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**JANUARY, 1948**

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SCIENCE APPLIED NUMBER

JANUARY, 1948

## CONTENTS.

	PAGE
EDITORIAL :	
Gods or Slaves? .....	4
ARTICLES :	
Secrets of the Apple Orchard— <i>Donald MacLusky</i> .....	6
The Scientific Disposal of Refuse— <i>L. W. Ackroyd</i> .....	10
The Light Fantastic— <i>C. E. West</i> .....	11
The Art and Science of Physiotherapy— <i>Ruth Deakin and José Hudson</i> ..	12
Tiger! Tiger!—"Pip" .....	14
Canoeing, Sport of Many Thrills— <i>E. A. Dawes</i> .....	15
Trends in Cattle Breeding— <i>Alec. I. Taylor</i> .....	17
Textile Tints— <i>F. M. Smith</i> .....	19
An Approach to Flying Training— <i>University Air Squadron</i> .....	21
Useful Knowledge about Technology— <i>Alfred F. Barker</i> .....	25
A Thousand Centuries of Glamour— <i>E. C. Smith</i> .....	27
I'll Ring You To-night—"Decibel" .....	29
THEATRE :	
"Athalie" .. "A Review"— <i>"Neander"</i> .....	31
SHORT STORIES :	
Experiment 134— <i>Margaret B. Allen</i> .....	9
The Horns— <i>Patricia Broomhall</i> .....	23
VERSE .....	8, 13, 18, 22, 26
CARTOON— <i>J. S. Whiteley</i> .....	34
REVIEW :	
"Chuckle with Chickweed"— <i>E. P. C.</i> .....	28
SHORT STORY COMPETITION : ANNOUNCEMENT .....	5
HALL AND SOCIETY NOTES .....	33
SPORT— <i>Maurice Hayes</i> .....	35
OLD STUDENTS' ASSOCIATION .....	37
ILLUSTRATIONS BY <i>Maurice Walker</i> .	

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# GODS OR SLAVES ?

by

THE EDITOR.

ONE OF THE GREATEST insurances against Man's early extinction is his insatiable questing for knowledge.

Since the dawn of human history, while his dogs and asses satisfied with ease their own limited curiosities, Man has conducted an unrelenting search among the mysterious forces of the universe from which he has arisen. The analysis of natural phenomena and the elucidation of their complexities has enabled him to control, in varying degree, nearly all the factors which influence his existence.

The gods and demons of the Pantheist have become the slaves and playthings of his Twentieth Century descendants.

The barren futility of fatuous and academic controversy regarding the relative merits of *pure* as against *directed* research is made obvious by a contemplation of numerous tools and techniques already developed by Science, the tears and fevered brows of multitudes imploring their immediate application, and the adolescent vapourings of certain contemporary politicians.

The recent applications of Atomic Physics demonstrate how unexpected and far reaching the effects of pure scientific research can be, yet it is clear that even the basic results obtained by Rutherford would have been impossible without the powerful advance of applied electrical techniques from its own humble beginnings in Pure Science to the service of millions of consumers.

During 1948, research into the utilisation of atomic energy will be given the attention it justly deserves, yet sanely enough, no country seems to be relaxing its investigations into the possibilities of the time-honoured oxidation and hydro-kinetic systems. It is internationally recognised that the neglect of fire and water can seriously jeopardise progress in the control of atoms, and political vultures hover with equal persistence over Uranium shadows and deposits of Petroleum.

In another field, we find that huge, flourishing business concerns are pleased to subsidise research into chemical problems which have not the remotest connection with fertilisers, insecticides or other products of the trade. It is important to remember, however, that many of the components of these products and the techniques of their preparation were at one time mere curiosities on a chemist's bench.

A nation which is prosperous by virtue of the efficient application of Science to the utilisation of her resources can well accord to many of her scientists the freedom of some obscure or isolated sector of endeavour. Their time is not necessarily wasted. The shrine to which each one is led in his insatiable questing for knowledge will perhaps become, some day, the stool of yet another slave employed in ensuring Man's survival and comfort.

*Announcing . . .*

A  
SHORT STORY COMPETITION

PRIZE WINNING ENTRY  
TO APPEAR IN SPRING NUMBER OF "THE GRYPHON."

A PRIZE OF TWO GUINEAS will be offered for the best HUMOUROUS ORIGINAL SHORT STORY submitted to "THE GRYPHON" by a student of this University.

The Competition will be judged by a well-known literary critic, who has asked that the following rules might be observed by contributors :

- (1) Strict anonymity of MSS. ; name, department and year to be enclosed in a separate envelope, which will be referred to after the entries have been judged.
- (2) MSS. to be typed in double spacing.
- (3) MSS. not to exceed 1,500 words.
- (4) The Editor's decision to be accepted as final in all matters relating to this Competition.
- (5) Envelopes to be marked :

" SHORT STORY COMPETITION."

Should there be an encouraging response from students, similar competitions will be notified in subsequent editions.

*Closing Date for Competition :*

MARCH 10th, 1948.



# SECRETS OF THE APPLE ORCHARD

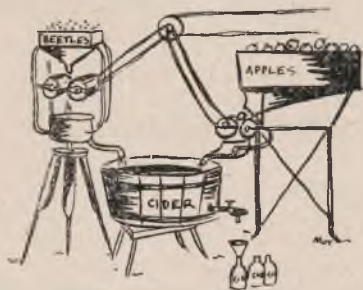
by

DONALD MacLUSKY.

THE APPLE IS to England what the grape is to France or the peach to California. And yet like so many trees which we have come to associate with England, it is not a native. The Romans brought it with them, and it was introduced into English orchards as a hedgerow wilding.

Since the days of enterprising Eve, the apple tree has been regarded as a criterion of human fertility. Young ladies knowing no better have rolled beneath its boughs in the hope that the fertility of the tree would induce fertility in themselves.

In England's early days, sweet juicy, scientifically bred fruits were unknown. They were small, knobbly and very bitter—good for cider-making—and in Mediaeval and Tudor times cider was a relished drink. Wild crab-apples in the hedgerows were used also and the product called "Verjuice." To make this one had to "*gather crabbes when the kernals turn black and lay them in heaps to sweat and take them into troughs and crush with beetles. Make a bag of coarse hair-cloth and fill it with the crabbes, and press and run the liquor into hogsheads.*"



Cider, however, was the better drink. It had the added virtue of not needing crushed beetles in its recipe, although lumps of old meat are still said to improve its flavour. Some noblemen used to serve it instead of champagne and to-day, cider almost as good as that, can be found in little cider inns tucked away in Hereford and Devon.

One might think that those being the cider counties, they would have the finest orchards. But in fact their apple trees are not always the best, since generally there are not enough trees in any one orchard to make apple growing an economic farm activity. Pests live their lives unhindered, and their number is apparently limitless.

At least 500 varieties of insects can attack one tree if allowed to do so. Looking into the life cycle of some of these pests gives one the impression that they have been evolved purely for their nuisance value to humanity. Think of the Muscle Scale insect for example—whose presence on a tree is a certain sign of neglect. The unfortunate male insect is born without a mouth. As soon as he is capable of doing so he has to mate with the female and dies (of starvation) shortly afterwards. Mama in the meantime settles herself on the bark of an apple tree where she sucks its sap and exudes the scale which gives her the name. Under this protection she lays up to 60 eggs and then, exhausted, crumbles to dust. The eggs winter beneath the scale and the youngsters emerge in apple blossom time ready for another party.





Long ago it was learned how to control pests like these by routine spraying. Now research is cutting fresh ground. For example, synthetic hormones are being sprayed on to trees to prevent premature fruit fall.

Again, it has been found that apples off the tree exude carbon dioxide gas which inhibits ripening, and small amounts of ethane gas which speeds up the ripening process—so now the first gas is to be used to prevent apples over-ripening while in storage, and the second is being tried as a means of ripening them quickly when they are to be marketed.

**A**N APPLE TREE cannot fertilize itself, although it possesses both male and female organs yet, just *any* other apple tree would not suffice: each cell of an apple tree contains, in its nucleus, a fixed number of chromosome rods which have along their lengths factors governing the form and character of the tree and its fruit. Geneticists have found that while some trees have 34 of these in each cell, others have 51, and while the first are compatible with other apple trees, in that they will successfully fertilize each other, the second are incompatible—difficult to cross. So that whenever a 51 type is planted in an orchard there must also be a few of the 34 type to ensure fertilization.

The pollinating agents are well known: honey, bumble and solitary bees. What is perhaps less well known, is that other factors being favourable, the number of bees is an almost direct index of the success of the crop: and someone has calculated that honey bees fertilize £4 million worth of fruit in this country every year. When you consider that the total value of our fruit production is £5½ million, you will see why each bee hive in the country has been estimated at a value of £12 to the nation.

Like London buskers each bee has its own territory—a circle with a radius of about four yards. When a worker locates a good site, *she* takes a bee line to the hive, carrying with her the scent of the nectar. In the hall, so to speak, she performs a dance and the rest of the girls gather round. They smell the nectar, and go forth to locate its source—be it a clover field or an orchard. There they each stake a claim and stick to it, though adjacent territories may overlap a little. In this way there is little chance of apple trees being cross fertilized for they are spread so far apart that there will only be one or two in each pollinator's area.

This didn't support the idea that bees cross fertilize the trees, but it was found that as well as this static population there are wandering apprentices in search of fresh territory, and these itinerants are responsible for cross fertilization.

In practice these studies can be utilised: firstly, by grouping hives together in the centre of an orchard so that the area around is fully "staked out" by the bees, forcing a large number to wander further and further towards the perimeter in search of new territory, cross fertilizing the trees *en route*.

Secondly, if you want bees to fertilize your own particular orchard or clover field, you make a preparation of the flower nectar, put it into sugar syrup, and shutting the bees in the hive, feed them on that alone for a day or two. When they are released they will fly to the trees from which the nectar came, and concentrate their attention on them.

Apple growing then, like farming, is not just a matter of putting stuff in and watching it grow. It is almost as complex a business as

the natural system of which it forms a part. Every orchard, every farmer's field, is a human outpost in a region of innumerable enemies any one of which will take its toll if given an opportunity. A husbandman by his very presence upsets the natural balance of things—that is why there are such things as pests and diseases. Science will probably never be able to rid the countryside of them, for they are nothing more than an attempt by Nature to restore her complex balance.

---

---

“ I Look into Her Eyes . . . ”

*The golden loveliness of waving corn  
When summer's breath is wandering  
in the vale ;*

*The purest music of a master-mind  
As sweeping bows express their surge  
of love ;*

*The utter calmness of a mountain  
tarn ;*

*Wild winter's grandeur or a storm-  
wrenched night :*

*The sun's soft trembling heat in  
scented lanes,*

*Where meadow-sweet and honeysuckle  
breathe ;*

*The cool, chaste freshness of an  
ancient well's*

*Bright waters : deep, deep, deep  
beneath the hill ;*

*The peace a God can give when,  
red as blood,*

*The Eastern Window spreads its  
chancel glow ;*

*These, these, and more, much more  
than these I see,*

*I feel, I hear, I understand ;  
when all*

*My world, my life, my heartaches  
and my sighs*

*Are lost, forgotten, in your love-lit  
eyes.*

G. A. OVER.

## EXPERIMENT 134

by

MARGARET B. ALLEN.



THERE WAS no obvious reason for such excitement. The dimtro-ortho-cresols in all their manifestations were in perfect alphabetical order; the pH meter was working with amazing consistency; the calculating machine had not locked on the 999's and even the Statistical Tables had been extricated from the melée of retorts and condensers. No one would have known that the few torn shreds of wheat haulms protruding from glass vessels had anything to do with the taut atmosphere.

Dr. Helwig's rage was understandable. Three weeks of meticulous measuring of wheat leaves was made useless by the vandalism of some nit wit. He could only imagine that Bulmer had used them as food for his insects.

"Why the H——" said Bulmer, "do you think I'd want to take a few miserable bits of grass from your jars. As anyone who had read the first 10 pages of Wigglesworth would know Ladybirds DON'T EAT GRASS. And in any case the whole point of my experiment is that I starve the b——y things for two or three days, so as to make them ravenous for the green flies."

Dr. Helwig toyed with the remains of experiment 134. "That's typical," he fumed, "Unnatural conditions—I should think a starved ladybird would eat a tintack let alone a half-dead greenfly."

"If you're so keen on natural conditions, Dr. Helwig," said Bulmer, not allowing his fellow scientist to interrupt his struggles with the logarithm tables, "you wouldn't keep your grass in jars."

Mrs. Hunt, who had come in to "do" before they arrived picked up her dustbin and left the great men to their wrangles. She hurried down to the boiler house and the boiler man emptied the dustbin into the fire. "That old grass do stink," he said. Mrs. Hunt made no reply.



# THE SCIENTIFIC DISPOSAL OF REFUSE

Condensed from "Quarry Hill Flats,"

by

L. W. ACKROYD.

THE QUARRY HILL FLATS, comprising some 938 dwellings in an area of  $26\frac{1}{2}$  acres, of which only 14 per cent. is actually built on and having up to eight stories, presented a complex problem for refuse removal. In small blocks of flats, the foul sewage is carried away in the usual water carriage system, and the tin cans in dustbins, etc. In more modern flats, solid waste is disposed of by the dust chute system, the ashes, tins, etc., falling down shutes to containers on the ground floor, which are periodically emptied.

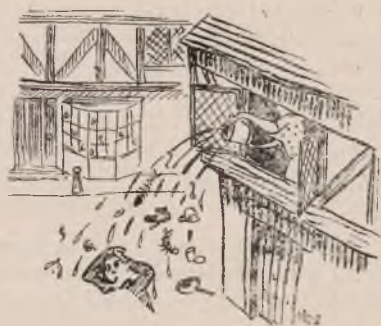
For the Q.H. Flats project, these two systems would require much piping, and hence a French method, the Gorely system was introduced, to handle hygienically solid and liquid household refuse.

The scullery of each flat is fitted with a specially designed sink. Externally, this sink is of the normal type, except for a bell-shaped container of enamelled cast iron, fitted underneath, which is connected to a main vertical sheath inside the wall.

A circular grid surrounds the usual plug in the bottom of the sink. By removing this plug, solid refuse may be dropped into the container below. Waste liquid, such as washing-up waste, is retained in the chamber by a further plug in the branch pipe, between container and main chute, until the container is almost full of water and solids. The release plug is then opened manually, and the solids and liquids pass out into the main

chute, the liquids acting as a flushing agent. The dimensions of plug, container, branch pipe and main chute are such as to handle normal household rubbish. The refuse in the trap then falls under gravity down the main chute into the collecting chamber, one chamber often serving several main chutes. Here the refuse accumulates and is drawn off at the bottom to the refuse disposal station, while surplus liquid in the chamber escapes by an overflow pipe into the common sewer.

Compressed air is used to force the refuse from the receiving tanks into feed tanks which serve the two hydro extractors. These, as their name implies, remove as large amount of liquid from the refuse. The solids are retained in a wire basket which is revolved at high speed, causing the liquid to be thrown outwards into a collecting chamber from where it passes to



the common sewers. When sufficient water has been expelled, the solid refuse is dropped out of the basket

on to a sloping platter where it is finally dried by hot gases from the incinerator or furnace.

After drying, the refuse drops on to the incinerator grate and is burned. The ashes and clinker are transported away by lorry to the tip. Fuel is only required to start up the incinerators. Once they are going, the dry waste acts as fuel.

Heat generated by the incinerator is used to supply hot water to

supplement the need of the communal laundry, which is situated on the first floor of the Gorely station.

The capital cost of the Gorely system is considerably greater than the dust chute system, but over a period of years this is made up for by the decreased cost in labour for refuse disposal and a gratis supply of hot water.



## THE LIGHT FANTASTIC

ACCORDING to the authorities, this University originated in the Yorkshire College of Science. But a stranger might well think that it was really founded by Mr. Arthur Murray (who teaches dancing in a hurry). For, from early morn till dewy eve, the University buildings echo to the strains of that peculiar noise which has been so aptly described as "England's punishment for having lost America." Stamping feet in lectures show that minds are inclined more to the terpsichorean orgies of the Riley-Smith Hall than to the subject under discussion. The main function of the cafeteria queue is to afford practice for those infiltration tactics so necessary in modern dancing. And the mass of humanity which surges round the Union notice-boards at lunch-time provided a golden opportunity for hardening oneself in preparation for the rigours of Saturday evening.

'Ops proper may be divided into four categories. These are the 'op elementary, the 'op primaeval, the 'op semi-civilised, and the 'op expensive. The theory behind each of these is the same; that is, to take a firm grip on a member of the opposite sex, and progress round the room bumping into as many people as possible.

'Ops are held together by gossip, scandal, and catty chit-chat. They are the scene of social success and social failure; of the making of reputations and the loss of reputations; of the origin of life-long friendships and the culmination of short flirtations. They are the basis of University life. Surely, Arthur Murray *did* have something to do with the Yorkshire College of Science.

From an article by C. E. WEST.

# THE ART AND SCIENCE OF PHYSIOTHERAPY

by

RUTH M. DEAKDON

and JOSE HUDSON.



**I**T IS DIFFICULT to determine where Physiotherapy begins and where it ends, for the further a student advances in her training the more does she realise its almost limitless scope.

Besides studying Anatomy, Physiology, Pathology, Medical Electricity, Massage and Gymnastics in the classroom, a considerable amount of time is spent in each department actually applying her knowledge. After a *gentle* introduction to hospital life through the medium of Nursing—six hours per week for three months—simple treatments are undertaken on ward patients only. When, therefore, the student starts treating her own patients in the large department, she feels—in spite of the vigilant eye of the Physiotherapy staff—that she is really getting under way.

There are three principal types of treatment: massage, heat and exercises. The patients fall into two main groups: sufferers from chronic complaints like rheumatic and central nervous lesions and persons with acute complaints like recent fractures, muscle strain, and injuries to peripheral nerves. These patients are referred to the department by the medical staff, who order what treatment is required. Under the supervision of the Physiotherapy staff, the student actually

carries out the treatment and depending on progress, the doctor concerned decides whether treatment should be continued or the patient discharged.

Massage, which is given to a great variety of cases, differs according to the type of illness. If, for example, it is necessary to reduce the excess swelling around a fracture, massage is gentle and localised; for chronic lumbago, on the other hand, fairly deep manipulation covering a wider area is adopted.

Heat is applied in the form of wax-baths for conditions like rheumatoid arthritis, while radiant heat is used when treatment is necessary for diseases affecting larger, single areas of the body.

The aims of exercise are to mobilise joints, increase muscle strength and to improve the circulation and function of the part. Slings and springs are especially useful when support and relaxation of the limbs are necessary. This has been of tremendous help to sufferers from the more serious forms of infantile paralysis.

The electrical department, which is quite separate from the main physiotherapy department, has three treatment rooms devoted to ultra-violet, direct and alternating current and high frequency treatment. Ultra-violet radiation is



given in order to produce vitamin D in the skin and all debilitated patients receive this treatment. In addition, bed-sores and infected wounds are given local irradiation which has a strong sterilizing action.

In the second room both the faradic and galvanic types of electrical treatment are applied. Faradism stimulates those muscles whose nerve-supply is still intact while interrupted galvanism is used for paralysed muscles in order to prevent or minimise muscle-atrophy. Both types of treatment assist in improving the blood-supply.

The high-frequency room is devoted to long and short-wave diathermy. The long-wave variety is used chiefly for cases of osteoarthritis (fixed joints), while short-wave diathermy is given to acute cases. In both instances the local circulation is greatly increased and pain is considerably relieved.

Non-tubercular chest cases are treated by a special gymnastic staff whose working motto is activity.

If it is necessary to drain affected areas of the lungs, specially constructed pillows are used over which a patient is "tipped"; clapping and deep-breathing help the patient to clear his chest. Exercises are then actively indulged in with a view to encourage deep-

breathing, chest movement and postural correction.

The maternity hospital is also visited by the student physiotherapist, who has the opportunity of seeing mothers take part in ante-natal classes organised by the staff. Such exercises assist in strengthening the muscles of the abdominal wall. After the birth of her baby the mother is given a course of exercises which help to improve circulation, promote relaxation and reduce to normal the size and shape of her abdomen. This is directly supervised by the students themselves.

The gymnasium is one of the most active branches of the department. Special exercises have been devised for patients with peculiar disabilities. The classes are organised by members of staff or by students. A general class is taken by a member of the staff, though it is an ordeal which each student must experience at least once. At the end of the morning all patients who are fit take part in such games as non-stop cricket or sit-down football. This is one of the most enjoyable aspects of Physiotherapy from a student's point of view, because at this stage co-operation is complete and the patient is almost ready to resume his normal life.



### Reponse d'Angelique.

*Mon cher ami savant, rabaisse un  
peu ta flamme,  
Car tous ces mots brulants me  
genent bien, tu sais ;  
Les samedis soirs tu chantes d'une  
autre femme—  
Mais c'est pour moi toujours ?  
Non, non, pas ca, le fouet !*

G. A. WAIN.



## TIGER! TIGER!

by

"PIP."



WHEN I was younger, I had a symmetry complex, I insisted, for example, that each of the two vases on the mantelpiece should be placed in exactly symmetrical positions at each end. What is more, a man with a crooked nose offended my eye, and you will appreciate that my efforts to straighten his nose resulted in his attempting to bend mine. I remember how annoyed I was by my uncle's moustaches, which by virtue of his politics grew more rapidly towards the right-hand side. I remember, too, how annoyed he was when on awakening on the morning of the formation of the coalition government, he found the waxed ends neatly (and equally) removed.

The complex went further though. If I drank a cup of tea with my right hand—or to be more correct, if I drank a cup of tea holding the cup in my right hand, for it is most difficult to imbibe tea through the tips of the fingers—I was obliged to drink a second cup held in my left hand. When I walked around a block of houses in a clockwise direction, I *had* to walk back in an anti-clockwise direction, for otherwise I should have felt like a compressed spring. Imagine my difficulty then, in completing a four-lap mile. Either I ran alternate laps in the wrong direction, or if I ran round in the recognised manner, my internal stress increased, and my speed consequently decreased—at a rate inversely proportional to the distance I had run. No one believed that this was the reason for my inability to run a mile.

If, when I was out walking, I saw an acquaintance to whom I winked—with my left eye—I instinctively winked at the next person whom I saw, with my right eye. Thank goodness I was younger then.

Such thoughts as these obviously occurred to Blake, when he wrote:

*"Tiger, tiger burning bright  
In the forests of the night,*

*What immortal hand or eye  
Could frame thy fearful symmetry?"*

It is apparent, on observing the rhyming of the last two lines, that at the time this verse was written, the great detective was not at his best.

As to my fearful symmetry, I am afraid that once again the complex is affecting me. After having mentally tortured myself writing an article forwards, I am faced with the task of writing it backwards. The sense and reason of my work are not seriously affected by this operation.

I would not have bothered you with all this, but I felt that it might be of interest to medical students, and as this *Gryphon* is a Medicals' Number—It's not, you say? Ah well, ———.

# CANOEING—SPORT OF MANY THRILLS

by

E. A. DAWES.

THE SPORT OF CANOEING originated in Britain but until recently had been sadly neglected in spite of our superabundance of fine rivers and extensive network of canals. In contrast, Germany, before the war possessed chains of riverside Youth Hostels, an ideal which our own Youth Hostels Association might emulate, for with the growing number of recruits to canoeing the need becomes more pressing.

Before 1880 the only type of canoe likely to be seen in England was the stout clinker-built, decked-in "Rob-Roy," designed by John Macgregor in the eighteen-sixties and intended for open sea, coastal and river cruising. Then, copying the Indian birch-bark canoe, came the "Canadian," an open 15 foot single or double seater boat made of cedar or mahogany with ash ribs. The draught of no canoe should exceed five inches when fully loaded.

Modern canoes and canoeing received a great filip from the lightweight German "faltboot," which packed into a couple of bags similar to cricket bags. Its one-piece hull of rubberized canvas, with a deck of lighter canvas, is tightly braced on a framework of ash. A cockpit spray-cover, fitting snugly round the occupants' waists, keeps them dry in rain or choppy water. The sailing canoe, exclusive on account of its high cost, carries as much as 100 square feet of sail on a 20 foot mast and may do 20 knots. Some models created by the eminent yacht designer, Uffa Fox, cost £200.

William Bliss, the grand old man of English canoeing, was essentially a rapid river canoer and staunch advocate of the "Canadian," with which he explored the upper reaches of the Teifi, Wye, Wharfe and Eden. In this exhilarating form of canoeing the craft is launched on a turbulent stream. Roaring rapids alternate with placid waters and here you and your canoe must function as one unit; from the ripples and foamings of the waters ahead you must deduce the nature of the rocks and depths and, once decided, hold your course. Indecision means a disaster.



For steerageway the canoe must move either faster or slower than the stream. If in rapids the former is decided upon then a crash may result in the breaking of every timber, or the smashing of every rib. Arduous and painful portages, such as at the Strid on the Wharfe, are often the price you pay for the excitement of a rapid river.

The champion of the folding canoe is, without doubt, Major Raven-Hart, who has paddled all the principal rivers of Europe and has written fascinating books about his tours. His record day's trip covered 90 miles!



The enthusiast has at his disposal an unlimited variety of waters to conquer. Much scope is offered by the canal network of England and a grand round tour from the Thames by the Grand Union Canal to the Trent, thence by the Aire and Calder Navigation to Leeds and on by Preston, the Mersey Canal and the Shropshire Union Canal to the Severn, whence the Kennet and Avon Canal leads to Reading and so back to the Thames, covers almost 900 miles ! The main objection is the squalid industrial areas sometimes traversed, but these are soon left behind.

My own preference is the sea. In the upper reaches of a river I am often seized with a nostalgia for the scent of heather-covered cliffs, the tang of salt spray and the sound of breakers upon the beeches of golden coves. Once you have known the feel of the long gentle swell of a summer's day, or the short steep waves of the nor'easter or the wallowing of a real easterly swell, then never again will quiet waters hold the same charm. There is nothing sweeter than to put into the quiet water of a harbour or sheltered creek at the end of a hectic tussle with wind and wave, but it is just that battle with the elements

which claims my allegiance.



Coastal canoeing can be dangerous without a knowledge of tides and local conditions. The tide races off certain headlands must be studied and approached at slack water wherever possible. Such a study enabled us last summer to round Start Point, on the South Devon coast, while a 20-foot motor launch received such a dusting in the race that she had perforce to put about ! Cattell has compared the rounding of this particular headland in a small craft to a larger vessel's rounding the Horn.

"There is nothing...half so much worth doing as simply messing about in boats." Kenneth Grahame's oft quoted words express the feeling of many small boat sailors, and if this account has opened up new horizons or stirred up latent racial tendencies in the most landlubberly of readers then it will have served its purpose.

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# TRENDS IN CATTLE BREEDING

by

ALEC. I. TAYLOR.

ONE OF BRITAIN'S MOST IMPORTANT Agricultural specialisations is the breeding of both beef and dairy cattle. Our future breeding policy should be directed towards the production of high milk yielding strains.

Unfortunately, in the past, indiscriminate cross breeding has occurred with the result that we have now a large number of undesirable cattle in our herds.

Many farmers still keep "flying herds," and they are not always to be blamed for the low standard of their cattle. These farmers buy in-calf, or newly calfed cows, -and it is the people who breed these animals who are often at fault. At present there is a Bull Registering Regulation in force by which bull calves are inspected at 10 months old and are selected for future breeding. Such a procedure is entirely unsatisfactory, as no one can judge a bull's qualities by its external appearance at that age. If the bull's dam has been milk recorded over a period of lactations then there is some evidence on which to judge the bull's potentialities. These factors are mainly responsible for the deterioration of the stock.

So large is the number of undesirable cattle that to replace them would be impossible due to lack of suitable animals. To overcome this difficulty, grading up by "proven sires" is the solution. By grading up we understand that when a line of "scrub" cattle is mated for generations with superior pure-bred bulls the standard of the herd is greatly improved. The

lengthy nature of the process differentiates it from cross-breeding. As a result of continuously, and only continuously, using superior bulls, the cows gradually acquire the excellent characteristics carried by these sires, including high milk yielding capacity and high butterfat content. When a bull is shown to be carrying these factors it is called a "proven sire." The first essential of a bull is that its dam produced high milk yields at each lactation. Even if the dam is of such quality, it is not true to certify that the bull will produce high milk yielding daughters. Sires are only proven after their daughters have been milk recorded for at least one

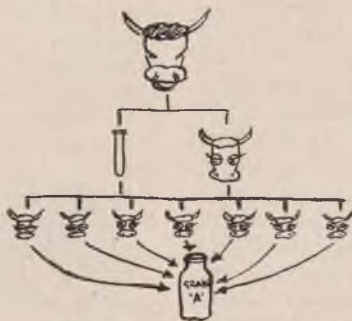


lactation each. In the case of the first daughter alone it will be over three years from birth before any records are available and by this time the bull will be five years old. Hence it will be appreciated that because proving a sire takes a comparatively long time these bulls are relatively few in number to-day. Due to their scarcity, proven sires command very high prices in the markets and this puts them beyond the reach of the small farmers, who produce the bulk of our milk.

This is where artificial insemination is of special significance.

Although still in its infancy, it provides a means whereby many farmers are able to mate their cattle with proven sires hitherto out of their reach. Far more cattle can be served by each bull by means of artificial insemination than under natural conditions. In the case of the bull each ejaculum can be diluted to a certain limit with a result that up to 15 cows may be "served." Methods of storing and transporting the semen have been, and are still being devised so that in the future it should be possible to supply even the most isolated places.

By using artificial insemination it would be possible to have a nucleus of proven sires which would provide all the male breeding stock for the various breeds in this country. The breeding, selection and maintenance of these sires could then be in the hands of a few specialists. The possibilities of grading up cattle and increasing the numbers of the improved cattle, afforded by artificial insemination, would result in a great increase in the quantities of milk and its products produced, thus improving Britain's economic position in the future.



### Illusion.

*Houses white and red and brown  
Stare with empty, coloured eyes  
At the mud beneath the stars.  
Beetle-like, pathetic cars  
Trail an endless line of lies  
Through the nothingness of town.  
These are nought, and nothing prove,  
These which dare to crawl or stand.  
Is there neither shame nor fear,  
Nor the truth-beat on the eav,  
One great boom through the unscanned?  
Who so mad that dares to love?*

HAZEL M. TOWNSON.



# TEXTILE TINTS

by

F. M. SMITH.



THE NAME "aniline dyes" is often taken as synonymous with all synthetic dyes, an idea resulting from the manufacture of the first dyestuff Mauve from aniline in 1859 by Sir William Henry Perkin and the subsequent wide use of this chemical for dyes. Only a limited number are now made from aniline itself, but coal tar is the starting product for intermediate chemicals used for the manufacture of all the dyes used for colouring textiles, with the exception of two natural colouring materials.

The "red woods" of Brazil still give us the haematein which is applied to the wool as Logwood to give a good black. The Woad which was used on men's evening suits has been superseded by faster manufactured blacks, whilst the famous Indigo is now completely made by synthesis to give a much more reliable product. You will have seen the other natural dyestuff on the stripe of the postman's trousers, on riding habits and on certain ceremonial dress; it is extracted, painlessly, from the female of the insect *Coccus cacti* and is Cochineal.

And now we are going to be disappointed; there is not going to be a recipe for the dyeing of that old black coat of yours a delicate sapphire blue. To start: it is a faded black and it is very difficult to attempt the stripping of dyed material so that an even effect is produced. If it had been a light fawn we might have covered that up with a patriotic navy blue, but then, it might shrink out of recognition in the attempt. For, let it be understood, dyeing is not just as simple as those advertisements make you believe—dip it in and take it out again.... It is an art which very few students from this University would claim to have thoroughly mastered.

He should know what dye to use on any material, and there are over ten distinct types including wool, cotton, silk, acetate rayon and nylon, each requiring special, chemically and physically suitable dyestuffs. It is, however, safe to say that out of the thousands of commercial dyestuffs, any required shade could be produced on any textile material; but wait a minute, what about fastness. That bright blue bathing suit must be fast to salt water, those woollen jumpers fast to perspiration and that striped pair of socks fast to washing; and they must all be fast to light. There are on the market fabrics for furnishings and clothing of guaranteed fastness and these are certain to represent the latest achievements of the research chemist to produce good fast dyes at reasonable prices. For the sake of cheapness some clothes have dyes

which come off in the first wash and some curtains have dyes which fade rapidly in the light, but they look all right when you buy them.

**D**URING THE WAR when dyestuffs were in short supply, dyehouses were using as many as ten different dyes on one material for the production of the correct shade of the all familiar khaki, Air Force blue or navy blue. This probably accounts for the true story of the girl who came out in a rash every time her airman boy-friend came on leave; she was affected by the dyes used on his tunic. The validity of the "aniline black" story is not so strong. There used to be exported to India in years gone by, black cotton cloth dyed with a black derived direct from aniline. This was cheap and accepted by the consumers; the "test" of a good sample was that it rubbed off black on to a piece of white cotton. Now some adventurous manufacturer decided to replace this non-fast-to-rubbing black by a newer and better fast one, but could not sell his goods as his worthy customers could not rub it off. We must remember, therefore, that the buyers' demands must always be considered, whether it be for cheapness or fastness.

When cellulose acetate or "artificial silk" was first put on the market, the dyes on it—the *Ionamines*—were the direct result of work carried out in this University; developments from that idea are still used to-day. "Still used" may sound inappropriate since artificial silk has only been on the market since 1922; but advancements in the invention of new dyestuffs is rapid and, alas, now out of the hands of the Universities and into the care of the large manufacturers who have vast research laboratories of their own.

We cannot let this opportunity pass without a reference to two of the renowned professors of Colour Chemistry and Dyeing. Professor A. G. Perkin was a relative of the famous William Henry Perkin and had the same keen insight into the methods of chemical research. Incidentally, William Henry discovered his Mauve accidentally in an attempt to prepare synthetic quinine; this fact is a source of encouragement to all research students. A specimen of the actual Mauve first produced can be seen in the Colour Chemistry Museum. Professor F. M. Rowe will always be associated with his monumental work on the "Colour Index." Prior to 1924 there was no book of reference on dyestuffs and the compilation of a list of all the known dyes, over one thousand in all, with their formulae, methods of preparation and properties was accomplished mainly by the energies of Professor Rowe. The book is still of inestimable value but a modern edition is being compiled for publication at a date probably so far ahead that it will be immediately out of date.

Some of the most innocent looking colours bear the most extraordinary titles: not only are the commercial names startling, *Indanthrene Brilliant Pink R*, *Monastral Fast Green GS*, etc., but the chemical names are quite unpronounceable to the uninitiated. Thus *Soledon Blue 2RC*, a fast vat dye for wool or cotton, rejoices in the name of 3:3' - *dichlorodianthra-tetrahydroquinoneazine tetraester*.

So next time the landlady asks you how you like her home-dyed curtains, you can tell her it is not always as easy as that and in any case they will probably fade!

# AN APPROACH TO FLYING TRAINING



by

THE UNIVERSITY AIR SQUADRON.

**P**REPARATION ON THE GROUND before flight is so essential that the more experienced a pilot becomes, the more meticulously does he think things out before leaving the ground. One might imagine that the greater the pilot's experience, the less the necessity for such preparation. On the surface, this would appear to be so, but the fact is that the greater his experience, the quicker he is able to make the plan of campaign, giving the impression of less work, but all the time he is drawing from a stock of mental data which assists him in its quick formulation. He has decided what he will do in any of the emergencies he is likely to encounter.

He has visualised exactly the territory over which he is about to fly by careful study of the maps on the ground. He has worked out alternative routes in the event of adverse weather conditions, and a number of other similar matters, so that on encountering difficulty he follows his preconceived plan, which has been quietly thought out on the ground, so reducing the number of decisions and mental calculations which he would otherwise have to make under conditions of stress.

He has made these preparations because he appreciates the psychological fact that under stress his thinking or conscious brain becomes less efficient.

In time, he accumulates a mass of sub-conscious data, which he can bring into play automatically with a minimum of conscious effort. Such data stands him in very good stead in an emergency, but it must be remembered that this fund of sub-conscious data was once conscious thought stored away for future reference.

The gravamen of the foregoing argument is that the more a pilot can learn on the ground, the greater is his stock of reliable data upon which he can call in moments of stress, which make him a better and safer pilot.

Consider the cadet pilot and his early training.

He is emotionally stressed, in one or several of many forms according to his temperament. He may be thrilled, nervous, over or under confident of his ability to master his instruction, any of which constitutes mental stress.

It is with the pupil's mind in this condition that the instructor is faced with the problem of getting the pupil's brain to work as efficiently as possible.



Even in advanced stages of instruction, there is still an element of stress, due to anxiety to please the instructor in the air. It is, therefore, this emotional stress, in its various forms, which handicaps the pupil's ability to assimilate the vital instruction.

The practical solution lies in analysing the whole of the instruction usually given in the air, and determining how much can be taught either partially or completely on the ground in conditions of no stress, building up such store of instruction that when he is in the air he is able to draw upon this, so reducing the conscious brain effort to the minimum.

His brain is then prepared, he knows exactly what to expect so that in the air his mind is not taxed by the acceptance of entirely new ideas. The air lesson then becomes a practical demonstration of something which he already understands. After an air lesson it should be consolidated by both reading and discussion with the instructor. Then, after he knows exactly what to do, it remains only to practise until he achieves physical proficiency.

It is very true that the unknown fear is greater than the known fear, and by prompting reading, discussion lectures and the like, the unknown fears, or rather the unknown difficulties, which a pupil may have are removed before he takes the air, and is a relief of emotional stress.

This enables the pupil to grasp the instruction quicker, and an instructor can concentrate on the finer points of polish and in given time a much better pilot is produced.

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### Supplique.

*Mon fils,  
Prends ton fusil  
Et descends dans la plaine  
Là, où le torrent jaillit  
Entre les deux collines,  
Couche-toi sous les taillis  
Et guette !  
Mon fils,  
Prends ton fusil le meilleur  
Et vise-bien !  
Prends le fusil de tes frères, morts,  
Baise la crosse d'ebène et d'or,  
Et que ta main  
Ne tremble pas !*

*O toi ! le plus jeune et le plus beau  
De mes enfants,  
Toi qui grandis  
Dans l'esclavage et la torture,  
Au bivouac et à la dure,  
Pose ta tête, sur mon sein,  
Et puis va t'en, là,  
Où le torrent  
Jaillit entre les deux collines.*

*Tous mes enfants sont morts  
Sauf toi,  
Le dernier et le plus cher,  
Je n'ai que toi  
Pour me défendre  
Et me délivrer  
Pour délier mes bras  
Jadis tendus en ailes,  
A la proue des trirèmes,  
Mes bras de blanc Paros  
Charges de chaînes,  
Mon corps ployé.*

S. J. COLLIER.

## THE HORNS

by

PATRICIA BROOMHALL.

NICHOLAS POMFRET looked into the mirror. He gasped and passed a hand over his head. Yes! This was no illusion!

There were two small brown horns, one on either side of his head, coily protruding from his hair.

Then he remembered vaguely, lurid happenings of the night before—peculiarly tasting lemonade, the feeling of euphoria, the fat blonde on his knee, and last, oh so clearly—the Union cat.

He'd kicked it downstairs—and he'd always been so kind to cats!

Now you may wonder why Nicholas was so perturbed. You see, he'd always been a steady boy, staunchly Methodist; teetotal, non-swearing, unmoved by the opposite sex. He was a very dull dog. So when he saw his horns and thought of the night before, he groaned—but was not surprised. For he had fallen from grace, and was one of the Devil's Brigade.

That day he slunk miserably about the Union (which until then he had rarely entered) too afraid to show his horns in a lecture theatre. His friends teased him unmercifully, secretly congratulating each other on the results of their cleverness in dosing his lemonade with gin! Nicholas drearily abandoned himself to a life of sin. He drank coffee in the "Caf." He swore. He winked at pretty girls, and, to tell the truth, he thoroughly enjoyed himself.

But his perturbed landlady made him promise to visit the local

Infirmary. He entered the Casualty Dept., but was stopped by a white-coated man, who entered his name, address, age and occupation on a card. He then directed Nicholas to join a large queue which stretched almost out of view.

Gradually the queue moved forwards and Nicholas found himself facing a small, bright eyed doctor perched on a high stool. The doctor took his card, looked at it, then vaguely waved him into another room.

Nicholas waited half an hour. A nurse entered and gave him a bottle. After twenty minutes a tall doctor entered, followed by Sister. He gravely examined the horns, and went away.

Nicholas waited for forty minutes. The doctor returned, followed by one with a moustache. He, too, gravely examined the horns, then told Nicholas that he must be admitted for observation.

Half an hour later Nicholas was lying in bed in a very large ward, gleefully watching a pretty nurse. His enjoyment was cut short by the arrival of a large hearty medical student, who proceeded to question him. After ten minutes the student wrote down: "*Complaint and Duration: two swellings, 6" length, ½" diam., on either side mid. line arising from the frontal bones—for a month.*" and retired, much puzzled.

Next to visit Nicholas was an elderly looking man, followed by two twittering doctors and thirty

students. These all examined the horns, talked about secondary deposits and sebaceous horns, then left.

Next day Nicholas had an operation. Although performed by an eminent brain surgeon, it was unsuccessful. The horns blunted all the instruments!

So he was transferred to another ward for X-ray therapy. The first person to visit him was the large hearty medical student, who sighed heavily, then proceeded to examine him. He took his pulse, pulled his eyelids down, thumped his chest, dug healthy paws deep into Nicholas's abdomen, hit him with rubber hammers and pricked him with pins. Then he left, looking more bewildered than ever, and sadly shaking his head.

One day, as Nicholas was sitting in bed, his horns still brightly defying the medical profession, a university friend came to visit him, bringing with him a cup of holy water to sprinkle on the horns. This he did. There was a puff of green smoke—and the horns had gone!

And so Nicholas returned to his old sober way of life. But to tell

the truth he felt a little unhappy, although he was no longer one of the Devil's Boon Companions.

One evening, returning from a serious debate in the Union, he



heard the dreamy sound of a waltz drifting up from the basement, and he nostalgically remembered that it was the Saturday Night hop. Then he saw the Union cat coming towards him—its tail in the air, ready to be petted—he was always kind to cats!

He was suddenly filled with wild resentment against his dull, good, life and with a longing for those gay days when he wore horns, and was wicked, so—

"Damn the bloody cat," he shouted, and kicked it down the stairs!

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# USEFUL KNOWLEDGE ABOUT TECHNOLOGY

by

ALFRED F. BARKER

Portland (Victoria) Australia.

ON GLANCING OVER the back numbers of *The Gryphon* I quite accidentally came across the "Fresher's Guide to the University," in which, under the above heading, I read "But one thing we learn—to make plenty of money."

I very much resent the implication that Technology means "money" rather than "service," and that a University magazine should give credence to this outlook. It is terribly difficult in this work-a-day world to get any recognition of greatness other than financial standing and it seems to me to be one of the University's functions to develop an outlook on the greatness of man and mankind based on something more important than money.

The further implication in the article that Technology has nothing to do with education calls for a severe reprimand. Speaking for Textiles I can say that during my tenure of the Chair of Textiles Industries I always had at the back of my mind the educational value of the Textile Industries and the second work I produced was definitely written "in terms of the student and not of the industry." It may surprise many of your readers to learn that after the last war the father of one of my students who had died, after a lingering illness, from wounds received in the first World War, came to thank me for the three glorious years his son had spent in my department.



I remember vividly when myself a student (although already a Headmaster) I discovered Euclid Book II and Quadratic Equations streaming out of Cloth Structure; and I could well believe that had not Egypt evolved Trigonometry from Land Surveying it would have been evolved from Cloth Structure.

Along the lines of Physics and Chemistry I need only refer to the achievements of Professors Astbury and Speakman; and be it noted.

neither of these men had done anything remarkable until they came under the stimulus of Technology. And I venture to suggest that financial gain was not the stimulus which carried them forward to success.

Then as illustrative of other lines of thought and work arising from Textile Technology I may cite my own recent discoveries of the influence of Greece in the North of England. All the words referring to sheep have a Scandinavian origin and ultimately go back to Greek : not a single one has a Latin origin. And it is evident that our so-called Celtic Crosses had not a Celtic origin but likewise may be referred back to the Greek Church almost invariably carrying a Greek Cross and never a Crucified Saviour.

Our pre-Norman history has come down to us from Roman Monasticism and the history of Northern Britain should be re-written and due credit given to the Greek influence which came to us through Scandinavia.

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### My Brother's Keeper.

*He lost his integrity at seventeen  
To a girl without a fortune, and decided  
To forget now about superseding Shakespeare  
Among his country's gods, and turned in anger  
His adolescent rump upon the sun,  
And filed his spirit on an office shelf.*

*A few years passed, he learned to play at darts  
And think he was happy in pubs, with a little  
Conversation among talking faces. When  
The getting of children became more expensive  
(Each one dearer than the last), he took  
To mild flirtations with the office staff.*

*I met him to-day, middle aged and frayed  
Fumbling the books on stalls in Holborn Market.  
I tried not to see him, but he stopped me, saying  
Something about having rediscovered Lawrence,  
His awful eyes quite flashing with excitement,  
And something about taking up writing again  
(All his experience behind him), seriously.*

*And after all, it's not my tragedy.*

MOLLIE HERBERT.

# A THOUSAND CENTURIES OF GLAMOUR

by

E. C. SMITH.



**G**LAMOUR is on its way out. The cult of romantic love which must have started about eight centuries ago has passed the peak of its popularity, and began a steady decline at the beginning of the twentieth century. You probably haven't been aware of the change, and may desire to throw Frank Sinatra in my teeth, as an example of a romantic in our modern world. Well, I'm going to throw him straight back, because he is a functionalist and not a romantic at all. The purpose and effect of his singing are strictly biological and are in no way to be confused with the effects of such songs as "Greensleeves" and "Your Tiny Hand is Frozen," both of which are romantic and merely serve to give the lady a leg up in the gentleman's eyes.

Frankie is a cog in the wheel of irrevocable Evolution, which is now trundling mercilessly towards a worldwide debunking of glamorous womanhood, and also the Atomic War. I mention the latter because I think the two are correlated. Anyway, since both are coming we may as well be prepared for one of them, which is the reason for my writing this article.

Have women always been glamorous, incomprehensible, and mysterious? No. Time was, men, when the Eternal Feminine was no more of a problem than the Eternal Flea; in the days of Woad you could catch 'em or you couldn't catch 'em, and that was all there was to it. None of this "mind your hair" business.

With the advent of the Knights of the Round Table, however, the situation changed entirely. These gentlemen, no doubt egged on by Arthur who probably had a darned good idea of how Guinevere was behaving, believed that ladies should be kept in towers and serenaded. This treatment, carried on over a number of years, had the perfectly natural effect of making the poor things cantankerous and nervy, and more and more difficult to please, which increased the difficulties of the situation. Moreover, as time went by and they realised the increasing possibilities of the idea, the ladies formed the first Sewinge Clubbe, partly to fill in time, and partly to fool the men into making the pedestal a bit higher, by wearing clothes.

Hitherto they hadn't bothered much about what covered the Body Beautiful, and no one had been any the worse, but now they found that in order to attract the worshipping male into something more concrete than a serenade, they must *hide*, and they began in no uncertain fashion, leaving only their faces visible. This was all right for a century or so, until certain of the men tailors who had got in on the



racket had the idea that the rest of the males might be seeing through the bluff, and for this reason began to reveal the ladies' chests. The women resented this, and you can trace a changing neckline right up to the present day, the fight between a woman's natural modesty and a man's need of a permanent job. Things were pretty desperate when the last despairing effort came in 1920, when the dress designers had to uncover the legs in order to do something different. But now the cunning little hussies realise that they've had it. What other reason could there be for their refusal to wear long skirts? They have become disunited; they realise that the men have finally seen through the deception. In any case they must have been pretty sick of the whole thing, and who can blame them?

Glamour is on its way out, and the effects are going to be enormous.

About 2947, women will be giving birth to more boys than girls, because they will think less of the affairs of their own sex during confinement, and you know what a mother's thinking can do to an unborn baby!

Table manners will just disappear. The motive behind 90% of the world's art, literature, and music will have gone. Women will stop wearing lipstick, perfume, high heeled shoes and mudpacks. By the time the basic comes back men will have stopped taking them out in cars and on the backs of motor cycles. In their new-found freedom, women will probably take up mathematics and engineering, and will refuse to speak to any man who can't integrate an inverse hyperbolic function or operate a Charley valve.

Chaps, its going to be horrible. But don't worry, it won't last—it can't. Eight centuries later the whole thing will start all over again.

## “ Chuckle with Chickweed ”

by

JOHN LYTH.

Pub. Henry Walker (1/6).

MR. LYTH has drawn an entertaining narrative and a lively setting for his dialect stories. Obediah Chickweed is an old tyke who tells a fine tale as he sups his “yal” in the “Hare and Hounds.” A chance remark by “yan o’tlads” sets him off and he ends with a humorous “Good neet, lads, an’ tak yer humberellas ti bed wi’ ya, i’ kease it cums on ti’ raain afoore mornin’.”

North-east Yorkshire dialect is well known by the author and his transcription is remarkably consistent. Fortunately, too, he is not attempting to demonstrate his command of obscure dialect words, but to imitate in prose the normal conversation of dialect speakers. One does not need to be a dialect expert therefore,

to be able to “Chuckle with Chickweed.”

Less happy is the occasional lapse into what seems to be the dialect writer's favourite failing—the little homily on the story ending with a brace of proverbial sayings of great wisdom. Possibly this merely reflects a tendency to generalisation and philosophising on the part of rustic story-tellers like “Dab” Chickweed. Tykes of my acquaintance usually find tale-telling such thirsty work that the proverbs at the end remain for ever unspoken. This, I take to be a blessing.

The merits of this slim volume remain good, however; knowledge of the dialects and their speakers coupled with skill in portraying them.

E.P.C.



# I'LL RING YOU TO-NIGHT

A description of  
how the telephone works

by

“DECIBEL.”

**H**OW MANY PEOPLE say “I’ll ring you to-night,” during the day, without having any idea of just what is entailed in making a telephone call? It is the purpose of this article to give a brief, and necessarily sketchy outline of the modern telephone system, and to describe the sequence of operations involved in the making of a ‘phone call.

Each subscriber rents for his own exclusive use an instrument comprising a transmitter—for converting sound waves into electrical waves, a receiver—for converting electrical waves into sound waves, a bell to call the attention of the subscriber, a dial for generating electrical impulses and several other pieces of electrical apparatus. He also rents a pair of wires, carried on overhead poles, underground cable, or both.

At the exchange the subscriber rents a line switch, which on lifting the receiver from its rest connects the telephone to the wires, and through to the main switching gear, and also to a meter, like a cycle mileometre, which records the number of completed calls.

The most important parts of the main switching gear—for our purpose—are the selectors. Each selector consists of a bank of ten levels, each level having ten little contact points. The whole bank is curved in an arc so that a wiper arm, carrying another contact and pivoted at the centre of the arc, can sweep over the area of contact in the bank. This wiper can be raised up to any level in addition to sweeping horizontally over the contacts.

There will be thousands of these selector units in the Leeds automatic exchange

With a five digit numbering system there are four classes of selectors, 1st, 2nd, 3rd and final. The sets of contacts which form the *bank* of the “first group” selector are wired up to the contacts on the *wiper arm* of the second group selectors; the contacts on the bank of the second group selectors are wired to the wiper arm of the third group selector. The contacts in the bank of the third group are connected to the wiper arm of the fourth group selector. The contact in the fourth group selector-bank are connected to individual subscriber lines, and not to the selectors or to other groups.

**L**ET US SUPPOSE a Leeds subscriber wishes to obtain Leeds 26457. The caller lifts the receiver, which completes a circuit, causing the line switch to close and connect the calling instrument to the first group selectors from which dialling tone is sent back to the dialler. As soon as the caller hears this tone he dials 2. This sends two electrical impulses down the wire to the first selector and by causing an electro-

magnet to operate twice, lifts the wiper arm up to the second level in the bank. The wiper arm then sweeps across the contacts on the level automatically until it rests on the contacts of a disengaged line to the second group selectors. By this time the caller is ready to dial the second digit 6. This causes six impulses to be transmitted and raises the wiper arm of the second group selector to the six level. Again the wiper arm automatically hunts round for disengaged lines to the third group. The same happens when the third digit is dialled. The caller is now connected through to the final circuit. On dialling 5 the wiper arm of this final group selector is raised to the fifth level but does not sweep round, instead remaining outside the bank. When the final digit 7 is dialled the wiper arm sweeps round to the seventh contact, which is connected directly to the subscriber 26457. If this number is not engaged the bell rings automatically and when Leeds 26457 lifts his receiver the call will be completed and metered. Upon the two subscribers hanging up, the apparatus returns to normal. If the number required is engaged a distinctive tone is sent back to the caller.

For calls to places outside the Leeds Automatic Telephone Area a manual operation has to be called in—but that is another story.

*(A similar article, "I'll write you To-night," has been returned with thanks to its Medical Student author.—ED.).*

*Awmacks*

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## “ATHALIE . . .” A Review

by

“NEANDER.”

NOWHERE, one imagines, is the battle for culture more furiously waged than at the meeting at which Theatre Group decides upon its Autumn Production. Dramatists, alive, dead or merely noribund, are balanced one against the other. Shaw is contrasted against Shadwell, Congreve against Coward and Priestley against Pirandello. There are, inevitably, sharp division amongst the judges. There are those who prefer not to advance too far ahead of public taste. These, the “Moderates,” with a keen eye on the box-office and the Group’s precarious finances, are suspicious of plays lying outside the established canon of the University theatre. Culture, they feel, should be tempered with Caution. Their formula is a little Shakespeare, perhaps an essay into the lesser-known reaches of Jonson, or, greatly daring, a dash of Dryden. On the other side are the “Idealists,” who, refusing to temporise with the mere groundlings, are all for turning the Riley Smith Hall into a combination of the Attic Theatre, the Comedie Française and the Mercury. Not for these are the quiet foothills of Parnassus, they are all for the bare, austere peak itself, and if the audience, panting in those rarefied heights, cries for mercy, our “Idealists” have only the fanatic’s contempt for those of lesser stamina.

It would be difficult to decide which if these groups chose “Athalie” as the 1947 production. The play seems to combine within itself all the elements necessary for a resounding flop. It is “Classical,” based on a Biblical story, a translation in verse, it has choruses, beards and no love interest. A “natural” for some aspiring producer on the Third Programme, one felt, but hardly at home here in amongst the Philistines, to whom the Bible is an obscure volume associated with the pains of childhood, and Racine an empty name. Idealism, one thought, could hardly go further to shake hands with foolhardiness. Yet more than one thousand eight hundred people were sufficiently curious to sniff the heady wine of French Classical Drama and pay for the privilege. By box-office standards the play was a success.

And artistically? Well, one naturally dislikes disagreeing with so stern a critic as the box-office, yet surely there were many flaws in the production, and one could not help comparing it with the wonderful “Agamemnon” of last year.

Mr. Wilson Knight brought to “Athalie” the same deep understanding and imaginative insight into poetic drama and the same flair for ritual and gesture that characterised his production of “Agamemnon.” Against a set (designed by Miss Irene Coultous) which adequately captured the atmosphere of an old Jewish temple, he was able to deploy his main characters and his chorus in telling groups about the stage. Rejoicing in the huge area of acting space, he filled the stage with soldiers, priests and citizens, who swirled in masses of colour and then froze into formal

groups, so that the scene became static, underlining all the more effectively the passion and hate of the play.

Mr. T. N. S. Lennam as Joad, the High Priest of Jehovah who strives to drive out the usurper Athalie, was none too comfortable in the First Act. Priestly wrath became senile bad temper and he rated his enemies like an irascible schoolmaster. But in the Second Act he found himself, and became, in truth, the High Priest who, conscious of his God and his duty, allows nothing to stand before his hatred of Athalie and his determination that she shall perish.

Athalie is a Queen conceived in the Heroic tradition from the few hints that Racine found in the Book of Kings. Cruel, remorseless and with a truly Old Testament sense of self-preservation, yet she makes the blunder of not destroying Joad and his priests whilst she has time and opportunity. Face to face with Eliacin, the boy destined to supplant her, she allows her suppressed humanity to be touched by the boy's innocence. This is one of the most moving moments of the play, and Miss Heather Mill showed us the conscience underlying a crown and the sense of compassion behind the cruelty. She was not, unfortunately, able to maintain the tragic intensity the part demands, nor has she the physical make-up so necessary for playing tragic roles in Classical Drama. But in her final scene she rallied all her forces, triumphed over all difficulties and in one brilliantly delivered speech quitted all criticism. One will not soon forget her great exit as, screaming her curses, she sweeps out to her death  
.....

Josabeth was finely and beautifully played by Miss Rita Allen, who, taking this small part, endowed it with tenderness and sincerity, giving us the most completely satisfying performance of the evening. Miss Elfieda Happold's Eliacin was touching and naive.

Abner, the Queen's general, was played with just the right amount of soldierly obtuseness by Mr. Richard Gendall. Mr. W. E. Jones' Mathan betrayed nothing of the subtlety and suavity one felt the High Priest of Baal should possess. From behind the throne, Nabal (Mr. Jon Rummelsburg), kept an alert and cynical eye on the proceedings.

The Men's Chorus were in good voice, although it was here that Mr. Kenneth Muir's translation was weakest, for he left the stiffly competent blank verse he had employed for the rest of the play and fell into an emasculated and flaccid rhyming verse. Perhaps it was a consciousness of this which made the Women's Chorus so ragged and weak, or perhaps it was the blue nightgowns they wore.

Costumes, with one or two exceptions, were remarkably well designed by Miss Irene Coultous and executed by Miss Joyce Minns. Dr. Edward Allam's music, specially composed for the production, was vanquished after a brave and unavailing struggle with an orchestra in which anarchy triumphed over harmony.

# HALL and SOCIETY NOTES

## DEVONSHIRE HALL.

May we extend, through the pages of *The Gryphon*, a warm welcome to our new Warden, Commander D. H. Evans, and his wife. We hope that their stay in Devonshire Hall will be long and enjoyable.

The Autumn Term has seen an increase in our numbers, and some of the Freshmen now live in Ridgeway House—a place of considerable size, with extensive and well-kept gardens, in Cumberland Road. Apart from true "Freshmen," many former Devon. men have now returned from the Services.

The customary and time-honoured activities of Hall have been particularly successful this term. We have held two informal Hops, playreadings, and musical evenings, with either gramophone records or items by men of Hall. Carol-singing has been, if anything, heartier than ever (if anything). Numerous ex-Servicemen, voices matured by long hours on the barrack-square, have exalted the even tenor of our choir to new heights, and have thrilled (we hope) the inmates of Oxley and Weetwood; we went singing to these places too.

The term reached its social climax on Friday, December 12th, when we held our Christmas Dance. This was its usual success, and was followed up on the Monday after by a Smoking Concert. This was the second edition of an entertainment which threatens to become an annual event.

## WOODSLEY HALL.

The Social-Dance last term was a great success.

It was of the winter (crazy) variety, yet better and brighter than ever before. The decorations were gay and gaudy, the company was never more elegant and Matron even surpassed her already famous standards of catering.

A new feature was a recital by the hostel glee-singers. They performed (happy word) a work specially composed for them by Alan Over, Master of the Hall's Musick: *The Woodsley Song*. These stirring lines will be recalled:—

*We're the bright boys,  
Stay-out-at-night-boys,  
We're the Fish-Filled-Freaks of the  
famous Woodsley Hall.*

nor are they ever likely to be forgotten.

A more popular form of entertainment was provided by Thomas and Wells, exponents of musical cubism on a piano. They, too, played very original compositions.

G.A.W.

## LEEDS UNIVERSITY CONSERVATIVE and UNIONIST ASSOCIATION.

Last term saw a considerable increase in the numbers of the Association, but there must be many more students who, though they support the Conservative party, have not yet joined us, and it is our earnest hope that they will come forward immediately, for only by thus increasing our strength can we foster the Conservative cause in this University and play the fullest possible part in the political life of the Union. There are unique opportunities for political education in a university and we are making full use of them. This term we propose to study four topics of supreme importance, the Empire, agricultural policy, taxation and the Conservative alternative to Marxism, by means of addresses from outside speakers and discussion groups. Apart from this, the Association hopes to debate with the other Union political parties and to discuss current political affairs.

By these activities we can show the virility of Tory principles and correct the misapprehension that students in this University are predominantly Socialist. Finally, we hope that all our members, and many hundreds of undergraduates besides, may not be too fatigued after the vacation to attend the Conservative Association's Social, to be held on Saturday, Jan. 10th.

J.C.F.F.

## DEBATING SOCIETY.

After a good start with the Speaking Contest, the activities of last term were marked throughout by poor attendances.

Miss Spink, Professor Harvey and Professor Ruse, acting as judges, awarded prizes for the best speeches to Miss Joyce Berridge and Miss Katherine Mills ("It is cruelty to swot a fly"), and to Messrs. Over, Berwin, Khusro and Khan.

The first debate of the term was opened by Mr. Chesner, who proposed



"That Open-air Political Meetings enhance the Dignity of the Union." Although well opposed by Mr. Khushro, the Motion was carried (27 to 15). There was much discussion over a Resolution tabled by Lyddon Hall—"That this University should be made Residential." The Motion was carried by 26 against 6 votes, Mr. Epstein and Mr. Stead spoke for the Union. On the 11th November, the U.N.S.A. Sub-Committee organised a debate on the Motion "That the Right of Veto by the Great Powers should be abolished." Although only 35 students were present, a lively discussion took place, and the Motion was defeated (12 for, 17 against, 6 abstentions). An amendment to leave the question of the Veto in the hands of an International Court of Justice was heavily defeated.

On 25th November, Mr. C. E. West and Miss M. Hetherington tried unsuccessfully to abolish Union Formal Dances. Mr. Berwin and Miss Joyce Berridge spoke for the Opposition, and there were several witty speeches from the Floor. The Bill was rejected, 11 "ayes" 39 "no's," and 4 abstentions.

The programme this term commences with a Parliamentary Debate on Tuesday, January 27th. His Majesty's Opposition will propose a Vote of Censure on the present Government; this debate will be run on Parliamentary procedure and, if there is enough support, it will be the fore-runner of similar debates in the

future. It is hoped in this way to enable students to observe or attempt the art of Parliamentary debating.

The Debates Committee appeals to Society Secretaries to make a note of the dates when debates are organised, and as far as possible, to include them in their programmes (especially the Inter-Varsity Debate on Friday, February 20th). All debates in the future will be held at 5-15 p.m., as it is hoped in this way to attract more students.

JON RUMMELSBURG,  
*Hon. Sec.*

On 18th November, the meeting of the Polish Students of the University was held.

A priest, S. Belch, after paying visits to the various centres of Polish students outside the country, in Italy, Spain, France, Switzerland and Germany, came to this country and is touring various Universities.

Among the matters discussed were those which concern the largest number of Polish students ever studying in the foreign Universities in our history.

One of the propositions was the affiliation of the Polish Catholic Society of the Leeds University (P.K.S.U.—Versitas) to the Leeds University Catholic Society.

S.W.



"NAH! Who will have de Parson's Nose?"

# SPORT

*Report by MAURICE HAYES*

## Men's Swimming Club.

The Club has not had a very busy time during the first term of this session. Most of the swimming periods have been taken up in building a new team, with the recently acquired help of a coach.

In the matches which have been played, we were unbeaten, drawing with Morley S.C. and Leeds Old S.C.

We are hoping to join the Leeds and District Water Polo League for the remainder of the session and have also all our Inter-University fixtures to play off. We trust you will make a note of some of these and turn out in support of your own Club. We are expecting to "go places" this year.

The Club meets at the Carnegie College baths every Tuesday and Thursday from 5—6 p.m., when coaches are in attendance.

## Basketball.

November	11th v. Northern Command	(H)	Won 38—9.
"	18th v. "	(A)	Lost 18—19.
"	25th v. Sir James Knotts Y.C.	(A)	Won 63—49.

Leeds competed in the Northern Universities A.B.B.A. tournament and as a result of their success they are to represent the North of Britain in the Inter-Area Tournament to be held at Birmingham in January. We extend our hearty congratulations on this well deserved success.

## Badminton.

October	25th v. Manchester (men)	..	Won 5—4.
"	1st v. Leeds Caledonians (mixed)	..	Lost 2—7.
"	15th v. Nottingham U.C. (mixed)	..	Won 8—1.
"	18th v. Adel B.C. (mixed)	..	Won 5—4.
"	20th v. Carnegie P.T.C. (men) ..	..	Lost 6—3.
"	24th v. All Hallows' B.C. (men)	..	Won 5—4.
"	28th v. Torredon B.C. (mixed) ..	..	Won 7—2.

## Association Football.

The team is having a season of varied success. They lost the Christie match at Manchester 4—1, but occupy first place in the Leeds Half-holiday Table. The Club have won their first three rounds of the West Riding Cup. In the third round against Thornhill Lees they showed sparkling form to win 4—1. Mills continues to be the outstanding goal-scorer. In the U.A.U. League match against Durham on the 10th December, the final score was 2—2, after a keen struggle.

## Rifle Club.

November	29th v. Sheffield .. ..	Won 754—741.
December	6th v. Manchester U. (men) ..	576.
	v. Leeds U. . . . .	568.
	v. Manchester U. (women) ..	557.

## Table Tennis.

The Club is having a fairly successful season and occupy high positions in the Leeds T.T. Leagues.

Division I	..	3rd and 6th.
Division II	..	2nd.
Division IV	..	1st.

## Boxing Club.

The Club have only had one fixture during the term, the others being cancelled by their opponents. Judging by the efficient manner in which they disposed of Birmingham we fully sympathise with any team that has to oppose them.

### Cross Country.

As usual the Club is having a successful season. It met its only defeat of the season at Glasgow on November 15th. Haw and Birch were 1st and 2nd respectively, but the Glasgow team packed well together and won by 7 points—a very narrow defeat. On the 22nd November Durham were heavily defeated, Leeds men taking the first three places—Haw, Birch and Batey. The Junior and Senior Christies were run by Leeds. In the Senior race at Liverpool Leeds men were first and second—need we name them—score Leeds .. 33.

Liverpool .. 53.

Manchester.. 101.

The Junior team at Leeds won by a narrow margin, but all the team were placed in the first 12 positions.

Score : Leeds .. 42.

Liverpool .. 49.

Manchester.. 100.

The Club will meet strong opposition when they entertain English and Scottish Universities in the U.A.U. Championships at Weetwood on 21st February.

### Women's Hockey.

Have had a successful season so far and are showing great promise of things to come.

### Medics. Rugger.

The 1st XV have won five matches, lost three, drawn two. This is a good showing in a good class football. Outstanding players are J. P. Falkingham, R. T. Heylings, W. G. C. Forrester and the G.A.S., J. H. De Graeve. These four were selected to play with the U.A.U. on their Welsh tour.

### Boats.

The Club has made a good start to the season ; we have over fifty rowing members and enough willing and able old members to have a coach for each crew.

Eleven crews raced in the Inter-faculty Races on Saturday, November 29th. Medicals (stroke R. L. Holman) won the first Division for the Sir Michael Sadler Cup and Technology (stroke, S. H. Heyworth) the second Division for the Professor Walter Garstang Cup. All the races were hotly contested and the standard reached does real credit to oarsmen and coaches alike.

The Twenty-eighth Annual Dinner held at the Griffin Hotel on the same evening was a huge success. Over sixty attended, including a grand number of old members ; we were particularly pleased to welcome Dr. Spence.

This year we are running an eight which will have its first racing in early March at York and at the Chester Head of the River at the end of March. On March 13th we are having a home five-cornered fixture with Bradford A.R.C., Manchester University, Nottingham and St. John's College, York, when we hope to have Senior, Junior and Maiden Fours on the water.

The provisional date for the Leeds Regatta is June 12th, and we are contemplating making it an "Open" affair this year ; we have the full support of Manchester in this venture. The U.A.U. Fours will be held at Swillington Bridge in May, probably on Saturday, 29th.

F. M. SMITH,

Captain of Boats.



# Leeds University

## Old Students' Association

### LEEDS AND WEST RIDING BRANCH.

We found Mr. Corner's lecture on pot-holing extremely interesting and thrilling, though he did not appear to make many converts. Perhaps the average age of the members was a little too high.

We hope to have good audiences at our next two meetings to be held in the O.S.A. Room at 7-0 p.m.

January 19th. Mr. F. G. B. HUTCHINGS, the City Librarian, will discuss "The Public Library and Adult Education."

February 2nd. Mr. W. S. THEAKER will lecture on "Juvenile Delinquency."

L. M. SUTTON, *Hon. Secretary*,  
7, Woodsley Terrace,  
Leeds, 2.

### O.S.A.

The Warden of Weetwood Hall is anxious to bring up to date existing records of Old Students of the Hall. Please send present address, name if married and particulars of present occupation to the Warden. It is hoped to hold a meeting of Weetwood Council and to have a reunion sometime during this Session.

GLEDHILL.—Dr. Edward Gledhill has been appointed obstetrician and gynaecologist under a joint scheme of Blackburn and Darwen Corporations, Lancashire City Council and Blackburn Royal Infirmary.

HUNTER.—V. W. S. Hunter (Commerce, 1919-22), A.C.A., formerly Supervisory Auditor in South America for Standard Oil Co. (New Jersey), has been appointed in a similar capacity for Europe and North Africa. Present address: c/o Standard Française des Petroles S.A., 82, Champs Elysées, Paris.

MOSBY.—Frank Mosby and J. K. Thomas are joint authors of *Advanced Prose Interpretation*, designed for post School Certificate pupils, a book published by Blackie at 5/-.

RITSON.—Professor J. A. S. Ritson was elected President of the Institution of Mining Engineers in October last.

WARIN.—Dr. J. F. Warin, deputy Medical Officer of Health for Leeds, has been appointed Medical Officer for Oxford.

WILD.—Dr. William Wild has taken up an appointment as Senior Principal Scientific Officer in the Chemistry Division at the Atomic Energy Research Establishment at Harwell, Berkshire.

### BIRTHS.

ACFIELD.—To Dr. J. R. and Mrs. Edna Acfield (née Roberts), of 95, Westbourne Avenue, Hull, on October 23rd, 1947, a daughter.

MARSHALL.—To Dr. K. G. and Mrs. Marshall (formerly Charlotte Miller Maclaren), of Brighouse, on December 5th, 1947, a daughter.

MASSER.—To Dr. Matthew and Mrs. Rose Masser, on December 2nd, a daughter.

PRESTON.—To Professor R. A. (History, 1928-33) and Mrs. Preston (formerly Marjorie E. Fishwick, Arts, 1932-36), a daughter. Address: 26, Nanton Ave., Toronto, Ont., Canada.

### MARRIAGES.

CLAY-LEES.—Dr. Howard Fisher Clay, of Ilkley, to Elizabeth Joan Lees, of Thurlstone, Devon, on December 18th, 1947, at Holy Trinity, Brompton.

HILL-GRAY.—Louis W. Roland Hill, of Bradford, to Aileen Gray, of Newport, on December 1st, 1947, at Holy Trinity Church, Brompton Road, London.

KILHAM-PEACE.—Dr. J. K. Kilham, of York, to Audrey E. Peace, of Batley, on December 30th, 1947, at Christ Church, Staincliffe, Batley.

MOSS-BRIERLEY.—Dr. Leonard H. Moss, of Roundhay, Leeds, to Joyce Eileen Brierley, of Fartown Grange, Huddersfield, on October 9th, 1947, at Christ Church, Woodhouse.

NICOL-BROOKE.—William Nicol (B.Sc., St. Andrews), to Daphne M. Brooke (Arts, 1939-43), on August 16th, 1947, at St. Martin's Church, Maidstone. Mrs. Nicol writes from 52, Marine Crescent, Maidstone, Kent.

SIMONS-CONNAL.—C. E. Simons, of Croydon, to Margaret Jessie Winifred Connal, elder daughter of the late Professor B. M. and Mrs. Connal, of Bramhope, near Leeds, on December 29th, 1947, at Brunswick Methodist Church, Leeds.

in 1926, was a director of the Yorkshire Dyeware and Chemical Company, Leeds. He lived at 18, Gledhow Park Crescent, Leeds, 7, and to his wife and mother we would convey the deep sympathy of his many friends in the Association.

STOTT.—Eric Stott, who took his B.A. in 1937, died on December 10th, 1947, at the early age of 33. He was the only son of Mr. and Mrs. G. E. Stott, of Langthorpe, 14, Chestnut Avenue, Wetherby.

WILSON.—Miss Gwendoline Wilson, formerly tutor in practical social work, died at Oswestry, in November, after a short illness.

### DEATHS.

STOREY.—We much regret to announce the death, at the early age of 46, of Dr. Ralph Charles Storey, on December 2nd, 1947. Dr. Storey, who took his B.Sc. in 1923 and his Ph.D. (Colour Chemistry)

### ENGAGEMENT.

The engagement is announced between ARTHUR J. MANFIELD, of Thirsk, and CONSTANCE M. JOHNSON (Geography, 1942-45), of Disley, Cheshire. The announcement is made from 6, Melbourne Place, Thirsk, North Yorkshire.

## INDEX OF CONTRIBUTORS

	PAGE		PAGE
ACKROYD, L. W.....	10	" NEANDER ".....	31
ALLEN, MARGARET B.....	9	OVER, G. A.....	8
BARKER, ALFRED F.....	25	" PIP ".....	14
BROOMHALL, PATRICIA.....	23	RUMMELSBURG, JON.....	34
C., E. P.....	28	SMITH, E. C.....	27
COLLIER, S. J.....	22	SMITH, F. M.....	19, 36
DAWES, E. A.....	15	TAYLOR, ALEC I.....	17
DEAKDON, RUTH.....	12	TOWNSON, HAZEL.....	18
" DECIBEL ".....	29	WAIN, G. A.....	13
F., J.C.F.....	33	WEST, C. E.....	11
HAYES, MAURICE.....	35	W., G. A.....	33
HUDSON, JOSE.....	12	WHITELEY, J. S.....	34
MACLUSKY, DONALD.....	6	W., S.....	34

Illustrations by MAURICE WALKER.

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The Union stands for the unification of the teaching profession. Its membership, therefore, embraces teachers in all types of primary, secondary schools, and schools and Colleges working under the Regulations for further education.

Professionally, the Union works for the establishment of a highly qualified, publicly recognised, independent learned teaching profession, with emoluments and other conditions of service commensurate with the importance of their work.

The Union has been in the forefront of every phase of educational development in the past fifty years; its organisation affords members the means of translating their educational ideals into practice.

The Union protects its members in every phase of their professional life: legal advice and assistance on professional matters are given free to members.

The annual subscription is one guinea and, in addition, a Local Association fee which varies in different districts.

Students in training at a Training College, Emergency Training College, or University Training Department, may be admitted as Associate members of the Union without payment until January 1st following the date of leaving College, or until the first of the month following the date of permanent appointment to a school, whichever is the later.

Every profession has its organisation; the NATIONAL UNION OF TEACHERS serves this purpose for those who are engaged in education.

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Total Membership, 1946, exceeded 167,700.

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