CUR

17

FEATURED IN THIS ISSUE

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.

Unity under the RED STAR

THE problem of breaking down racial hatred and distrust so that the world can live, free from the spectre of war, in amity and plenty, seems a tremendous one. Those who feel that it is one hopeless of solution should gain from the example of the Soviet Union in welding its varied nationalities into a powerful, unified nation, newborn faith in the world's ability to achieve friendship and concord among the peoples of the globe.

The war began because the nations could not master their hatreds, intolerance, and avarice. Race has fought against race, creed against creed. Such a catastrophe can easily occur again, unless the planning of the peace is wise. The war-stricken nations and peoples of Europe will offer innumerable problems. But the struggle of the races is not confined to the European Continent. The problem is a major one in the East, in India, in the Middle East, in Africa—and, in fact, wherever people are forced to live in minority groups within a national framework.

It is in the solution of racial problems that the world may well cast its eyes towards the Soviet Union and observe, without the myopia of ideological and political prejudice, the results of a remarkable experiment in fusing into powerful union scores of contrasting races. That the Soviet's experiment has been a sweeping success is to be found in the result not only of its achievements in war but in its economic, social and cultural progress over the past twenty years.

For the Union of Soviet Socialist Republics is not a single nation but a federation of autonomous republics, varied in racial and geographical characteristics and possessing long and proud histories as independent states. There are the original eleven republics of the Union—the vast R.S.F.S.R. (which in itself is a federation of nine autonomous republics and ten autonomous provinces), the Ukraine, Byelorussia (White Russia), Armenia, Azerbaijan, Georgia, Turkmenistan, Uzbekistan, Tajikstan, Kazakhstan, and Kirgizhstan. Since the war began, five other republics were admitted to the Union—Karelo-Finnish, Moldavia, Lithuania, Latvia, and Estonia.

The mystery of the Orient, the chill austerity of the Arctic, the veiled aloofness of the Moslem city, the simplicity of the Caucasian peasantry, the fiery spirit of the Cossack, the untiring industry of the Russian are all revealed in a glance at the 180 nationalities of the Union. Of the Soviet's 170,000,000, Great Russians form 53.9 per cent of the people and Ukrainians 21.2 per cent, while the percentage of Finns. White Russians. Uzbeks and Turkmen, Tartars, Jews, Georgians, Greeks and Armenians vary from 3.3 to 1.3 per cent. No other nationality numbers one per cent of the total, but there are races numbering from a mere 20,000 to a million and a half who are as different from one another as the Chinese is from the Turk or the Indian from the Latvian. Many of them have wandered over the face of the vast territory, leaving little wedges or islands of their people in strange places.

Not only has the Union been faced with a vast problem in welding together

such a varied collection of races into one powerful nation, but she has had to surmount the incalculable difficulties arising from the variety of languages. Apart from the main language of Russian, scores of other tongues are spoken which in the past had a variety of strange alphabets. An idea of the task confronting the State can be gained from the fact that in 1938 books were printed for its peoples in one hundred and eleven languages—

A woman of Mongolian descent

a fact which also indicates how literacy and the general education of the masses have spread over the territory under the Red Flag.

How has the Soviet Union achieved such success? The answer lies partly in the natural temperament of the people, partly in their acceptance of a type of government eminently suited to their own particular needs, and largely in the Union's determination from the outset to preserve the languages and culture of all its peoples, to give them every opportunity to retain their racial individuality, and to ensure that the stronger members should assist the weaker in economic development.

This determination is shown in the Declaration of the Rights of the Peoples of Russia published on November 16th, 1917—the second week of the Revolution. It proclaimed: "1. The equality and sovereignty of the peoples of Russia. 2. The right of the peoples to free self-determination. 3. The abolition of all national and religious privileges of one nation over another. 4. The free development of all national minorities and ethnographical groups inhabiting the territory of Russia." These principles have been reiterated many times in the past twenty years, with the result that when the war overtook the nation the patriotism of the individual nationalities has been definite and positive.

This unity, this intense patriotism grew with the development of industry in the national republics. A strong economic life has been the foundation of the progress of the nationalities, and in it Party members and intellectuals have found scope for fostering the political and cultural development of their own people as part of the Union. It is upon this basis that has grown up the strong sense of fused patriotism which has astonished so many critics of the U.S.S.R.—and, in particular, Hitler and his colleagues.

Both in agriculture and industry the progress made in the Union has been astounding. In addition to the expansion of the two great European industrial regions—the Ukraine and Central Russia—two great new areas have been developed around the Urals and in the Kuznetzk Basin, and a third is being established in the maritime Provinces in the Far East. Collective agriculture and collective farming have helped the peasant population, even of the most backward republics, to develop a new type of rural life, and has created an economic foundation for the national cultural development in rural districts.

Particularly rapid has been the industrial progress in the Central Asiatic Republics, which formerly were inhabited largely by nomadic peoples. Take,

for example, Kazakhstan, with an area of over a million square miles, which has become the chief new industrial centre of the Union. It is now the second largest oil centre and produces 60 per cent. of the copper, 50 per cent. of the nickel, 75 per cent of the lead of the whole Union, as well as large quantities of coal, phosphorites, and chromites. The Karaganda coal-mines alone have increased their output from 10,000 tons in 1928-9 to 4,000,000 tons in 1938.

One of the poorest and most neglected parts of old Russia, Uzbekistan, has now over 100,000 industrial workers, mostly in textiles, and produces 57 per cent. of the Union's cotton. Georgia, one of the Transcaucasian republics, has become the Union's biggest supplier of sub-tropical plants. In 1938, there were 25,250 acres of oranges, lemons and tangerines, as against 400 acres in 1913. Georgia also produces 60,000,000 pounds of tea and has 52,500 acres growing tobacco. These are but random selections of progress made in the most backward areas of the Union.

Hand in hand with this vast economic development has been the progress made in social, educational and cultural fields. Rapid strides have been made in fighting disease, with the result that compared with the figures of 1913 smallpox infection has been reduced by 98 per cent, typhoid by 71 per cent, diphtheria by 80 per cent, and syphilis by 85 per cent. There has been a marked reduction in the rate of infant mortality, and the population of the Union from 1926 to 1939 increased 15 per cent.

Stalin's policy has always been "to eliminate the backwardness (economic political, and cultural) of the nationalities, which they inherited from the past, and to give these nations the opportunities and possibilities of catching up with Central Russia. One of the biggest struggles has been in overcoming illiteracy. No fewer than 76 per cent of the peoples living within the 1939 borders of the U.S.S.R. were illiterate in 1897. Considerable improvement was effected by the Latinisation of non-Slavonic languages. Even Turkish and Mongol dialects were written down in the Latin alphabet. Great efforts have been made to provide primary and secondary education for children and adult education in the national republics.

One aspect of the question of educating the various nationalities should be forcibly stressed. Every effort has been made to preserve the national language and culture of the individual race —and in so doing not only have the peoples generally benefited but the Union as a whole has gained a great cultural wealth from its many ancient races. Many old cultures have secured organised modern expression whereas otherwise they would have been lost to the world.

Everyone has heard of the Russian ballet and the Russian theatre, but few realise that national theatres are now blossoming in scores of new towns throughout the Union and from these

Steel worker of the Urals.

will come much of great cultural value to the world as a whole. The preservation of Russian folk dances and music is but one side of the question. With the new national interest in the theatre

is the revival of great figures not only of Russian history and legend but of the various nationalities of the Union. Modern writers and composers, too, are not merely Russian in their outlook, but they are deriving inspiration and background from the varying nations within the Union and thus are adding new colour and interest to the arts.

An Uzbek collective farmer.

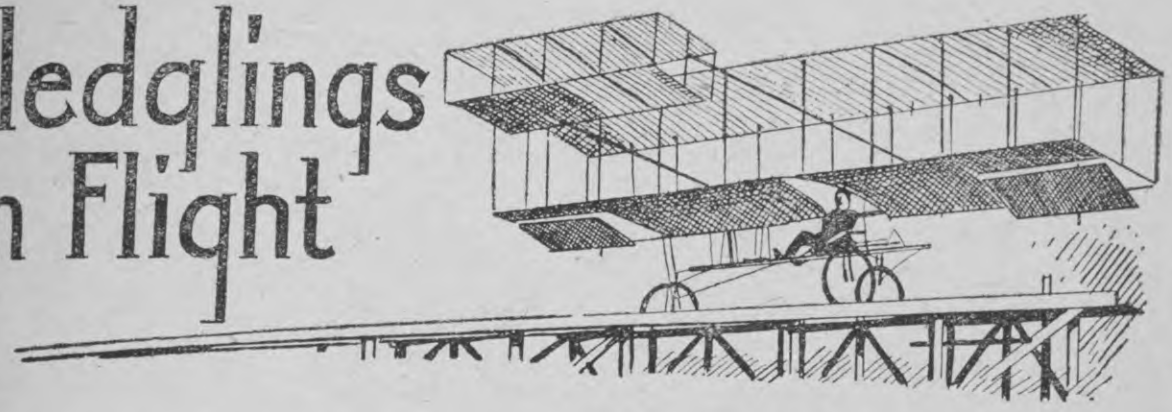
Naturally, Russian culture remains the leading culture in the Union, but it is being greatly enriched by the inflow from the numerous cultures of the non-Russian nations.

In a world in which the struggles of the races have proved disastrous in the past and which may well prove serious in the future, the lessons to be learned from the U.S.S.R. in its treatment of its varying nationalities are of incalculable value. In the human field it is most important to learn that racial prejudices and aversions must be eliminated in the relations between the leading nations and the smaller nations and full collaboration established. But it is even more important to learn that the leading nation must help the smaller nation in its development as the Russian people have assisted and guided the national republics and regions of the Soviet Union. In the economic sphere, the Soviet Union has shown what can be achieved by a planned and organised economic system within a large economic body in which the component nations are complementary. The participating nations must have autonomy within the framework of the federation, and at the same time must realise their obligation towards the federation as a whole. In the educational and cultural sphere, they must be allowed and encouraged to retain their own national characteristics and languages.

In the past three decades the world has seen too much of war, too much of racial strife to countenance a return to the old way of life. In Europe, India, and Africa especially, the spectre of further racial enmity already is casting an ominous shadow. The example of the Soviet Union in its solution of racial difficulties is too clear and shining in these triumphant hours of victory to be ignored.

Turkish blood runs in the veins of this Kerghiz herdsman.

Fledglings in Flight



THE New Zealander has taken to the air as the Elizabethan Englishman took to the sea. In many ways, he has been as adventurous and enterprising as his 16th Century forbears. He has played his part, too, in the defeat of an Armada—the Luftwaffe in its attempts to win the Battle of Britain.

The story of aviation in New Zealand goes back a surprisingly long way—to the Dominion's participation in the "Balloon Age" at the close of the last century. It was in 1890 that the first ascent was made in New Zealand. This honour fell to "Professor" Jackson who made an ascent from Lancaster Park, Christchurch. Others followed, many of them being amateurs. Their efforts were not always appreciated, and one farmer, with his shotgun, nearly became the Dominion's first Ack-Ack gunner. Ballooning, however, gained in popularity, and Beebe's Balloon Company performed at the Auckland Exhibition, complete with parachutists descending in spectacular leaps.

News of flying-machines overseas caught the imagination of many New Zealanders. It inspired Bertram Ogilvie of Napier, to experiment in aviation. With a band of enthusiasts, he constructed three machines, but unfortunately none of them was successful. On the other hand, he was the first to think of the idea of wing flaps, and but for a twist of fortune might have been a leading figure in the air world, as to-day ailerons are in common use.

Arthur Schaef was the first to fly in New Zealand, his "Vogel" taking off from the sands of Lyall Bay and remaining in the air for a brief space of time. This machine was really scarcely more than a super-kite, the engine playing little part. He built a second machine, and, as cyclists had proved troublesome on the "runway," he first tried it out as an amphibian—but without success. Later, as a land plane, it made quite successful short flights.

In the meantime in Auckland two brothers, destined to play a leading part in New Zealand aviation, had ordered a Farman biplane from England. They were the Walsh brothers, Leo and Vivian, whose first plane, christened "Manurewa" by Sir Joseph Ward, made a number of sustained flights at Papakura early in 1911.

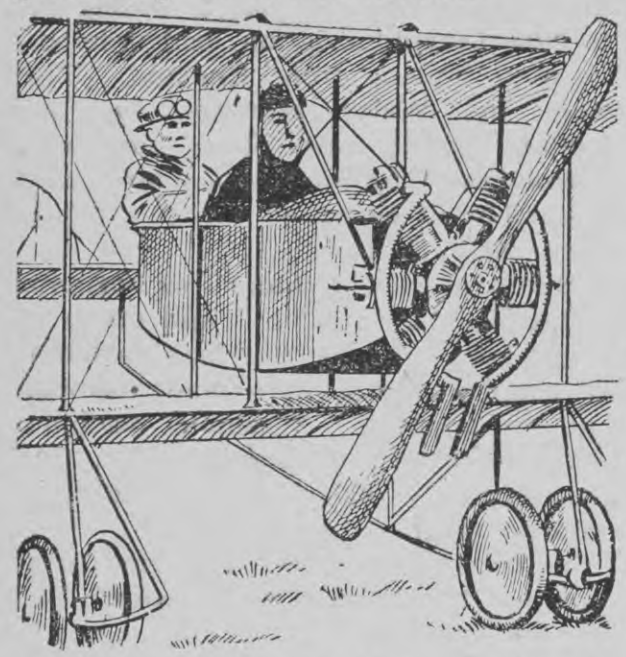
By 1912, New Zealand was beginning to become "air-minded," and up to the beginning of the last war many attempts at lengthy flights were made throughout the country. Numerous machines, both imported and locally made, took the air, but many reached only the embryo stage.

A Hamilton 'plane imported from America by Hector and Seaforth McKenzie made a number of successful flights in the Marton district, while the Bleriot monoplane, the "Britannia," a present from the Imperial Air Committee, was flown for a while by J. J. Hammond, the first Government pilot. He made several flights at Auckland during the Exhibition. Incidentally, he was discharged for taking for a flight a girl from a visiting theatrical company. The monoplane finished its career giving

sterling service with the Indian troops fighting the Turks. Both Hammond and Seaforth McKenzie lost their lives as pilots in the last war.

The first long-distance flights in New Zealand were made in 1914 by J. W. H. Scotland, who flew from Invercargill to Gore in 48 minutes and later from Timaru to Christchurch in a little over two hours. This latter flight was a creditable performance as it was made in rough weather at heights up to 6000 feet.

The outbreak of war put an end to many private ambitions. The Government was apathetic towards aviation, and it was left to private enterprise to approach the British Government with the suggestion that flying schools should be established in New Zealand. Two such schools were started for the training of pilots in the Royal Flying Corps and the Royal Naval Air Service. (The Royal Air Force was founded later in the war). Pupils paid L100 to learn to fly, L75 being refunded on their graduating as sub-lieutenants.



Dual instruction, Canterbury School, 1915.

First in the field was the New Zealand Flying School started by the Walsh brothers and Dexter. It operated flying boats from the Auckland Harbour. The Canterbury Aviation School, brought into existence by Sir Henry Wigram, whose contribution to flying is commemorated by the large, modern Wigram Aerodrome, commenced the training of pilots in June, 1917.

On New Year's Day, 1915, Vivian Walsh, the first instructor to teach himself to fly, took off in a flying-boat from Auckland Harbour to inaugurate the Flying School, which had leased the Mission property at Kohimaramara, the old Mission House being its headquarters. J. W. H. Scotland's machine was purchased and fitted with floats. The locally-made planes proved better than the imported machines, which all had to be reconstructed. Pupils at the school took part in this work, as the training for pilots included engineering and running repairs.

The maximum flying range of the training machines was two hours and a half. There were practically no instruments available, and break-downs and forced landings were frequent. But nothing could dampen the enthusiasm of those concerned.

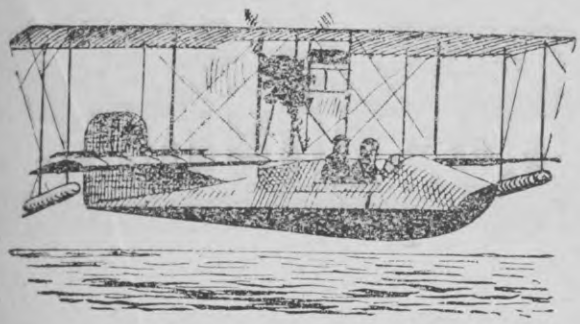
Owing to difficulty in obtaining suitable planes, the Canterbury school did not start training until June, 1917. Even so over a hundred pilots had qualified by the end of a year. When the war finished both schools turned their attention to commercial flying.

The British Government offered the various Dominions planes for the establishment of air forces of their own. New Zealand's allocation was 100 planes, but only 33 of this gift were accepted. Even then the authorities had no idea of how to put them to use. Some were given to established companies, and applications were invited from those interested for the remainder. Of course, the "war birds" returning home were interested and various companies were formed, with war-time aviators like Captain Russell, D.F.C., Captain Upham, D.F.C., Captain M. C. McGregor, D.F.C., and Captain Euan Dickson as pilots. Captain Dickson flew Cook Strait for the first time on August 25th, 1921.

"Bombing" returning troopships was a favourite pastime until a peppery ship's captain suffered a direct hit with a bag of sweets. After that, aerial welcomes rather faded away, but Mr.

Massey on his return from the Peace Conference had his mail delivered in the Hauraki Gulf by 'plane.

On December 16th, the first air-mail in New Zealand was flown from Auckland to Dargaville in a Walsh brothers flying boat. Up until 1924, there were many "barn-storming" tours all over the country, people being taken up for short flights for considerable fees



Walsh Brothers' Flying Boat, 1915.

and the aviators reaped a rich harvest while the novelty lasted. During 1924, however, company after company wound up, and, apart from a small band of enthusiasts, public interest in flying was dormant until 1928 when Kingsford Smith and Ulm flew the Tasman.

First to attempt the crossing were Hood and Moncrieff, but their flight ended in tragedy. The "Southern Cross" however, arrived safely at Wigram from Sydney on September 11th, 1928, after a trip lasting 14 hours 25 minutes. Aviation received a terrific boost, and "Smithy" and his companions were idolised. Several other flights across the Tasman were made by the "Southern Cross," and Ulm in "Faith in Australia" also crossed a number of times. Others followed, including the now famous Jean Batten.

The Centenary Air Race from London to Melbourne gave aviation in New Zealand a further impetus, especially as there were two New Zealand entries —one piloted by McGregor and Walker and the other by Squadron Leader J. D. Hewitt, with Flying Officer Cyril Kay as navigator and Frank Stewart as radio operator. Squadron Leader Hewitt flew on to New Zealand and made the first trip from London to Auckland by air. Later, in 1938, Flying Officer A. E. Clouston in a D. H. Comet made an extremely fast trip from Great Britain to New Zealand and back. The total time for the return trip was 10 days 20 hours, 15 minutes. He crossed the Tasman in 7 hrs. 10 mins.

Aero clubs were now springing up all over the country, although the first dated back to 1910. Their planes and the pilots they trained were of great help at the outbreak of this war. Hostilities have necessarily cramped their style, but the prospects are bright, and aviation is certain to make rapid strides after the war. Certainly it will not suffer the setbacks that followed after the last war.

Commercial aviation both internally and externally, with flying boats to Australia and America, is already well-established and only waiting the finish of the present struggle to put forward greater efforts than before. Who can doubt, knowing the achievements of New Zealand fliers in the war zones, that the Dominion will play its part in the development of aviation in the South Pacific and benefit considerably as a result?

They still make books in London

— By E.J.C. —

ON the night of December 29, 1940, six million books went up in smoke in the City of London. Late that evening the enemy had showered incendiaries for three hours on the city proper. The fires burned for hours: ".....it seemed impossible that the City, that London, could be saved..... At last the news came through that water supplies were being restored — that the miracle had happened — St. Paul's was saved and the city, devastated, was still the City."

Among the casualties which morning revealed was that street behind St. Paul's which was the historic centre of the book trade—Paternoster Row—and, with it, the premises of some of the oldest established houses in British publishing lay in charred ruins.

That was neither the beginning nor the end of losses of books. The book trade had been doubly handicapped, for while acute shortages of material and labour have crippled the production of new books, enemy action has inflicted serious losses on stocks in hand of pre-war publications.

By the end of 1941 it was estimated that over 37,000 *titles* (involving many millions of *copies*) normally carried by publishers were unobtainable. Already half the books in such well-known series as the *Everyman's Library* could not be supplied.

The situation is far worse now. In 1943 *sales of books exceeded the number printed by almost* 50 *per cent with obvious results on stocks in hand, while the demand for new books is such that sales managers are sometimes faced before publication day with orders for three times as many copies of a book as can be printed.*

As supply has declined demand has increased. Why? Has the war made the public more ready to turn to books for information, inspiration, and consolation?

If true at all, this is only part of the truth. Increased sales to private customers are largely due to the fact that books are tax and coupon free.

In 1940, the book trade fought and won the battle of the Purchase tax. After a vigorous campaign, including a private meeting of Members of Parliament, addressed by J. B. Priestley, Geoffrey Faber and the Archbishop of Canterbury, an amendment to the Government's bill was tabled by 70 members of Parliament. A few days later the Chancellor of the Exchequer announced that books would be excluded from the categories of goods subject to the tax. The tax on

books would have been one-sixth of the wholesale price had the Bill in its original form become an act.

The issue was one of principle more than profit for an increase in the price of books would hardly in itself have reduced the demand so much as to make books difficult to sell. The important thing is that on that one occasion something more than rosy phrases about books and civilization was wrenched from the powers-that-be, and books were recognised as being different in more than size and shape from clothes and crockery.

The most powerful impetus to sales is that books can be bought without giving up points or coupons.

The sudden imposition of stringent clothes rationing in the United Kingdom in the middle of 1941 changed overnight the whole business of giving presents. Pullovers, scarves, and "undies," male and female, have almost disappeared from the Christmas breakfast-table. Children's toys are shoddy and difficult to get. So books and book tokens are a far more common gift to adults and children than ever in the past.

All publishers are rationed to a percentage—now 42½ per cent, but it has been as low as 37½ per cent. of their paper consumption in 1938. In addition to this basic ration, paper reserves are held in a "pool" from which new publishers get their allocation and from which special grants of paper are made for the publishing of books regarded as having some claim to special priority. The pool was initiated by the Publishers' Association, but the Board of Trade now has some measure of responsibility for it.

A ration of 42½ per cent of the paper used in a poor pre-war year is pretty drastic. Is it necessary? This is what publishers say:—

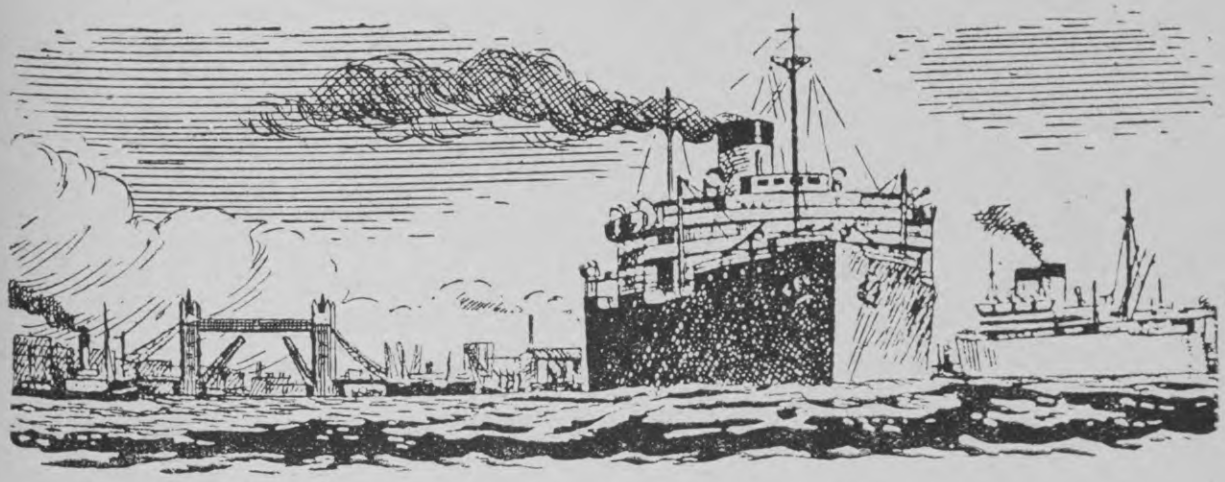
(a) As straw is the basis of the papers now used, a larger allocation would not involve shipping space.

(b) If more paper is not granted and granted smartly the export trade in books will be lost, education crippled for want of text books, technical progress hindered and Bibles made unobtainable.

(c) Newspapers get roughly 250,000 tons of paper each year; H. M. Stationery Office, 100,000 tons; periodicals 50,000 tons; books, 22,000 tons.

Just now it would be no trouble at all to sell the whole annual book production in the home market. Yet publishers are genuinely anxious to give the distant New Zealand market its full share, and perhaps a bit over. Why do they bother?

Care for the overseas market is due, partly, of course, to thought for the future when bigger demand will mean bigger profits and not bigger headaches. Fear of competition overseas from America—a fear encouraged by artful overseas buyers— is a useful lever.



But the motive behind care for the overseas buyer is not purely a commercial one. It is the publisher of "limited-demand" books—and the firm which thinks only of profits does not venture into this field—to whom the preservation of the overseas market is an absolute necessity. If the British publishing market were to be limited in the future to the United Kingdom, the range of titles which could be published would shrink to a lamentable extent, and would exclude mainly the works of new writers, scholarly books, and specialised subject material. For the total population and book buying habits of Britain can support only those books for which there is a fairly substantial demand.

Bombs, fire and lack of paper are not the whole story. At the moment, for instance, hundreds of binding machines stand idle while thousands of copies of books lie in useless sheets because there is insufficient labour for the binding trade.

It is not only men of military age in Britain who have been taken from their normal occupations. "The call-up" of women has been on a scale undreamed of in New Zealand. For years now staffs in every section of the publishing business have been inadequate, largely unskilled, and frequently changing.

The marvel is not that books are in short supply, but that in spite of all their difficulties, dramatic and tedious, acute and chronic, British publishers in the sixth year of war are still keeping the book trade going. The shortage is likely to be as bad as ever in 1945, but books there will be, in Birmingham and Budleigh Salterton, in Auckland and in Oamaru, in CMF and in the Islands of the Pacific. They will be there, thanks to the slogging determination of printers and paper makers, binders and typists, sales managers and packers. Britain will deliver at least some of the goods.

E.R.S. STUDY COURSES.

The following is a statement concerning E.R.S. Study Courses as at January 31st, 1945:—

Department	Total issued to 31 Jan. 45	Completed	Abandoned	NZ Roll	Deceased	Under Act on	Courses in Use
Agriculture	1544	259	114	179	18	57	974
Arts	509	31	28	36	3	190	411
Commercial	1683	156	148	128	15	123	1236
Maths & Science	1231	184	104	86	10	233	847
Technology	1110	112	59	88	9	264	842
Totals	6077	742	453	517	55	867	4310

SEND HER DOWN, HUGHIE

A DROUGHT faces the farmer. The spring rains have been insufficient. The summer sun and blustering nor' westers have scorched the land. The farmer derives little sympathy from his town cousin. True, there are restrictions in the town on the use of hoses, but it is excellent weather for tennis, bowls, and swimming. The farmer drives home through the parched land, bemoaning the cruel fates that conspire against him. He resolves to think about irrigation. Why, he asks, cannot the scientists produce rain when it is required?

Well, why can't they? Or can anyone produce rain at will?

* * *

Droughts are a special curse of several districts in New Zealand. North Otago is one of them. The district possesses excellent mixed farm-land—almost anything thrives on its rich, limestone soil. But—and it is a very big "but" to the North Otago farmer—droughts are much too common and prolonged.

In recent years, many a farmer in the district has considered irrigation—until the drought broke. Several have made good use of this artificial means of bringing the necessary moisture to the parched land. Many again have tried in the past other ways of overcoming the drought—by trying to make it rain. Many years ago, explosives were used in the district to induce the heavens to disgorge their valuable moisture—but it was in vain. During one bad drought, special church services were held and prayers for rain offered. But again the natural cycle of events had to take place before rain came to break the drought. Nothing controlled the weather for the farmer. The seasons were either too dry, too wet, or wind, hail, or frost destroyed the crops. Byrd's expedition to the South Pole, the introduction of Summertime, and, more recently, the great battles of this war, have all come in for their share of blame. But Nature goes on in her own, sweet way.

From time immemorial man has tried to produce rain at will. So far, he has had no more success than the early experimenters in New Zealand. At first, he turned to magic to help him out. Even to-day, age-old practices are in vogue. In Estonia, for example, there is a recognised recipe, which consists of imitating lightning, thunder and rain. For this comedy, three men climb a tree. One strikes fire-brands together to simulate lightning; a second beats a drum or strikes a metal pot to resemble thunder; and the third merely sprinkles water on the ground, no doubt in the hope that the skies will take heed of the hint. Somehow the skies remain adamant to auto-suggestion.

This practice of sprinkling, splashing, or drenching as a charm for inducing rainfall is not confined to Estonia. Sumatra, Serbia, Macedonia, Russia and Africa know it, too. Usually, it consists of processions of women and girls around the village and at each house they are suitably sprinkled or drenched with water. As droughts usually take place in summer, this practice may have its uses—even if it does not produce rain.

There are some people, however, who prefer their own magic for making

rain—by mimicking aquatic birds or animals, such as ducks and frogs. Another favourite has always been the religious ceremony. Some make a sympathetic appeal, but others try to annoy the spirits so that in their rage they will send down large quantities of the much-wanted rain. In many countries, appropriate talismans are hung for the rain god's benefit. Praying for rain is common among people of varying religions.

It was thought by some that battles produced rain, either through the carnage or the fire of canons. Wars have been started for many strange reasons—a pickled ear in a glass bottle, for one. But it is doubtful if even the most callous statesman would commence a war to break a mere drought. The production of rain as a result of good men and true pouring out their sweat and blood on the battlefield does not seem likely. But the idea that the noise and concussion of cannon could bring about a much wanted downpour caught on in many places.

In the United States of America there were many advocates for such a plan to control the rainfall. So clamorous were they that, in 1891, Congress sanctioned the expenditure of 9,000 dollars for rain making experiments. The touching off of large quantities of dynamite and the creation of much expensive noise were not productive of any results.

Drought is a constant worry for the Australian farmer, and, consequently, the Commonwealth has not been without its experiments in rain-making. A "scientific" way of bringing rain was to leave those uneasy bed-mates, zinc and sulphuric acid, in large containers out-of-doors. The resultant hydrogen was expected to waft upwards, disturb the clouds, cause precipitation, and bring rain to the stricken land below. This was tried without success in 1903. Another means put forward has been the spraying of the sky with dust, on which convenient base the water vapour might condense. Sprinkling the clouds with electrified sand, spraying the atmosphere from an aeroplane with a mixture of salt and fine sand, and a vast project to cool the free air have been other suggestions for the professional rain-maker.

But what a task confronts man when he attempts to control the atmosphere and produce rain at will! He has to compete with the mighty forces of Nature and cope with billions of tons of air.

Rain is produced in three main ways—the thunderstorm type, the orographic and the cyclonic. In the orographic type, an air stream is deflected upwards over a large region on account of barriers of hills and mountains, the ascension leading to rain under favourable temperature and moisture conditions. New Zealanders are used to hearing about cyclones, anti-cyclones, and depressions in the Tasman Sea, for they form the basis of weather reports and forecasts. In the field of a depression or a cyclone, there is a convergence of two different kinds of air-streams. As a result there is a gradual, sloping ascent of moist or warm air over cold and dry air. In India, in a monsoon depression travelling over the country, moist air from monsoon sources ascends over the less moist, original land air and gives copious, widespread and steady precipitation. In all three types of rain there is a large scale ascent of air.

Going into figures, one can see plainly the futility of man's experiments in producing rain. The man who tries to make rain by cooling the atmosphere is set a tremendous problem. If he deals with a column of air one mile high and one mile square with a temperature of, say, 25 degrees Centigrade and a

humidity of 90 per cent, he would have to lower its temperature to 23.2 degrees merely to saturate it. To separate the moisture as rain, the temperature would have to be dropped still lower,—say to 21 degrees. This could release the water, causing a rainfall of approximately one-seventh of an inch over the square mile.

The quantity of water so precipitated would be 333,000 cubic feet. To cool one cubic mile of air by four degrees Centigrade, 1,000,000 lb. of liquid oxygen would be required. But apart altogether from the colossal task revealed by the above figures, the method is wrong in principle

In actual fact, Nature, in order to produce an inch of rainfall over a square mile, raises several millions of tons of air through a height of a mile or more. Every day, 16,000,000 tons of water vapour are evaporated per second. This is equivalent to one-tenth of the water-layer over the whole surface of the earth each day. A thunderstorm which would produce rain over about 10 miles square, deals with 232,320,000 cubic feet of water and in its production entails energy of more than 36,000,000 horse-power for a week for the evaporation or condensation of the quantity of water involved.

It can be seen what a problem confronts man when he toys with a scheme to control the weather and produce rain as required.

There's a War - On -

HOW many times have the soldier and the civilian been infuriated by that inane and exasperating phrase "Don't you know there's a war on?" Those who have submitted weakly to the chiding query will no doubt welcome gleefully an item of news from America.

In the town of Cambridge, Mass., a 28-years-old typist complained of the spinach she had ordered. When the waitress replied "There's a war on, you know," the customer promptly smashed the crockery.

The typist had just cause to complain both of the quality of the spinach and the answer she received, for she held the town's record for gifts of blood to the Red Cross. In subsequent legal proceedings, the court found that her indignation was justified and dismissed the suit the restaurant brought against her.

Because he could not bear to hear people sneeze, a man who resided in Cannes in pre-war days shut himself up in a hotel and lived a life as remote as possible from his fellow men. Unfortunately, it is an unfinished story. There is no record of what happened to the poor fellow when the war began and more unnerving and distressing noises than sneezes confronted him. Of course, there are some people whose sneezes rival an angry nebelwerfer or an exploding 88, but somehow most soldiers would prefer the sneeze.

Here is another version of the Cannes story:—

There once was a Frenchman who'd
    blub
At the sound of a sneeze in his club
    So fearing insanity
    He abandoned humanity
And shut himself up in a pub.

BOLOGNA

— By "Chameleon" —

THE great Italian cities have each a marked individuality, and with a very good reason. Each has a very different past, and each in its time has been a capital of a sovereign state, making its own laws, setting its own fashions and cherishing with pride its differences from its neighbours. In spite of the constant exchange of artists and architects in Renaissance times there was no blighting uniformity. Bologna, long famous for the high quality of her sausages, has other and prouder claims to notice. Not that the Bolognese would minimise the importance of their cookery. *Grassa,* or well-nourished, has been one of their nicknames since the Middle Ages and their *tagliatelle,* a form of macaroni, and their cheeses are locally as famous as their "boloney."

Bologna is sometimes called "The Turretted Town" and its handsome brick buildings, with their tall turretted facades silhouetted sharply against the clear Italian sky, give it an unforgettable character. Another unique feature is the arcading of the old streets. These arches, supported on their graceful and slender columns, make the streets a cool and delightful place to saunter in, even in the hottest part of the summer, and in summer the Po Valley can be as hot as Naples. Under them the Seicento citizens used to sit and gamble all day till the Council was compelled to prohibit it.

Situated as it is, on the Via Emilia, the great Roman road from Rimini to the passes of the Alps, this has always been an important centre of communications, linking Milan, Florence and the Eastern ports. So it is not surprising to find that there has been a town here through recorded history. Etruscan *Felsina* and Roman *Bononia* became in due course mediaeval Bologna.

The mediaeval city, far larger, is clearly marked by the fortifications now partly demolished, that enclose it in a rough pentagon, some five or six miles round. Inside this circuit many quarrels were fought out. Bologna, once under the Exarchate of Ravenna, was kindly given by King Pepin to the then Pope but in 1123 it was an independent Commune though still supporting the Guelph or Papal cause. However, the usual internal struggles, the fell disease of all city states, laid it open to various conquerors and coming under the Papacy again in 1506 it remained under that domination almost without a break till the Unification of 1860.

Bologna was of no particular artistic fame during the Renaissance, Francesco

Francia (1450-1517) being the only local painter to make his name. Its artistic importance first became marked when the Caracci family founded the "eclectic" school at the beginning of the seventeenth century. This century, the *seicento,* saw the rise of Domenichino, Guercino and the celebrated Guido Reni, who painted the "Aurora" in the Palazzo Rospigliosi in Rome, and of whom his biographer records as remarkable that he was so clean that he never smelt. This was the century of the baroque and Bologna possesses many examples of this art.

Always supposing that the town is not too severely damaged by the chances of war, there will be much to see. The visitor should start in the real centre, the Piazza Vittorio Emanuele II. This and the Piazza Nettuno, which adjoins it at right angles, are two of the loveliest squares in Italy. The particular feature of the Piazza Nettuno is the impressive 16th century Fountain of Neptune by the French sculptor Giambologna.

Round these two squares are several of the most interesting buildings in the town. On the West side rises the massive Gothic Palazzo Communale. It was begun in 1290 but almost entirely rebuilt in 1425-30. Its clock-tower dates from 1444. The bronze statue over the main entrance is of Pope Gregory XIII, a Bolognese. The relief of the Madonna, to the left of His Holiness, is by Niccolò dell'Arca (1478). Opposite the Palazzo Communale is the Palazzo del Podestà. This, though it dates from 1201, was also rebuilt and is really Early Renaissance in style. Adjoining it is the Gothic Palazzo del Re Enzio, which has romantic memories of the old struggles. Here King Enzio, the gifted young son of Frederic II, was imprisoned for twenty-three years. It is said that he was not entirely solitary in his confinement, and the celebrated Bentivoglio family, later tyrants of Bologna, traced their descent from his mistress, the lovely Lucia Vendagola.

To the right of this group, in the South East corner of the Piazza Vittorio Emmanuele, is the Gothic church of San Petronio, a testament of great intentions unfulfilled. Begun in 1390, it was to have been a vast cruciform basilica 700 feet by 460, with a dome higher than St Peters. Actually only the nave and aisles as far as the transept were completed and that took till 1659. It has a severe and imposing interior enriched with many works of art.

To the East of this church, at No 2 Via Archiginnasio, the Palazzo Galvani contains a museum of prehistoric antiquities, of various dates, not very exciting unless you like that sort of thing, some interesting Renaissance medallion work, and the magnificent head of *Athena Lemna* ascribed, with more hope than confidence, to Phidias.

The two leaning towers, the Asinelli and the Garisenda.

Continuing south-west through a series of piazzas dedicated respectively to Galvani, Cavour and Galileo, you come to San Domenico, resting-place of the great St. Dominic, the Spanish founder of the Dominicans, the "hounds of God," who died here in 1221. His sarcophagus by Niccolo Pisano and a pupil, and the fresco in the half-dome by Guido Reni of scenes from his life are the particular glories of the church.

Returning to the centre, the via Rizzoli—at the other end of the Piazza Nettuno, leads east to the most prominent features of Bologna, the two leaning towers, the Asinelli and the Garisenda. They were built within a year of each other, in 1109 and 1110, for the security of the two families concerned, in the merry merry town life of the time. The Torre Asinelli, a slender, almost windowless tower of brick 320 feet high, with graceful proportions and the typical Bolognese turrets, is the chief landmark of the town. It leans slightly to one side. The Torre Garisenda, beside it, is only 163 feet high, as it was never finished. This was probably just as well, as even its truncated top is ten feet out of plumb and it has an alarmingly "crazy" appearance. These towers are the last memorials of a time when Guelph and Ghibelline struggled in the streets, and every great family had its tower. The town had then a grim forbidding aspect which has now disappeared.

From these towers radiate the five main streets to the Eastern gates. A walk down the via Zamboni takes one first to S. Giacomo Maggiore founded in 1263 and restored about 1500. Its portico and the barrel-vaulting inside are renowned and on the walls are some of Fr. Francia's best work, including one of those charming displays of Renaissance family pride, a Madonna enthroned with the Bentivoglio Family. The Monument of Antonio Bentivoglio by della Quercia, in the ambulatory, earns a star from Baedeker.

Continuing down the street and passing the Palazzo Poggi, which now houses the historic University, an 11th Century foundation, famous for such great scientists as Galileo, Malpighi and Galvani, one reaches the junction of the Via delle Belle Arti. On this junction is the Picture Gallery (once the Jesuit College) which in peace time housed the treasure of Bologna, Raphael's *Saint Cecilia*, as well as Titian's *Crucifixion*, many most attractive "primitives" and pictures by the "eclectics" and the Venetian school.

Another interesting walk from the two towers is down the Via Santa Stefano, flanked with many stately palazzi, the most notable of which is the Palazzo Isolani, built in 1452 by a follower of Donatello, the first example of Florentine Renaissance to be built here

There are hundreds of other points of interest which there is no space to expand on. Carvings by Niccolò dell' Arca and other masters, frescoes and paintings are to be found in the innumerable churches and palazzi and the many fine squares have each their own particular treasures. Bologna will not be exhausted in a day or a week of sightseeing. It is only to be hoped that it will not be too severely damaged in the process of driving out its present undesirable occupants.

Panels by della Quercia Portal of San Petronio.

A Future in FORESTRY

MANY soldiers will return to New Zealand with a firm desire to find a job in the open air and with a strong dislike for the daily routine of an office. For them the State Forestry Service offers very many open-air jobs, and what is more a range of jobs varying from the most technically skilled down to the very simplest.

Before the war the service employed about 1,600 men. Within a very short time after the end of the war it expects to be employing 5,000. That is a very big expansion and it will be by no means a final figure. There is a great deal to be done in afforestation. Large areas in eleven counties, from Bay of Islands to Taieri, have been acquired for post-war afforestation and twelve State Forests are scheduled for considerable extension when labour becomes available.

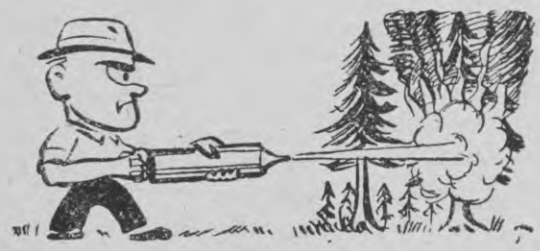
These plans will demand workers of every sort for their realisation. There is first the professional division. An extraordinarily wide range of sciences makes a contribution toward modern forestry and candidates for this branch are required to take a B.Sc. degree and concurrently to gain forestry experience in their vacations. After graduation they become eligible for a two year post-graduate course. On passing out satisfactorily from this course they are appointed to the Professional Division as Assistant Foresters on a salary of £305. Returned servicemen who want to qualify for this division, and who can satisfy the Service that they have the necessary potentialities of a professional forest officer, will be able to obtain a University Bursary through the Rehabilitation Department, together with the usual subsistence allowance while studying, as the B.Sc. degree course requires full-time University study. After graduating, their progress will be as outlined above.

Other types of professional workers will be wanted as well. A tripling of the staff of the service implies an expansion in every department of its work, and besides foresters, engineers, economists, accountants, soil specialists, meteorologists, biologists, chemists and physicists will be needed in varying numbers. The original training of anyone desiring to take up these specialist branches is at the University and unqualified returned servicemen whose interests incline that way will have the opportunity of university bursaries. Before undertaking any of these courses with a view to joining the State Forest Service any student should, of course, enquire of the Service as to the prospects of employment in that branch and the exact course of study required.

For those of a less studious bent there will be many opportunities. Forest rangers and nurserymen will be required, skilled logging and milling operatives, and also less skilled workers as workmen in tree nurseries, in planting new forests, pruning and thinning young

forests, building roads and bridges, and generally in patrolling and guarding the forests.

Rehabilitation training in these various skills will be offered by the Forest Service and a scheme is now in process of preparation. It will include a series of short courses designed to find the right men and to show intending foresters what the work they are taking on is really like. For those who make the grade, longer courses will be available leading to responsible positions.



The nature of the work. No man should take on forestry work in any of its branches who is not physically fit. It is not easy work and both planting and caring for a forest involve long periods of work that can seem dull and monotonous to a man who is not genuinely interested in growing things. There are great advantages in the life. It is healthy and satisfying to the creative instincts, and those who like the amenities of life can be fairly assured that these will become more and more available. Forestry has in the past very often been a lonely life and it will never be the right work for the man who likes a crowd. But as schemes grow in size, and with the present demand for timber for house-building, plastics and a hundred other uses, grow they must, so it will be possible to provide foresters with more and more of the comforts of life. Some, after a short trial, will find that they do not like the work. That is inevitable. Others will be satisfied with the simpler type of work, for which the pay is about the same as in other labouring occupations. For them there will be plenty of room. And to the ones who are prepared to study the technique of their profession, every chance will be given by the Service to advance themselves to as high a grade as they can.

For those who are interested and wish to do some preliminary study ERS has a study course entitled "Elementary Forestry" which will be issued on application. This course is designed as a useful background for anyone who wishes later to go in for serious study with a view to making forestry his occupation.

POST-WAR PLANNING

Post-war planning in industry is one of nine research and planning committees set up by the New Zealand Government. All committees are to be co-ordinated by the Organisation for National Development which is charged with the responsibility for post-war planning. The other committees will be concerned with agricultural development, immigration and labour; personnel, construction, power development, transport, commerce, distribution and services, and tourist services.

The functions of the organisation, which will work in close co-operation with producers' and commercial associations, include "the independent study of events and collection of data relevant to post-war problems, the initiating and stimulating of research, the receiving marshalling and co-ordinating of ideas and draft plans coming to hand from local and sectional groups, and . . . . the evolution and submission of a draft policy to the Government."

YOUR BID, PARTNER!

— By L.M.E. —

WHEN you shuffle that pack of cards you are playing a game which may have existed in the earliest days of Brahmin culture. Cards were played in the days of the Tudors and at the court of Charles VI of France. They have developed in a variety of uncertain and indefinite ways and have survived as one of the most uncertain of pastimes.

It is widely believed that the game of cards originated in Asia, having been invented in the reign of Seun-Ho about the year 1120 for the amusement of His Majesty's concubines. Another tradition has it that from time immemorial cards occupied the leisure hours of Brahmin society in ancient India. Still others believe that the Egyptians invented them as one of their many religious symbols; while yet another school of thought attributes their origin to the Arab tent-dweller.

Whatever their origin, cards eventually found their way to Europe. The Thirty-eighth Canon of the Council of Worcester is often quoted to prove that cards were known in England in the middle of the 13th Century but the game of "Kings and Queens" there mentioned is now thought to have been a variety of chess. The facts that Petrarch, writing about 1278, omits to mention them in his dialogue on gaming, and that Boccaccio, Chaucer, and other contemporaries are equally silent serve only to confirm the impression that the game, if known, had certainly not become popular.

The earliest authentic mention of a distinct series of playing cards is found in an accounting entry of Charles Poupart, Treasurer of the Household of Charles VI of France. Writing up the Cash Book for 1393 he states "Given to Jacquemin Gringonneur, painter, for three games of cards in gold, or in divers colours, decorated in several styles . . . for his dalliance . . . " This entry, it will be observed, refers only to the painting of a set of cards which were evidently already well known. It seems safe to conclude that, though possibly known to a select few in Europe about the middle of the 14th century, cards did not pass into general use for another fifty years.

The method of their introduction to Europe is suitably swathed in obscurity. Covelluzo of Viterbo, writing in the 15th century, said, "In the year 1379 was brought into Viterbo the game of cards which comes from the country of the Saracens and is with them called *naib.*" The gambling spirit of the Crusader soldiery may have been instrumental in the importation of the game, but rather better authority has it that the Moors brought the pastime to Spain where, to this day, the pack is known as *naipes*. This is probably a corruption of the Arabic *nabi*—prophet. There is little doubt that whoever else may have adopted the game of cards the Arab tribes undoubtedly held it in high regard.

Cards cannot have been very popular in Europe before 1369, for in that year Charles V issued an Ordinance forbidding practically everything else but not making any mention of cards. By the end of the 14th Century the pastime was sufficiently widely known for the Provost of Paris to forbid working men to play cards on working days.

The objection of the clergy to the pastime is evidently traditional. In 1423 Saint Bernardino of Siena, in a celebrated sermon at Bologna, labelled them as an "invention of the Devil." In spite of clerical opposition the card habit spread from Spain and Italy, for a Nuremberg manuscript of 1384 refers to cards, some of which appear to have been rectangular in shape, others square, and still others circular.

Possibly as a result of clerical opposition, or even, as a counter to the practice of gaming, cards were soon adopted for entirely different purposes. In the first decade of the 16th Century, Thomas Murner, a Franciscan friar, published an exposition on Logic in the form of cards. In 1651, Baptist Pendleton taught grammar by the same device and soon a wide range of "Scientall" cards dealing with all manner of subjects from geography to heraldry were procurable. Even politics found their place, one set of English cards being designed to reveal the plots of the Popish agitators.

It is clear that in the early 15th Century the manufacture of cards was a well-established German trade. There is also evidence that Italy was manufacturing them in 1425. Just when England entered the trade is not known, but it must have been prior to 1463. On that date their importation was forbidden by an act of Edward IV, designed to afford protection to local card manufacturers; but supplies of playing cards continued to come by devious means from the Continent. By Elizabeth's time importation was not only a recognised fact, but was indeed a monopoly. James I, in an endeavour to build up the local trade imposed an import duty, and most British possessions, and certainly the United Kingdom, have levied a duty ever since.

Cards have not always been of the numeral variety. The earlier types may have been Tarots, a type of card still to be found in parts of France, Germany and Italy. A pack of Tarots consisted of seventy-eight cards, arranged in four suits of numeral cards together with twenty-two emblematical cards known as Atutti or Trumps. Each suit consisted of fourteen cards, ten of which were Pip cards, the remaining four being "Coat" cards. The four Coat cards were known as KING, QUEEN, CHEVALIER, and VALET. Trumps were numbered from one to twenty-one with one unnumbered card called FOU, the fore-runner of the modern joker. The Fou had no positive value, but augmented the value of all the other trumps.

Nor have the suit marks on cards always been those to which we are accustomed. The oldest known set, German in origin, is marked with hearts bells, leaves, and acorns. Next in antiquity are the Italian or Spanish devices of swords, batons, cups, and money. French cards of the 16th Century bear the marks still used in England and France and known as Coeur, Trefle, Pique, and Carreau.

The Trefle design, although probably copied in the first instance from the acorn, was so named from its resemblance to the trefoil leaf. The Pique derived similarly from the leaf of the German suits, while its name is obviously derived from the sword of the Italian

suits. In spite of much opinion to the contrary, it is not derived from the chance resemblance to a pike head. Modern cards carry the markings of 16th Century France and are named Hearts (literal translation of the French *coeur*), Clubs (corresponding to the French Trefle joined to the Italian name Bastoni), Spades (the French Pique, carrying the Italian name Spade —swords), and Diamonds (the literal translation of *carreau*).

It will be seen that over the years names and symbols have become greatly confused. Chatton accounts for this as follows:—

"If cards were actually known in Italy and Spain in the latter part of the 14th Century, it is not unlikely that the game was introduced (into England) by some of the English soldiers who had served under Hawkwood and other free captains in the wars of Spain and Italy."

Possibly the New Zealander returning from the ancient stronghold of cards,

will take back some new card games with some new names, but the result will be the same as everything has always been about cards—uncertain.

SHORTAGES ON THE HOME FRONT

Representatives of the building industry in New Zealand are concerned over the shortage of timber. In 1941, before Japan came into the war, builders were drawing timber from the yards at a rate estimated at up to three times as fast as it could be replaced. Military requirements of the succeeding two years left the timber yards completely exhausted, and since then the building trade has been living from hand to mouth.

Bricks, which have hitherto been in short supply, are on the increase. In pre-war days production in Auckland alone was approximately half a million bricks per week; but, due to shortage of man-power and coal and the impossibility of replacing worn-out equipment, production fell to 70,000 in the past winter. Production in Auckland had increased to approximately 160,000 by mid-November with promise of further substantial increases.

Corrugated iron is still in very short supply, so that the choice in roofing materials is limited to tiles and fibrolite. Malthoid is not favoured because it requires timber sarking and expert laying, and does not stand up to some climatic conditions.

General builders' hardware stocks are sufficient to meet existing requirements while baths are more readily procurable than sinks. Cast iron pipes, copper piping, hot water cylinders and telephone or electricity reticulation are other instances of acute shortages.

New Zealand's Foreign Trade.

Total trade for the first nine months of 1944 was L129,690,000 compared with L127,632,000 for the corresponding period of 1943. Over the same period exports were L3 million higher and imports L1 million lower. The excess of imports over exports was reduced from L22,230,000 in 1943 to L17,696,000 for 1944. Import values in these figures which cover the same nine-monthly periods include defence materials and equipment, and lease-lend supplies but the export figures do not include reverse lend-lease items.

THE STORY OF OPERA

— By "Chameleon" —

THE customs of human beings are governed by many considerations, not all of them strictly reasonable. The habit of the English-speaking people of attending, in large numbers and with obvious enthusiasm, at dramatic performances of which they seldom understand a word, might seem to a Martian an indication of incipient lunacy. Other countries have developed their national operas, in their own national language. But not the English. Passing over the point that even to those familiar with the language the stories of many of the operas are by no means crystal clear, there must be some explanation for the audiences that flock to the opera houses in Covent Garden, in New York, and now in Italy, besides the obvious one of hearing the music, which could be done equally well, and in more comfort, by one's own fireside.

And there is. In fact there are several. The first is musical snobbery. It is one of the marks of a cultured person to be able to talk of opera and opera-singers just as much as of novels and novelists, of art and artists. The opera, further, has always offered a unique opportunity for the display of jewellery, furs and toilettes.

None of these reasons, however, is valid in explaining the persistence of this musical form, or its war-time boom among soldiers of all armies. The real charm of opera lies in the fact that it combines several arts in one and so makes an appeal to the senses that no other form of entertainment can quite equal. In a sense it may be said to be a creation of the baroque period, and just as baroque architecture brought painting and sculpture into its service, so opera combines the arts of music, acting and scene painting into one tremendous assault on the eye and ear.

Like all forms of art, opera did not arise from nothing. It had its beginnings in the various forms of dramatic entertainment with incidental music favoured by our ancestors. These were various. There were the Masques, poetic plays usually written specially for great occasions such as a Royal Wedding. They combined acting, dancing and singing, accompanied by various instruments, often with extremely elaborate settings, and allegorical or classical backgrounds. But the music was incidental and not principal. The Miracle and Mystery Plays, devoted to popular representations of sacred subjects, with very often a good deal of slapstick included, used music too. All these paved the way for Opera, while the work of Palestrina and the great English musicians of the 16th century provided a music fit to express the emotions.

The first opera is generally taken to be *Euridice* (1600) by Jacope Peri. This followed the attempts of a group of amateur musicians to revive the imagined glories of the old Greek stage,

and opera has often been represented as a return to classical ideals. In fact, like Renaissance architecture, it was a rebirth on a new and higher plane, of an old idea. But in spite of this, the conviction that it was a classical art long crippled librettists by restricting them to mythological themes.

The first opera was also an attempt to produce a better form of musical entertainment than the then prevalent one where actors mimed upon a stage accompanied by polyphonic singing from a hidden chorus, a method dramatically and musically weak in the extreme, and which actually might be described as the last dying wriggle of the old madrigal performances.

Peri was closely followed by Monteverdi whose *Orfeo* (1602) and other operas had a great success. This new style was called "monody" in contrast to the old "polyphony" and was codified into "recitative," a system of free declamation accompanied by music. Melody was not used, and indeed, we today would hardly recognise these operas as the same form as we know. The freshness of recitative did not last and melody inevitably came into its own again. Composers began to use tunes at moments where the action halted and the Neapolitan school was powerful in the development of the *aria*. Scarlatti was prominent in this development, and the fact that one of the earliest composers, Caccini, had a daughter who was a brilliant singer, was not without influence. He inserted numerous passages to exhibit his daughter's voice while Monteverdi assisted the evolution of the typical *aria*, so firm a part of present day opera .

This development paved the way for the triumph of the singer. Adult male sopranos (castrati) came into favour and were petted and spoilt by the public. People attended the operas purely to hear their favourite singers in their best songs and between these musical highspots ate supper, played cards or chatted in complete indifference to what was happening on the stage.

This position was at its worst at the end of the 17th and during the early part of the 18th centuries. Every well-known singer demanded a prominent appearance in each Act and a variety of *arias* to show his or her versatility. Worse still, the public demanded it too. It was under these limitations that many great composers of that time worked. That work has not survived, partly because many of the arias were written for the male soprano voice which is now neither available nor desired and partly because of the crippling rules and the excessive classicism of the subjects.

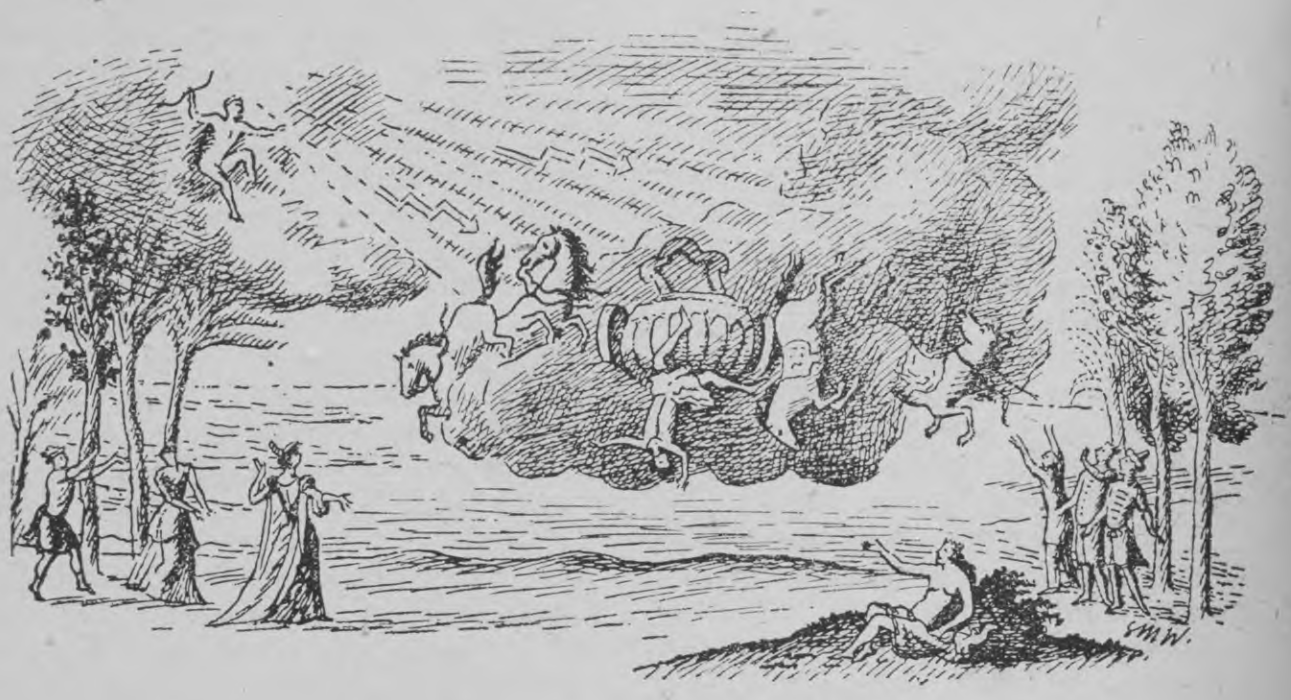
These defects mean that today Handel's and Scarlatti's operas are never produced commercially. About this time Purcell in England (1658-95) produced *Dido and Aeneas*, but his later development was cramped by the dictates of Dryden who separated the musical characters from the main action, an astonishing and, to us, incomprehensible denial of operatic unity which crippled English opera for seventy years.

It was Gluck who may be said to have initiated modern opera. He was not strong on counterpoint but had great melodic power, a gift for phrasing, and, what was just as important, a feeling for dramatic truth. He had a strong character and flatly refused to pander to the vanity of popular singers. His *Orpheus* (1772) is the earliest work to be still a regular item in the repertory of opera.

But it was his *Alcesti* (1767) that laid down the true principles of the art which were:—

(a) *That music should be secondary to the poetry and drama;* (b) *That halts in the action for the sake of musical display should be avoided;* (c) *That the overture should prepare the audience for the opera;* (d)*That the orchestration should vary according to the degree of interest and passion in the words;* (e) *That too great a disparity between arias and recitatives should be avoided.*

Great as was Gluck's influence in France, he had little effect on Italian opera which long continued to indulge in vocal fireworks. His influence can rather be traced through Mozart and Weber to Wagner and Strauss. Mozart, with a brilliant sense of theatre and



An example of 17th century stagecraft.

perfect timing and greatly assisted by his librettist, Da Ponte, created operas that still give great pleasure. *The Magic Flute* and *Figaro* are known the world over.

After Mozart Italian opera did not progress till Verdi injected new life. Rossini, Donizetti and Bellini bridged the gap. Their work has been much decried and it is true that they too often gave the prima donna precedence over the story. That was what their public wanted and that was what they provided. But Rossini's *Barber of Seville* (1816) and his *William Tell* (1829) are still deservedly popular. Donizetti is perhaps best known for his ever-popular *Lucia di Lammermoor* (1835).

Verdi, the most considerable Italian composer of the last century, is known by many popular favourites of which it is sufficient to mention *Ernani* (1844), *Rigoletto* (1851), *Il Trovatore* and *La Traviata* (1853), *Aida* (1871) and *Falstaff* (1893). He developed greatly during his long productive career and, without being overwhelmed by his great contemporary Wagner, adopted his idea of continuity.

Of Giacomo Puccini, Verdi's most popular successor, little need be said, since he added nothing to the development of opera. His works such as *Manon Lescaut* (1883) *La Boheme* (1896) *La Tosca* (1900) and *Madame Butterfly* (1904) were extremely popular with Italian audiences. They are melodic and free-flowing, and, having in them nothing very new, were easily appreciated by a public that loves brightly-coloured orchestration and strong dramatic effects but has fixed musical ideas.

The German development was on rather different lines to the Italian and in many ways much richer. Beethoven and Weber were the first to cast aside the Italian language and create a national German opera. Beethoven suffered from an insufficient power to subdue his librettist and his *Fidelio* suffers from this. These composers led on to the colossus Wagner who reaffirmed the principles of Gluck and solved the problem of the true marriage of music and drama.

Wagner aroused the most violent controversy in his own day, as all revolutionaries must, but today he is accepted as a master of his craft. His continuity enabled modern composers to handle stories impossible under the old conventions.

Russia, like Germany and France, developed a national opera from Italian beginnings. In 1734 the Empress Anne established a permanent opera, for

opera, never really a commercial proposition, owing to the costly nature of the productions, has always required the patronage of governments or cities for its survival.

After Italian tutelage had been discarded native composers came to the front, and in 1836 *The Life of the Czar* introduced Glinka, now regarded as the founder of Russian opera. Rimsky Korsakof is better known, and his *Ivan the Terrible* (1873) Mussorgsky's *Boris Godunof* (1874) and Borodin's *Prince Igor* (1890) really introduced Russian music to the West, becoming well-known when Diaghilef brought Chaliapin to Paris in 1908.

English-speaking peoples have never supported opera very well and in spite of many efforts neither England nor America has produced a work of sufficient appeal to win its way into the Continental repertory.

The native English opera was smothered by the Italian. It is rather sad, for now there seems little hope of of its resuscitation.

Note.—The dates given after names of operas are in each case dates of first performances.

OWING to general requests this column is changing over to Contract Bridge. It is felt that no injustice is being done to the Auction players as anyone who studies contract can play auction by not carrying the bidding beyond the point necessary to overcall the opponent, and a contract player will usually beat an auction player of similar strength.

The basis of sound contract play is a close acquaintance with (a) the Honour Trick table (b) the list of biddable suits and (c) a sound method of valuing the hand in support of partner's bid.

For the benefit of auction players it should be mentioned that in Contract 100 points are required for game, but trick values are:—Clubs and Diamonds 20 each; Hearts and Spades 30 each; No trumps—first trick 40, subsequent tricks 30. Players who have won one game towards rubber are "vulnerable." Double penalties are awarded if they then go down on a contract. Only tricks actually bid are scored below the line, the remainder being scored as honour points. Bridge system writers in their books all have pretty hearty laughs at each other's idiotic ideas of bidding, but actually all that is needed is a sound grasp of how to get the most out of your cards without landing too deep in the gravy.

The Honour Trick table in CUE 15 (Corrected in CUE 16) is adequate. In answer to an inquiry Kx is equal to QJx i.e., ½HT.

Biddable suits under the system advocated are rather weaker. No four card suit is rebiddable. They are:—

Conditional biddable suits: Qxxx or better or five up to Jxxxx. A desperation bid when holding 3HT or better and two or three 4-card biddable suits. Don't rebid unless partner raises twice.

Biddable suits: QJxx or better or five to Q or better. Don't rebid without a raise from partner.

Rebiddable: QJ9xx or better or any 6-card suit can be rebid without a raise from partner but if bare should not be rebid without additional outside HT strength.

Adequate trump support: Absolutely essential to observe this. Opening on 4-card suits demands that partner support only with full trump support. This is Qxx or xxxx or better. If partner has called two over an opening one, reduce trump support by one rag. (A rag is a card below 10). Minimum trump support may be reduced by one rag for each free rebid by partner.

Our Changing Law

IN this article an attempt is made to give some idea of the statutory changes in the law in New Zealand during the war years up to the end of 1943. Within the scope of a short article it is, of course, not possible to treat any matter exhaustively.

The provisions for rehabilitation occupy pride of place, but will be dealt with elsewhere. Secondly comes the Serviceman's Settlement and Land Sales Act, 1943, which was mentioned in the Farm Settlement article in a recent issue of CUE.

Next in importance comes the War Pensions Act 1943. At the outbreak of war the War Pensions Act of 1915 was extended to the present war, and various amendments were made until in 1943 the whole of the provisions relating to war pensions were consolidated. One very great change was made in that it is not now the duty of the serviceman to prove his disability to be due to war service but for the War Pensions Board to disprove it. The onus of proof had been a bone of contention for many years and the amendment met with universal approval. The War Pensions and Allowances (Mercantile Marine) Act 1940 allows merchant seamen injured by enemy action or their dependents the privilege of claiming under the 1943 Act.

An interesting change was made by the Electoral Amendment Act 1940 which gave a vote to all servicemen serving outside New Zealand whether 21 years of age or not.

Probably the most discussed alteration in the law was the Crimes Amendment Act 1941 which abolished capital punishment in murder cases and also abolished flogging and whipping as a punishment for crimes of a brutal nature. It was an unfortunate coincidence that almost immediately after the amendment became law there were two or three murders in New Zealand. This was immediately seized upon by the inveterate writers to the daily press as direct evidence of the deterrent value of the death penalty.

To the New Zealand soldier who generally finds restrictions on his freedom irksome, Section 59 of the Statutes Amendment Act 1939 will make no appeal whatever. Its purpose is to prevent drinking in dance halls, penalties being provided for the occupier of the premises who permits drinking, and for the drinker himself. Drinking in the vicinity of the hall is also not allowed. The Act provides that "liquor shall be deemed to be in the vicinity of a hall wherein a dance is being held if it is shown that the liquor was in the possession or control of any person attending or proceeding to attend the dance, or was consumed or intended for consumption by any person so attending." While on the subject of liquor it is as well to record that under the Transport Law Amendment Act 1939 the convicted intoxicated driver will automatically lose his driving licence for one year for his first offence and for three years, at least, for his second offence.

Women jurors have been familiar figures in England and the United States for many years but in New Zealand they were not entitled to this privilege until 1942 when the Women Jurors Act was passed. Women between the ages of 25 and 60 may now serve on juries but it is necessary

for them, unlike the wretched male, to apply to the sheriff to be placed on the jury panel.

In most countries the subsequent marriage of parents has been sufficient to legitimate children born before the marriage. In New Zealand, however, it was necessary for the parents to register the birth before the legitimation became complete. A long overdue change has been effected by the Legitimation Act 1939 which, although providing for registration, does not make this obligatory. The subsequent marriage will perfect the legitimation so that the child will not be affected by failure to register on the part of his or her parents.

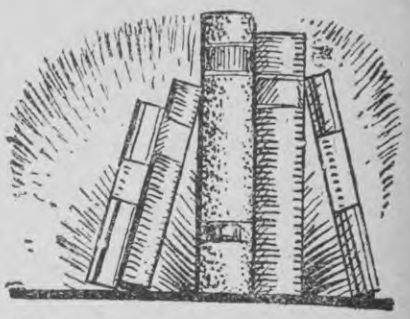
The social programme of the Government has not remained static during the period, with the Social Security Act 1941 as its most important work. Most New Zealanders will know that the original Social Security plan provided for free medical benefits but that its full implementation was delayed. Finally, amid much discussion on whether the restrictions on individual liberty were justified, the amendment was passed entitling the people to free medical services. Pharmaceutical requirements had been provided by regulations gazetted also in 1941. The result is that New Zealand's Social Security legislation is now almost complete. Amendments have been and will continue to be made from time to time to clear up anomalies as they arise.

Upon reading through the Statutes one cannot help but be impressed by the bewildering succession of Acts designed to separate a man from his money. It seems that human ingenuity can have no bounds in devising new schemes to this end. Finance Acts are liable to legislate on any subject whatsoever, but the main purpose of deriving revenue is fully exploited. National Security Tax at a flat rate of 1/6 in the L. has been instituted as a wartime measure, death duties increased and exemption therefrom decreased, and an excess profits tax established. Even the War Damage Insurance Act, 1941, which made compulsory the payment of war damage insurance premiums of 5/- per cent (since heavily reduced) was viewed in many quarters as a revenue-producing scheme.

Possibly the most far-reaching amendment, and certainly the most widely used, is the Emergency Regulations Act 1939 under which the "Governor-General may from time to time, by Order-in-Council, make such regulations as appear to him to be necessary or expedient for securing the public safety, the defence of New Zealand, the maintenance of public order, the efficient prosecution of any war in which His Majesty may be engaged, for maintaining supplies and services essential to the life of the community, and generally for safeguarding the interests and maintaining and promoting the welfare of the community." This singularly wide power is probably necessary to any Government in time of war.

Constant reference is made to what is called "government by regulation," and it is fair comment to say that there have been more regulations than statutes covering many important matters. The way through the regulations is thorny and full of pitfalls and no comment is being made on them other than the warning that you must be aware of the Emergency Regulation which will inevitably affect some part of your life.

The Biographer - A Nosey Parker?



IS the writing of biography immoral? This was the question discussed at a recent informal "brains trust" in a New Zealand camp somewhere in Italy. The learned men took the question to mean: is the story of the life of a man, alive or dead, his own private property? Or does the fact that man is a social being—whether he likes it or not—lay him open to written comment from all and sundry? The general opinion of the "trust" was that living people are protected by our laws of libel; with that safeguard, there is no reason why a man who makes a mark on society and has himself talked about should be able to stop people from writing about him, whether in a newspaper story or in a full-dress book. And dead people—well, they are very dead. Unless they were important and interesting, no serious writer is likely to resurrect them for the reading world.

Thus the immorality charge is dismissed on grounds of public interest. As long as people are talked about, they will be written about. The secrets laid bare, the controversies started by the biographer's dissecting knife can make fascinating reading. And if a person wants to be his own dissector and write an autobiography, the millions of readers who have enjoyed some of the witty and revealing autobiographies of our day would be the last to complain. Moreover, the personal angle on history in the making, from the person who has *lived* events, is often more valuable than the account of the lookers on.

Vera Brittain's "Testament of Youth," for example, tells us more about the last war generation than could any social survey. Again from sensitive Germans, like Klaus Mann ("The Turning Point") and Otto Zarek ("Splendour and Shame"), we get an intimate picture of what Hitler's rise to power meant in people's lives.

Who would be more prone to writing the stories of their own lives than writers themselves? Tastes here vary; if you read Linklater's novels, you will read his "The Man on My Back"; if you are interested in Eric Gill or Havelock Ellis, you will read their autobiographies.

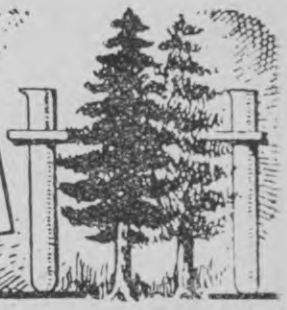
There is always a demand for the life stories of men of the day, but they tend to be fulsome "build-ups" or long-winded insults, according to the axe the writer is grinding. There are biographies of Churchill ("Battle" by Hugh Martin, "Mr. Churchill" by Philip Guedalla, "Winston Churchill" by Rene Kraus), Cripps ("Cripps—Advocate and Rebel" by Patricia Straus), Halifax, Stalin, Maisky, Dewey, and Roosevelt.

People of royal blood are never left alone. Research and discovery of documents, not to mention imagination, give the modern writer his chance to bring alive again for us the rulers of the past —Alexander the Great, Julius Caesar, and in our own royal line, Queen Elizabeth, James II, William of Orange and Queen Victoria—"The Windsor Tapestry" by Compton Mackenzie, bringing the list up-to-date.

Writers of to-day have the qualifications to study the lives and works of the famous writers of yesterday, and the do us a service in increasing our understanding of the men whose great works we still read—Blake, Keats, Voltaire, Rabelais, Ibsen, Goethe, Tolstoy, and Dostoevsky.

The above books are now available for issue on loan through the ERS Book Request Service. Those who use the service are asked to give alternative requests in case the book they want has already been issued; to acknowledge receipt promptly; to return the book as soon as possible; and to look after it carefully.

New Zealand and PLASTICS



WITH the threat of invasion in 1942 many New Zealanders began to realise that the Dominion had to become more dependent upon herself and her own resources. To-day, many feel that open overseas trade is, perhaps, gone and that some of New Zealand's greatest markets may in the future be affected by the war and scientific achievement.

One particular threat is to her wool market which will meet strong competition from the synthetic industry. It must be realised that the commodities England and other countries have to a large extent done without have been replaced by synthetic goods, and in the future these countries may find that they are able to do without the natural product.

Whether the synthetic products will be equal to those made from the wool from the sheep's back is another question. Their manufacturers claim that they are as good—some of them stronger and easier to spin and weave. One point to remember is that they are and can go on improving, whereas it has taken hundreds of years to improve our "A" grade wool.

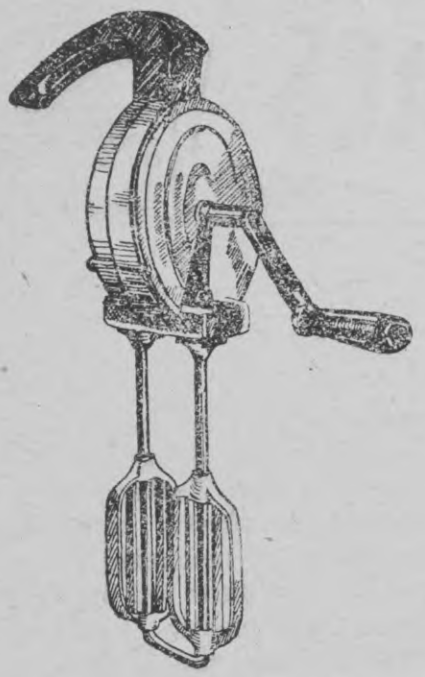
Various artificial forms of silk have swamped the market. Most women to-day seem to welcome Nylon stockings in preference to real silk. May this not happen to wool? If this did occur, the effect on New Zealand would be obvious. It is worth-while, therefore, to investigate the possibilities of the plastic industries in the Dominion.

What is New Zealand doing about a possible threat to the woollen industry? What are the other great wool-producing countries doing? Australia has been quick to realise the danger and so in a small way has New Zealand. Australia has started its plastic industry with the opening up of resources of raw material. She has built up her chemical industries and plastic manufacturing concerns. To-day she is able to produce all kinds of plastic goods including the Mosquito aircraft which is nearly all plastic.

New Zealand has not been backward. Realising the imminent danger even before the war, she set out to make an attempt at increasing her secondary industries, giving greater outlets for labour for expansion and greater economic stability and providing a shock absorber should the bottom fall out of the wool market.

The late Dr. Denham, of Canterbury University College, and one of the greatest research industrial chemists New Zealand has known, many times said: "Progress has overcome and passed natural production. Science may have overcome the farmer. New Zealand's future rests in her own exploitation and in manufacture. New Zealand's markets are far away, her wool expensive—the chemists will overcome her if she does not care for herself." That is what he told the farmers, the Chamber of Commerce and the business men of the country. It is possible that his prophecy may become fact.

New Zealand has started to use the discoveries of science, and she can continue to do so with the other nations of the world. A recent list of her export of manufactured articles was rather astounding. Among them was a not



An all-plastic cake-mixer made in New Zealand

insignificant quantity of plastic articles. Even such articles as plastic shell-cases were on the list. Before the war, she produced plastic wireless cabinets, electrical fittings, door knobs, finger plates and various other smaller articles.

Prospects for the plastic industry in New Zealand are bright in that the Dominion has almost unlimited supplies of the essential materials. Casein, a product of milk, is a major one. To-day, our greatest industry is dairying, and our leading export has changed from wool to butter and cheese. The dairying industry is unlikely to be adversely affected by the manufacture of synthetic products. In fact, it is likely to benefit from their manufacture. Casein products are easily manufactured, attractive and strong. Knitting needles, wireless cabinets, etc. manufactured from casein have long been familiar on the market.

New Zealand's coal industry is a large and thriving one. The products and by-products of coal provide a great variety of synthetic and plastic products from benzene to an aspirin—probably the widest variety of articles in production from the one raw material today.

But New Zealand's greatest opportunity of exploitation and expansion in the plastic industry probably lies in her 750,000 acres of trees. From these trees, 400,000 acres of which are owned by the State, can be produced that all-important substance for plastic production — cellulose. Limitations to the manufacture of goods from this article scarcely exist.

Another field for development in the Dominion is the chemical industry. New Zealand has some of the processing chemicals; those which she lacks Australia has. This industry has increased until it is now a major one and is still increasing. The future looks as good for it as for the plastic industries.

It depends on the foresight and initiative of the New Zealander himself whether the Dominion can meet threats to her present industries and keep abreast of the times in the development of her plastic manufacturing resources.

ANSWER TO CHESS QUERY

In answer to a correspondent here is the rule for taking "en passant:" A pawn, standing on the fifth rank, has the power to capture a pawn moving two squares passing it. e.g., a pawn on K5 can take pawns moving from Q2 to Q4 or B2 to B4. The capture is made as if the pawn had moved only one square and that square is occupied by the capturing pawn. This is only valid for the move immediately succeeding that of the pawn captured.

The Picture on the Ceiling.

A "MAGIC" picture on the ceiling of a casa in Atina was responsible for much speculation by a party of New Zealanders who occupied the house for some days. One of them has written to ERS seeking an explanation. Here is the question and with it a necessarily brief answer.

"On or about May 30 last at approximately 1 p.m., the observer was in an upstairs room of a house near Atina. The only light admitted to the room came through a hole about an inch in diameter in one of the closed shutters of a french window opening in a south-westerly direction on to a balcony. It is thought that the glass windows behind the shutters were closed. Owing to the height of the sun, the light could not have fallen directly on to the ceiling, on which was visible, as on a cinema screen, an image of an area outside and below the window. The image was clear enough for the observer to distinguish colours, such as the difference in shade between a mess-tin and plate standing on a stone wall in the centre of the area, and also for him to recognise individuals in the yard and passing along the path beyond the wall.

"There was no appreciable distortion of the image except in the most distant part of the area in view, that is, beyond the path and by the olive trees, where objects were lengthened vertically out of proportion.

"The changing position of the sun seemed to make no difference as the image was still present, apparently substantially the same, at 3 p.m. on the day in question. It seems doubtful that the presence of the truck had anything to do with the picture, as the area visible on the 'screen' extended well behind the windscreen of the vehicle. It has been suggested that particles of dust in the air, drifting over from the road, might have been a contributing factor.

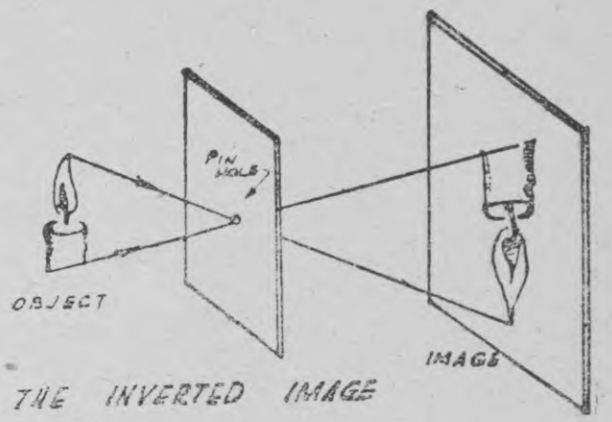
"The production of the image seems to have features in common with those of an instrument known as the camera obscura, but the essential mirror or substitute appears to be lacking. There is presumably some simple scientific explanation of this problem, which ERS will be able to supply."

Here is the brief explanation:

This appears to be a rather interesting but by no means unusual example of the camera obscura principle which has been recognised for many years, appearing in literature as early as the year 1038. Leonardo da Vinci, who died in 1519, describes the phenomenon in the following way:—

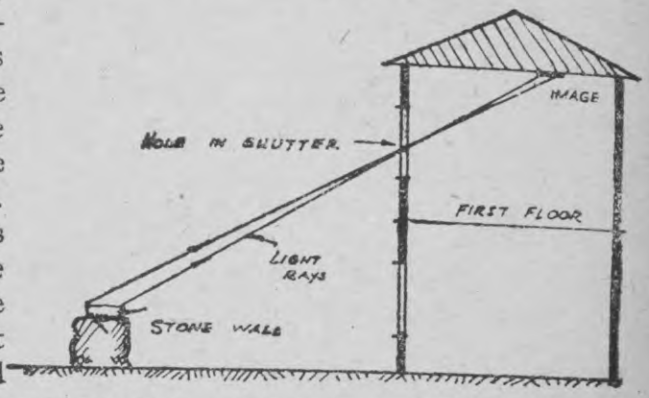
When the images of the illuminated objects enter a very dark room through a very small hole and fall on a piece of white paper at some distance from the hole, one sees on the paper all the objects in their own forms and colours. They will be smaller in size and appear upside down because of the intersection of the rays.

The formation of the inverted image is a consequence of the rectilinear propagation of light which simply means, that rays of light travel in straight lines. Without going into detail the formation of the image is illustrated by the diagram below.



THE INVERTED IMAGE

Applying these well-known facts to the account of the incident given above, one finds several significant points. The time was 1 p.m. May 30. This is almost mid-day towards mid-summer, and consequently the intensity of illumination of the courtyard would be at its maximum, the best condition for the formation of a bright image. The darkened room and small aperture are essential features of the camera obscura. The bright sunshine falling on objects in the courtyard is scattered by these objects. The objects, of course, are visible only because they scatter light from the sun, some of which scattered light reaches the eye. Rays from the brightly illuminated objects passing through the aperture form an image on the ceiling as illustrated below:



THE GAME OF CHESS

The game given illustrates the Max Lange Attack, a powerful offshoot of the Giuoco Piano. Until 1935 no master would allow White to play the attack, but M. Seibold, a noted correspondence player, then advanced the line given below, with which Black obtains a playable game. Ferda, a leading Palestinian player, was unaware of the analysis which Black follows:—

MAX LANGE ATTACK.

Game 3.

Tel Aviv, 1942.

	White A. Ferda.	Black. C. B. Newick.
1.	P—K4.	P—K4.
2.	Kt—KB 3.	Kt—QB 3.
3.	P—Q4.	PxP.
4.	B—B4.	B—B 4.
5.	O—O.	Kt—B 3 (a).
6.	P—K5.	P—Q 4 (b).
7.	PxKt.	PxB.
8.	R—Kl ch.	B—K3.
9.	Kt—Kt5 (c).	Q—Q4 (d).
10.	Kt—QB 3.	Q—B4.
11.	QKt—K4.	O—O—O (e).
12.	KKtxB.	PxKt.
13.	P—KKt.4 (f)	Q—K4.
14.	PxP.	KR—Kt 1.
15.	B—R6.	P—Q6 (g).
16.	P—QB 3.	P—Q7.
17.	R—K2.	R—Q6.
18.	KtxB? (h)	QxKt.
19.	RxP (Q2)!	Kt—K4.
20.	RxR.	PxR.
21.	Q—R 4!	Q—Q4.
22.	Q—KB 4.	Kt—B6 ch.
23.	K—B 1.	R—Q1.
24.	Q—B 8.	P—Q7.
25.	R—Q 1.	KtxPch.

Resigns (i).

(a) Allowing the Max Lange. The opening is the Scotch Gambit. Safer was 5 . . . P—Q3.

(b) The only good move. 6 . . . Kt—KKt5 is best met by 7P—B3. Any deviation from the column by either side for the next few moves is weaker

(c) 9 PxP, R—KKt1; 10B—Kt.5, B—K2; 11 BxB, QxB! Best, if 11 . . . KxB; 12R—K4 with advantage for White. With 11 . . . ,QxB. Black gets a slight advantage.

(d) If 9 . . . . QxP; 10KtxB, PxKt; 11Q—R5ch. 9. . . , P—KKt3 is hardly satisfactory.

(e) Best to secure safety. White now attacks the Queen and makes use of his advanced pawn.

(f) Exposes the king to attack, but White's attack is dangerous.

(g) Black must counter-attack.

(h) The first but fatal mistake. Here 18Q—KB1 holds Black's attack, but Seibold still gives Black a slight advantage. White struggles valiantly against the inevitable.

(i) If 26K—Kt1, Kt—B6ch.; 27K—Kt1, Q—B5ch, and mates in two.

1. When was Gene Tunney's last fight?
2. What is napery?
3. What is the principal element of oil of peppermint?
4. For what is London's Fleet St. famous?
5. In English which vowel is used most?
6. (a) What is the "White Plague?" (b) What is "Purple Death?"
7. Does a Diesel engine have spark plugs?
8. Benares is the holy city of what country?
9. Where did animals originate, on land or sea?
10. India and Afghanistan are connected by what pass?
11. What is the most highly developed animal?
12. What is the Key to the Mediterranean?
13. What is the length of life of the housefly?
14. Is the Roman Arch round or pointed?
15. (a) Is Big Ben the largest clock in the world? (b) If not, which is?
16. How many faces has a cube?
17. How did Mahomet die?
18. Supposing you could find a trade mark on a Flying Fortress, which of the following names would it bear: (a) Hudson; (b) Cadillac; (c) Douglas; (d) Boeing; (e) Sikorsky; (f) Avro?
19. In what body of water is the Isle of Man?
20. Where was the first British flag hoisted in New Zealand—Russell, Young Nick's Head, Petone, Mercury Bay, Poverty Bay, Waitangi?
21. Describe the Swiss flag?
22. A friend has just given you a Condor—kindly meant, no doubt, but a bit awkward to carry about since a Condor is: (a) A flying-boat; (b) a species of whale; (c) an eagle; (d) a snake; (e) a type of vulture.
23. Are all birds hatched from eggs?
24. What is a shield bearing a coat of arms called?
25. Name the capitals of the following countries:— (a) Argentine; (b) Mexico; (c) Australia; (d) Norway; (e) Tasmania.
26. What is a guy-rope?
27. "I met the Begum," said the professor in one of his travel talks on India. A begum is a: (a) Priest; (b) woman of high rank; (c) coolie; (d) prince.
28. Where are the Krupp Steel Works?
29. Place the following awards in order as worn:—D.C.M., M.C., C.B.E., D.S.O.
30. Where is Timbuktu—if there is such a place?

(*Answers on back page*).

P.S.S./B/D1032/3½M/2-45

What do you think?

In the last issue of CUE, the opinions of readers were sought on six questions of wide interest. The results of this first "Cue Poll" will be published in our next issue. Below are further questions on which readers are asked to record their vote, either through Unit Education Representatives or by sending them direct to Cue. Some of the questions have appeared in Cue previously, but we have not had the results of your voting.

Here are the questions:—

1. Should wives be paid a direct wage by the State, the money to come from a bachelor tax?
2. Should zoning in coal, bread, milk delivery, etc., and cream collection be continued after the war?
3. In view of recent murders in New Zealand, should capital punishment be reintroduced?
4. Are you in favour of clothing reform for men, with the abolition of the collar and tie?
5. Do you approve of women smoking?

ANSWERS TO QUIZ.

1. In 1928; 2. Household Linen; 3. Menthol; 4. Newspapers; 5. E; 6. (a) Tuberculosis (especially of the lungs); (b) Quite correct—an inferior type of Italian red wine; 7. No; 8. India; 9. In the sea; 10. The Kyber Pass; 11. Man; 12. Gibraltar; 13. Eight to ten weeks; 14. Round; 15. (a) No; (b) The largest is the Colgate clock in New York with an illuminated dial 38 feet in diameter; 16. Six; 17. He was poisoned; 18. (d) Boeing; 19. In the Irish Sea; 20. Mercury Bay; 21. Red with a white cross; 22. (e) a type of vulture; 23. Yes; 24. An escutcheon; 25. (a) Buenos Aires; (b) Mexico City; (c) Canberra; (d) Oslo; (e) Hobart; 26. A rope or wire used for holding tents, masts, poles, towers, etc. upright; 27. Woman of high rank; 28. Essen, Germany; 29. C.B.E., D.S.O., M.C., D.C.M.; 30. In French West Africa, edge of the Sahara Desert.

Printed by Printing and Stationery Services CMF.