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VULNERABLE POINTS—WHERE TO ATTACK

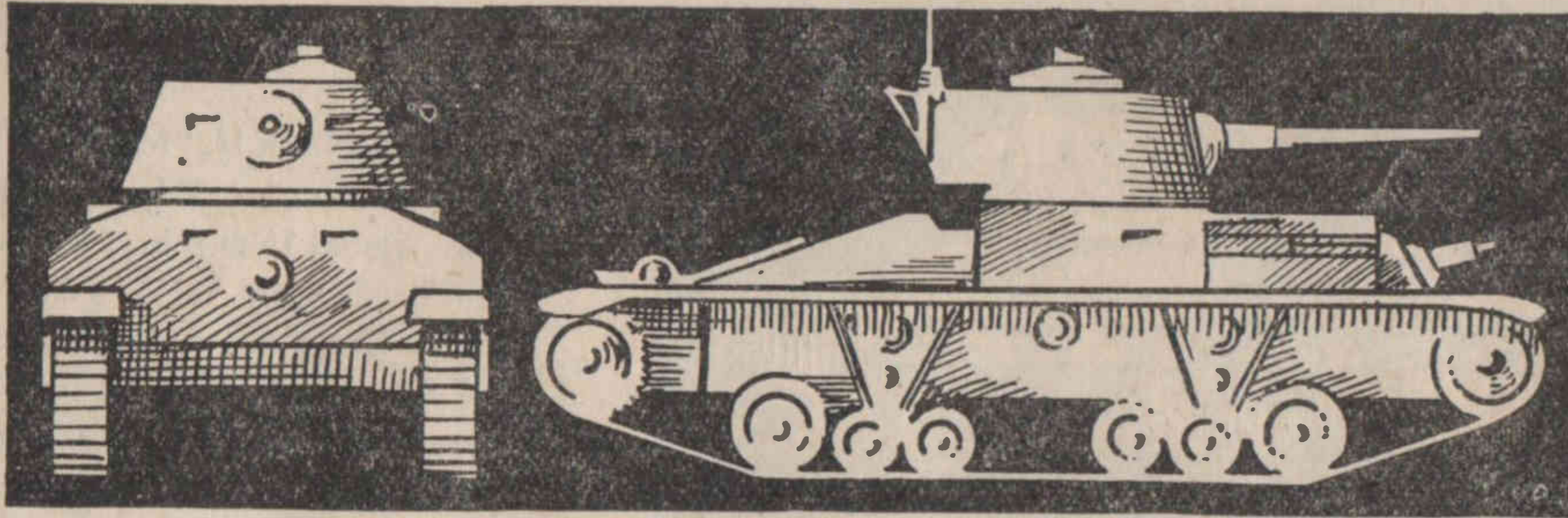
how to recognise—friend or foe



**BRITISH · CANADIAN · U.S.A. · RUSSIAN
CZECH · FRENCH · GERMAN · ITALIAN · JAPANESE**

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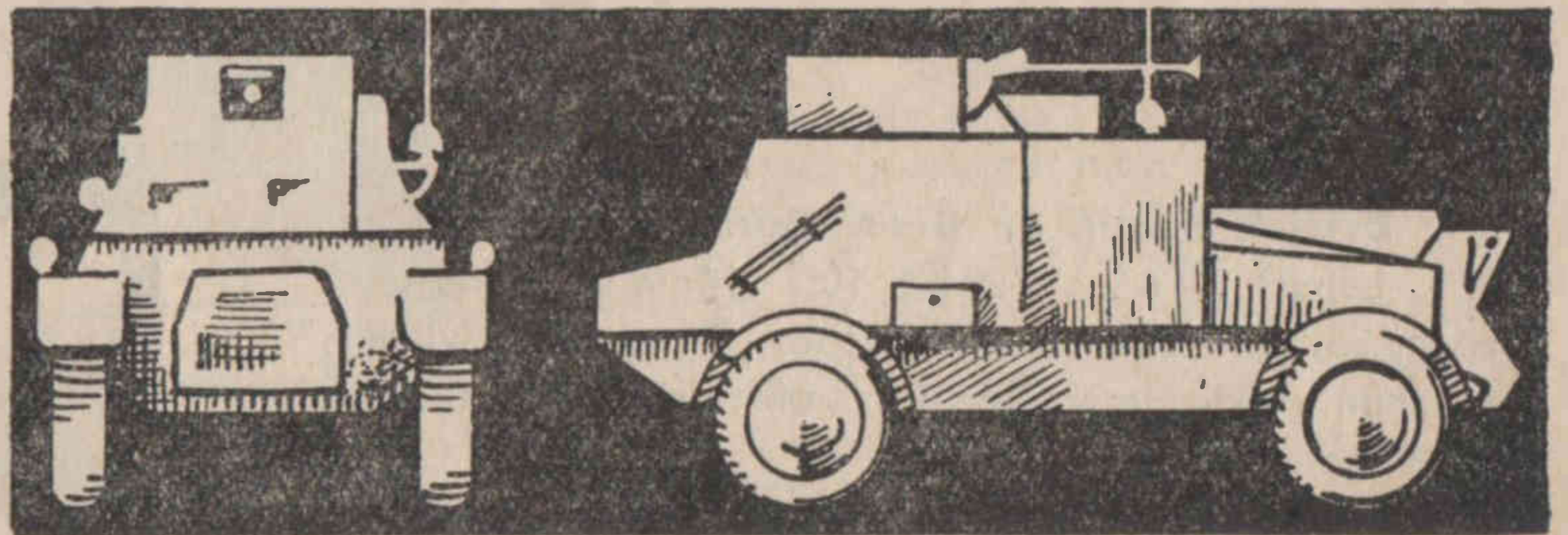
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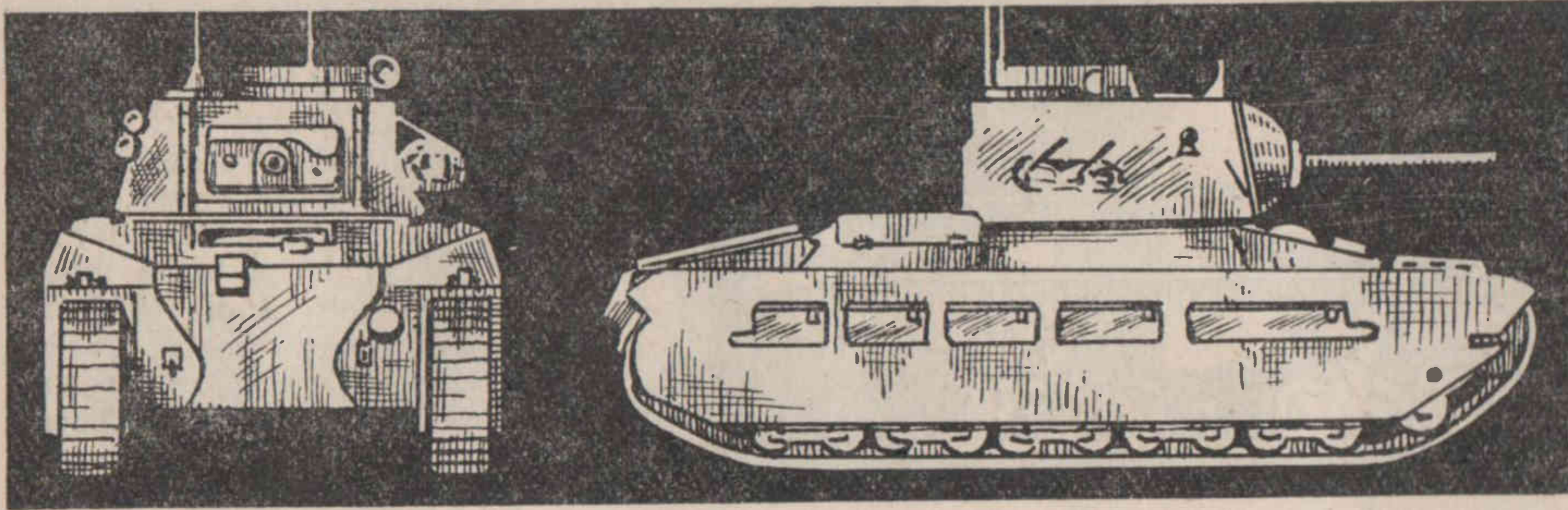


British A.9 Mark I. Cruiser Tank. Height 6' 3". Length 19' 3". Width 8' 6". Armed with 3 guns, 2 in turret. **How to recognise:** Large driving sprocket rear. Twin bogies, each carrying 2 small bogie wheels and 1 large bogie wheel. 3 jockey wheels, 2 of which are mounted on each bogie bracket. Large visible sloping coil spring. Whole track system very exposed. Large turret fitted Tank, centre, highly prominent with overhanging rear portion to take radio and

carrying wireless mast. Large gun with rounded mantlet fitted in turret fore, the face of which slopes backwards. Reasonably high super-structure with 2 small turrets in fore-part, left hand side one mounting 1 large gun. Front view, symmetrical with turret undercut where it joins super-structure. Small look-out cupola on left hand side turret top.

British Reconnaissance Armoured Car. Height 7' 3". Length 15' 6". Width 6' 8". **How to recognise:** Four wheels. Small rear mudguard. Open top turret mounted practically over rear wheels. Aerial mast in fore part of body ahead of turret. Bonnet is nicked in front when seen from side view. No further details available.

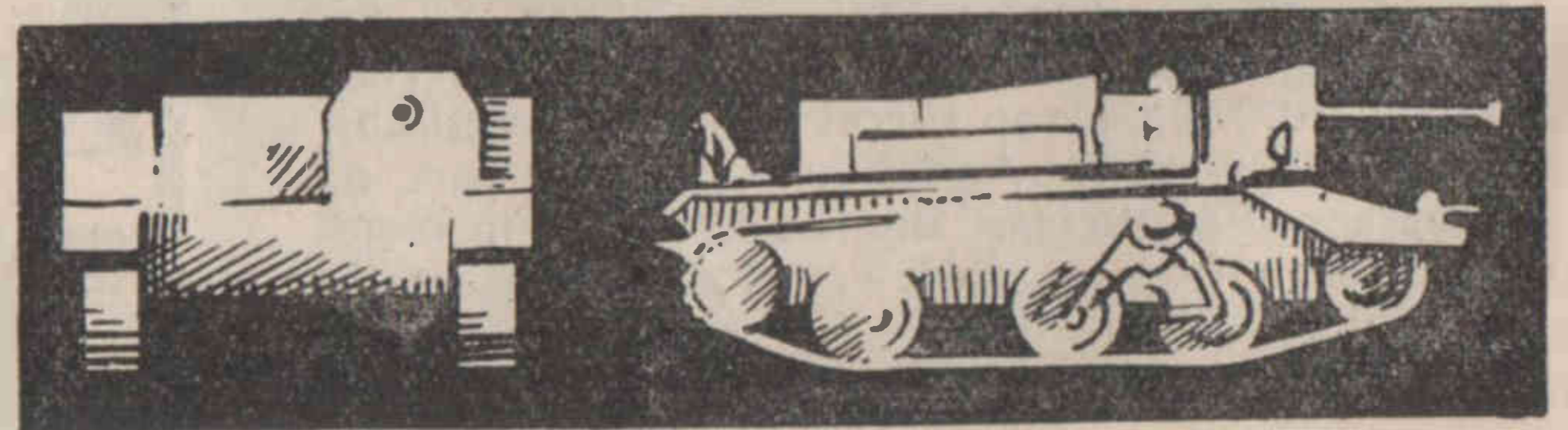




British Mark II. "Matilda"
Infantry Tank. Weight $26\frac{1}{2}$
 tons. Speed 15 m.p.h. Height
 7' 9". Length 19'. Width
 8' 6". Crew 4. Armed with
 a 7.92 m.m. M.G. and a
 2-pounder gun. **How to**
recognise: Cast rounded
 nose front view. 11 very
 small bogie wheels practically

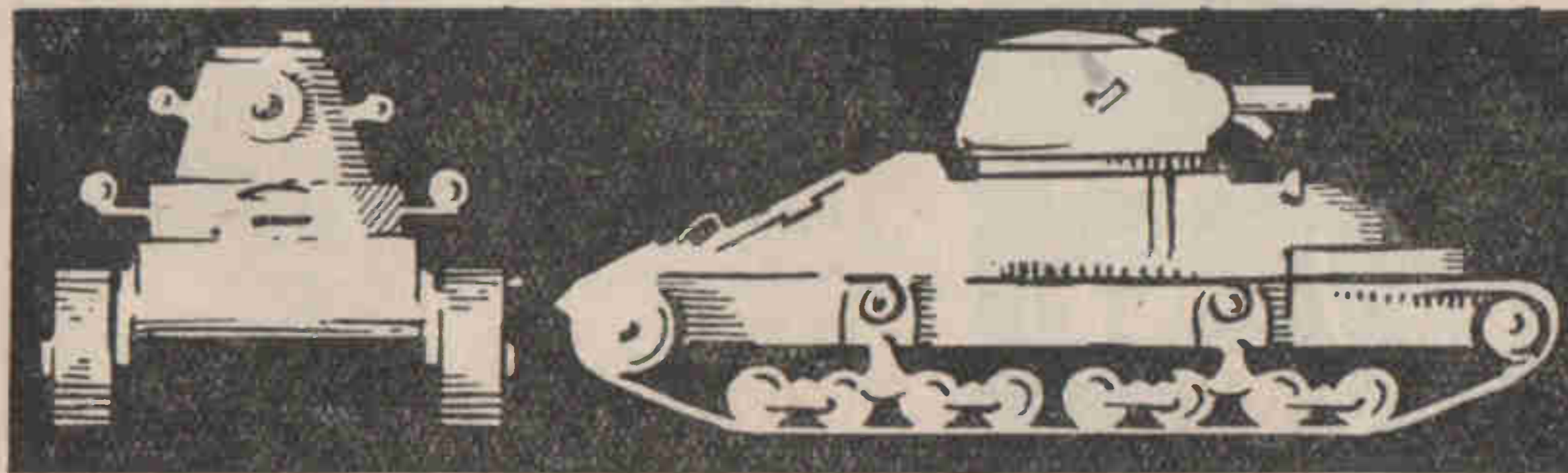
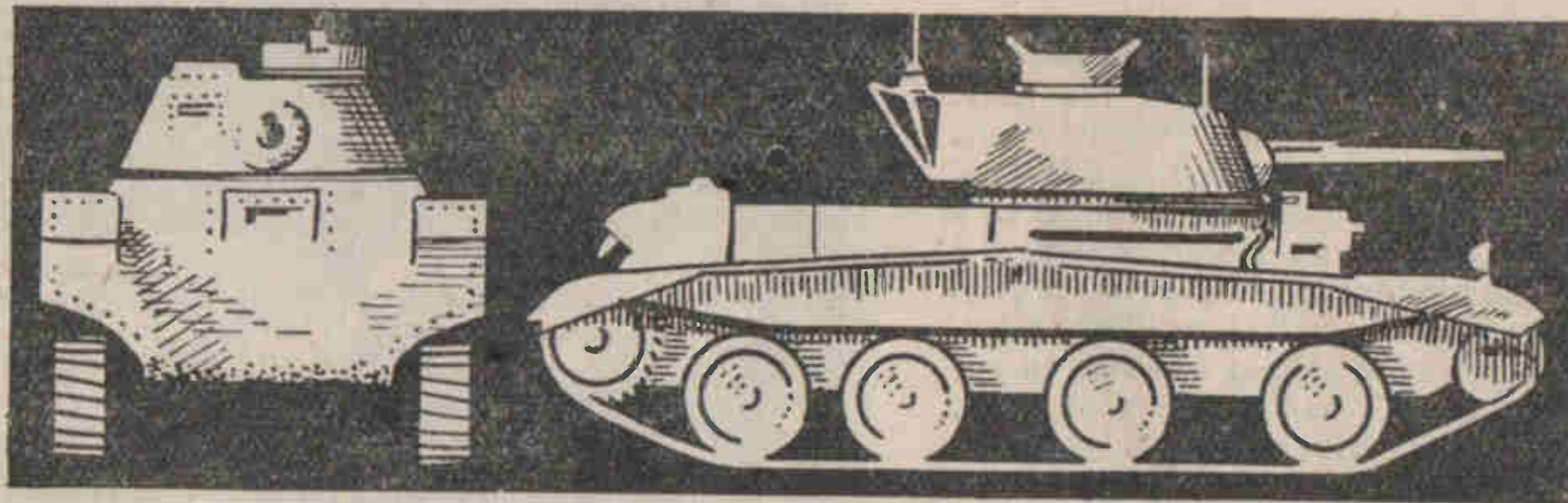
covered by armoured shields on both sides. Rather high turret mounted centre of low super-structure. Very prominent bulbous mantlet on 2-pounder gun fitted centre of turret. Hull top face slopes downwards from turret to fore end and same rear end. Driver's cabin centrally situated in hull. 2 small wireless masts on turret rear. Round cupola on turret top rear left hand side. Face view, turret sides leaning upwards and inwards. Smoke Dischargers fitted turret right side externally.

British Scout or Bren Gun Carrier. Height
 4' 4". Length 11' 6". Width 6' 10". **How to recognise:**
 Driving sprocket at rear. Open top. Three bogie wheels.
 Bren gun protruding over fore of tracks. No further
 details available.



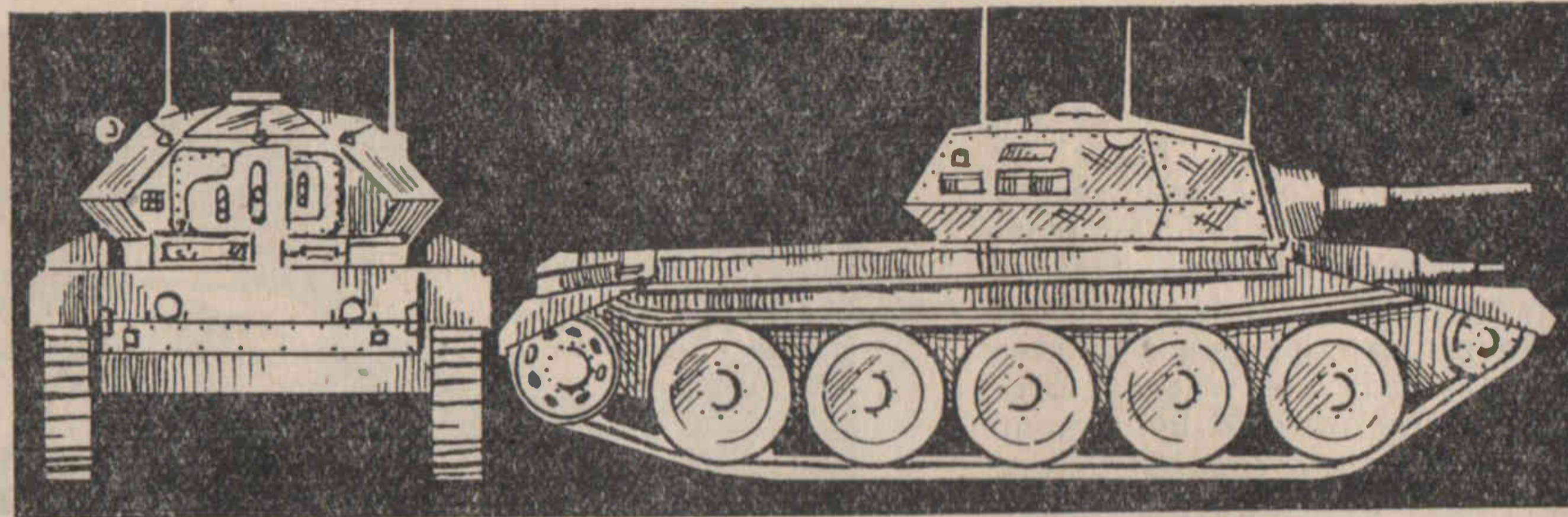
British Mark I. Cruiser Tank A.13. Height 8' 6" Length 20'. Width 8' 3". **How to recognise:** 4 unevenly spaced large bogie wheels reaching from top to bottom of track. Smaller driving sprocket partly covered by armoured skirting board at rear and very small idler wheel at forepart, partly covered by armour plating. Shallow super-structure carrying comparatively large round turret on its forepart. Turret has bulge at rear for radio set and carries aerial mast. Large gun mounted in turret fore with small M.G. co-axial mounting. Cupola placed in turret centre on left hand side. Flat deck on super-structure top at rear of turret.

The Mark II, A.13 is identical to this Model except when viewed from the front, the turret appears to be diamond shaped.



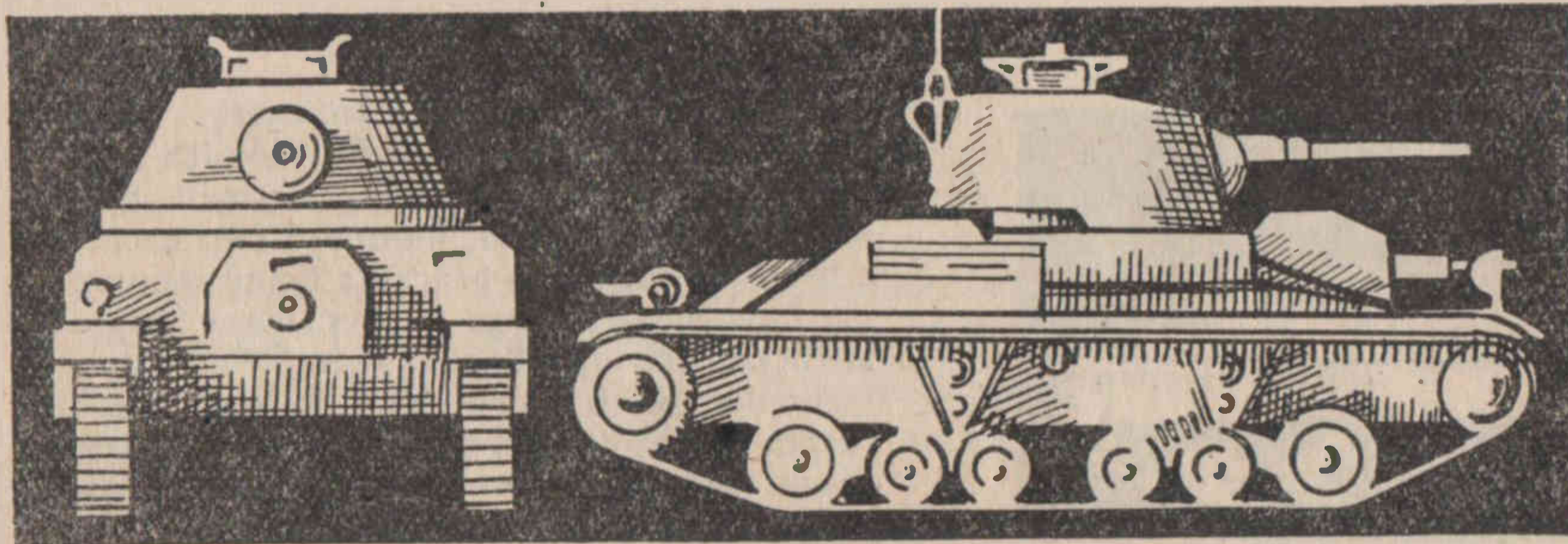
British Mark I. Infantry Tank. Height 6' 4". Length 16' 6". Width 7' 9". **How to recognise:** Eight small bogie wheels evenly spaced, mounted two each to a bracket, each two brackets being mounted via horizontal springs to two major bogies. Sprocket driving wheel at rear. High super-structure with very high round central turret with gun in fore. Gun has large round mantlet. Front view triangular appearance with outrigger head lights.

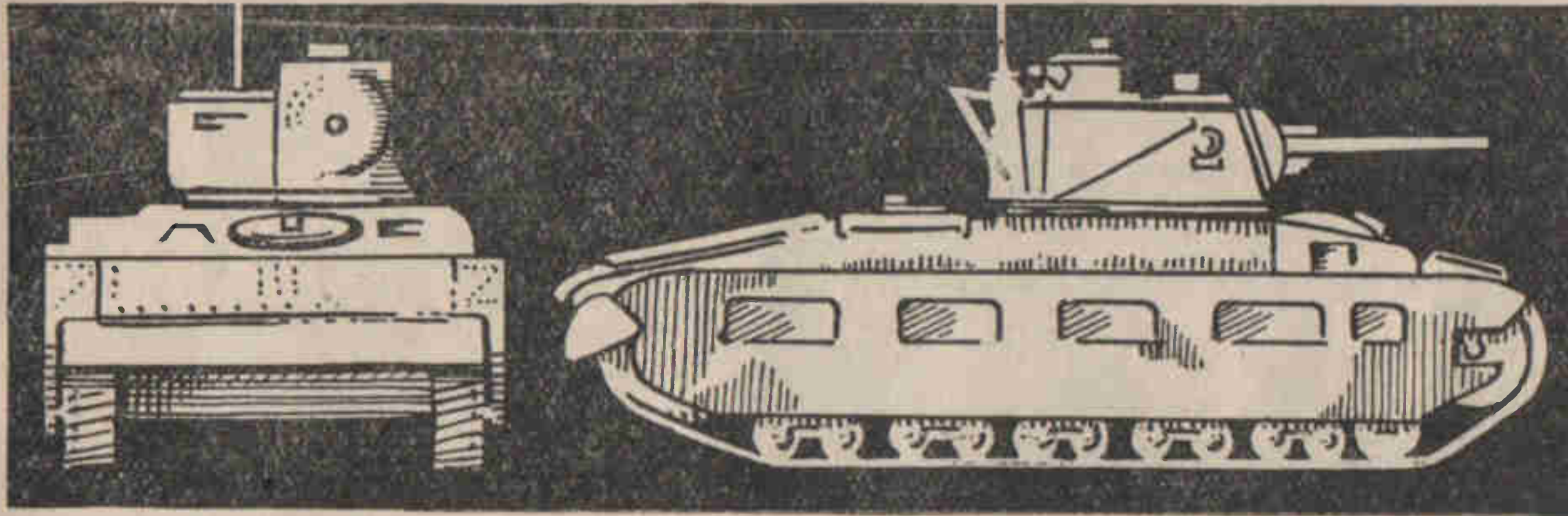
British Mark VI. "Crusader" Cruiser Tank. Weight $18\frac{1}{2}$ tons. Speed 25-30 m.p.h. Height 7' 3". Length 20'. Width 9'. Crew 5. Armed with two 7.92 m.m. M.G.'s and either a 2-pounder or a 6-pounder gun. **How to recognise:** Very small front idler wheel. Under-cut diamond shaped turret mounting 2 aerial masts at rear. Easily seen driver's cab on right side with extra M.G. turret left side. Alternatively, in later models extra stowage space. 5 evenly spaced very large bogie wheels contacting bottom and top of track. Large rear driving sprocket. Front view, very narrow tracks and squat diamond shaped appearance of turret. Hull appears to be well off the ground.



British Mark I. Cruiser Tank A.10. Height 8' 3". Length 18'. Width 8' 6". **How to recognise:** Track has 2 bogies carrying 2 small bogie wheels and 1 large bogie wheel, each with vertical brackets and sloping horizontal coil suspension springs. Other details similar to description given for Mark I. Model A.9, only change being that this

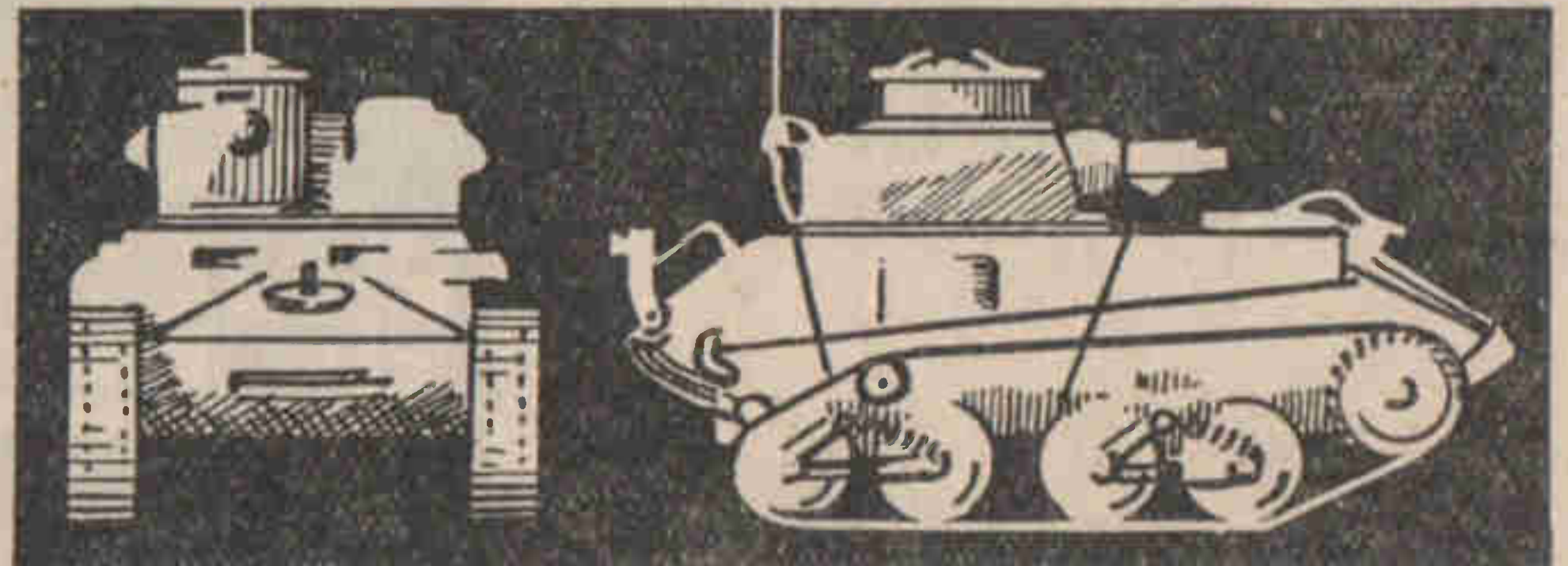
Tank has no minor turrets fitted in the forepart of the super-structure but carries a M.G. mounting side by side with the driver. Boiler manhole cover type cupola. Large driving sprocket at rear. Small idler wheel forepart. Side view shows overhanging rear portion of turret carrying radio set and aerial mast.

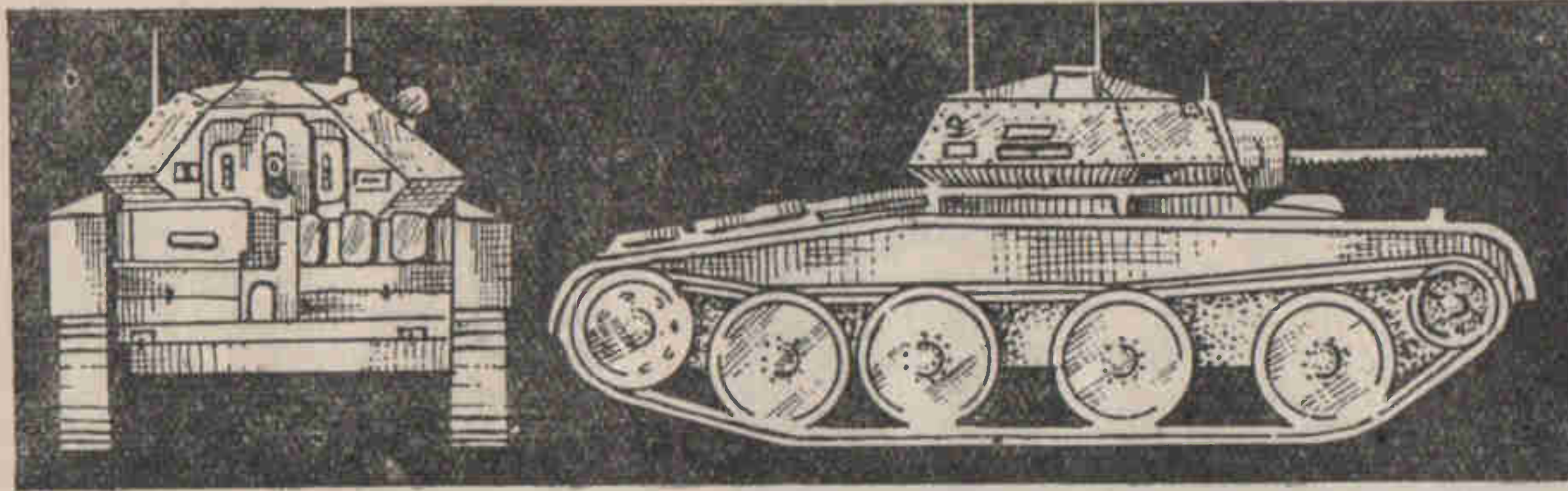




British A.12 Mark 2 Infantry Tank. Height 8' 0". Length 18' 9". Width 8' 6". **How to recognise:** Ten bogie wheels evenly spaced mounted in sets of two of five bogies. One larger idler wheel near bottom of track, Bogie wheels practically concealed by armoured shield. Large turret placed to tank, fore part carrying gun on left hand side. Wireless mast right hand side rear. Low super-structure slopes downwards both fore and aft. No further details available.

British Mark 6 B. Light Tank. Height 6' 9". Length 13' 1". Width 6' 8". **How to recognise:** Four bogie wheels in sets of two, last bogie wheel acting as idler wheel. Large high driving sprocket to the fore. Wedge-shaped front of hull. High super-structure at the rear. Fitted with a round turret which has very short barrel gun on ball mounting pointing to the fore. Wireless aerial fitted to turret rear. Round cupola in turret centre on right hand side. One small jockey wheel. No further details available.

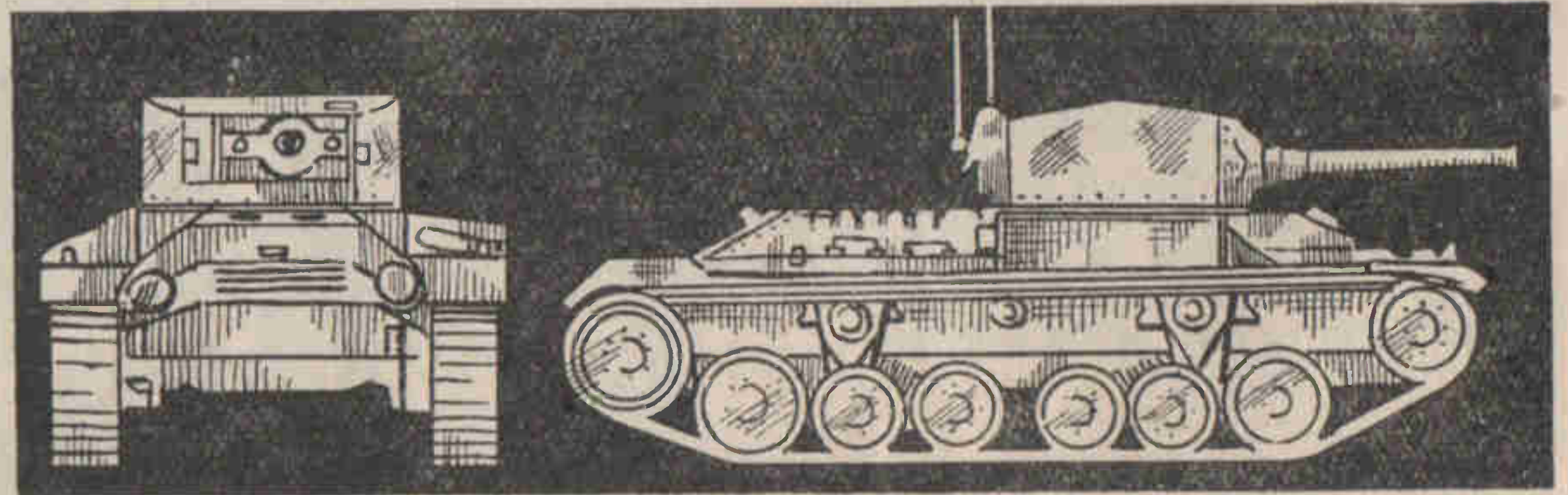


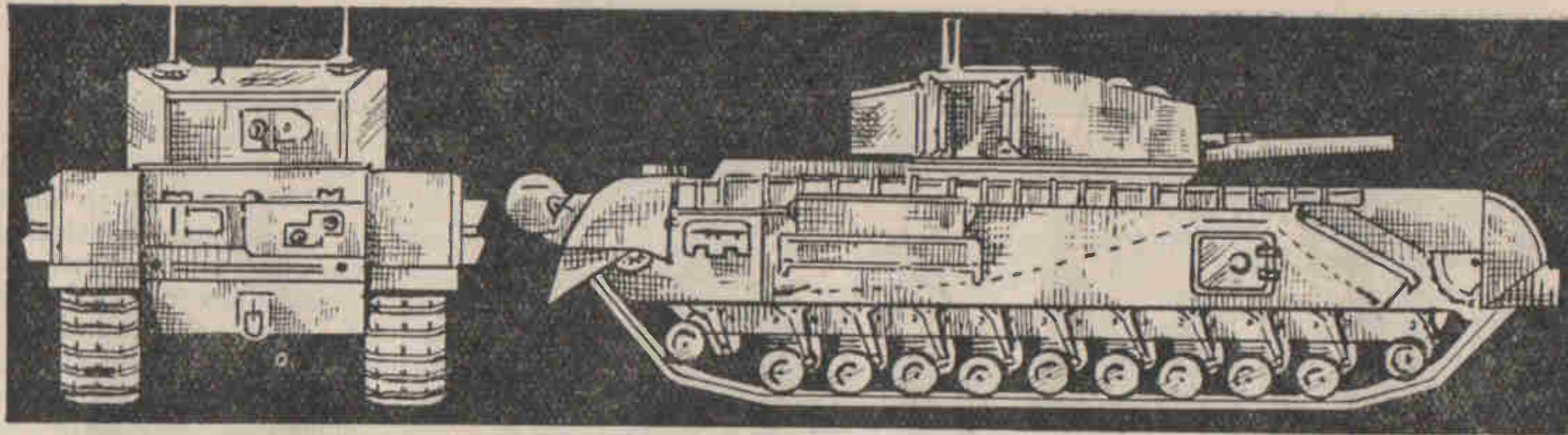


British Mark V. "Covenanter" Cruiser Tank. Weight $18\frac{1}{2}$ tons. Speed 30 m.p.h. Height 7' 3". Length 20'. Width 9'. Crew 4. Armed with a 7.92 m.m. M.G., 2-pounder gun and one 2" Bomb Mortar. **How to recognise:** 4 very large bogie wheels contact bottom and top of track. No jockey wheels and very small fore idler wheel. Track viewed as a whole appears to be almost bowed,

rising at fore and aft ends. Squat, diamond-shaped turret mounting 2-pounder gun with protruding bulbous mantlet. Turret considerably under-cut where it joins hull. 2 aerial masts fitted turret centre and back. Front view, very narrow tracks with centrally fitted headlamp. Some models are fitted with a 3" Howitzer in place of the 2-pounder gun.

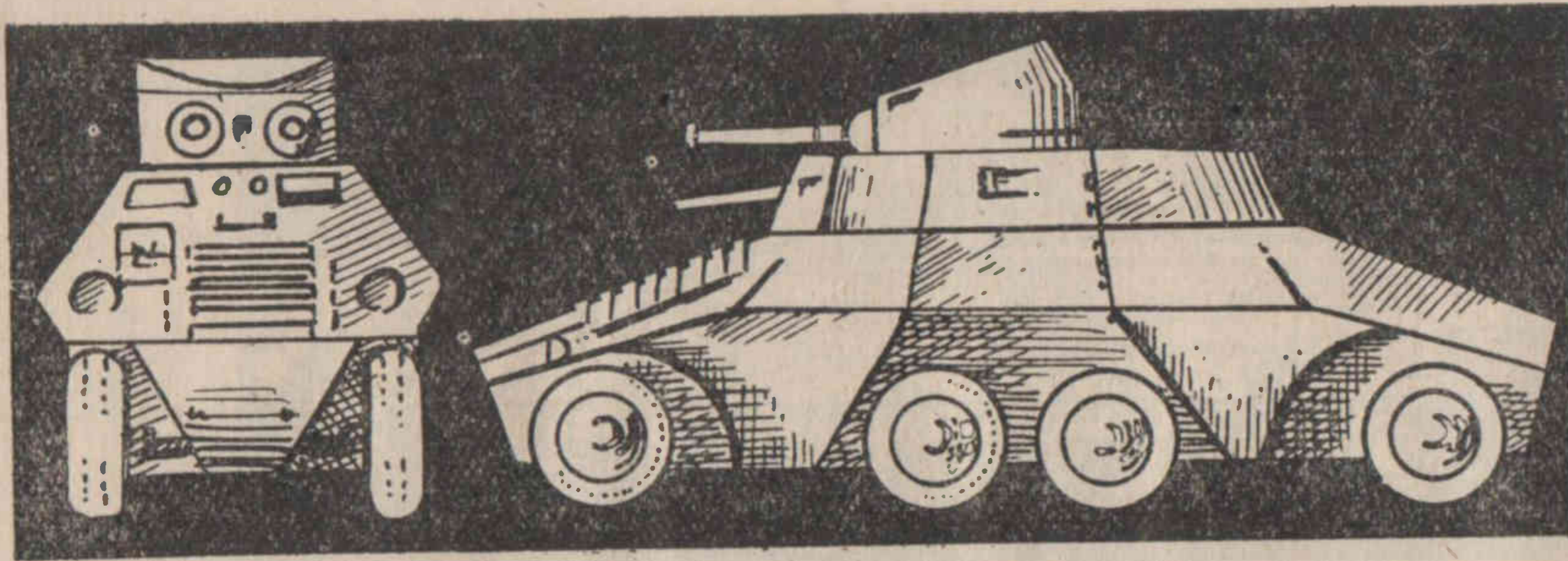
British Mark III. "Valentine" Infantry Tank. Weight 17 tons. Speed 15-18 m.p.h. Height 7' 6". Length 17' 9". Crew 3 or 4. Armed with a 7.92 m.m. M.G. and a 2-pounder gun. **How to recognise:** Round pillbox shaped turret back and front vertical with protuberance at turret rear for radio and carrying 2 wireless masts. Main gun has half-globular mantlet. 2 sets of bogies, each having 1 large and 2 small wheels with space in between each set. Low super-structure and very visible reduction gear on driving sprocket at rear. Front view shows rather squat double rectangle appearance.





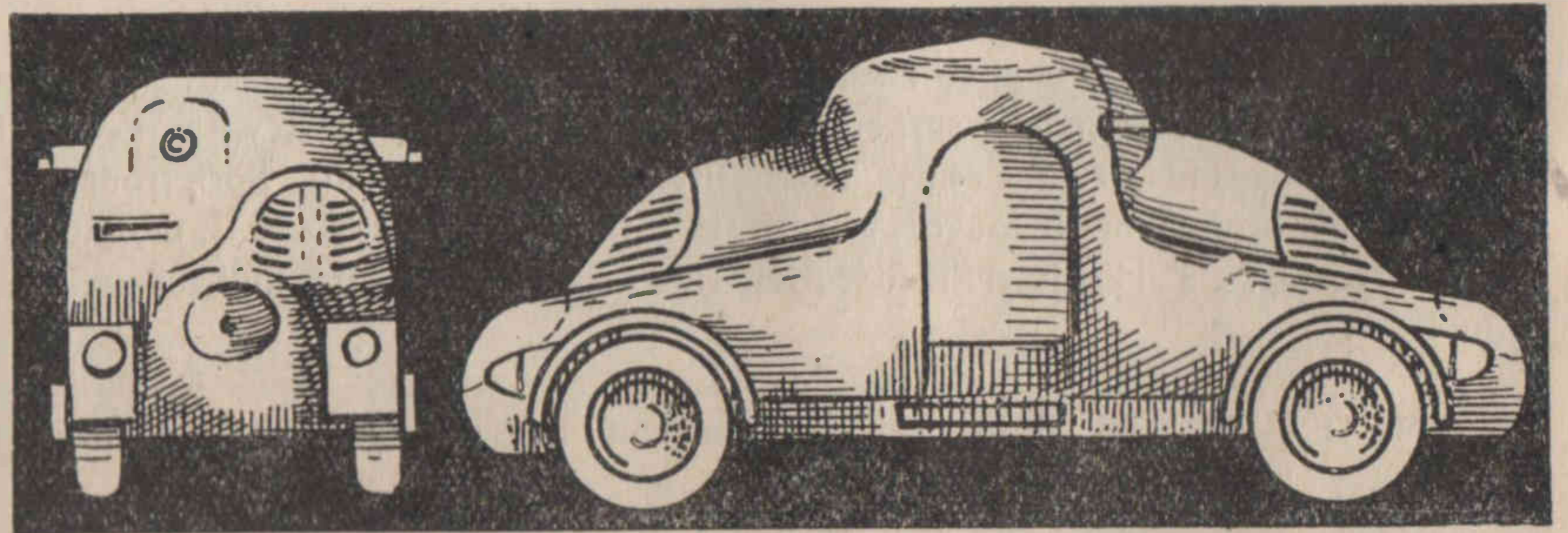
British Mark IV. "Churchill" Heavy Infantry Tank. Weight $38\frac{1}{2}$ tons. Speed 15-18 m.p.h. Height 8' 3". Length 25' 3". Width 10' 9". Crew 5. Armed with two 7.92 m.m. Besa guns and a 6-pounder gun. Some models are fitted with a 2-pounder gun instead. **How to recognise :** 11 very small bogie wheels, the end ones mounted at an angle. The 9 centre ones evenly spaced on independent suspension. Flat top shallow turret with rectangular stowage space at rear. 2 wireless masts mounted side by side at turret rear. Turret fitted centrally on hull. Both front and side views. Very wide tracks. Semi-armour shielded large prominent air louvres at each side of hull. Turret has M.G. mounted on right side of 2-pounder, whilst second M.G. or, alternatively, a 3" Howitzer, is fitted left side driver's cab in the hull. Auxiliary fuel tank mounted midships overhanging rear of hull.

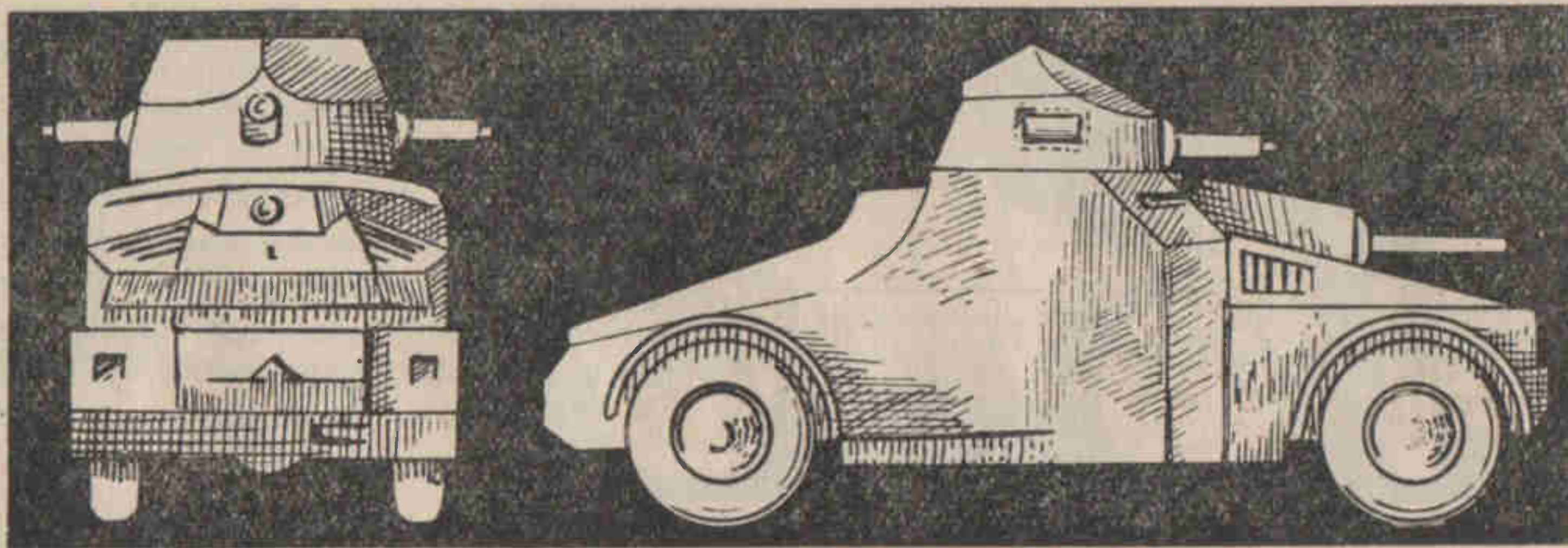
NOTE.—The Mark III. has welded turret and Mark IV. cast turret with rounded edges.



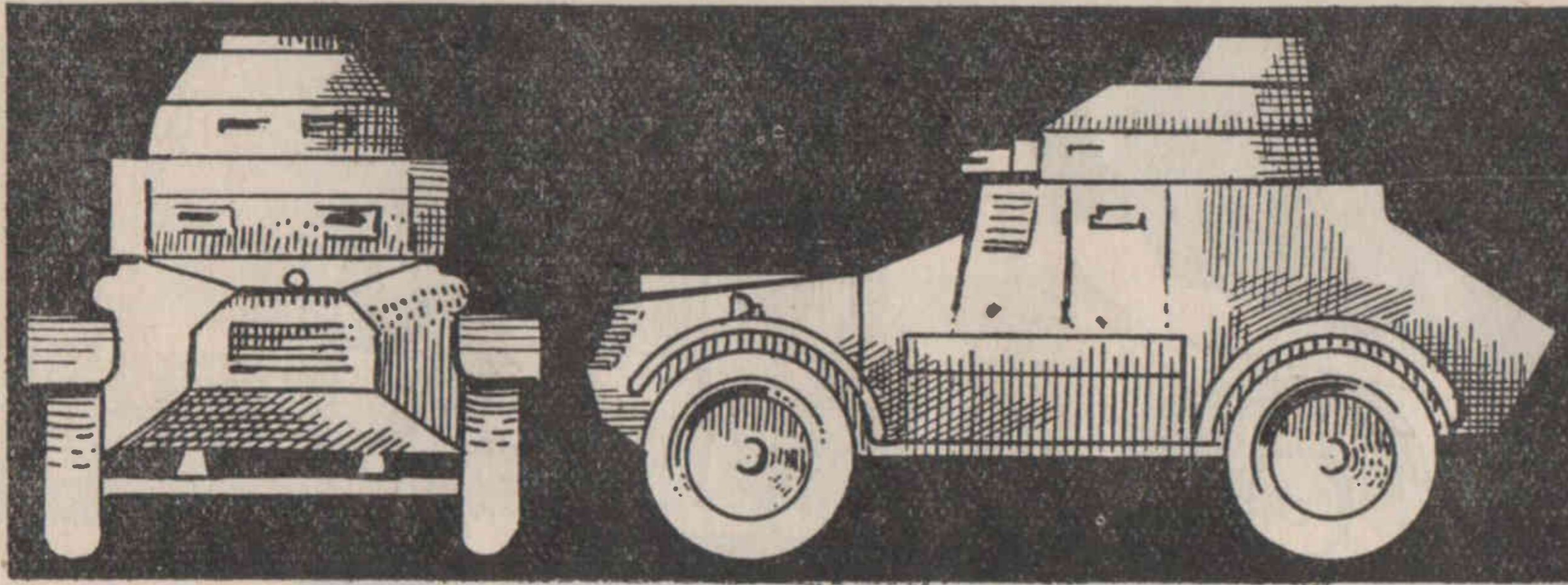
Austrian Armoured Car (Austro-Daimler). Height 8' 3". Length 19' 6". Width 7' 0". **How to recognise:** 8 wheels, all geared to engine. Fore and aft appearance identical except for venetian-blind type of ventilation louvres on sloping face of fore end bonnet. Double steering. Round turret centrally placed with top sloping to fore end, mounting 2 guns with ball mountings. Head-on view shows body overlapping the wheels on each side.

Czechoslovakian P.A. 2 Armoured Car. Height 8' 6". Length 20' 3". Width 7' 3". **How to recognise:** Four-wheel drive. Practically complete streamline shape. Fully armour plated. Bulbous low nose. Has same appearance when either viewed from front or back. Beetle shaped when seen from side. No further details available.



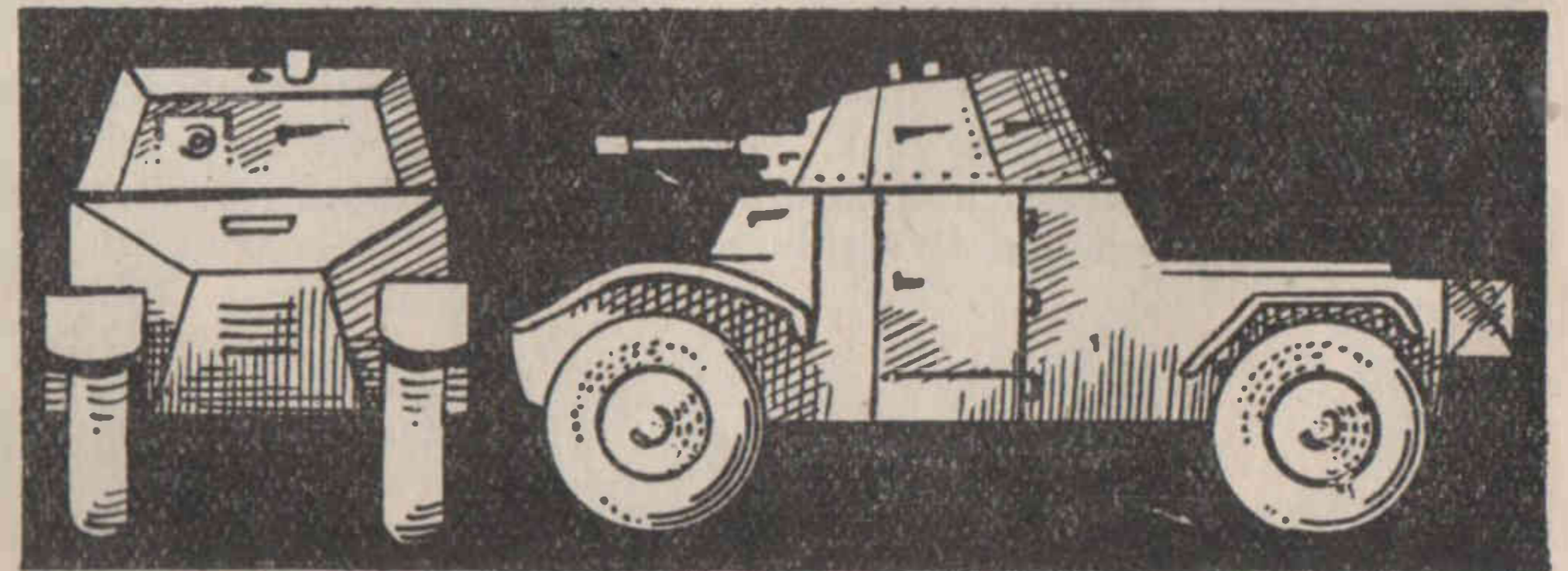


Czechoslovakian "Skoda" P.A. 4 Armoured Car. Height 8' 6". Length 21' 3". Width 7' 2". **How to recognise :** 4-wheel drive. Engine at rear. Twin steering fore and aft. Side view—rather squat triangle shape. Round turret placed in centre of body in elevated position, mounting 1 gun immediately beneath and in line with second gun mounted on super-structure. Car looks the same when viewed facing fore or aft.



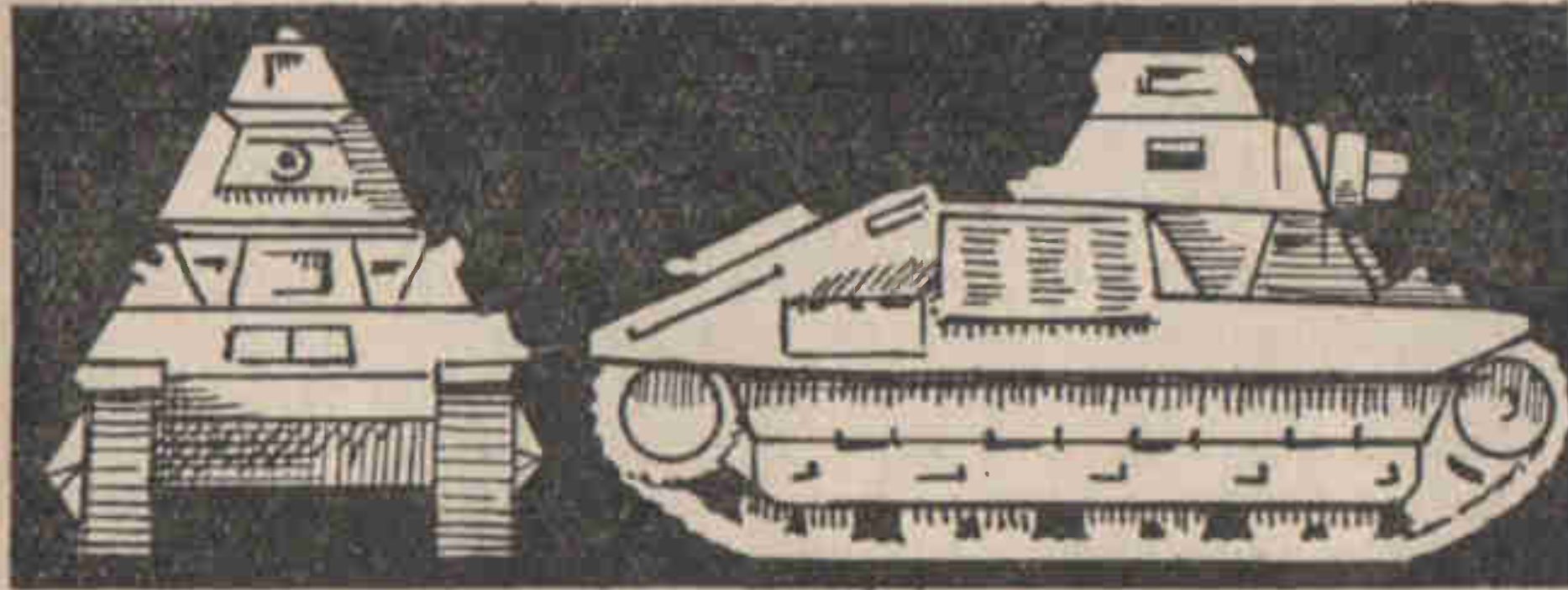
French Medium Armoured Car "Panhard" T.O.E. (A.M.D.). Height 8' 9". Length 17' 6". Width 6' 6". **How to recognise:** 4 large wheels. Flat topped low radiator in front, sloping up to small body top and then small turret fitted on body rear. Turret with sides and face sloping back, mounting very short-barrelled gun. Side view shows pointed rear of body overhanging back wheels. Turret rear has open-top cupola centrally placed. Side view very distinctive. Has 2 exposed water condensers fitted each side of the vehicle. Side view has general appearance of large bell resting on flat-topped trolley.

French Armoured Car Type 178 (A.M.D.35) Panhard. Weight 8½ tons. Speed 45-55 m.p.h. Four in crew. Height 7' 6". Length 15' 4". Width 6' 6". Armed with one M.G. and one 25 m.m. gun. **How to recognise:** Four very large wheels, Balloon tyres. Turret with roof sloping to fore, mounting well to the fore of the tank. Each wheel protected by mudguards. Rear of turret body is flat deck.



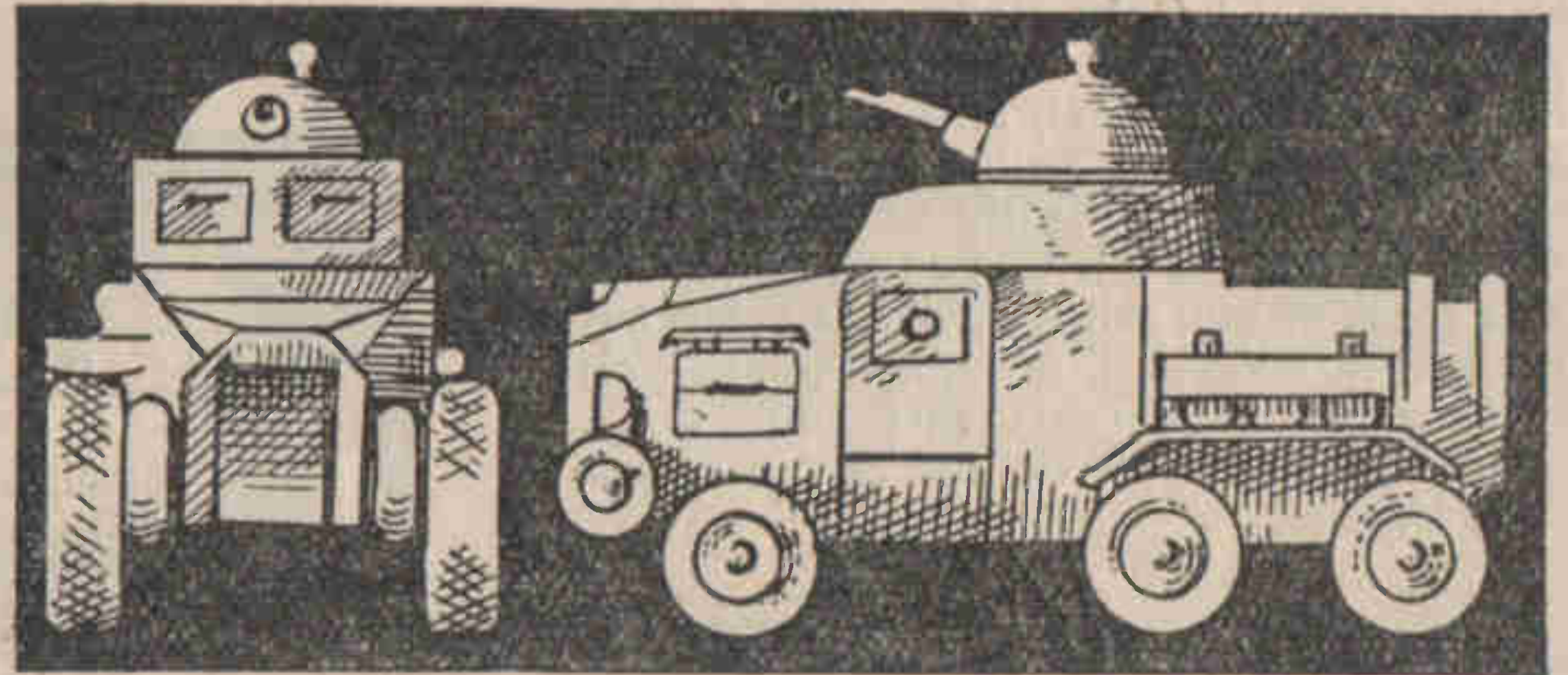
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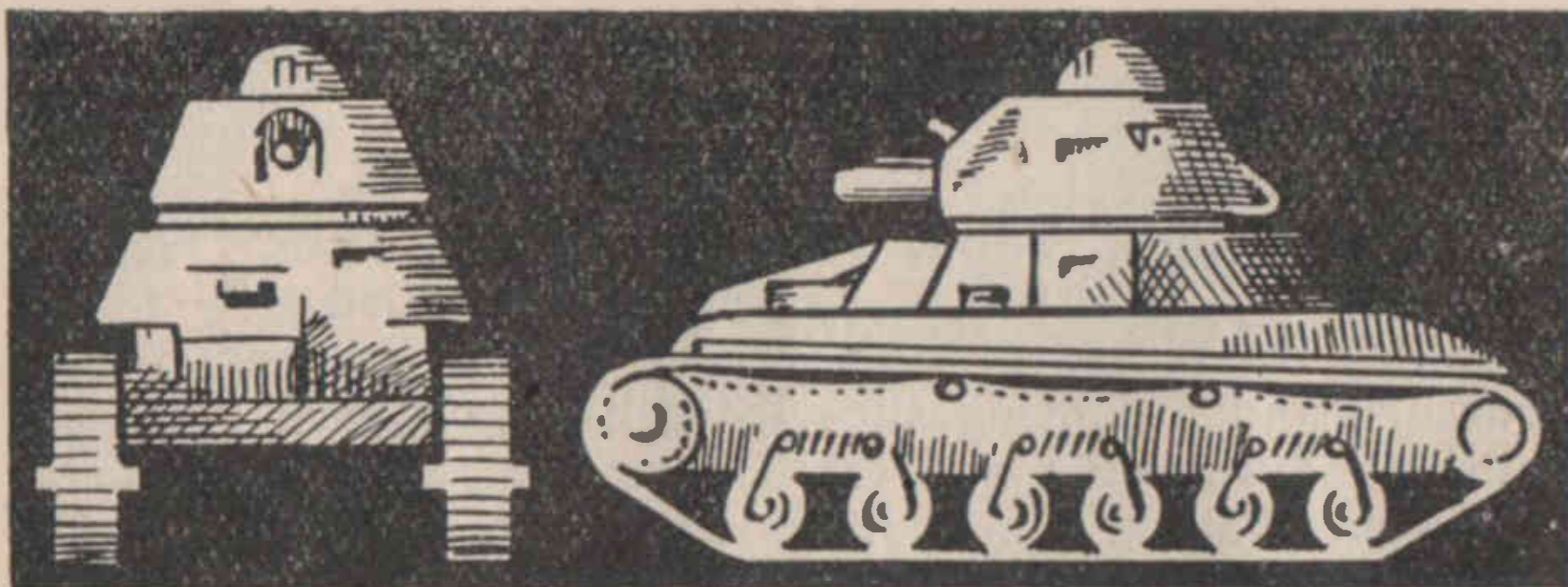
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French Light Tank, F.C.M. "Char" 1936. Height 7' 3". Length 14' 9". Width 7' 0". **How to recognise :** Pyramid-shaped turret placed in tank fore on pyramid-shaped superstructure and mounting short-barrelled gun with rounded mantlet. Suspension and track tops completely protected by armoured skirting board. Bottom part of 9 bogie wheels just visible. Front view gives almost complete pyramid appearance.

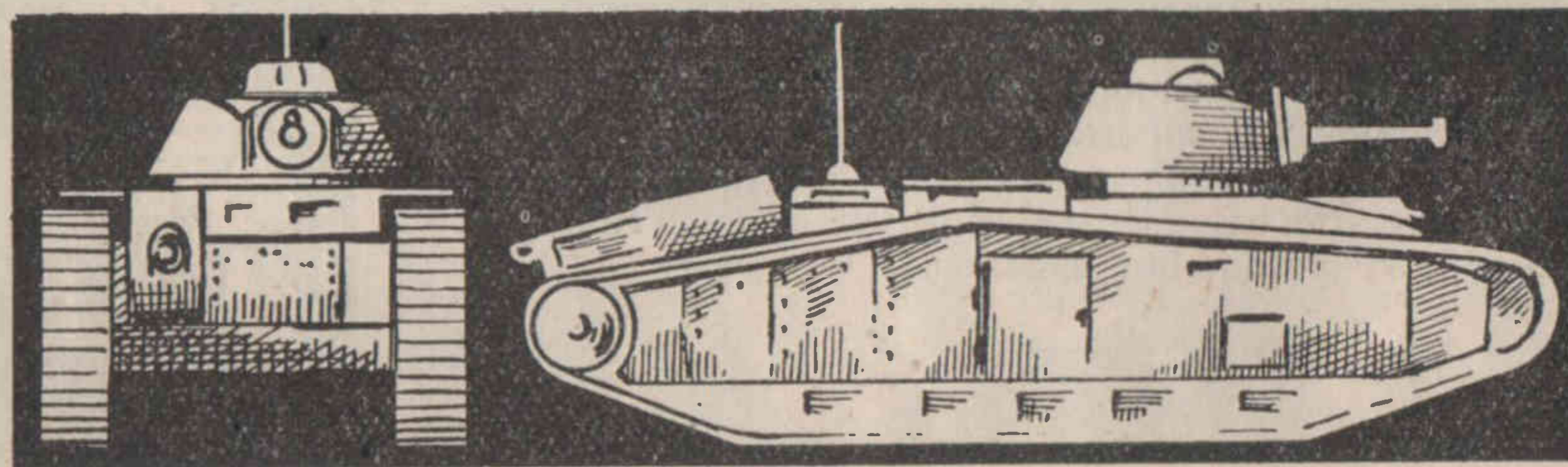
French Medium Armoured Car, "Laffly" A.M., T.O.E. Height 8' 0" Length 15' 0". Width 6' 0". **How to recognise :** Protruding flat-ended radiator overhanging front wheels, carrying 2 very small wheels high off the ground for scaling obstacles. Very high body. 6-wheel drive. Round mudguards front wheels. Flat-topped mudguard rear twin wheels. Tiny half-spherical turret fitted centrally on body top mounting small gun and periscope rear part of vehicle has appearance of flat deck. Front view shows mosque-like appearance.

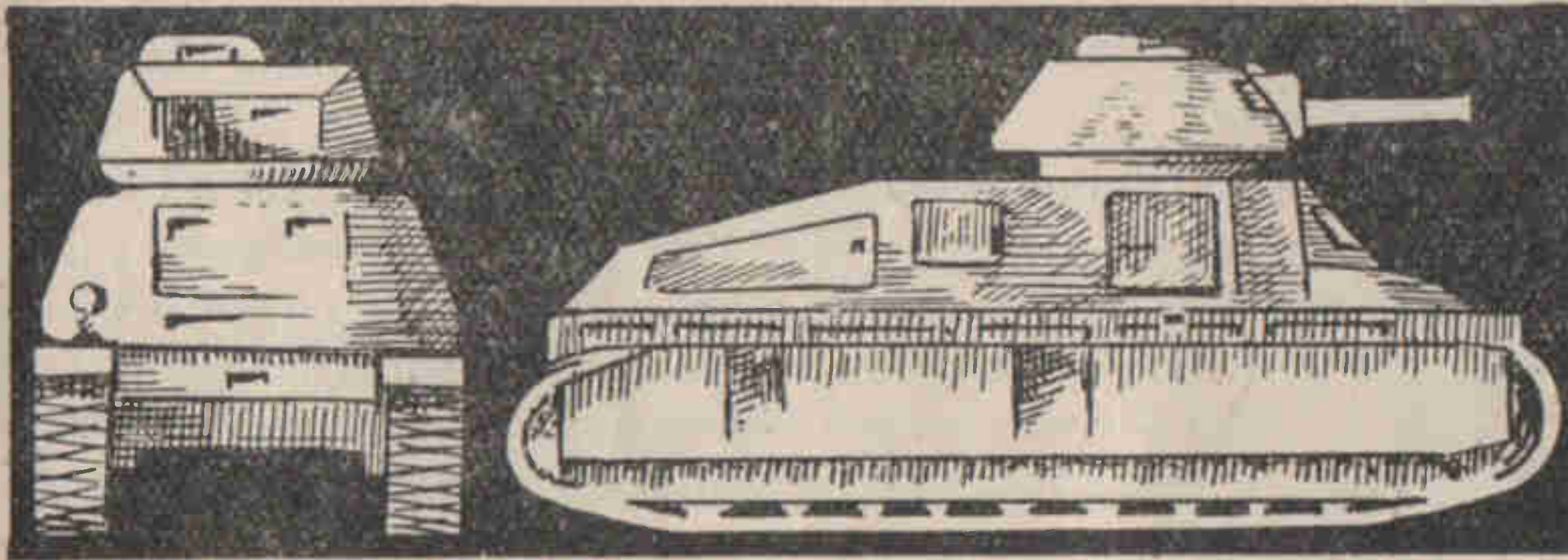




French Light Tank "Char" 1935 H. Height 7' 0". Length 14' 0". Width 6' 3". **How to recognise:** 6 bogie wheels evenly spaced on triangular brackets. High super-structure protruding over tracks on both sides and mounted centrally with round turret having short barrelled gun. Turret undercut where it joins super-structure. Half-sphere cupola on turret centre. Front view appears similar to tall pyramid and giving appearance of being narrow and top-heavy.

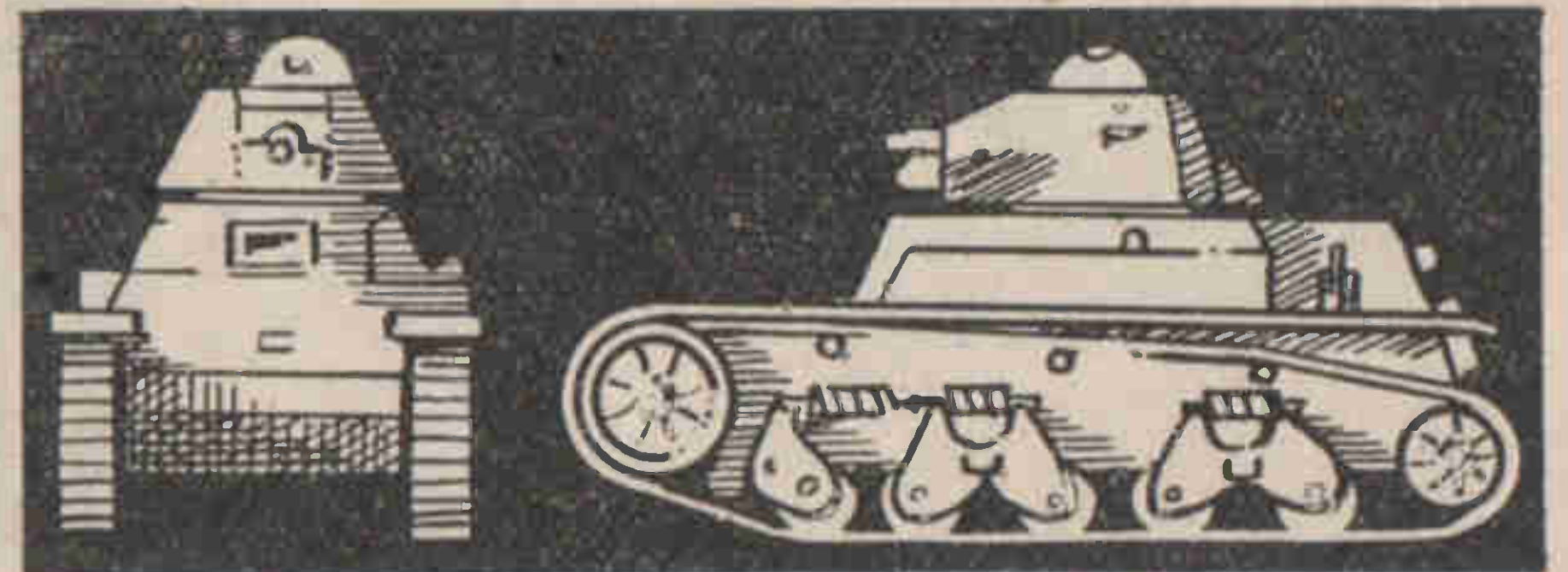
French Medium Tank, "Char" B.1. Height 7' 0". Length 21' 0". Width 9' 3". **How to recognise:** Lozenge-shaped track. Bogie wheels completely enclosed by riveted armoured shielding. Round turret mounted fore part of Tank slightly to the left and fitted with 2 guns; large gun on right hand side front of hull with a driver's cabin left hand side. Vertical prominent aerial on rear part. Super-structure top dock. Dome-shaped cupola on turret centre left hand side.

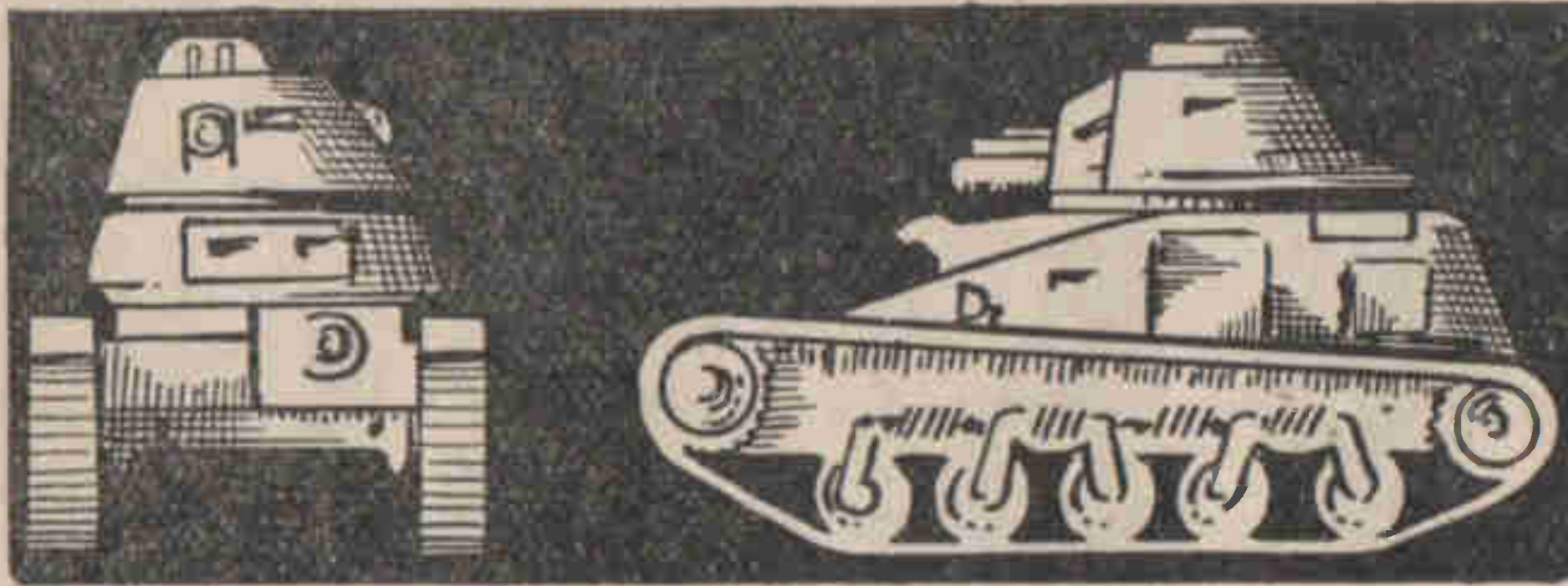




French Medium Tank, "Char" 1935 S. Height 8' 6". Length 16' 9". Width 6' 9". **How to recognise:** Suspension almost completely protected by armoured skirting board. 7 small bogie wheels partly exposed each side. Prominent turret mounting large gun with rounded mantle fitted in super-structure fore-part. Turret is undercut both from front and side view, where it joins the super-structure. Mushroom-shaped cupola on turret centre left hand side. Front view shows high super-structure overhanging and flush with outer edge of tracks. No further details available.

French Light Tank, R. 35. Weight 11½ tons. Speed 12 m.p.h. Height 7' 9". Length 13' 0". Width 6' 0". Two in crew. Armed with one M.G. and one 37 m.m. gun. **How to recognise:** Five small bogie wheels mounted on inverted triangular brackets interconnected by three large horizontal coil springs. Large driving sprocket at fore of tank. Very low idler wheel at rear. Rounded turret centrally placed with cast plates sloping inwards and upwards. High super-structure on rear half of tank. Half-spherical cupola mounted turret rear on left hand side. Extremely short barrel 37 m.m. gun mounted in centre of turret fore.

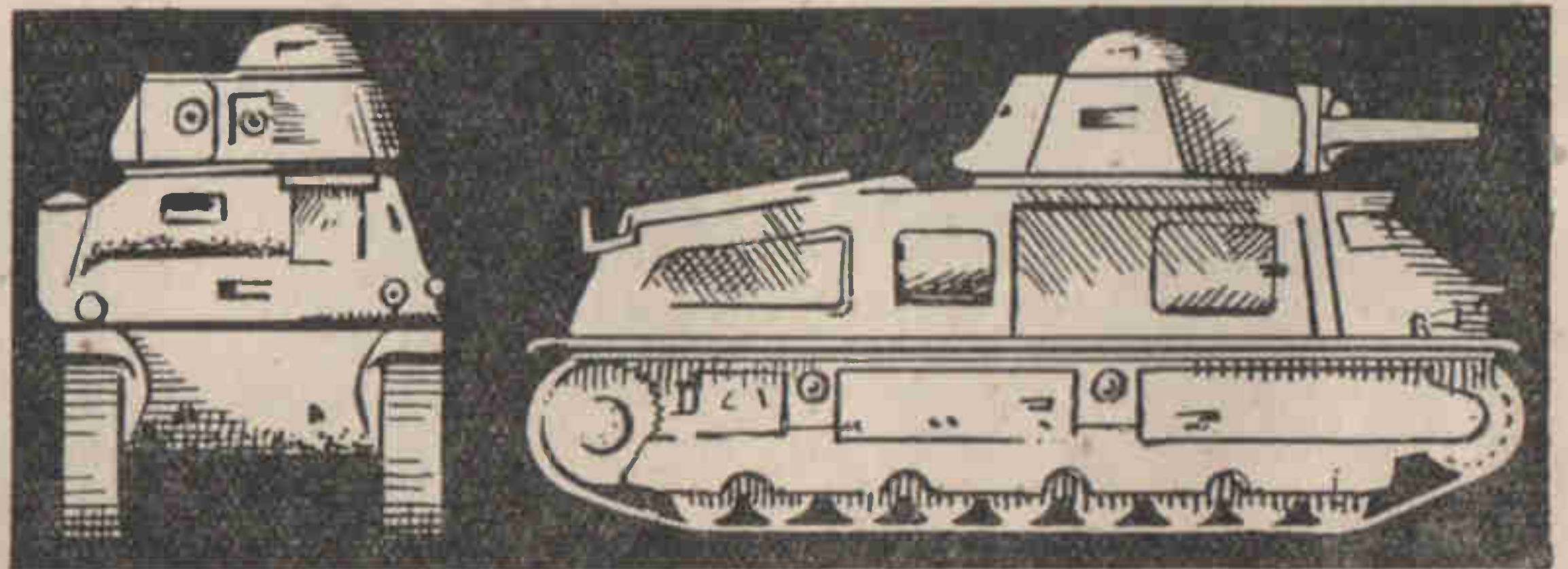


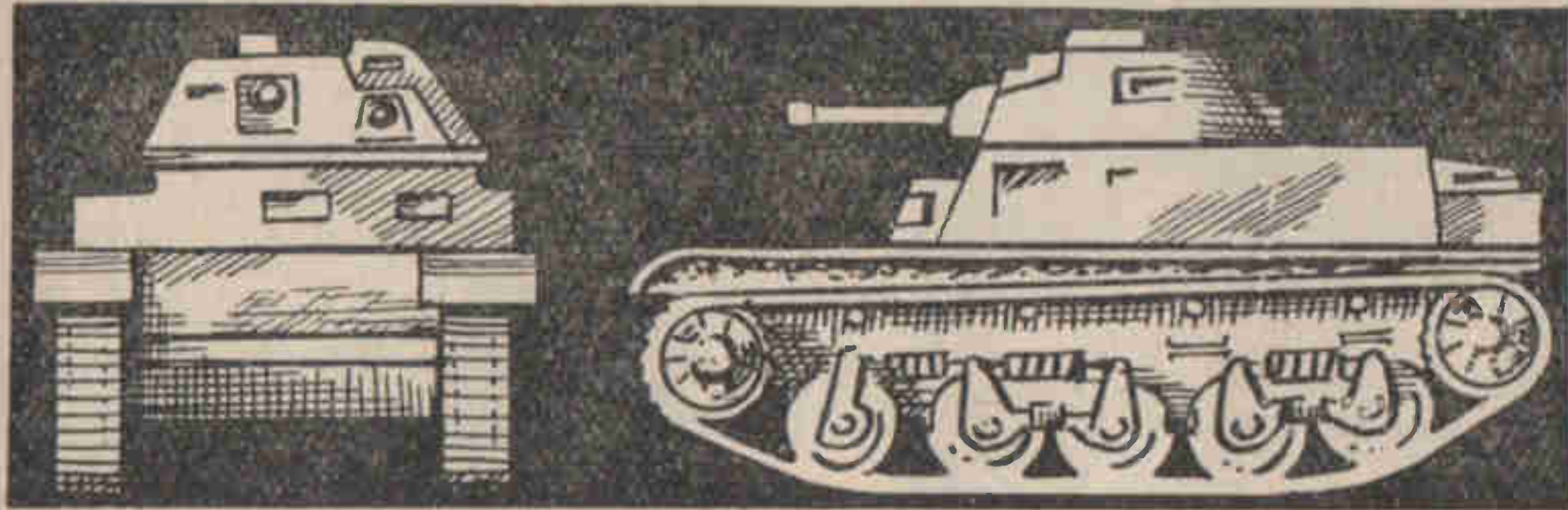


French Light Tank, CHAR. 1935 R. Height 7' 0". Length 13' 3". Width 6' 0". **How to recognise:** Five bogie wheels on independent swan-neck suspension with horizontal coil springs. Very high super-structure on rear half of tank. Helmet-shaped turret, greatly undercut where it joins super-structure. Rounded cupola on turret centre right side. No further details available.

French Medium Tank "Somua."

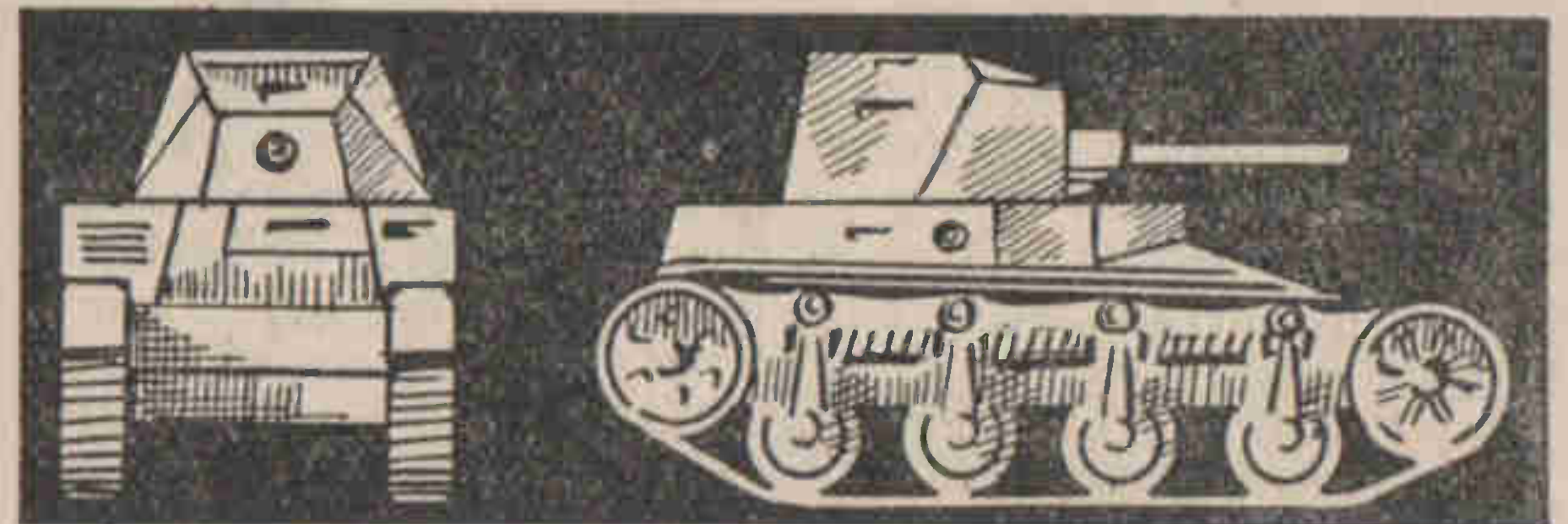
Weight 19 tons. Speed 30 m.p.h. Three in crew. Height 8' 9". Length 17' 0". Width 6' 9". Armed with one M.G. and one 47 m.m. gun. **How to recognise:** Nine small bogie wheels, almost completely covered by armoured shielding. Round turret with sloping sides mounted well to the front on very high super-structure. Turret carries 47 m.m. gun and M.G. Half-globular cupola fitted in turret centre on left side. Slightly sloping deck on super-structure on turret rear. Large rear driving sprocket. Unusual mounting for 47 m.m. gun.

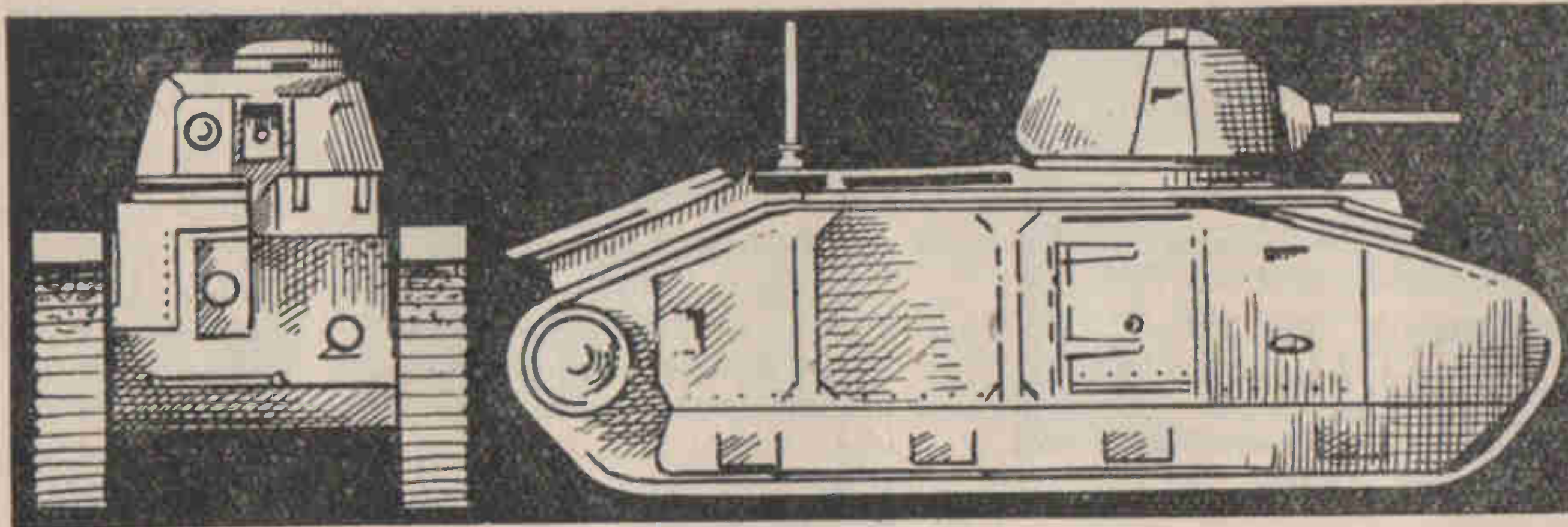




French Light Medium Tank A.M.C.
 "Renault" 1935 Type. Height 7' 6". Length
 15' 0". Width 7' 2". How to recognise: Five
 bogie wheels mounted on swan-shaped brackets
 in two sets of two and one on its own. High
 idler wheel and driving sprocket. High super-
 structure from tank centre to rear. Large
 shallow round turret with sloping sides. No
 further details available.

French Light Tank, "Renault" A.M.R. 1935. Height
 6' 3". Length 12' 6". Width 5' 4". How to recognise:
 Prominent super-structure at tank rear mounting angular-
 shaped turret with sloping sides. Turret has 1 long-barrelled
 gun facing to the fore. 4 large solid bogie wheels with vertical
 brackets linked by 3 horizontal suspension coil springs. Front
 view shows super-structure overhanging and flush with track
 outer edges and turret appears on super-structure left hand
 side.

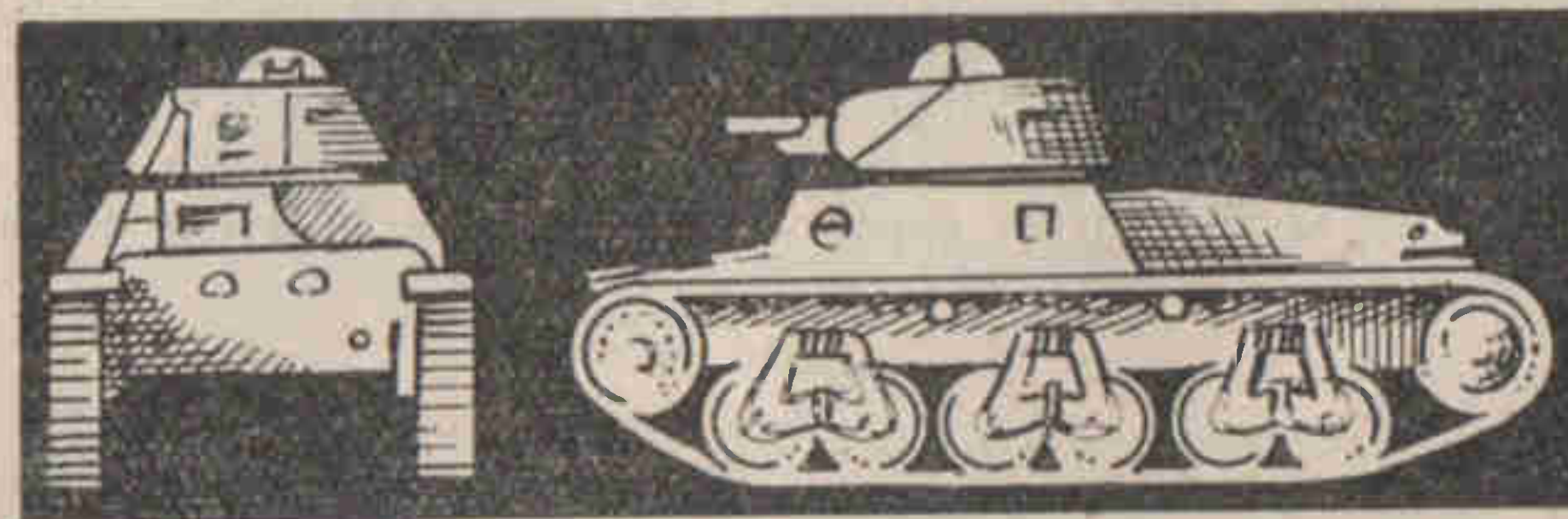


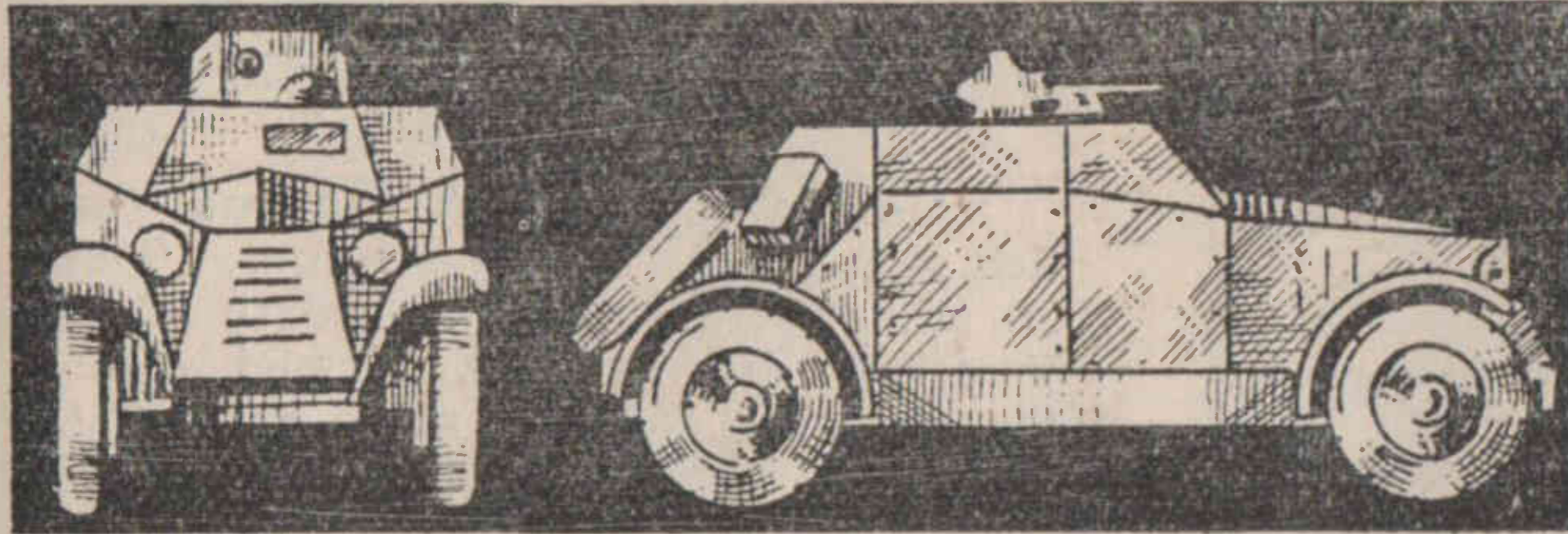


French Heavy Tank "Char"
B. Weight 32 tons. Speed 15 m.p.h. Crew of five. Height 9' 3". Length 21' 0". Width 8' 0". Armed with two M.G.'s, one 47 m.m. gun, one 75 m.m. gun. **How to recognise:** Track completely enclosed by armour. No bogie wheels visible. Round turret cast. Sides sloping. Mounted 47 m.m. gun on right hand side to the fore. 75 m.m. gun mounted on hull immediately beneath 47 m.m. gun. One M.G. mounted besides 47 m.m.

gun in turret centre. Mushroom shape cupola mounted on turret centre to left side. Front view appears as though the hull is under-slung, due to the great height from top to bottom of tracks. Wireless mast at rear of hull. Turret placed well to the front of tank.

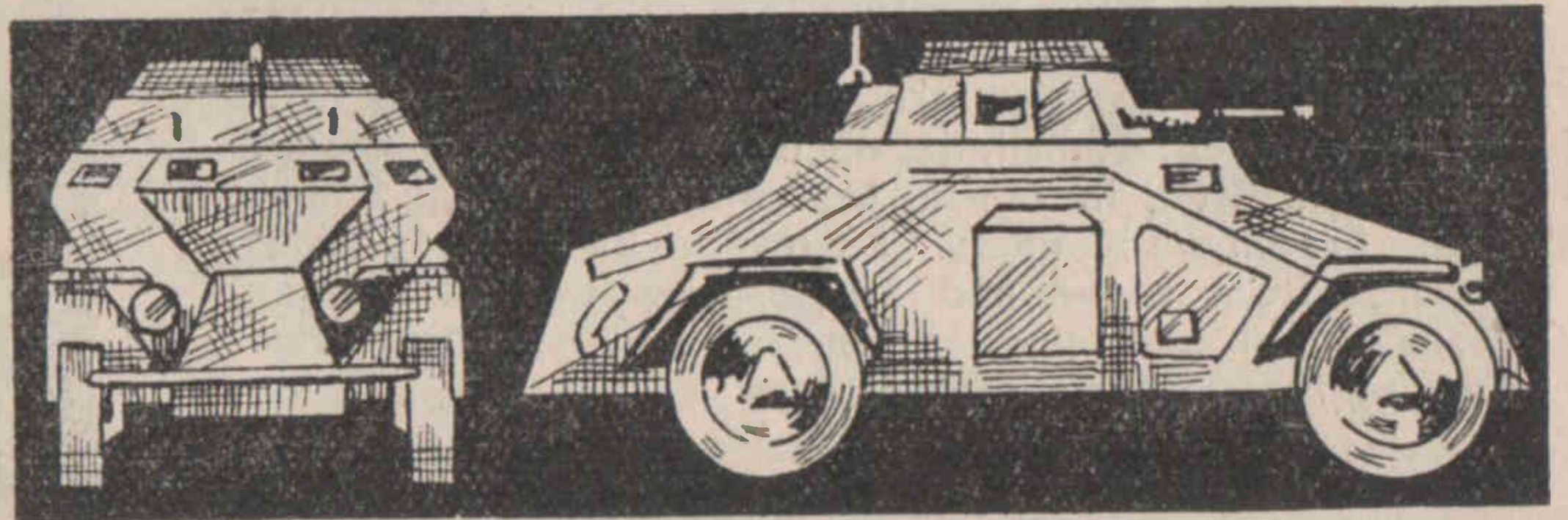
French Light Tank, M. 39. Weight 12½ tons. Speed 25 m.h.p. Two in crew. Height 7' 0". Length 13' 9". Width 6' 0". Armed with one M.G. and a 37 m.m. gun. **How to recognise:** Three bogies, each fitted with twin bogie wheels held by scissor type suspension. Each bogey one horizontal coil spring. Turret dome-shaped cast with sloping sides mounted 37 m.m. gun to the fore. Half-sphere cupola in turret centre slightly to left hand side. High super-structure extending to rear, drops to top of tracks near the fore. Driving sprocket and idler wheel both raised to track top level. Front view practically triangular.

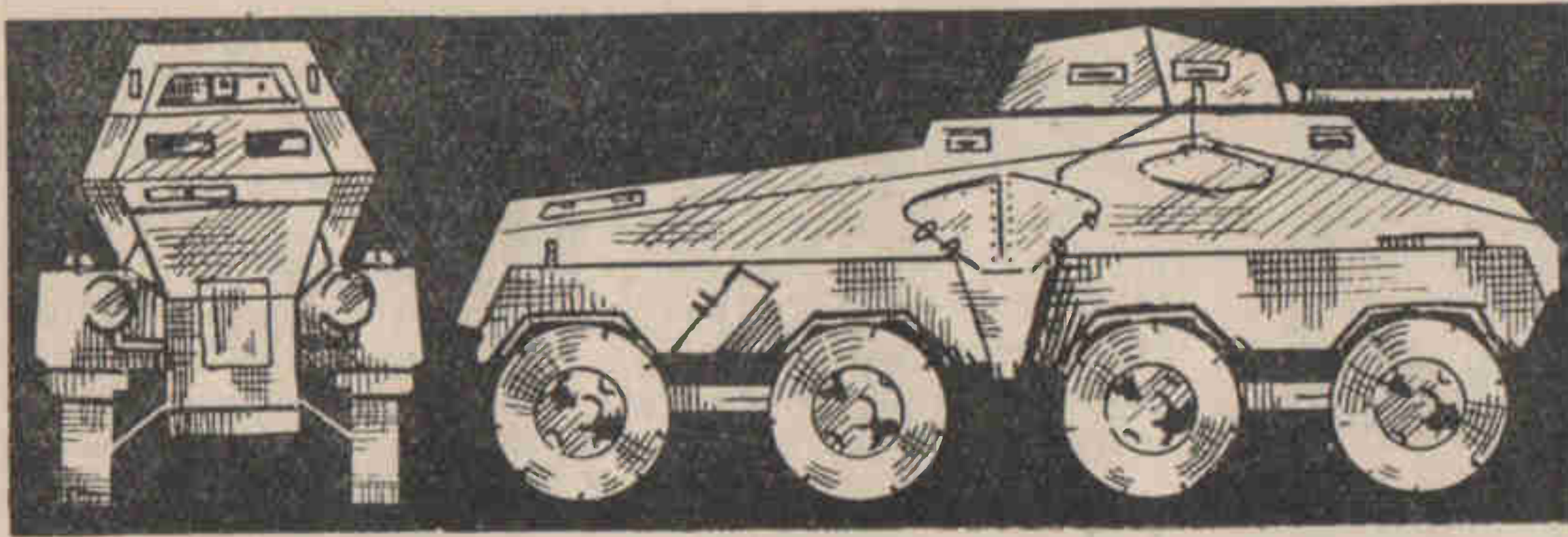




German Light Armoured Car, Sd. K.F.Z. 13.
 Weight 2½ tons. Speed 45-50 m.p.h. Height 5' 0". Length 14' 0". Width 5' 6". Crew 2 or 3. Armed with 1 Medium M.G. **How to recognise :** Open top turret. 4 wheels. Front bonnet as civilian type motor car. Mudguards fitted. Spare wheel fitted on back. Looks similar to private car in many ways.

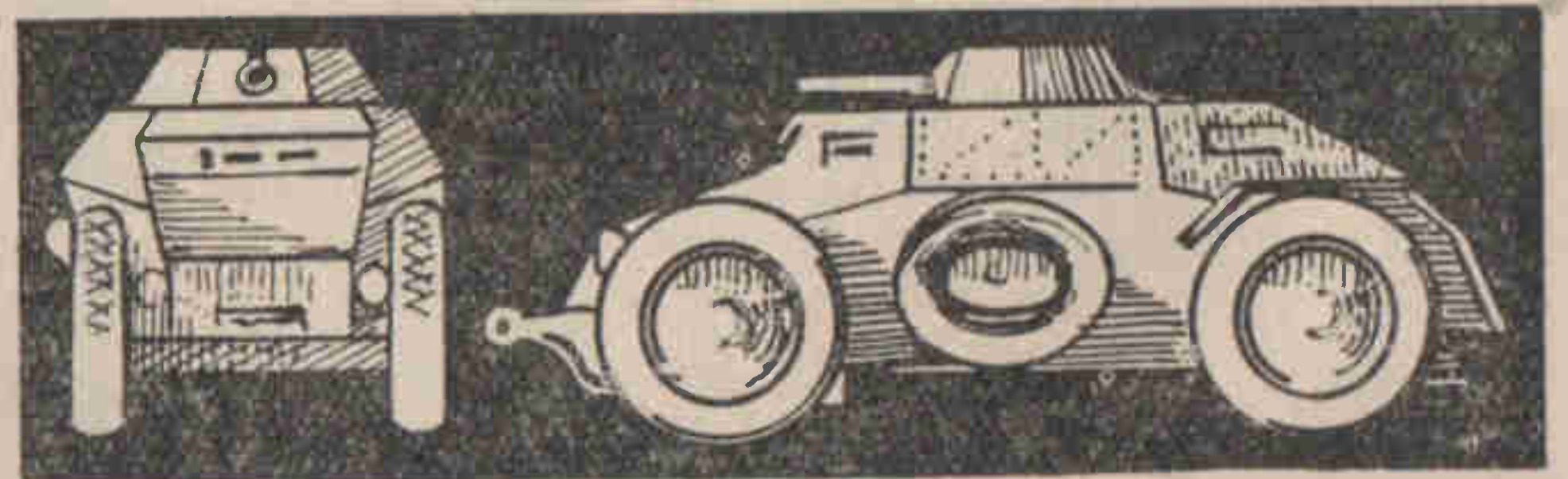
German Light Armoured Car, Sd. K.F.Z. 222.
 Weight 4½ tons. Speed 35 m.p.h. Height 7' 6" Length 15' 6". Width 6' 3". Crew 3. Armed with a Medium M.G. and a 20 m.m. Heavy M.G. **How to recognise :** 4 wheels with mudguards. Body slopes to ground back and front. Semi-stream-lined hull. Front view of body almost diamond shaped.

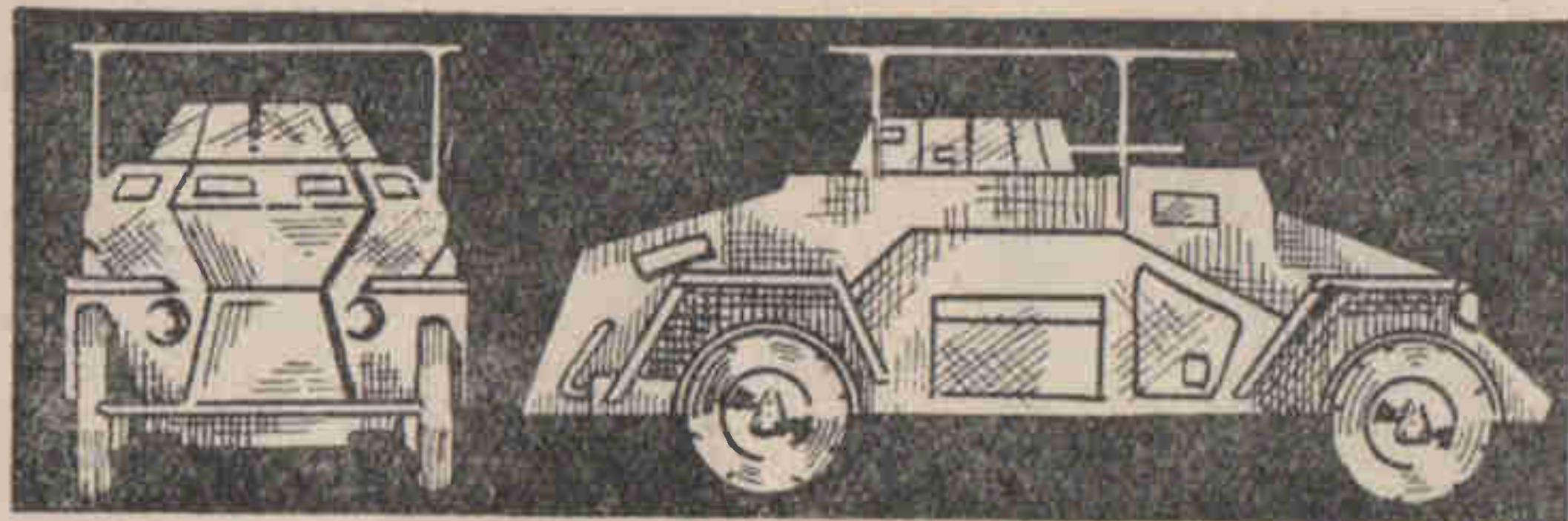




German Heavy Armoured Car, Sd. K.F.Z. 231. Weight 9 tons. Speed 30 m.p.h. Height 8' 0". Length 19' 3". Width 6' 6". Crew 4. Armed with a Medium M.G. and a 20 m.m. Heavy M.G. **How to recognise:** 8 wheels. Low turret mounted to the fore. Very sub-nosed. Stream-lined body. Rear body slopes towards the ground. Fitted with semi-silent engine and often used as Commander's vehicle. Occasionally fitted with frame aerial. Front view almost diamond shaped and appears top-heavy.

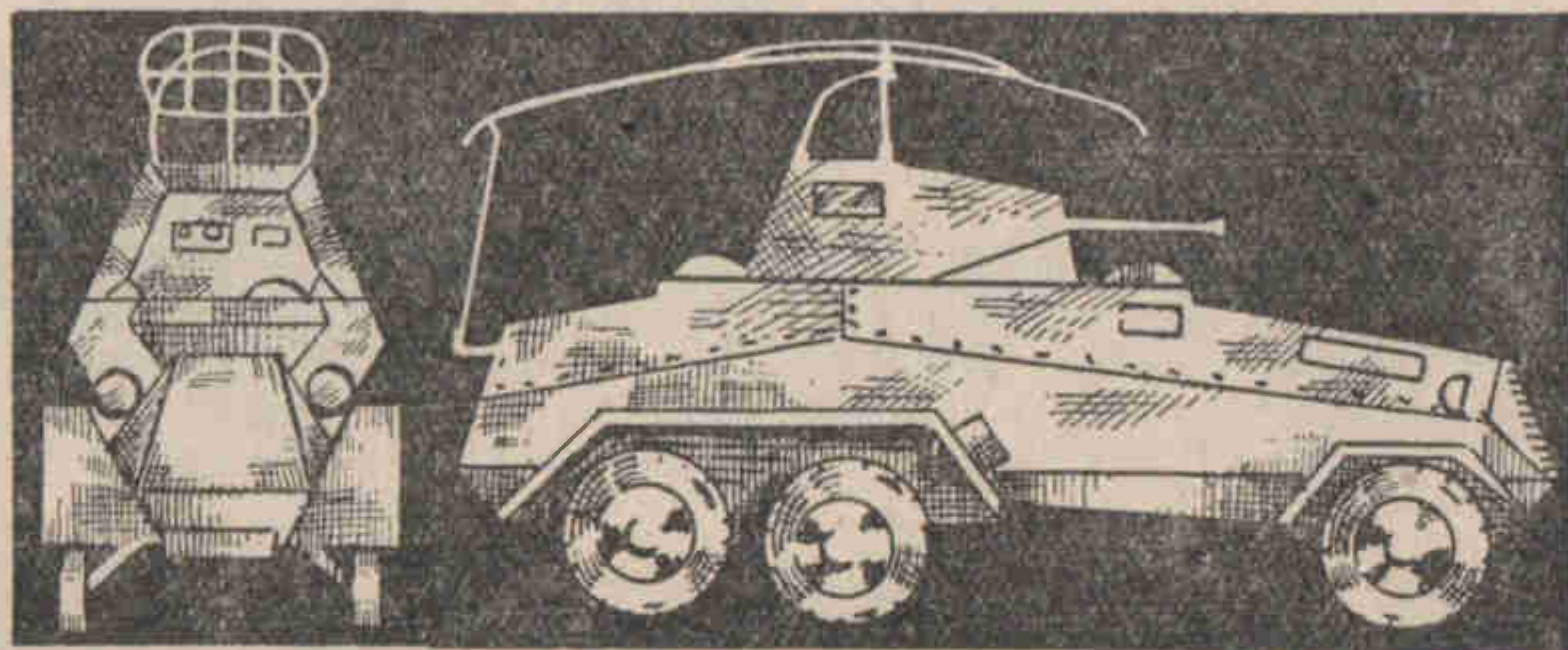
German Mark II. Light Armoured Car. Height 6' 3". Length 15' 0". Width 6' 0". **How to recognise:** Completely welded armoured beetle-shaped body, giving very similar appearance fore and aft. Engine fitted rear. 4 driven wheels. Small, flat open top turret protected by metal grid fitted in vehicle centre and mounting 1 light gun. Prominent bumpers. Engine fore part. Body slopes inwards from above mid-line to axle level. Mounting spare wheel each side. Front view shows body overhanging the 4 wheels in the centre.

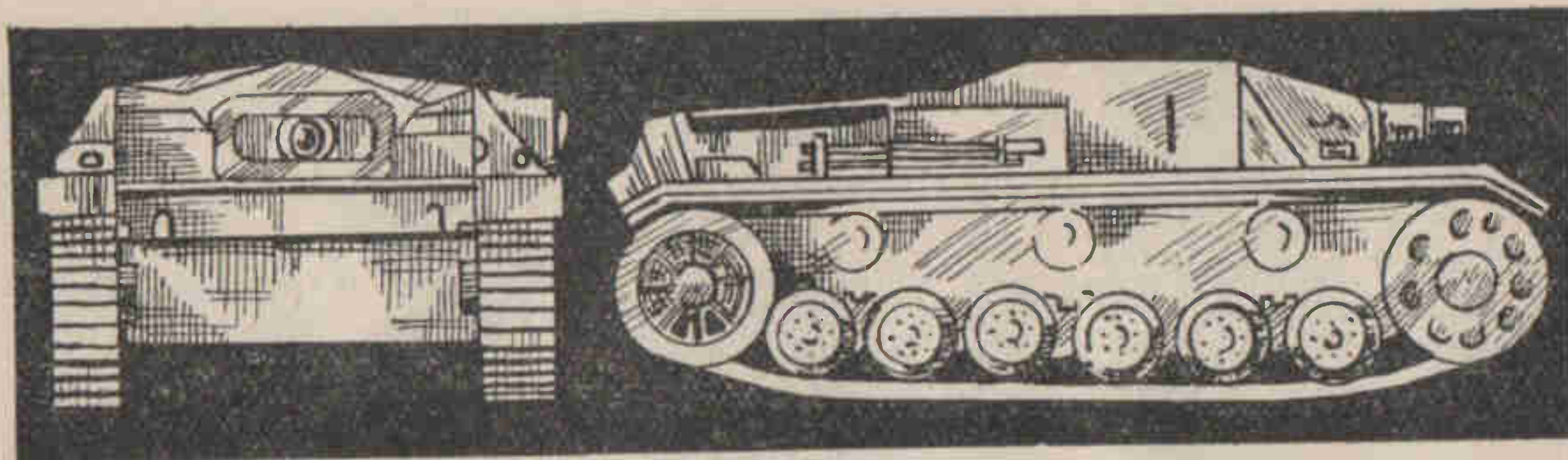




German Light Medium Armoured Car, Sd. K.F.Z. 221. Weight 4 tons. Speed 45 m.p.h. Height 5' 6". Length 15' 9". Width 6' 6". Armed with an Anti-Tank Rifle and a Light M.G. Crew 2. **How to recognise :** 4-wheel chassis. Turret with open top sometimes fitted with square grid pattern aerial. Mudguards fitted fore and aft. Body slopes downwards back and front.

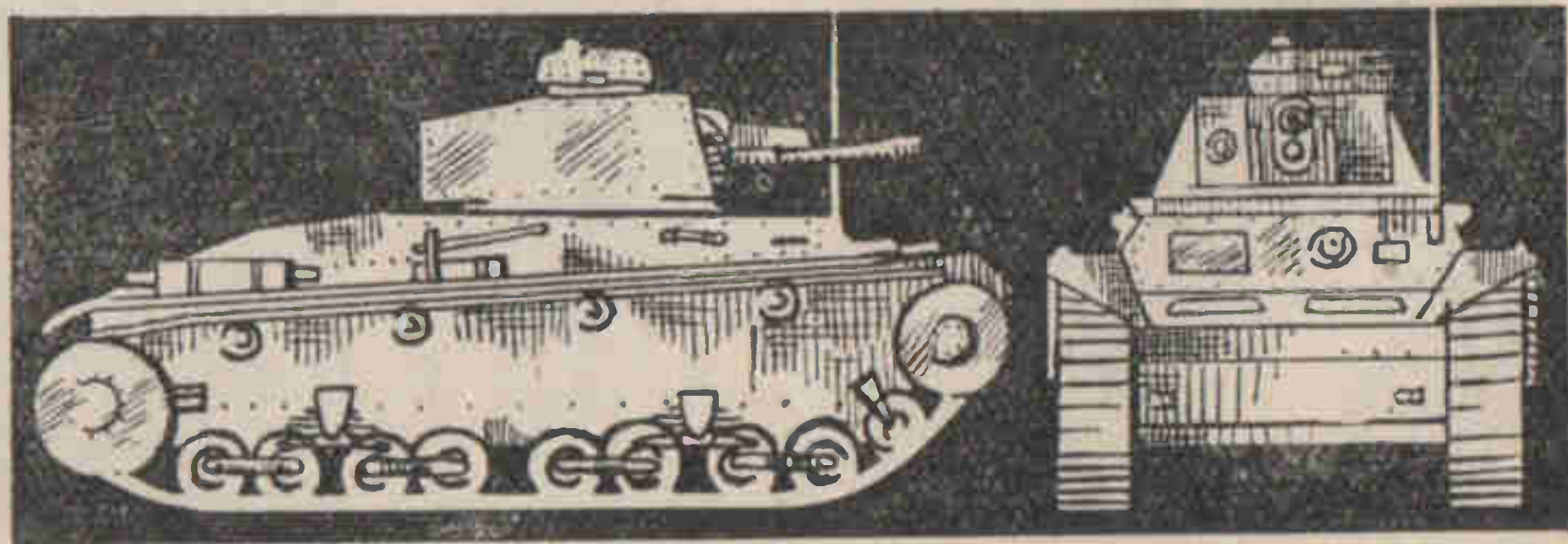
German Medium Armoured Car, Sd. K.F.Z. 231. Previously known as A.S.P. 6. Weight 6½ tons. Speed 32 m.p.h. Height 7' 6". Length 18' 6". Width 6' 0". Crew 4. Armed with one M.G. and one 20 m.m. heavy M.G. **How to recognise :** 6 wheels with very long bonnet sloping to the fore. Bonnet front stream-lined. Squat turret. 2 rear wheels each side have common mudguards. Sometimes fitted with grid umbrella type aerial (as in Sketch).





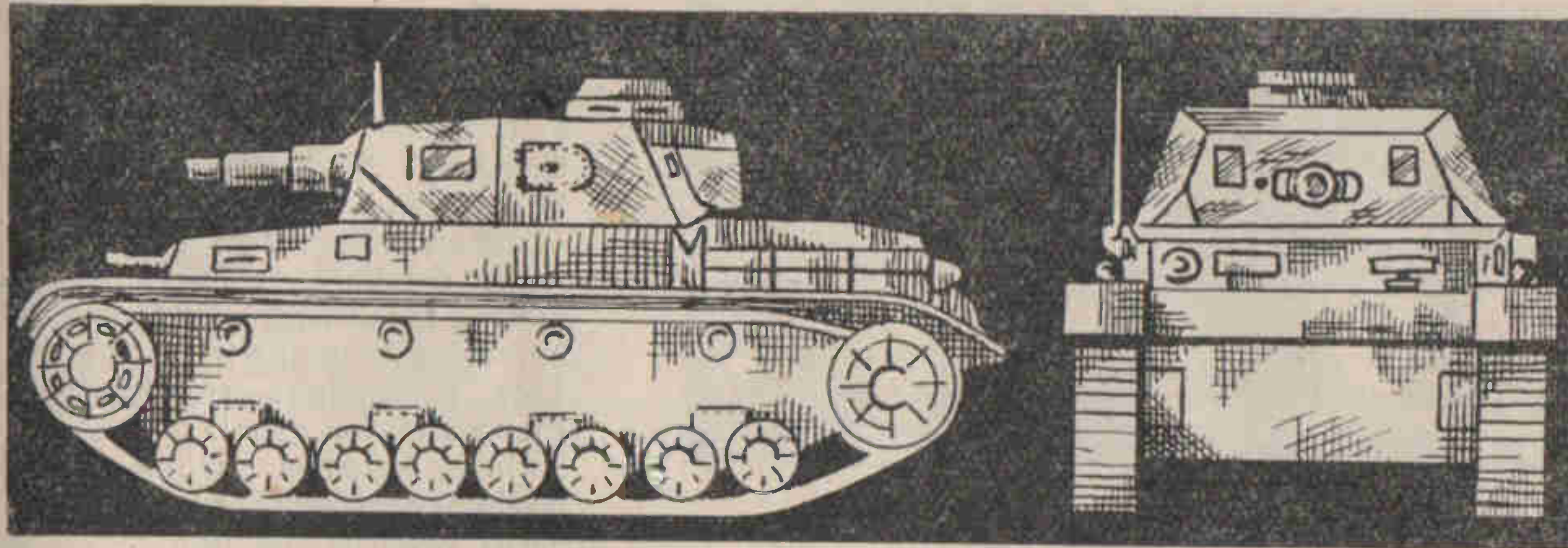
German Assault Gun fitted on Pz. Kw. 3. Tank chassis armed with either short or long-barrelled 75 m.m. gun. **How to recognise:** Very low, squat, stream-lined shape—both side and front views. Driver controls from left hand side. Fitted with 6 small bogie wheels and large driving sprocket. 3 very small jockey wheels each side.

German Light Tank—Ex. Czech S. 11 A. Lt. 35. New No. : Pz. Kw. 35 (t). Weight 10½ tons. Speed 20-25 m.p.h. Height 7' 4". Length 15'. Width 7'. Crew 4. Armed with a 37 m.m. gun and 2 M.G.'s. **How to recognise:** Rectangular turret face for gun mantlet with 2 M.G.'s fitted with ball mountings. Sprocket and idler wheels have large flanges. Twin bogies with 4 sets of wheels each and 1 independent wheel on each side. 4 very small jockey wheels. Aerial mast left side and to the fore of turret. Watch-out cupola left side middle of turret.



ERRATA AND NEW MODIFICATIONS

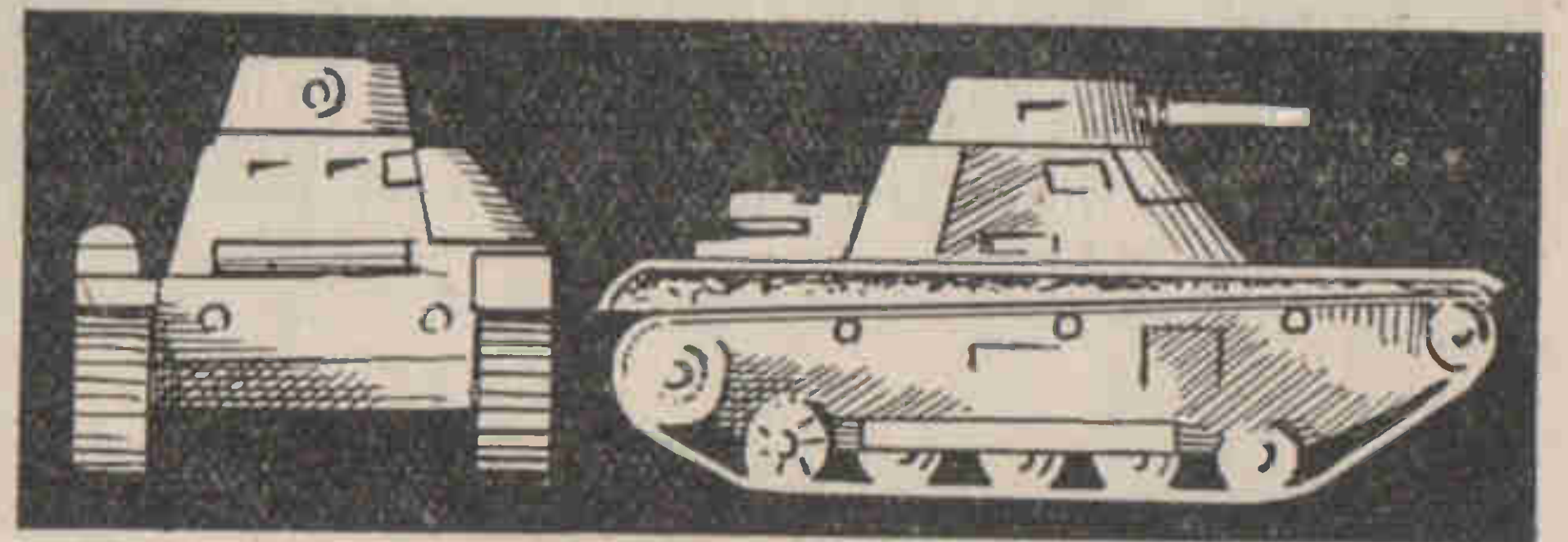
- Page 1** The new **Sherman** has no mudguard and the super-structure overhangs on either side to half obscure the idler and driving sprocket. Front view should show M.G. on left side of main gun on turret. This vehicle has general streamline shape when seen from side view.
- Page 2** This should read "Americian Medium Tank **Lee**." Wireless masts fitted to super-structure not to turret. Front view shows turret on wrong side.
- Page 3** This should read "American Medium Tank **Grant**." Where descriptions reads "this vehicle is practically identical in appearance to American Medium Tank **Grant**." insert **Lee**. Number of crew altered to 6. Front view shows turret on wrong side.
- Page 5** British Armoured Car **Humber** Mark I. Front view should show headlamp on opposite side.
- Page 12** British **Covenanter** Tank. Front view should show spotlight on other side.
- Page 16** French Medium Armoured Car **Panhard** T.O.E. (A.M.D.) Side view should show vehicle having flat top to the hull, rear *not* sloping as in diagram.
- Page 17** French Light Tank, F.C.M. Weighs 12 tons.
- Page 20** French **Somua** Tank should show aerial mast in turret rear; also stowage pins on side.
- Page 23** German Light Armoured Car, Sd. K.F.Z.232. Side view should show spare wheel mounted on body centre.
- Page 24** Top vehicle is model K.F.Z.232 (8RAD) when fitted with aerial
- Page 25** Bottom vehicle is model K.F.Z.232 when fitted with grid-type aerial.
- Page 27** German **Maybach** Pz. Kw. I Tank. On later models has spaced armour on gun mantlet and in front of driver and hull gunner; also dish-shaped sprocket.
- Page 30** Lower vehicle now fitted with same shaped turret as the Italian Model 13/40.
- Page 32** Lower vehicle front view should have head-lamps on outer top edges of super-structure.
- Page 34** Top vehicle front view M.G. should appear on right hand side of super-structure when facing vehicle.
- Page 37** The use of this vehicle in action is as yet unconfirmed.
- Page 38** Lower vehicle has crew of 3 or 4.
- Page 40** Top vehicle should show bogie wheels and idler wheel with spokes.
- Page 40** Lower vehicle front view—head-lamps should be dropped so as to appear on a line with top line of mudguards.
- Page 41** This vehicle should have 4 evenly spaced jockey wheels and driving sprocket should have six holes.
- Page 43** Bogey wheels now spoked.
- Page 44** This vehicle fitted with 2 M.G.s only.
- Page 45** Top vehicle front view has prominent ribbed front plates.
- Recognition of Armoured Fighting Vehicles in paragraph 8, where 800 yards is shown insert 800 feet.

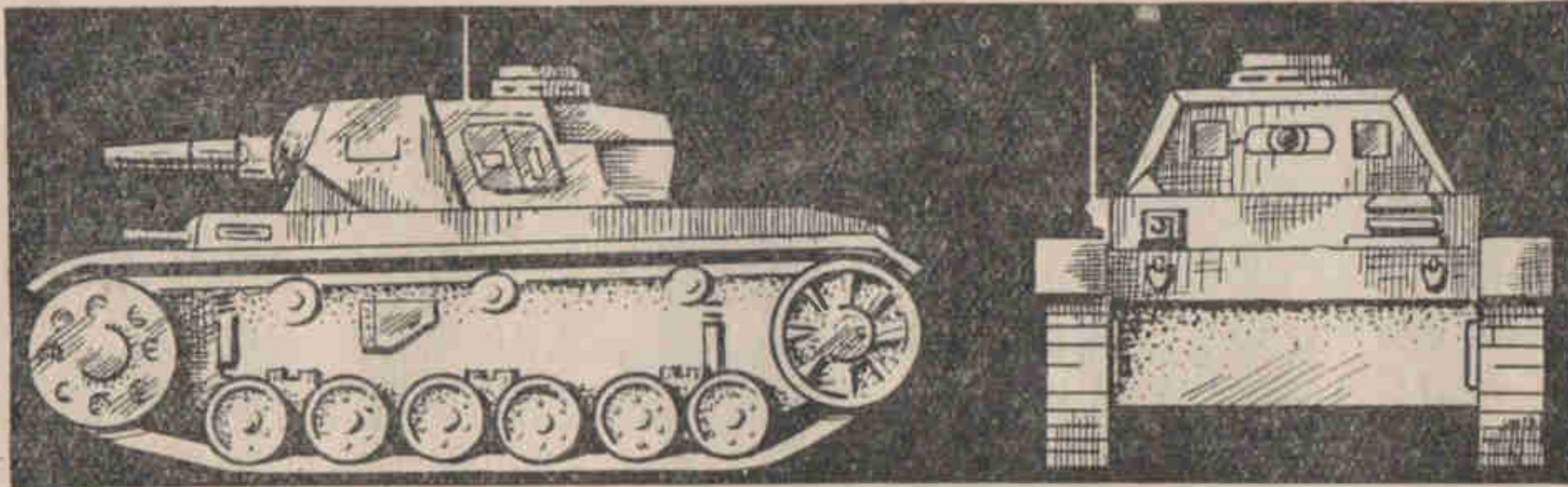


German Medium Tank, Pz. Kw. 4. Weight 22½ tons. Speed 20-24 m.p.h. Height 8' 8". Length 19' 6". Width 9' 6". Crew 5. Armed with 2 M.G.'s and a 75 m.m. gun. Some models have large gun fitted with very long barrel which has a globular muzzle-brake overhanging the hull. **How to recognise :** 8 small bogie wheels with large front

driving sprocket. Low stream-lined turret with watch-out cupola on turret rear, centrally placed. Aerial mast fitted right hand side towards turret fore.

German Maybach Light Tank, "Leger" Pz. Kw. 1. Height 5' 6". Length 13' 0". Width 6' 10". **How to recognise :** Five equally spaced bogie wheels with horizontal outer girdle. Central high super-structure with round turret centrally placed. Similar in appearance to Pz. Kw. 1. No further details available.

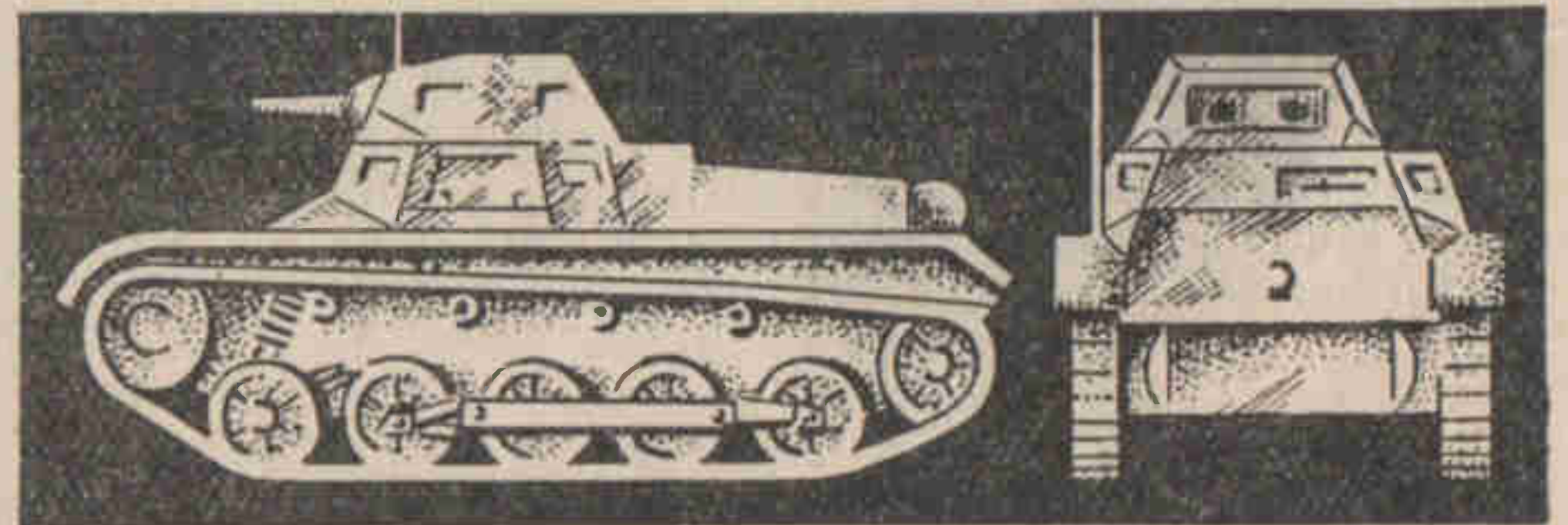


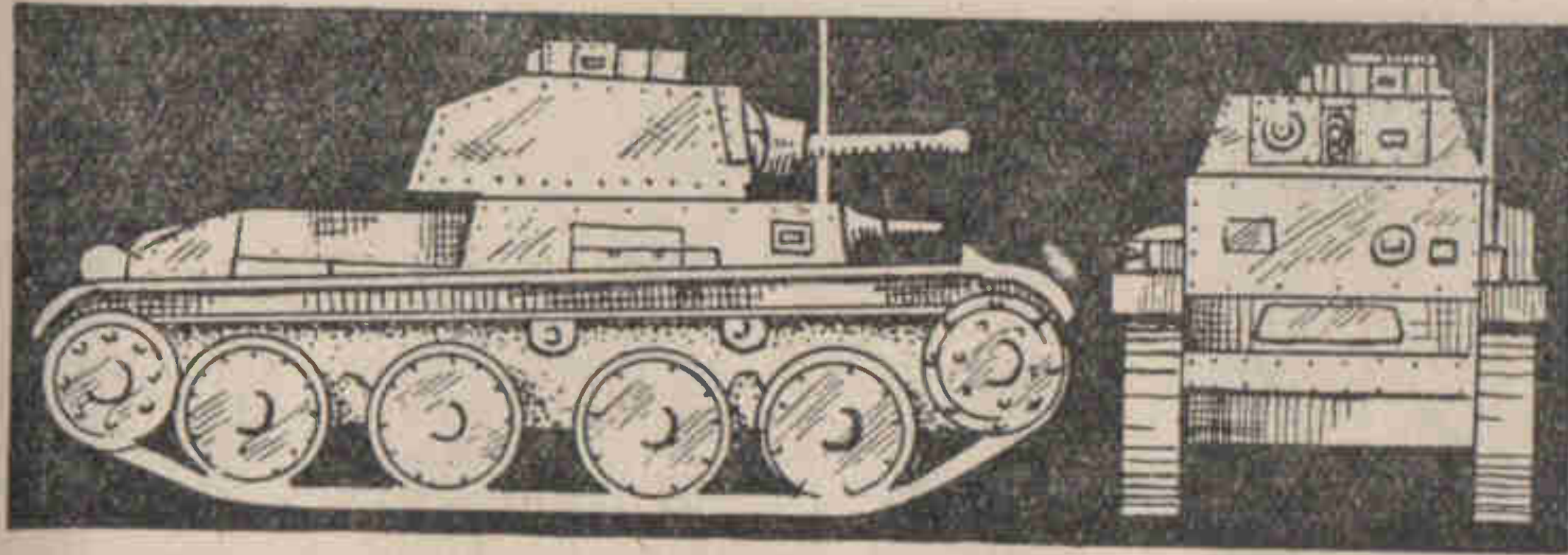


German Medium Tank, Pz. Kw. 3. Weight 20 tons. Speed 30 m.p.h. Height 8' 0". Length 18' 2". Width 9' 6". Crew 5. Armed with 2 light M.G.'s and a 50 m.m. gun. **How to recognise :** Very large front driving sprocket. Some models fitted with very long gun barrel overhanging front of hull. Low streamlined turret with rear watch-out cupola. 3 sets of 2 independently sprung small bogie wheels each side. Front

view, turret sides slope inwards towards the top.

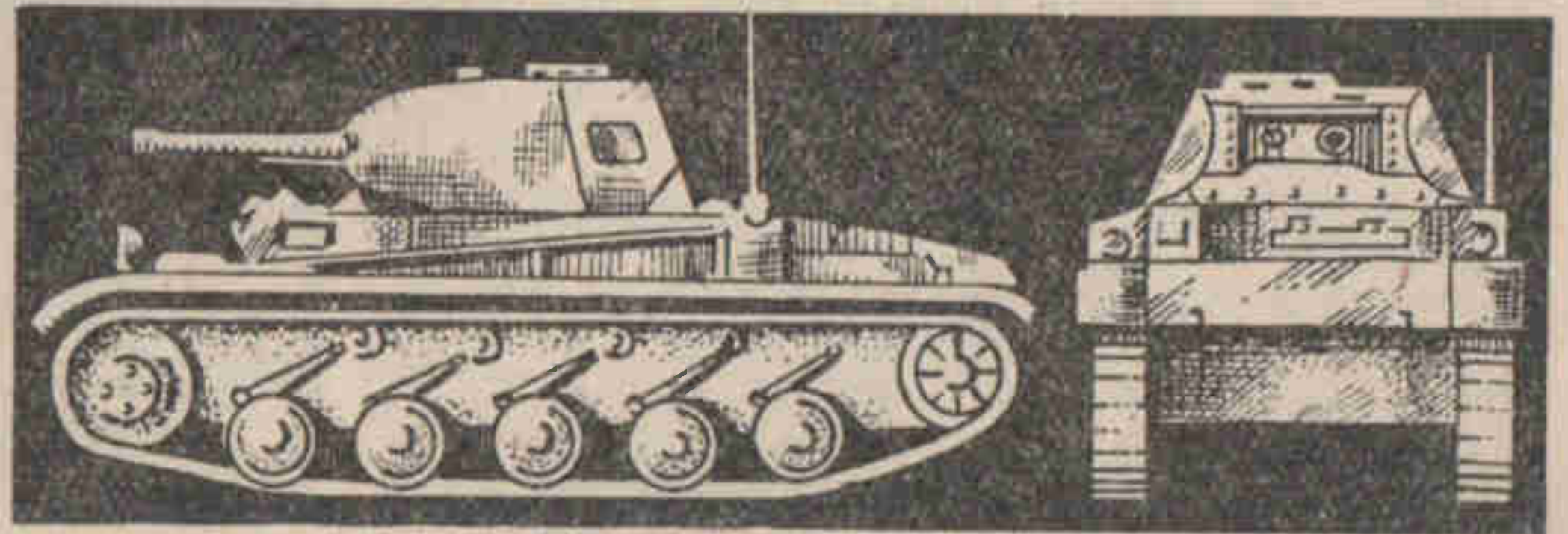
German Light Tank, Pz. Kw. 1. Weight 5½ tons. Speed 30 m.p.h. Height 5' 6". Length 14' 0". Width 6' 6". Armed with 2 L.M.G.'s. Crew 2. **How to recognise :** Turret set over to the right when seen from front. Gun mantlet rounded. 5 bogie wheels unevenly spaced each side with girder outside linking suspension. 4 very small jockey wheels.

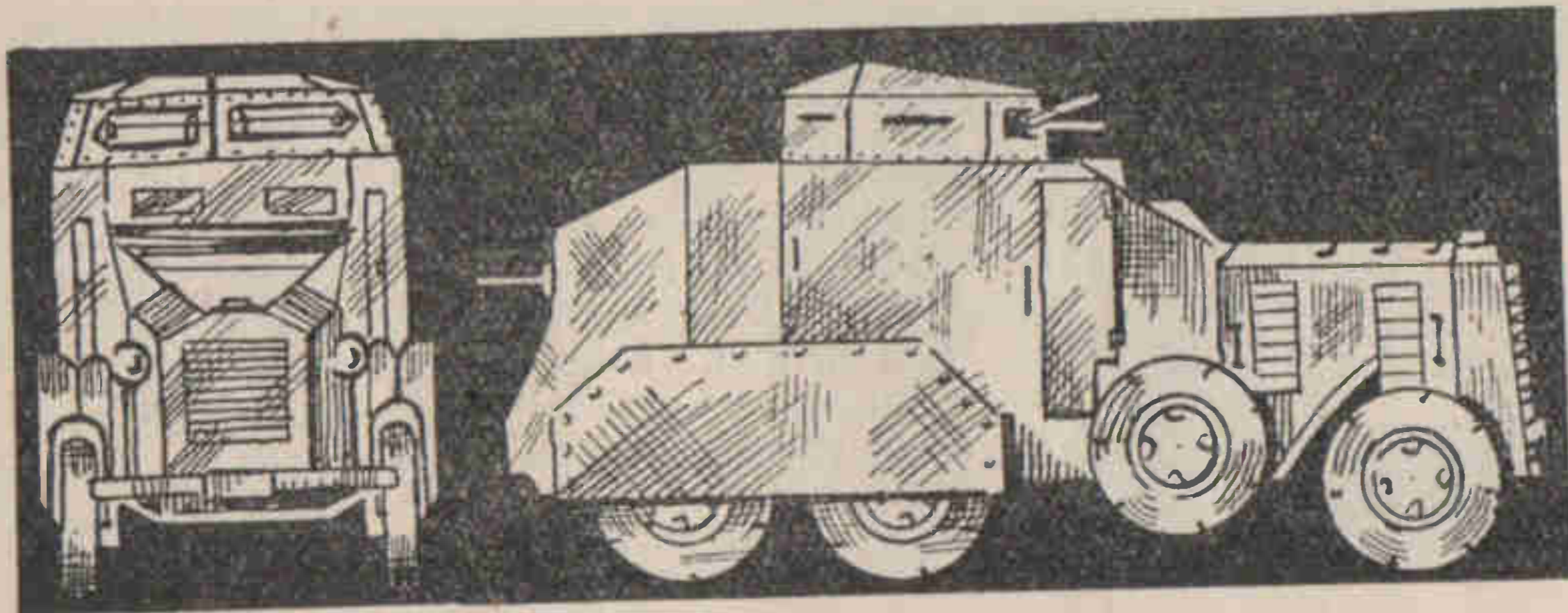




German Light Tank—Ex. Czech Lth.
 Now called Pz. Kw. 38 (t). Weight $9\frac{1}{2}$ tons.
 Speed 36 m.p.h. Height 7' 3". Length 15' 4".
 Width 7' 0". Crew 4. Armed with 2 M.G.'s and
 one 37 m.m. gun. **How to recognise:** 4 very
 large bogie wheels practically contacting track top.
 Very heavy riveted turret with watch-out cupola on
 left hand side. Gun mounting has rectangular face
 on turret. Aerial mast left hand side to the fore
 of turret.

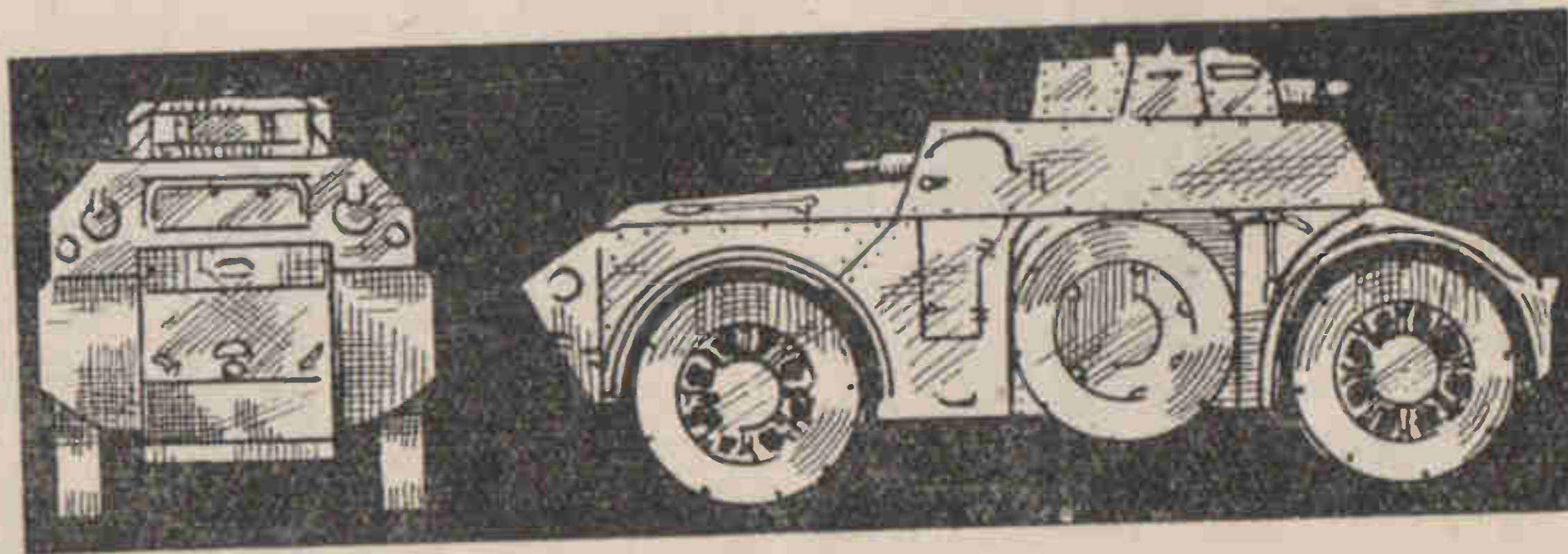
German Light Medium Tank Pz. Kw. 2.
 Weight $9\frac{1}{2}$ tons. Speed 24-28 m.p.h. Height 6' 6".
 Length 15' 10". Width 7' 3". Crew 3. Armed with
 a 20 m.m. M.G. and a L.M.G. **How to recognise:**
 Streamlined, squat turret with long-barrelled heavy
 M.G. Large driving sprocket at front. 5 bogie wheels
 each side, independently sprung. Aerial mast left
 hand side behind top turret.

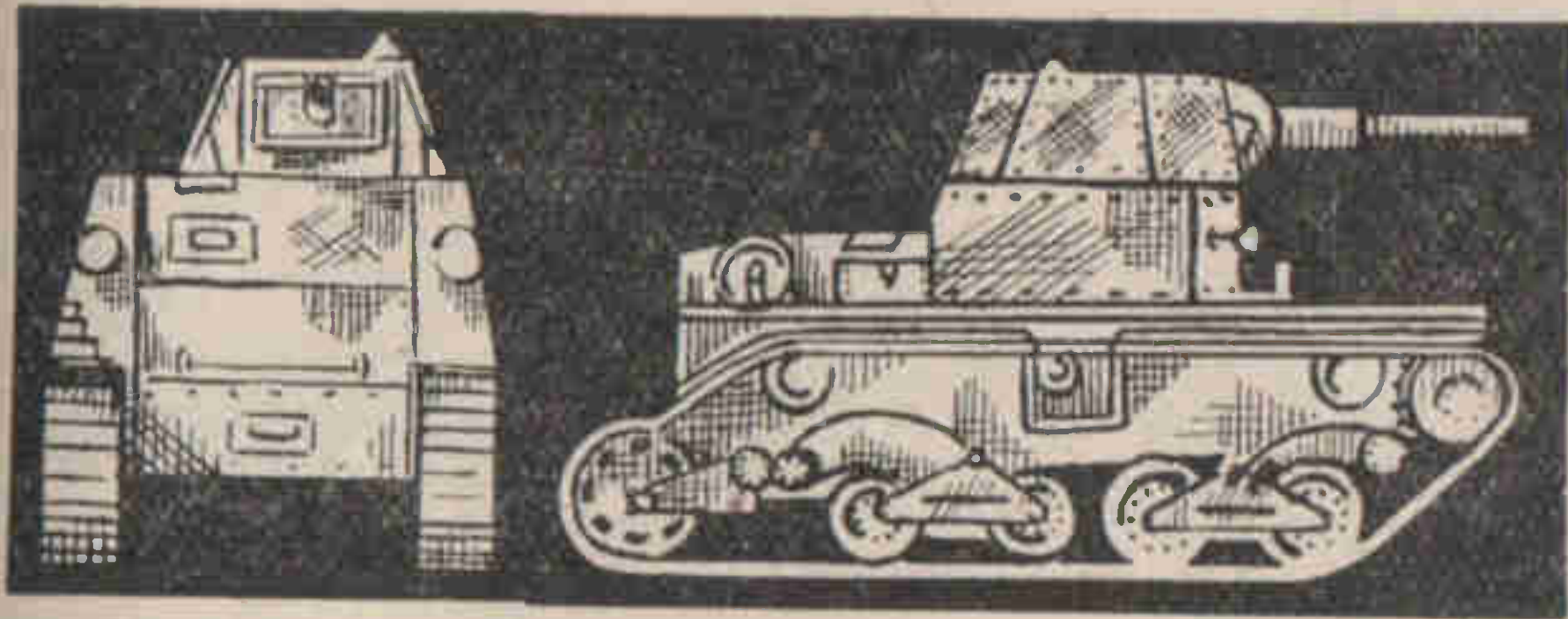




Italian Medium Armoured Car. Weight 6 tons. Speed 45 m.p.h. Height 8' 6". Length 18' 3". Width 8' 6". Crew 4. Armed with 3 M.G.'s, two of which are in top turret side by side and one protruding from vehicle rear. Occasionally fitted with 20 m.m. gun in turret mounting. **How to recognise:** 6 wheels, rear 2 on each side partly covered by armoured shielding. Engine to the fore with motor car type radiator. Spare wheels carried each side just behind front wheel. Front view appears rectangular and very high.

Italian Heavy Armoured Car, "Autoblinda" 40. Weight 6½ tons. Speed 45 m.p.h. Height 7' 6". Length 17' 3". Width 6' 6". Crew 3. Armed with a 8 m.m. M.G. in rear of super-structure and one 8 m.m. M.G. and a 20 m.m. Heavy M.G. in turret. **How to recognise:** Engine fitted rear. 4 very large road wheels with spare wheels mounted on sub axle near front wheel. Front view shows rather high square appearance of hull with super-structure sloping upwards and inwards. Side view has a back to front appearance.

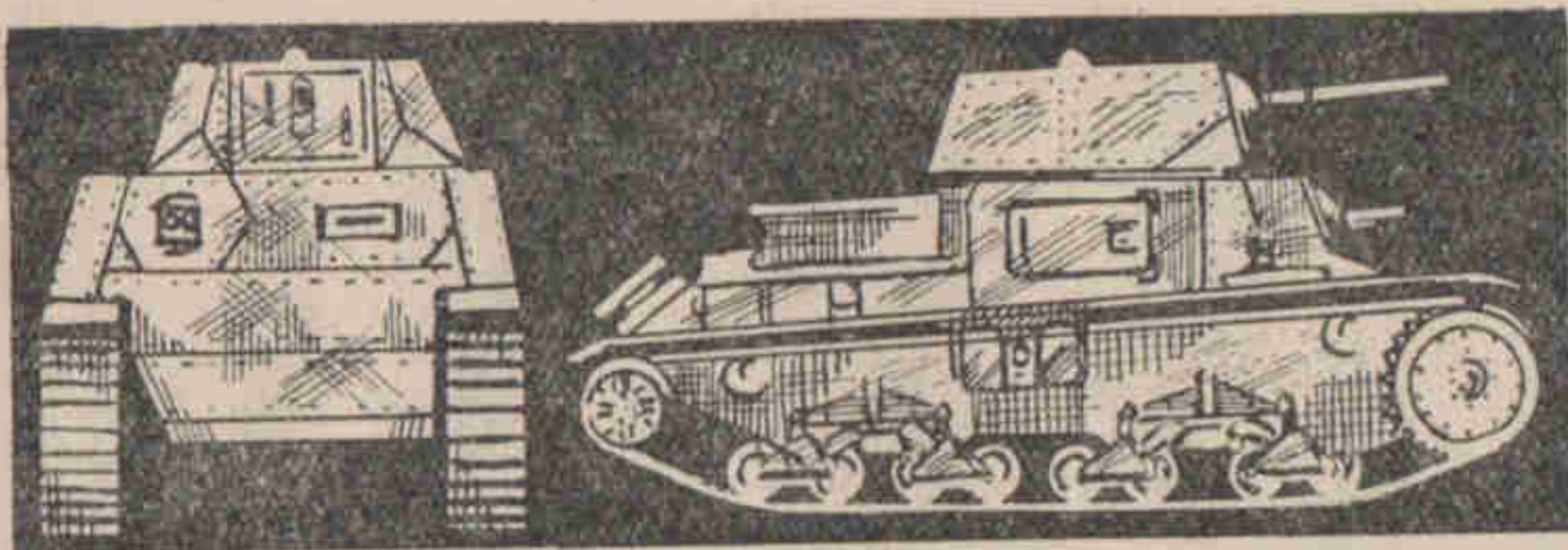




Italian L. 6-40 Light Tank. Weight 6½ tons. Speed 25 m.p.h. Height 7' 0". Length 12' 6". Width 6' 0". Crew 2. Armed with one 8 m.m. M.G. and one 20 m.m. Heavy M.G. **How to recognise:** Very high super-structure Tank rear. Turret mounted with a 20 m.m. M.G. riveted sides of which slope upwards and inwards, fitted midway along hull on left hand side. Very low idler wheel fitted to triangle-shaped suspension arm. 2 bogies with 2 wheels each suspended by arc type suspension arms.

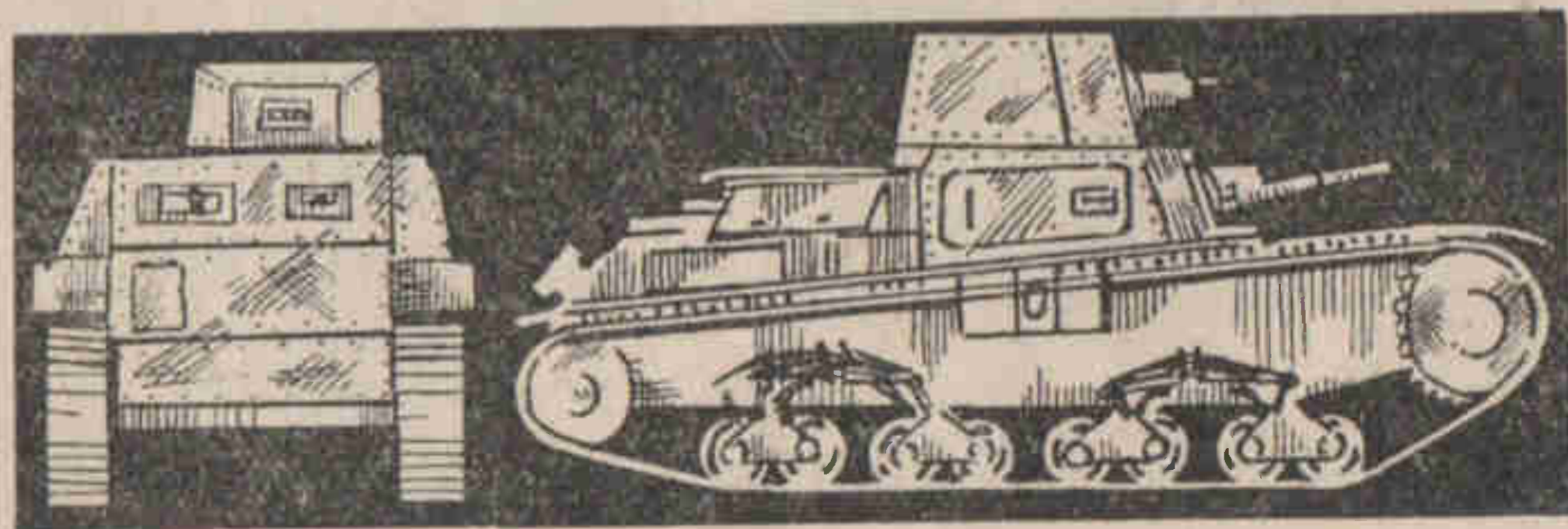
Italian Baby Tank, L. 3-35. Weight 3½ tons. Speed 30 m.p.h. Height 4' 2". Length 10' 6". Width 4' 6". Crew 2. Armed with 2 M.G.'s. Occasionally fitted with 20 m.m. Anti-Tank Rifle. **How to recognise:** Turret fixed. 6 very small bogie wheels in sets of 3 each side and connected by horizontal girder. Comparatively large driving sprocket. Large super-structure behind turret on Tank rear. Occasionally armed with flame-thrower, and when used in this form has trailer fitted behind to carry necessary chemical container.

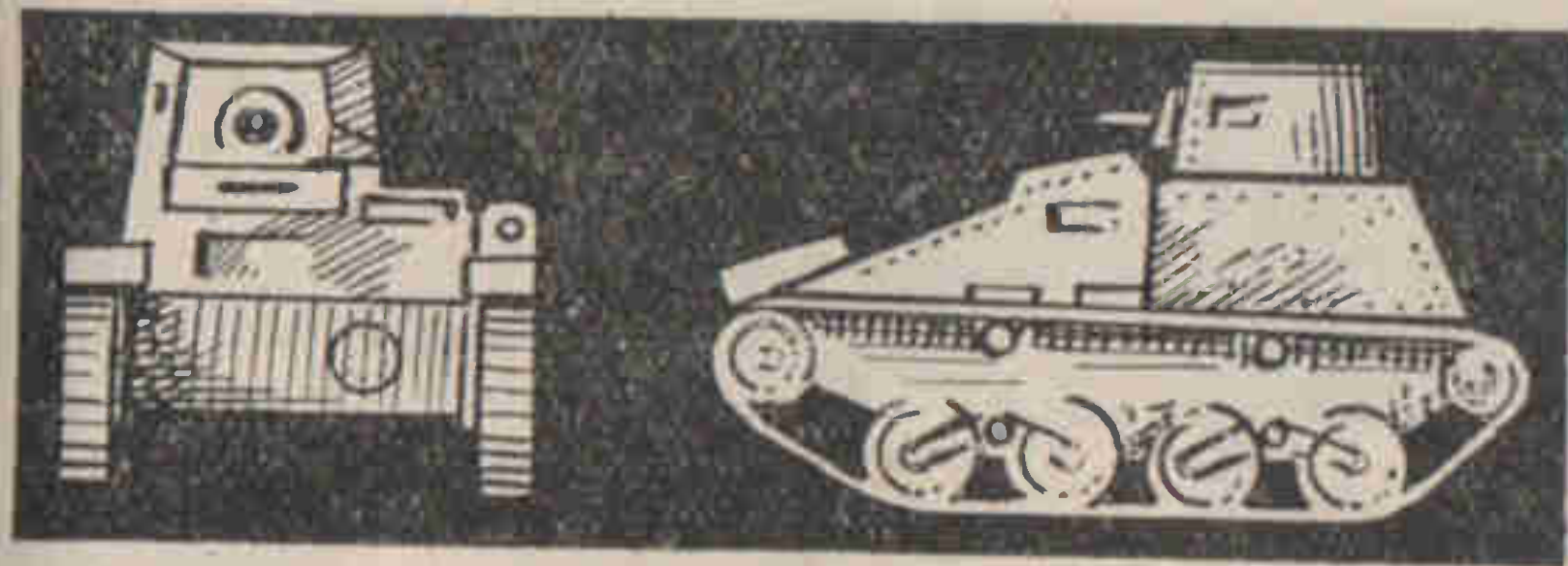




Italian M.13-40 Medium Tank. Weight 12½ tons. Speed 20 m.p.h. Height 7' 8". Length 16' 0". Width 7' 4". Crew 4. Armed with 3 M.G.'s and a 47 m.m. gun. **How to recognise:** Rounded turret fitted with a M.G. and a 47 m.m. gun; also 2 M.G.'s in super-structure front right hand side. 2 half-elliptic spring fittings carry 2 bogies each and each bogie fitted with 2 small bogie wheels. Large driving sprocket. Side view gives Tank appearance of sloping down to the rear. Very high super-structure fitted with rear engine section. Front view—very squat hull and super-structure riveted-finish with turret sides sloping inwards and upwards. The 47 m.m. gun is fitted with rounded mantlet.

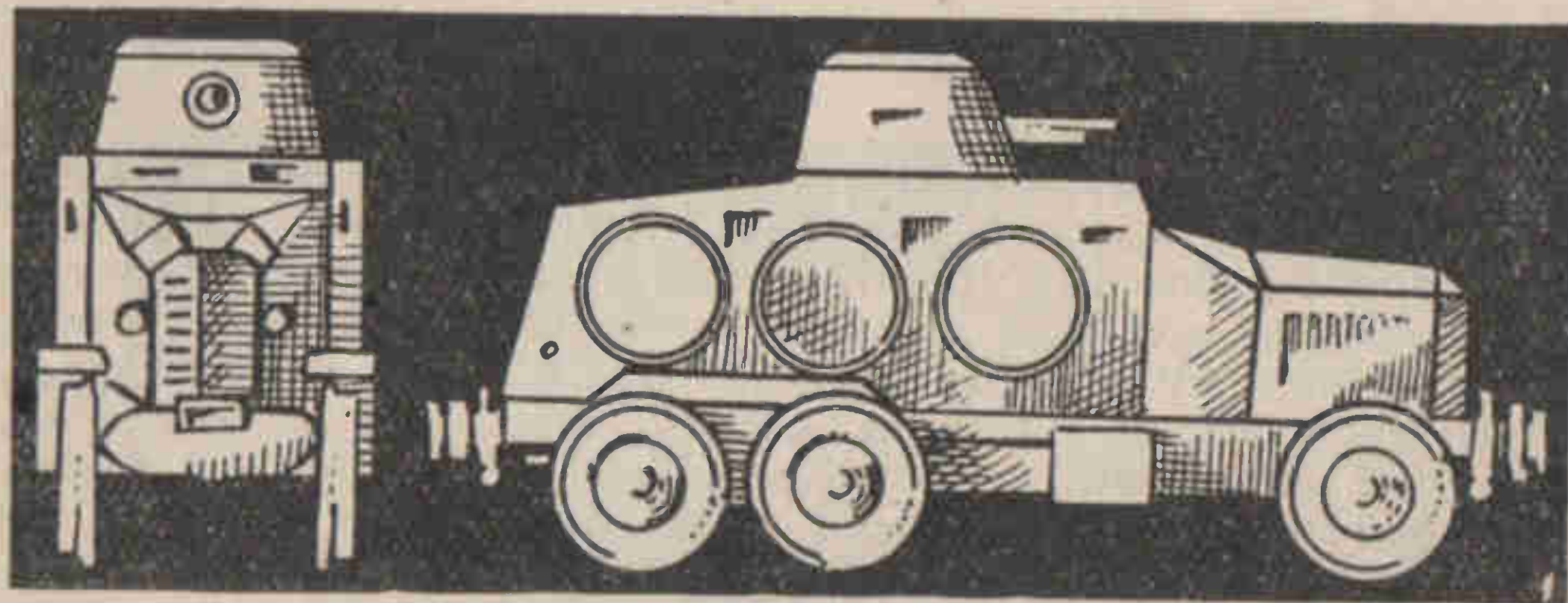
Italian M.11 39 Medium Tank. Weight 11½ tons. Speed 22 m.p.h. Height 7' 3". Length 15' 6". Width 7' 3". Crew 3. Armed with 2 M.G.'s and a 37 m.m. gun. **How to recognise:** Two sets of half-elliptic spring mountings, carrying 2 bogie brackets each with 2 bogie wheels on each bracket. Large driving sprocket. Small-sized turret with sides sloping inwards and upwards fitted on Tank mid-line off set left hand side. 37 m.m. gun mounted on front of super-structure right hand side.

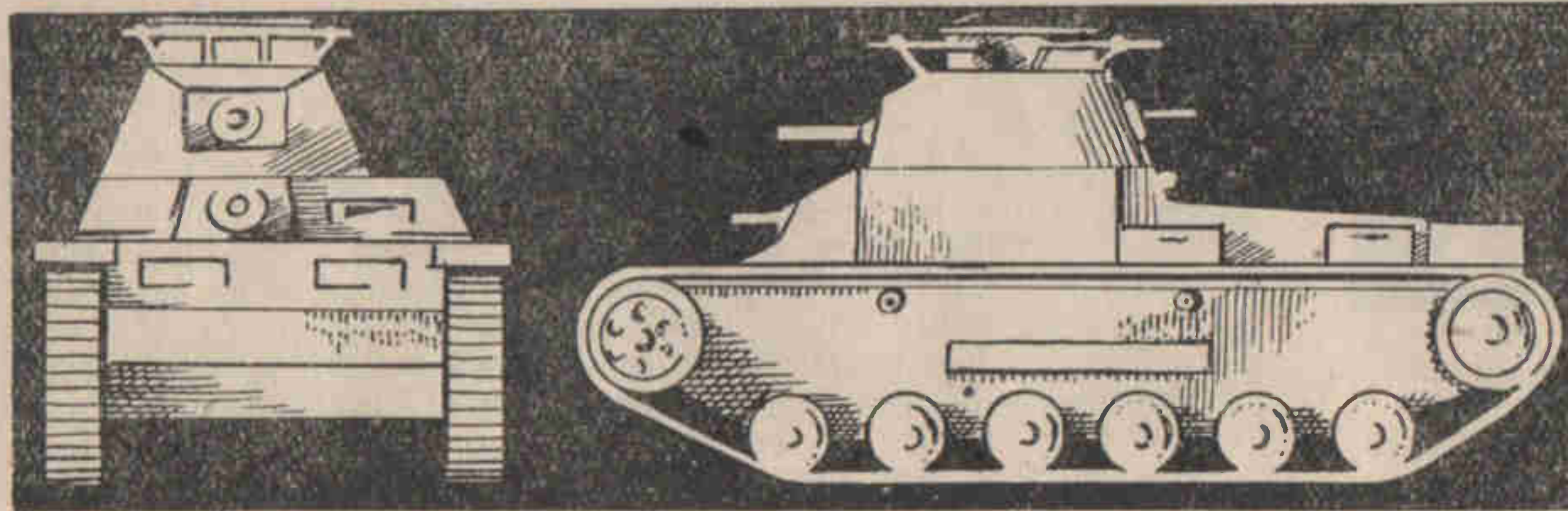




Japanese Baby Tank. Weight 3½ tons. Speed 25-30 m.p.h. Two in crew. Height 5' 3". Length 10' 0". Width 5' 9". Armed with one M.G. **How to recognise:** Driving sprocket to the fore. Round turret with ball mounted M.G. fitted on far rear end of super-structure, giving tank appearance of letter "L." Two bogies with two bogie wheels each. Very small idler wheel and two minute jockey wheels. Turret offset of super-structure right hand side. Engine in front and fitted on left hand side. Pronounced slope from turret front to fore of tank.

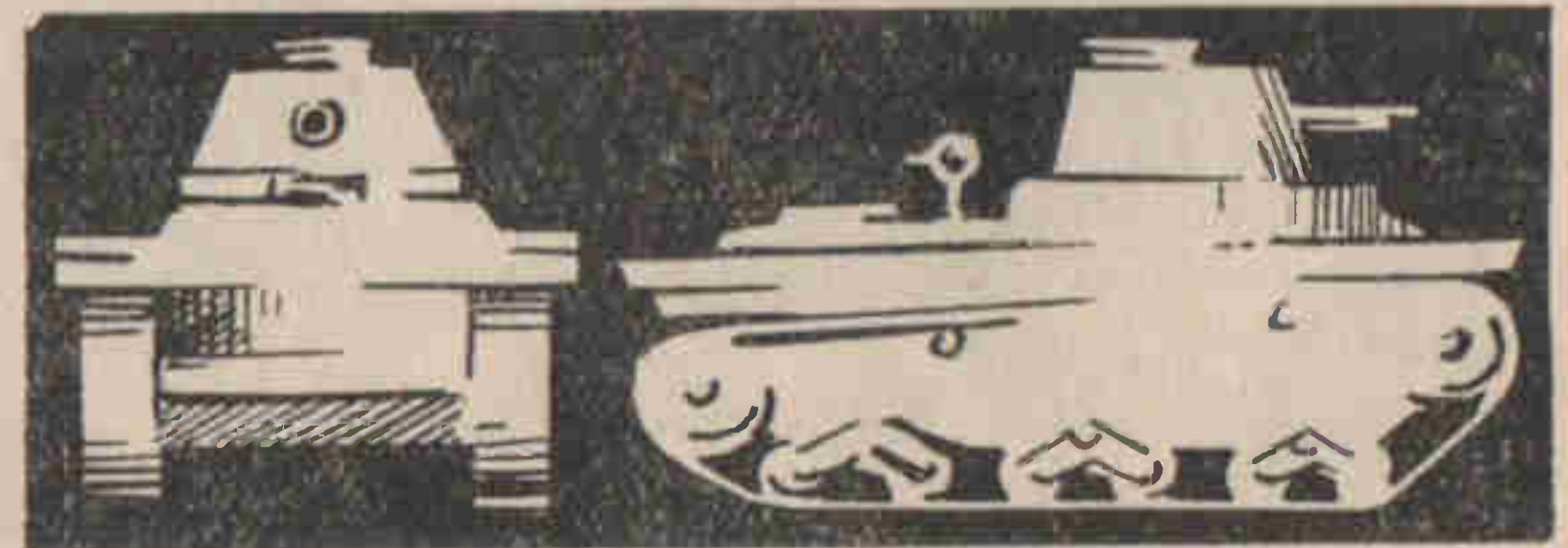
Japanese Trolley Armoured Car. Weight 7 tons. Speed 45 m.p.h. Four in crew. Height 7' 6". Length 15' 6". Width 6' 0". Armed with one heavy M.G. **How to recognise:** Usually carries six special steel tyres, three aside for converting vehicle so as to run on railway lines. Six wheels. Twin wheels rear drive. Commercial vehicle shaped body, engine in front, high bonnet. Round sloping side turret fitted in body. Centre mounting. Heavy machine gun facing fore. Heavy bumpers fore and aft.

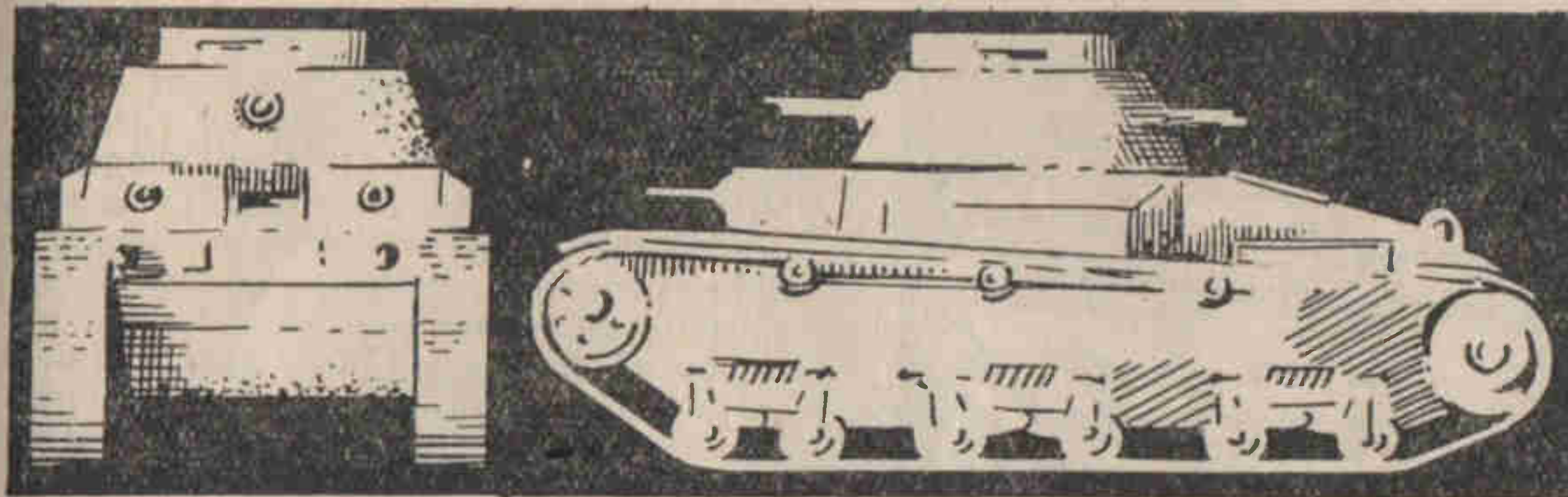




Japanese New Model Medium Tank. Weight 21 tons. Five in crew. Height 8' 9". Length 19' 3". Width 7' 3". Armed with two M.G.'s and either a 57 m.m. or 37 m.m. gun. **How to recognise:** 6 evenly spaced independently sprung bogie wheels. Protruding M.G. hull mounting. Rounded turret housing the large gun with M.G. in turret rear. Turret set approximately in tank centre on right side. Shallow super-structure rear of turret. Driving sprocket at tank fore. Solid rail ring type aerial round turret top. Flat circular cupola on turret rear.

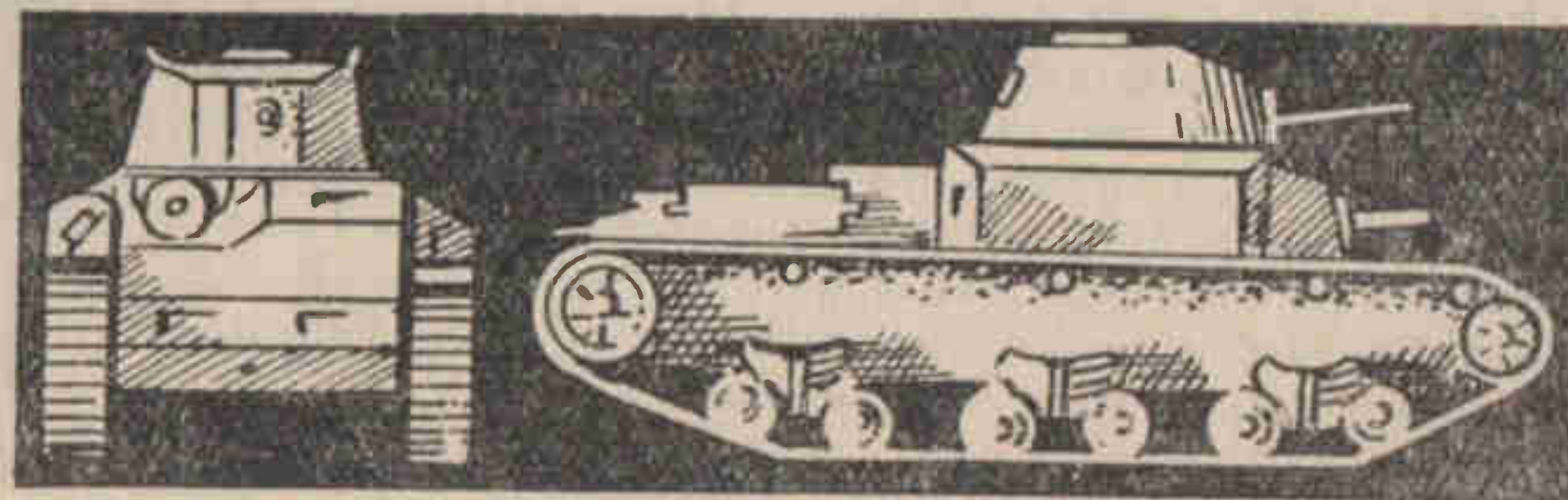
Japanese Baby Amphibian Tank. Weight 4½ tons. Armed with one 37 m.m. gun and one M.G. Armour ¾" thick. **How to recognise:** Boat-like appearance of super-structure. Mounting round turret with sides sloping inwards and upwards on forepart. Turret fitted with 1 M.G. Shallow, large diameter cupola shaped like sailor's hat on turret rear centre. Tracks rise to Tank forepart. 3 bogies with V-shaped articulate arms carrying 2 bogie wheels each. 2 jockey wheels visible.

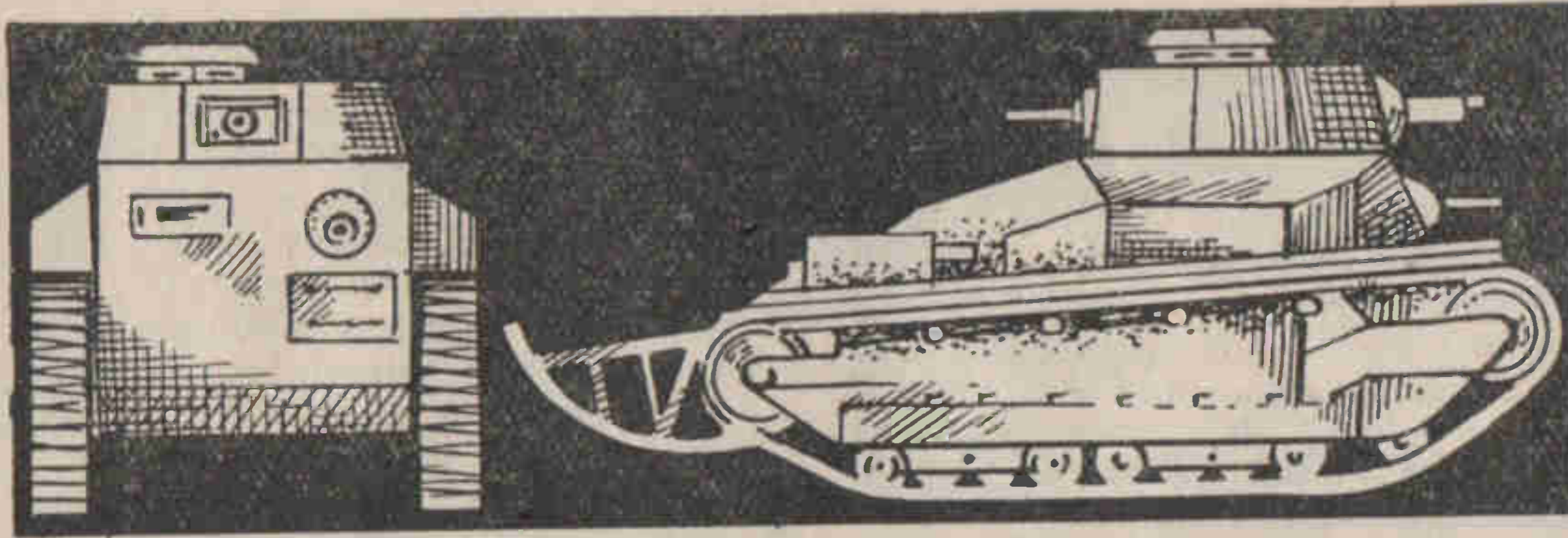




Japanese Medium Tank M.104
 Weight 39 tons. **How to recognise:** Track rises higher in tank fore part. 3 bogies with twin bogie wheels each held by "L" type articulated brackets mounting horizontal coil suspension springs. Armed with one 37 m.m. and one M.G. in the fore of the hull. Large round turret with sides sloping inwards and upwards placed slightly to the fore part of Tank and mounting one 75 m.m. gun and one 37 m.m. gun to the rear. Very large flat washer-shaped cupola on turret centre top. This Tank is fitted with armour 1.2" thick. Use not confirmed in battle areas yet.

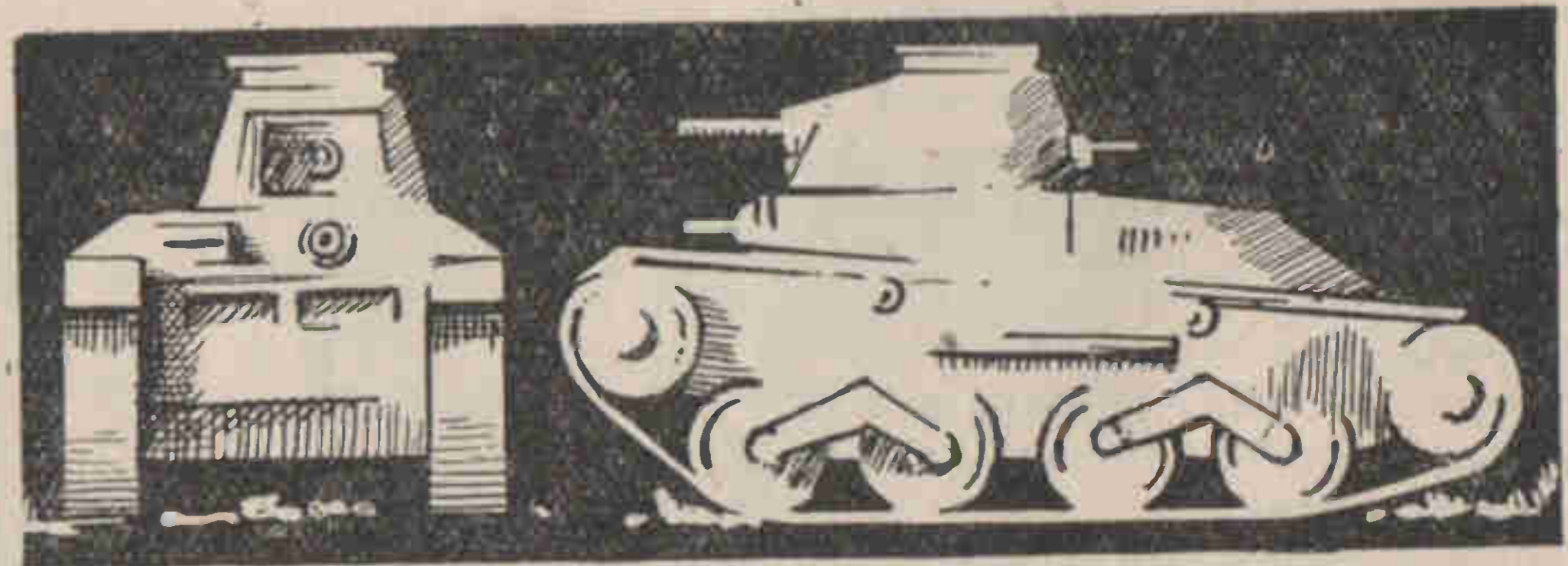
Japanese Light Tank Old Type. Weight $7\frac{1}{2}$ tons. Three in crew. Armed with two light M.G.'s. Height 6' 0". Width 6' 0". Length 14' 6". **How to recognise:** Three half-elliptical sprung bogies each with two small bogie wheels. Three very small jockey wheels. Small round turret with sloping sides fitted to the fore of Tank, carrying one M.G. centrally on ball mounting. One M.G. super-structure right fore on similar ball mounting. Small extra fuel tank or smoke discharger fitted super-structure rear of turret.

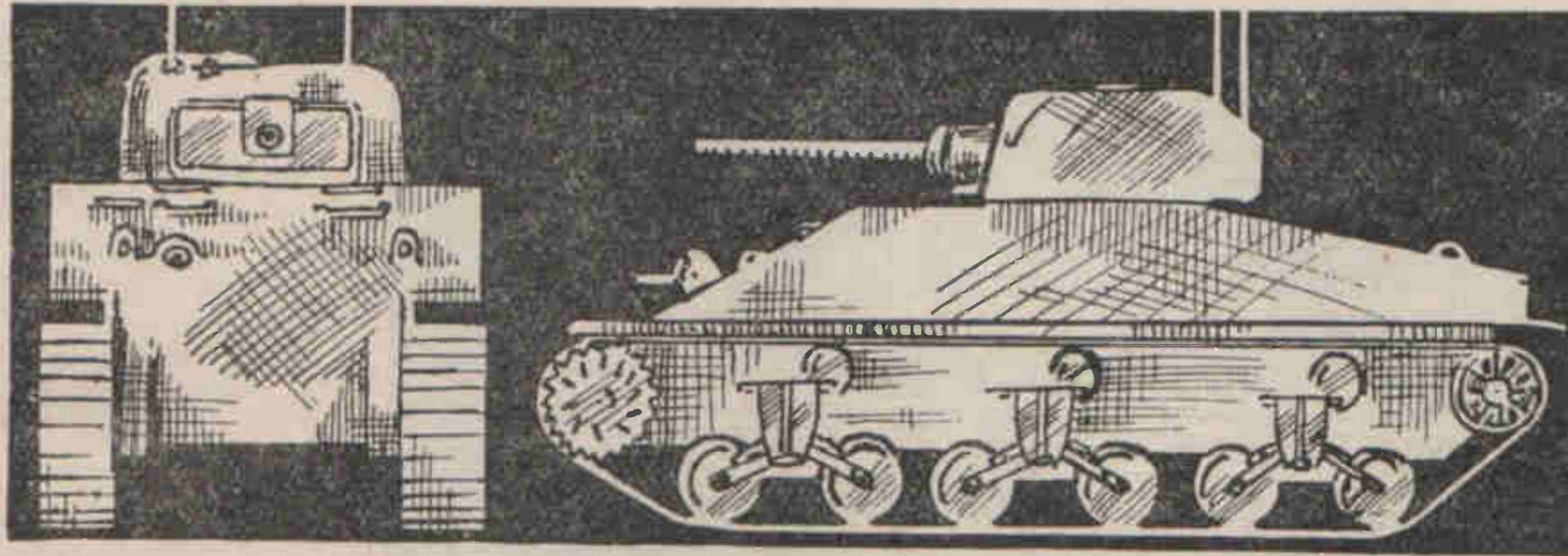




Japanese Old Type Medium Tank. Weight 17 tons. Five in crew. Height 8' 6". Length 21' 0" with protruding tail. Width 8' 3". Armed with two M.G.'s and one 37 m.m. gun. **How to recognise :** Super-structure overlaps tracks. Nine small bogie wheels practically hidden by armoured shielding. Tank track appears to be rising on an angle from aft to fore. Turret rounded, slightly sloping sides. 37 m.m. gun in fore of turret, M.G. in rear. Special quarter spherical tail on rear of tank to help in crossing obstacles. Small watch-out cupola on right hand side mid-way along turret. One M.G. mounting left hand side super-structure in the fore of Tank.

Japanese New Type Light Tank. Weight 7½ tons. Speed 20 m.p.h. Crew three or four. Height 7' 0". Length 14' 6". Width 7' 0". Armed with two M.G.'s and one 37 m.m. gun. **How to recognise :** Super-structure overlaps tracks on either side. Two bogies carrying two bogie wheels each. Two jockey wheels. Round turret with square front towards tank fore, mounted on fairly high super-structure. Turret offset to tank left side. M.G. in turret rear. M.G. fitted in fore part of super-structure immediately beneath 37 m.m. gun. Fairly narrow tracks.

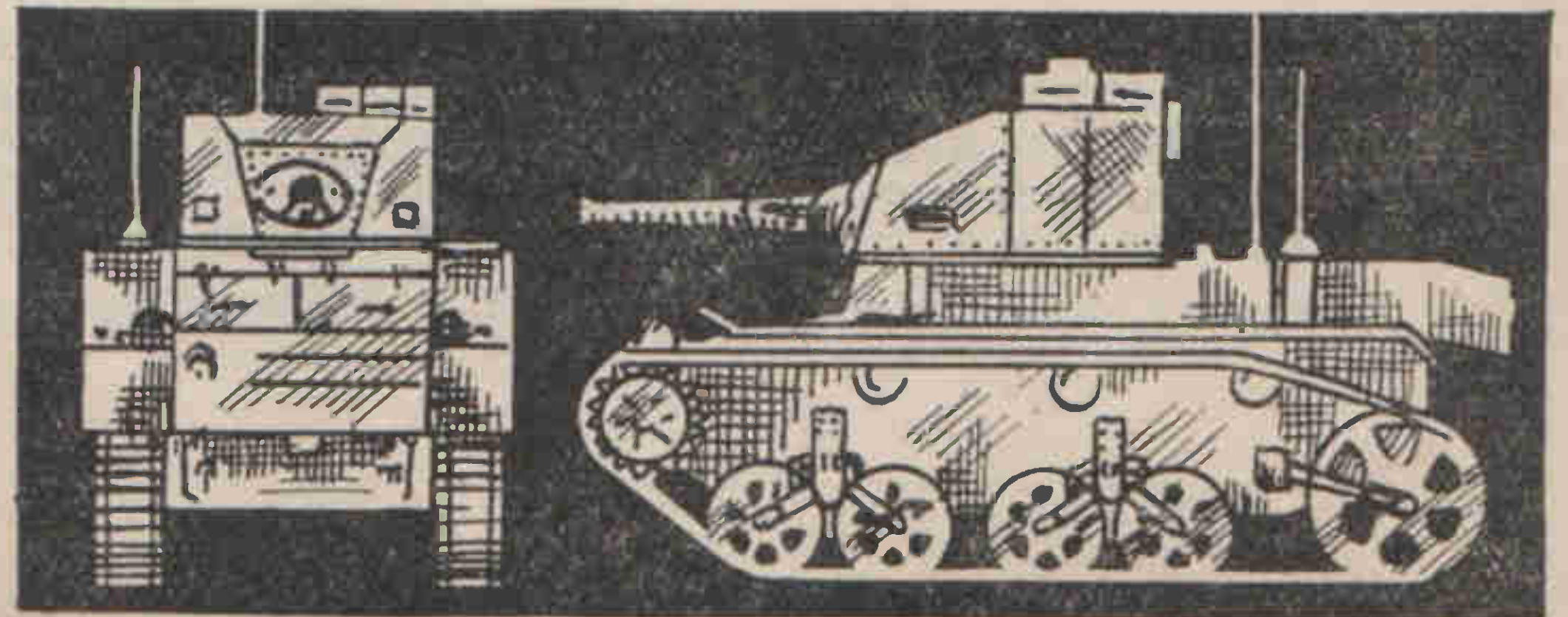


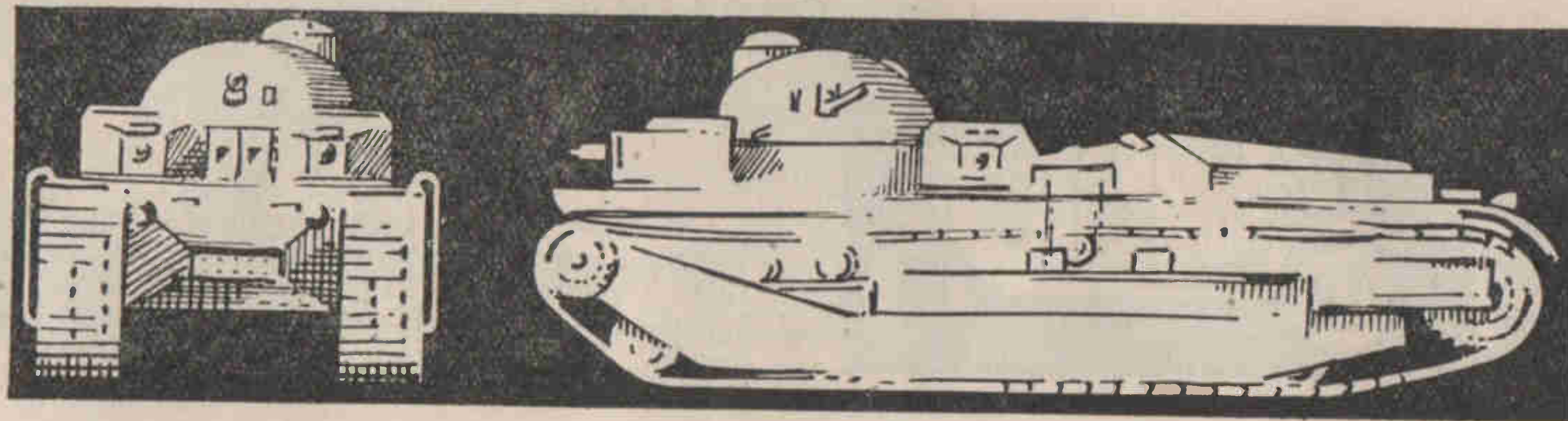


American "Sherman" Tank, M. IV. Weight 29½ tons. Speed 25 m.p.h. Range of action 150 miles. Height 9' 2". Length 19' 6". Width 8' 10". Crew 5. Armed with two .300" Browning M.G.'s, one of which is in the main turret, which is also fitted with a 75 m.m. gun. **How to recognise:** 3 bogies with vertical bracket holding twin wheels on each side. The track has same appearance as that of "Grant" or "Lee" Tank. In later models the idler and driving sprocket and track top are

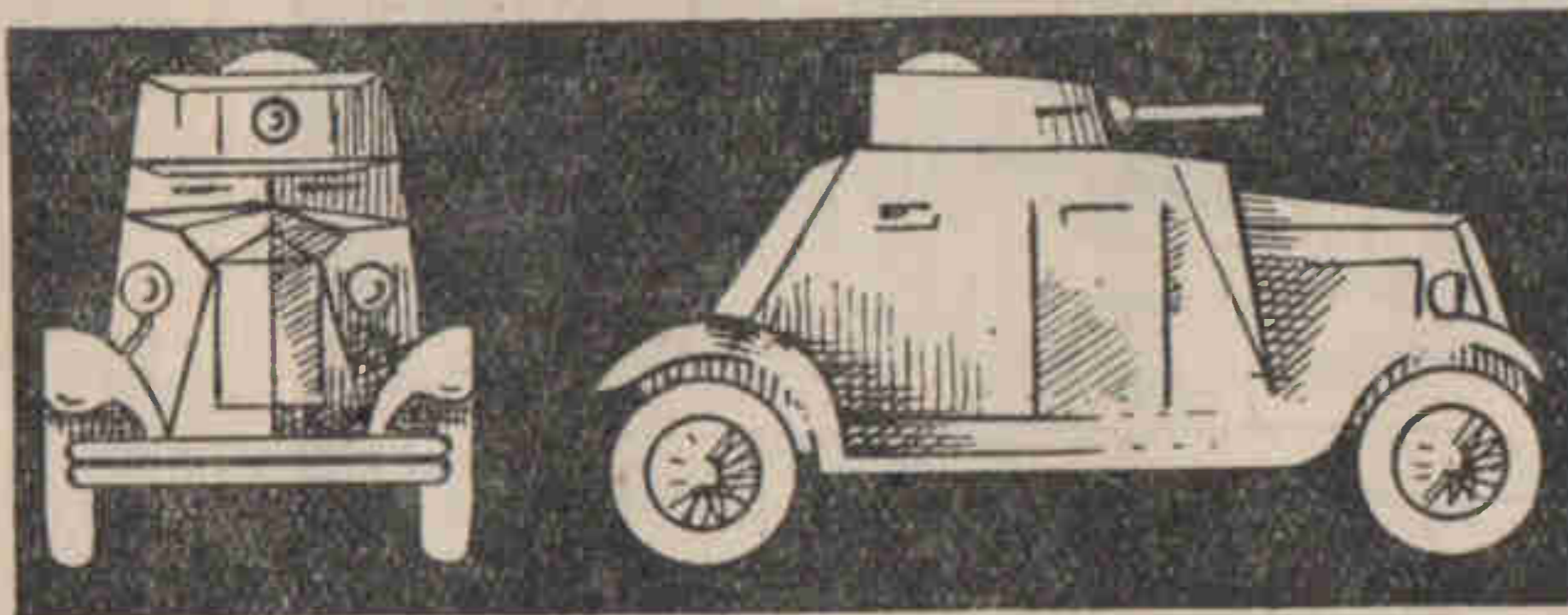
partly hooded by super-structure armour. Turret front face receding with rounded corners and flat top. Small protruding turret lid. Rear of turret has 2 wireless masts fitted side by side. Front of tank slopes steeply towards the ground. Front view, squat with rounded corners on turret which is centrally situated.

American M. III. Light Cruiser Tank "Stuart." Weight 13½ tons. Speed 30 m.p.h. Range of action 200 miles. Crew 4. Armed with two .300" Browning M.G.'s and a 37 m.m. gun. Height 8' 3". Length 15' 0". Width 7' 6". **How to recognise:** Octagonal-shaped turret with receding face. Hexagonal cupola off-set to rear of left side of turret. More recent models do not have this cupola. 2 bogies with twin wheels each and vertical suspension brackets on them. Very large rear idler wheel running on ground level. High built super-structure overhanging tank rear fitted with 2 wireless masts, one on right hand side and one on Tank mid-line. View from front, rather tall and narrow.



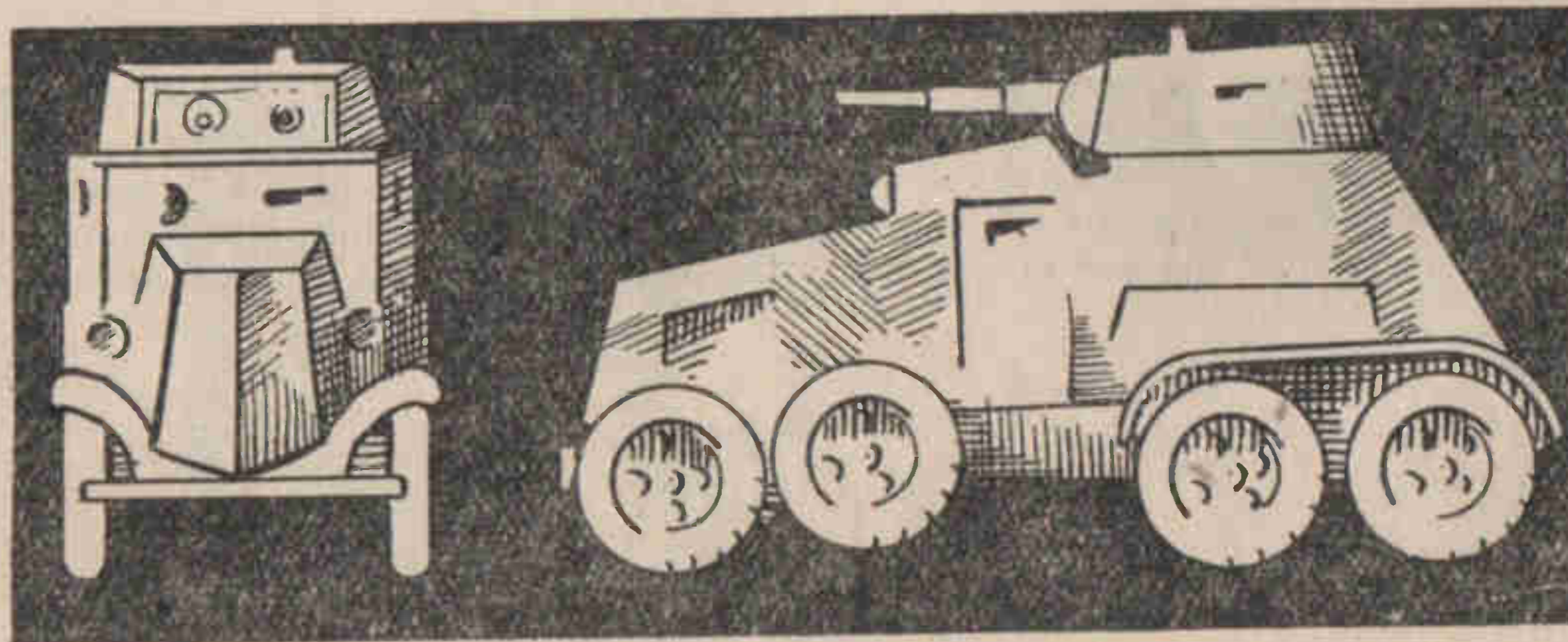


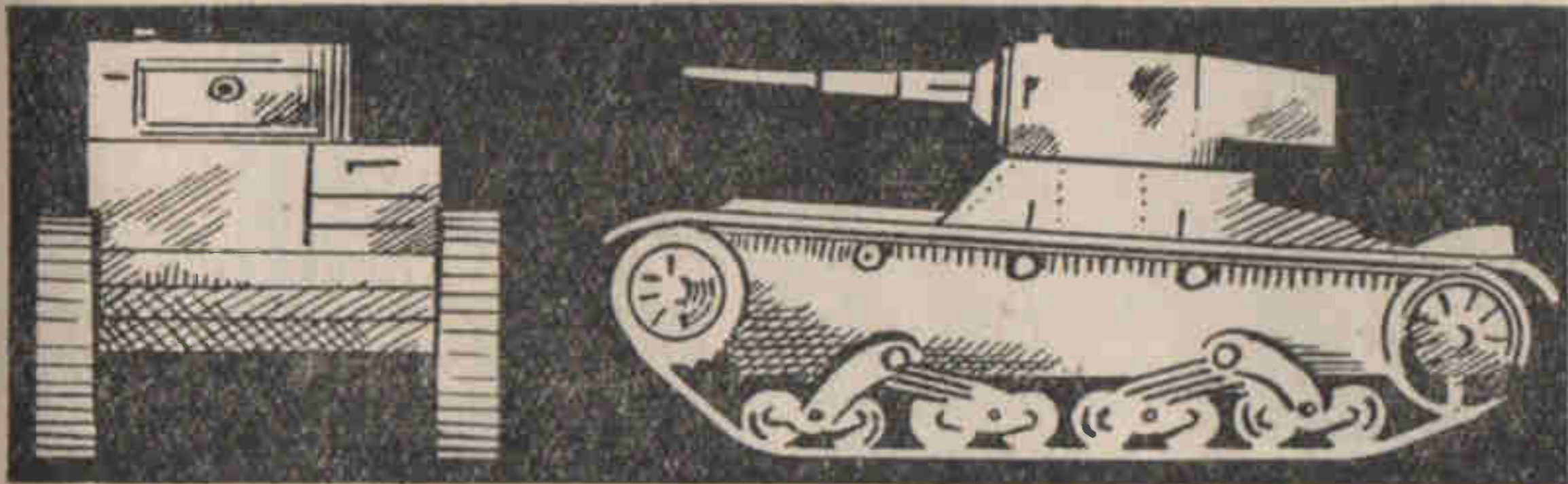
Japanese Heavy Tank, "Ishi" 108. Weight 39 tons. Armed with three M.G.'s, two 37 m.m. guns and one flame-thrower. **How to recognise:** Very long lozenge-shaped track. Bogie wheels almost completely obscured by armoured skirting board. Domed-shaped turret on super-structure fore part mounting two 37 m.m. guns. Auxiliary turrets on right and left side in fore part of hull. Flame-thrower mounted in hull fore. Small letter-box-shaped cupola on turret front left hand side. Confirmation of the use of this model in actual service has not yet been received.



Russian B.A. 20 Light Armoured Car (Bron-Jford).
 Weight 3 tons. Road speed 50 m.p.h. Height 6' 6". Length 12' 6". Width 5' 6". Range of action 170 miles. Armed with 2 M.G.'s. Crew 3. **How to recognise:** 4 wheels. High bonnet. Engine at front. Small round turret. Mushroom-shaped cupola. Bonnet sloping sides. Twin bumpers front.

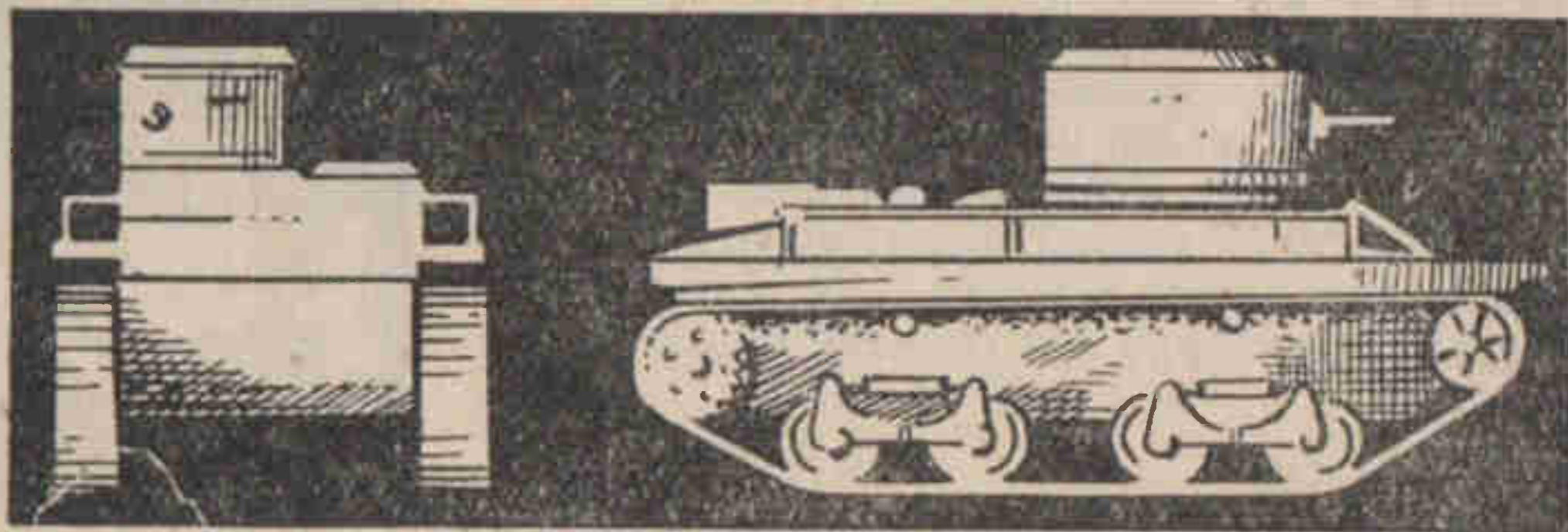
Russian Three-axle B.A. Ford Armoured Car. Weight 7½ tons. Road speed 40 m.p.h. Height 8' 0". Length 16' 9". Width 6' 6". Range of action 150 miles. Armed with one 45 m.m. or 37 m.m. gun and one L.M.G. in main turret. One auxiliary M.G. **How to recognise:** Long front bonnet. Six wheels with low mounted spare wheel on each side. Turret at rear of car with flat top and rounded gun mounting.

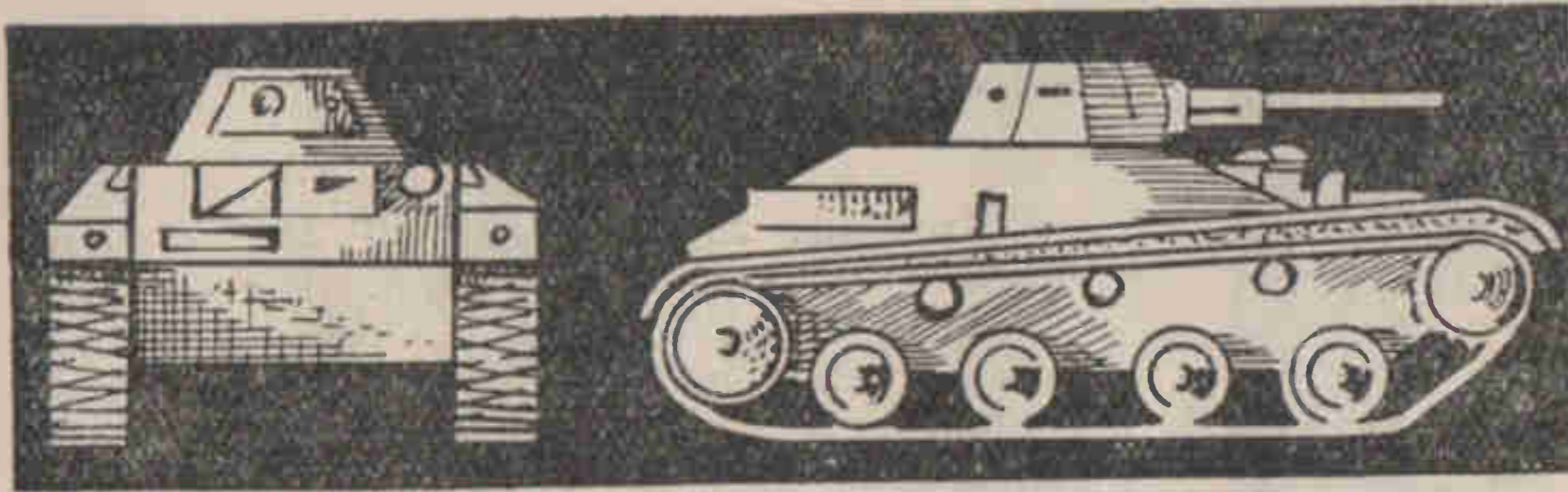




Russian Light Tank T.26. Weight 9 tons. Road speed 20-24 m.p.h. Height 7' 0". Length 16' 0". Width 8' 0". Crew 3. Armed with 2 M.G.'s and either a 45 m.m. gun or a 37 m.m. gun. **How to recognise:** Twin bogies each with 4 small wheels in sets of 2. Suspension of bogies by flat, large arm from hull. Round turret with protuberance at rear for radio. Driver's cabin on extreme right side of hull.

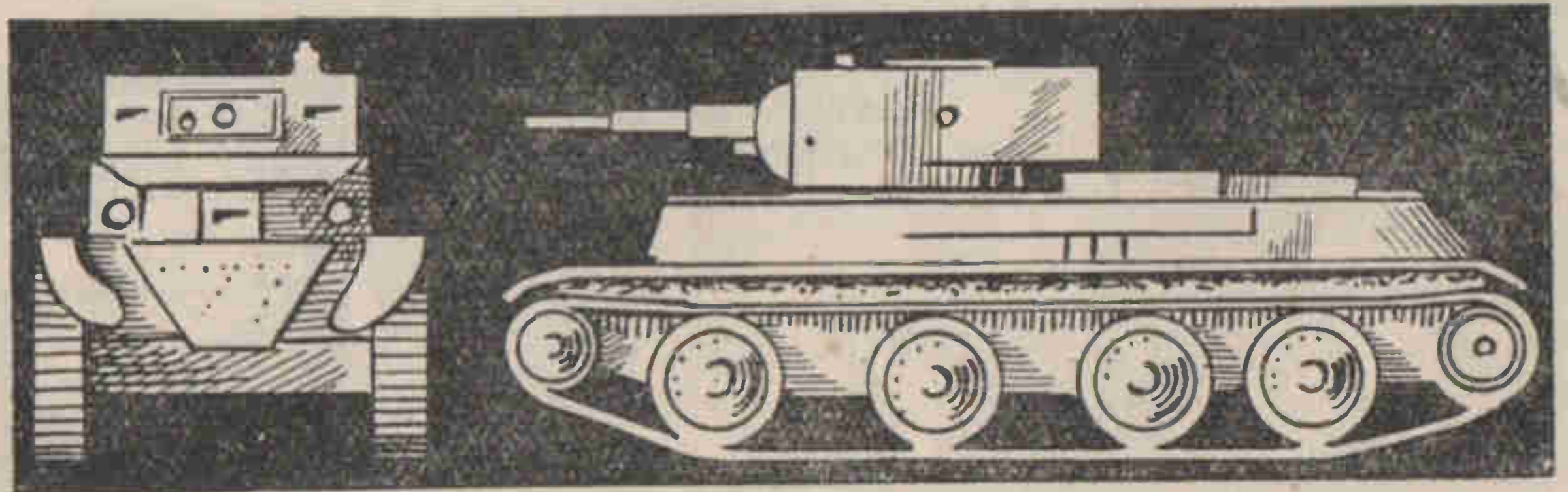
Russian Light Amphibian T.37 Tank. Weight 3½ tons. Road speed 30 m.p.h. Water speed 5 m.p.h. Height 6' 0". Length 13' 0". Width 6' 6". Crew 2. Armed with 2 M.G.'s. **How to recognise:** Floats tapering over tracks. Two double-wheel bogies on each side, unprotected.

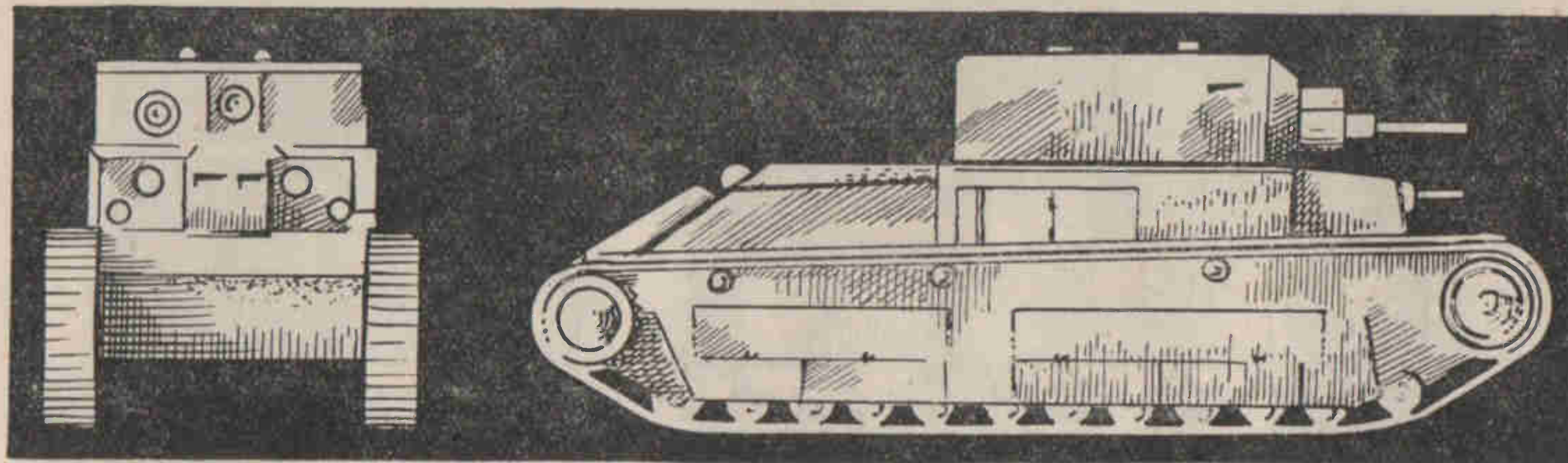




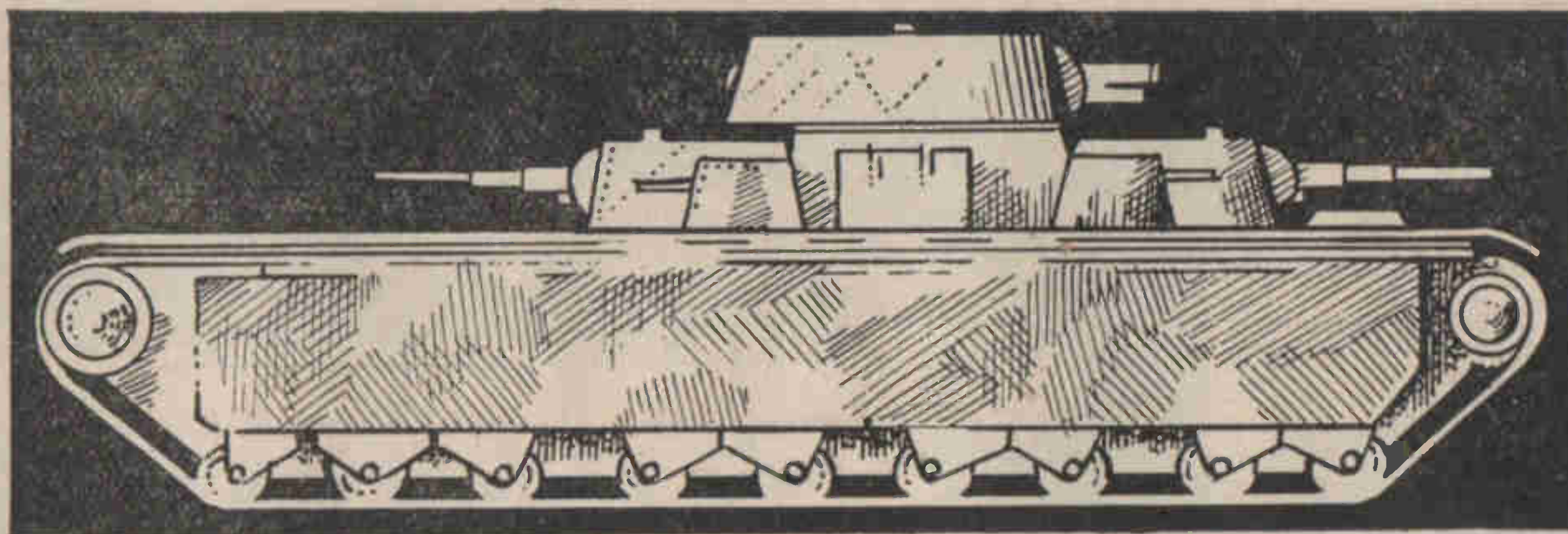
Russian T.60 Light Tank. Weight $5\frac{1}{4}$ tons. Road speed 25-30 m.p.h. Height 5' 10". Length 13' 7". Width 7' 6". Crew 2. Armed with one 7.62 m.m. M.G. and one heavy 20 m.m. M.G. **How to recognise:** Small octagonal-shaped turret with faces tapering to a flat top. Prominent gun mantlet. 4 evenly-spaced bogie wheels and 3 small jockey wheels. Hull super-structure slopes downwards back and front. Fairly wide tracks. Gun has square section barrel protector fitted on mantlet front.

Russian Medium Light Tank B.T. Weight $13\frac{1}{2}$ tons. Road speed—on wheels 45 m.p.h., on tracks 30 m.p.h. Height 8' 0". Length 18' 6". Width 7' 6". Range of action on tracks 150 miles, on wheels 250 miles. Armed with 2 M.G.'s and either a 45 m.m. or a 37 m.m. gun. Crew 3. **How to recognise:** Round turret with protuberance at rear for radio. 4 very large bogie wheels spaced unevenly each side and making contact with bottom and top of tracks. "V" shaped front view. Very small idler wheel in front. Very narrow tracks. Large gun has rounded mounting.

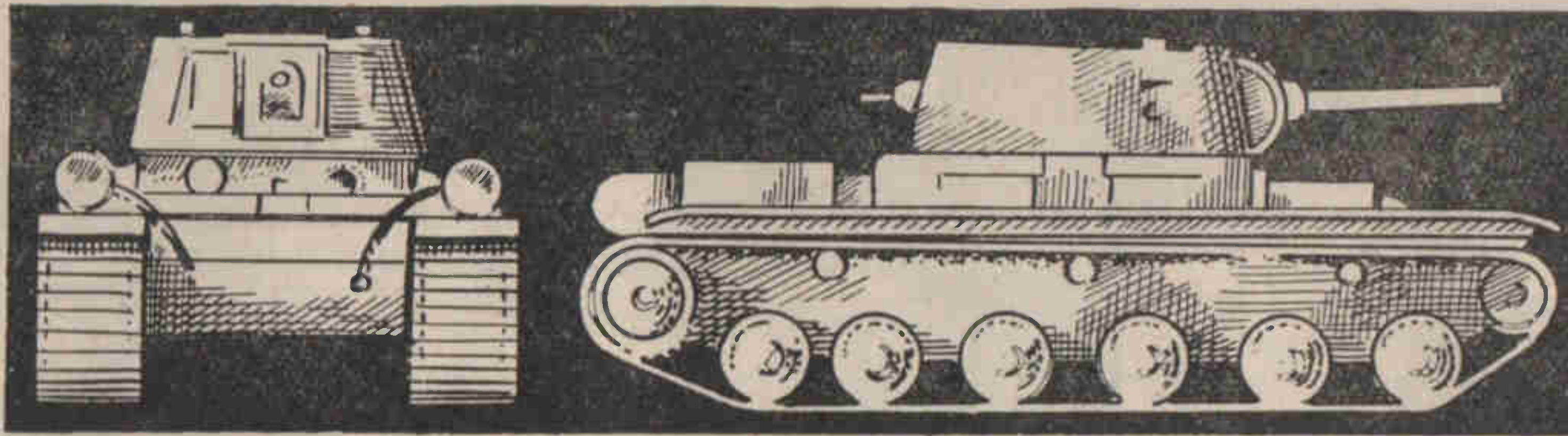




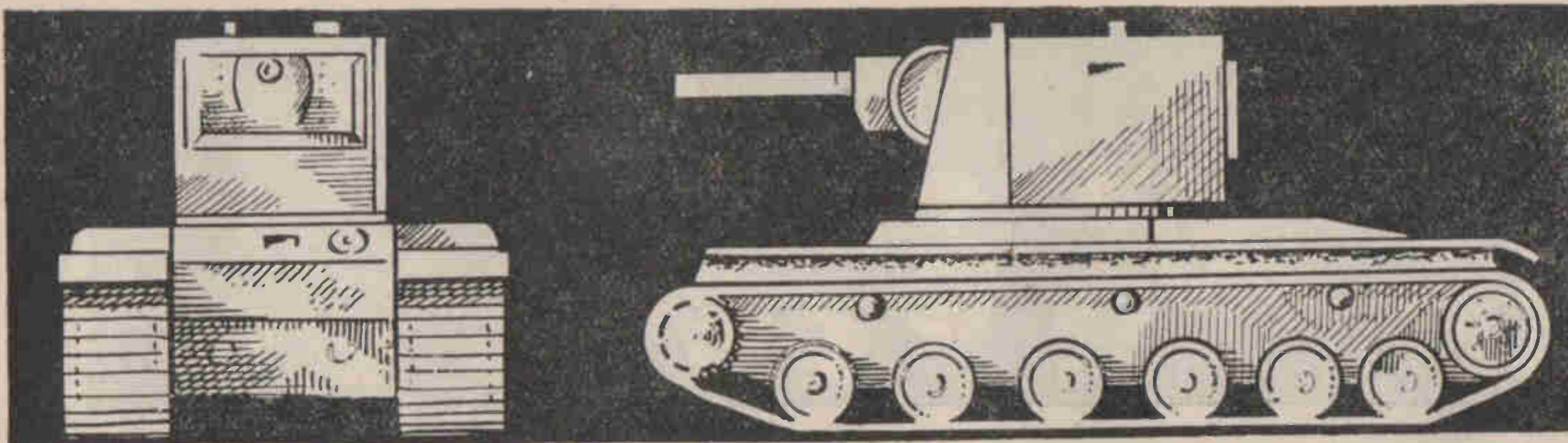
Russian T. 28 Heavy Tank. Weight 33 tons. Road speed 20-24 m.p.h. Height 10' 0". Length 24' 4". Width 9' 5". Crew 6-8. Armed with 4 M.G.'s 1 short barrel 76 m.m. gun. Main turret round, bulge for radio in turret rear. 2 side by side front auxiliary turrets. 12 partly hooded bogie wheels each side. Ball mounts for M.G.'s



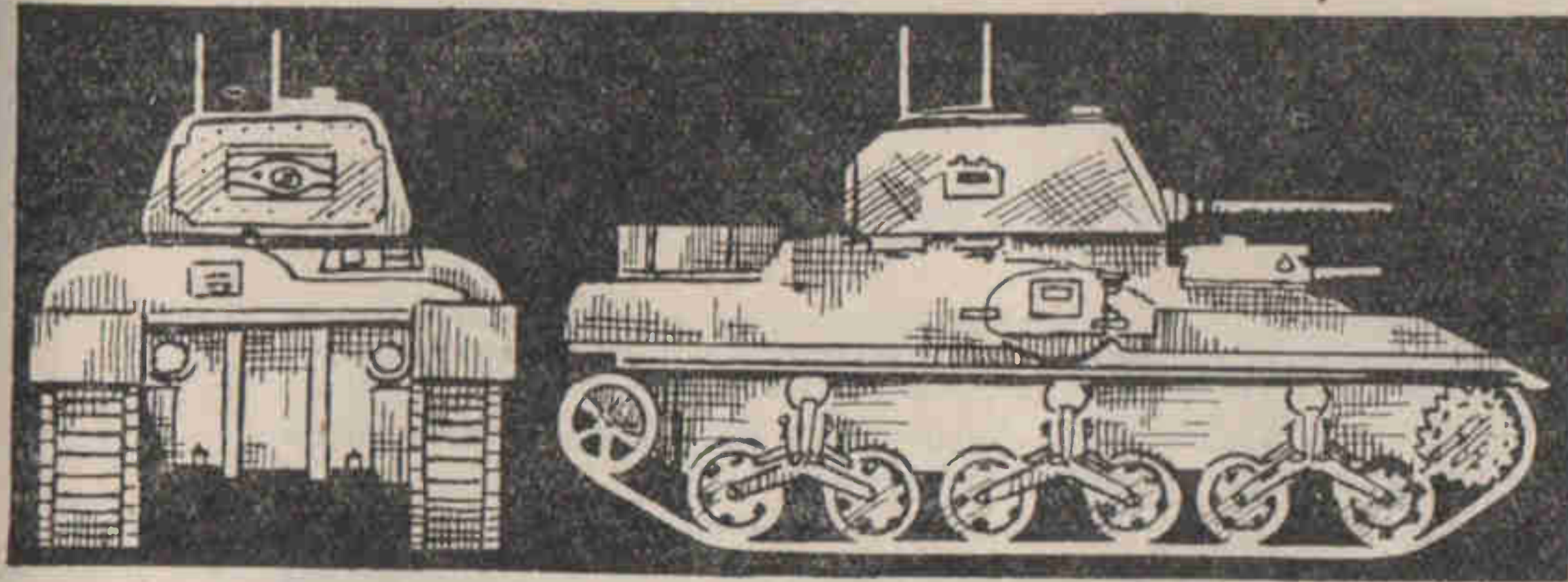
Russian T. 35 Heavy Tank. Weight 38 tons. Road speed 18-22 m.p.h. Height 8' 11". Length 31' 6". Width 10' 4". Crew 10. Armed with two 45 m.m. guns in auxiliary turrets. One 76 m.m. gun, and two M.G.'s in main turret. **How to recognise :** Very large main turret round short barrel 76 m.m. gun. 4 auxiliary turrets—2 front and 2 back. Left hand back and right hand fore turret each mounting long barrel 45 m.m. gun. Half hooded bogie wheels in four sets of two on each side.



Russian K.V. 1 Heavy Tank. Weight 44 tons. Road speed 20-24 m.p.h. Height 8' 11½". Length 22' 0". Width 11' 0". Range of action 200 miles. Crew 5. Armed with M.G. in turret, coaxial mounting. One M.G. on driver's left side. One M.G. for auxiliary or A.A. use. One 76 m.m. gun. **How to recognise :** Very broad tracks, 6 small bogie wheels, evenly spaced each side, independently sprung. 3 jockey wheels, big rear sprocket. Turret sloping sides. Large rounded gun mantlet. Cylindrical containers on mudguards. M.G. in ball mount on turret rear.

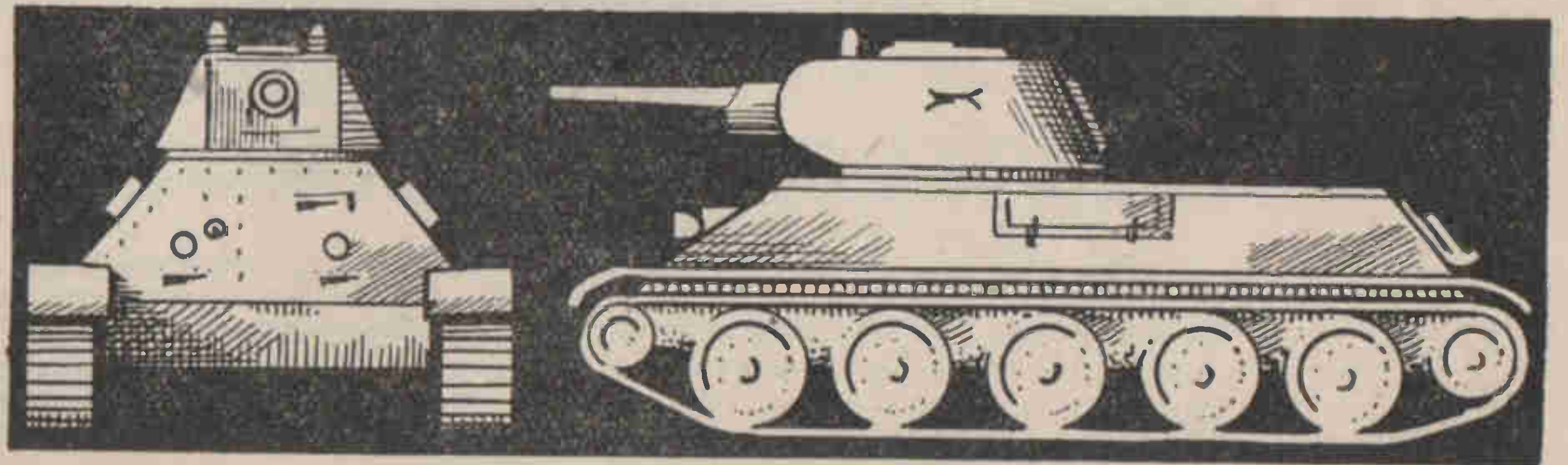


Russian K.V. 2 or Heavy Large Tank. Weight 52 tons. Road speed 15-20 m.p.h. Height 10' 9". Length 22' 3". Width 11' 0". Range of action 120 miles. Armed with 1 short barrel 152 m.m. gun. 3 M.G.'s. Crew 6. **How to recognise :** Very wide track, enormous square turret. Very heavy rounded gun mounting. 6 bogie wheels each side exposed.



Canadian Tank "Ram." Weight 29 tons. Speed 25 m.p.h. Height 8' 10". Length 19' 0". Width 9' 6". Crew 5. Main turret armed with a .300" Browning M.G. and one 2-pounder gun. 1 extra Browning M.G. as auxiliary. **How to recognise:** Similar track and bogies as that fitted to "Grant" Tank. Gun turret centrally placed both for side and front views with side view having the appearance of turret being placed on an angle dipping towards the rear. Rather high super-structure. Auxiliary M.G. turret mounted on left side. Twin wireless masts on turret top.

Russian Cruiser Tank, T. 34. Weight 27 tons. Speed 35 m.p.h. Range of action 175 miles. Height 8' 8". Length 19' 0". Width 10' 0". Crew 4. Armed with 2 M.G.'s and a 76 m.m. gun. **How to recognise:** Long barrel 76 m.m. gun in protruding mantlet overhanging fore end of hull. 5 evenly spaced large bogie wheels each side contact bottom and top of tracks. Small idler wheel at fore end. Round turret. Front view almost equilateral triangle. Fairly wide tracks. 1 M.G. fitted in front. Periscope projecting each side of turret top.



RECOGNITION OF ARMoured FIGHTING VEHICLES.

It is vitally necessary that an A.F.V. should be identified for its nationality, and after perusal of this book it is certain that many characteristics that the various vehicles have will become very obvious.

It is essential to realise that the nationality of any A.F.V. must be recognised at a good distance away to enable the necessary steps to be taken should the vehicle prove to be of the enemy.

Although at a first glance many tanks appear to be of similar design, each one has its own peculiarities and if identification is studied with sufficient interest it will soon be possible to distinguish not only between friend and foe, but between individual models of tanks and armoured cars of the same nationality.

It is suggested that at least three prominent points should be confirmed before deciding whether the tank is friend or foe and some of the items that can be checked up on are hull, super-structure, turret shape, armament, suspension and track assembly, position of wireless masts, whether the driving sprocket is to the rear or front of the vehicle, etc., etc.

Probably the best way of training oneself in the efficient and rapid recognition of A.F.V.'s is to familiarise oneself with the appearance of two or three models first and then gradually increase one's knowledge by further study.

Never stop practising, because if you do it will soon be found that all you have learnt will be forgotten.

A.F.V.'s and tanks of individual nations have characteristics peculiar to that nation, so that, by the merest glance, a man can tell immediately whether a particular vehicle is, say, American or Japanese. This conformity to a common plan can be accounted for by the fact that the General Staff of a nation approve the plans of vehicles before mass production is commenced, and these plans are drawn up with an eye to the machine tools available to that particular country.

The diagram of tanks and armoured cars contained in this book are all drawn to the accurate scale of 1/80th (with the exception of one or two sketches upon which sufficient data was not obtainable) so that, if the diagrams are held at a distance of 10 feet, the effect is given of observing the vehicle at 800 yards with the naked eye. Should the diagram be held at 15 feet the effect is given of observing the vehicle at 400 yards, and so on in proportion.

It is suggested, therefore, that where the serious study of tank identification is taken up, attempts should be made to effect recognition at the greatest distances possible. In any case, under actual warfare conditions, do not rely on the naked eye but, if possible, always use a field telescope or binoculars to confirm your findings.

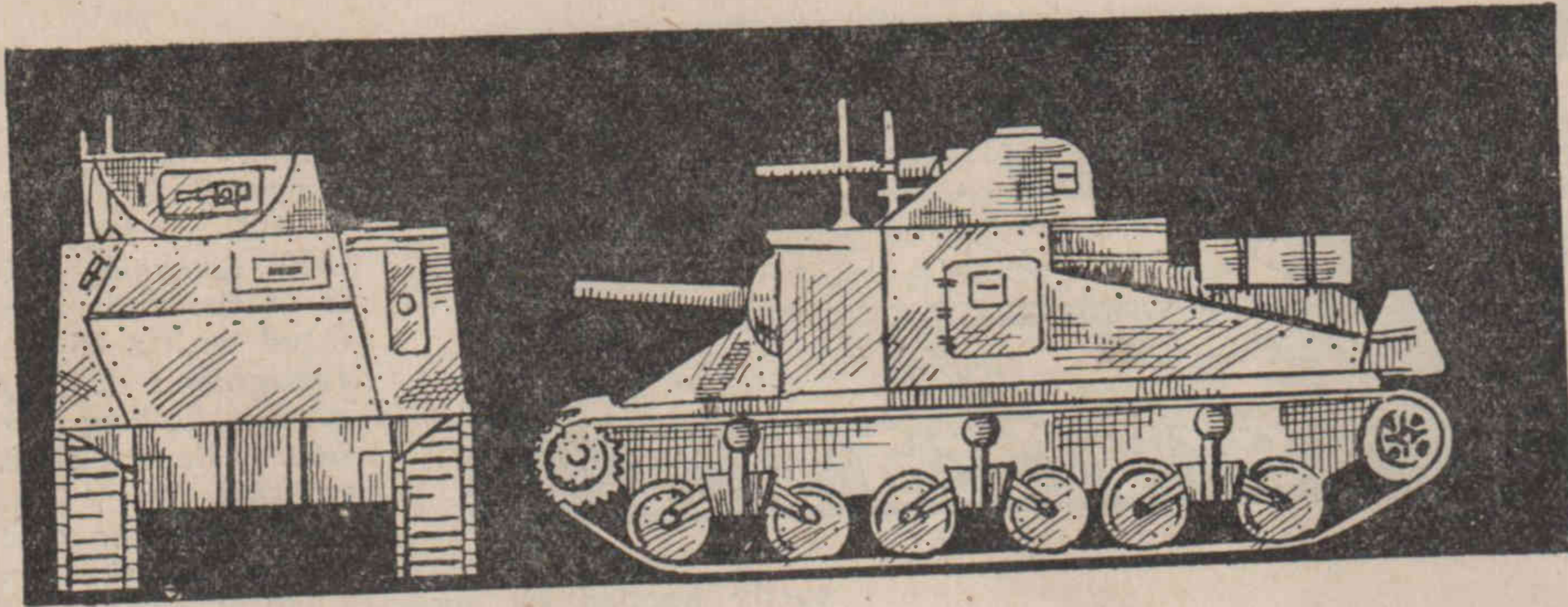
THE ART OF TANK DESTRUCTION.

In spite of their formidable appearance, tanks of all classes have serious weaknesses, and the following remarks will, it is hoped, help our service men and H.G. to bear in mind the most vulnerable spots for attack on enemy tanks.

Let us first examine the various weaknesses :—

(1). REMEMBER the crews of enemy tanks—not being super-men—have to get sleep and rest for food, sooner or later. To do this they make for cover, emerge from their vehicle and rest, but, of course, very near to their tank. This gives any of our own men who are lucky enough to come upon such a situation an opportunity to make a surprise attack.

(2). REMEMBER the tracks of a tank do not wear for ever and if an enemy tank can be forced on to very rough ground the wear on the tracks is very heavy. A British anti-tank mine or a direct hit from an anti-tank rifle will smash the tracks of even a heavy tank. It is possible to remove the tracks from an enemy tank by means of a crowbar forced between the sprocket and the track while the enemy tank is proceeding slowly on its course.



American Medium Tank, "Grant" M. III. Weight $29\frac{1}{2}$ tons. Speed 25 m.p.h. Range of action 170 miles. Height 9' 5". Length 18' 6". Width 9' 0". Crew 7. Armed with a 37 m.m. gun and a .300" Browning M.G. in gun turret. One 75 m.m. gun in hull on right hand side. **How to recognise:** Round, cast top turret on left hand side. Super-structure very high overlapping tracks. Turret face receding at large angle. 3 evenly-spaced bogies with twin wheels each side having very heavy upright girder bracket. Fairly wide track. Extra fuel tank fitted to rear of super-structure. 2 wireless masts fitted to turret.

NOTE.—The American "Lee" Medium Tank is identical in appearance to the "Grant" except for change in turret shape.

(3). REMEMBER that the tank uses a tremendous amount of petrol—few can do more than 150 miles without refueling. For petrol they are dependent on either (a) local resources, (b) supply by air, or (c) supply by lorries. These latter, being unarmoured, can easily be fired by tracer bullets or petrol bombs. Without petrol the tank ceases to be a danger. Therefore, make certain all local supplies are destroyed or hidden.

(4). REMEMBER the tank cannot fire its guns at very close range, i.e., the guns cannot be lowered sufficiently to fire at ground level within a radius of approximately 20 feet or raised at an elevation over 25°. Owing to the slow turning of the gun turret and the fact that the guns of a tank can only fire along their immediate sight line, it will be seen that a tank becomes very vulnerable if attacked from several directions at the same time.

(5). REMEMBER that the crew of a tank have a very restricted line of vision; in fact, when the tank is sealed, the crew can see nothing above or below within a radius of approximately 15 feet. A tank that is travelling with its top open can easily be made to close by fire from small arms.

(6). REMEMBER that darkness is the great enemy of the tank and the great friend of the tank attacker. Under cover of darkness tracking is much more easily done, and destruction can be wrought by means of sniping, incendiary bombs and hand grenades at short range. A tank commander can easily be picked off at night as, if the enemy tank is kept on the move, the only means of vision that he has is through the open roof where his head becomes a splendid target. Give enemy tanks no rest at night.

We now come to points of vulnerability. All service men and H.G.'s should familiarize themselves with these points which are made clear with the help of the illustrations contained herein:—

(1). THE TURRET.—Whenever possible this will be open when travelling as it gives the commander an uninterrupted view, but obviously makes the tank very vulnerable from the air and from attack by hand grenades thrown from above, i.e., windows or trees or roof tops.

(2). THE TOP AND BOTTOM.—The most vulnerable point for close range anti-tank fire is the belly of the tank, which has the thinnest coating of armour of all. The belly is very vulnerable to this form of attack when the tank is climbing out of a ditch as it is then exposed. Close range fire is stressed to ensure penetration. The top of the tank is less heavily armoured than the sides.

(3). THE LOUVRES OR VENTILATION SLITS.—Well aimed incendiary bombs bursting over these vents can cause the tank to catch fire or at least destroy the necessary intake of air into the tank.

(4). SLITS FOR CREW.—Well-directed small arms fire will cause these slits to be almost closed, thus reducing visibility and air intake to a minimum. Bullet-proof glasses are provided for use in covering these slits, but must be replaced with spare glasses provided if hit directly. Ventilation is very poor when the glasses are in use; they also restrict range of vision.

To attack enemy tanks with grenades and bombs means getting to close quarters. This can be done in several ways as follows:—

(1). BUSHCRAFT.—This form of approach to an enemy tank is best undertaken by several men working together, those men only moving from cover to cover who are not directly in the line of fire from the guns of the tank. Care must be taken to select the next cover to be made before leaving the one arrived at before. In this way it should be possible close with one enemy tank which is travelling only at low speed.

(2). TRENCHES, particularly of the slit variety will often give men an excellent opportunity to attack enemy tanks from very close quarters during a tank attack.

(3). AMBUSHES are especially useful when enemy tanks are passing through small towns or villages or through narrow defiles when they will often pass close enough to become an excellent target for a well-aimed hand grenade or anti-tank gun.

(4). SMOKE.—This can be used with good effect to enable attacking forces to cover quite open ground to get within close range of an enemy tank. The smoke has the added advantage of blinding the crews of enemy tanks.

Having adopted the necessary tactic to get within close range of an enemy tank, the next procedure is to destroy or immobilise the tank and its crew. To destroy the enemy tank attack with H.E. or incendiary bombs. To immobilise, lever crowbar between the driving sprocket and the track. The crew of the enemy tank must now be killed or at least captured. To force them into the open anti-tank grenades or incendiary bombs bursting over the air vents will usually do the trick. Failing this, rifles must be fired through the slits at point-blank range. One other method can be employed to remove the crew. Explode an "S.T." Grenade on the roof of the tank and drop a No. 36 grenade through the hole thus made.

As darkness comes down enemy tanks will be on the look-out for suitable accommodation for resting. The place chosen will usually have some form of concealment from the air and lurking patrols. Before making any night attack on a resting tank it is important for the attackers to watch every movement of the enemy while he is camping down, noting in which direction the tank gun is trained, the dispositions of sentries, etc., etc.. When night has fallen and the enemy tank crew has been lulled into a complete sense of false security, the attackers must make their swoop silently and very rapidly, having as their primary object the destruction of the crew. From this it will be appreciated how important the early reconnaissance is and how necessary it is for the attackers to work to an agreed plan. Once the crew of the enemy tank is disposed of the destruction of the tank has no obstacles. Never give enemy tanks a chance of resting by day—harry them continuously by any means such as air bombardment, sniping, and mortar fire, if they should try to do so and prepare some plan of campaign by which they can be ambushed when they continue to travel.

The following methods are recommended for making useless captured enemy tanks :—

- (1). Removal of the tracks. This method is only effective until spare parts are obtainable by the enemy.
- (2). Dropping fire-bombs inside the tank. This is not always a very desirable method, but is certainly quick.
- (3). Smashing the gear lever and driver's controls.
- (4). Destroying the carburettor.
- (5). Destroying with a sledge hammer the water tank of the engine.
- (6). If tank can be opened throw H.E. bombs inside.
- (7). If tank cannot be opened a stick of gelignite applied to the sprockets is a good method.
- (8). Try and destroy the electric wiring and ignition units.

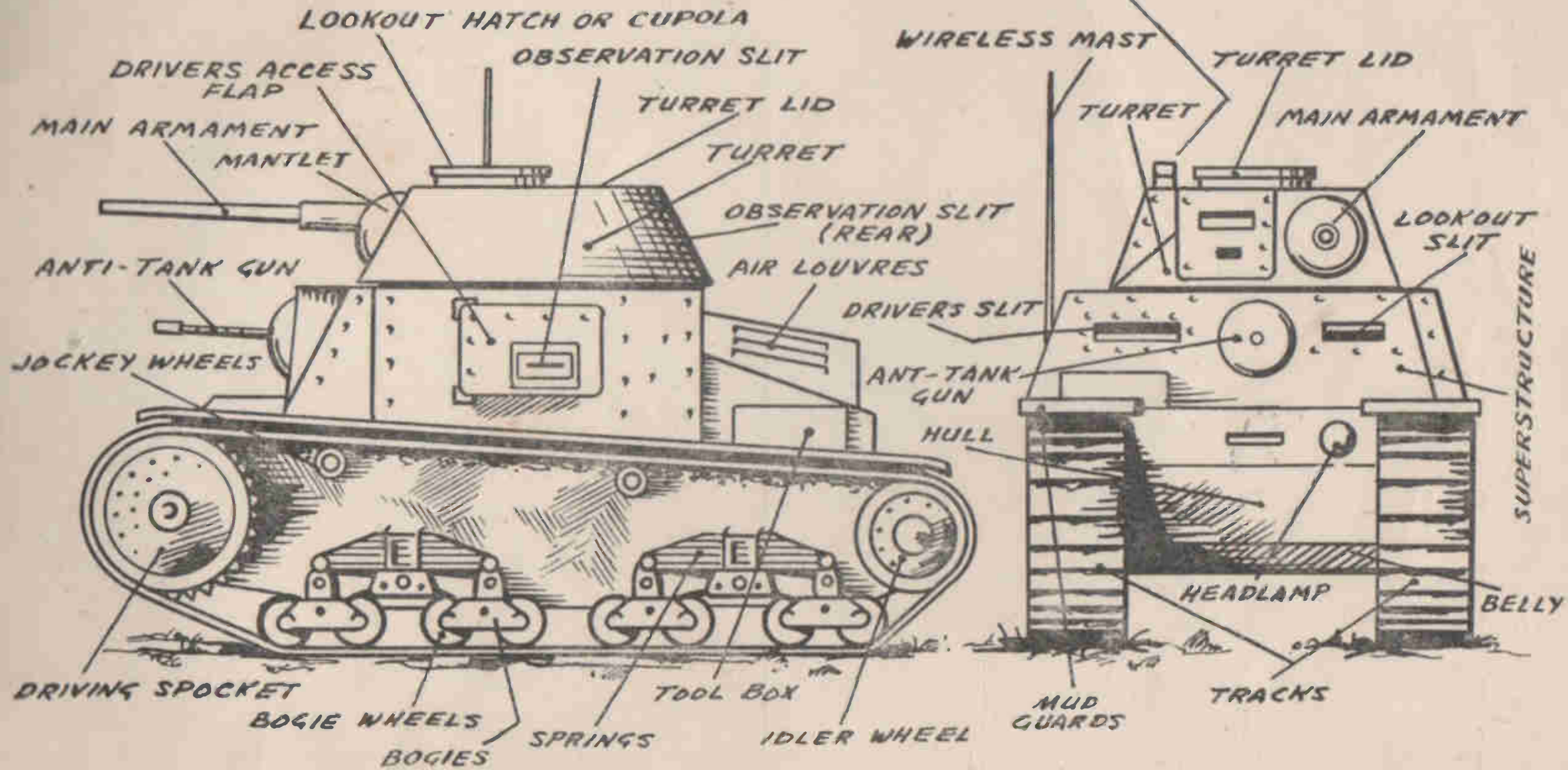
Road blocks form a very important part of modern warfare and, in the event of invasion of this country, the Home Guard would indeed come into its own in delaying enemy tanks by this method. One of the best methods is to put up a sham barricade at the commencement of a road through which the enemy tanks can go with ease, only to find that the far end is strongly blocked by felled trees, farm carts, rubble from demolished buildings, trenches and coiled wire entanglements. A narrow and, if possible, walled road is excellent for this type of road block as it leaves the trapped tanks no room to turn. When the enemy tanks are well into this strip of road the Home Guard must close the entrance with blocks which must be prepared before hand and are in readiness to be put in place. Parties of troops or Home Guard must be grouped in hiding at intervals along the road ready to attack the trapped tanks with rifles, machine guns, etc., etc. It is important to note that these attacking parties must be grouped on the same side of the road, otherwise they will be firing at each other. In this type of road block the trump card is surprise, followed by utter confusion of the enemy, thus giving our own men the chance to attack.

The method detailed above cannot be relied upon to actually stop enemy tanks ; it may merely delay them. To bring tanks to a standstill a more formidable method will have to be employed. This method brings into use the anti-tank mine. It is estimated that 80 lbs. of explosive buried at a depth of 6 feet creates a crater of about 7 feet in depth and over 20 feet in width. This would prove a very real deterrent to the heaviest tank. The ideal places for these mines to be laid are in narrow defiles and passes where they must be under constant inspection and fire.

Surprise ! This is the golden rule in following the art of tank destruction. Even the best methods of attack can go awry if the enemy gets an inkling of what's coming to him.

KEY DRAWING TO TANK PARTS

PERISCOPE



BERNARDS' TECHNICAL BOOKS.

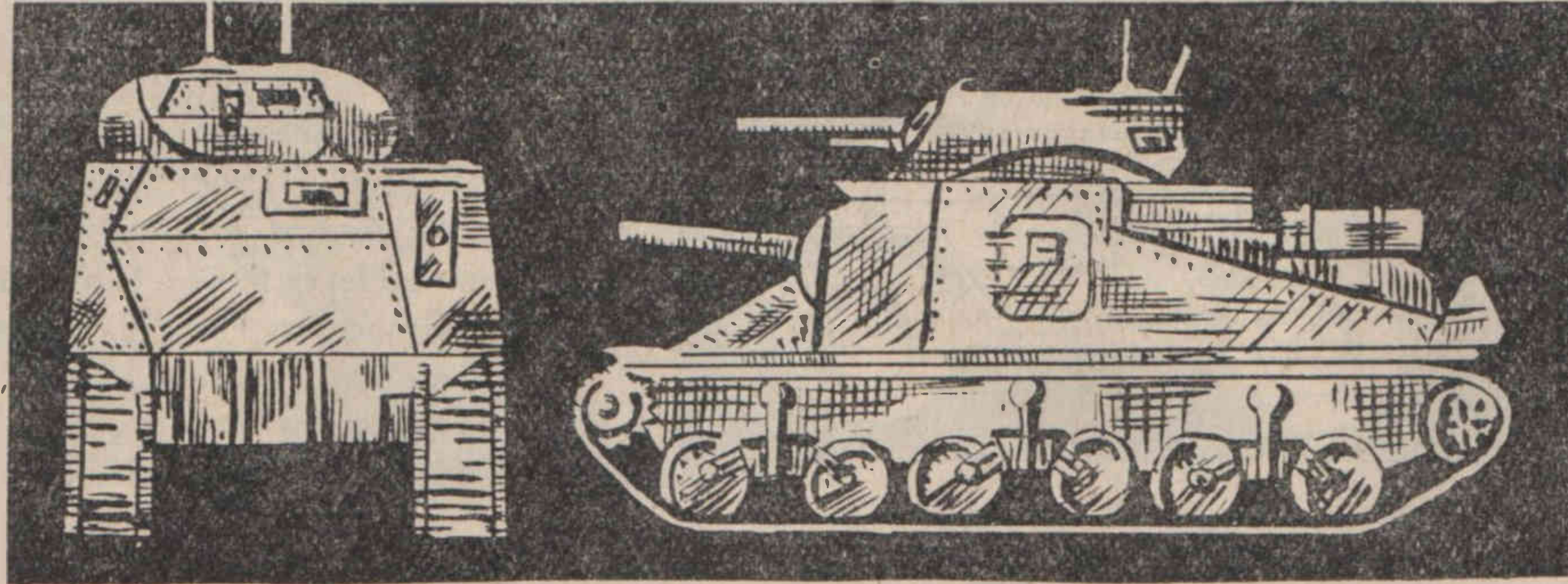
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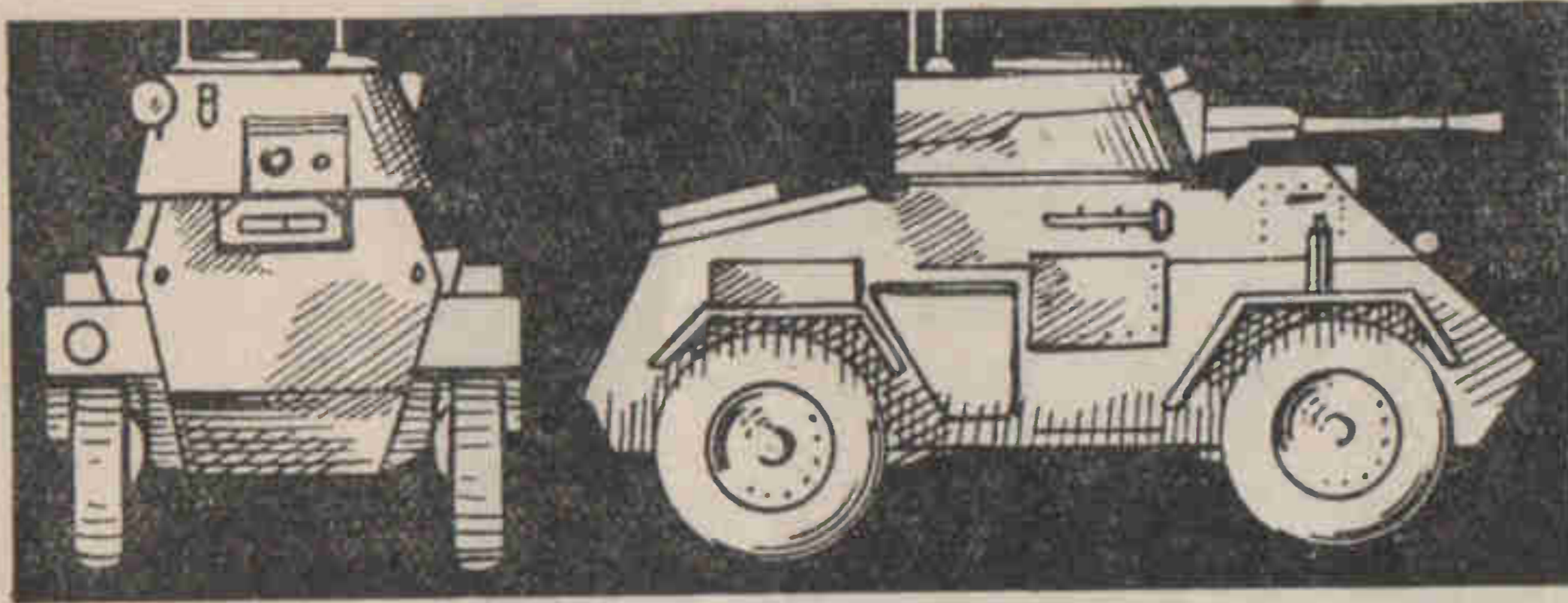
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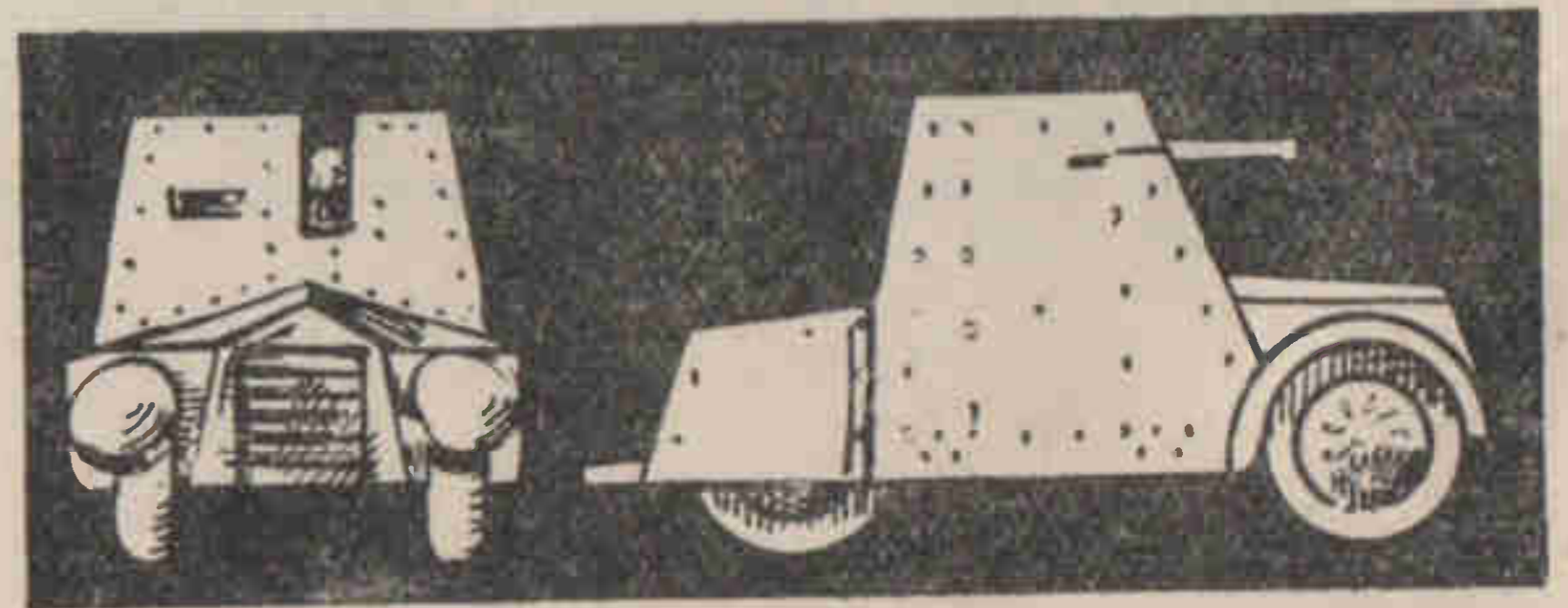


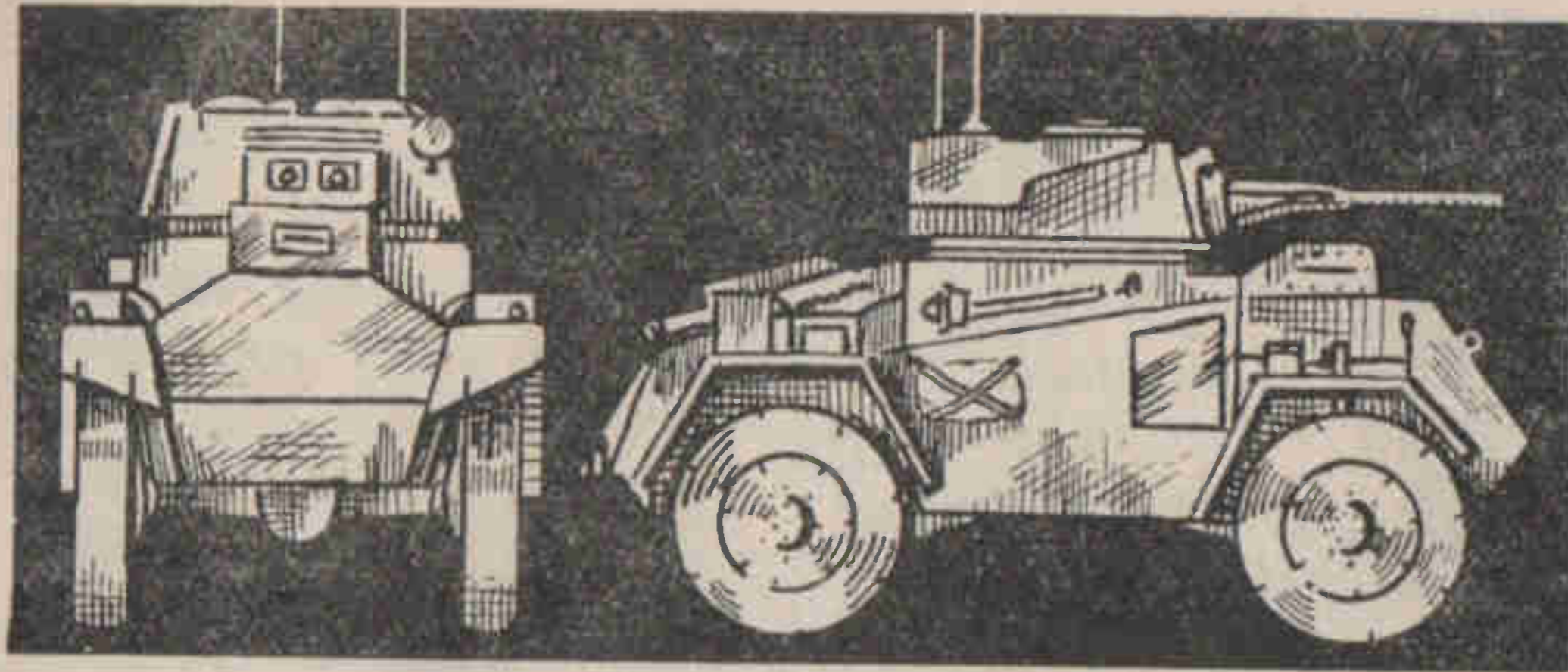
American Medium Tank, "Lee." Weight $29\frac{1}{2}$ tons. Speed 25 m.p.h. Length 18' 6". Width 9' 0". Range of action 170 miles. Crew 7. Armed with a 37 m.m. gun and a .300" Browning Machine Gun in gun-turret. One 75 m.m. gun in hull on right hand side. **How to recognise:** Round cast top turret on left hand side when viewed from front. Superstructure very high, overlapping tracks. Turret face has slightly receding angle. Three evenly-spaced bogies with twin wheels each side. Having very heavy upright girder brackets. Fairly wide track. Extra fuel tank fixed to rear of super-structure. 2 wireless masts fitted on turret rear centre. This vehicle is practically identical in appearance to the American Medium Tank "Grant" M. III., except for the turret shape.



British Armoured Car "Humber" Mark II. Height 7' 9". Length 15'. Width 7' 3". Crew 3 or 4. Armed with two 7.92 m.m. M.G.'s and a 15 m.m. Heavy M.G. **How to recognise :** Similar in appearance to Mark I., except that body nose is built up high to take driver's cabin. Horizontal stream-lining. 4 wheels. Hull rear drops, receding behind rear wheels. 2 wireless masts on turret rear.

British Light Armoured Car "Beaverette." This is a 16 h.p. "Standard" Car chassis riveted with armour-plating. Has the appearance of a tall coupé from a distance. Open top in driver's compartment and mounting 1 Light M.G. in slotted front face. Front wheels have ordinary armoured mudguards. Rear wheels three-quarters enclosed by armoured skirting board.

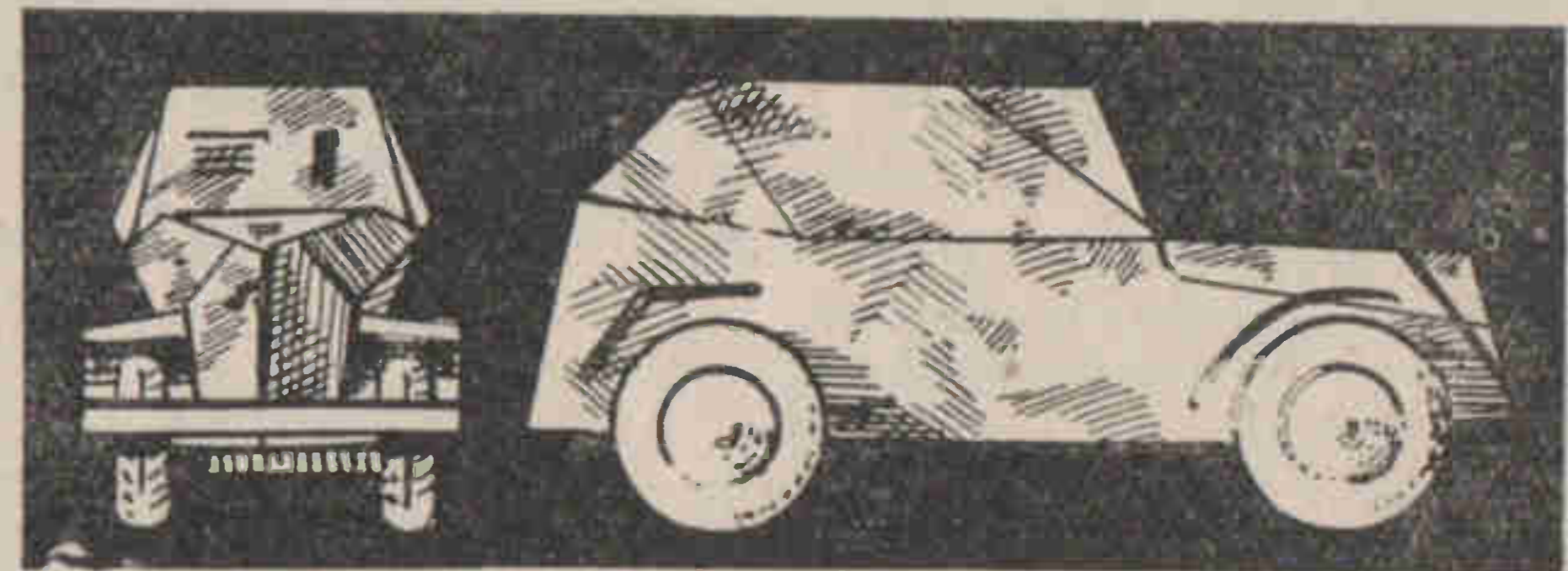


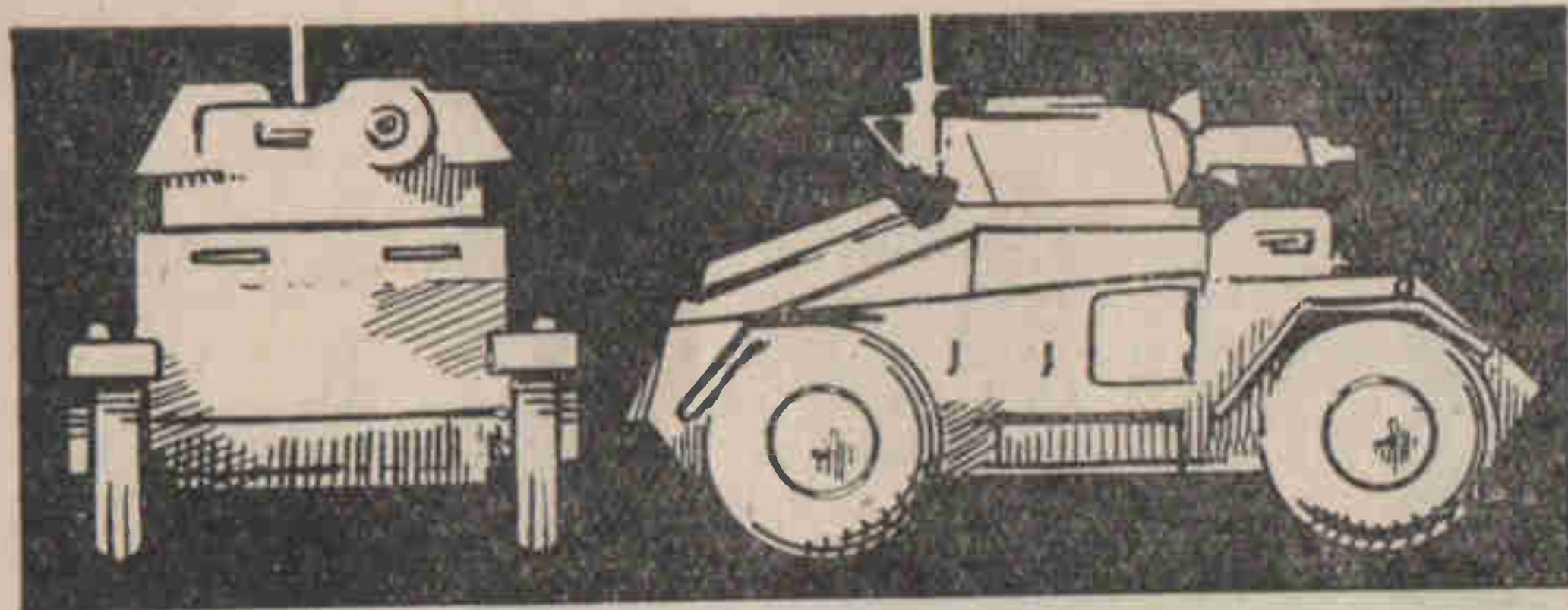


British Armoured Car "Humber" Mark I. Height 7' 9". Length 15' 3". Width 7' 3". Crew 3. Armed with a 7.92 m.m. M.G. and a 15 m.m. M.G. Also carries two 4" Smoke Dischargers as auxiliaries. **How to recognise:** 4 wheel short chassis. Wide mudguards rear and front. Turret angular and shallow mounted centrally. The 2 Smoke Dischargers fitted right side of 15 m.m. M.G. one above the other. Very high prominent blunt appearance. Nose carries driver's cab on top. Hull slopes downwards at the rear. 2 wireless masts on turret rear.

British Light Armoured Car "Humberette."

This has a standard "Humber" car chassis fitted with armour-plated body. **How to recognise:** Rather long angular stream-lined bonnet. Angular mudguards fitted front and rear. Low "Weymann" type armoured saloon-car body. Front view shows 1 small window left hand side and 3 very small ventilating louvres left hand side. "V" fronted radiator. Bumpers fitted fore and aft. No further details available.





British Light Armoured Car Four Wheel Guy. Height 7' 6". Length 13' 9". Width 7' 0". Front view very square and high. Side view, pointed nose to radiator. Turret set in centre with two guns facing fore. Aerial in turret rear. Mudguard on each wheel. High driver's cabin in superstructure beneath with gun. No further details available.

British Light Armoured Scout Car. Height 4' 10". Length 10' 6". Width 5' 7". How to recognise: Very low overall height. Rear fitted engine. Small body to vehicle fore with M.G. mounted on left side. Four wheels with mudguards. No further details available.

