CUE

No. 16

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FEATURED IN THIS ISSUE

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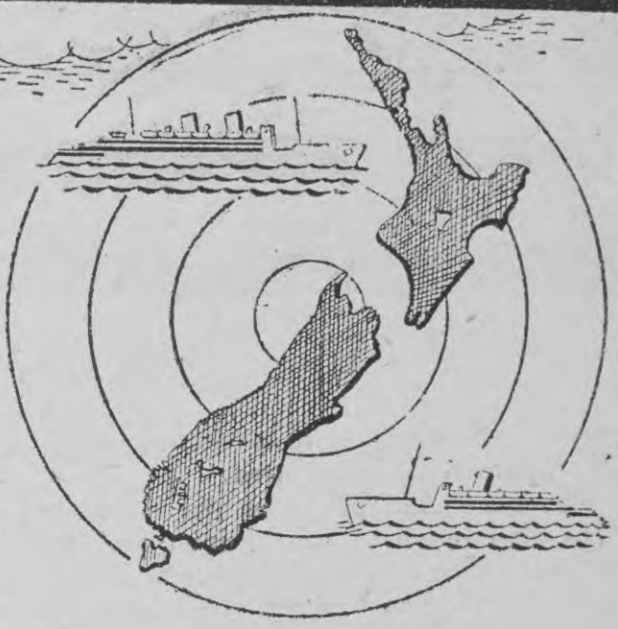
CUE is a fortnightly bulletin compiled by HQ NZERS. It is for use within 2 NZEF only, and its purpose is to provide data and information of interest to NZ troops. Views and opinions expressed in this publication are not necessarily from official sources. Topical subjects, NZ and local, will be regularly covered, and contributions of articles, verse, sketches, etc., will be welcomed. Suggestions for the inclusion of information in popular demand will be met wherever possible.

TARGET FOR TOURISTS



BEAUTIFUL though Italy is, intriguing though Egypt appears, the New Zealander in this war has gained a deeper appreciation of his own country's beauty than he ever had previously. And it is not the mud, sand, or poor sanitation that has given him that new realization of his country's loveliness.

His "tours" have embraced much that is ancient, much that is beautiful, but, except for masterpieces in architecture and art, he has found little to match the attractions of his own land.

And as his mind has gone back to some scene of lake and mountain, some rich corner of native bush or freak of nature, he has realised what New Zealand offers to the tourist. But has he at the same time appreciated what the tourist offers to New Zealand?

In an area less than that of Italy is contained tourist attractions which the combined resorts of Europe cannot provide. There is a variety and a distinctiveness in the Dominion's scenery which offer a wide appeal. And, besides, there is a diversity of sport which can meet all tastes—from the big game fisherman to the alpinist and ski-er.

The North Island offers the freak attractions with its uncanny thermal regions and strange subterranean, limestone caves. No one could help but be intrigued with the Rotorua district. On an extensive volcanic plateau, geysers of boiling water and steam leap fiendishly into the air and boiling mud-pools gurgle and splutter as they form fantastic patterns on their surface. It is a weird feeling standing as it were on the fragile crust of the earth and watching, a few feet away, volcanic forces at play.

But there is much that is beautiful in and around Rotorua—peaceful lakes and semi-tropical bush—and much that is interesting in the Maori villages. There are, too, the mineral waters and spas which possess valuable curative properties. The fishing is excellent, for rainbow and brown trout abound in the lakes and streams.

In the North Island, too, are the Waitomo Caves with their strange limestone formations and their incomparably beautiful grotto, lit by myriads of glowworms studding the ceiling and reflected in the rippling waters of the underground river. There is beautiful as well as freak scenery in the North, too: Tongariro National Park with its three large volcanoes and winter sports; the majestic beauty of Mt. Egmont, a smaller edition of Japan's Fujiyama; the kauri forests of North Auckland; the beauty and historic interest of the Bay of Islands; the bush-clad gorges of the Wanganui River and the spectacular falls of the Waikato.

But it is probably the South Island that possesses the greatest wealth of scenic beauty. And here again a great

Mount Egmont, from Lake Mangamahoe.

variety of scenery is to be found within a comparatively small area.

The snow-clad peaks of the Southern Alps offer much to the alpinist and the tourist. Not even in Switzerland can be found climbing conditions to surpass those provided by Mt. Cook (12, 349 ft) and sister peaks, while ski-ing and skating facilities are all that could be desired. The Franz Josef and Fox Glaciers, the lowest outside the polar regions, are easily accessible and offer a rare climbing and scenic experience. These glaciers are approached through forest scenery that is unsurpassed in New Zealand.

Rivalling the Alps in their scenic appeal are the Southern Lakes in their settings of austere mountains or bush-clad hills. Lakes Wakatipu and Wanaka with their almost continental vastness, and Manapouri and Te Anau, with their bush-clad hills and islands, are equal to anything to be found in the world.

Where the mountain scenery reaches the coast in the south-west corner of the South Island is a series of magnificent sounds—drowned glacial valleys with their immense depth and over-towering mountains, which rival the famous Norwegian fiords. Leading to Milford Sound, the best known one, are bush and alpine tracks of unsurpassed beauty.

These are but the highlights of New Zealand's scenery, and many a lovely spot has been omitted from the brief survey. The Dominion possesses diversified sporting attractions such as big-game fishing, deer stalking, trout fishing, and pigs, thar, and game-birds are plentiful.

Many New Zealanders are aware of the natural assets their country possesses but have not availed themselves of opportunities to visit these scenic resorts. Many again have made resolutions to spend their furlough seeing their country which they have learned fully to appreciate. But for all, there is a chance to help New Zealand both by encouraging people to visit it, and, on returning home, by assisting in the expansion of the "tourist industry."

Already New Zealand sailors, soldiers and airmen have spread information about the tourist attractions of their country, and visiting ex-servicemen, especially American, have gained a first-hand knowledge of the Dominion. Moreover New Zealand has received much valuable publicity from the deeds of its armed forces. A well-directed publicity campaign should assist in the reaping of the seeds sown during the past five years.

Unharmed by the war, New Zealand

should offer to people from Britain and other European countries a welcome escape from the destruction and scars of the present conflict. The traveller from the United States will find too much misery and devastation in Europe and the East to make such tours enjoyable.

It is not over-stating New Zealand's attractions to say that no other country offers more to the tourist than the most southern Dominion. Air transport will bring it within comparatively easy reach of the American or European tourist, even those with but a month or two to spend in travel.

The value of such an expanded tourist trade cannot be assessed. Not only would an influx of tourists provide valuable foreign exchange, but it would give a great impetus to the accommodation, transport, amusement and kindred industries throughout the country. It would assist considerably in the recovery from the war period and in post-war employment problems.

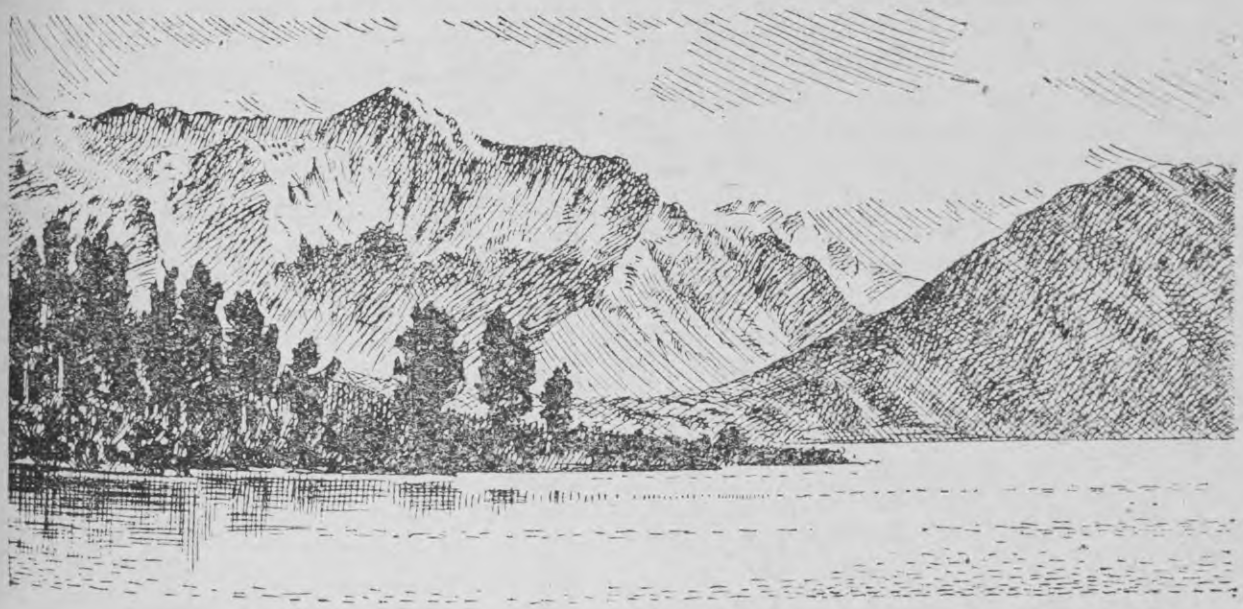
But a greatly expanded tourist population in the country might call for many changes in the New Zealander's way of life. The Dominion's scenery and sporting attractions are excellent but are the accompaniments to a touring holiday sufficiently attractive? Does the accommodation meet the needs of overseas visitors? Is the night-life of our cities (what there is of it) sufficiently gay for the tourist? Will he miss the cabaret or the night club? What of our "dull Sundays?"

The American, for example, is used to a wide array of entertainment on the Sunday, often exceeding that to be had during the week. Only after a lengthy conflict were Sunday pictures for Service men and women introduced into some of our cities. Will Sunday pictures remain a legacy from the war?

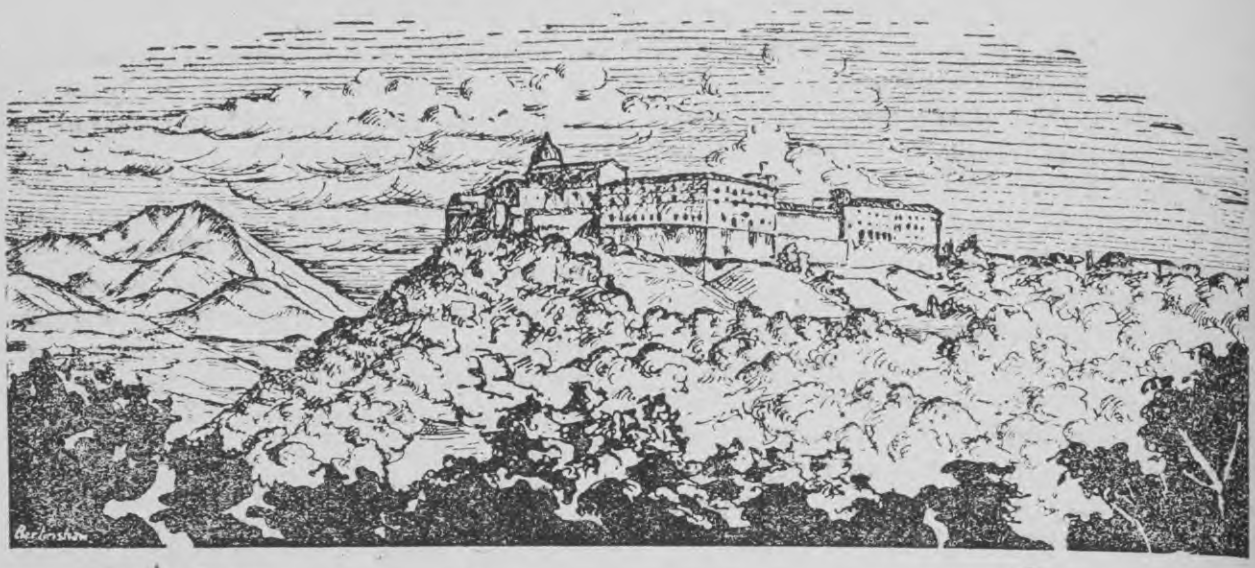
Are licensing laws too restricted, too old-fashioned? These and several other questions must be considered if New Zealand is to make the most of her natural appeal to the overseas traveller.

There is one further aspect of interest. In their stay overseas, New Zealanders have learned a great deal about the outside world and have broadened their outlook in many ways. A steady stream of visitors from overseas in the post-war years would bring New Zealand into closer touch with the peoples of other lands and give her a better understanding of their view-points and difficulties. With the shrinkage of the world as a result of air travel, New Zealand will no longer be remote from the rest of the world.

It is in her hands to make the most of all the opportunities that the future may hold.



— Lake WAKATIPU with the REMARKABLES —



Montecassino

— By "Chameleon" —

THE recent announcement that the Abbey of Montecassino would be rebuilt will have caused no surprise to those who knew its history. It has been rebuilt so often. No doubt it will be rebuilt as many times again. For it is a great religious centre, and such centres are independent of the accidents of war and even of the change of religions.

On Montecassino stands, or stood, a grove of ilex trees, lineal descendants of a Grove of Venus that flourished there in the pre-Christian era. The Catholic Church, when, under Constantine, it triumphed over the myriad Pagan cults of Rome, did not scorn the sacred places of paganism, hallowed by centuries of worship. Its leaders knew that such long association creates something intangible, a devotional atmosphere, and just as they took over and converted Pagan festivals, fertility rites and rituals to Christian uses, so they took over its holy places. And these places will continue to be used. For nowhere else will do.

Montecassino is no stranger to fire and sword. The Lombards sacked it in 580, fifty years after it was founded, and it was not then rebuilt till 770. Again in 884 the Saracens, fiercer and more fanatical enemies of Christianity than the Lombards, destroyed it once again and for seventy years it lay waste. But Montecassino is like the Phoenix and always rises from its ashes. Earthquake has ravaged it as well as war so that this last visitation is but the latest chapter of a stormy history.

So the Abbey that the Allied armies saw disintegrating under a rain of shells will rise again.

There is another reason for its retention. Montecassino is a place of pilgrimage for many because of its associations with St. Benedict, since Montecassino is the foundation Abbey of the great Benedictine Order. Stories have gathered round this peak as thickly as the clouds do on a stormy day. Miracles are told and their signs still pointed out. Till 1882 the Abbey could be reached only by a mule-track, and on this track a deep impression in the rock, guarded by iron bars, is shown to the pilgrim as the mark of St. Benedict's knees when on first coming he knelt to pray that Paganism might be wiped out of this, the last stronghold of the cult of Apollo in that area. This is but one of the many recorded miracles.

St. Benedict came here in 529, when Theodoric, King of the East Goths, was the ruler of Italy at a time when the empire of the west had fallen into decay. A hundred years before, Rome had for a year been without one single inhabitant and was only then beginning to recover.

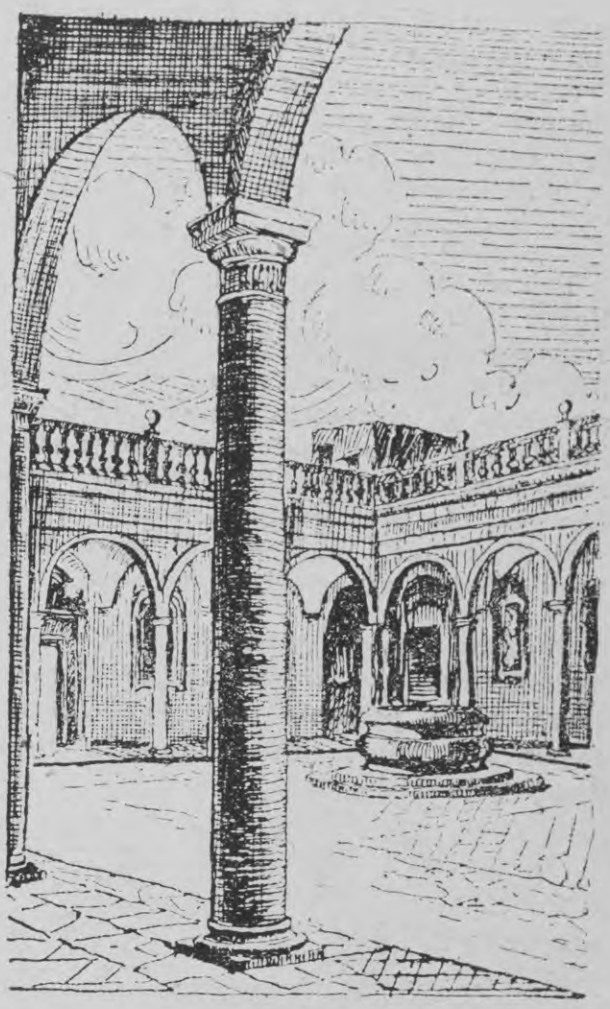
The hill-top in those days was crowned by a fortress and around it

were cyclopean walls made of huge irregular blocks of unmortared stone, like those around Volterra and the other Etruscan hill-fortresses of Tuscany to the north. These can still be seen.

The Abbey itself was of a size that the observer from the valley can hardly realize.

The north-eastern facade, the one visible from the town, was about 300 feet long, but the south-eastern was twice that length. Entrance to the Abbey used to be gained by a low rock-cut passage, passing the site of the original cell of St. Benedict. Of late this entrance was reserved for princes and cardinals, and ordinary visitors entered by an easier if less celebrated gate.

Within, there were three fine courtyards connected by arcades. The second, designed by Bramante, architect of St. Peters, had a fountain of good water, very necessary for life 1700 feet above the plain, and ended in the magnificent Scala Regia, a staircase of forty steps, up which it is said a hundred men could march abreast. This led on to the third court, surrounded by pillars from the ancient Temple of Apollo that once stood here.



Il Chiostro dei Benefattori.

Beyond it was the great Basilica, as big as many cathedrals, and gorgeously decorated with mosaics and frescoes by celebrated artists of the Renaissance. Above the doors and on the ceiling Luca Giordano had painted the miracles of St. Benedict and scenes of the foundation of the monastery and Church, while in the choir, notable for its richly carved choir-stalls, were four paintings by Solimena. The doors were of bronze, given to the Abbey in 1067 by a rich citizen of Amalfi and cast in Constantinople.

A particular point of interest was the crypt, for it and the cell of the Saint had been decorated throughout between 1898 and 1913 by the Art-School of Beuron Abbey in Hohenzollern, a daughter-abbey of Montecassino. These frescoes were remarkable in that they were developed on Egyptian models and

seemed at first glance more like the tomb paintings of a Pharaoh than the decorations of a Church. As soon as the eye became used to the convention, however, the Christian feeling and the delicate beauty of the painting made their impression.

This attempt to draw inspiration from Egypt is interesting in view of certain artists and sculptors who have gone back to the same source in search of a simplicity of statement which had been largely lost. Some modern paintings and sculptures indicate this, though the frescoes of the Beuron school were something quite unique and have not been followed up or developed since.

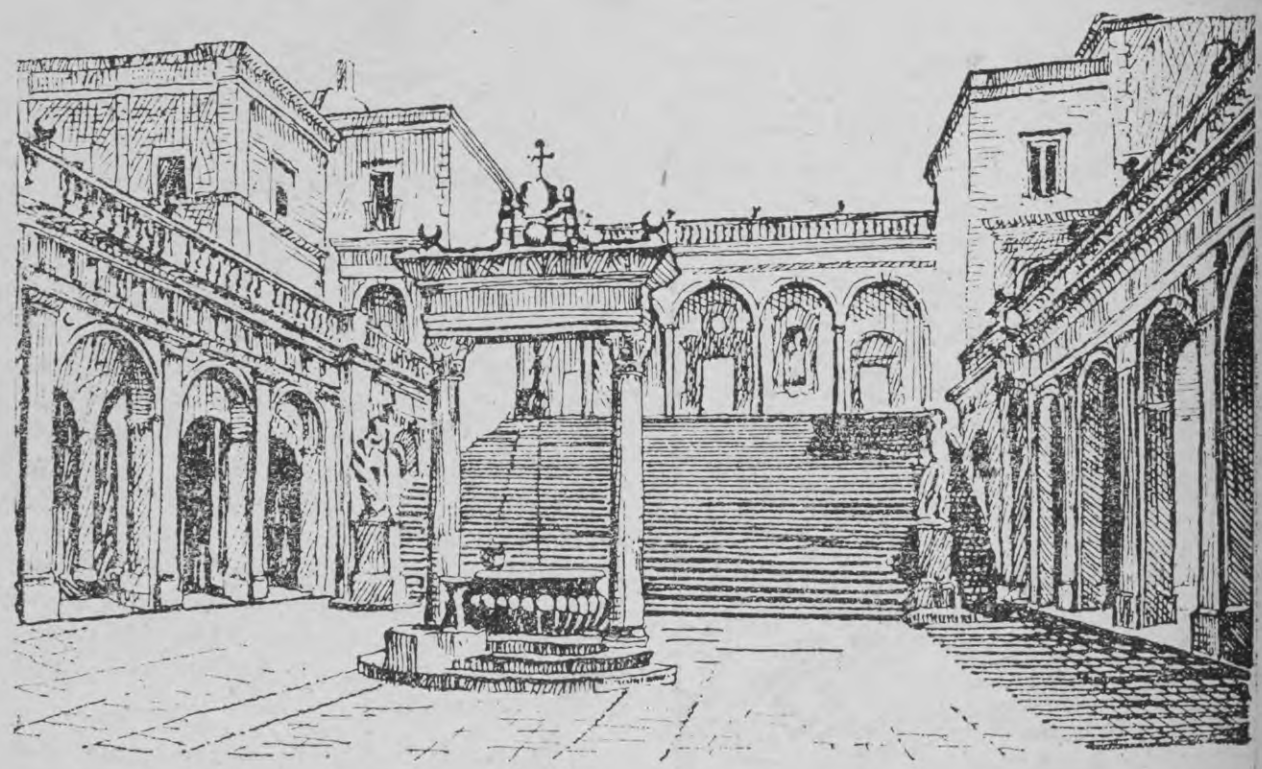
Nothing now remains of these architectural and artistic treasures but many more portable ones have been saved. The Abbey library is one of the greatest in Italy.

In all, 80,000 volumes, 1200 manuscripts and 40,000 records were stored there, for the Benedictines in the Middle Ages saved for posterity many of the authors of ancient Rome and have not neglected their library since.

It is probably to the famous Abbot Desiderius that scholars owe the survival of the works of Varro, Tacitus and Apuleius. Not only books but many valuable pieces of goldsmiths' and silversmiths' work, such as the priceless Abbot's Crozier, by Benvenuto Cellini, were sent to Rome before the bombardment.

At the unification of Italy and the dissolution of the religious houses, Montecassino nearly fell on evil days. But a wide appeal saved it, and in 1866 it was constituted a National Monument and the Monks declared custodians.

Montecassino, it seems, will never die.



— BRAMANTE'S COURTYARD —

With the Scala Regia and the Basilica beyond.

In the writing of this article much valuable assistance was obtained from a contribution to Korero by Flight Sergeant T. J. Kirk-Burnand. It is hoped at a later date to publish in CUE a further article on this subject.

FOR centuries wars have produced a vast number and variety of songs. In fact, during times of stress, nations seem to produce more songs of the people than at other times. World War II is no exception. In fact, the present struggle has probably brought forth more wartime songs than any of its predecessors. They are not necessarily martial songs, but they have arisen through the natural reactions of war.

Although New Zealand soldiers as a body are not distinguished by their tuneful singing, in their midst are several who have contributed to the songs of this war. Army Archives in Wellington have already collected 130 songs and tunes written, played, and sung by members of the New Zealand Forces overseas. No doubt there are numerous others that still await collection. In addition, 54 musical compositions ranging from new regimental marches to recently-adopted national tunes, have been collected.

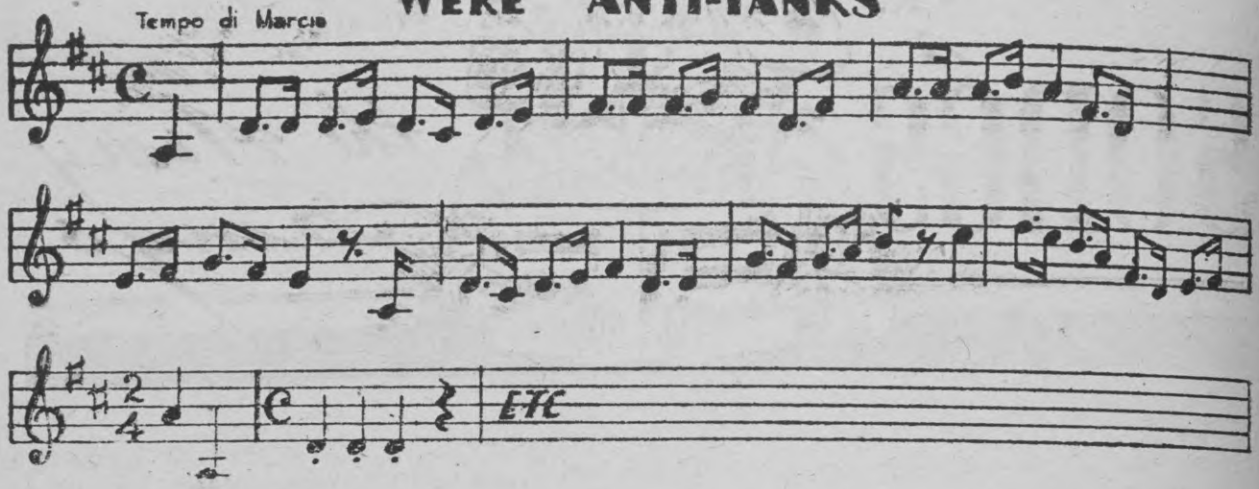
Naturally, many of the songs popular with soldiers are not of the drawing-room variety, but many that are suitable for public performance are not widely known simply because they have not been published. It is extremely difficult at present to have songs published on account of war-time restrictions on paper and printing.

Some songs have, however, reached the market. One of these " We are the Boys from Way Down Under " became very popular, particularly in New Zealand. This was written by J. E. Pyke, originally a drummer in the Second Echelon Band. Another well-known tune is "Maori Battalion Song " which is popular at home and in 2 NZEF. Three others have reached the New Zealand market but are not widely sung by New Zealanders in Italy. They are "N.Z. Army Music Song", "A Kiwi Song" by Ossie Cheeseman, of the Pacific Concert Party, and " Kiwis on Parade " by Russell Murray, of the Middle East Concert Party.

It is noticeable that patriotic songs do not make a wide appeal to the soldier in the field. He prefers the song with a humorous twist, especially if it introduces the language and customs of the country in which he is fighting. He likes unit songs, too, but they have a habit of dying out with the passage of time and changes of personnel, whereas the humorous, topical song lives on.

How many present members of the 7th Anti-Tank Regiment know the song composed for "anti-tankers" several years ago? The words are by J. Fullerton, and the music by Terry Vaughan, the producer of the Kiwi Concert Party. Here are the words of the first verse and a few measures of the music.

WE'RE ANTI-TANKS



WE'RE ANTI-TANKS.

We're slaves to spit and polish and we hide our guns in holes,
Till we're winkled out at midnight by bayonet patrols,
There's sweat on our moustaches, we don't get any thanks,
But by the living jingo we are death on
Tanks, tanks, tanks, light heavy or infantry,
Tanks, tanks, tanks, it's all the same to us,
No junks or pranks, we've gunners in our ranks,
Who will strafe you from the flanks and from the fore,
Beware, the N.Z.A. will carve you up and ask for more,
For we are Anti—very Anti—Tanks, tanks, tanks!

Another good martial song is that of the 25th Battalion. The words and music are by Capt Geoffrey Colledge:—

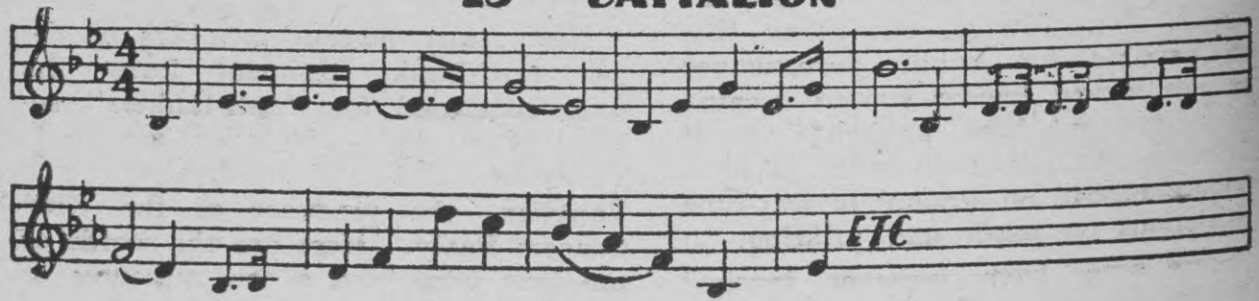
THE SONG OF THE 25 BN

The 25 Battalion Battalion
Marching off to the War
The 25 Battalion Battalion
Like the boys who went before,
We'll shock them, we'll shake them, we'll break them
And we'll drive them back again
Voices loudly ringing
Keep those arms a-swinging
While your feet go ringing
Left right, left right
Happy faces smiling
Honour high a-piling
All for one and one for all.

The Maori Battalion has contributed more war songs than any other unit in the three Services, and several are frequently sung throughout 2 NZEF. It was from the Maori Battalion that came the parody on "The Road to Gundagai":—

There's a track winding back
From the good old Monastery
On the road to Cassino town,

25TH BATTALION



Where the olive trees are growing
And the good old vino's flowing
Behind our forward line.
Where Hitler's screaming Mimi's and 88's whizz by;
The Kiwis in their dug-outs are brewing their shai...

More songs of this nature came out of the Western Desert. There is a recent version of "Sayeeda Bint", with a second verse telling of a Kiwi's ambitions:—

Two eyes of fire—that tell me Stanna shwire
I'd like to do what all good Kiwis do
I'll take you by the river in my Army V8 flivver
My little Gippo bint you're Kwois Kateer.

Memories of Mersa Matruh will always be revived by the humorous song which is frequently to be heard in the Division.

Oh the rafters made of timber and the walls are made of scrim
And the gaps that let the dirty sand storms through
I can hear those Iti bombers as they circle round at night
In my flea-bound bug-bound dug-out in Matruh.

But probably the "signature tune" of the New Zealand Division is its "Ti-yi-yippi-ippi-yi" chorus to the ubiquitous "She'll be Coming Round the Mountain." This raucous refrain is tacked on at will to almost any song and fills in any awkward pauses in the singing—often with amusing effect. Naturally, the verses have been suitably adapted to give the song an Army flavour.

Another song which came from desert days was a cynical number concerning the award of the Africa Star, sung to the tune of "Home on the Range."

A song that is little known to New Zealand soldiers but is worthy of inclusion in any list of army songs concerns Field Marshal Montgomery. Early in the Italian campaign when "Monty" was in command of the Eighth Army on the Adriatic sector he was reported to have sent a desperate message to London for a pair of waterproof pants.

The Bishop of Southwark, who was on the point of leaving for Italy in the line of duty, undertook to take the pants with him. A confrere of the General (as he then was) penned the following stanzas, which have been set to music, in commemoration of the incident:—

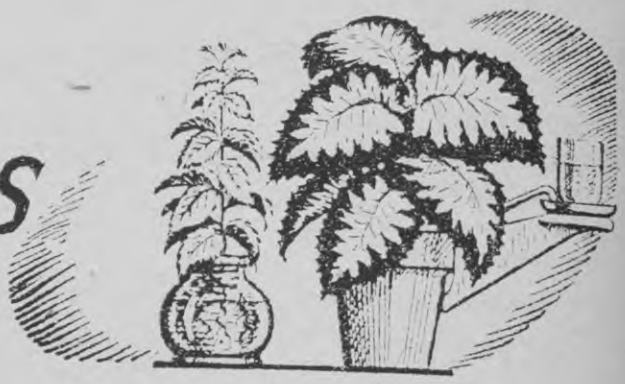
We've despatched *pour la guerre*
A mackintosh pair
Of trousers and jacket express,
They are coming by air,
And are sent to you care
Of the Bishop of Southwark, no less.
So wherever you go
From Pescara to Po
Through mud and morasses and ditches
You undoubtedly ought
To be braced by the thought
That the church has laid hands on your breeches.
We think they'll suffice—
As they should at the price—
To cover your flanks in the melee
And avert the malaise
In the Premier's phrase
Of a chill in the soft underbelly,
And you'll find, as we hope
When you call on the Pope
That his blessing's more readily given
On learning the news
That your mackintosh trews
Were brought down by a Bishop from Heaven.

ANSWERS TO BRIDGE QUERIES.

1. One Diamond (the weak doubleton forbids No Trumps.).
2. One No Trump.
3. One No Trump (preferable to minor suit call).
4. Two Diamonds. Biddable suit unlikely to be useful at No Trumps unless partner very powerful).
5. Two Spades (Only a single stop in Hearts).
6. Two No Trumps (Ace almost certainly on right makes your Hearts a double stop).

Owing to a typographical error the Honour Trick table in *Cue* 15 was wrong. "KJ 10" and "Kx and Qx" are both 1 HT not ½ HT. "Qx and Qx" should have been omitted.

Hydroponics



— By H.C.A.W. —

AT last! No more back-breaking digging! No more fights with slugs and eelworms! Gardens on the roof or in the cellar! Fresh vegetables picked direct from the pantry shelf; flowers growing in the vases!

These and many more fantastic claims became catchwords a few years ago when the practice of Soilless Culture first broke out from the bounds of scientific experimenters and became the temporary plaything of sensation-loving journalists and newspapers. Almost overnight a method of raising plants without soil grew from being the subject of careful experimentation into becoming a widely publicised topic of interest to all gardeners. The inevitable result was a series of endless false claims and exaggerations, which in turn due to the countless failures of casual experimenters, resulted in a quick relapse to the comparatively obscure limbo of serious workers.

It has been known to experimental botanists and plant chemists for well over fifty years that plants could be grown successfully in nutrient solutions, but it was not until 1929 that soilless culture broke the laboratory bounds and became associated with practical horticulture. In that year Professor Gericke, of the University of California, gave a demonstration of practical water culture by producing a tankful of tomato plants which grew so tall as to necessitate picking the upper fruits from a ladder. After this, the Press seized on the story and irresponsible prophecies were made concerning " the most revolutionary and sensational scientific discovery for centuries."

Professor Gericke termed his method " Hydroponics," and, although this name is still widely used, it is now generally replaced by "Soilless Culture" since, as will be seen later, the latter term covers all methods of soilless culture whereas the former is a correct name for only one of the methods.

In America the new method of cultivation became a "racket" of high degree, mushroom companies springing up almost overnight to exploit a credulous public. Even in New Zealand this took place to a certain extent and many people wasted an " annual subscription," with extras, with such an organisation, only to find that the path to success was not easy to attain in such a way. Consequently, more cautiously-minded people regarded the whole business with suspicion and had little, if anything, to say in favour of soilless culture. During the intervening period between this sensationalism and the present day, serious experimenters and practical producers have continued to work carefully and scientifically. The result is that soilless culture can now no longer be termed a " fad " or a " stunt," as it has become a proven and accepted, though specialised, branch of horticulture. So much is this the case that most of the latest information and experimental results are coming from professional nurserymen.

It is not thought likely that soilless culture will become a "big thing" in New Zealand in the near future, for a wide variety of reasons, but at the same time the question is asked frequently "what is Hydroponics—and has it any practical application?" The purpose behind this necessarily brief outline is to answer this question as well as space permits. It should be understood, however, that " Soilless Culture " remains a method subject to further experimental work, and will, at all

times, require careful handling if successful results are to be obtained.

The main points emerging from a summary of all the most recent information may be indicated as follows: — (1) Soilless culture is a practical method of *indoor* growing that may, in this field, gradually supersede soil culture entirely. (2) It promises, for the first time in the history of greenhouse culture, to make plant-growing an exact science instead of being a hazard. (3) It is considerably more economical of upkeep than soil culture (in *indoor* conditions.) (4) As a hobby, "parlour" culture becomes a practical and fascinating pastime. (5) "Aggregate" culture has superseded Hydroponics as being the most practical soilless method of plant culture.

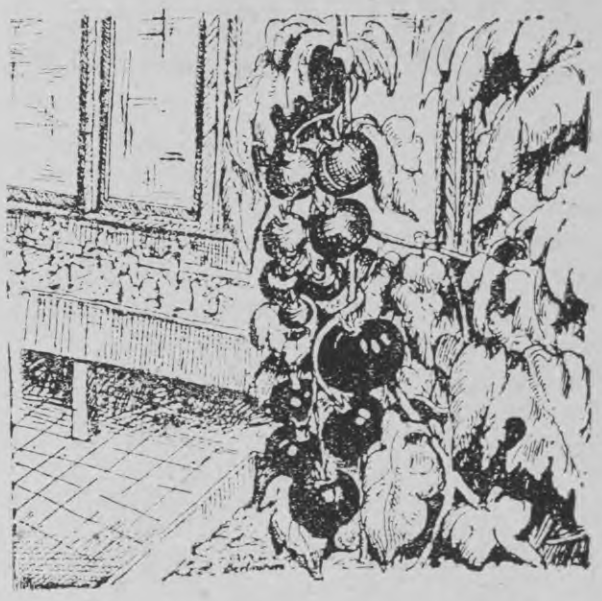
Soilless culture can be broadly divided into three divisions—water culture (or Hydroponics), sand culture, and sub-irrigation, or aggregate, culture. Among commercial growers the last-named method has become the generally accepted system of operation.

Before an outline of the above three methods is given, there are a few words commonly used in a soilless culture vocabulary which require explanation. The first is the term " nutrient solution." This is the name given to the liquid food with which the plants are fed. Various chemical compounds, dissolved in a quantity of water form the nutrient solution. Then the word " aggregate." In this connection it is the term applied to the medium used in soilless culture to replace soil as a material in which the plant is set out. The aggregate used may be cinders, fine gravel, or coarse sharp sand.

In *Water Culture, or "Hydroponics,"* leak-proof containers of suitable size, whether small glass jars for home experiments or 100 ft. troughs for greenhouse culture, are filled to a certain level with nutrient solution. Above the solution is a wire-mesh tray holding the plants. These are set in the tray in a deep layer of excelsior (woodwool), or a similar substance. Overhead supports of twine must be provided to which the growing plants can be secured. The plant roots hang down into the solution which remains some inches below the tray to provide an air space for the roots. The nutrient solution is checked regularly for correct level, aerated daily by one of several methods and periodically renewed.

Sand Culture is somewhat similar to ordinary soil culture in that the plants are actually planted in pots, boxes, or a series of troughs, but in fine sand instead of soil. In the case of small units, all that is necessary is to pour on to the sand sufficient nutrient solution almost to flood it. The solution gradually drains out through the drainage holes in the bottom of the container, where it is collected in a suitable receptacle for further use. This process takes place about every eight hours and after a fortnight or so a new nutrient solution is used.

Aggregate, or sub-irrigation culture, resembles sand culture, the main point of difference being in the particle size of the aggregate. It may vary from



particles ranging from 1/10th inch to 3/4 inch in diameter, cinders sieved to exclude all sizes below 3/8 or 1/2 inch and above 3/4 inch being the most used. In small units it may be treated with nutrient solution as suggested above for sand culture, or another way, suitable for both methods, is to provide, by means of a fine syphon, a steady drip-feed so arranged that a slow but steady movement of nutrient is maintained through the aggregate.

In larger installations several methods may be used. For units of say, 4 ft by 10 in. wide, a bucket is frequently connected, by means of a rubber tube from an outlet soldered near the bottom of the bucket's side, to a vent in the bottom centre of one end of the carefully levelled trough. An inverted V of boards runs the full length of the trough bottom, and when the bucket containing the nutrient solution is elevated, the solution is quickly spread throughout the aggregate. Flooding carries nutrient to all roots. After a period the bucket is lowered to a position below the trough, and the nutrient drains back through the tube into the bucket again. The cycle is repeated every eight hours or so.

In larger units this process is performed by a centrifugal pump driven by an electric motor.

Space does not permit of a description of formulae for solutions, nor of a list of the many small but important factors which may make a success or failure of the method. Neither can hints for the making of the various units be included. If any reader desires further information, he is advised to refer to the various textbooks available. Commercial horticulturists are advised to read "The Science of Soilless Culture" published in 1943 and written by A.H. Phillips. This book contains the most recent information available on commercial installations and how they may best be operated. ERS can answer queries if necessary or proffer more comprehensive advice.

THE Two Knights' Defence is an effective method of avoiding dangerous attacks that can arise from the Giuoco Piano, Evans Gambit and similar openings. It is very popular with all enterprising players and usually leads to a strong counter-attack.

TWO KNIGHTS' DEFENCE.

GAME 2.

STOCKHOLM 1937.

	WHITE CASTALDI	BLACK P. KERES
1.	P—K4	P—K4
2.	Kt—KB3	Kt—QB3
3.	B—B4	Kt—KB3
4.	Kt—Kt5	P—Q4. (a)
5.	P x P	Kt—QR4
6.	B—Kt5 ch.	P—B3
7.	P x P	P x P
8.	B—Q3 (b)	Kt—Q4
9.	Kt—K4	P—KB4 (c)
10.	Kt—Kt3.	Kt—KB5
11.	B—B1	B—B4
12.	P—QB3	B—Kt3(d)
13.	P—Q4	Kt—Kt3
14.	B—Q3	O—O
15.	P—Kt4	Kt—Kt2
16.	B—B4 ch.	K—R1
17.	P—Q5 (e)	Kt—Q3
18.	B—Kt3	P—B5
19.	Kt—B1	Kt—K5
Resigns (f)		

(a) Black must give up a pawn but gets ample compensation.

(b) 8B—K2 is necessary. This move gives Black the advantage.

(c) Bold. 9 . . . . , B—K2; 10 O—O, O—O is usual.

(d) Such a retreat is good. No need to commit himself until the pawn has advanced.

(e) White seems to have extricated himself from a very awkward postion but all his attacking moves are hitting the air and his fundamental weakness remains. Keres's play is a model of the grand master's precision.

(f) The various lines that Black can adopt in answer to White's attempts to save himself are left to the reader. This game by the Esthonian champion is worth studying. It is possibly more satisfying than showy sacrificial play.

Sight - for the Services

In the past the opinion seemed to be general that German optical equipment was superior to that of the Allies. Since the beginning of the war, British craftsmen have proved that in lens-making they have equalled if not surpassed Germany's best. Hand in hand with this improvement has been the steady progress made in the allied craft of glass-making.

The high quality of British lenses is making a valuable contribution to the final defeat of Germany and Japan. Telescopes, range-finders, gun-sights, aerial cameras, tank and submarine periscopes, binoculars, and numerous other equally vital instruments for the Army, Navy, and Air Force are being supplied in ever-increasing numbers and of a steadily improving standard of workmanship. Not only are British firms producing these articles for the whole of the Commonwealth; they are making essential optical instruments for the United States and Russia.

Even before the war British glass-makers, encouraged by the State to carry out intensive research into the making of optical glass, had reached a standard at least comparable with the best pre-war German products. Craftsmen, whose ancestors had been making glass for centuries, placed their knowledge and skill at the disposal of the research workers, and a happy blend of age-old tradition and modern technique produced the desired results.

All difficulties were swept aside, including that caused by the cutting off of supplies of the special sand required for making lens glass. This was previously imported from Germany, but a sand that was found to be as good as the German deposits was discovered in Scotland—a discovery which saved the industry and enabled it to expand on a scale vast enough to meet wartime needs.

Just how important are these allied industries can be gauged from considering two aspects of the war—the Battle of the Atlantic and aerial bombing and reconnaissance. Without the compasses, sextants, telescopes and range-finders made by British optical firms, the Royal Navy could not have defeated the attempts of Hitler's U-boats to cut the life-line between America and Britain.

British camera lenses which made possible the taking of aerial photographs showing minute details and detecting Nazi camouflage paved the way for the effective bombing by the RAF and the American 8th and 9th Air Forces. Aerial photography was likewise of great importance in the planning of the D-day landings, and it will continue to play its part in the battles that lie ahead.

The Navy Keeps Watch.

Like few war industries, machinery plays little part in glass-making for optical work. The craftsman with his own hands rules supreme, for in this industry no machine has yet been found to equal the work of man's hand. Even the dome-shaped, fire-clay pots, in which the lens glass is made, are fashioned by the craftsman without the

aid of machinery. In fact, he puddles the clay with his feet, much as the Romans did in centuries gone by. The pots are left to dry gradually for several weeks, until they are ready for their role in life—to provide the houses for the lens glass.

Aircraft Spotters in Action.

The clay pots are prepared for the main furnace by heating to about 800 degrees Centigrade, a temperature that is reached in gradual stages over a period of, roughly, one week. Then they are transferred to a large furnace in which the temperature is increased to about 1400 degrees Centigrade before the "frit" or glass-making ingredient is put into the pot. Once this is done, the furnace is closed up and the process of making glass is really commenced. To make up for the escape of gas from the frit, the pot is topped up.

It is then left for approximately 48 hours by which time the glass should have melted and become reasonably free of bubbles. Now the pot is opened and the glass mixture is allowed to cool to about 1000 degrees Centigrade, special apparatus keeping it stirred for five hours of the cooling time.

The pot has all but served its purpose. It is now removed from the furnace and cooled off very gradually over a period of a week, at the end of which the glass should be ready for processing. The clay is smashed, and the ton of optical glass it contains is broken up into larger lumps, like glittering blocks of ice.

The pieces are sorted, tested for flaws, and graded. Then they are placed on a slow-moving platform which conveys them through a tunnel-like chamber, cold at one end but gradually working up to 900 degrees Centigrade at the other. At this temperature the glass is soft enough to be pressed into shape, and these shaped pieces are placed in a gas-fired muffle and left to cool for three or four days.

The process is all but over. The glass is next polished and re-examined for flaws. This polishing takes six hours. After final testing, the glass is either sent out to the instrument-makers in the form of slabs ready to be sawn into shape, or is moulded by a further heating and pressing process into the approximate shapes of the lenses or prisms required. In both cases, the glass has to be annealed to guard against internal strain.

Then begins the intricate work of making lenses that are as near perfection as it seems possible to attain.

A Ton of Glass in a Clay Pot

That British lens-makers are achieving that high degree of workmanship has been proved by the Services. In post-war trade, it seems likely that they will oust the products of Zeiss and Goertz and establish themselves as the best lens-makers in the world.

Positive or Negative?

It's Over to You.....

NO subject provides either more points for the interested or shocks for the careless investigator than the electrical trade. And that normally inexcusable play on words might be excusable in this case if it is sufficient to arrest the attention for a moment of all those interested in the electrical trade — electrical wiring, workshop practice, and electrical engineering.

What is the post-war prospect in New Zealand? What assists the placing of the feet on the first rungs of the ladder in this vital branch of industry and development? What factors play a part in the climb up that ladder to success?

To ensure that all feet are on the ground at the start, and that flights of fancy concerning wealth without working do not get out of hand, consider first two authoritative comments on the trade that are poles apart.

First, the optimistic side. Without any doubt it is by far the stronger. New Zealand, with other countries, many of which are ahead of her in this sphere, will be turning, more and more, to electrification as a source of power—and, of course, light. New Zealand is now starting in this development from a back mark for reasons with which we are not at the moment directly concerned. There is a power shortage in New Zealand. Comprehensive plans to overcome this are under way. After the war there will be development in every branch of the electrical trade providing scope for the men who are keen, able and progressive.

In short, electricity will be increasingly relied upon in everyday life and industry—lighting, heating, ventilating, transport, power machinery and so on. Will there be a place for you in this development?

Now for the less optimistic side. The future of the trade depends on building programmes, hydro-electric schemes and progressive development of the entire country—city, town and country alike. The speed with which this takes place does have a bearing on the promptness with which opportunities become available for tradesmen and professional men.

There are some sections of the work that require close examination of prospects. In the past the trade has been subject to considerable unemployment, and with reason, for a six-roomed house where a carpenter would be employed for some months would provide for the electrician not more than a few days' work. War itself has required a vast amount of electrical work in manufacture and maintenance of equipment—this embraces the extensive field of radio, for example—and thousands will be returning from the Services with some electrical experience. This is obviously a big limiting factor.

Those are the two general points of view. It is obvious that the policy announced in New Zealand of *not* training ex-servicemen for the electrical-wiring trade, for instance, unless they

have had *some* previous experience either in the Services or in civil life, is sound in principle.

But there is no "thou shalt not" attached to anything in a free country and if you have absorbed the foregoing and can still be interested, this article

sets out to give examples of some of the types of work involved, what qualifications are needed, and how best to make, or develop, an approach.

* * *

There are two main divisions—TRADE and PROFESSIONAL.

The electrical TRADE may be divided into two sections:—

(a) *The Manufacturing Section,* which deals with the manufacture of electrical equipment and fitting—switches, switch-boards, conduit fittings, motors, generators, solenoids, magnetic fittings, heaters etc. This is a vast field.

(b) *The Servicing Section,* which handles the installation of manufactured appliances, and their maintenance, repair and periodical testing.

In the former section the main trade divisions, excluding the designer, are involved.

They can be summarised as follows:—

(1) Electrical fitter and turner, who handles the actual mechanical side, and who, in addition to a thorough knowledge of machine shop practice, must have a good understanding of the electrical application.

(2) The Electrical Serviceman who handles the assembly of various components and the testing of the completed article.

(3) The Electrical Wiremen and their Assistants who deal with the circuit assembly and final testing, and in many cases the installation of equip-

ment and preliminary operation of the gear.

(4) Specialist Process workers are also found in this section. These were originally only semi-skilled operators; but to-day are considered skilled artisans in the winding of coils, assembly of the component parts, transformers etc; and also the operation of permanent testing installations. It is important to note that the man whose job it is to test electrical equipment can very rarely see the fault or trouble. If a steam turbine, a reciprocating steam engine, a petrol

engine, or a machine-tool refuses to function correctly, the source of the trouble can in almost every case be traced by a visual examination of the machine parts.

To become a registered electrical wireman requires a period of apprenticeship and attendance at a technical school. The Electrical Wiremen's Examination must be sat in the apprenticeship period. Candidates for registration must gain their practical experience under the supervision of a Wireman already registered. The minimum period of apprenticeship before registration is three years. Keen wiremen may possibly desire to branch out to a higher paid work, such as is available in power stations, and operators in large industrial plants.

From the above information the reader will no doubt visualize many attractive opportunities for men who have previously, through force of circumstances or because of lack of information, have been working in unskilled positions where advancement was limited, and who have since received introductory experience of the trade.

For the man who is prepared to work hard and undertake diligent study, this ever-increasing field of electrical work offers opportunity and an indispensable position in the development work of to-morrow.

A *professional engineer* generally means in New Zealand one who has after his name the letters B.E. (Bachelor of Engineering) or A.M.I.E.E.

(Associate Member of the Institution of Electrical Engineering.)

The professional engineer is found employed by the P.W.D. to build and maintain hydro-electric works and main supply lines, holding an appointment as Power Board engineer or manager, tramways engineer, or working for an electrical engineering firm such as National Electric. In the P.W.D. jobs, the salaries follow the usual run of Government jobs from about L300 to L.750 with a few plums reserved for the nabobs. According to the size of the Power Board, the engineer will probably receive from L800 to L1500, or higher, and no doubt the able man with one of the larger firms will do as well.

The BE degree course takes *4 years* and requires a sound mathematical education. If the will is there, any man can do mathematics. If he is not prepared to work hard enough to become competent at them, he might as well give up the idea of being a professional engineer. There are other branches of the trade in which he would be happier as well as better off. This BE course exempts the student from most of the AMIEE examinations, but he still has to do three years of practical work before he can apply for this diploma.

For the man who does not wish to or cannot go to a University, the method to follow is to be employed by a registered electrical engineer, whether he is a private employer or the boss in P.W.D. or other public body. While there, he carries on his studies first for the Preliminary and then for the Associate Member's Examination. If he has passed matriculation he is exempted from most of the Preliminary, which is an exam. of much the same standard. Once again, the work involves a good deal of mathematics, as well as plenty of study in other subjects. On passing the examinations and producing evidence that he has had a period of responsible experience, the student has the right to call himself AMIEE.

The AMIEE examination is divided into three sections—Joint Section A, Section B, and Section C.

The subjects for Section A, which covers the basic education are:—(1) English. (2) Mathematics (in general to about Stage I BA with extra work on Calculus.) (3) Applied Mechanics (Statics, Hydrostatics, Kinematics, Kinetics, Hydraulics and strength of materials.) (4) Applied Heat (Thermometry and Thermodynamics, Combustion, Properties of Matter, Light and Sound.) (5) Principles of Electricity (Current Electricity, Electrostatics, Electromagnetic Induction, AC Machinery, Measuring Instruments, Thermionics.)

Section B covers the more advanced instruction necessary for specialisation. The subjects are:—(1) Electrical Engineering (Circuit Calculation, Materials, Machinery, Thermionics, Mercury-Arc Rectifiers, Photometry.) (2) One of (a) Electrical Supply (b) Electrical Installations (c) Electrical Machinery (d) Electrical Measurements (e) Line Communication (f) Radio Communication.

Section C (*the words are quoted*) "is intended to assess the functional

capacity and the suitability of the candidate for responsible work as a professional electrical engineer." It consists of an oral and a written examination occupying one day.

* * *

Electrical engineering is a good profession for anyone who does not like to be tied to a desk all his life. The nature of the work generally ensures that he spends at least part of his time in the open. He also has a wide range of localities to choose to live in and can see New Zealand while earning his living. If he later decides to see the world, he has qualifications that will ensure him employment.

To sum up, the profession offers lucrative and interesting employment to the man who has the ability, the training and the initiative.

It is worth remembering now that electrical work in the Armed Forces may be counted towards the service necessary before registration has been considered by the Electrical Wiremen's Registration Board. Several important concessions have been made.

Further, the Trade Training Scheme embraces this trade, and ex-servicemen may become adult-apprentices and have their wages subsidised up to journeyman's rate while they are working out their time.

If you are already part-way on with your study you may wish to continue it. There may be facts not mentioned in such a short summary as this that you require to know. ERS is a servicing department in both these fields. It is over to you. What is the answer—positive or negative?

It Happened at Rotorua.

The gurgling noise grew louder. The guests tried to hide their embarrassment and dismay. The host and hostess exchanged amused looks as they kept the conversation flowing. Their South Island friends contributed little to the chatter—they had a too uncertain feeling.

The strange noise increased until it seemed that the floor-boards would burst open under the strain. Then the host explained.

There was a "harmless" mud pool under the sitting room floor and periodically it played and gurgled happily. Yes, it might turn into a geyser some day, but it did not seem likely.....

The guests did not stay long. Somehow, the South Island seemed a very stable, friendly place.

* * *

"I hope you won't mind a slight delay while John gets the pudding," said the hostess as her husband rose from the table.

"Not at all" replied the guests politely, wondering why there was need for an apology.

A moment later John, riding a bicycle, passed the window. Five minutes later be returned—carrying a steam pudding on the handlebars.

"You see," explained the hostess, "we always cook our meals in the hot pools down the street. It is the best way I know, especially for steam puddings."

* * *

The household was soundly sleeping. Nothing except steady breathing and intermittent snoring broke the silence of the night. Suddenly, there was an uncanny gurgling noise, a violent hiss, and a crash of bursting timber. A geyser had paid a visit to the peaceful house, and had sliced off the bathroom quite neatly. The owners inspected the damage, thought of the possibility of harnessing this new hot water system and went philosophically to bed. Next day the press made headline news of the incident and people flocked to see the new geyser. The owner made a small charge to sightseers which helped to pay for the damage. Then he set about making the geyser supply the household with hot water.

The family continued to live in the house quite unperturbed by the fact that it could have been an occupied room which had been destroyed by the escaping steam and boiling water.

Sulphur — The Wonder Element

OF the ninety-two elements which, in various combinations, form the composition of all known substances in the world, sulphur occupies an important place. Its uses in present-day life are almost innumerable—as a powerful destructive force in modern war, as an essential compound in industry, as a valuable aid to agriculture and in preventing and curing disease.

So important is sulphur in war that without it the United Nations would soon become as helpless as an ancient knight tilting at a modern tank. Pure sulphur is used in gunpowder, matches, vulcanising rubber, in the manufacture of enamels, metal-glass cements, insecticides, and, in combination with other elements, it forms innumerable other important compounds. Sulphuric acid has as many, if not more, important uses, and organic sulphur compounds have been of untold assistance to modern medicine.

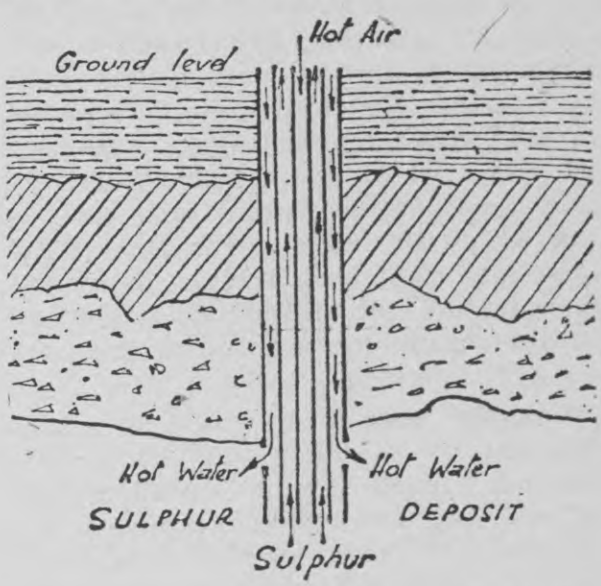
Sulphur was known in the past as brimstone and as such was mentioned in the Bible in descriptions of Hell where those who strayed from the ways of righteousness were called upon to suffer an existence spent midst the fumes of burning sulphur.

Sulphur is an abundant element, though far less so than oxygen, and is found in its free state in regions of volcanic activity. Up to the end of the Eighteenth Century Sicily produced ninety per cent of the world's supply, but its production since then has declined.

Today, the main producers are the States of Louisiana and Texas (United States) where Herman Frasch was responsible for a very simple method of obtaining extremely pure sulphur. In these States great beds of native sulphur occur at depths approaching 900 feet. A triple tube is sunk to the bottom of the deposit. Down the outer tube is forced hot water, superheated to 170 degrees centigrade under 100 lbs pressure to melt the sulphur, the melting point of which is 114.5 degrees C. As sulphur is twice as heavy as water, hot air is forced down the inner tube to fill the liquid sulphur with bubbles. The frothy mixture rises between the hot air pipe and hot water and flows into great wooden bins where it is allowed to cool and solidify into huge blocks of sulphur. Some of these bins produce a single block of sulphur weighing 100,000 tons. These great blocks are dynamited into fragments and loaded into trains by mechanical means such as steam shovels.

Spain, Mexico, Japan and Iceland also produce sulphur but not in quantities comparable with the production of the United States of America and Sicily.

Sporadic attempts have been made to obtain sulphur from White Island, New Zealand, but the volcanic activities of the island have proved too difficult an obstacle to overcome.



The well-known odious effluvium exuded by eggs well past their prime is due to a compound of sulphur and

hydrogen known as sulphuretted hydrogen and formed by the decomposition of the protein of the egg. This gas naturally occurs in many volcanic gases; hence the "lavender-like" atmosphere of Rotorua.

An early experimenter in explosives in which sulphur was used.

When sulphur is burnt, sulphur dioxide is formed, a choking gas which was known and used as a disinfectant in the time of Homer. Although still used for fumigation, it has been mostly replaced by more effective gases. It is used as a refrigerant, since it liquefies at convenient temperatures. Dissolved in water, it is employed extensively as a bleaching agent for fabrics such as silk and wool and also for paper. Its most important use, however, is for the manufacture of sulphuric acid and calcium bisulphite, a chemical necessary for paper-making.

Calcium bisulphite, which is manufactured by bubbling sulphur dioxide through " milk of lime " (slaked lime) is used to dissolve the lignin which cements the fibres of the cellulose in wood. Chips of soft woods are heated in bisulphite solutions and the cellulose fibres are separated as paper pulp. It may interest many New Zealanders to know that calcium bisulphite has its uses in the brewing industry.

Sulphuric acid was probably discovered by Arabian chemists, but the first definite record of it was made by Basil Valintine in the Fifteenth Century. As an industrial commodity, sulphuric acid is perhaps one of the most important of all chemical compounds. It is employed in huge quantities in the petroleum industry and in the manufacture of fertilizers (super-phosphates and ammonium sulphate), nitro-glycerine, smokeless powder, hydrochloric acid and sodium sulphate used in ink manufacturing. It is also used in many bleaching and dyeing operations, in electro-plating and in various metallurgical processes. These are but a few of the industrial uses which absorb huge quantities of the acid.

In 1925, *the total weight of sulphuric acid manufactured in the world was more than* 14,500,000 *tons.*

Among the large number of inorganic compounds of sulphur are also sodium thiosulphate (better known to photographers as "hypo") and sodium sulphate (Glauber salts) used medicinally and in the textile and dyeing industries as well as in the manufacture of kraft paper.

The number of organic compounds of sulphur is enormous and no attempt to deal with them can be made in this article. Mention must be made of the organic sulphur compounds which have been used with great success in the treatment of pneumonia, meningitis, gonorrhoea and other diseases. There are about a dozen of these compounds which are all very similar in their chemical constitution. The simplest is sulphanilamide or, to give it the full title, para-aminobenzene-sulphonamide, and the most active is the famous M and B 693 or sulphapyridene.

The brimstone of the past has, in the form of the medicinal sulphur compounds, changed into the ancient philosopher's " Elixir of Life."

America and World Trade.

WHILE there is obvious necessity for collaboration among the nations in the attainment of a lasting peace following this war, there is a comparable need for co-operation in economic matters to ensure for the peoples of the world security from want. Between the two World Wars occurred a depression which brought unemployment and destitution to millions. Will it happen again? Can the nations avoid it by wise planning?

One aspect of the question is the restoration of world trade on a fully multilateral basis. While this is a problem for all the nations, it is of particular importance to the United States, for there are many who hold the opinion that a large part of the responsibility for the collapse between the two wars was due to the failure of America to adjust her economic policy to her new position as a great creditor and exporting nation.

It has long been recognised that as a general rule exports and imports must balance and that a country which wants to expand its exports must be prepared to accept an expanding volume of imports. So far, there has been a disinclination by Americans as a whole to apply this principle.

Most American businessmen have looked upon foreign trade as a convenient device for curing unemployment within their country and not as a means of utilizing the international division of labour through mutual exchange of goods—a process that would raise the standard of living. Instead, they concern themselves with ways to sell American exports in every field—whether by their own quality or with the mischievous help of political pressure, subsidies, differential prices, and tied loans. *They neglect the other side of the question—that foreign countries which accept American exports must be provided with a proportionate expansion in the quantity and value of goods they can export to the United States.*

In peacetime, this is a question of vital concern to countries which accept American products, a list that includes New Zealand. The alternative to increasing America's imports from these countries is to lend them dollars, but this alone is but a temporary relief and, in fact, increases disequilibrium. Foreign investments have their use certainly, but they are effective only if accompanied by expanding opportunities in the lender's market. The methods advocated by American businessmen for increased export trade would in the post-war period produce a hectic, short-lived prosperity in the United States, just as they did in the 1920-28 period. It would almost certainly end in another slump as disastrous to America and other countries as that of 1930.

An important condition for the expansion of American exports is the maintenance of a high and stable level of domestic economic activity in the United States. This aspect is vital to Britain's post-war policy, the chief objective of which should be the restoration of multilateral trading. For this provides the most convenient method of purchasing the goods she needs from abroad by exporting the things she is best suited to produce.

But such a policy is not without its dangers. It depends upon the ability of each major participant to pursue a policy of full employment at home, to balance accounts with the rest of the world, and to maintain reasonable continuity and stability in external economic policy. When trade is active multilateral trading is excellent, but it is an infallible instrument for spreading and accentuating depression when trade falls away in any of the leading countries.

For the satisfactory working of multilateral trade it is essential that the United States, should, to use their own expression, "play ball." Co-operation between America and other countries is essential in the future economic set-up. It would be a serious blow to the

world generally if Britain and America were compelled to agree to differ over the organisation of world affairs. Britain cannot afford to commit herself to a policy of multilateral trading if developments in other countries might force her into a policy of deflation, depression, and unemployment.

To a lesser degree, New Zealand is also concerned in America's post-war trade policy, for in the years before the war she had an unfavourable trade balance with the United States.

New Zealand suffered grievously over the world-wide depression, and she could be affected similarly in the future. Consequently, along with Britain she will be vitally interested in trends of United States world trade policy which are likely to be revealed in the near future.

No Trumps: The opening One No Trumps is far too little used. Honour Trick strength required is about 3 H T spread over three suits. One suit can be risked unless already bid by opponent. Some prefer the more flexible point system. In this system A=4 K =3 Q=2 J=1 10=½. The ideal hand is a 4-3-3-3 distribution but a doubleton is permissible if K x or stronger. With a weak doubleton or a singleton it is better to bid a suit in the first round. If your partner should bid the weak suit over you, you can then safely go into No Trumps.

Some players hesitate to bid No Trumps unless all suits are stopped. This is over-cautious at the level of one. The partner can be presumed to have some strength till the bidding proves otherwise and if the opponents have everything you lack, they'll bid it, or miss a good score.

Response to One No Trump: There is no need for the partner to call out into a suit, since No Trumps requires only three tricks for game. He should call out however:—

(a) If he has a long suit without tops, and with no or insufficient entry cards in the other suits, e.g., S. xxx H. QJ xxxxx D. Kx. C.x

In this hand, if the opponents hold Ace of Hearts these hearts may never be used as the King of Diamonds is not a certain entry, and your partner cannot have many hearts and may only have Kx. Call two Hearts instead.

(b) If he has a weak hand but a biddable suit, e.g. on S. QJ xxx H. xx D. Q xx C. xxx. Call Two spades. It is weak but not desperate. With a weaker hand than this, silence is best. If the partner has only a minimum bid the opponents will call, or miss game by failing to do so.

(c) If the opponent on the left of the opener has bid and partner has not a possible double stop in that suit but otherwise has a likely hand, with 1½ HT or better, he should call his best suit. The partner should raise to Two No Trumps where an opponent has called provided:—

(a) He has a probable double stop in the suit (e.g. KJ x of Clubs over a Two Club call.)

(b) He has 1½ HT or 6 points in the hand.

To raise to three No Trumps without a further call from the original bidder he requires 2½ HT or 9 points. Example:—What would you bid on

1. S.Qx H.AJx D.KQ10xx C.Jxx
2. S.KQx H.A10xx D.Kx C.J10xx
3. S.Axx H.K.10x D.AKxxx C.Ax

Your partner has bid One No Trump. What would you bid on?:—

4. S.xx H.10x D.Kxxxxx C.Kxx

Your partner has bid one No Trump. Next player bids Two Hearts. What would you bid on:

5. S.AQxxx H.K10x D.xx C.xxx
6. S.Axx H.KQx D.10xxxxx C.x

(See answers on page 9)

The Trulli and Their Origins.

By Major G. Blake Palmer

SCATTERED over the greater part of the provinces of Salentino and Bari which make up the southern portion of Apulia, are innumerable dry-stone chambers known generically as "Trulli."

The greater part of the Trulli country lies along the backbone of the limestone uplands known as the Murge. This upland in many areas gives the impression of being almost a plain, so gentle are its contours and so hidden are the effects of streams and torrents, the majority of which flow underground. The limestone has been hollowed out into great underground caverns, many kilometres in extent, as at Castellana, and also into curious saucer-shaped depressions known as "pulos" and blow-holes where the winter streams commence their under-ground journey.

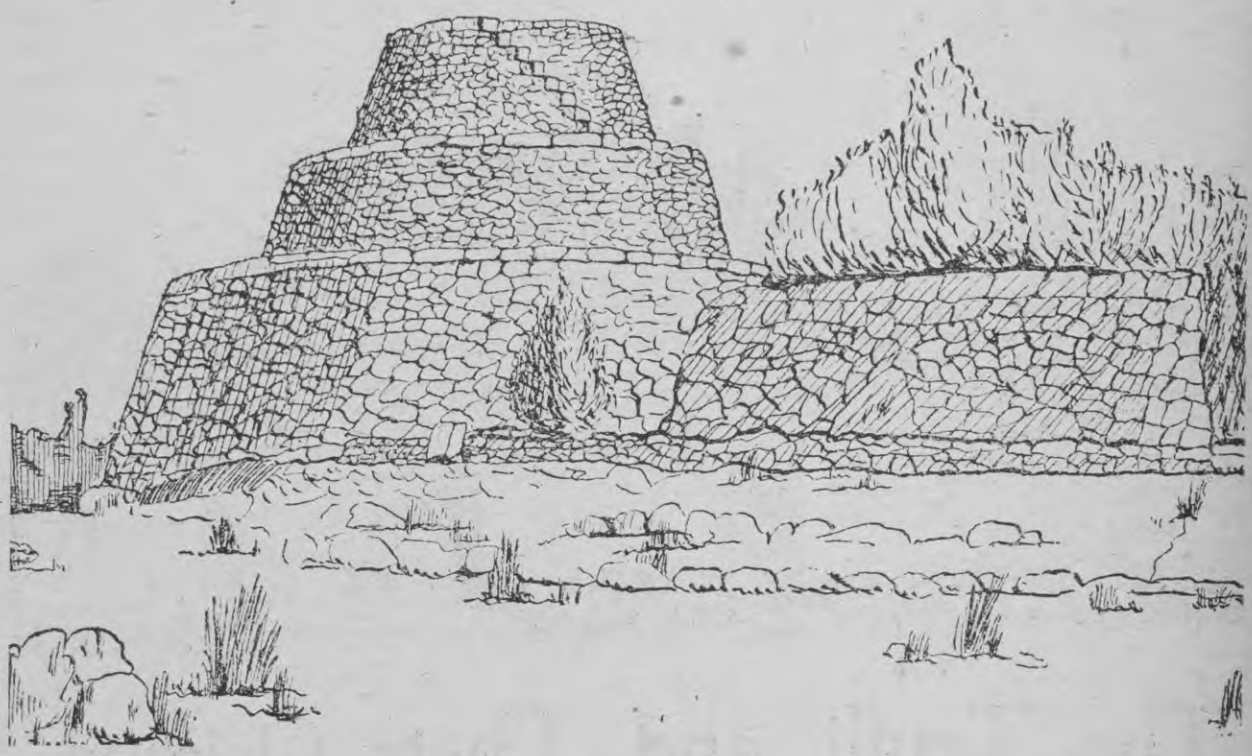
The surface of the uplands everywhere reveals the rocky poverty of the land, and outcrops of rock are scattered over even the richest fields. In its primeval state the Murge was covered in thin pasture, interspersed with thickets known as Macchie similar to the Maquis of Corsica.

All over the surface of the ground are loose rocks which, as cultivation proceeds, are gathered up into heaps known as Specchie. Other stones have gone to form the terraces which retain the thin red earth of the hillsides.

Formerly this upland region was given over to flocks and herds, and the wide stock-routes leading from the summer pastures farther north survive today as the wide, meandering " Tratturi."

The population of the Murge is distributed as nowhere else in Italy: along the coastal plain a number of flourishing cities; some miles inland a line of small towns, separated by distances of about eight miles; farther inland yet isolated centres like Santeramo with greater intervals between them. These towns house the peasant population who every day make the long trek into the cultivations. In all the countryside only a few scattered residences break the monotony of the cultivations—just a few big farms and the little dry stone structures, the Trulli.

The olive groves are for the most part recent, and few are earlier in date than



Galleried or double-platformed Trullo of the Salentino district—contrasting with the Alberobello Trulli on preceding page.

the beginning of the 19th century. Lack of water, brigandage, sea pirates and the general insecurity which persisted until well after the Napoleonic wars have led to the persistence of this population distribuion.

The climate of the Murge and the heel of Italy generally is one of extremes. In summer it is but a few degrees cooler than Sicily. In winter it is bleak, wet, cold, exposed to winds and, for the people, devoid of comfort in their houses built for hot weather. In the summer the peasant can live in simple rude shelters close to his work, and need not make the weary miles to and from his village every day. Only the material for building has to be found, and though wood is scarce, much stone is everywhere to hand.

With this stone, everywhere a hindrance to cultivation, the peasant has built his boundary walls and created his little "Specchie." With it he has also built those picturesque and practical corbelled chambers called "Trulli." Most visitors to Southern Italy remember the fine and delicate conical roof of the type of Trulli for which Alberobello, Martina-Franca, Locorotondo and Putignano are justly famed.

Farther south in the Salentino other types predominate. There is the "square" Trullo, more properly a truncated pyramid, the galleried or the double-platformed Trullo, whose wide ledges serve for drying figs or any other produce. These Trulli with double platforms also occur farther north, and are predominant in the coastal region between Bari and Barletta.

Any structures as curious as the Trullo naturally attract much speculation as to their origin and until recent times these speculations were both diverse and improbable. This was largely due to their being investigated by antiquaries rather than archeologists and by persons without knowledge of similar structures.

The problem of the Trullo must be studied both from distribution (they are confined almost entirely to the southern two-thirds of Apulia), analogies with similar structures elsewhere, literary sources, and the results of excavation.

First it must be stated that nearly

all the Trulli to be seen to-day are comparatively modern and very few can be proved more than 350 years old. A study of the modern Trullo teaches that the methods employed are identical with those used in the most ancient known examples.

A few really old Trulli or structures essentially resembling them do occur in the Salentino, specially around Calimera, near Lecce. These are mostly built of large blocks of stone similar in size to the "megalithic" walls still to be found in many regions of Apulia and elsewhere. They are also similar to the corbelled tomb-chambers of Malta and Crete.

Another curious feature of the Trulli region is that it is one of the very few in which other burial chambers like dolmens, usually associated with the megalithic culture of 2500-1500 BC, are known to occur. For example, one such dolmen can be seen near Bisceglie (Note - Stonehenge in Wiltshire is megalithic.)

The vivid imagination of those antiquaries who regarded the Trullo as the descendant of the sacrificial altar of the "Children of the Sun" is on a level with that of the 19th century writers who described the Druidical sacrifices of living victims who were burnt in big wicker cages at Stonehenge—sacrifices for which there is no shred of evidence.

Equally improbable is the suggestion that the early megalithic chambers were military structures.

Yet another theory links the Trulli with the beehive mud-brick dwellings of Syria, a country in which lack of wood has led to a similar form of construction. The connection of the Etruscans with Asia Minor or North Syria has occasioned yet another theory of Trulli origin to which a little support is lent by the known representation of huts not unlike the Trullo of Alberobello.

The Trullo, in fact, seems to be a very practical adaptation of available building material to suit the peasants' needs during his summer work. It is used also for storage of produce and for drying of fruits and forage. In some regions it is adapted for dwelling all the year round, and its simple style permits of easy addition of other rooms.

Its inspiration would appear to be the corbelled dry stone tomb, the ruins of which were scattered over the region of the Trulli country long before the more recent utilitarian imitation of that type of structure.

It is the modern type of Trulli which the New Zealander will remember when he returns home. No one could help but be attracted by these quaint beehive buildings toning in so picturesquely with the countryside. In fact, it is safe to say that when other memories of southern Italy fade from his mind the view of the rolling landscape of southern Apulia, rich with the green of spring and studded with the white and grey of the Trulli, will remain fresh.

A composite picture of three Trulli of the Salentino district. Interesting types are the galleried Trullo (left) and the square or truncated pyramid Trullo (right).

Make the Most of Your Camera

— *By J.W.B.* —

IN these days of high prices and shortage of film the amateur photographer cannot afford to have unsuccessful photographs. This article is intended to help prevent those failures.

The common mistakes fall under five headings: incorrect exposure, bad focussing, camera shake, moving objects and lack of composition.

In exposure various points must be considered. They comprise brightness and intensity of light, illuminating the object; nature of the subject—seascape or dark street; aperture of the lens being used; and speed of the emulsion.

Beginning with the last point, consider emulsion speed. Most films are marked for speed by the Scheiner system. For example, Selo fine grain panchromatic film is marked 27 degs. Scheiner; others may be 28 degs., or 32 degs. The one marked 32 degs. is faster film than 27 degs. The speed value of films will be learned with use and practice.

It is obvious in considering lens aperture that the larger the opening the more light will reach the film. Therefore, on a dull day the aperture must be increased to allow in more light. The aperture opening as a rule is marked F8, F16 etc., the greater the number the smaller the aperture. As a rule, a box camera has a maximum aperture of F12, which means that with a box one cannot hope to take pictures under varying light conditions, as with, say, a F4.5 lens which will allow much more light to the film, without distortion of the picture. It is for this reason that makers of box cameras do not advise the taking of pictures on dull days, without time exposure.

The nature of the subject affects the exposures. It is obvious that the light reflected from snow is greater than that from a dark street. Remember to expose for the shadows and leave highlights to look after themselves.

Brightness and intensity of light are controlled by various factors. Latitude is one. The nearer the equator the greater will be the light intensity. The time of day and the month of the year are imporant. In the morning the brightness of the light is less than at midday; and in Italy the light in December is not as bright as in June. Under intensity of light can come the use of filters since, if a filter is used, the intensity of light reaching the film is decreased. This is controlled by whether the filter is "1 times," "2 times," etc.

An exposure table is printed with this article which should prove valuable to photographers.

Bad focussing is frequently the cause of failures. Most box and cheaper cameras are of the fixed focus type which means that no adjustment is needed for an object at any distance. The more expensive and precise the camera the greater the attention which must be paid to correct focussing. The camera must be set so as to be focussed for whatever the distance the object is from the camera, and with the precise instrument this is done with a range-finder. Poor focussing causes fuzziness and is an annoying defect, especially when exposure has been correct.

Camera shake also must be guarded against. When taking a photograph, care must be taken to keep the camera very steady and to press the button gently. If possible, rest the camera on

a post or wall or take the picture at a speed of 1/50 sec.

Do not attempt to take photographs of moving objects unless the camera is a good one able to take pictures at high speeds. Distance from the object, speed and direction of movement play a very important part in the photographing of moving objects . For instance, in photographing a game of beach-ball at 15 yards 1/100 sec suffices, but one player at 4 yards would require 1/500 to 1/1000 sec. Speed of object is obvious. A much slower shutter speed is required for a man walking than for a fast-moving car. Direction of travel is important. An object travelling across the picture might require five times the speed of that for an object moving away or towards the camera.

The following is a list of "Do's" and "Don't's" for amateur photographers:—

For the owner of a box camera:— 1. Take pictures only on clear days when the sun is shining. 2. Take pictures between 10.00 and 1500 hours. 3. For close-ups stand at least six feet from object. 4 Stand so the sun shines over one shoulder on to one side of your face. 5. Stand comfortably and gently press button. 6. Roll film on to next exposure.

For the owner of an adjustable camera: 1. Have the camera set before taking the pictures so that you may have more time to compose your subject and watch for the best moment to snap. 2. Determine the light conditions, remembering the type of film you are using. 3. Set camera speed at the least to stop probable movement. 4. Set distance scale to cover whichever objects you wish in focus. 5. Remember it is better to over-expose than under-expose.

EXPOSURE TABLE

Film	*Opening of Lens*	*Light Conditions* *Poor*	*Fair*	*Good*	*Brilliant*
Orthochromatic or slow panchromatic.	22	No.	No.	1/25	1/50
	16	No.	1/25	1/50	1/100
	11	1/25	1/50	1/100	*
	8	1/50	1/100	*	—
Fast orthos or fast pans.	22	No.	1/25	1/50	1/100
	16	1/25	1/50	1/100	*
	11	1/50	1/100	*	—
	8	1/100	x	—	—
Extra fast pans.	22	1/25	1/50	1/100	*
	16	1/50	1/100	*	—
	11	1/100	x	—	—
	8	x	*	—	—

*=Use only yellow filters and 1/100. —=Use only the smaller stops under these conditions. x=1/100 sec may still be used for more shadow detail. No.=Do not try to take the picture.

Poor.—Heavy shade on clear sunny days, dull and cloudy days, bright but cloudy winter days.

Fair.—Light shade in clear summer days, cloudy but bright days and late afternoon and early morning and winter sunshine when using panchromatic film.

Good.—Summer sunshine, sunshine on snow, cloudy but bright days at the beach or on water.

Brilliant.—Sunshine on beach and water, sunshine on new snow.

Meet Mr Accident Prone

WITH the advance of mechanical progress, the accident has assumed a place of importance in human affairs which can hardly be over-estimated. Although overshadowed by the more spectacular battles of the last five years, the machine continues to contribute its much too large quota of casualties.

According to a recent article, the American accident casualty rate has caused losses in the United States greater than the Axis Nations have been able to inflict on her forces overseas in the same space of time. Although the accident seldom makes the big headlines, an accumulation of these happenings, like water dropping on a stone, results in a great deal of industrial inefficiency quite apart from the human suffering involved. Investigation of the factors causing accidents is, therefore, important from the standpoint of human welfare.

There are two factors in the causing of accidents to be considered--the mechanical factor and the human factor. It has been repeatedly shown that, of the two, the human aspect is by far the most important. It is in a small minority of cases that the engineer or the materials are at fault. Almost always, faulty handling of the machine by the operator is the prime cause. The loss of a finger while chopping wood is seldom due to mechanical defects in the axe; the loss of a life in a road smash is seldom in the ultimate analysis caused by defect in the vehicle or in the telegraph pole.

In general not more than 10 per cent of all accidents can be attributed to factors of a mechanical nature beyond immediate human control. Even where a mechanical failure is the start of the trouble, faulty human behaviour often converts what might have been an incident into an accident.

It would be fatally easy to attribute the remaining 90 per cent of accidents to human carelessness, and, with a few well-chosen and uplifting remarks, to leave the matter there. Fortunately, however, scientific investigation has gone a step or two further than that, and as a result we know a little at least about the causes of accidents from the human angle.

During the last war an investigation was carried out by workers appointed by the British Government into the accident rate in munition works. That the study should be conducted in wartime was not surprising, for it is when the need arises for greater production that the causes of industrial wastage

come under urgent consideration.

There were three possibilities to be considered and assessed. It might be that, as had been thought in the past, accidents were distributed throughout the population on a purely chance basis—that is whether you were personally involved in an accident was a matter

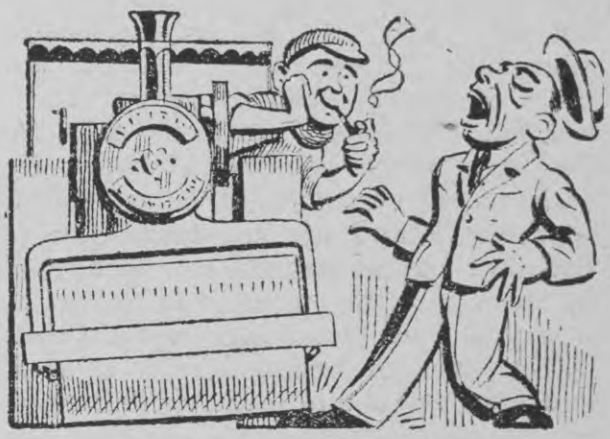
of luck. A second possibility was that having one accident predisposed the victim to have more. In other words, he tried it once and liked it. The third possibility was that some people as a result of their psychological make-up were more prone to accidents than others.

Which was the correct solution? By a process of curve-fitting and juggling with figures entirely unconnected with blondes, the statisticians found that the third possibility best suited the facts. In the same essential set-up a few people go on year after year having accidents while the rest of the community remains almost entirely free from them.

To give a concrete example, the accident record of a large number of transport drivers was examined over a period of five years. The average number of accidents sustained was five—about one a year. The number for individuals varied from none to thirty-two! The work of the original investigators has been amply borne out by later workers in the field, and there can be no doubt that accident proneness, as it is called, is a scientific fact. In general, at a rough approximation it can be said that 10 per cent of the people account for about 80 per cent of the accidents.

This proneness to accident is not confined to work alone. Let us follow "Mr. Accident Prone" through a day of civilian life. He cuts himself shaving; he breaks a plate washing up after breakfast; he backs his car into a post coming out of the garage; he scalds himself making morning tea; he drops the hammer on his foot; he slices himself instead of the joint at dinner; and so to bed ready for tomorrow's sticking plaster. Poor fellow! He is pursued not by an evil and malignant demon as the ancients would have supposed but by some defect or defects in his own make-up which we have not, unfortunately, finally traced.

While we have not yet discovered in what psychological respects "Mr. Accident Prone" differs from his fellow men, this does not mean that nothing can be done on the basis of our present knowledge to cut down accident rates. Certain trades present infinitely greater possibilities of serious accident than others. A fall from the top of a four-storey building under construction has much more serious results than a fall from the office ladder. A three-ton truck can cause more damage than a bicycle.

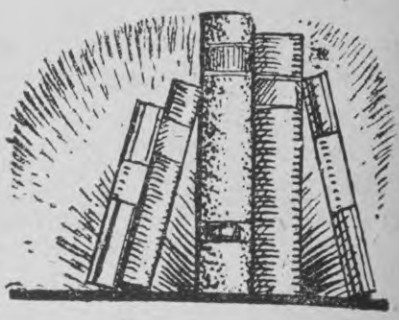


The man who from long record can be shown to be prone to accidents should be encouraged to enter employment where the accident rate is not high and where the consequences of his accidents are unlikely to be serious. He should never be placed in a situation where an error on his part would involve others. Finally, he should never be entrusted with that most dangerous of civilian weapons, the high-powered car.

It will probably be asked if there are no other factors of importance involved in this accident business. Certainly there are, but they are of less relative importance than the personal factor. For instance, poor lighting, long hours of work, alcohol, to mention only a few, all play their part. But these reflect more on "Mr. Accident Prone" than on the others.

It is "Mr. Accident Prone," and not his friend, who gets caught up in the machinery because the light is poor, because he is tired or because he had a bit too much at lunch-time. Good extemal conditions of work, though these are themselves imperative, do not finally solve the problem of accidents.

First Aid For Photographers.



THERE are few of us who have not handled a camera at one time or another; and it is a fascinating instrument. Even the most careless taker of "snaps" cannot deny that he has felt excitement when he calls for his films at the chemist's shop. He understands very well, if he is honest, that his failures are the result not of bad luck but of ignorance; and that if he took a little trouble to learn he would be much more successful.

The days of abundance in cameras and films are a dim memory; but there are a few lucky people who, by mysterious means, still manage to feed their cameras with film. For those people this list of books in the ERS library may be useful, and it may help those who have been interested in photography as a hobby, or earned their living at it, and would like to brush up old knowledge or dabble in new.

The list is divided into five groups.

1. *For the beginner and "snapper." The most elementary are given first.*

"Photography Without Tears" (Natkin). Tips and hints with illustrations.

"Photographer's Rule-Book" (June). A well-illustrated book of elementary rules for beginners.

"Photographer's Guide to Better Pictures" (Shearcroft) is a more comprehensive book covering most aspects of photography, including darkroom work.

"Guide to Better Photography" (Abbott). A new book worth attention, profusely illustrated with real photographs.

2. *For the amateur who has a fair grasp of general principles, and for the professional who needs a "brush up" on certain points.*

"Lighting Ideas In Photography" (Herrschaft & Deschin) covers all aspects of artificial lighting and includes a useful design for a 4-unit lighting set.

"Photographic Optics" (Cox) is a comprehensive text-book on the science of optics as applied to photography.

"Miniature Photography After Dark" (Minicam). A helpful book on indoor and outdoor photography by artificial light and moonlight.

"Contax Guide" and "Exakta Guide" are specially written for users of these cameras. Much of the information they contain is also of value to users of other 35mm cameras.

"Pictorial Composition" (Baker) discusses mainly the problems of composition in landscape photography. "Composition for Photographers" is more advanced; a valuable course dealing with portraits and landscapes.

"Photographic Exposure" (Pitman) is a technical book for the advanced worker.

"New Photo-Vision" (Gernsheim) is an essay on photographic art with many fine illustrations.

3. *For the professional or advanced amateur interested in special subjects.*

"Document Photography" (Greenwood) covers individual copying and mass mechanical recording, including the making of airgraphs.

"Nature and Camera" (Pike) is valuable for those interested in nature pictures and the technique necessary for good "shots."

"Colour Photography For the Amateur." A very complete book on all phases of the subject.

"Infra-red For Everyone" (Greenwood) is a reasonably comprehensive text.

"Picture Making with Paper Negatives" (Ward) and "Fascinating Fakes in Photography" (Natkin) cover their subject well and need no explanation.

"Flash" is a large well-illustrated book on ultra-high speed cameras.

"Amateur Photomicrography" explains photography through the microscope.

4. *For the Press, free lance and advertising photographer.*

"Ideas for Press Pictures" (Chamberlain) and "Free-Lance Journalism With a Camera" (Mallinson) contain plenty of useful advice.

"Press Photography" is a good textbook for the professional man.

Two books that deal with advertising work up to an advanced stage are "Camera in Commerce" (Charles) and "Science and Technique of Advertising Photography" (Nuremberg); both profusely illustrated.

5. *For the amateur handyman and darkroom worker.*

"Enlarging" and "Making An Enlarger" are two of the most useful books for all workers who do their own enlarging. "Hints, Tips and Gadgets" gives ideas and plans for a wide range of photographic gadgets which the handyman can make.

ERS Book Request Service

The ERS book service has now begun. All the books mentioned in the preceding article are in ERS stock, and will be lent to individuals who apply.

But this service, and this publicity we are giving it in CUE, form an experiment which can easily fail unless you co-operate.

Here are ways in which you can help:

1. Don't ask for a book unless you are *really*, and not just vaguely, interested. And please don't ask for a book unless you know that you have the time to use it properly. Make a note of what you want and write to us about it when you have some leisure to study.

2. Give us alternative requests; most of the books listed are in single copies only.

3. Acknowledge receipt promptly.

4. Send the book back as quickly as you can. Make notes and summaries to help you after the book has gone. The book should reach ERS by the due date; if this happens, we can give more efficient service, with no time wasted in chasing defaulters.

5. Generally observe the rules given on the slip sent out with every book.

6. *Look after the book. Put a protective cover over it, keep it in a dry place if you can, and wrap it well when posting it back.*

All letters will be acknowledged. If other people get in first with requests for all the books you want, a reservation will be made and you will be informed.

Christmas Cue.

A limited number of copies of Christmas CUE are available for distribution to members of 2 N.Z.E.F. They may be had on application to H.Q., E.R.S.

Easter This Year

Good Friday this year will fall on March 30, and Easter Sunday on April 1. For those thinking further ahead, Christmas Day is on a Tuesday.

IV. DECLARATION OF INDEPENDENCE

THE three documents looked upon as the most influential in human history are the United States Declaration of Independence, the French Declaration of the Rights of Man, and the Communist Manifesto. The United States Declaration was the first to appear and was used by the French as a model for their Rights of Man. The principles were not new as John Locke, the English philosopher, had already published them in his book "Two Treaties of Government."

The following are important extracts from the Declaration:—

"When in the course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which hold these truths to be self-evident."

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are Life, Liberty and the pursuit of Happiness.

"That to secure these rights, Governments are instituted among men, deriving their first powers from the consent of those governed. That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organising its power in such form as to them shall seem most likely to effect their safety and happiness. Prudence indeed will dictate that Governments long established shall not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their duty to throw off such Government and to provide new Guards for their future security. Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former systems of Government."

There then follows a lengthy list of grievances against the King (George III) ending with the following declaration:

"We, therefore, the Representatives of the United States of America, in the Name and by Authority of the good People of these Colonies, Solemnly publish and declare That these United Colonies are, and of Right ought to be free and independent States; "And for the support of this Declaration, with a firm reliance on the Protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes and our Sacred Honour."

The document was signed by representatives of the thirteen States then in existence — Virginia, Massachusetts, Georgia, North Carolina, South Carolina, Maryland, Pennsylvania, Delaware, New York, New Jersey, New Hampshire, Connecticut and Rhode Island.

For 101 years after its proclamation the Declaration had no permanent home. During its wanderings it found shelter in ten cities and five States, twice narrowly escaped destruction by fire, and in both the Revolutionary War and the War of 1812 was nearly captured by the British. In 1894, when the text had been somewhat dimmed by more than 50 years' exposure to light the document was placed in a safe in the State Department Library. Finally in 1921, it was removed to the Library of Congress where it is on permanent exhibition in a shrine specially constructed for its preservation.

20th CENTURY QUIZ

1. (a) In what year was the first flight made in an aeroplane? (b) Who was in the plane?
2. What were the names of the British battleships sunk off Malaya in December, 1941?
3. Which liner held the Blue Ribbon of the Atlantic for 20 years?
4. What was the date of the signing of the peace treaty at the close of the 1914-18 war?
5. (a) When did King Edward VIII abdicate? (b) Who was Prime Minister of Britain at the time?
6. (a) In what month did Germany invade Holland, Belgium and Luxembourg? (b) Did these invasions precede those of Norway and Denmark?
7. When was the Sydney Harbour Bridge completed?
8. Which British aircraft carrier was in action with the United States Navy in the Pacific for six months in the early days of the war with Japan?
9. (a) Who was Prime Minister of Britain when war was declared in 1914? (b) Who was Foreign Secretary at the time?
10. Name the three German warships which ran the gauntlet from Brest to Heligoland?
11. (a) When did the first tanks make their appearance in the 1914-18 war? (b) What was the name of the battle in which they were first employed?
12. (a) Who made the first non-stop flight across the Atlantic? (b) Who made the first solo flight?
13. When did General Wavell begin his attack in the Western Desert?
14. In what year did the Prince of Wales (as he then was) tour New Zealand?
15. (a) When did Hitler become Chancellor of Germany? (b) When did Mussolini's "March on Rome" take place?
16. Who was the first man to reach (a) the North Pole? (b) the South Pole?
17. When did Italy declare war on Abyssinia?
18. At the outbreak of war in September, 1939, who occupied the thrones of: (a) Norway; (b) Sweden; (c) Denmark; (d) Yugo-Slavia; (e) Bulgaria.
19. (a) At what hour on September 3, 1939, did Great Britain declare war on Germany? (b) Was it before, after, or at the same time as France's declaration?
20. Who was Commander-in-Chief of (a) the British Army (b) the Royal Navy at the outbreak of war in 1914?
21. (a) When did the evacuation from Dunkirk take place in 1940—July 13, May 20, August 2, June 1? (b) How many ships were used in the evacuation 321, 791, 169, 887, 1538?
22. (a) When was the Panama Canal opened for shipping? (b) Who was the engineer responsible for its completion?
23. Who is the present Commander-in-Chief of the Canadian Army on the Western Front?
24. When did the Russo-Japanese war commence?

Answers on Back Cover

P.S.S./B/D1005/3½M/1-45

What do you think?

What does the New Zealander overseas think? There is only one way to find out—and that is by question and answer. Here are the questions; let CUE have your answers. Either supply them to Unit Education Representatives or send them, preferably Unit totals, direct to CUE. We shall publish the results of the poll. The findings should be interesting if you co-operate. Here are the questions, their application, of course, being to New Zealand.

Are you in favour of:

1. Bar hours based on the Continental system?
2. Persons renting State houses being given the right to purchase if they so desire?
3. Free university education provided that the student's standard of work is satisfactory?
4. A reduction of 50 per cent. in the number of Members of Parliament and the doubling of the present salary?
5. State ownership of all air services in the Dominion?
6. Returning to the 2-3-2 scrum formation in Rugby, with eight backs?

ANSWERS TO 20th CENTURY QUIZ.

1. (a) December 17, 1903; (b) Wright Bros. 2. Prince of Wales and Repulse. 3. The Mauretania. 4. June 28, 1919. 5. (a) December 10, 1936; (b) Stanley Baldwin. 6. (a) May 6; (b) No. Norway and Denmark were invaded on April 5; 7. March 1932; 8. HMS Victorious; 9. (a) Earl of Oxford and Asquith; (b) Lord Grey of Fallodon; 10. Scharnhorst, Gneisenau, and Prinz Eugen; 11. (a) Sept. 15; 1916; (b) the Somme; 12. (a) The Englishmen, Alcock and Brown in May, 1919; (b) Lindbergh in May 1927; 13. Dec. 9, 1940; 14. 1920; 15. (a) Jan., 1933; (b) Oct. 22, 1922; 16. (a) The American Peary; (b) Amundsen. 17. October 3, 1935. 18. (a) King Haakon; (b) King Gustaf; (c) King Christian; (d) King Peter; (e) King Boris. 19. (a) 11 a.m. (B.S.T.); (b) Before—France was at war as from 5 p.m. 20. (a) Lord French; (b) Earl Jellicoe. 21. (a) June 1, 1940; (b) 887. 22. (a) August 15, 1914; (b) George Washington Goethals. 23. General Crerar. 24. Feb. 8, 1904.

Printed by Printing and Stationery Services CMF.