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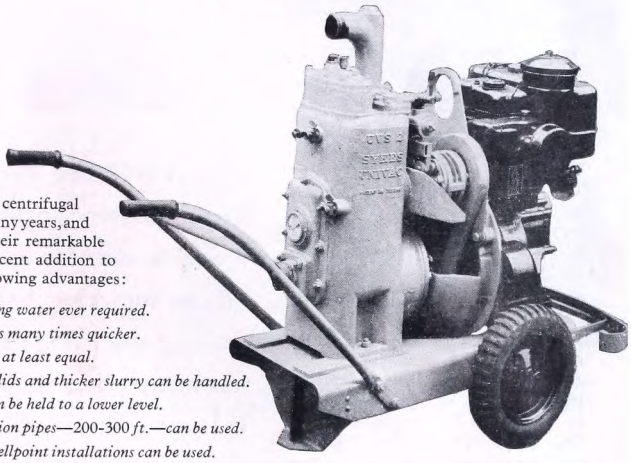

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- ** Small wellpoint installations can be used.*

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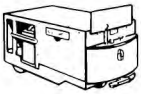

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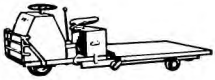

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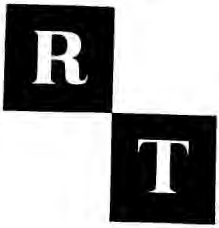

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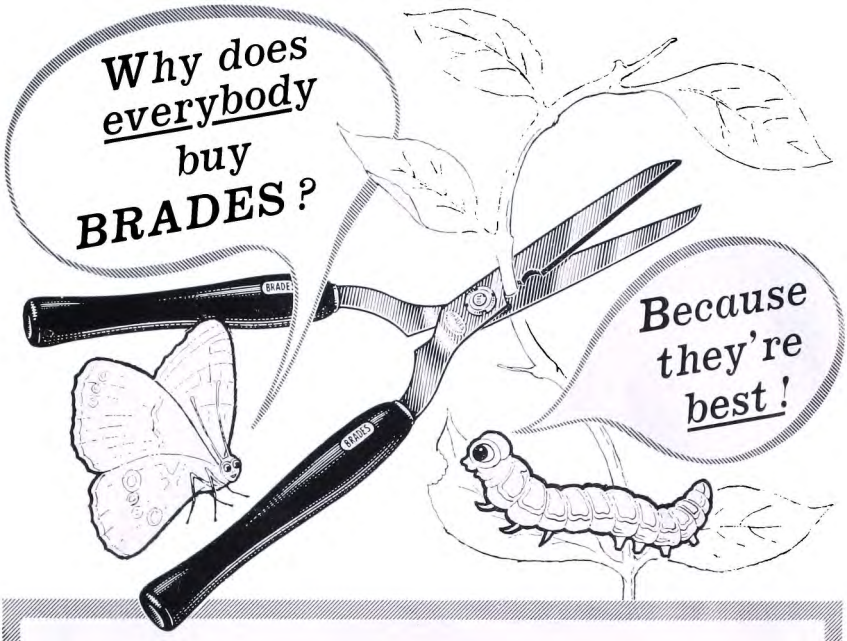

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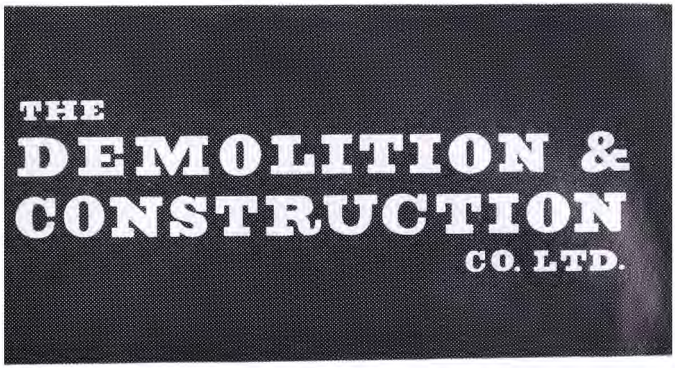

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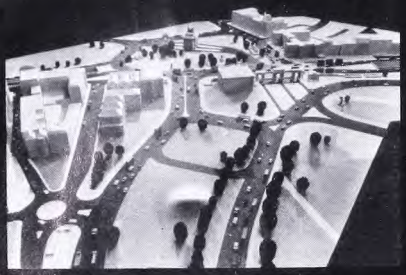

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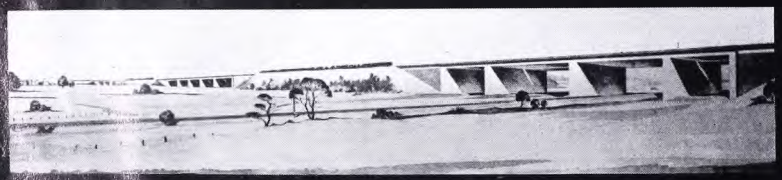

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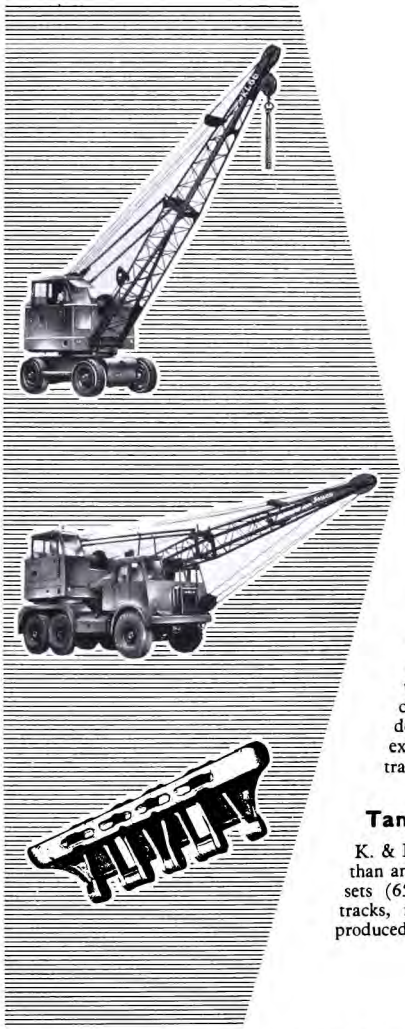

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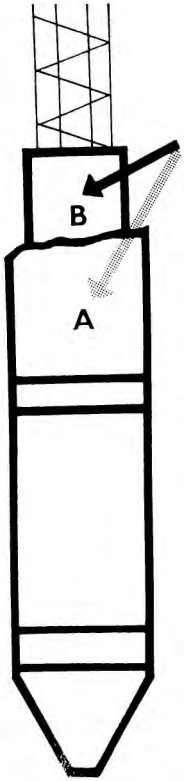

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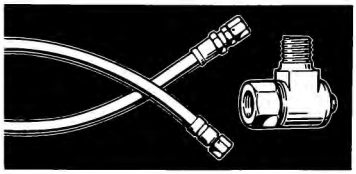

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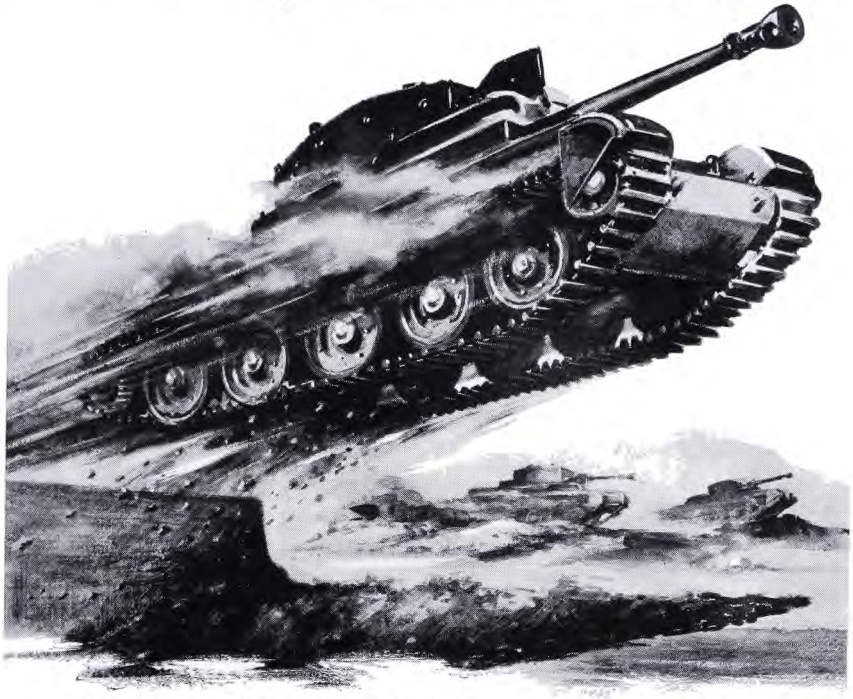

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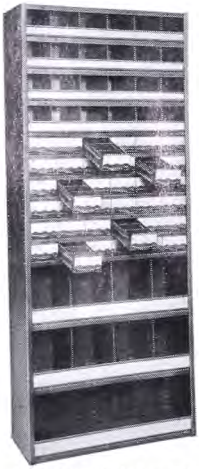

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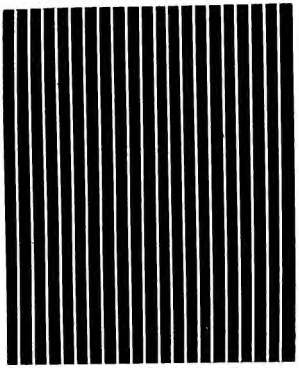

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pontoons that are easily moved
simplify the army's
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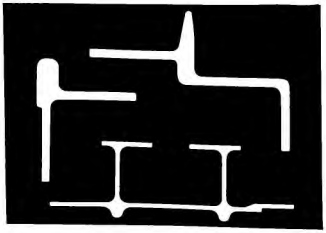
The decking and structure of the pontoons for this bridge were constructed in H.D.A. aluminium alloy extrusions.



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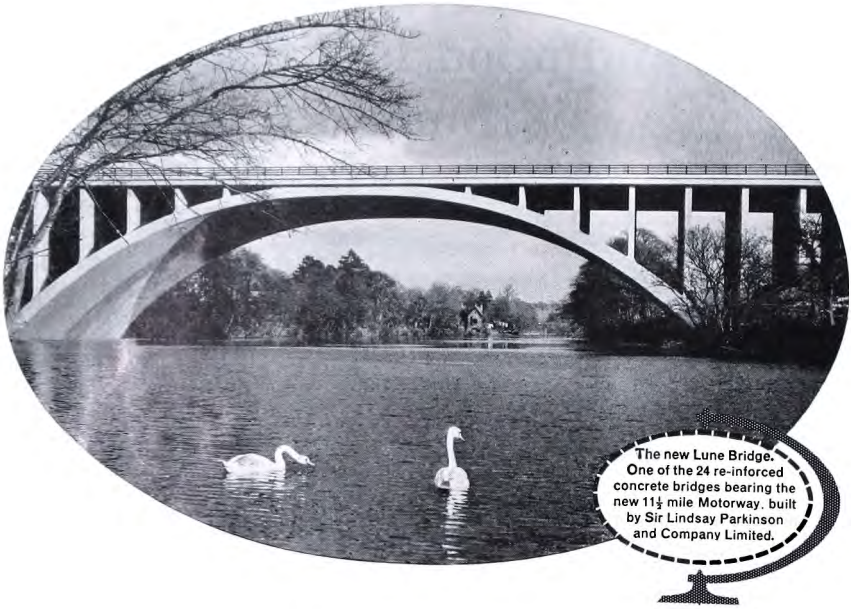

The new Lune Bridge. One of the 24 re-inforced concrete bridges bearing the new 1½ mile Motorway, built by Sir Lindsay Parkinson and Company Limited.

The opening of the Lancaster By-Pass in April 1960 was another step forward in providing Britain with the Motorways she needs.
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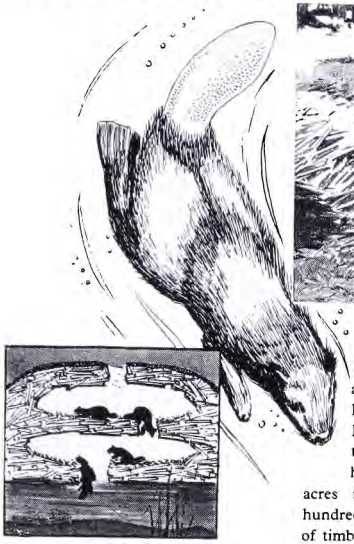
761

ACHIEVEMENT IN THE WILDERNESS



Cemented with frozen mud the beaver's lodge shelters him from the elements and his many enemies. The lower chamber, entered from underwater, is his 'dining room,' while above it, the sleeping space is lined with cedarwood shavings or peeled twigs.

GIVE the beaver a valley, a stream and enough trees and there's no limit to the efforts he'll make. Dams a thousand feet long containing as many tons of material, holding back 'ponds' thousands of acres in extent—canals, stretching for hundreds of yards to a particular stand of timber—two-storey 'houses' sometimes forty feet in diameter—a strange and wonderful 'civilisation' flourishing where once the forest stood unchallenged.

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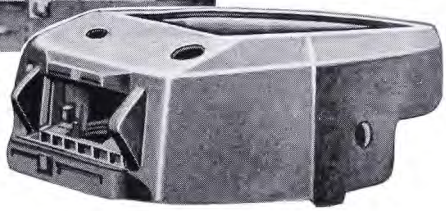

Centurion Tank Turret

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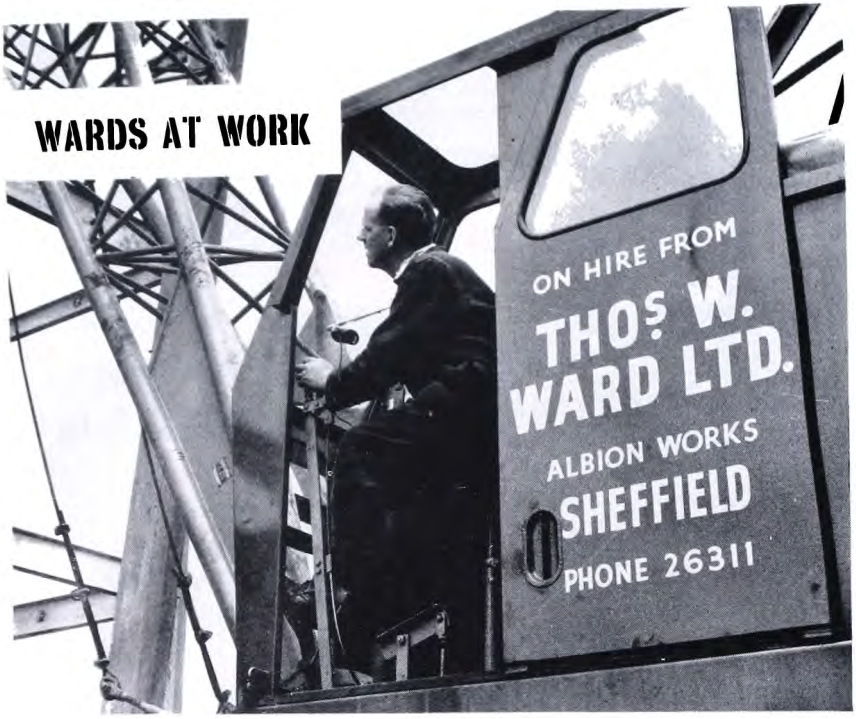

G-P-101

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THE ROYAL ENGINEERS

INDEX

AUTHORS LT.-COL. R. L. CLUTTERBUCK, OBE, RE, ASSISTED BY 2ND-LT. T. WALL, RE

THE ROYAL ENGINEERS

WHAT DO THEY DO?

The sapper is a fighting soldier and a technician. He has all the excitement and adventure of the battlefield, and all the interest and experience of a technical tradesman.

As fighters, the Royal Engineers have won more V.C.s than any other regiment except the Royal Artillery. Alongside this, every soldier in the Royal Engineers is taught a trade.

Field Marshal Montgomery has said, " The more science intervenes in warfare, the more will be the need for engineers in the field army; in the late war there were never enough Sappers at any time."

To-day, sappers are deployed all over the world, fighting the cold war. The sappers go wherever other fighting soldiers go. They fight, and above all, they **work**, hard, in all climates and in all weathers.

To join the Royal Engineers you must be tough enough for an adventurous life and intelligent enough to learn a trade. And you must expect plenty of hard work. If you don't measure up to these things, read no further, for the Royal Engineers are not for you. But if you do, and they accept you in their ranks, you will live your working life with some of the finest men you ever met.

If you want to see the varied opportunities open to you, cast your eye over the section headed " Careers in the Royal Engineers " (pages 118 to 139) where you will find brief accounts of the lives of 30 men now serving in the Corps.

Opposite—The Royal Engineers band at Chatham.

ACHIEVEMENTS OF THE ROYAL ENGINEERS

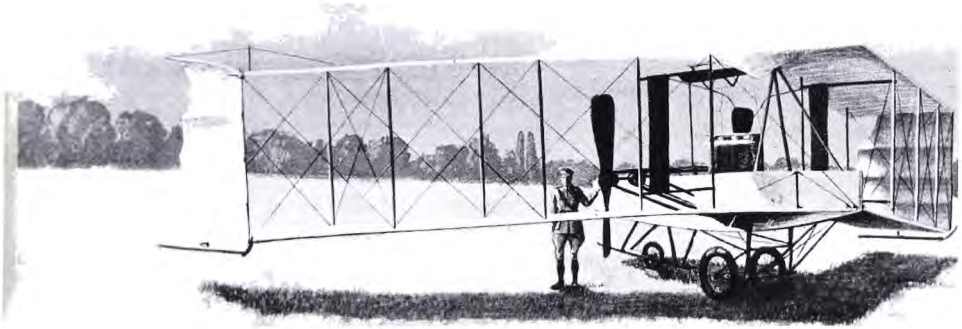
The Royal Engineers have always been foremost in the development of new ideas and new weapons.

They flew the first military aircraft, and the RE Flying Squadrons gave birth to the RAF.

They developed communication systems and gave birth to the Royal Corps of Signals.

They conceived the tank and it was a sapper who led the first tanks into action in 1916.

Royal Engineer aircraft in 1911 (photo A.K.C.).



ACHIEVEMENTS OF THE ROYAL ENGINEERS

Three Royal Engineers blasting Kashmir Gate in 1857 (photo A.K.C.).

It is the traditional role of the Royal Engineers to lead the assault on fixed defences. A century ago they would dig their way forward in ditches known as " saps " to breach the walls of fortresses and the orders to the infantry were to

" follow the sapper "

a cry that became famous in the Crimea in 1854. In 1857 three sappers won the VC in blasting open the Kashmir gate for the infantry in the face of point blank fire. The painting above commemorates their bravery.

ACHIEVEMENTS OF THE ROYAL ENGINEERS

It was the successors to these men who forced a breach for the tanks through six belts of mines at Alamein in 1942, and it was RE Tanks which landed first on the Normandy beaches in 1944 to blast gaps in the German defences.

As engineers the achievements of the Corps have been tremendous. For Kitchener (himself a Sapper) they built railways at a rate of 3 miles a day as he advanced through Africa and Egypt.

In Burma in 1943/44 they built 2,400 miles of road and 407 airfields. In Italy they built 2,500 bailey bridges. In Normandy they built and operated the famous Mulberry Harbour which landed and supplied the Army of over 600,000 men which fought its way from Normandy to the Baltic.

And in 1958/59, the Royal Engineers, alongside the Gurkha and Malayan Engineers, whom they had helped to train, built 64 miles of road through wild jungle territory towards the Siamese frontier of Malaya.

Wherever the tanks or the infantry go, there is a sapper to help them.

Men of a Field Troop in the Eighth Army breaching the extensive minefields at the Battle of Alamein to open a way for the tanks and infantry.

SAPPER VC's

The Victoria Cross

50 Sappers have won the Victoria Cross—more than any other Regiment or Corps in the Army except the Royal Artillery (57). In addition, 15 have won the George Cross—far more than any other regiment.

Any man who is thinking of joining the Royal Engineers should ponder upon this. The Royal Engineer is more than just a tradesman; he is a fighting soldier. His work is such that he is often exposed to the greatest danger. His proud tradition is that he carries on, without flinching, if necessary risking his life. Those 50 VCs and 15 GCs were not easily won.

Any Royal Engineer may find himself facing a similar challenge. The man who is unwilling to risk it, the man whose motto is " Safety First," should not consider wearing the colours of the Royal Engineers.

Sergeant T. F. Durrant (photo. Imperial War Museum) manned the Lewis gun on a Motor Launch in the raid on St. Nazaire on 28th March, 1942. Wounded in the arm, he went on firing at enemy gun positions on the shore. A German destroyer closed to within 50 yards to attack the launch. Despite further wounds, caught in the beam of the searchlights and under heavy fire, Sergeant Durrant continued to fire at the bridge of the destroyer. The destroyer called upon the launch to surrender. Sergeant Durrant replied with a further burst of firing, and, weakened by yet more wounds, fired on until the destroyer came alongside and the Germans boarded the launch, capturing all who remained alive. Sergeant Durrant died of his wounds and was awarded a posthumous VC.

Lieutenant C. Raymond (photo. Imperial War Museum) was with a mixed infantry and Royal Engineer patrol which crossed a river deep into enemy territory in Burma on 21st March, 1945.

They were fired upon from a strongly fortified Japanese position on a jungle covered hill. Lieutenant Raymond immediately charged. He was wounded in the shoulder, but went on, firing from the hip. After a few yards a Japanese grenade burst in his face, wounding him severely. He got up and went on, losing blood fast. His wrist was then shattered by a bullet, but he led his section on to capture the position itself; killing three Japanese before the remainder fled in panic. Lieutenant Raymond died of his wounds and was awarded a posthumous VC.

VARIETY IS THE SPICE OF LIFE

"Variety is the spice of Army Life" wrote the *Daily Mirror* in December 1960, reporting the varied activities of a regiment of the Royal Engineers.

"UBIQUE" is our motto. It means EVERYWHERE. And when we get there we do whatever the fighting soldier needs to enable him to live and to move and to fight.

In **Field Units,** the **Combat Engineer** builds bridges, ferries tanks, and builds roads and airfields, and lays and lifts mines. What he builds may be something rough and quick in the face of the enemy, or it may be a permanent concrete, brick or steel structure; or water supply, electricity or cold storage, or a tarmac road or runway. There is variety indeed in the life of the Combat Engineer—the soldier-tradesman. The Field Branch also includes the **Parachute** and **Armoured Squadrons** of the Royal Engineers. (see pages 64-65).

Royal Engineers having built a heavy raft are using it to ferry tanks across a wide river.

VARIETY IS THE SPICE OF LIFE

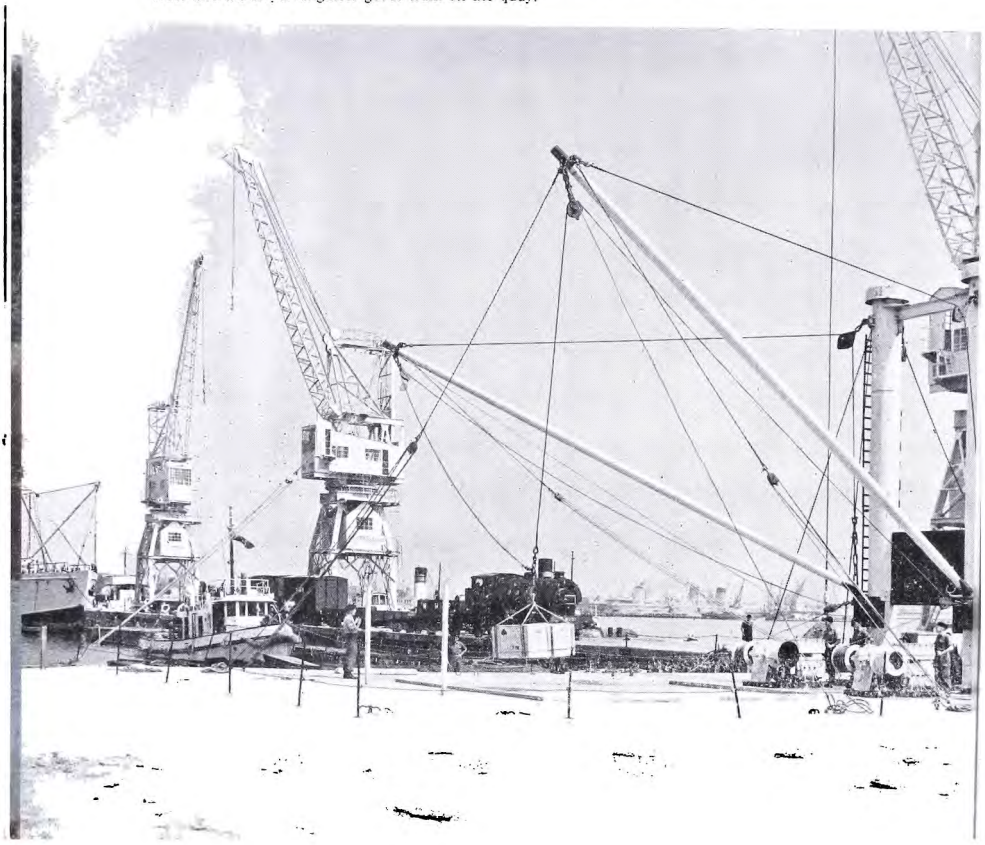
For all these tasks, the Combat Engineer needs **Plant** and **Engineer Resources,** and he may find himself serving in units which provide these, or in **Electrical** and **Mechanical** and **Workshop** Units. Or he may become a **Clerk of Works,** helping in building and operating a wide range of engineering installations and buildings.

Royal Engineers using dozers and scrapers to build a by-pass road in Northumberland.

VARIETY IS THE SPICE OF LIFE

Specialist branches include **Transportation**—which runs the Army's Railways, Ports and Inland Water Transport; **Survey** which makes and prints its maps all over the world; **Postal,** which handles the soldiers letters from home; and **Bomb Disposal,** a branch which earned undying fame in the war, and is still doing so.

The Royal Engineers have their own Port at Marchwood, on Southampton Water, facing the docks where the mighty " Queens " and other ocean liners come in and out every day. Note also the Royal Engineer goods train on the quay.



VARIETY IS THE SPICE OF LIFE

Because he so often works in the forefront of the battle, the sapper is trained to fight—and often does. He undergoes the most modern battle training, and great stress is given to **adventure training** and **sport.**

Variety is the spice of Army Life. There's not much chance of getting bored or stale in the Royal Engineers.

Adventure training in Austria. Sappers stationed in Germany have their own ski camp, and are taught to ski by expert instructors.

THE COMBAT ENGINEER

AS A FIGHTING SOLDIER

The Combat Engineer does his Engineering on the battlefield. In the fog of war he often has to fight.

His training as a soldier is as tough as the training of any infantryman. And he uses the most modern weapons.

Left—Sappers with a Rocket Launcher anti-tank weapon.

Below—Sappers with the Royal Marine Commandos in an assault landing.

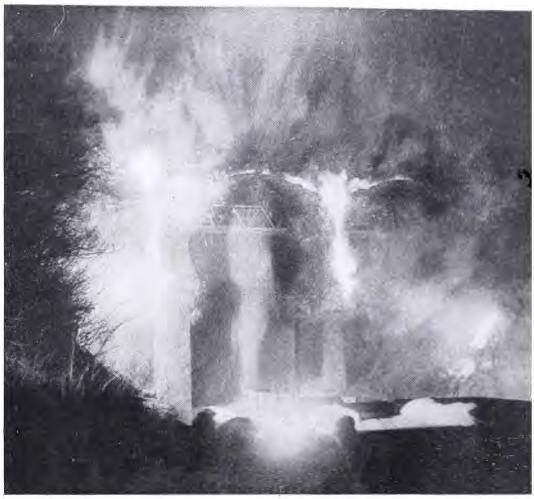
THE COMBAT ENGINEER

IN THE FACE OF THE ENEMY

When things are going badly, it is the duty of the combat engineer to blow up the bridges to prevent the enemy from using them. He cannot do this until the last of our own troops are across, so he has to do it in the face of the enemy.

In doing this duty, many Sappers have won the VC, and many others have risked their lives.

It calls for the last ounce of the Sapper's fighting quality.
The call may come to any Sapper, and the Royal Engineers will not accept men who do not measure up to this standard.



Blowing up a bridge.

Demolition firing party.

THE COMBAT ENGINEER

BRIDGING AND RAFTING

There are few moments more satisfying to a sapper than to see the tanks and guns and trucks rolling across the bridge that he has built.

And it takes tough and determined men to ferry tanks across a river under enemy fire.

Left—Building a Light Assault Floating Bridge.

Below—Launching a Heavy Ferry for tanks in Germany.

THE COMBAT ENGINEER

ROADS

A modern Army can't go very far without roads.

The Combat Engineer builds roads all over the world, using the latest earthmoving plant.

There are many kinds of road.

On Christmas Island, 300 sappers with 100 bulldozers, scrapers, graders, cranes and vehicles built 55 miles of asphalt road at the rate of a mile a day. You could drive along this road at 60 m.p.h. and hardly feel a bump.

At the other end of the scale, a dozen sappers in the Middle East, who landed by air with only a single compressor, blasted six miles of rough track through the mountains in a few weeks, enabling armoured cars to patrol a disputed frontier.

Right—A Grader in Malaya.
Below—Building a culvert in Africa.

THE COMBAT ENGINEER IN COLD WAR

THE WAR OF TODAY

The cold war is a constant challenge to the Combat Engineer. He finds himself at work, with only a few comrades, in exposed and dangerous places, liable at any time to be raided or ambushed by enemy guerilla fighters.

His weapon is always at hand, and he knows how to use it.

Left—An armed Surveyor using a heliograph in Africa.

Below—A jungle patrol about to cross a river in Malaya.

THE COMBAT ENGINEER IN COLD WAR

THE WAR OF TODAY

Blasting a rocky road in Aden.

Clearing the jungle for a road in Malaya.

Opening up the Country. Roads built by Royal Engineers are bringing Peace and Prosperity to strife ridden lands all over the world. **Peace**—because troops and police can move quickly to deal with terrorists and guerillas. **Prosperity**—because the people can use the roads to send their produce to market. This earns the confidence and affection of the ordinary folk who live there, and who yearn for peaceful conditions in which they can earn a decent living and feed their families. There lies the whole crux of the cold war, and of the Sappers' part in it.

An improvised bridge in Kenya.

Bridging a stream in Malaya.

THE COMBAT ENGINEER IN COLD WAR

THE WAR OF TODAY—1961

" The Road That Routed The Rebels."

" The British Army in Aden has won a bloodless victory over the fierce, dissident tribesmen who terrorise the Yemen Border country. And it has been done not by force of arms but by the peaceful strategem of building a road in the heart of the terrorist strongholds."

Quotation from " *Soldier* " Magazine, July 1961.

This road was blasted through wild rocky mountains by men of the Independent (Arabian Peninsula) Field Troop, Royal Engineers, who were part of a column of infantry, armoured cars and artillery called in to re-establish the authority of the Federal Government over 800 square miles of the Western Aden Protectorate. The rebel leader and his armed followers were driven out, and will be unlikely to return in the face of the motorized patrols of the Aden Protectorate Levies and Federal National Guards who can now use the road that was built by the Royal Engineers.

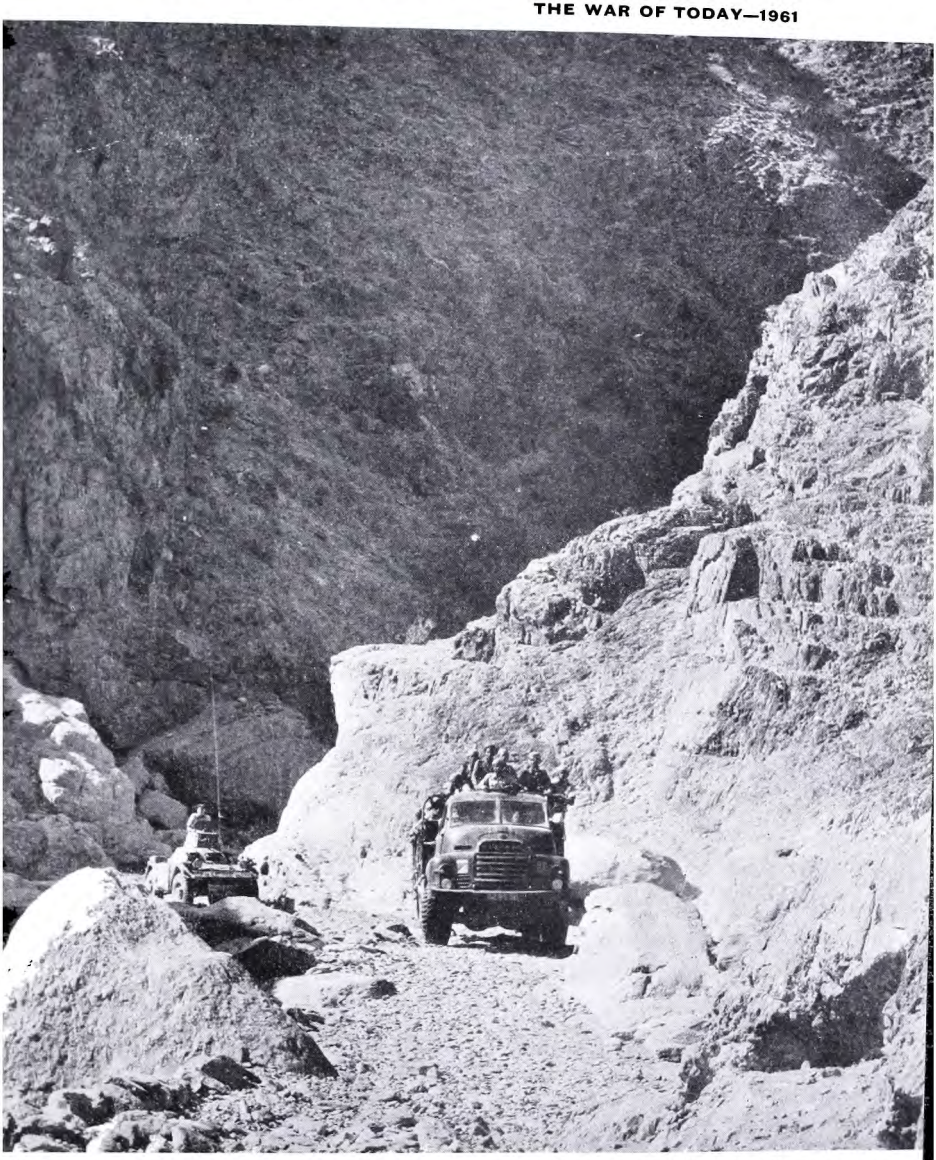
The road alignment was laid out by Lieutenant David Kruger, Royal Engineers, up rocky escarpments and along river beds strewn with giant boulders. Using pneumatic tools, high explosives and a 9-ton Michegan Tractor-shovel, the Royal Engineers, aided by hundreds of willing Arab soldiers, blasted their way through the rocks. Sometimes they cleared 800 yards in one day, at other times they spent many days smashing their way up a single rockface. In the closing stages, Sapper Hunt, operating the 9-ton Michegan, escaped with his life when the tractor hurtled over a precipice. He was thrown out onto a ledge as the machine crashed 300 feet down into the valley. On another occasion, an Arab was killed by a falling boulder. But, apart from these incidents, this was a bloodless victory.

This is just another example of the work being done all over the world to-day by small parties of Royal Engineers, helping the rest of the Army to restore law and order to peoples living under the terror of the guns and knives of power-hungry rebels. It is little wonder that the British soldiers, who were at first regarded with suspicion aroused by rebel propaganda, are now greeted with cheers and smiles and gifts of eggs and fruit in the once wild border country of the Aden Protectorate.

Cheerful sappers resting while at work on a similar road, two miles from the Yemeni border.

THE COMBAT ENGINEER IN COLD WAR

THE WAR OF TODAY—1961



Armoured cars and motorised Arab infantry patrolling along the road built by the Royal Engineers in 1961, through country never entered before except by donkeys, camels and men on foot (Photo *Soldier* magazine).

ARMOURED ENGINEERS

ROYAL ENGINEERS IN TANKS

The armoured engineers were originally formed to lead the assault on the Normandy beaches on D Day in 1944.

There is now an armoured squadron serving in Germany.

Armed with Demolition Guns, Dozer blades and devices for crossing obstacles, the armoured engineers help the tanks to overcome the toughest opposition on the battlefield.

A Royal Engineer tank fires a demolition charge at an enemy pillbox.

A bridgelayer tank, which can throw a bridge for tanks across a 50 foot gap in a few minutes under enemy fire.

PARACHUTE ENGINEERS

THE RED BERET

9th Independent Parachute Squadron RE is part of the 16th Parachute Brigade Group—the spearhead of Britain's Cold War Strategic Reserve. Based in Aldershot, the squadron at the time of writing had detachments in Cyprus and Kuwait, and has recently had men in North Africa and Malaya.

Any Sapper can volunteer for training as a parachutist, and, if he passes the course and serves with the Parachute Engineers he will wear the famous red beret. But only the best men succeed—the training is tough and the standard is high.

E

TRANSPORTATION

Royal Engineers landing a tank in Singapore.

Ports and Inland Water Transport

The Royal Engineers operate Ports and Inland Water Transport all over the world, wherever the Army needs them.

See also page 54 for a picture of the Royal Engineers own port on Southampton Water.

Unloading a tank from the hold of a freighter onto a Royal Engineer Z craft to ferry it ashore.

Divers at work

You can be trained as a diver in the Transportation Branch of the Royal Engineers (Right).

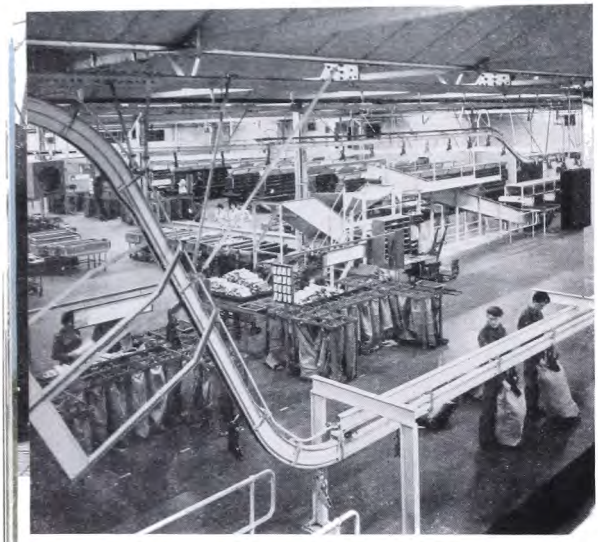
Railways

The Royal Engineers build and operate Railways all over the world. They have their own Railway at Longmoor, where many railwaymen have learned their trade.

Royal Engineers operating their own diesel locomotive.

POSTAL

THE MOST POPULAR SOLDIER IN THE ARMY OVERSEAS



LONDON. Sorting letters from home to soldiers

The Man with the Mail

The Royal Engineers operate Army Post Offices all over the world, and also operate a growing Courier Service.

There is nothing the soldier looks forward to so much as his mail from home, and the sapper in the Postal Services is a popular man.

BOMB DISPOSAL

THE TOAST OF THE PEOPLE OF LONDON

For the man with a steady hand and a cool nerve! Men of Bomb Disposal units of the Royal Engineers have won 12 George Crosses—which rank with the VC as the highest award for valour. In the blitz they were the toast of the people of London.

Their work goes on though the war is far behind. Both in England and in Malta, new building operations constantly unearth unexploded bombs, and it is the Royal Engineers who deal with them. In 1960 alone, Bomb Disposal units had 273 calls in U.K. and 95 in Malta.

And in 1960, Major Bill Hartley was awarded the George Medal for his bravery in dealing with another left-over war bomb in Putney, London.

SURVEY

Survey Units of the Royal Engineers make and print maps at home and overseas, and have a very close liaison with the Ordnance Survey Office, where many Royal Engineers go on leaving the Corps.

Surveyors can qualify for Technician's rates of pay, and there are particularly good opportunities open in the Lithographic Printing Trades.

TRADES TAUGHT IN THE ROYAL ENGINEERS

Every Royal Engineer is taught a Trade. Many are taught **two** trades. Many of these trades will be recognized by the Trade Unions when you leave the Army, so this provides a great chance for men who have missed the chance of a civilian apprenticeship. But remember, **every Royal Engineer is first trained as a fighting soldier.** (see page 92.).

Boys—may learn certain of these trades at the Army Apprentice School, Chepstow. These are marked *, and apprentice training takes 3 years.

Men—The training programme varies for different trades. Trades are grouped as shewn below, and details are shewn on the next few pages. Recruits who already have sufficient civilian experience may take a Trade Test instead of undergoing the course, and, if successful, will be qualified to receive tradesmen's rates of pay after serving six months.

Group 1
Building and Woodworking
(Pages 72 to 73)
- *Bricklayer
- *Carpenter and Joiner
- Woodturner and Machinist
- *Painter and Decorator
- Concretor

Group 2
Metal Workers
(Pages 74 to 75)
- Blacksmith
- Petroleum Fitter
- *Plumber and Pipefitter
- Sheet Metal Worker
- Welder

Group 3
Electrical and Fitting
(Pages 76 to 77)
- *Electrician RE
- *Engine Fitter Internal Combustion and Pumps
- *Engine Fitter Plant
- *Fitter Machinist
- Refrigeration Mechanic
- Saw Doctor
- Vehicle Mechanic

Group 4
Engineering Design
(Pages 78 to 79)
- Surveyor Engineering
- Draughtsman Civil and Structural
- Draughtsman Mechanical

Group 5
Other Operational Trades
(Pages 80 to 81)
- AFV Driver/Gunner/Signaller
- Craft Operator
- Equipment Repairer

Group 5—*continued*
- Signaller RE
- Storeman Technical RE
- Tunneller
- Wellborer
- Combat Engineer (will also be trained in a second trade)

NOTE—All the above are also trained as COMBAT ENGINEERS and will spend part of their service employed at this trade.

Group 6
Driving and Plant
(Pages 82 to 85)
- Driver
- Driver Operator
- Plant Operator
- Crane Operator
- Vehicle Mechanic

Group 7
Administrative
(Pages 86 to 87)
- Clerk RE
- Courier and Postal Operator
- Storeman Survey
- Storeman Technical RE

Group 8
Survey Technician
(Pages 88 to 89)
- *Technician-Field Survey
- *Technician-Survey Cartographic
- *Technician-Survey Photographic
- *Technician Survey Print

Group 9
Survey-Field and Drawing
(Pages 88 to 89)
- *Surveyor Trigonometrical
- *Surveyor Topographical
- *Draughtsman Topographical
- *Lithographic Artist (Maps)

Group 10
Survey-Photographic Trades
(Pages 88 to 89)
- *Lithographic Camera Operator
- *Lithographic Helioworker

Group 11
Survey Printing Trades
(Pages 88 to 89)
- *Lithographic Machine Minder
- Storeman Survey

Group 12
Transportation—Railway Trades
(Pages 90 to 91)
- Blockman
- Boilermaker
- Brakesman and Shunter
- Carriage and Wagon Repairer
- Draughtsman Railway and Port Construction
- Fireman (Transportation)
- Fitter Electrician (Transportation)
- Fitter Locomotive (Diesel)
- Fitter Locomotive (Steam)
- Fitter Railway Signals
- Platelayer
- Railway Engine Driver (Diesel)
- Railway Engine Driver (Steam)

Group 12—*continued*
Transportation—Railway Trades
- Steelwork Erector
- Traffic Operator

Group 12
Transportation—Port Trades
(Pages 90 to 91)
- Crane Operator (Transportation)
- Lighterman
- Marine Engineer (Diesel and Petrol)
- Marine Engineer (Steam)
- Navigator
- Shipwright (Metal)
- Shipwright (Wood)
- Fireman (Transportation)
- Stevedore

NOTE—Groups 8 to 12 may also be trained as COMBAT ENGINEERS in the near future.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 1 BUILDING AND WOODWORKING TRADES

Bricklayers at work on a water pipeline. (Photo Imperial War Museum).

Group 1. **Building and Woodworking Trades.**

All men for these trades are first given 19 weeks basic and **Combat Engineer** Training at No. 1 Training Regiment RE, Cove, at the end of which (if they pass) they will receive tradesmen's rates of pay after six months service in the Army. They then do a trade course of 12 to 20 weeks (as shewn below) either at the School of Military Engineering, Chatham, or in a field unit. This course will not necessarily follow immediately after completion of Combat Engineer training, unless a course starts at that time and there is a vacancy on it.

***Bricklayer** (19 weeks Combat Engineer plus 16 weeks Trade Course). All kinds of brickwork in building construction, including setting out and levelling. Is also given some instruction in tiling, concreting, plastering and masonry.

***Carpenter and Joiner** (19 weeks Combat Engineer plus 12 weeks Trade Course) . All kinds of joinery in connection with buildings, cabinet making, office and domestic articles, and structural alteration work.

Woodturner and Machinist (19 weeks Combat Engineer plus 20 weeks Trade Course). Operating mortising, planing and tenoning machines, band and circular saws. Woodturning. Grinding cutters. Identifying timber and working from dimensional sketches.

***Painter and Decorator** (19 weeks Combat Engineer plus 20 weeks Trade Course). Painting, Decorating and Signwriting. Preparing surfaces and mixing and matching paint. Also glazing, paperhanging, stencil cutting, and polishing.

Concretor (19 weeks Combat Engineer plus 20 weeks Trade Course). Mixing and laying concrete. Laying levelling pegs. Use of gauges. Erection of formwork. Reinforcement including pre-stressing.

*These Trades are also taught at the Army Apprentice School, Chepstow.

A Woodturner and Machinist operating a tenoning machine.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 2 METALWORKERS TRADES

A welder learning to cut metal under water.

Pipebending in the Plumbers' Shop.

All men for these trades are first given 19 weeks basic and **Combat Engineer** Training at No. 1 Training Regiment RE, Cove, at the end of which (if they pass) they will receive tradesmen's rates of pay after six months service in the Army. They then do a trade course of 12 to 28 weeks (as shewn below) either at the School of Military Engineering, Chatham, or in a field unit. This course will not necessarily follow immediately after completion of Combat Engineer training, unless a course starts at that time and there is a vacancy on it.

Blacksmith (19 weeks Combat Engineer plus 20 weeks Trade Course). Striking and making tools and chains. Welding, forming case-hardening and tempering metals and springs. Use of oxy-acetylene equipment and drop-hammers.

Petroleum Fitter (19 weeks Combat Engineer plus 28 weeks Trade Course). Pipefitting and bending and valve work. Bolted tanks and setting up of ship to shore lines. Brazing and welding. Operating and maintaining petroleum pumping sets.

***Plumber and Pipefitter** (19 weeks Combat Engineer plus 16 weeks Trade Course). All kinds of pipework, soldering, screwcutting etc. and work with mild steel, wrought iron, copper and lead, including lead sheet work. Domestic water and sanitary systems.

Sheet Metal Workers (19 weeks Combat Engineer plus 12 weeks Trade Course). Coppersmith, tinsmith, whitesmith, panel beater and sheet metal worker. Also brazing, soldering, annealing, welding and repair work.

***Welder** (19 weeks Combat Engineer plus 20 weeks Trade Course). Electric arc and acetylene welding and cutting in all positions. Learns characteristics of ferrous and non-ferrous metals.

*These Trades also taught at the Army Apprentice School, Chepstow.

Opposite—Blacksmith using power hammer.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 2 METALWORKERS TRADES

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 3 ELECTRICAL AND FITTING TRADES

All men for these trades are first given 19 weeks basic and **Combat Engineer** Training at No. 1 Training Regiment RE, Cove, at the end of which (if they pass) they will receive tradesmen's rates of pay after six months service in the Army. They then do a trade course of 28 to 52 weeks (as shewn below) either at the School of Military Engineering, Chatham, or in a field unit. This course will not necessarily follow immediately after completion of Combat Engineer training, unless a course starts at that time and there is a vacancy on it.

A Fitter Machinist changing speed on a pillar drill.

*__Electrician RE__ (19 weeks Combat Engineer plus 30 weeks Trade Course). Fitting, wiring, brazing, soldering, testing, light and power A.C. and D.C. up to 50KW. Knowledge of generators. Wiring of buildings, power station operating.

*__Engine Fitter Internal Combustion and Pumps__ (19 weeks Combat Engineer plus 28 weeks Trade Course). Knowledge of engines and pumps. Replacements to engines, soldering and brazing. Overhauling engines, pumps and compressors.

*__Engine Fitter Plant__ (19 weeks Combat Engineer plus 28 weeks Trade Course). Maintenance of excavators and diesel tractors, overhaul and operation of plant.

*__Fitter Machinist__ (19 weeks Combat Engineer plus 36 weeks Trade Course). Fitter and turner. Fitting, filing, drilling, tapping, tempering and working to specified tolerances from drawings. Turning and taper work, thread-cutting and grinding. Maintenance of machines and engines.

__Refrigeration Mechanic__ (19 weeks Combat Engineer plus 28 weeks Trade Course). Refrigeration principles, brazing, pipe bending. Location and rectification of faults. Installations, adjustments and replenishment.

__Saw Doctor__ (19 weeks Combat Engineer plus 52 weeks Trade Course). Sharpening and setting all types of saw. Retoothing of hand saws. Setting up and operation of all types of woodworking machinery.

__Vehicle Mechanic__ (see page 82).

*These Trades also taught at the Army Apprentice School, Chepstow.

Opposite—Electrician in a Power Station in Gibraltar. (Photo J. C. Marshall).

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 3 ELECTRICAL AND FITTING TRADES

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 4 ENGINEERING DESIGN TRADES

Draughtsman Civil and Structural.

Draughtsman Mechanical.

All men for these trades are first given 19 weeks basic and **Combat Engineer** Training at No. 1 Training Regiment RE, Cove, at the end of which (if they pass) they will receive tradesmen's rates of pay after six months service in the Army. They then do a trade course of 24 to 26 weeks (as shewn below) either at the School of Military Engineering, Chatham, or in a field unit. This course will not necessarily follow immediately after completion of Combat Engineer training, unless a course starts at that time and there is a vacancy on it.

Surveyor Engineering (19 weeks Combat Engineer plus 24 weeks Trade Course). Chain surveys, plotting to scale, use of field and level books. Use of level, theodolite and tapes. Setting out curves, geometry and trigonometry.

Draughtsman Civil and Structural (19 weeks Combat Engineer plus 25 weeks Trade Course). Dimensioned drawings of buildings and reinforced concrete structures. Preparation of site layouts.

Draughtsman Mechanical (19 weeks Combat Engineer plus 26 weeks Trade Course). Drawing machine components, calculating scales, mathematical calculations including areas and volumes. Use of micrometer and vernier gauges.

Opposite—Surveyor Engineering.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 4 ENGINEERING DESIGN TRADES

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 5 OTHER OPERATIONAL TRADES

A Combat Engineer placing explosives.

A Signaller operating a radio on manoeuvres in Germany.

All men for these trades are first given 19 weeks basic and **Combat Engineer** Training at No. 1 Training Regiment RE, Cove, at the end of which (if they pass) they receive tradesmen's rates of pay after six months service in the Army. They then do a trade course, either at the School of Military Engineering, Chatham, or in a specialist unit, as shewn below. This course will not necessarily follow immediately after completion of Combat Engineer training unless a course starts at that time.

AFV Driver/Gunner/Signaller (19 weeks Combat Engineer course, followed by tank crew training at the Armoured Engineer Troop, Bovington). These men become the crews of Royal Engineer Tanks in the Armoured Engineer Squadron.

Craft Operator (19 weeks Combat Engineer plus 4 weeks Trade). Seamanship. Recognition of buoys and navigation lights. Splicing wire and rope. Handling motor boats and rafts, including running repairs to engines.

Signaller RE (19 weeks Combat Engineer plus 6 weeks Trade). Radio Operator, including running repairs. Testing and charging batteries. Use of codes. Can become a driver operator by learning to drive.

Storeman Technical RE (19 weeks Combat Engineer plus 6 weeks Trade Course at Engineer Stores Depot Long Marston). Knowledge of engineer stores, engines and machines. Stores handling and accounting.

Tunneller (19 weeks Combat Engineer plus specialist training in Gibraltar). Mining machinery. Use of explosives and timber for tunnelling.

Wellborer (19 weeks Combat Engineer plus specialist training with civilian firms). Use of drilling rigs and tools. Splicing wire rope. Use of fitters' and blacksmiths' tools.

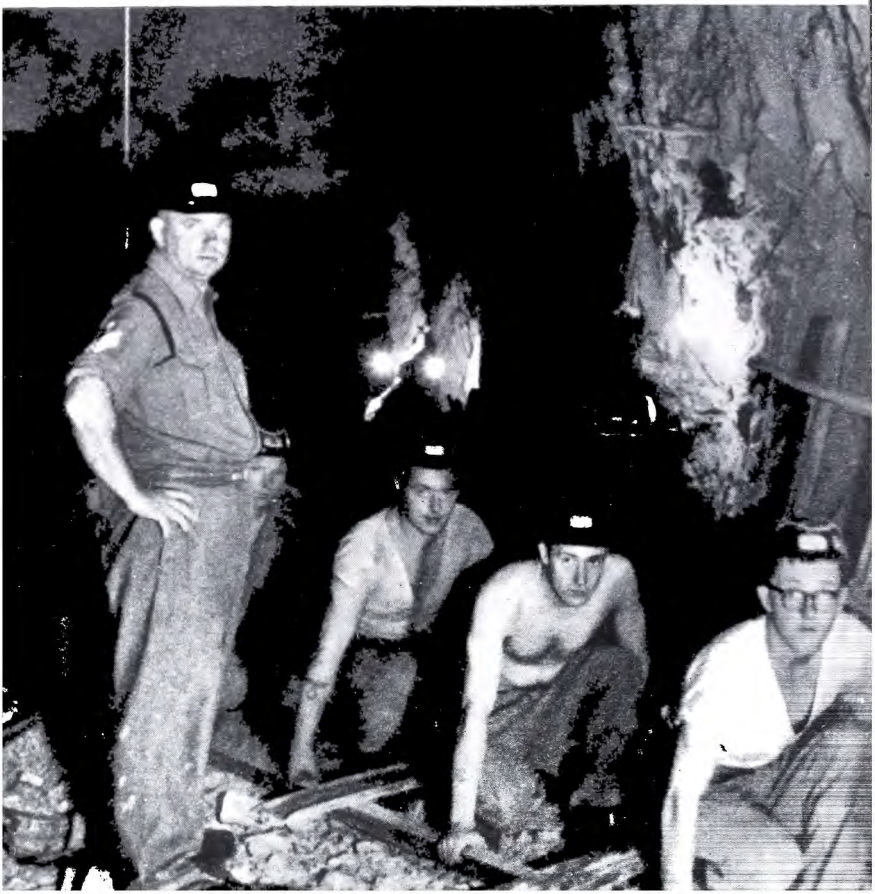
Combat Engineer The basic Royal Engineer trade for hot and cold war. Roads, airfields, bridges, ferries. Laying and clearing mines. Use of explosives. Use of pumps, engines and power tools. Every combat engineer is also taught a second trade. Combat Engineer training is taught at 1 Training Regiment, Royal Engineers, Cove. See page 92.

Equipment Repairer (19 weeks Combat Engineer plus 6 weeks trade training with the RAOC). Ability to work with leather and webbing. Single and double handed stitching. Insertion of panels, darning, tipping and studding etc.

Opposite—Tunnellers at work deep in the rock of Gibraltar (Photo J. C. Marshall).

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 5 OTHER OPERATIONAL TRADES



TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 6 DRIVING TRADES

A driver operator on active service in Aden.

All men for these Trades are first given 12 weeks' basic military and engineering training followed by 7 weeks driver training at No. 1 Training Regiment RE, Cove. If they pass this they receive tradesmen's rates of pay after six months' service in the Army. Drivers then go to units for employment. Others go on for further training as shewn below. This training will not necessarily follow immediately after the driving course, unless a course starts at that time and there is a vacancy on it.

A vehicle mechanic removing a clutch housing.

Driver (19 weeks basic and driving training). Drives and maintains Army vehicles.

Driver Operator (19 weeks basic and driver training plus 6 weeks wireless operators' course at Chatham or in a Field Unit). Operates and maintains the wireless set in his vehicle. Testing and charging batteries. Use of codes.

Plant Operator } see
Crane Operator } page 84.

Vehicle Mechanic (19 weeks basic and driving training plus 16 weeks trade course at REME School, Arborfield). Maintains and repairs all kinds of Army vehicles and other engines and machines.

From January 1962 this trade can only be obtained in Group Three.

Opposite—A driver using a Sun Compass in the Desert.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 6 DRIVING TRADES

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 6 PLANT TRADES

Plant Operator (Tractor) operating an angledozer.

Plant and Crane Operators

These are two of the trades in the Driving and Plant Group, and are first given 12 weeks basic and 7 weeks driving training at No. 1 Training Regiment RE, Cove. If they pass this they receive tradesmen's rates of pay after six months service in the Army. They then receive 11 weeks Plant Operating or Crane Operating training at the School of Military Engineering, Chatham, or in a field unit. This will not necessarily follow immediately after their driving course, unless a course starts at that time and there is a vacancy on it.

Plant Operators are initially trained either to operate Tractors or Excavators (in each case with varying types of front end equipment). Later in their service they may be up-graded to **B II** classification, for which they are taught to operate both Tractors and Excavators and also Graders.

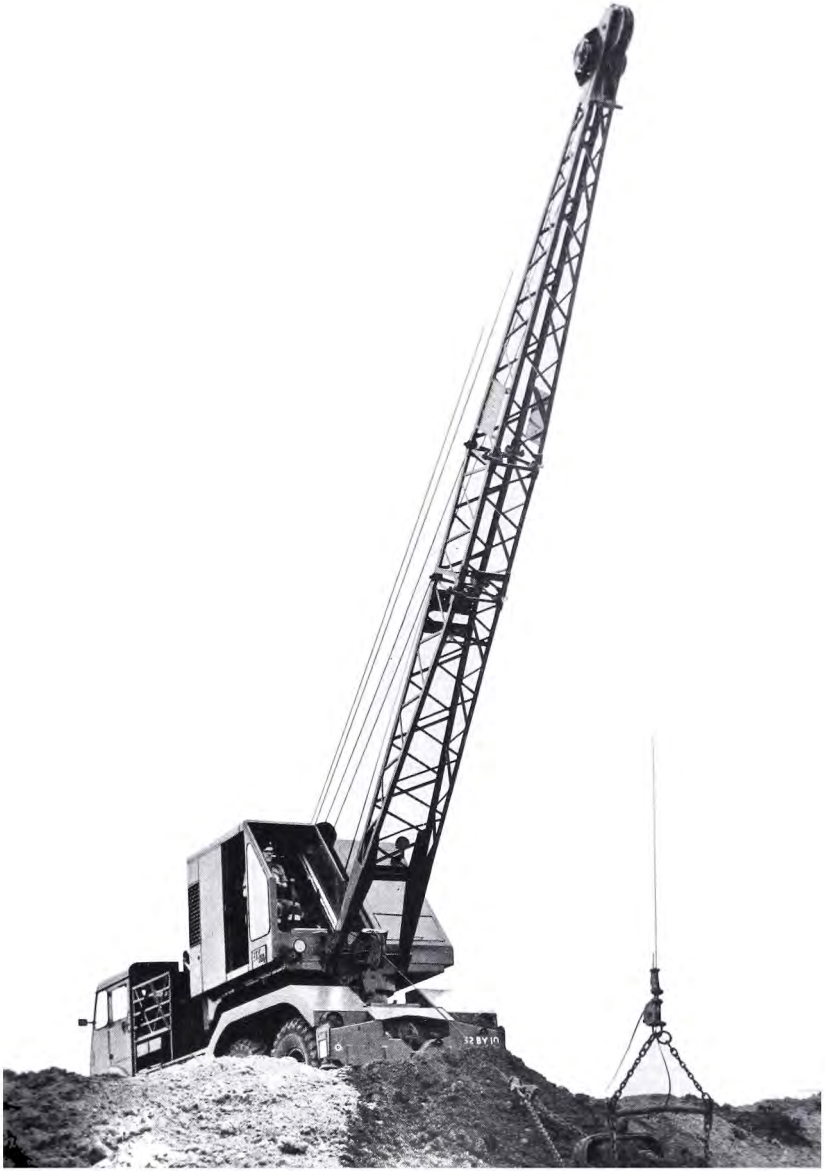
The best men in these trades go on to become Military Plant Foremen.

Boys can also start learning to be Plant Operators at the Junior Leaders Regiment Royal Engineers at Dover.

Plant Operator undergoing advanced training in battering the side of a cutting.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 6 PLANT TRADES



TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 7 ADMINISTRATIVE TRADES

Postal Worker. The Postal Worker first receives 12 weeks basic and military engineering training at 1 Training Regiment RE, Cove. He then receives a further 12 weeks Postal Training at the Home Postal Depot, Mill Hill, London, after which (if he passes) he receives tradesmen's rates of pay after six months' service in the Army.

His task is to get the mail to and from the soldier and his family overseas. In addition to the sorting and handling of mail, including port handling, a Courier Service has now been introduced.

At the Home Postal Depot, and in certain Army Post Offices overseas, the work is shared with girls of the WRAC. (See also page 68).

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 7 ADMINISTRATIVE TRADES

Clerk RE. The Royal Engineer Clerk first receives 12 weeks basic and military engineering training at 1 Training Regiment RE, Cove, followed by a 7 weeks Clerks' Course at the Transportation Centre, Longmoor, after which, if he passes, he receives tradesmen's rates of pay after six months' service in the Army.

He learns typing, filing, registration and general office organisation, and also the clerical side of civil engineering and of movement of personnel and freight by land, sea and air.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUPS 8, 9, 10, & 11 SURVEY TRADES

Sapper with stereoscope.

Lithographic Camera Operator.

The Survey tradesman is first given 12 weeks (may be increased to 19 weeks) basic military and engineer training at No. 1 Training Regiment RE, Cove, followed by 15 to 30 weeks trade training at the School of Military Survey, Newbury. If he passes, he then receives Tradesmen's rates of pay after six months service in the Army.

Trades are listed below; space forbids detailed description of each, but they cover every aspect of map-making, from Trigonometrical Control to the various processes of multi-colour printing of finished maps of a similar standard to those produced by the Ordnance Survey.

All Survey Trades (other than Storeman Survey) are also taught at the Army Apprentice School, Chepstow.

Apprentice Tradesmen and others have the opportunity of graduating to one of the Technician grades in Group 8, which receive the highest rates of pay in the Army.

Group 8. Survey Technician

*Technician-Field Survey
*Technician-Survey Cartographic
*Technician-Survey Photographic
*Technician-Survey Print

Group 9. Survey-Field and Drawing

*Surveyor Trigonometrical
*Surveyor Topographical
*Draughtsman Topographical
*Lithographic Artist (Maps)

Group 10. Survey-Photographic Trades

*Lithographic Camera Operator
*Lithographic Helioworker

Group 11. Survey Printing Trades

*Lithographic Machine Minder
Storeman Survey

Opposite—Lithographic Machine Minder.

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUPS 8, 9, 10, & 11 SURVEY TRADES

TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 12 TRANSPORTATION TRADES

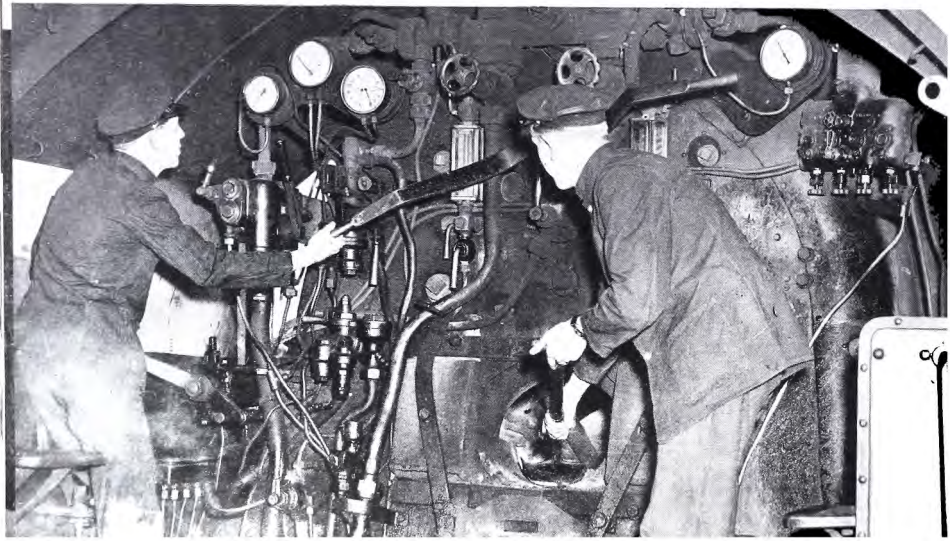
Blockman and Diesel Train.

Railway Trades

After 12 or 19 weeks (may be increased to 19 weeks for all trades) basic military and engineering training at No. 1 Training Regiment RE, Cove, recruits receive 8 to 52 weeks trade training at Longmoor, starting as soon as a course is available, as follows: —

	Basic		Trade Course
Blockman	12	+ 8	weeks
Boilermaker	12	+ 20	,,
Brakesman and Shunter	12	+ 8	,,
Carriage and Wagon Repairer	12	+ 20	,,
Draughtsman Railway and Port Construction	12	+ 52	,,
Fitter Electrician (Transportation)	12	+ 20	,,
Fireman (Transportation)	12	+ 8	,,
Fitter Locomotive (Diesel)	12	+ 20	,,
Fitter Locomotive (Steam)	12	+ 20	,,
Fitter Railway Signals	12	+ 20	,,
Platelayer	12	+ 12	,,
Railway Engine Driver (Diesel)	12	+ 14	,,
Railway Engine Driver (Steam)	12	+ 14	,,
Steelwork Erector	19	+ 20	,,
Traffic Operator	12	+ 30	,,

Engine Driver and Fireman.



TRADES TAUGHT IN THE ROYAL ENGINEERS

GROUP 12 TRANSPORTATION TRADES

Port Trades

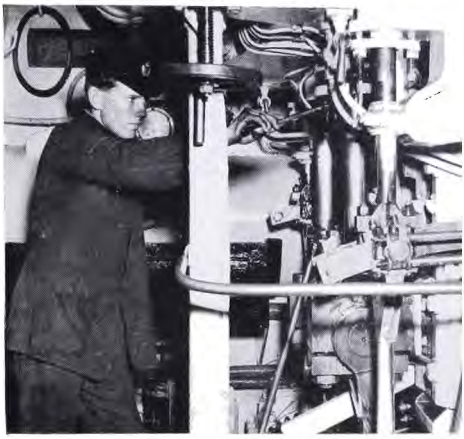
After 12 weeks (may be increased to 19 weeks) basic military and engineering training at No. 1 Training Regiment RE, Cove, recruits receive 6 to 24 weeks trade training at Marchwood, starting as soon as a course is available, as follows: —

	Basic	Trade Course
Crane Operator (Transportation)	12 +	9 weeks
Lighterman	12 +	8 „
†Marine Engineer (Diesel and Petrol	12 +	14 „
†Marine Engineer (Steam)	12 +	24 „
‡Navigator	12 +	24 „
Shipwright (Metal)	12 +	12 „
*Shipwright (Wood)	12 +	12 „
Fireman (Marine)	12 +	6 „
Stevedore	12 +	6 „

*For this trade a person must first qualify as a Carpenter and Joiner (see page 72).

†For these two trades a person must first qualify as an Engine Fitter Internal Combustion and Pumps (see page 76).

‡For this trade a person must first qualify as a Lighterman Second Class.



Marine Engineer.

Shipwrights.

No. 1 TRAINING REGIMENT, ROYAL ENGINEERS

LEARNING TO LIVE AS ONE OF A TEAM

Every Royal Engineer Recruit spends his first 12 weeks at 1 Training Regiment, Cove, near Farnborough, Hants, learning to shoot and to march and to live as a soldier in the barracks and on the battlefield. His strength is built up by expert physical training instructors, and he learns the art of simple engineering in battle.

After those 12 weeks, the recruits separate for specialist training. Some stay on at Cove for another 7 weeks advanced combat engineer training, see **Combat Engineer** page 80, or a 7 weeks' driving course. Others go to specialist schools to be trained in administrative, survey, railway or port operating trades (see pages 86 to 91).

Combat Engineers and drivers, after their 19-21 weeks at Cove, go on to learn a second trade, either at once or after a spell of soldiering in a field unit (see pages 72 to 85).

This training produces a tough fighting soldier who is also a tradesman—for that is what every sapper must be.

But, as any old soldier will tell you, the biggest thing that Army training gives you is the art of making friends. Friends you respect and friends who respect you, sharing the same jokes and the same hardships. Living as a man among men.

You make good friends in the Royal Engineers, friends who will stick by you.

Top—Learning to operate an assault boat with an outboard motor.

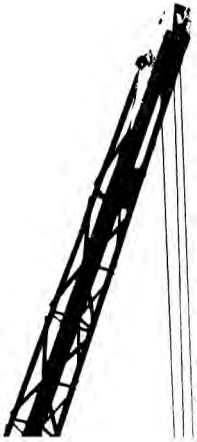
Middle—Four friends under canvas. (Photo H. W. Leach).

Bottom—Teamwork. Combat Engineers building a heavy girder bridge.

Opposite—Teamwork. A crane operator and five combat engineers.

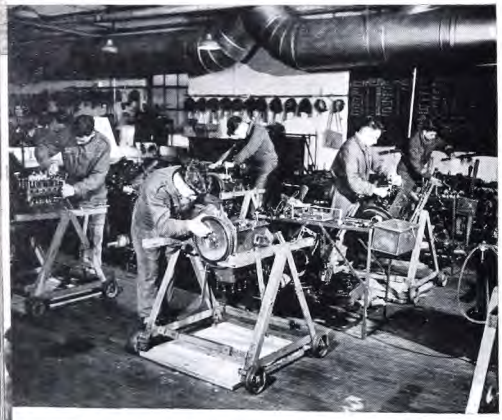
AT THE SCHOOL OF MILITARY ENGINEERING

LEARNING TO LIVE AS ONE OF A TEAM



ARMY APPRENTICE SCHOOL

Apprentices on adventure training—crossing a rope bridge.



Apprentice Engine Fitters at work.

There is stiff competition for vacancies at the **Army Apprentice School, Chepstow.** A boy who gets a place does a three year apprenticeship under expert instructors in workshops as well equipped as any in the country. The trades which are taught are indicated on pages 72 to 91.

Age on arrival must be between 15 and 17, preferably under $16\frac{1}{2}$. Apprentices agree to serve for 9 years after the age of 18, followed by three years on the reserve.

As well as trade training, apprentices receive general education, and are expected to pass their Army Senior Certificate. This exempts them for the first year course of the Ordinary National Certificate—which suitable boys go on to complete at the school. In Trades where there is an appropriate City and Guilds Examination, apprentices take this, and a very high standard of results is achieved.

Apprentices are also trained in leadership—by adventure or " Outward Bound " type of training, and many boys get experience as Apprentice NCOs, within the school.

There are facilities for all kinds of sports and hobbies, including three voluntary bands which make a fine show on ceremonial occasions.

If you, or your parents, would like to visit the school, **write to the Commandant, Army Apprentice School, Chepstow, Monmouthshire.**

ARMY APPRENTICE SCHOOL

Apprentice Fitter Machinist learning to use a radial drilling machine.

THE JUNIOR LEADERS REGIMENT

ROYAL ENGINEERS

Junior Leaders on Parade.

Learning to operate a Radio.

The Junior Leaders Regiment, Royal Engineers, is a training ground for the future senior NCOs and Warrant Officers of the Corps. The regiment is in a modern barracks on a hill overlooking Dover Harbour, with a view across to France in fine weather.

Boys are accepted between 15 and 16½ years old, and normally stay for 7 terms (2½ years) before going on to service as a man in the Royal Engineers.

The regiment is run as a boarding school, with particular stress on education and leadership training. Boys are also trained in Combat Engineering, and given preliminary training in one of the following craft trades: —

Bricklayer	Engine Fitter Plant
Carpenter and Joiner	Painter and Decorator
Clerk	Plant Operator
Driver	Signaller
Electrician	Surveyor Engineering
Engine Fitter Internal Combustion and Pumps	Vehicle Mechanic
	Welder

Strength, fitness and confidence are also built up by expert training instructors and by adventure and " Outward Bound " type training.

On the educational side, boys of suitable ability may obtain up to four passes of G.C.E. " O " Level before they leave.

All boys are encouraged to have a hobby. There are 25 to choose from.

All boys also play games and, as proof of the standard of coaching, the regiment in 1960/61 won the Army Junior Championships for Football, Boxing, Basket Ball and Hockey.

If you, or your parents, would like to visit the Regiment, **write to the Commanding Officer, Junior Leaders Regiment RE, Dover.**

Opposite—Junior Leaders on adventure training—Rock Climbing.

THE JUNIOR LEADERS REGIMENT

ROYAL ENGINEERS

THE JUNIOR LEADERS REGIMENT

ROYAL ENGINEERS

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Opposite—Junior Leaders on adventure training—Rock Climbing.

THE JUNIOR LEADERS REGIMENT

ROYAL ENGINEERS

TRAINING BY ADVENTURE

Climbing, sailing, ski-ing, potholing, canoeing—in the Army these are part of your training. You are paid for doing them, and they count as work!

So they should, for there is no better way of training the tough, confident and self reliant soldier required for modern war.

No civilian club can rival the Army's power, experience and resources for organising and backing an adventurous expedition. It was no fluke that a soldier—Sir John Hunt—was chosen to lead the conquest of Everest.

For example, in a single winter (1960-61) 75 per cent of the regular sappers in one of the divisions in Germany had a fortnight's ski-ing in Austria (see photo opposite). Every year, Royal Engineers set out to climb in Scotland, Wales, and the Lake District, to canoe in the English Channel and to sail across the Baltic to Denmark and Sweden.

Men who are accepted into the Royal Engineers truly have a passport to adventure.

Twenty-four Royal Engineers welcomed by a large crowd on the French coast after crossing the Channel in home-built canoes.

TRAINING BY ADVENTURE

Royal Engineers ski-ing in Austria.

Rock-climbing with the Junior Leaders Regiment,
Royal Engineers.

SPORT IS PART OF YOUR TRAINING

Sport is part of your training in the Army, and you can be sure of a game of some kind, in working hours, at least once a week if you are keen.

The Royal Engineers have a magnificent sporting record. In 1959/60, Royal Engineer crews represented Great Britain in World and European Rowing and Sailing championships. In 1960/61, the Junior Leaders Regiment, Royal Engineers, won the Army Junior Championships for Football, Boxing, Basketball and Hockey, and in March 1961 Junior Lance-Corporal Thomas became the 9 stone Junior Amateur Boxing Champion of Great Britain in the A.B.A. Championship at the Albert Hall.

Dave Charnley was a Royal Engineer. Read what he has to say on page 104 about opportunities for sport in the Royal Engineers.

Above—Junior Leaders at basket ball (photo *Soldier* Magazine).

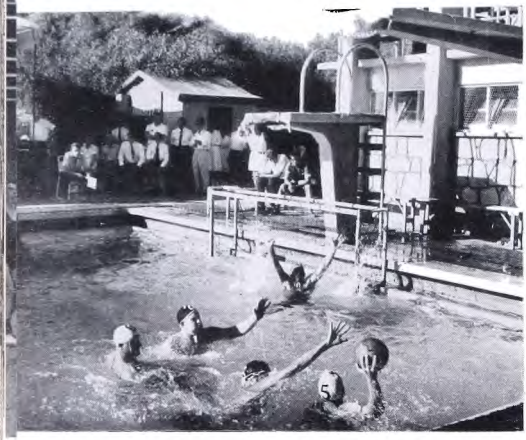
Below—Junior Lance-Corporal Thomas, Junior Amateur Boxing Champion of Great Britain.

SPORT IS PART OF YOUR TRAINING

(Photo *Soldier* Magazine).

Football is the most popular sport in the Army, and Royal Engineers play it all over the world. Top-rate players get the chance of playing in top-rate teams against top-rate opposition. The ordinary player can also be sure of a regular game in his troop or squadron team.

SPORT IS PART OF YOUR TRAINING



Army Water Polo Final, Cyprus, 33 Independent Field Squadron, Royal Engineers, defend their goal against the 2nd Battalion, The Parachute Regiment.

Getting ready for underwater sport

Opposite—A Royal Engineer with a friend he made while ski-ing in Austria.

SPORT IS PART OF YOUR TRAINING

SPORT IS PART OF YOUR TRAINING

DAVE CHARNLEY—EUROPEAN, BRITISH & EMPIRE (DARTFORD) LIGHTWEIGHT CHAMPION

Dave Charnley's Message

"I am proud to have been in the Royal Engineers and I enjoyed it a lot.
I spent my time in the Royal Engineers as a P.T. Instructor. To lads who are thinking of joining I would say this:—

> The physical training you will get in the Royal Engineers will make you fitter and tougher than you ever were before.

If you are keen on sport, the Army gives you every encouragement, and if you are good you will get more chance of reaching the top as a sportsman than you will in any ordinary job. Believe me—I know."

Below are three of the most important fights Dave Charnley won as a Royal Engineer:—

January 1958

He beat Don Jordan (America) who later became World Welterweight Champion.

June 1958

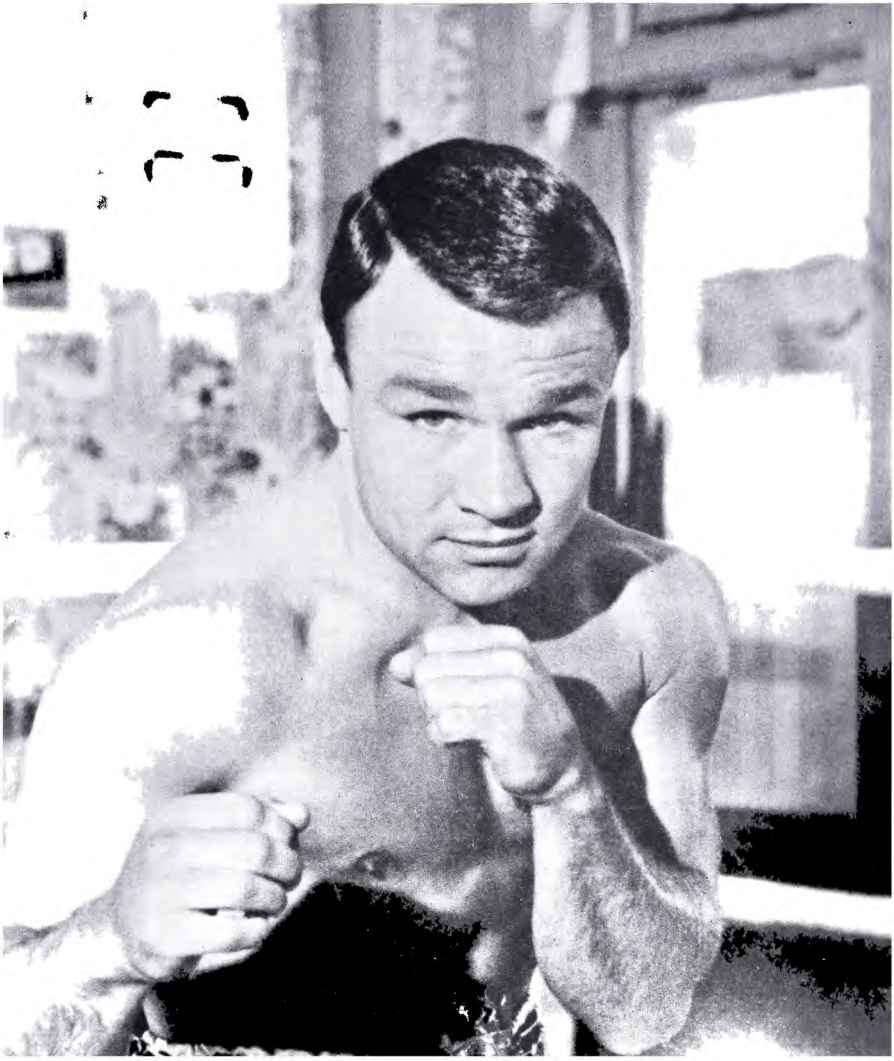
He beat Joe Lopes (America).

May 1959

He beat Willie Towell and became BRITISH EMPIRE LIGHTWEIGHT CHAMPION.

SPORT IS PART OF YOUR TRAINING

DAVE CHARNLEY—EUROPEAN, BRITISH & EMPIRE
(DARTFORD) LIGHTWEIGHT CHAMPION



OFFICERS IN THE ROYAL ENGINEERS

A regiment is as good as its officers. If you join the Royal Engineers you have a right to expect to serve under good officers—officers who are both good soldiers, and good engineers. All officers undergo a stiff selection test, and there is fierce competition for the RE vacancies from Sandhurst. Normally no cadet below the top 25 per cent in the order of merit—based on both character and brains—can hope to get a Commission in the Royal Engineers.

After Sandhurst, the majority of RE officers go on to get a University Degree at Cambridge or at the Royal Military College of Science.

The quality of RE officers is proved by the remarkably high proportion who reach the top.

84 of the Generals in World War II were Sappers.

Since 1945 the Royal Engineers have provided: —

Four General Officers Commanding-in-Chief.

Four Quartermaster Generals.

Five Vice and Deputy Chiefs of the Imperial General Staff.

Many Chiefs of Staff and Corps and Divisional Commanders.

A Commandant of the Staff College.

Three Commandants of the Royal Military College of Science.

A Commandant of the RMA Sandhurst.

The Lieutenants and Captains who command you in the Royal Engineers may or may not be future Generals. **They will be good officers,** or they would never have been commissioned in the Royal Engineers.

If you want to know more about officers in the Royal Engineers, turn to pages 51 (Lieutenant Raymond VC), and 123 (Brigadier Chambers).

OFFICERS IN THE ROYAL ENGINEERS

Major Brian Coombe, pictured here, was Commanding a Field Squadron, going about his business of building camps and roads in Cyprus. He was ambushed by four armed terrorists. His driver was killed outright. Major Coombe fought them single handed and captured three of them. For this action he was awarded the George Medal.

This might have happened to any sapper in the squadron. It happened to the Squadron Commander, and he was not found wanting. The Royal Engineers are good men led by good officers who share their hardships and dangers.

REGIMENTAL LIFE

11 INDEPENDENT FIELD SQUADRON IN MALAYA

A sapper gets a drink from a friend.

With Commonwealth Troops in Malaya and Borneo

11th Independent Field Squadron is part of the 28th Commonwealth Brigade, which has included British, Australian, New Zealand and Gurkha troops. The squadron includes a troop of Royal Australian Engineers.
Up till 1960, the Brigade and the squadron were fully extended in fighting the Communist terrorists in Malaya. For the sappers this meant building roads and tracks, jungle camps, air-strips and helicopter landing zones, all in some of the densest jungle in the world. They played a major part in the Kedah roads project, described on pages 112 and 113.

As the rounding up of the communist terrorists neared an end, the squadron moved to British North Borneo for six months, where it took part in developing a new training area for the Army in the Far East. In the course of their service, Royal Engineers make friends all over the world, and any who have served in Malaya will tell you that the Malayans are amongst the friendliest of all. There was sweat and blood and toil for the sappers in the jungles of Malaya, but they found ample reward for their skill and determination in bringing peace and prosperity to a happy people.

Royal Engineers cross a river in the Malayan jungle.

REGIMENTAL LIFE

34 INDEPENDENT FIELD SQUADRON IN EAST AFRICA

Royal Engineers building Percival's Bridge on the slope of Mount Kenya.

Hot and Cold in Kenya and Kuwait

34 Independent Field Squadron is part of the 24th Infantry Brigade Group, Britain's Strategic reserve in the Far East, based in Kenya.

Life in East Africa is a life of adventure—a man's life. You soon learn to look after yourself. If you forget to fill your waterbottle when you have the chance, you go thirsty. If a driver forgets to load his reserve petrol, he's in for a night out in the bush.

Detachments of the squadron have operated over thousands of miles, stretching from the Congo and Sudan borders up to Bahrein and the Persian Gulf, and at the time of writing they have landed with their Brigade in Kuwait to forestall the threatened invasion. You certainly see the world in the Middle East strategic reserve!

Typical tasks have been building airstrips, blasting roads through the mountains and building timber bridges on the forest tracks.

REGIMENTAL LIFE

34 INDEPENDENT FIELD SQUADRON IN EAST AFRICA

Sapper Grant looks back into Uganda on the borders of Ruanda Urindi.

Recreations are very different from those in England. They include climbing Mount Kenya or Kilimanjaro, seeing the magnificent animal life of Africa, hitch-hiking to Rhodesia or South Africa, or lounging on the shores of the Indian Ocean at the Silver Sands Leave camp at Mombasa.

It's a good life.

Lance-Corporals Baskeyville and McCardle at the foot of the Lewis Glacier, Mount Kenya.

ENGINEERING PROJECTS

THE KEDAH ROAD

The Road to Peace

In 1957, the Communist rebellion in Malaya was nearing collapse, but many terrorist camps were still holding out in the wild dense jungle in Kedah near the frontier of Thailand, where they held control over the scattered population who lived in the remote river valleys in the area.

The terrorists lived in the jungle. When they demanded food and money from the people, the people dared not refuse because they knew that there was no hope of quick action by troops or police to protect them, because the troops could not be everywhere, and there were no roads.

Moreover, the people grew more food than they could eat, but they could not get it to market because there were no roads. So the terrorists had it all.

When they were sick or injured, there was no hope of quick medical attention, and their children grew up with little chance of education.

Top—Setting out the road alignment through the jungle.

Middle—Crossing a river by ferry.

Bottom—A bulldozer at work on a cutting.

ENGINEERING PROJECTS

THE KEDAH ROAD

There was only one solution. Roads. And so the Royal Engineers, with their brother sappers in the Federation Engineers, set out to cut 64 miles of road through some of the wildest jungle in the world, across huge rivers liable to flood, and into country then virtually under terrorist control. Here was a true task for the soldier-tradesman.

Armed with the most modern earth-moving plant, using the latest engineering techniques in the design and building of flood-proof prestressed reinforced concrete bridges, the sappers completed the job in 1959.

And the people? The soldiers have brought them peace and prosperity, freedom from domination by armed bandits, access for doctors and teachers to serve them, and access to the market for their produce. Do they regard the soldiers as enemies or friends? Ask any sapper who took part in this project. The people's gratitude was their reward.

Such is the task of the Royal Engineers in the cold war of to-day.

Top—A Royal Engineer operating a bulldozer on the Kedah Road.

Middle—Grading the surface.

Bottom—Prestressed reinforced concrete bridge at Nami.

ENGINEERING PROJECTS

CHRISTMAS ISLAND

H-Bomb Island

Christmas Island is one of the remotest islands in the world—in the middle of the Pacific Ocean, 3,500 miles from the nearest mainland. It fell to the Royal Engineers to convert this virtually uninhabited desert island into a thriving base for Britain's H-Bomb Tests.

The Royal Engineers built two airfields for RAF V-bombers, and built and operated a port handling up to 500 tons of cargo a day. They built 55 miles of asphalt road, millions of gallons of fuel storage, five power stations, a hundred tons of cold storage, a "miniature city" for 2,500 men, with living accommodation, clubs, dining rooms, a cinema, newspaper office, broadcasting stations, ice-cream and mineral water factories, all with water, sewage, light and power laid on. They built workshops and hangars for the RAF, and laboratories and instrument stations for the scientists—the instruments being buried in welded steel cubes under the ground, and capable of withstanding the blast of an H-bomb bursting a few thousand yards away.

For this mammoth task, the Royal Engineers were equipped with the latest plant. There were at one time 1,500 sappers on the Island, operating 270 pieces of earthmoving and other mechanical plant, over 100 generators and air-conditioning units, and over 100 tip-trucks, heavy lorries and other vehicles—there was more than one machine to every three men.

Work was often in shifts, around the clock, and output was prodigious—for example, the quarries averaged over 1,000 tons of crushed stone per day, a 2,000 yard asphalt runway for V-bombers was built on virgin ground in six months, and asphalt roads were built at rates up to a mile a day (double the rate of progress in building the M1!).

Left—Royal Engineers constructing a Television Mast.

ENGINEERING PROJECTS

CHRISTMAS ISLAND

It was a field day for tradesmen, and the following were amongst the tradesmen employed on Christmas Island: —

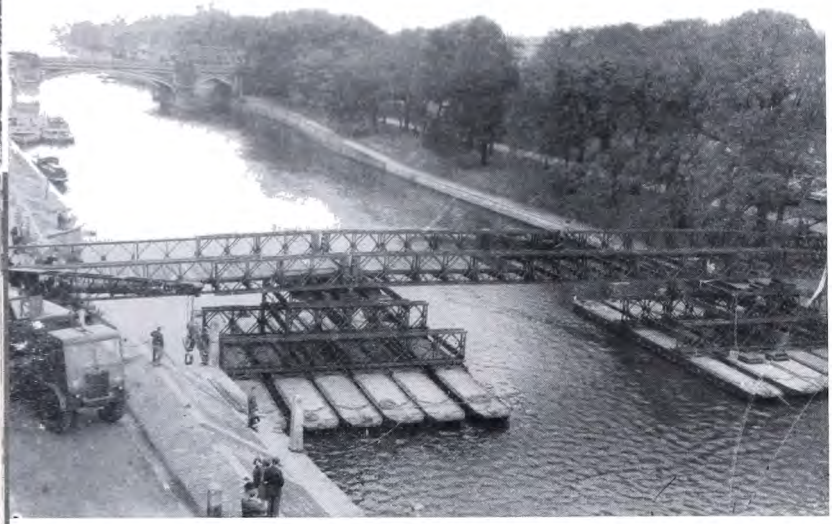
Blacksmith
Bricklayer
Carpenter and Joiner
Clerk
Concretor
Craft Operator
Crane Operator
Draughtsman Civil and Structural
Draughtsman Mechanical
Driver
Driver Operator
Electrician
Engine Fitter Internal Combustion and Pumps
Engine Fitter Plant
Fitter Machinist
Lighterman
Marine Engineer
Navigator
Painter and Decorator
Petroleum Fitter
Plant Operator
Plumber and Pipefitter
Postal Worker
Refrigerator Mechanic
Saw Doctor
Sheetmetal Worker
Shipwright
Signaller
Stevedore
Storeman Technical RE
Surveyor Engineering
Welder
Woodturner and Machinist

Hard work? A tough life? Certainly. But the sappers found time to enjoy many unusual off-duty pursuits—water ski-ing, skin-diving and shark-fishing were amongst them—and went for leave to such exotic places as Fiji and Honolulu. It's a full life in the Royal Engineers, with always something new and unexpected round the corner.

One of the scientists' instrument stations in the target area. Two hours before H-hour, a sapper gives a final check to his generator before leaving it to run the instruments under automatic control.

HELPING THE PEOPLE

YORK



York 1959.

York 1961.

York 1959—St. George's Bridge

Traffic Crisis in York! A main road bridge suddenly closed for repair. 38 Corps Engineer Regiment were called to the rescue. A 205 foot high level bridge must be open before the week-end rush. The sappers made it—with minutes to spare. 10,000 vehicles poured across during the next 36 hours.

York 1961—The Royal Wedding

In June 1961, the York Police expected unprecedented traffic for the Royal Wedding. Again the Royal Engineers answered the call, this time with a 288 foot heavy girder bridge with a central span of 225 feet.

HELPING THE PEOPLE

LYNMOUTH—BATH

Royal Engineers to the Rescue

The Royal Engineers are particularly fitted to come to the rescue of the public, because of their ability to throw military bridges across rivers far more quickly than any civilian contractor.

Four examples are given here.

Lynmouth 1952

Everyone remembers the tragic flood disaster at Lynmouth in 1952. And the people of Lynmouth will never forget the prompt response of the Royal Engineers, whose men and machines sped across England through the night to come to their rescue.

(Photo *Soldier* Magazine).

Bath 1961

A narrow bridge was causing traffic congestion in Bath. The Royal Engineers of the 43rd Wessex Division (TA) come to the rescue by building this Heavy Girder Bridge across the River Avon. After they had prepared the site, they built the bridge itself in 11 hours.

CAREERS IN THE ROYAL ENGINEERS

The next few pages depict the careers of thirty Royal Engineers serving all over the world. Some were promoted quickly (a Sergeant at 21 and a Warrant Officer at 24) and others more slowly (you will find a Corporal of 28 and a Sergeant of 41). Some are serving overseas, with generous Local Overseas Allowances, and others are at home. Some are married, with marriage and education allowances. Others are bachelors, with free food and accommodation.

Promotion

A good man gets on fast in the Royal Engineers. Promotion is by a Selection Board which takes account of seniority, experience and merit. Each year, every NCO reads the Confidential Report written by his Commanding Officer on his past year's work, and is given the opportunity to discuss it, so he knows just where he stands.

There is no standard rate of promotion, as you will see if you study these men's careers. But below is a rough guide as to the age at which a good sapper can expect to be promoted.

	Good	Very Good	Outstanding
Lance Corporal	21	20	19
Corporal	23	22	20
Sergeant	26	25	23
Sergeant Major	35	31	29

The best Sergeant Majors go on to become Commissioned Quarter-masters, with the prospect of becoming Lieutenant Colonels. But any outstanding NCO may be selected to be an officer while still in his twenties (see Captain Fisher and Sergeant Cridge). Some—such as Brigadier Chambers—are on their way right through to the top.

Pay and Allowances

Pay and Allowances depend on where you are serving, whether you are married, and on your rank, trade and service, and how long you have undertaken to serve.

A single man gets many benefits in kind, such as free food, accommodation, heat, light, working clothing, cheap (and sometimes free) travel, and a big saving in Income Tax, because a civilian has to pay for these things out of what is left after he has paid tax on his wages. These benefits are worth between £5 and £6 a week.

An unmarried sapper aged 19, on a 9 year engagement who has passed his Combat Engineer training will receive £7. 7. 0d. a week in cash after he has six months' service in the Army. He also receives benefits in kind worth about £5 a week. In other words he would have to earn £13 a week to beat it. If he goes abroad, he gets Local Overseas Allowances. A civilian would have to earn £20 a week all the year round to have as much to spend as most bachelor sergeants, and civilian life has nothing to offer a bachelor that can compare with life in a Sergeants' Mess.

Once he gets married, he is better off still. A sergeant, for example, receives £3. 6. 6d. in Marriage Allowances, and £2. 3. 2d. in Ration Allowances, which usually brings his pay to well over £1,000 a year. Education Allowances are very generous. If, for example, he has three children at boarding school while he is overseas, he receives another £525 a year tax free. Read the case of Staff Sergeant Knight, who would need to earn over £2,000 a year to get what the Army gives him.

It is little wonder that **91 per cent** of Sergeants who have completed 12 years service go on to complete 22 years or more.

MEET CORPORAL DUNCALFE

VARIETY, EXCITEMENT—AND GOOD PAY

£1,440 a year at 21, a life packed with excitement and variety and a wonderful prospect for the future in the **Royal Engineers.**

And what does he earn? In Hong Kong his allowances are high:—

	£	s.	d.
Basic Pay	9	2	0
Marriage Allowance	2	16	0
Clothing Allowance		1	6
Local Overseas Allowance (Hong Kong)	12	12	0
Ration Allowance	3	2	5
Total per week	£27	13	11

Corporal and Mrs. Duncalfe live in a civilian flat, and their allowances are high because their rent is high. **Wherever you are serving overseas, and however high your costs, the Army adjusts your allowances to fit the cost of living.**

Corporal Duncalfe is 21. You wouldn't believe that anyone could pack so much into the few years since he left school.

He started learning his trade of Bricklayer at the Army Apprentice School at 15, and by the time he was 18 he had passed his City and Guilds.

At the age of 19 he was a Lance Corporal, had a First Class Certificate of Education, was Garrison 880 yards champion, in the winning cross-country team in the Southern Counties championship and was in Hong Kong.

By the time he was 20, he was in the movie business, blowing up a junk for the J. Arthur Rank film " Ferry to Hong Kong," and had been to Australia for an upgrading course with the Royal Australian Engineers.

Back in Hong Kong, still only 20, he became engaged by telephone to his girl back home, and **his fiancee was flown out in a Britannia at Army expense to Hong Kong for their wedding in July 1960.**

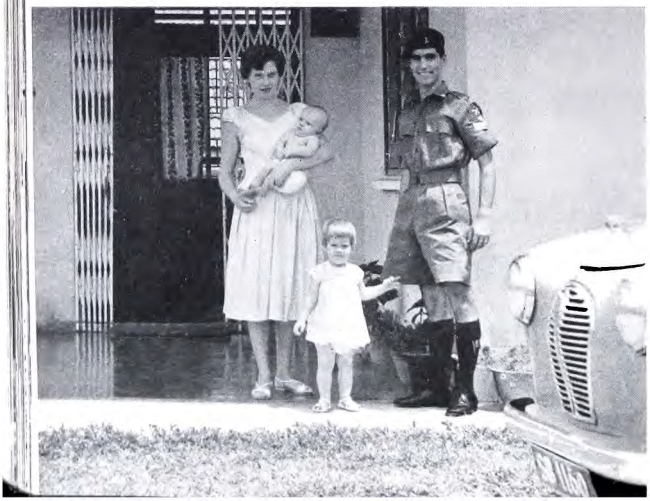
SERGEANT STUART

WITH THE GURKHA ENGINEERS

Sergeant Stuart spent three years in the cadet force at school before joining the **Royal Engineers** in 1955.

Four years later he was married and serving with the Gurkha Engineers in Malaya settled with his wife in a comfortable bungalow.

To-day at 25 he is earning over £1,300 a year in pay and allowances; he has two children, and a Chinese servant paid for by the Army. In addition to travel in Malaya he has travelled free with his family for a three week holiday in Hong Kong.

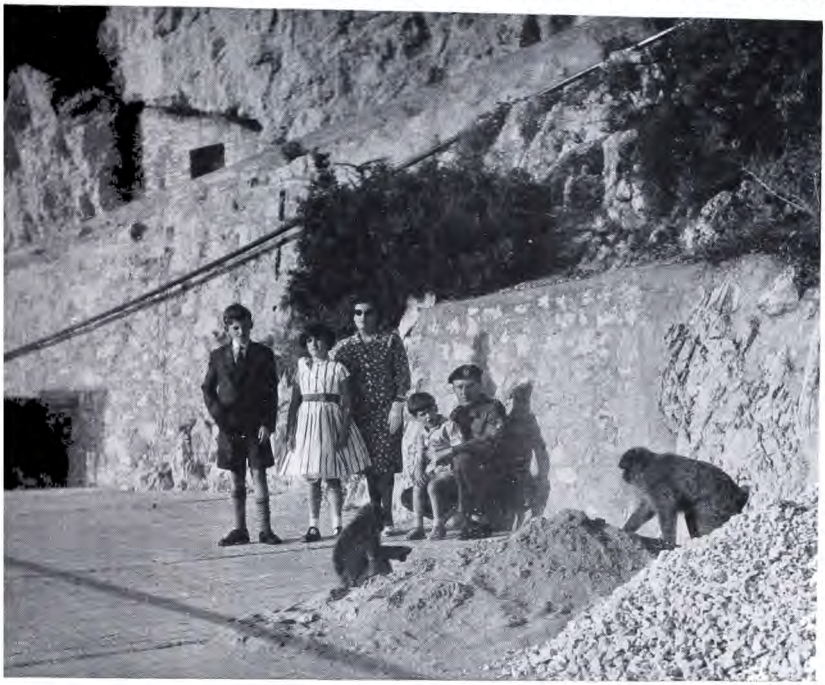


An exciting and interesting job and a happy married life, with fine prospects ahead for a man who has made a flying start to his career in the Royal Engineers.

Sergeant Stuart is indeed a happy man.

THE ARMY TAKES GOOD CARE OF YOU

STAFF SERGEANT KNIGHT—A FAMILY MAN



(photo J. C. Marshall).

Staff Sergeant Knight is full of praise for the Army's Welfare Organisation. His wife suffers from ill health, and receives the finest treatment available including the services of a Harley Street specialist, **all at the Army's expense.**

Their 13 year old twins are now at boarding school in England, and he receives **£325 tax free education allowance to pay for their education.** Wherever he serves **in the world, the children are flown out once a year at the Army's expense to join him for the school holidays.**

He now draws over £25 a week or £1,300 a year. Allowing for the tax free education allowance and free travel for the children, he would have to earn over £2,000 as a civilian to beat it. As superintendent at an Army Power Station he is worth every penny of it. Anyway he has no intention of leaving the **Royal Engineers** as he thinks the all-round conditions of employment are unbeatable anywhere. "I'm entitled to 42 days leave a year" he says "but I've never yet bothered to take it all. I enjoy my job and don't need to escape from it."

ROOM AT THE TOP

WOII GAUNT—WARRANT OFFICER AT 24

CAPT. FISHER—A BOY SOLDIER WHO BECAME AN OFFICER

There's room at the top for men of ability. **Warrant Officer II Gaunt** was a Staff Sergeant before he was 20, and now at 24, he is Chief Clerk to the CRE Malacca, who is supervising an £8,000,000 building project. As a Warrant Officer he earns £25.11.11d. a week, including £6.14.9d. Local Overseas Allowance while he is in Malaya.

As well as Malaya, he has been serving in Singapore and Germany, and during his 42 days paid leave a year he has toured Japan, Hong Kong, France and Italy.

An Army Apprentice Electrician at 14½, **John Fisher** became a Sergeant at 21 and after service in Malaya was commissioned from the ranks at 24. Now 28, he is a Captain earning £1,465 a year, and living in an Army Officer's Quarter in Ripon, Yorkshire.

His future? Well, look at the story of another ex-boy, Brigadier Chambers, on the facing page.

ROOM AT THE TOP

BRIGADIER CHAMBERS—SERGEANT AT 24— LIEUTENANT COLONEL AT 36

Brigadier Chambers is still only 48. He joined the Army as a boy soldier at the age of 14½ and was trained as an Electrician. He entered man service on his 18th birthday in 1930. He was a Lance Sergeant at 24 (rapid promotion for those days) and a Staff Sergeant Foreman of Works at 26. He was commissioned in 1940 at the age of 28, and by 1945 he was a Brigade Major taking part in the assault across the Rhine.

In 1949, still only 36, he attained the local rank of Lieutenant Colonel as an Instructor at the Staff College, Camberley. Three years later, at 39, he became the youngest Commanding Officer in the Corps, Commanding the Royal Engineers in the famous 7th Armoured Division (The Desert Rats).

After service in the Gurkha Division in Malaya, he was appointed to command an Engineer Group, and is now a Brigadier on the staff of H.Q. East Africa Command in Kenya. At 48, he still has many years of service ahead of him, and, as a Brigadier, he is now only one rank below Major General.

Brigadier Chamber's career is an inspiration to every boy soldier. Though few can aspire to such heights, for men of outstanding ability there is always room at the top in the Royal Engineers.

RAPID PROMOTION

SERGEANT CRIDGE—GOING FOR A COMMISSION

Sergeant J. F. Cridge joined the Army in 1948 as a boy soldier. Three years later he entered man's service in the Royal Engineers as a qualified Architectural Draughtsman. He served with his Regiment in Cyprus, later becoming Regimental Signaller. At 22 he became a Sergeant. Now aged 28, he is earning over £27 per week as Regimental Signal Instructor in Kenya, and has been selected to go before a War Office Selection Board with a view to a Commission. He is married, with two children, Carol aged 4 years and Julia aged 19 months.

What he earns each week

Basic Pay . .	£12	15	0
Marriage Allowance	3	6	6
Clothing Allowance		1	10
Local Overseas Allowance (Kenya)	8	13	3
Ration Allowance .	2	18	11
Total per week	£27	5	6

or over £1,400 a year!

TRADE INSTRUCTORS

STAFF SERGEANT PRIME—CLERK OF WORKS AT 23
SERGEANT OVERD—HOME FROM HIS TRAVELS

Staff Sergeant Prime, after three years of training as an Army Apprentice Electrician, became a Lance Corporal at 18½, a Corporal at 19, a Sergeant at 22 and **a Staff Sergeant Clerk of Works at 23.** As a Clerk of Works in Hong Kong, he was directly responsible for work costing over £20,000 a year, and is now back instructing the new generation of Army Apprentice electricians for the **Royal Engineers** at Chepstow.

Sergeant Overd was trained by the Army as an Apprentice Blacksmith from 15 to 18. On active service with the **Royal Engineers** in Korea, he was promoted Lance Corporal at 21 and Corporal at 22. He has since served in Suez, Germany and Christmas Island. On return from his travels, he was promoted Sergeant—at 24—and is now instructing the next generation at the Army Apprentice School, Chepstow. His career is quite a typical one—most good sappers become Sergeants after 6-9 years service.

INSTRUCTING THE NEW GENERATION

WOII BUTT—INSTRUCTING APPRENTICES
CORPORAL HENDRY—INSTRUCTING RECRUITS

12 years ago **QMSI Butt** was a Boy Sergeant Major at the Army Apprentice School at the age of 17½. Now he is back there again instructing the new generation of Royal Engineers.

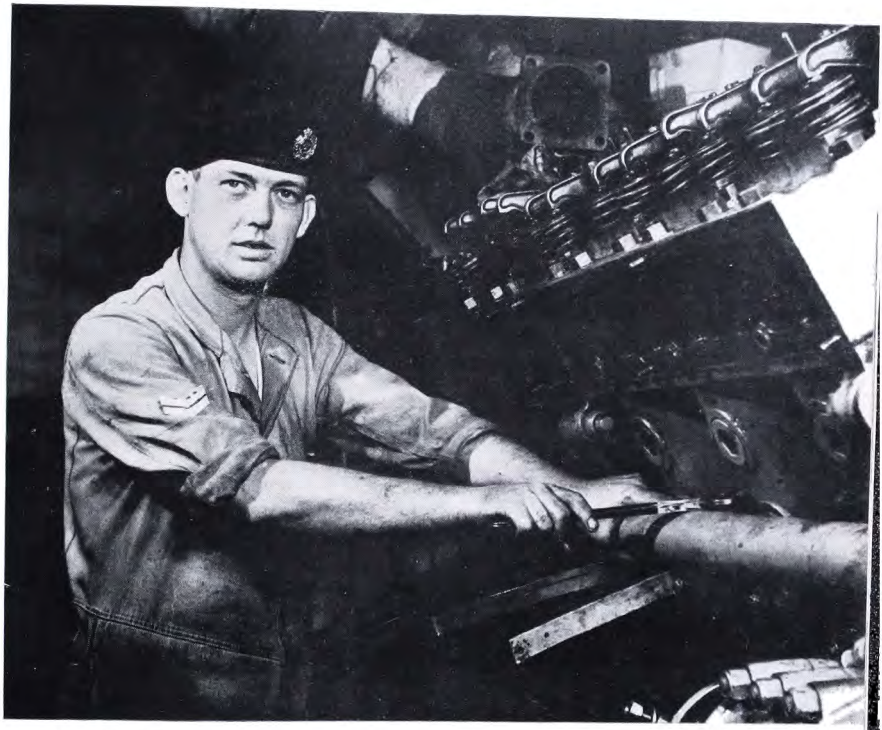
He is a Survey Print Technician (First Class), and was a Sergeant at 21, in Egypt, in charge of a Printing Machine Room with three double-colours and four single-colour printing presses. Home again in 1951, overseas again (to Cyprus this time) in 1955, he is now in his third year in charge of Lithographic Printing Apprentice Training at Chepstow.

Corporal Hendry has three trades—Electrician, Combat Engineer and Driver. He is also a parachutist, and has served with the 9th Independent Parachute Squadron Royal Engineers. He has served in Cyprus, Malta, Egypt and Jordan, and his Army service has also enabled him to visit Jerusalem, North Africa, France and Norway. He is now training recruits at No. 1 Training Regiment RE, Cove, and earns £15.2.2d. a week. He is pictured here as the recruits see him—explaining the final stages in building a Heavy Girder Bridge.

(Photo H. W. Leach).

WHY HE CAME BACK INTO THE ARMY

CORPORAL LEE—A TOP-RATE ENGINE FITTER AT £1,000 A YEAR



(Photo J. C. Marshall).

Corporal Lee is a top-rate Engine Fitter earning over £1,000 a year (£20 a week) with his marriage and local overseas allowances. He has been out of the Army once, but quickly rejoined after a look at civvy street " because," as he says " the Army looks after ones family." (He has three children).

He has had many interesting jobs at home and abroad in the Royal Engineers, sometimes instructing new recruits as Engine Fitters, sometimes maintaining Dock Cranes in a Red Sea Port, and currently in charge of maintenance at the Windmill Hill Power Station in Gibraltar. His most interesting job so far has been to move, overhaul and restart a 350 Kilowatt Generator that had lain disused for three years.

2 YEARS' SERVICE L CPL. LYONS A CHAMPION

Lance Corporal Lyons was born in India, where his father was a Major in the 14th Punjab Regiment.

Having obtained G.C.E. at school, he joined the Royal Engineers, and is now training recruits at No. 1 Training Regiment RE, Cove, and earns £14. 2. 8d. a week.
The recruits particularly welcome his coaching in athletics. He has represented England in a Junior Team, and has several times appeared on television as a Pole Vaulter. He became **Inter-Service Champion in 1960 with a jump of 12′ 9″.**

CORPORAL WOOD—SHIPWRIGHT
SAPPER BUNTING—PLANT OPERATOR

2 YEARS' SERVICE

Corporal Wood is a Shipwright and was a Corporal within a year of joining the Royal Engineers. He lives in Long Marston in a house hired for him by the Army—he only pays £1.8.6d. a week in rent and the Army pays the rest! On top of this he draws £14.2.8d. a week to spend.

Sapper Bunting is 20, and he has been trained as a Plant Operator in the Royal Engineers. So far, in his first two years of service, he has worked on a series of engineering projects; clearing rock for a tunnel entrance; building a rifle range; building an access road; and clearing rocks and sand for a new sea wall.

(Photo J. C. Marshall).

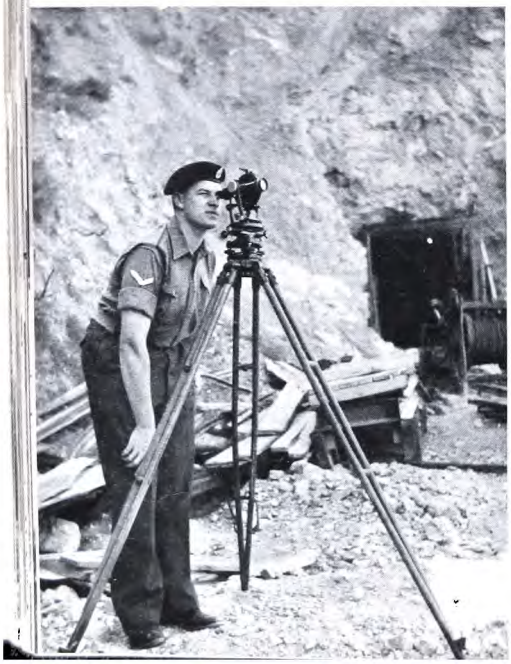
3 YEARS' SERVICE

CORPORAL RUBOTHAM—P.T. INSTRUCTOR
CORPORAL JONES—ENGINEERING SURVEYOR

Corporal Rubotham is earning over £1,000 a year at the age of 21. He is a Plant Operator and also a Physical Training Instructor. He is a keen sportsman, and in the Army he has taken part, virtually at no cost, in athletics, basketball, badminton, rugby, ski-ing, climbing, pot-holing—not to mention cycling expeditions to Spain!

There is every chance of rapid promotion for good men in the Royal Engineers.

(Photo J. C. Marshall).



An engineering surveyor at work—trained in his trade by the Royal Engineers. At 20 years old, **Lance Corporal Jones** has an independent and responsible job, surveying a tunnel project in Gibraltar on his own.

As a bachelor, he gets free food and accommodation, and in addition draws £8.15s. a week to spend or save. Of this he sends 50/- a week home, saves 30/- a week, and spends the rest on enjoying himself. He has 30 days paid leave a year, and plays rugby and shoots for his regiment. He has many friends, and, as he says himself "in the Army there is always something to do in your spare time if you want it."

(Photo J. C. Marshall).

CORPORAL POLLARD—DRAUGHTSMAN

4 YEARS' SERVICE

Corporal Pollard is 23. He left Grammar School at 16½ with G.C.E. to become an Army Apprentice Architectural Draughtsman.

Since 1959 he has been in Hong Kong, on design work for a new barracks. He also got married in 1959, and he and Mrs. Pollard now live in a flat overlooking the harbour, with a Chinese servant paid by the Army. They have a television, a tape recorder and a Standard Vanguard car.

He comes home in 1962 for a Clerk of Works Course which lasts 18 months. If he passes, he will be a Staff Sergeant—at 25!

A good man gets ahead fast in the Royal Engineers.

What he earns each week

Basic Pay . . .	£9	9	0
Marriage Allowance .	2	16	0
Clothing Allowance .		1	6
Local Overseas Allowance (Hong Kong)	4	0	6
Ration Allowance	3	2	5
Total per week	£19	9	5

Over £1,000 a year at 23!

7 YEARS' SERVICE

SERGEANT DOUGHTY IN GIBRALTAR
SERGEANT KIMPTON—SPORT AND FAMILY LIFE

Sergeant Doughty reached the rank of Sergeant after only 4 years' service in the Royal Engineers. Now in Gibraltar, he has a happy married life, with two children, and earns over £1,000 a year. He is buying a car which he will be able to bring home free of purchase tax.

He is seen at work building a sea wall in Gibraltar, and hopes soon to go on a Clerk of Works course, which will bring him on to Technician's rates of pay.

(Photo J. C. Marshall).

Sergeant Kimpton joined as a National Serviceman and signed on as a Regular. Now, after seven years' service he is earning over £21 a week, lives in a three bedroomed detached house overlooking Mounts Bay in Penzance, has a car, and will be buying a new one (tax free) when he is posted to Cyprus later this year.

A keen basket-ball player, he has played for the Army for three seasons, is an Army Grade I referee, a civilian area referee and a National Coach.

CORPORAL REEVES—BOMB DISPOSAL 7 YEARS' SERVICE

Robin Reeves was taught his trade of Engine Fitter between the ages of 15 and 18 as an Army Apprentice. Since then he has served with the Royal Engineers in Germany, Egypt and Christmas Island, from which he spent 10 days' leave in Honolulu, visiting Pearl Harbour and the fabulous Waikiki Beach. He is now serving in a Bomb Disposal Unit, and he is here seen clearing beach mines on the coast of Norfolk with an armoured bulldozer. He lives with his wife and child in Portsmouth.

8 YEARS' SERVICE

STAFF SERGEANT TUCKER—CLERK OF WORKS
SERGEANT WALLACE—CHIEF CLERK

An ex-boy soldier, **Tucker** was a Corporal at 18 and a **Staff Sergeant at 21.** Now 28, he is a Clerk of Works earning **£23 a week.** He has 42 days' paid leave every year, and is married with two children.

A keen sportsman, he has won the trophies pictured here, playing Football, Rugby, Basketball, Hockey and Darts!

(Photo J. C. Marshall).

Sergeant Wallace was a farm labourer. Then he joined the Royal Engineers and his promotion has been rapid. He was made Lance Corporal at 20, Corporal at 21 and Sergeant at 22. He is now the Chief Clerk in his unit, and, **at the age of 25 he is earning £22.8.0d. a week or £1,164 a year,** including his overseas allowances.

He has already served in Germany, Hong Kong, Korea and Gibraltar, and hopes to serve in many other places before he is through.

(Photo J. C. Marshall).

SERGEANT CROOK—PLANT FITTER 9 YEARS' SERVICE

Sergeant Crook entered the Army as an Apprentice, and was a **Sergeant at 21.** He has served in the Gold Coast (now Ghana) and Christmas Island, where he was awarded the British Empire Medal. Now aged 27, he is Instructor in Engine Fitting (Plant) at the School of Military Engineering, the home of the Royal Engineers. He lives in a furnished Army Quarter with his wife and three children at Chatham, Kent. With Pay and Allowances of not much under £1,000 a year he can comfortably afford to run a family car and save quite a bit each week for the future.

9 YEARS' SERVICE

STAFF SERGEANT WHITEMORE—COMBAT ENGINEER

SERGEANT BLACK—COMBAT ENGINEER

Staff Sergeant Whitemore was a Sergeant at the age of 23, after only 2 years' service in Royal Engineers.

His 9 year service has been largely overseas—4 years in Germany and 3 years in Malaya. Whilst in Malaya, he was in 11th Independent Field Squadron which contained both British and Australian Troops, and was largely employed on building roads and air-strips in the jungle.

The Army has taught him two trades, Combat Engineer and Plumber and Pipefitter.

Now, at the age of 29, he is a Staff Sergeant. He is a bachelor and, as well as being provided with free food and accommodation (valued at about £6 a week), he draws £12.10.0d. a week to spend on himself or to save. He has a good life in the Sergeants' Mess, and still manages to save five guineas a week.

Sergeant Alec Black joined the Royal Engineers at 18 and has spent most of his service as a parachutist. He rose from Sapper to Sergeant in the 9th Independent Parachute Squadron RE, seeing active service in Suez and Cyprus. Back in England he trained a team of 24 men with whom he crossed the channel to France in home-built canoes.

He has a happy home life with his wife and his daughter Fiona, in an Army quarter in Ripon.

STAFF SERGEANT FISK—CAMERA OPERATOR
CORPORAL COX—FAMILY MAN

10 YEARS' SERVICE

Staff Sergeant Fisk was trained as a Camera Operator from the age of 15-18 at the Army Apprentice School. Having served in Egypt and Cyprus, he is training as a Photo Technician, which will bring his weekly Pay and Allowances up to £22.7.0d. or £1,152 a year.

There is good pay for skilled men in the Royal Engineers.

Corporal Cox is an ex-National Serviceman who decided to stay in the Army. To quote his own words, "The Army looks after the married man extremely well and there are excellent education and health facilities for the children."

He is a married man with five children and earns over £1,000 per year. So far he has served in Egypt, Kenya and Gibraltar. As a keen sportsman, he was an Olympic trialist for diving and water polo in 1948, and was Diving Champion of Kenya in 1954, and Gibraltar in 1960.

There are great opportunities for him as a sportsman and a family man in the Royal Engineers.

(Photo J. C. Marshall).

LONG SERVICE

SERGEANT HENDRY—MINER & TUNNELLER
WOI RUMMER—FRIENDS ALL OVER THE WORLD

Sergeant Hendry has been 23 years in the Army and would like to do 10 more, as he says there is nothing to touch it for security and a good healthy life.

He left the coal mines for the Army in 1936 when the war clouds were gathering, and was on **Bomb Disposal during the blitz** on London in 1940. He then joined an assault squadron and **landed on the Normandy Beaches on D Day 1944.**

After the war, he was picked for the team that carried out **Britain's first atomic tests at Monto Bello, Australia.** Later he served in Cyprus, Egypt and Gibraltar.

He is now underground again, tunnelling in the Rock of Gibraltar, where he is a highly respected member of the Fortress Regiment of the Royal Engineers, being also their football and tug of war coach and a Class II Army Football Referee.

(Photo J. C. Marshall).

Warrant Officer Rummer has served in Japan, Bermuda, Germany, Libya, Cyprus and Gibraltar. In his 20 years' service he has made **friends of 30 different nationalities.** He is now a Clerk of Works in the Royal Engineers and is serving as the Electrical Engineer running the Calpe Hole Power Station in Gibraltar, earning **over £1,400 a year.**

(Photo J. C. Marshall).

RSM McCarthy became RSM of a Regiment of the Royal Engineers at the age of 37. His varied and exciting career has included: —

1939-42 MALTA—Bomb Disposal in the blitz.
1942-43 NORTH AFRICA—Knocking out the Afrika Korps.
1944 NORMANDY—D-Day Landings.
1944-45 HOLLAND—Awarded the Military Medal.
1946-54 ENGLAND—Instructing at the Training Regiment and later Sergeant Major with a Corps Engineer Regiment.
1954-55 EGYPT—Sergeant Major with a Field Park Squadron.
1957 CHRISTMAS ISLAND—H-Bomb Trials.
1958-59 GERMANY.
1960 ENGLAND—RSM.

And in the course of these travels, he has also flown over the Rocky Mountains, landed at San Francisco, had a fortnight in U.S.A. and 4 days in Honolulu. Never a dull moment for the RSM.

He has a happy home life with his wife and 5 fine children. His pay as RSM is £24. 3s. a week, or £1,250 a year, but this is not all, for, with three of his children at boarding school he draws £525 a year in Education Allowances, bringing his total earnings up to £1,775 a year.

WHAT'S IT REALLY LIKE?

Recruits " passing-off " parade after 19-20 weeks training at 1 Training Regiment RE. Parents and relatives are invited to attend. (Photo H. W. Leach).

Below left—The salad table in the Dining Hall at 1 Training Regiment RE.

Below right—" Self-service " at the same salad table. (Photos H. W. Leach).

WHAT'S IT REALLY LIKE?

ROY BLACKMAN THE MAN FROM THE Daily Mirror

JOINS THE ROYAL ENGINEERS AS A RECRUIT

READ HIS REPORT ON PAGES 142 AND 143

SEE WHAT THE MIRROR SAYS:

see Page 13—the **HAPPY STORY** of Sapper Roy Blackman of the Royal Engineers (and the Mirror).

He tells of a new kind of Army. Up-to-date. Full of ideas. Dead set against bull.

This is the kind of Army Britain needs.

* *

Extract from the Editorial of the Daily Mirror of Friday, June 23, 1961.

WHAT'S IT REALLY LIKE?

BY No. 23860805 BLACKMAN, ROY (THE MAN FROM THE MIRROR)

The Man from the Mirror gets fell in and says: "I think today's Army is a bit of all right, Jack."

● ***The Royal Engineers, top of the league in the new Regular Army's big recruiting drive, is now attracting 150 volunteers a month. One of this month's "recruits" was 23860805 Sapper Blackman, Roy. . . . The Man from the Mirror. But he was there for only four days and nobody below his Sergeant-Major knew that he was no ordinary squaddy. Sapper Blackman, who did service some years ago as a National Serviceman, tells his story . . . .***

With eighty other recruits I reported to No. 1 Training Regiment, Royal Engineers, Farnborough, Hants, and I got off to a bright and breezy start with the Intake Corporal.

"Please to meet you, sunshine, and glad to have you on our side," he said **shaking my hand!**

"What were you in Civvy-street?"

"In an office," says I.

"So was I. Real fed up I was. So I re-enlisted and found the Army had improved a lot.

"We're trying to build up a new spirit. We're getting rid of the old idea of it being a lot of bull and belly-aching."

KIT

First we had to be kitted-out at the quarter-master's stores.

We received seventy-seven articles of kit—everything from a sewing needle to a greatcoat.

Unlike the old days, an effort is now made to see that clothes fit.

However, it's as-you-were with uniforms themselves. They are rough and crude. An officer freely admitted: "I feel like a tramp in battle dress."

The War Office have plans for a new one. At the double, I hope. . . .

I tried on eight pairs of boots to find the most comfortable.

Corporal: "They'll soon fit if they don't now. Left, right . . . left, right!"

QUOTE *I wrote asking for details and the next day two soldiers rolled up in a Land-Rover and took me off to the recruiting office. Well, you can't say No when they go to so much trouble, can you?*—A fellow recruit.

In my barrack-room I found a neatly made-up bed and a locker—peach coloured.

Pop music came from a loudspeaker.

The days of the boxed bed pack, painted white lines and bulled fire buckets are over—and that's official. **And there is more to life than sitting in your billet. . . .**

I discovered numerous TV rooms, a camp cinema showing "Gun Fever" and "Steel Bayonet," games rooms, sports clubs, a Naafi and a YMCA.

QUOTE *I must apologise most sincerely to those men who were refused breakfast because they were late. You are entitled to breakfast even if you are late. It won't happen again.*—Squadron Officer.

FOOD

The cookhouse has a serve-yourself buffet. There is no reason to go hungry.

But the menu can be a bit heavy:

"Roast lamb; rissole; savoury mince; fried belly of pork; meat pie; brown sauce; steamed fruit pudding."

I asked the Cook Sergeant why there was no salad on a hot summer's day.

He replied: "Look, son, I get 15lb. of tomatoes a day for 1,200 men. I'm not a flippin' Houdini."

Checking up I found that the unit is unlikely to get more salads until the price of tomatoes falls.

The 3s. 6d. a day ration allowance per man will not allow for high seasonal prices.

Civilian women clear away the dishes.

Corporal explains: "That's the new idea, sunshine. Soldiers to do soldiers' work. We don't have any batmen either in this unit."

PARKING

One of the big problems at this camp is finding parking space for your car.

There are over 400 private cars and motor cycles belonging to soldiers on the camp.

QUOTE *There is a Church Parade tomorrow. Christian forgiveness will not be extended to those failing to turn up.*—Officer to recruits.

BULL

One recruit asked the Corporal: "Shall I bull my boots?"

He was told: "I don't want to hear that word 'bull' again. It's a terrible, horrible word. We now say 'cleaning.'"

Boots are no longer bulled-up, they are cleaned. Blanco and metal polish are hardly ever mentioned except when there is a big parade in the offing.

The camp barber asked how I would like my hair cut!

He told me: "The days of the 50-second shave to the crown are over. I take so long over the lads' hair nowadays I'm thinking of putting up my prices."

PAY

The new recruit gets 15s. a day all found. Even with no rank, and no family allowances, a tradesman can earn 19s. 6d. a day.

You can have a thirty-six-hour pass every week-end and a forty-eight once a month.

Add to that thirty days' paid annual leave and two free travel warrants and you don't know you're living.

WHAT'S IT REALLY LIKE?

BY No. 23860805 BLACKMAN, ROY (THE MAN FROM THE MIRROR)

Sapper Blackman puts his best foot forward · · ·>

QUOTE ***If the lad's homesick, then he had better go home. See that he gets a weekend pass. He'll feel better on Monday.*— Sergeant-Major.**

RECRUITING

A Recruiting Officer told me: "The basis of our present drive is that our best advertisement is the satisfied soldier. Joining the Army is the beginning of a career and a chap deserves plenty of consideration. We are bending over backwards to make the Army attractive.

"It is the greatest life for a young chap. Where else could he get the pay, the trade prospects, the leave and the choice of seventeen overseas postings?

"Nowadays, it's join the **ARMY** to see the world!"

QUOTE ***When I ask you on parade if you are happy, you must come to attention smartly and reply: "Yes, Corporal"*— Corporal to recruits.**

DISCIPLINE

Punishment now fits the crime, says the Army. C.B.—confined to barracks—has been abolished in the Engineers.

A sergeant said: "We like to get obedience by exerting our personalities. . . .

"Left, right . . . left, right. Be proud . . . let's have some swank!"

A Parachute Engineer Major told me: "We want men, tough in mind and body. People who can be relied upon to grin."

A recruit asked him about extra money for parachute jumping.

He replied: "We don't talk about money in the Parachute Engineers."

One recruit lay on his bed sobbing: "I'm homesick."

Corporal: "Now, now lad. You know you're **really** a very happy man, don't you?"

One of the things that hasn't changed in this New Man's Army is that group photograph to send home.

But perhaps the attitude towards it has . . .

Corporal: "This is to send home to your mothers so that they can see how happy you are—AREN'T YOU?"

"Yes, Corporal . . ."

AND FROM WHAT I'VE SEEN OF THE NEW ARMY THE SQUADDIES AREN'T KIDDING.

(Photograph and extract by kind permission of the *Daily Mirror Newspapers Ltd.*)

HOW TO JOIN THE ROYAL ENGINEERS

Go to your nearest ARMY INFORMATION OFFICE.
Or ring them up.
Or write to them.
You will find their address and telephone number below.

You can go there to-day, without any obligation whatever. They will tell you anything you want to know, and they will tell you the procedure for joining. It's easy—and you won't regret it.

ENGLAND

LONDON: Central London Recruiting Depot, 5 Great Scotland Yard, Whitehall, S.W.1. *Whitehall 4466. Ext. 330 and 331.*
Acton, 240 High Street. *Acorn 4012.*
Battersea, 569 Battersea Park Road, S.W.11. *Battersea 8393.*
Blackheath, 9 Lee Road, S.E.3. *Lee Green 1464.*
Bromley, 123 Masons Hill. *Ravensbourne 3067.*
Dagenham, 127 Broad Street, Essex. *Dominion 0343.*
Finchley, 703 High Road, N.12. *Hillside 5087.*
Forest Gate, 48 Woodgrange Road, E.7. *Maryland 6296.*
Haymarket, 30 The Haymarket. *Whitehall, 4797.*
Kentish Town, 18a Highgate Road, N.W.5. *Gulliver 7261.*
Norbury, 1109 London Road. *Pollards 5389 and 5586.*
Paddington, 15–17 Edgware Road, W.2. *Paddington 7440.*
Surbiton, 46 Victoria Road, Surrey. *Elmbridge 8244.*
Walworth, 364 Walworth Road. S.E.17. *Rodney 6681.*
Wembley, 594 High Road, Middlesex. *Wembley 1376 and 0959.*
ALDERSHOT: Hospital Hill. *23456.*
BARROW-IN-FURNESS: 103 Duke Street. *1679.*
BATH: 20 Queen Square. *4702.*
BEDFORD: 157 Tavistock Street. *5063.*
BIRKENHEAD: 41 Grange Road. *3056.*
BIRMINGHAM: 14 James Watt Street, 4. *Central 3802.*
BLACKBURN: 13 Higher Church Street. *44203.*
BOURNEMOUTH: 244 Holdenhurst Road. *2734.*
BRADFORD: 33 West Gate. *26661.*
BRIGHTON: 83 Queen's Road. *25096.*
BRISTOL: 8 Colston Street, 1. *25350.*
BURTON-ON-TRENT: 181 Station Street. *2172.*
CAMBRIDGE: 24 Mill Road. *54578. Ext. 1.*
CANTERBURY: 2 Roper Road. *4649.*
CARLISLE: 14 Abbey Street. *22873.*
CHATHAM: 39 Railway Street. *42273.*
CHELMSFORD: 112 Springfield Road. *55925.*
CHELTENHAM: 58-60 Bath Road. *4193.*
CHESTER: 64 Watergate Street. *21833.*
CHESTERFIELD: 19 West Bars. *2857.*
CHICHESTER: 52 North Street. *2636.*
COLCHESTER: 33 North Hill. *5777.*
COVENTRY: 65 Queen's Road. *23569.*
DARLINGTON: Northgate Chambers, 1 Crown Street. *4530.*
DERBY: 19 Irongate. *45619.*
DEVONPORT: *See* PLYMOUTH.
DONCASTER: Chequers Road Barracks (till May, 1962). 43 Hallgate (after May, 1962). *4128.*
DURHAM: 78a Claypath, Durham City. *2682.*
EXETER: 6 New North Road. *71533, Ext. 41.*
GLOUCESTER: 82 London Road. *24539 and 24588.*
GRANTHAM: 21 Wharf Road. *928.*
GRAVESEND: 2 Queen Street. *7970.*
GRIMSBY: 89 Cleethorpes Road (till early 1962). 241 Freeman Street (in early 1962). *4112.*
HALIFAX: 7 Ferguson Street. *5681.*
HASTINGS: 27 Cornwallis Street. *3822.*
HEREFORD: 6 Commercial Road. *3917.*
HIGH WYCOMBE: 81 Eastern Street. *1670.*
HORSHAM: 61 London Road. *3995.*
HUDDERSFIELD: 26 Kirkgate. *3696.*
HULL: Post Office Chambers, Jameson Street. *25901.*
IPSWICH: 37 Silent Street. *55541.*
ISLE OF MAN: 72 Bucks Road, Douglas. *1900.*
KETTERING: 50 Trafalgar Road. *3621.*
KING'S LYNN: 14 London Road. *2854.*
LEEDS: 36 Wellington Street. *25819.*
LEICESTER: 117 Granby Street. *27961.*
LINCOLN: 273 High Street. *24097.*
LIVERPOOL: 96 London Road. *Royal 2757/8.* Pownall Square, Pall Mall 3. *Maritime 2667.*
LUTON: 54 Chapel Street. *5752.*
MAIDSTONE: 5 Clarendon Place. *4408.*
MANCHESTER: Government Buildings, Julia Street, Great Ducie Street, 3. *Deansgate 5991.* 18 Oxford Street. *Central 3803.*
MANSFIELD: The Limes, 48 Nottingham Road. *1578.*
MIDDLESBROUGH: 31 Grange Road West. *43413.*
NEWARK-ON-TRENT: 36 Middlegate. *578.*
NEWCASTLE UPON TYNE: 7 Ridley Place, 1. *28749.*
NEWPORT (I.O.W.): 2 St. James Street. *2385.*
NORTHAMPTON: St. Crispin's Hall, Earl Street. *3986.*
NORWICH: 2 Magdalen Street, Nor 37P. *24616.*
NOTTINGHAM: 42 George Street. *43629.*
OXFORD: 35 St. Giles. *55989.*
PETERBOROUGH: 6 Park Road. *4366.*
PLYMOUTH: Fore Street, Devonport. *53453, Ext. 41.*
PORTSMOUTH: Cambridge Junction, Cambridge Road. *23744.*
PRESTON: 6 Glover's Court, Fishergate. *56700.*
READING: 19-20 St. Mary's Butts. *53997.*
REDHILL: 103 Station Road. *842.*
REDRUTH: Oak House, Chapel Street. *85.*
ROMFORD: 217 South Street. *45438.*
ST. ALBANS: 105a St. Peter's Street. *53504, Ext. 1.*
SALISBURY: 13 Castle Street. *4731.*
SCARBOROUGH: 71 Westborough. *4541.*
SCUNTHORPE: 47 Oswald Road. *3774.*
SHEFFIELD: 481 Ecclesall Road, 11. *63772.* 123 Surrey Street. *23724.*
SHREWSBURY: 46a Mardol. *3929.*
SOUTHAMPTON: 152 High Street, Below Bar. *25551.*
SOUTHEND-ON-SEA: 52-58 Milton Street. *66992.*
SOUTH SHIELDS: 88-90 Fowler Street. *5043.*
STOCKPORT: 7 Tiviot Dale. *4188.*
STOKE-ON-TRENT: Clarence Chambers, Kingsway. *Stoke-on-Trent 47375.*
STROUD: 3 Lansdown. *443.*
SUNDERLAND: 3 Saville Place, Borough Road. *58817.*
SWINDON: 19 Farringdon Road. *3251.*
TAUNTON: The Barracks, Mount Street *3327.*
TORQUAY: 180 Union Street. *3516.*
TUNBRIDGE WELLS: 62 Calverley Road *1880.*
WAKEFIELD: 82 Northgate. *6232.*
WARKINGTON: 18 Winmarleigh Street *31574.*
WATFORD: 53 Salisbury Road. *Watford 32439.*
WEST HARTLEPOOL: 153 York Road *3964.*
WESTON-SUPER-MARE: 7 The Mart Locking Road. *2657.*
WEYMOUTH: 18 Trinity Road. *2597.*
WOLVERHAMPTON: 43a Queen Street *23892.*
WORCESTER: Bank House, Shaw Street *24677.*
WORKINGTON: 41 Oxford Street. *2390.*
YEOVIL: "Farleigh", Kingston. *664.*
YORK: 6 Bridge Street. *23653.*

WALES

CARDIFF: 14 St. Andrews Crescent. *28800.*
MERTHYR TYDFIL: 53 Glebeland Street. *Local 84/2646.*
NEWPORT (MON.): 48 Clarence Place. *58525.*
PONTYPRIDD: 8 Gelliwastad Road. *2189.*
SWANSEA: 17 Castle Street. *53362.*
WREXHAM: 11 Bradley Road. *3108.*

SCOTLAND

ABERDEEN: 36-40 Market Street. *50036.*
AYR: 20 Wellington Square. *65725.*
DUMFRIES: 114 English Street. *2192.*
DUNDEE: 11 Barrack Street (till January, 1962). 29-31 Bank Street (from January, 1962). *22601.*
EDINBURGH: 29 Rutland Square, (West End) 1. *Cal. 2400, Ext. 3, 5.* 73 Hanover Street. *Cal. 7625.*
ELGIN: 5 Batchen Street. *7145.*
GLASGOW: 518 Sauchiehall Street, C.2. *Douglas 9196.*
HAMILTON: 184 Quarry Street. *994.*
INVERNESS: 33 Academy Street. *31520.*
KIRKCALDY: 36 Kirk Wynd. *4190.*
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BELFAST: 74 Clifton Street. *27472.*
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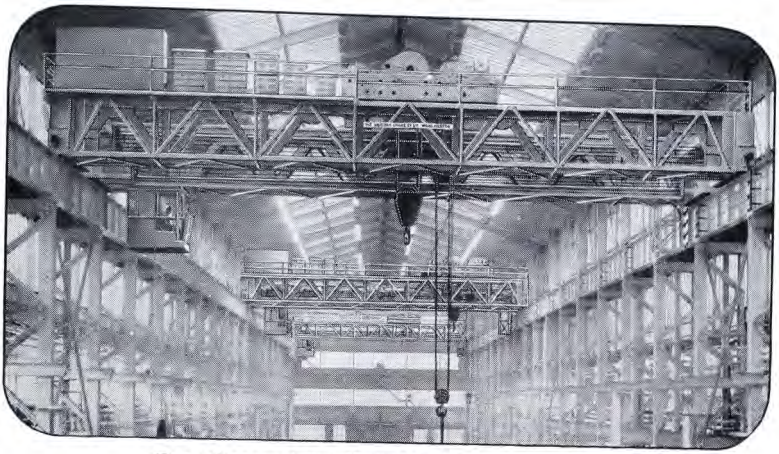

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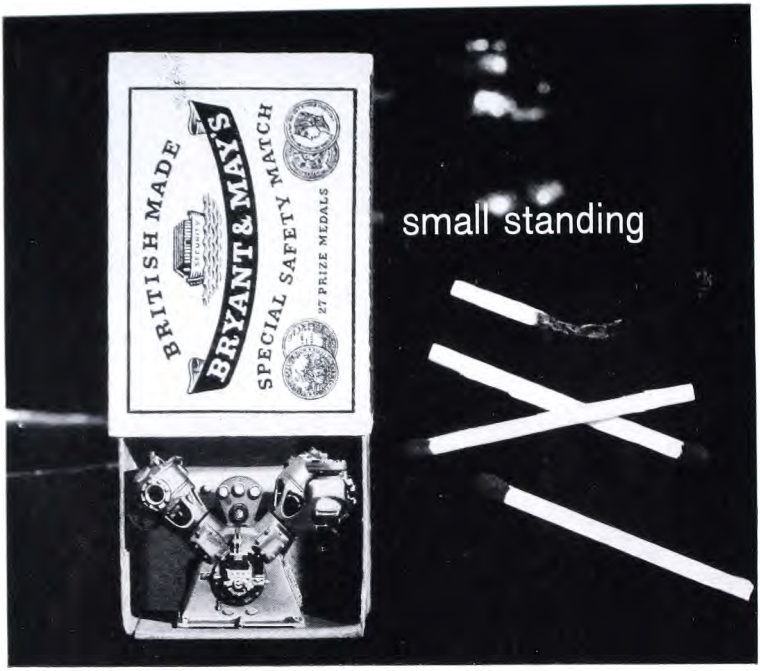

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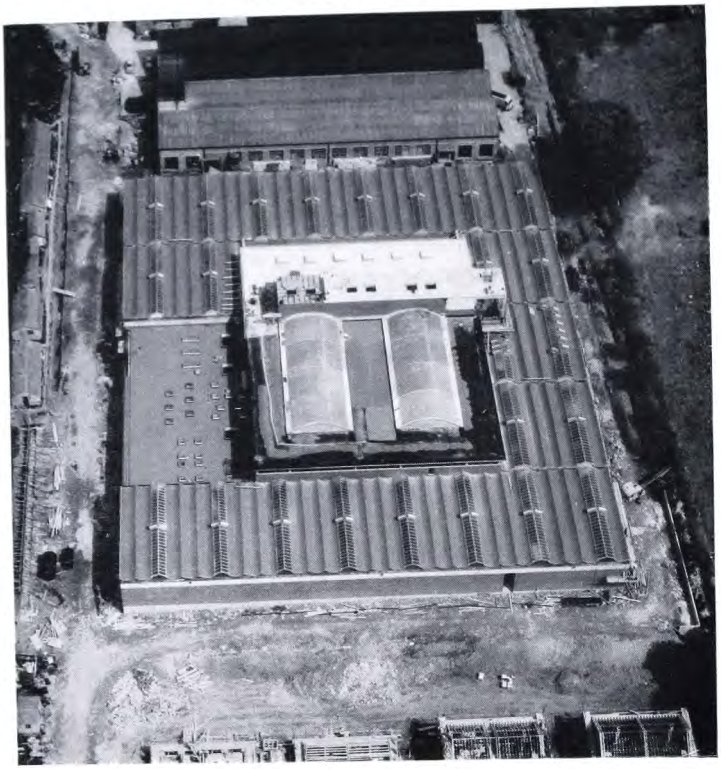

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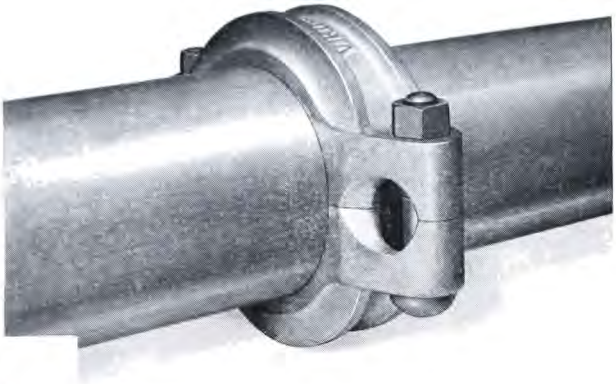

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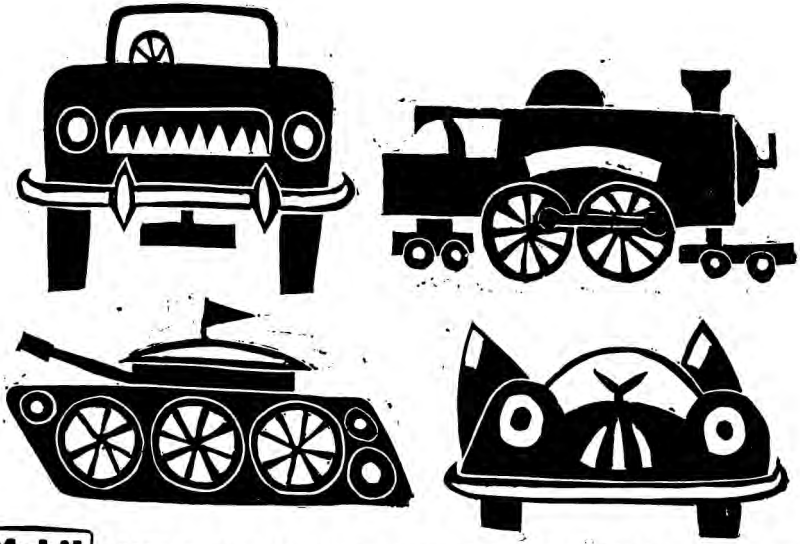

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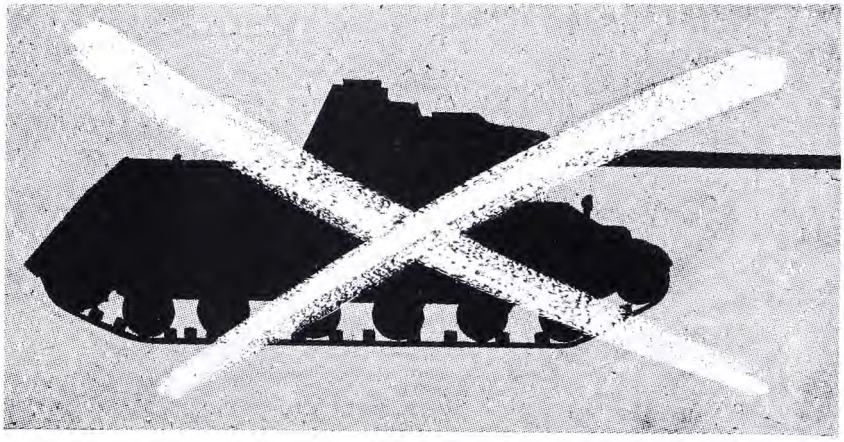

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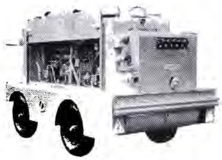

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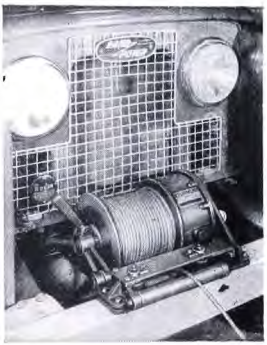

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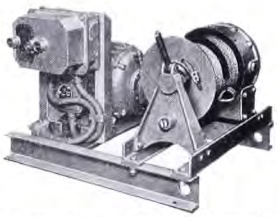
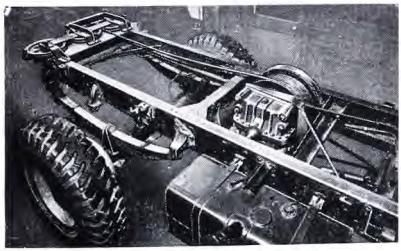
The Turner range of Powered Winches consists of the lightweight range from 2,500 lb. pull to 15,000 lb. pull. The heavyweight range from 20,000 lb. to 55,000 lb. maximum pull. The lightweight range of Winches can be driven by hydraulic motor, electric motor or from a gear box p.t.o. when mounted on a vehicle. The heavyweight range are primarily for vehicle use and are driven from a full torque p.t o. The 2.500 lb. Winch is particularly suitable for front mounting on four-wheel drive vehicles, and can be driven from the engine crank shaft via a special clutch drive. Fairleads, pay-on gear and load limiters are available for most vehicles. We shall be pleased to advise on the most suitable Winch Kit for your particular applications.

2,500 lb. *Horizontal Winch. Rope Drum Barrel dia. 4". Rope Drum capacity 150 ft. $\frac{3}{16}$" dia. Separate Clutch is provided on the Rope Drum for easy pulling out of Winch Rope*

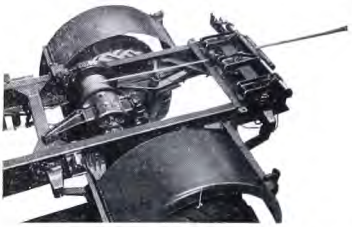
5,000 lb. *Horizontal Winch. The illustration shows a combined Winch and Capstan with the fail safe brake and clutch totally enclosed to keep the dirt out. Rope Drum Barrel dia. 4·5 inch, capacity 150 feet of rope $\frac{3}{4}$ inch*



2,500 lb. *Horizontal Winch arranged for Electrical operation*



20,000 lb. *Winch and Fairleads mounted on Bedford "R" type chassis. Ministry of Supply approved for British Army Service vehicles*



15,000 lb. *Winch Chassis mounted on Bedford 3 ton S.W.B. Tipper Ministry of Supply approved for British Army Service vehicles*

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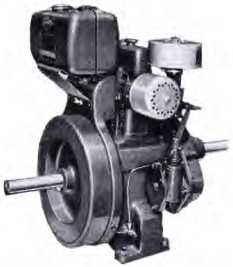

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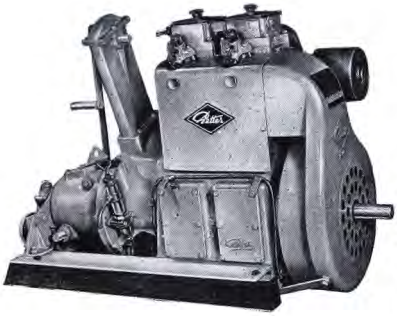

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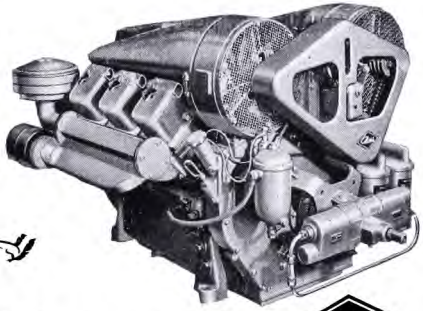

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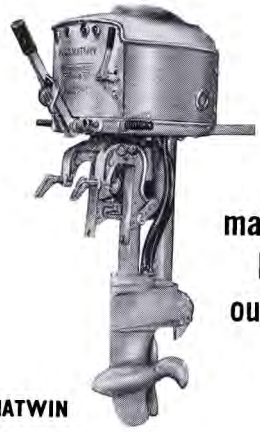

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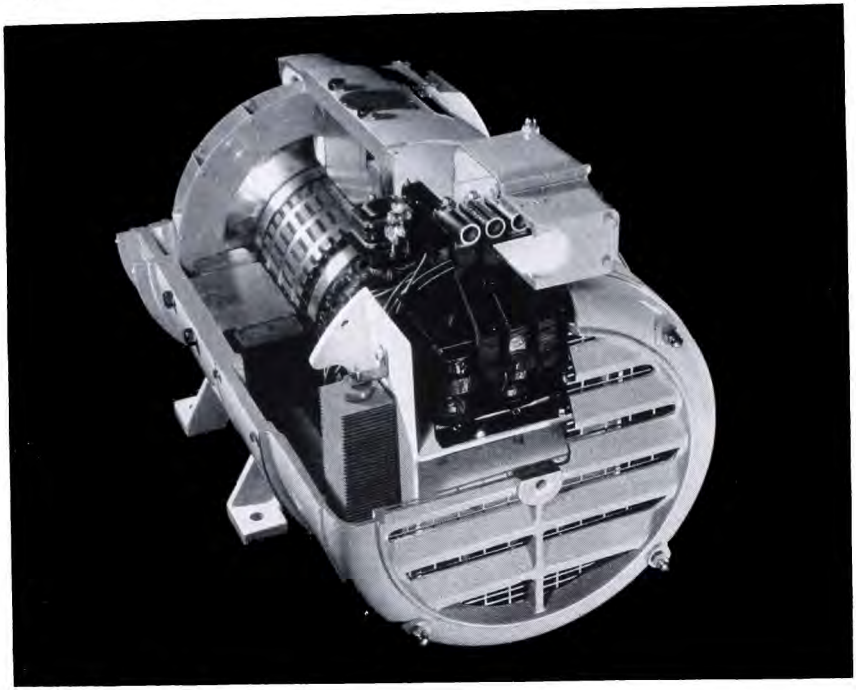

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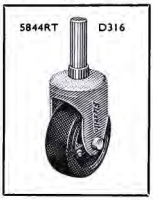

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