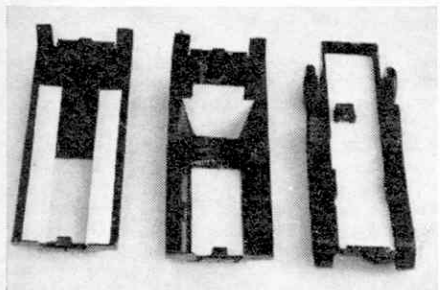
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JUST before the invasion of Poland in 1939 the first of the 3 ton semitracks (Mittlerer Schützen Panzerwagen, abbreviated m.SPW) medium armoured troop carrier, SD Kfz 25/1 entered service with the German Army. During the course of the War they were produced in ever increasing numbers. They were used, in addition to their design purpose, for virtually every light service required by troops in front line areas where there was danger from high explosive blast or small arms fire. By the end of the war there were twenty-two officially listed versions ranging from ambulances to Flakpanzerwagens (anti aircraft).

Any attempt to reproduce a realistic German Army in model form will be incomplete without a considerable number of these SPW's equipping the Panzer Grenadier battalions of both Panzer and Grenadier Divisions. No manufacturer has as yet marketed a kit of this vehicle. The serious modeller, only requiring a model for display can, however, tackle this, using the Bellona Print. Unfortunately it is rather impractical to build sufficient of these vehicles from scratch for use in Battlegames.

Roco Minitanks produce a range of models of the German S. W. S., a heavy 5 ton Military Tractor which appeared just before the end of the war. These are quite accurate, but unfortunately to 1:89 scale and are a bit small for use in their original form by an 00 scale enthusiast. Comparison of this

model to a 1:76 scale SD Kfz 25/1 shows that it has the same general dimensions. The superficial appearance of one of the armoured versions is not that much different except for the rear plate, from the SD Kfz 25/1's built after 1943.

The Infra-red Searchlight vehicle (No. 129) costs only 1/6d. Thus if converted so as to be utilized by 00 scale Battlegamers as suggested in this article, the cost per unit is not high. If, at some later date, an accurate kit of the m. SPW is released one will not have wasted too much money or time.

Taking any of Roco Nos. 129, 130, or 131, disassemble and discard the swivelling equipment. Carefully cut away the central roof plates to give an open topped compartment. No driver's hatch is fitted, so file this down flush with the roof. The bulkhead can now be fitted to separate the engine compartment; strips of card 4 mm by 50 mm are cemented along the sides of the superstructure to cover the gap left, when this is fitted to the chassis. These can be made wider (6 mm) so as to extend further into the vehicle forming seats should these be desired.

A floor of card can be fitted in the chassis. A driver's seat, from an Airfix Kit, is fitted on the left, but the backrest is cut away. The major components are best painted before reassembly. The basic overall colour of the German AFV's from 1943 was Sand. The tracks are best painted black and later touched up with random dashes of silver.

When the model is in one piece, a shield for the forward machine-gun must be fitted over the driver's cab, 4 mm high and 10 mm wide; it is folded in the middle to form a V. The German machine guns MG 34 and 42 at this small scale are almost indistinguishable from large rifles, so pins etc. can be made to fill this role. Alternatively one could use the guns supplied in the Roco (No. 125) packet of Decals and accessories. A radio aerial of bristle can be fitted to the rear right hand side.

Camouflage of green and/or brown can now be mottled over the basic paint job, if desired. Detailed painting and fitting of markings as on the finished models is now

completed. Wehrmacht number plates help, especially the front plate—the only source of these is from the Airfix Armoured Car Kit. General dressing can now be added to give the vehicles a used look. (Petrol cans, tow ropes and spare track—got by cutting a piece of Airfix Sherman track in half.) Finally, to give a weathered look, roughly dab matt earth around lower body and track-work; a dash of silver on odd corners of the superstructure heightens this effect.

For Battlegames, these vehicles are proof only against small arms and machine gun fire, and the blast and shrapnel caused by high explosive artillery fire. The road speed was approximately 30 m.p.h. The crew was five, and ten troops were carried in each vehicle.

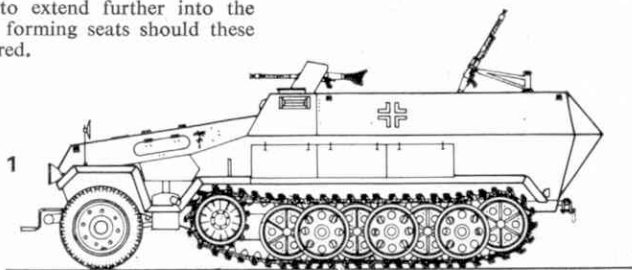
1 This model of the m.SPW SD Kfz 25/1 was built between 1939 and '41. Drawing is to 1:76 (00 scale) and is reproduced by courtesy of Merberlen Ltd 2 (Heading photo). A Panzer Grenadier column of m. SPW's pass through a Russian city—note stowage of spare track and tow rope.

3 A 1944/45 model of the m. SPW SD Kfz 25/1, with canvas tilt fitted. This vehicle is on display in Copenhagen, Denmark.

4 The additional parts required, from left to right; 4 x 50 mm strips of card cemented to the underside of the superstructure, the engine bulkhead, and finally the chassis with floor and driver's seat fitted.

5 Four completed and painted semitracks built from the Roco models.

6 Completed and painted semitracks built from the Roco models seen here travelling through rough ground.



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## Semi-Track Carrier Conversion by H.L.D.



**T**HE FIRST part of this feature appeared last May in the previous Meccano Magazine, and dealt with the basic vehicle of the Panzer Grenadier Units Sd Kfz, the 251/1 medium Semi-Track Carrier. The May issue also described a quick conversion of the ROCO Minitanks model of the Schwerer Wehrmacht Schlepper (S.W.S.) or in English, Heavy Military Carrier, ROCO Nos. 129, 130 or 131, to the German Sd Kfz 251/1. The Special vehicle number allotted by the Ordnance Department was 251/1 not 25/1 which, unfortunately, appeared in the last feature.

Twenty-two separate versions of this basic vehicle were constructed, and this month we are about to construct the very last model—the Sd Kfz 251/22, a Panzerjaeger (Antitank vehicle) mounting the 7.5cm PAK 40 Antitank gun. Another version described here is the Sd Kfz 251/9 which carried a short 7.5cm Cannon, and was one of the first German self-propelled

guns. Both these vehicles were attached to Panzer Grenadier Companies during 1944, in a ratio of about one to every four standard Troop Carriers. The 251/9 served in a general support role and the 251/22 as the main Antitank defence vehicle of these companies.

### The Sd Kfz 251/22

The first thing we need is the complete gun and floor assembly from the Airfix Sd Kfz 234 Armoured Car Kit (Part Nos. 1 to 6). Assemble these as instructed for the Airfix Armoured car. The floor is then carefully trimmed away, leaving just a 12mm base for the gun mounting.

This is exactly the same as for the standard Sd Kfz 251/1 described in the May issue of Meccano Magazine. Just to recap for those who may have forgotten: we discard the swivelling equipment from the basic ROCO model and cut away the roof plates to give an open-top compartment. The remainder of the work required is to fill any gaps in the hull and detail the model. For the 251/22 we cut a further section from the roof of the driver's cab—this can be patterned from the part No. 17 of the Airfix Armoured car kit. This cut-out, seen in our photograph, was necessary on the original vehicle to allow slight traverse of the gun. Having completed the top plate removals, turn the superstructure assembly upside down. A piece of card, 12mm wide, is now cemented in place 20mm from the back, so forming a bridge on to which we cement the gun and its mounting. The superstructure is now refitted on the chassis and final detailing and painting carried out.

### The Sd Kfz 251/9

Again we prepare the basic vehicle as before. This time we look to the Airfix Assault Gun Kit, for the necessary additional parts. We use Part No. 55, the base of the gun and No. 56, the gun mounting. Carefully cut the pivot points from No. 56 and into these we clip No. 55 the gun. Now from the roof of the driver's cab on our semi-track, we cut a slot 7mm wide and 7mm deep. On either side of this slot we cement the pivot points of the gun. Front armour was extended upwards and we duplicate this with pieces of card 4mm high and 4mm wide, cemented on either side of the roof in front of the gun. This armour was tapered backwards on the sides.

Our prototype photograph shows a Sd Kfz 251/9 during action in Russia in the 1941 campaign. Our

Above top, the finished product, our ROCO model converted to an Sd Kfz 251/9. Airfix figures are used, those in snow caps being converted from Arabs. Centre, our Sd Kfz 251/22 in action during the winter. At left, the basic conversion steps. From right to left, we have the unmodified ROCO model; the superstructure with top plates removed; the bulkhead filled behind the engine; new track covers/seats and finally a new floor fitted to the chassis.

