

THE FIRST OFFICIAL ACCOUNT OF  
**THE ROYAL  
ARMOURED CORPS**



**THROUGH MUD & BLOOD TO  
THE GREEN FIELDS BEYOND**

ONE SHILLING NET

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### 3. Civilian into Soldier

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IT USED TO BE RECKONED that a tank soldier might fight for 72 hours in his vehicle before being withdrawn from the battle. In this war crews of the Royal Armoured Corps have fought for a month on end.

Even in the loose-ranging campaigns in Europe during 1940, armoured units seldom penetrated more than 40 miles beyond their main supporting armies. But in the desert, reconnaissance patrols of armoured cars and light tanks have been sculling around five times that distance away from their contacts. The day before yesterday, when an entire armoured formation moved along paved roads a couple of hundred miles, that was considered a test of good engine maintenance. To-day tank armies roll forward, marching and fighting, for a thousand miles across trackless desert or steppe. They owe this, perhaps, less to the excellence of their engines than to the skill and untiring resource of their own tank fitters and repair units, and the unceasing care of their crews. We have told the tale of the Tank; the rest of this story concerns the Men in the Tank.

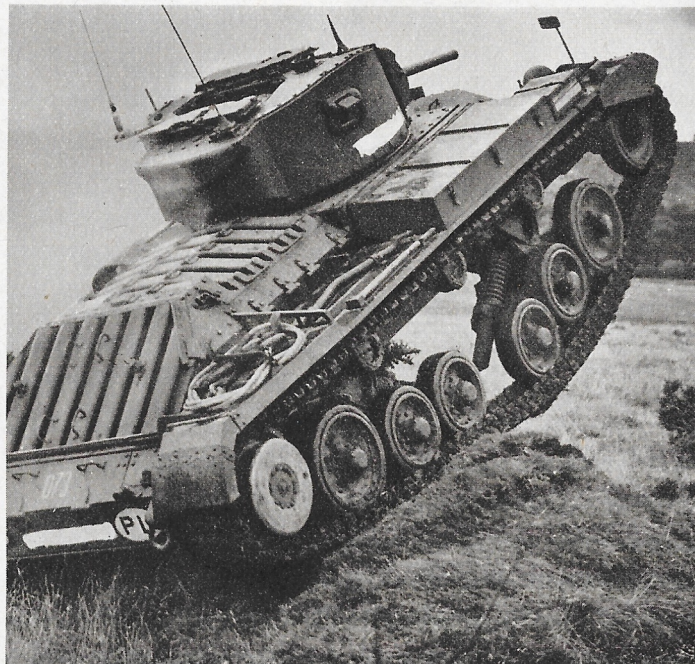
A tank is more than a gun mounted on an armour-plated engine, otherwise it would be simply a self-propelled gun. Indeed, the gun is not necessarily the most important part of the tank—its machine-guns often do the most destruction. Then again, wireless is vital to the tank, in order to collect and pass back information and to transmit orders. The minimum tasks of the tank crew are to drive the engine, to fire the gun, and to operate the wireless.

If the tank is large enough it may have room for a separate Tank Commander, too.

Otherwise, one of the first three members will have to take command as well as do his own job. In the larger tanks, such as the Churchill and the American Sherman, there will be extra gunners, drivers and loaders. But whatever the number of any tank's crew, there will always be these three different kinds of machines to handle—the guns, the engine and the wireless set. All technical instruction in the Royal Armoured Corps is designed to teach the tank soldier to master at least two of these trades.

In the limited time which he spends in his Training Regiment, the RAC trooper could not expect to become equally proficient at all the three trades. Though he knows one thoroughly and has a sound working knowledge of another, or even of two other trades, the driver-operator is sel-

**You've got to be fit. It's a rough ride in a tank.**



dom quite as expert at driving as he is at wireless, and the gunner-operator is not expected to know his wireless as thoroughly as he knows his guns. Nevertheless, when he gets into his service regiment, the efficient tank soldier will seek to make himself completely interchangeable at any job his work requires.

This is very far from being the whole of the RAC trooper's job. The Fighter or Bomber pilot steps out of his plane when his flying job is done and goes to report his flight and get a well-earned meal or rest. The tank soldier does not leave his tank. If he is in the field he first harbours his vehicle, covering it with waterproof tarpaulin and camouflaging it with net and tree branches. Then, if he has been firing, he swabs out his guns and cleans and oils them. He adjusts and tests his wireless set. He refills his petrol tanks, oils his engines and carries out regular maintenance and repairs on them, and ends by tidying up the entire tank. Only then can he go foraging for his personal requirements, perhaps fuel for a fire, and when he has gathered this he mounts a guard and cooks his meal—if a bivouac will not betray his presence to the enemy.

The tank soldier must learn field craft, the protection of sentries, and unarmed combat. He had also better acquaint himself with infantry assault drill. If their own tank is hopelessly wrecked in battle, the crew must make every effort to find another tank. They may have to fight their way across the battlefield as an infantry unit. But if this is not possible, then the crews must stick it out, using the tank as a fixed strong-point. Whatever happens, they must keep fighting, and never be captured. Tank soldiers are taught how to fight with Ack-Ack, Bren, and Vickers K guns, Tommy-gun, revolver and bomb, and all are available in a tank. If need be, too, the Besa or the Browning machine-guns can easily be taken from their tank mountings and used in the field.

To gain the basic knowledge required for this high standard, it is reckoned that the RAC trooper needs several months' intensive instruction, besides the primary training which every recruit in the Army must go through on joining up. This period is divided between various courses, depending on which are to be the main army "trades" of the trooper. As we have seen, in the tank itself these "trades" concern gunnery, driving and wireless operating. But there are also the indispensable fitters, electricians and technical storemen, and also, of course, the motor cyclists who act as despatch riders. For the purpose of giving each trooper, as far as possible, at least two trades there are eight main RAC categories:—

- (1) Driver-mechanic (primarily a tank driver).
- (2) Driver-operator (primarily a wireless operator).
- (3) Gunner-operator (primarily a gunner).
- (4) Gunner-mechanic (hull gunner and second driver).
- (5) Driver IC (driving only wheeled vehicles).
- (6) Mechanist (skilled vehicle mechanic, electrician or fitter gunner).
- (7) Technical storeman.
- (8) Motor cyclist.

Though the training for each one of these separate categories is different, in broad design that given to the men who are going to make up the actual tank crews does not greatly vary. So that if we follow the fortunes of a recruit from the day he joins the army until he becomes, say, a full-trained gunner-operator, we shall get a fair sample of an RAC trooper's life. In practice, too, the initial weeks' gruelling, which all recruits must undergo at the



“ You'll find it a grand life in the RAC



“ And fold 'em up this way



Their first Para



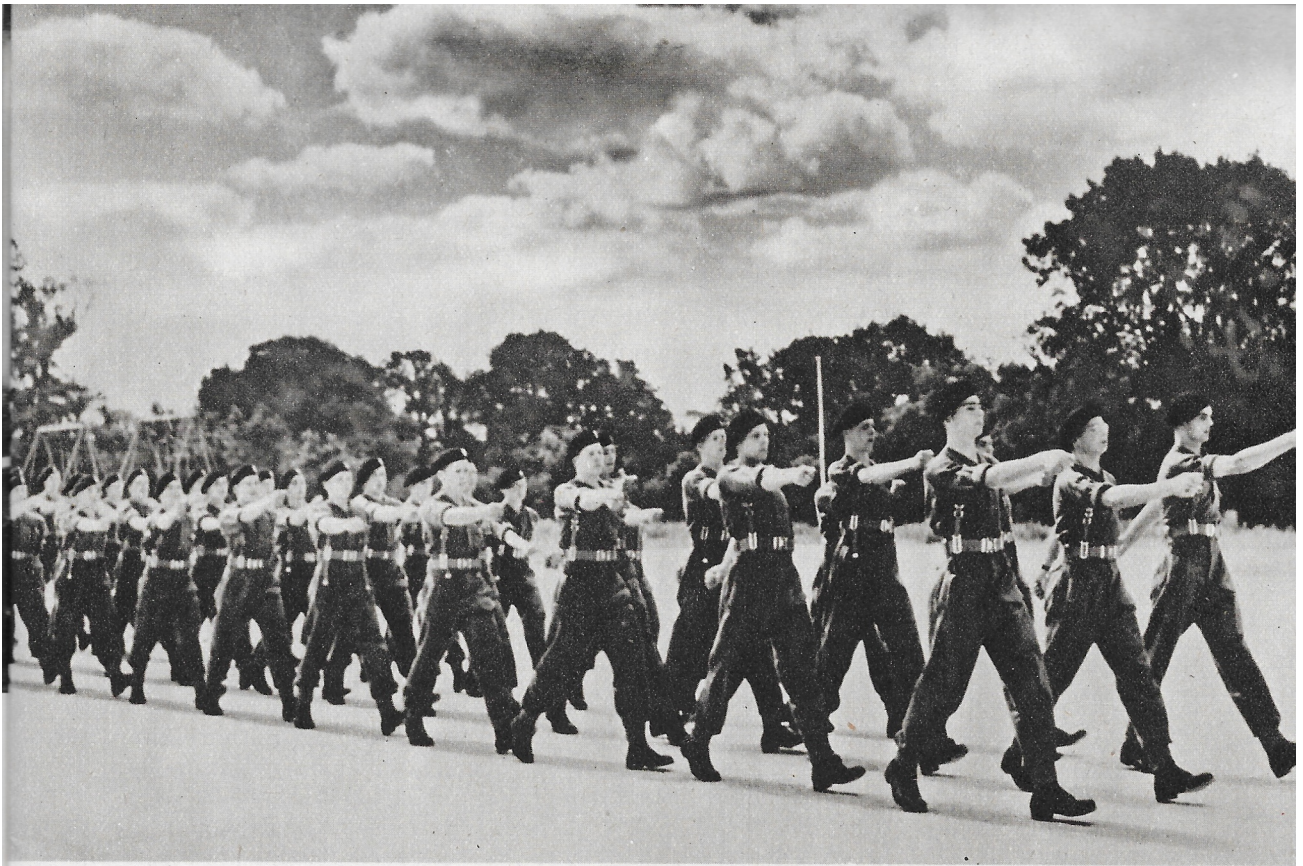
**Day begins.**

primary training centre in the General Service Corps before entering the RAC, is exactly the same. Here is the story, then, of every soldier who puts on the black beret of the Royal Armoured Corps.

The first few weeks of any job are supposed to be the hardest. Decidedly, in the physical sense these weeks of primary training preparing for the RAC are strenuous. For before the young civilian can become even a potential tank fighter he must have two qualities: he must be fit and hard, and he must know how to obey. There are sound reasons for both these requirements.

Living and working in a tank is a task that cannot possibly be carried out by either a lazy or sick man. If anybody imagines that by enlisting in the Royal Armoured Corps he is going to ride to his work, he will be

disillusioned; instead, your work follows you round. For the tank driver to drive his 30-ton monster up and down hillsides, through woods and streams, across sand, bogs and beaches, calls for strength and stamina, as well as skill. It calls for something, too, from the gunner to squat for hours on end with his forehead glued to a rubber brow-pad and his eye glued to the rubber eyepiece of his telescope, with one hand working the power traverse which rotates the turret, with the other arm (or hand) keeping a 6-pounder or 75-mm. gun laid on a target from a swaying, jolting gun platform. As for the loader, who is usually the wireless operator, he requires all the concentration he can muster to stand up in a space just big enough for a man to squeeze into, and to fling shells into the



The soldier calls it Square-bashing.

breech with the mechanical precision and repetition of a piston. The loader must feed that gun whatever happens, and the machine-gun mounted alongside it, too, and if either jams he must clear them by immediate action. Just behind the small of his back is his wireless set, and in the intervals of loading the operator may have to receive or send messages, and perhaps sight and select the gunner's targets, too. No, the tank is not a Rest Home.

Concerning discipline. A tank crew in battle is not just Four Men in a Tank against Hitler. A tank crew is a single entity, like a human body. If the eye perceives, and the brain commands, and then the hand or leg doesn't function—then good-bye, body! If the tank commander spots an enemy tank waiting hull-down in ambush, and shouts his

fire orders and the gunner is slow in getting on his target, or if the loader is loafing, or if the driver is not listening to the next vital order, "Driver! Speed up for Cover!"—then good-bye, tank!

So when you join the Royal Armoured Corps, to make you fit you must go through hard Physical Training every day. It involves rope climbing, vaulting, log-lifting and cross-country running. There is practical benefit to be gained in these log exercises, as the recruit will find when he comes to haul a six-pounder gun backwards out of a gun turret. And perhaps one day, as a veteran RAC trooper on the battlefield, when he has to jump out of a blazing tank and run through the bullets to another tank, he will not regret his arduous hours on the assault course.

To teach you to obey instantly on the word of command, there is foot drill every day (you may call it "square-bashing," and be understood). On the Square the young soldier learns to march, turn, salute and stand still. Next comes rifle drill and instruction in musketry, which is the use of the rifle and knowledge of its mechanism. Since the tank crews are also issued with pistols, the squads must go through pistol drill as well. The other weapons to which they get a practical introduction are the Bren light machine-gun, the Piat, the Tommy-gun, and the Sten. Then, beginning with a preliminary shoot on the indoor range with a .22 rifle, the squads fire with all these weapons on the open ranges.

Almost all this instruction is carried on in the open air. But so many periods every day (each period lasts three-quarters of an hour, with a five-minute break at the end, and

there are nine) are allotted to the class-room, where the programme is map-reading, lectures on gas, tank and aircraft recognition, small arms, armoured formations, fieldcraft and camouflage. These lectures will be practically in the open air here, too, for the windows are always kept wide open, and the sun and the wind stream through. Every morning the recruits go back to school again with notebooks and pencil, while the sergeant-instructor, with chalk and black-board, takes the place of the schoolmaster. Sometimes they go out into the countryside and do battle drill, practical map-reading and distance judging.

The day begins at Reveille, 6.o. "Rise and Shine! Wakey! Wakey!" bawls the orderly corporal, marching on his rounds. Get up then, soldier, wash, shave, dress and fold your blankets. Hurry outside for early morning roll-call. Breakfast at 6.45, and be there sharp, or you'll have to queue for it.

The Pistol is the RAC soldier's personal weapon.



Recruit behind the Bren gun.



Probably you'll get bacon to eat, and certainly porridge, too. At 7.35 the whole regiment is moving towards the parade ground. At 7.40 the squadrons are drawn up at attention in troops of three ranks deep. The Squadron leaders inspect the troops, and the working day rolls forward. It will go on, with a short break about 10 a.m. and an hour for dinner, until 5.30 p.m. brings tea time. After that, apart from guard duties or an occasional lecture, the trooper's time is his own. In practice he may find that when he has cleaned his equipment and written out his notes, an hour or so in the NAAFI will leave him not far short of Lights Out. It is a hard, full life. It takes all that a man can give, and it takes a man to give it.

The testing time arrives after some weeks. This is the Colonel's parade, at which the squads pass out as being efficient in their primary training—or do not pass out. Generally each intake of recruits is divided from their first day into two squads of about 40, and there is keen rivalry between them.

The squads parade on the Square, the Colonel appears with half a dozen regimental officers who will take part in the examination of each man. In succession the squads march past, turn about, and go through their rifle drill. Then the officers approach the squads, and, taking seven or eight men apiece, quiz them thoroughly on all that they have learned. At the end the Colonel addresses the parade—and that night the squads can usually celebrate the successful passing of their ordeal.

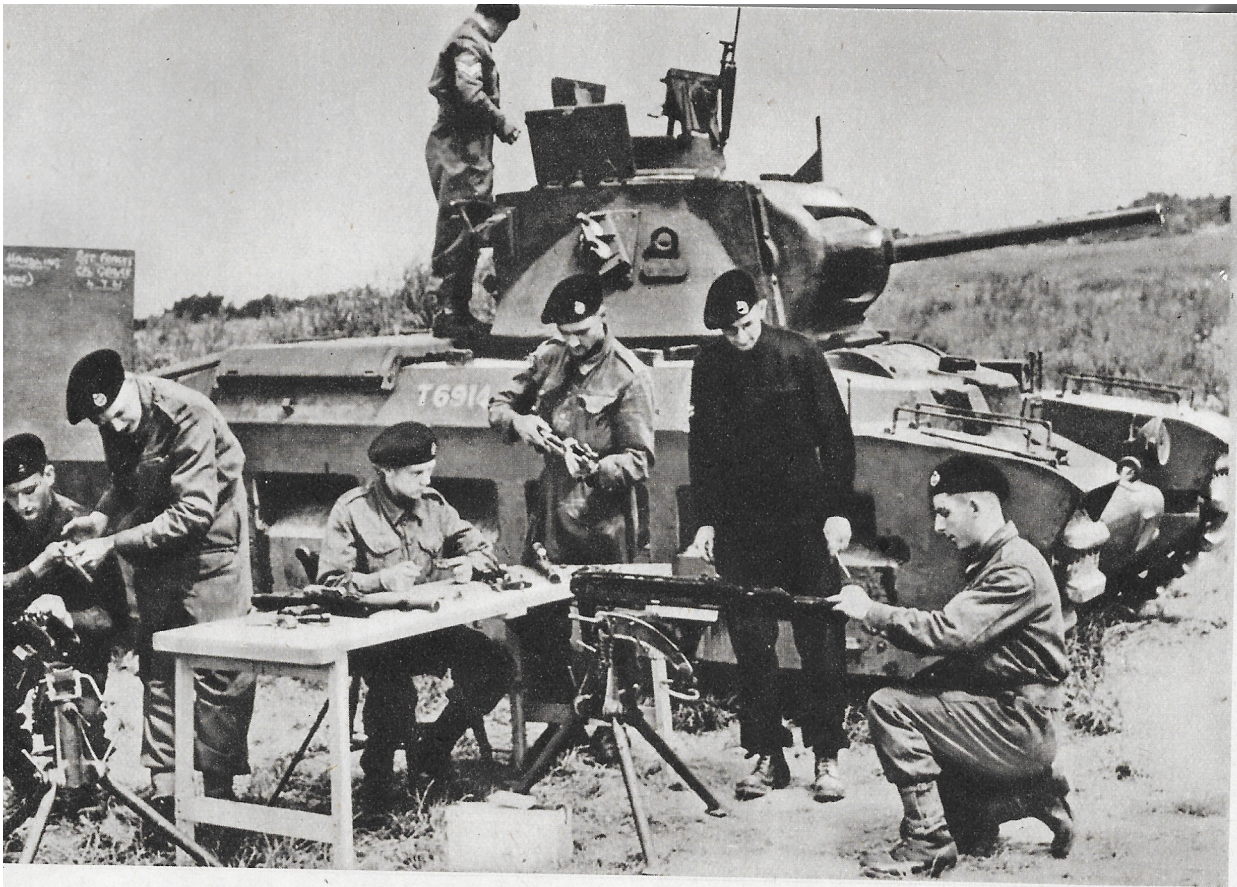
During this period of primary training the recruits are examined by psychiatrists, both orally and in a few simple tests, to discover the work for which they are best fitted. The recommendations of these psychiatrists form the basis on which the regiment selects the main trades which the soldier will work at in his future tank.

But for the moment the next important item in the RAC recruit's life is his first seven days' leave.



Every tank soldier is a rifleman, too.





The only way to know a gun is to take it to pieces—and put it together again.

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## 4. One Man, Many Jobs

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THE RECRUIT HAS GROWN up into a soldier. Now he is to develop into an RAC trooper.

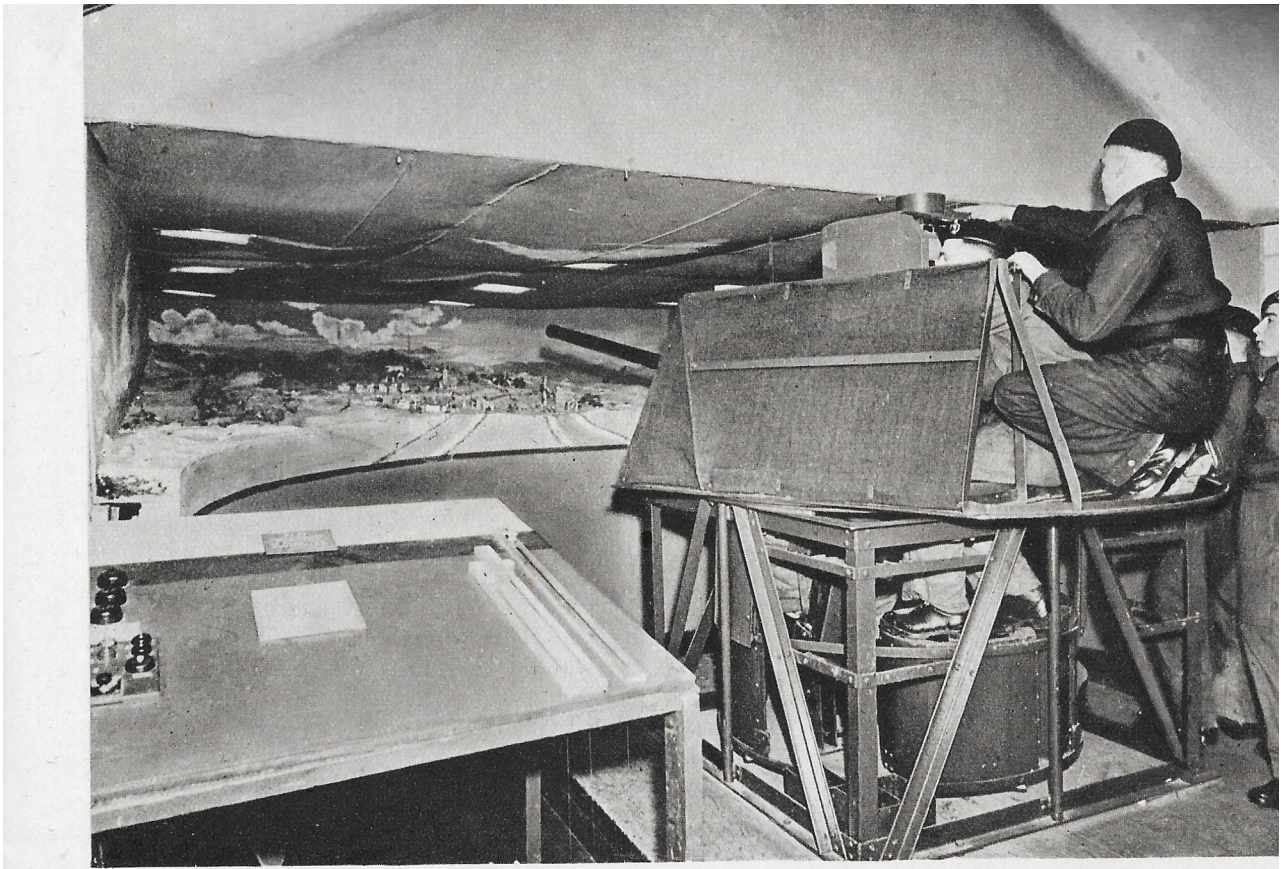
For the next three weeks after he is posted to his RAC Training Regiment he receives an advanced course of General Military Training, elementary driving instruction (on wheels only) and preliminary wireless. It is now that the trooper makes his first practical

acquaintance with the tank, clambering over its hull and diving down into the mysterious turret. He will probably be underneath that tank for the next day or so, cleaning and greasing her.

But in three weeks' time the trooper starts out to learn in practical detail the essential trades of a member of a fighting tank crew. In every Training Regiment there are three Technical Wings dealing with these trades, and to one of them, the Gunnery Wing, goes our future gunner-operator.

### THE GUNNER

His course from now on will be gunnery, and apart from a daily refresher period of drill or PT (Physical Training), he will be working on his guns entirely for the next few



**Gun crew drill on a battlefield in miniature.**

weeks. The gunner will be grouped with a class of half a dozen others, and placed in the hands of an NCO instructor, himself an expert trained in the Armoured Fighting Vehicle School. This instructor will take him right through the gunnery course, reporting to his Squadron leader on his progress every week. The gunner will start with instruction, learning how to load, fire, strip and reassemble the Bren light machine-gun, the .300 Browning machine-gun, the medium 7.92 Besa machine-gun, the 75mm. and the six-pounder guns. He will also be introduced to the tank howitzer and the hand grenade. His instructor will explain and demonstrate the rogue tricks of any one of these guns, which may suddenly decide to jam or simply not to fire,

and will teach him how to overcome them.

When the gunner has grasped the mechanism of his guns he will be taught the way to use them. This primarily depends on a proper sequence of gun drill. So into the Crew Control room he goes next. Round the walls there is painted the panorama of a countryside with railways, villages, farms and woods. There are cardboard models of tanks, anti-tank guns and transports available to pin on this scene wherever required. In the centre of the room stands a revolving circular cage, mounting a gun. It is a skeleton tank turret. One member of the class sits at the gun, and a second stands beside him as gun-loader; a third is perched high up in the turret acting as Crew Commander.

The Sergeant-Instructor pins a tank near the church behind the village inn, about 800 "yards" away. He signals to the Crew Commander to give the necessary orders. The Crew Commander shouts his first fire order, "Action!" On that the loader flings a dummy shell into the breech and taps the gunner's arm to signal that the gun is loaded. Next order is "Seventy five! Traverse Left!" The gunner grasps and turns the spade-grip which revolves the turret. "Steady!" (he is nearing his target now), "On! 800! Hornet! Left of Church! FIRE!" The gunner presses his trigger, but no shell flies from the muzzle. Instead, a pencil of light flashes along the barrel and shines on a transport parked outside the *Black Swan*. "Seventy five! Stop! Unload!" commands the Sergeant-Instructor. "Now," he says, addressing the whole class, "the Crew Commander's fire-order was correct, but the gunner didn't listen. He was told to fire at the hornet (tank), but instead he fired at the transport two hundred yards in front of it. Try again, gunner. Carry on now with your next orders to the driver, Crew Commander."

Next door is the pellet range, where the class will actually fire at their targets, though it will be only with an air gun adjusted above the barrel of the seventy five. Once more a landscape stretches in front of the class, but this time it is not painted on a circular wall, but modelled in miniature on a long, sand-covered platform. There are date trees, desert forts, and minute tanks moving about the scene, drawn by electrically-operated overhead wires in any required direction. Again there is the crew of three at action stations in a turret cage, but this time the cage not only revolves, but it rolls and yaws, reproducing the irregular see-saw motion of a tank advancing across heavy country. The Sergeant-Instructor throws over the switch which sets the turret rocking, and the model targets moving across

the sand table. Once more the Crew Commander barks his fire-orders, and this time the gunner fires with the air gun exactly as he would fire a real shell at a real target from a real tank, correcting his aim by observation of his shots. By this method, with economy and speed, the gunner is brought to the standard at which he can profitably be exercised on the open ranges.

There, probably against the background of the sea, he will fire live rounds from all his guns at various targets from both a moving and a stationary tank. Exactly as in action, the Crew Commander (who is this time the Instructor) rides sitting high up above him in the turret, spotting the targets as they bob up and directing the fire.

The gunner himself sits down below him at the bottom of the turret, his gun held in a shoulder grip at his right side (the machine-gun, called the "co-ax," because it is coaxially mounted alongside the seventy five, moves with it). His right hand is on the trigger handle, with its switch for either gun; his left hand grasps the power traverse lever which revolves the entire turret. Peering through his telescope, the gunner sees only a small framed view of the countryside ahead. When the tank climbs steeply up a bank, a strip of the sky suddenly begins unrolling into that picture-frame, until it seems that the tank must surely be about to loop the loop. Then, as the crest of the bank is reached and the tank poises for a second, the telescopic reel of the sky stops, and starts rolling back again. As the first glimpse of earth comes back into his picture-frame, the gunner drives his shoulder harder into the gun grip, reaches his finger round the trigger, and searches the horizon with his eye—an enemy may lie on this horizon, and the first shot may be the final one in any tank battle.

The fire-orders fly fast. "Seventy five! Traverse Right! Steady! On! 700! Hornet! FIRE! Stop! Same Target! Go On! Stop! Co-ax! Traverse Left! Transport!

FIRE ! Stop ! Traverse Right ! FIRE !” The turret whizzes round, the gunner’s window discloses in turn a tank against a hillside, a transport rolling along a valley road, a machine-gun in the corner of a wood.

FIRE ! FIRE ! The gun jumps, the breech flies open, the barrel is flung high up off the target, the red tracer shell curves across the fields, showing the gunner where his aim is faulty. Through the headphones clamped on his ears (inter-communication between the members of the tank crew is also by telephone) the gunner hears his Crew Commander say, “ Observation ; left and minus. Correction ; right and plus ! Target !” The turret reeks with cordite and hot metal, the loader is still flinging shells into the breech, the machine-gun chatters, jams, is freed and sings again. The tank rocks to a halt at the end of its run round the ranges. “ Not bad with the gun ” says the Sergeant-Instructor as the gunner and loader change places for the next run, “ but when you used the co-ax you sprayed the whole of Yorkshire.”

One more test, an all-day examination in the care, control and maintenance of guns, telescopes, traverse mechanism and turret. The gunner-operator needs approximately 80 per cent. marking before the Gunnery Wing will pass him out as gunner. At his next parade he will fall in with the Wireless Wing. From there he will be qualified as a wireless operator before they let him go.

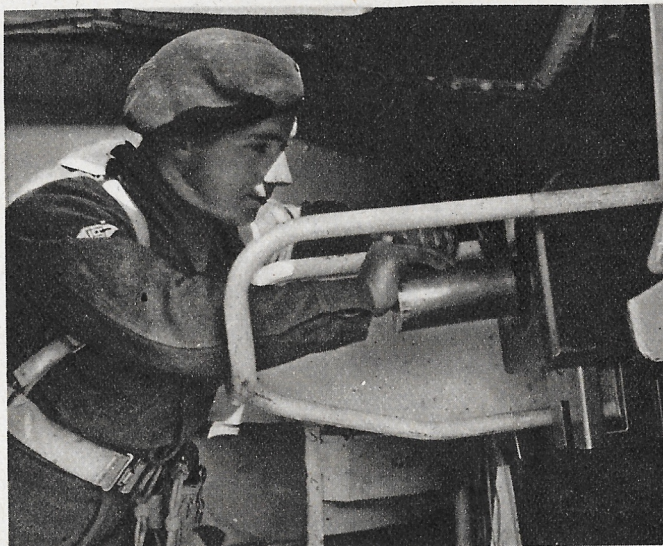
### THE WIRELESS OPERATOR

If you are wise, and have time, you will practise a little Morse during your earlier courses in the RAC, because sooner or

*Top :* on the ranges : the tank is “ hull-down ” behind cover and stationary. This is the ideal position for firing the gun, but the gunner generally needs to hit his machine gun targets while both they and he are moving.

*Centre :* Loader, 75 - millimetre gun in a General Grant.

*Bottom :* “ Di-DA-DA-Di.” Wireless operators must learn to send and receive messages in morse, at 12 words a minute.



later Morse is coming to you. The standard that you must reach after several weeks' wireless training is 12 words a minute.

To some it comes almost naturally, but for most troopers Morse is to be conquered only as the piano, or the typewriter, or foreign languages are—by daily practice and sheer determination to overcome it. In one Training Regiment the wireless course was known by its more frustrated pupils as "Morstal," and its curriculum as "death by a thousand dots." The proportion of failures, nevertheless, was fewer than one in thirty.

Every day in the wireless school there are a couple of periods allocated to taking down or sending messages in Morse, and the Sergeant-Instructor will always be a word or two faster per minute than the student can comfortably manage. This is probably the best way in which speed can be improved. Practice really does the trick, and so while gunners make very little noise about their homework, wireless operators fill the barrack rooms day and night with the squeak and pip of the practice "buzzers" by which they seek to master the dot-and-dash art of Marconi.

But Morse is not the whole of wireless; indeed, it is really the least part of it. Essentially, the operator must learn and rigidly adhere to a prescribed procedure in sending and receiving verbal as well as Morse messages. For urgent and obvious reasons in the field, strict observance of a Security Code is insisted on. This is in order to keep the enemy baffled even as he listens-in to the most public of all conversations, which are those carried on over the universal air.

"BE CLEAR! BE BRIEF! BE CAREFUL! Give nothing to the enemy, *who is always listening.*" These are the vital standing orders rammed time and again into the brain of every RAC wireless operator.

It is no good passing messages to your friends unless they understand them. BE CLEAR!

But it is worse than useless if the right orders are intercepted and understood by the enemy. A wireless message can easily be picked up in the field by a rangefinder, and the position of its sender located in a few seconds. Very soon afterwards the enemy artillery will be on the target. BE BRIEF!

Always use prearranged code for your own undisclosed positions, and for the names of your own units. BE CAREFUL!

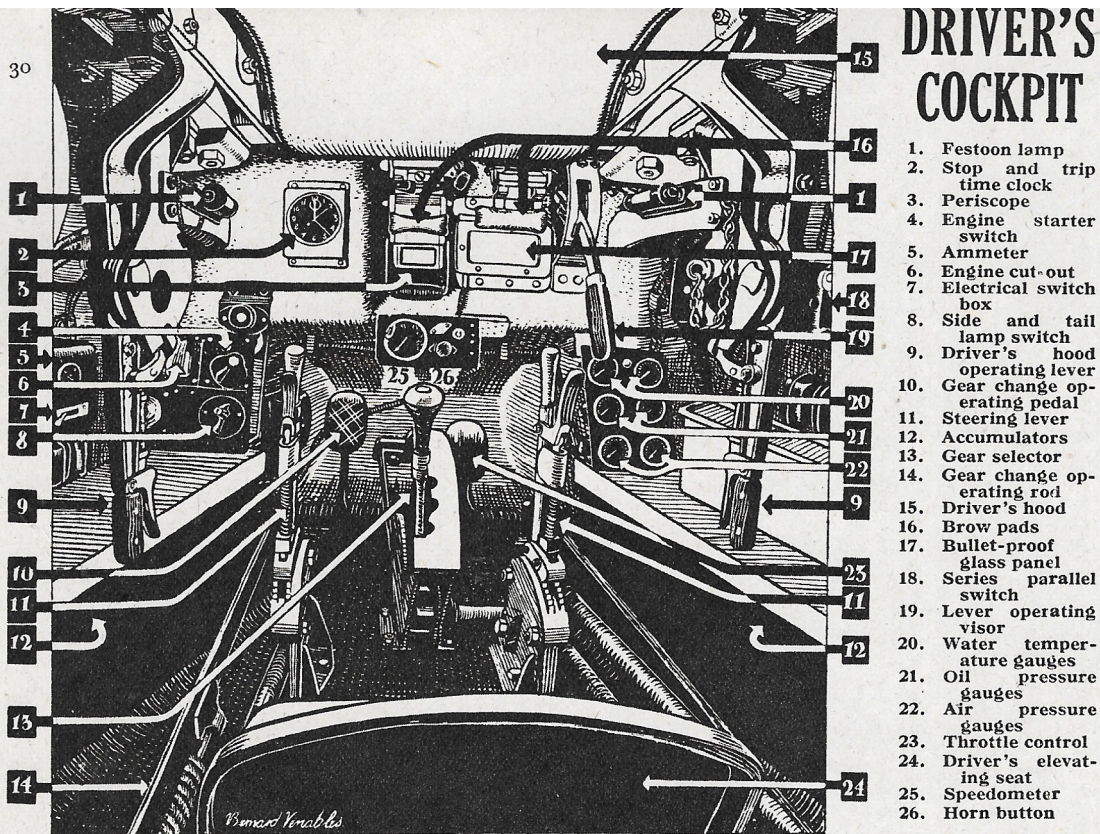
There is a whole litany of watchfulness which may not be disclosed here. But this may be claimed with truth—to-day RAC wireless operators can and do talk to one another across scores of mountain or jungle miles, and Jerry can neither tell who is talking to whom among our units nor make sense of what they say.

Anyone who has ever owned a wireless set knows how readily and unaccountably you can get "off-net." Imagine then how much easier it is in the heaving, vibrating metal cabin which is a tank, adding in the jars and dislocations set up not only by the firing of your own guns, but by a heavy enemy shot smashing against your turret. The RAC wireless operator needs to understand the working of his set, how to adjust, maintain and carry out repairs, how to take and send the vital signals which mean the life or death of his squadron in a battle. It involves at least a grasp of elementary principles while he is learning his job. So back to the classroom once more goes the operator, to study the electronic theory. There also he will probe into the workings of several kinds of wireless sets, and learn the art of tuning-in to his particular squadron or regimental net.

Besides wireless, the operator will practise lamp and flag signalling, and gain a grounding in the way tanks operate in squadron and regimental formation. In the lecture room the entire class of operators, with ordnance maps in front of them, will take part in a paper tactical scheme of armoured corps manoeuvre, sending and receiving orders by



*Top:* The voice and the ears of the tank. The wireless operator learns how to work his set.  
*Bottom:* Now for some wireless in a tank in the field. The operator awaits his orders.



## DRIVER'S COCKPIT

1. Festoon lamp
2. Stop and trip time clock
3. Periscope
4. Engine starter switch
5. Ammeter
6. Engine cut-out
7. Electrical switch box
8. Side and tail lamp switch
9. Driver's hood operating lever
10. Gear change operating pedal
11. Steering lever
12. Accumulators
13. Gear selector
14. Gear change operating rod
15. Driver's hood
16. Brow pads
17. Bullet-proof glass panel
18. Series parallel switch
19. Lever operating visor
20. Water temperature gauges
21. Oil pressure gauges
22. Air pressure gauges
23. Throttle control
24. Driver's elevating seat
25. Speedometer
26. Horn button

There's a lot to learn in the Driver's Cockpit.

wireless, moving the little flags which represent their units to and fro in accord with the general plan.

Towards the end of the wireless course the wireless operators will go off all day, or even all night into the countryside in cars or tanks, working out in practice reconnaissance and attack schemes with previously worked-out routes, code and call signs. There, for the first time, they get practical experience of controlling or being controlled by Squadron Organisation. Discipline on these jaunts is severe, and nobody is permitted to augment his allotted rations either of food or drink.

At the end of the wireless course, once more the operator is examined all day in everything that he has learned in theory or in practice. Whatever else he forgets in the years to come, he'll never quite forget his Morse.

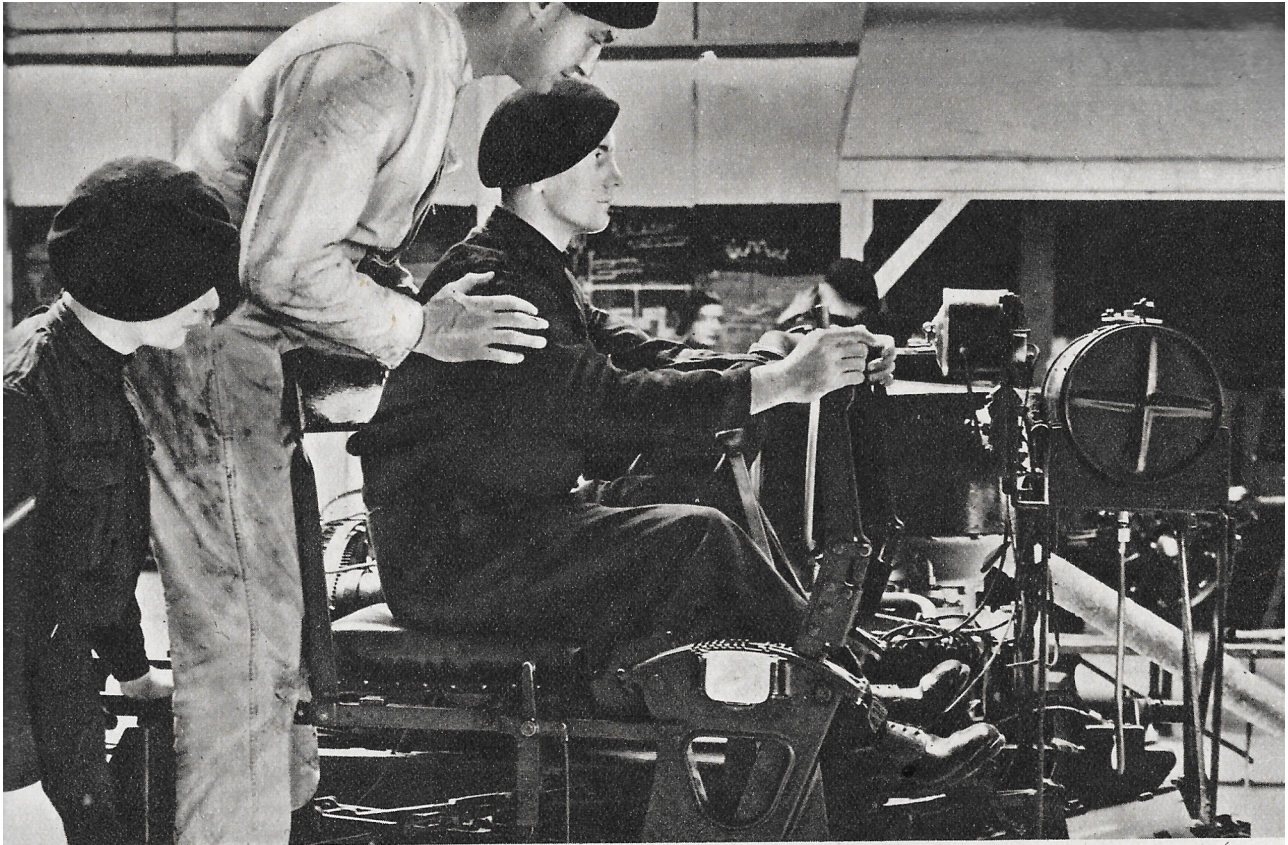
## THE DRIVER

Who is the most important man in the tank? The Gunner? The Wireless Operator? Or the Driver?

The Gunner says "The whole purpose of the tank is to bring a gun to bear on a target—and I fire the gun. Without me and my gun you are simply birds for another gunner to pot at."

The Wireless Operator says "A tank without ears and a mind is a blundering beast. Though I see nothing (the Wireless Operator is generally too busy in action to see outside the tank), I get, and transmit, the orders. I am the brain of the tank, the vital spark in the whole show."

The Driver says "I move you fellows round, up to the battle, into the battle, through the battle—and home from the battle. Without me you wouldn't get out of the garage."



**“ Now pull the left lever and you’ll turn to the left.”**

The argument will go on in the barrack rooms of the RAC (it goes on in the tanks actually in the lull of the battles) until Time has buried tank and tank men.

Perhaps, if there *is* any one key man in a tank, it is the driver. For in the end the tank depends on its mobility for its value, and of all the men of the crew the Driver is the one whose good (or bad) work fundamentally affects everyone. This is not only in his driving, but in his day-to-day maintenance. A tank that breaks down is, for that period, a total loss to its unit, and must be written off its fighting strength.

The driver begins his course at the Driving and Maintenance Wing (D & M) with a series of lectures on the theory of the petrol and diesel engines. These lectures explain what actually takes place inside the engine ;

they are designed to teach the driver what may go wrong, and why, and how to put it right.

The next step is to teach him how to drive a vehicle. If you set off on a ride in your motor-car there is a certain procedure to be observed. First, you switch on your engine, then you depress the clutch pedal, engage the gear, release the brake, and allow the pedal to rise. Lo ! the thing moves !

When you take a novice out on the road, and put him through this drill, however, quite a large part of the time is taken up with watching the road, negotiating corners, and waiting in traffic jams. Of course, you must master all these tiresome matters before you can become a driver. But the first step is to know HOW. Now, by far the easiest and quickest way of learning anything is not to *hear* about it but to *see* it, as our ancestors



discovered when they drew the first pictures on the walls of their caves. So in the Driving and Maintenance Wing the Sergt.-Instructor sits the learner down in a model driving seat on a dais. In front of the driver is a dashboard full of lamps which flash (or don't flash) in correct sequence as he goes through the various motions of starting-up his engine, engaging gear, steering, braking and pulling-up. If the learner goes wrong the lights tell him more plainly than any instructor, and more quickly. By this method the driver, in half the usual time, learns his job of driving properly—in RAC style.

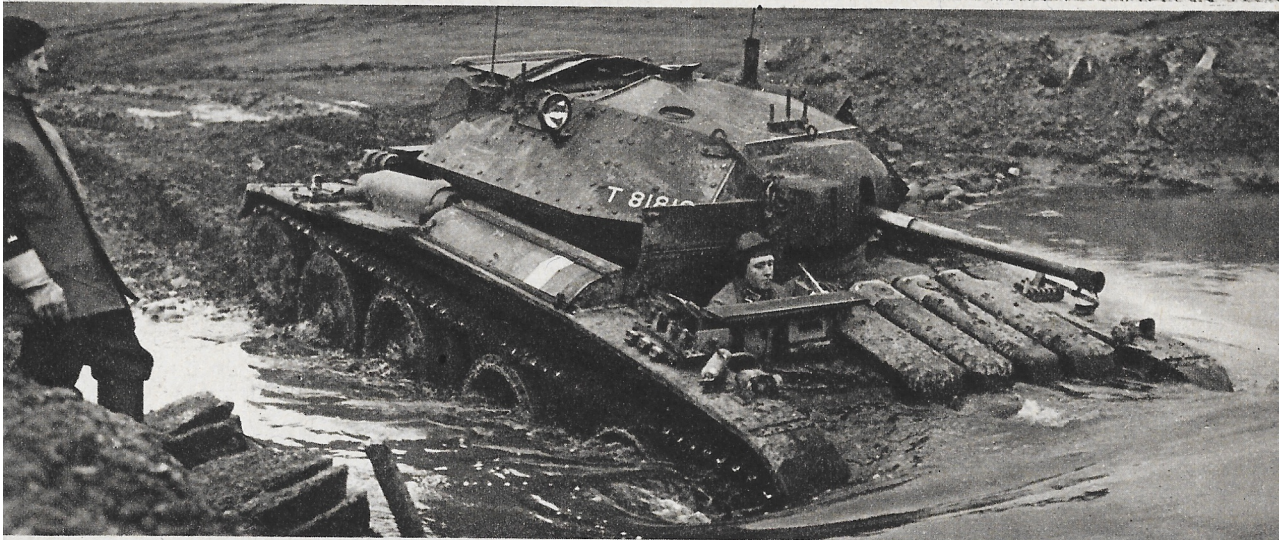
Next comes practice. The driver is exercised with both wheeled and tracked vehicles, until he becomes confident and capable of driving the tank or truck in his charge for many hours on end, over rough going and perhaps through bullet and shell-swept zones. Of course, the Crew Commander issues the directions "Driver! Speed up for Cover!" "Make for the corner of the wood!" "Hull down behind the crest of the hill!" and so on. But on manoeuvres or in action the driver picks his path towards his objective for himself, and the driver who knows his job selects that ground which offers his tank the best cover, or gives his gunner the best chance of bringing his guns to bear effectively on the target.

What are the requirements of a good driver? When the cavalry regiments of the British Army were mechanised, few people realised how easily and naturally the cavalry men would adapt themselves to tanks. But there are two prime qualities which every good horseman shares with every good tank driver: (1) An "eye" for country, and (2) a "sense" of his mount. Driving a tank across country is much more like riding a horse than like driving a motor-car. There is no steering wheel in a tank. If you want to turn right or left you pull the lever on your right or on your left. These levers brake

the right or left track, stopping it while the other track keeps moving on. A horseman uses his reins in exactly the same way. When you come to climb a parapet or jump a trench, you "rev up" your tank engine as you spur a horse to a jump. Just as your tank poises on the crest of the "jump," you take your foot off the accelerator and let her topple downward by her own weight. At least, if you do it that way you will get your tank over the obstacle smoothly and lightly, and without cracking the gunner's head against the turret roof or jerking the wireless set into the operator's lap. Tank drivers, like horse riders, are more easily born than made. It is astonishing how many natural drivers they discover down at the D & M Wing.

But Driving is only half the business. Maintenance is the other, harder half. Tanks have a tough life of it barging about this earth, and they break down more readily than motor-cars unless they are properly looked after. They take very much more repairing, too, as you will discover when you come to replace a broken tank track in the dark on some desolate moor. (There are seven thousand separate parts of a tank.)

The RAC insist on a very high standard of vehicle maintenance, and this is thoughtfully and thoroughly worked out in a drill known as the "parade maintenance system." It means, in effect, a list of duties to be done at certain times and in certain conditions, so that within a given period every working part of the vehicle is overhauled and put in order. Vehicle Maintenance is, in some degree, the responsibility of every member of the tank crew. But it is on the driver that the main charge rests. If the tank "won't march" it is the driver who is finally to blame. The old cavalry men were not more careful to see that their horses could travel than are the tank drivers of the Royal Armoured Corps to keep their tanks rolling.



*Top:* Replacing the tank track. The driver needs the whole crew for this job.

*Bottom:* "Let her go down steadily." The driver takes his first water course.