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(" Whatever boys do makes up the mixture of our little book.")

The Editor Alan R. Warwick E. H. D. Sewell Gunby Hadath
Percy F. Westerman
H. J. C. Harper,

ГO CONTRIBUTORS.-All manuscripts must be sent to 4 Bouverie Street, London, E.C.4. Contributions are not returned unless stamps are sent to cover postage. Payment for published manuscripts is made quarterly after publication, and, unless otherwise specified, the receipt conveys the copyright of manuscripts to the United Society of Christian Literature. The Boy's Own Paper is published on the 25 th of each month. The annual subscription (including postage to any of the countries within the Postal Union) is 8s. Gd. (Canada and Verufoundland, 7s. 6d.).

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# WHILE the DIXIE BOILS 

MOST of you have, I expect, some time or other, lived under canvas, the duration of which experience may have been a week-end, a fortnight, perhaps longer. It appealed to you vastly, didn't it ?-although your hip- and thigh-bones were jolly tender after the first tossing, sleepsnatchy night on the ground. You began to harden up to the tang of things-the smoke-flavoured tea, the vagaries of the weather. It became instinctive to keep your head low of the tent roof during rain, and although you didn't care a lot for the mud, damp footwear and clothes, moist blanke's, and meals made eatable somehow over a fire that was a dickens of a job to light and to keep going, you hecame a cheery philosopher. You grinned . . . and : Iways at the back of your mind was the realisation that it would soon all be over, and you'd return to civilisation with something of the forest ranger or backwoodsman about you.

You'd had a taste of roughing it, and it had done your manl:ood a bit of good. It was worth the experience.

Now, is roughing it worth the candle ? By roughing it, I don't mean summer camping. But if the summer isn't a summer at all, but a period of grey skies and westerly gales, is it worth while risking colds, and perhaps worse, when you could pack up and return to home and shelter ?

I expect that if a vote were taken amongst you, the majority would plump for sticking it out. Why? Because what man was ever afraid of a bit of dirty weather and a few hardships! That's not foolhardy reasoning, but an inborn urge to be fit and to become even fitter-the strong, rangy fellow, who likes to feel the rain drip off his hat-brim while he swallows a cup of steaming cocoa, and feels his blood beat lustily in spite of what the elements might do. At the back of your mind there are men you've read and heard about, explorers like Scott and Shackleton, mountaineers like Irvine and Mallory, soldier-rangers like the Guides and the Canadian Mounted Police, and seamen like Drake and Nelson. ... Although you may not know it, you are one of the brotherhood with all these heroes. The spirit of adventure which was in them has been passed down to you; it's in your blood, so that you can't help wanting to rough it, to stick things out. It's the only way that will toughen you, in body, mind and soul.

Schoolboy Explorers. All of which brings me to a book I want to talk to you about. A year ago a team of public schoolboys sailed from


Liverpool in the Nova Scotia to Newfoundland in order that they might explore a large unmapped area of that country, and also to do some important scientific work, collecting flora and fauna, which specimens are now included in the permanent collection of the British Museum.

These lads had no previous experience of exploration, yet they carved their way through virgin forest, explored unknown lakes and rivers, and for the first time put them on the map. They suffered extremes of heat and moisture, were bitten to desperation by millions of mosquitoes, carried on their backs all their food and equipment, and for many days lived on " iron rations".

In this remarkable book Mr. Dennis Clarke, the historian, describes those intimacies which are peculiar only to a band of men who work together in the wilds. It is the same spirit as you find in camp, only far more intense. The boys give each other nicknames, they pull each other's legs, they talk as old campaigners do-of base camps, trails, depots, dumps, hooch ; and you feel those aching shoulder-muscles and numbed biceps that have borne the load over unblazed trails.

The tents are so light and small that they sleep sardinepacked fashion, and when one puts his feet on the other's head, the only thing to do is to retaliate. Sometimes the weather is so bad that they cannot light a fire and have to eat cold stuff, in drenched tents, clothes and blankets. But my word! when a fire is lighted, they almost roast themselves to death.

After fording rivers, traversing untracked forests, plains, lakes and mountains, they arrive back at the base camp almost in rags, hungry as wolves-for the last meal had been eaten-and fit to a man. One of the party had even put the sole of his perished sealskin boot in a canvas bucket, roped it round his foot, and gone on with that.

At the base camp they over-ate themselves to such an extent that they could only lie like corpses. If they stood up, they fell over. If they lay down, they felt sick.

During the expedition one of the boys is lost in the impenetrable forest, and is given up for dead. Here is an extract of his experience when found :
" It was dark and raining, but I found some sort of a shelter under a fallen trec, collecting birch bark to make a covering.
" I crawled under this and tried to sleep. Spouts of water splashed on me at

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intervals. During the night I managed to get threequarters of an hour's sleep. I amused myself counting the hours. . . . The mosquitoes became annoying again. One of my hands was already out of action. It was so swollen with bites I could not move or bend it. I gave up trying to rest."

Self-Reliance and Cheerfulness. These fifty young members of the Public Schools Exploring Society mapped out territory hitherto unknown except to lumbermen and forest rangers. The success of their efforts was through organisation and wise leadership. They had as their chief Commander Murray Levick, who accompanied Scott on his tragic Antarctic expedition in igio as medical officer and zoologist, and his assistants, men of the Army and the Navy, all of whom have exploring in their blood.

So the answer to roughing it is to be found in this book, "Public School Explorers in Newfoundland ", written by Dennis Clarke, and published by Putnam, Ios. 6 d . net. Never rough it haphazardly. Plan out your camps and your hikes, estimate the weight of your kit and tent, eat food that you know is the most sustaining, and, above all, be sure that you have a good leader. A man who knows his job, and will quickly tell you about it if you do foolhardy things, such as neglect a cold.

I see no reason then why the average healthy boy shouldn't be able to go anywhere and rough it with the best of his fellows, which schooling will teach him selfreliance, the knack of taking and giving knocks in good humour, and a cheerful philosophy that will take a dickens of a lot of breaking down.

Those New Year Resolutions. I want a word with all you fellows who have decided to make New Year resolutions. Resolutions are generally twofold. I'll give up such and such a habit, and in its place I'll improve my goal average, read more books, get up earlier so that I don't have to rush like mad for the tram or train every morning, read the "B.O.P." . . . Wait a minute! I'm wrong there. That you'll read your "B.O.P." is a foregone conclusion. What I mean is:


Get another chap to take the old paper. Show him, lend him your Christmas number, for instance, and if he doesn't declare it to be the best ever, well . . . show him the January issue.

Then if he still thinks his sixpence better in his pocket, deliver unto him speech something like this :
" Ever heard of a castle whose walls had human blood for mortar? Then read in the February number Bywayman's account of his visit to Ireland. What d'you know about ice hockey? Not a great lot, eh! You'll know all about it next month-if you buy the ' B.O.P.' Like to learn how to box? Next month Hylton Cleaver, an amateur boxer himself, contributes the first of a series called 'Ringcraft at School '."

If you haven't won over your man by this time, tell him that an exciting ice hockey yarn is in the February, also a Sea Scout story by Arthur Catherall, called "Fifty Minutes to Live".

Tell him there are many other featuresjokes, Nature-study pages and pages about new and old stamps.

THEN--and not till then-stick your hands in your pockets and remark casually :
"Ever heard of Rudyard Kipling ?"
" Rather! He's the great author of the Jungle Books and the Puck of Pook's Hill stories. What about it?"
"A poem of Mr. Kipling's about fitness will appear in the February number."
"The February number of what?"
"The "B.O.P." "
Your pal gives a click of the tongue which obviously implies that you can't pull his leg.
"But I mean it! It's true!" you declare. "Look here, old chap, get the February number and see for yourself. If it isn't true, you needn't take the paper any more."
" I haven't said I'll take it at all yet," remarks your friend.
" But if a poem from Rudyard Kipling appears in it, then it must be a good paper, very first-class, in fact. Righto!"

1. So, take my tip, and place an order with your newsagent straight away. "There's bound to be a heavy demand for the February " B.O.P."

A HAPPY NEW YEAR TO YOU ALL I


## Can you make the BOVRIL Bull?



When you've made it, think of a Slogan and win one of these Prizes

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(For instance, you see one below - ' Bovril is the power of Beef,' and of course you know 'Bovril prevents that Sinking Feeling.') Then put your completed Jigsaw and your slogan in an envelope and send them to "Boys' Own Paper," 4, Bouverie Street, London, E.C.4. The closing date is February ist.

All slogans entered for this competition become the sole property of Messrs. Bovril Ltd., and the Editor's decision is final.



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THE EDITOR OF "THE BOY'S OWN PAPER "

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Readers of the "B.O.P." of any age, may apply for admission in one of the following classes:-
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Address.

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This Notice Board is your affair. Pinned on it, as it were, will be items concerning your own activities. Cluh-ites who receive interesting letters from pen-pals abroad, Skywaymen who have broken records or machines, might send extracts to me. If of general interest-and if there's room, it will be pinned on the board. Mark all letters and postcards: "Notice Board," and address to "The Boy's Own Paper," 4, Bouverie Street, London, E.C. 4


CLUB
NOTES.

Membership. The "B.O.P." Club, which has members in all parts of the world, was founded in 1927 with a view to its forming a bond of friendship between readers and supporters of the "B.O.P." the world over and enabling them to recognise one another by means of the Club badge. There is no age limit, and the Club is open to all readers of the Boy's Own Paper.

Membership Card and Badge. The only cost is, for Membership Card alone, $3 d$., or for Membership Card and threecoloured enamel Badge, Is., including postage in each case (duplicate badges issued to existing members, $9 d$. each, post free). An application form for membership will be found among our advertising pages; extra foims are supplied on demand Applications for membership should be addressed to the Editor of the "B.O.P.", 4, Bouverie Street, London, E.C.4. Payment for membership cards and badges by members living abroad must be made by British postal order, foreign money order, cheque or United Kingdom stamps. Colonial and foreign stamps cannot be accepted in payment. Coins sent by post, either at home or abroad, must be sent by registered mail.

Correspondence Section. This section is open only to Club members. Full details are sent to all new members; they will be sent to existing members post free upon request. The following wish to correspond with fellow members in the countries shown:-
4002. M. J. B. Henry (England, 21.6) wants pen-pals in Germany, France and U.S.A. (stamp collectors).
5719. C. W. Amlòt (England, 15) wants pen-pals in South Africa, Egypt and Norway.
5789. D. M. Roe (England, 12.8) wants to correspond with stamp collectors anywhere.
5962. M. Daud (Malaya, 16) wants pen-pals in Australia, the U.S.A. and British Isles.
6023. H. S. Taylor (England, 15) wants pen-pals in France (in French and English), Canada and U.S.A.
6r70. R. Buttercase (Scotland, 14) wants pen-pals anywhere.
6i92. D. Drysdale (Scotland, 14) wants pen-pals in South Africa, Canada and Newfoundland (stamp collectors).
62i6. R. Mitchell (New Zealand, i1) wants pen-pals anywhere.
6221. L. G. Humphreys (London, 14) wants pen-pals in New Zealand, South Africa and Canada.
624I. G. Micklewright (England, 14) wants to correspond with stamp collectors anywhere.
6247. M. Bin Dagang (Johore, Malaya, 17) wants pen-pals in Germany, New Zealand and Canada.
6259. J.White (England, I5) wants pen-pals in France and Canada.
6264. A. C. Chan (British Guiana, 16.6) wants to correspond "with stamp collectors anywhere, especially British Empire".
6288. Miss J. Curtis (London, i9.6) wants pen-pals (either sex) in the U.S.A. (stamp and postcard collectors).
6293. L. Morton (London, 14) wants pen-pals in Canada and New Zealand
6308. R. Owen (England, 13.5) wants pen-pals in Canada, Germany and Russia.
6364. M. A. Ali (Kuala Lumpur, Malaya, I8) wants pen-pals anywhere.
6366. R. A. Fowler (England, 17.6) wants to correspond with stamp collectors abroad.
6367. H. Stewart (South Africa, 23) wants pen-pals in New Zealand, Canada and United Kingdom.

Mernbers wishing to write to any of the above should write to the Editor, enclosing a stamped and sealed letter for their desired pen-pal (whose number, as well as their own, MUS'T be
quoted), and he will then undertake to forward it direct. Members living abroad should enclose an Imperial or International Reply Coupon to cover postage.


THE B.O.P. FLYING LEAGUE.

Objects.-(i) To develop " air-mindedness" and a study of the problems of the air in all boys and girls throughout the British Empire.
(2) To foster the sport of Model Flying, by arranging flying competitions, and by providing prizes and awards.
(3) To encourage the home construction of model aircraft for this purpose.
(4) To help to place, and keep, Britain and the British Empire definitely in the forefront in every branch of flying.
Special Notice. Will members who qualified for the " Nipper" model please note that we do not supply spare parts for this 'plane. This applies to all model aeroplanes advertised or described in the "B.O.P.", unless otherwise stated. The Skywayman-in-Chief will, however, always be pleased to advise members as to firms from whom materials and spare parts may be obtained.

Technical Terms Explained. (i) The Angle of Incidence can be defined as the slant at which the aeroplane's wing is set in order to help to create the correct lifting force for the type of machine. This slant or angle is the pivot of the model's flying balance, and it can safely be said that all powered models must have an angle of incidence.-W. Rigby, in " Model Aircraft for Boys".

How to Change Your Rank. Members admitted in any class may transfer to another on notice being given to the Skywayman-in-Chief, in order that the registers may be kept up to date. A new membership certificate will be sent if $1 \frac{1}{2} d$. is enclosed for postage. It is hoped that, eventually, the great majority of members will be found in Class (C).


A Clever Modeller. The model seen above was constructed from a press photograph by Skywayman-Rigger-Pilot S. G. Marriott, aged $13 \frac{1}{2}$, of Wallington, who sends the following details of the plane: "This machine is a $1 / 72$ scale model of the Blackburn H.S.T.io (compare the size of the model with the penny beside it), a new type now under construction by the Blackburn Aircraft Company. The principal measurements, full size, are: Wing span, 57 feet 4 inches. Length, 42 feet. Height, 12 feet." This photograph of our member's clever piece of work gains for him the monthly prize of 25.6 d .
(Contimued on page xiv)

## Tmhaving one for XMAS

No bicycle is complete without the COOPER STEWART BICYCLE SPEEDOMETER, which is a real precision instrument, such as is fitted to a motor-cycle or a car.
Do not just think you are doing "twenties," KNOW FOR A CERTAINTY. Why be indefinite as to how many miles you have travelled? Fit Model C. 5 and KNOW !

In addition to recording speed, the MODEL C.I Model C. 5 Speedometer (illustrated (illusifated abeva) below) also records the total mileage. It is fixed on your handle-bar and driven from the front wheel by means of a flexible shaft, and shows ALL THE COMP TIME you are cycling HOW FAR (records speed) AND HOW FAST YOU ARE GOING. When ordering it is necessary to state whether required for right or left hand fitting.


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# THE B.O.P. NOTICE BOARD 



Help us to please You. Naturally, we would like to know what you think of the Sixpenny "B.O.P." Will you help us by answering the questionnaire below and posting your comments to the Editor? Of course, all of you have likes and dislikes, and we are anxious that the former shall greatly outnumber the latter. So fill up the coupon, and forward it to the Editor at 4, Bouverie Street, London, E.C.4. Thank you!

## THE QUESTIONNAIRE

Do you like the new "B.O.P." ?
Letters to
" Hedgerow "
Readers are asked to note that all letters to "Hedgerow" requiring an immediate reply must be accompanied by a stamped and self-addressed envelope.

| THE QUESTIONNAIRE |
| :---: |
| Do you like the new " B.O.P." ? Which short story do you prefer ? |
|  |  |
|  |
| What do you think of the Notice Board ? |
| Have you joined the "Skywaymen "? |
| Which article do you like best? |
| Do you want more stories or more articles ? |
| Any comments ? |
| Any suggestions? |
| Name |
| Address ......... <br> " B.O.P.", January 1936. |

You may make a copy of the coupon if you do not wesh t, cut your "B O.P.", or you may answer it in the form of a letter. Please mark your envelope or postcard "Questionnaire".

## CAREERS ADVISORY BUREAU

Readers requiring advice on Careers should write to our Careers Expert, who will be pleased to give all possible assistance. Address your letter to Careers Advisory Bureau, "B.O.P." Office, 4, Bouverie Street, London, E.C.4, and enclose a stamped and addressed envelope for reply'.

Enthusiasm.-" I have just looked through the November Number of the B.O.P. and oh! how proud I am to know that I am a member of the Flying League, and how I wish I could impress all the boys what they are missing by not ordering the book to come to them every month, for it is just too splendid," says Bruce Young, of Balham. May all readers share your enthusiasm, Bruce !

"UNITED KINGDOM STAMP "
Brainwaves a-plenty came as a result of our October competition. A lot of entrants still stuck to the Empire-which is fine sentiment, but fatal to the winning of a jack-knife. Here are some of the suggestions: " Dulce Domum ", "Britishonial Stamp ", "British Isles Stamp ", "Britannia Stamp", "Homeland Stamp", "Fatherland Stamp ", "Home and Colonial " (too grocerified !), "Anglo-Scottish" (hoots, mon!). Three entrants called it " United Kingdom Stamp", and we have decided to send a Jack-KNife to each of the following:
R. Sammons, Lichfield; H. Roden, Chirbury ; J. H. B. How, Windermere.

Three prizes to the value of Malf-A-Guinea each to be won every month!

Can you draw? Then send in a Nature drawing.
Do you go in for Photography? Then send in your best Nature photograph.

Do you make Nature notes? Then send in those notes. (These must be seasonable.)

What we want is your best Nature note, or your best Nature drawing or photograph.

You may win one of these prizes-and look at the choice!


A microscope, a jack-knife, a fountain-pen, a camera, a model aeroplane, a Nature book, a telescope, an electric torch.
Rules: The coupon on page xxix must accompany your effort. A competitor cannot win more than one prize each month, or submit more than one entry.

The age limit is 18 .
This competition will be judged by " Hedgerow ". Send your effort, together with coupon, to "Hedgerow", c/o The Boy's Own Paper, 4, Bouverie Street, London, E.C.4, and write the words Nature Competition in the top left-hand corner of your envelope. Closing date for this month's competition, February roth, 1936.

## HOWLERS No. 2 COMPETITION RESULT.

This competition becomes more popular each month! Over 2,300 readers entered, but unfortunately a printer's error caused question No. 5 to become inadmissible. The correct answer to this question was 602 miles, which was not among the "possible" answers. In judging, therefore, the Editor has decided to ignore this question, and out of the large number who succeeded in sending in correct answers to the other nine questions-

The FIRST PRIZE of $£ 3$ has been awarded to the sender of the NEATEST CORRECT COUPON :ARTHUR WILLIAMS, 74, Bearford Drive, Cardonald, Glasgow, S.W.2.
The SECOND PRIZE of $f_{2} 2$ has been awarded to the sender of the second neatest correct coupon :-
P. W. STUDART, 26, Ivanhoe Road, Lichfield, Staffs.

The THIRD PRIZE of $£_{\mathrm{I}} \mathrm{h}$ has been awarded to the sender of the third neatest correct coupon :DICK WILSON, 9 , Trinity Street, Bungay, Suffolk.

Consolation prizes consisting of a copy of "The Blark Lizard," C. F. Argyll Saxby's famous book, have been awarded to the senders of the next 100 neatest correct coupons:-
W. N. Aldridge, Nuneaton ; R. F. Allon, Gateshead; I. Arnold, Greenford; H. B. de Balan, France; I. Barnes, Ealing Iondon, W.I3; G. Bell, Manchester 16; R S. Bennett, Thornbury; M. A. Bernays, Sarratt (Herts.) ; P. R. Boulton, Nottingham; E. Brown, Plymouth; A. Bryers, West Farmborough; D. Burford, Swansea; R. Cann, Wakefild, A. P. L. Casling, Hale (Ches.); A. Clarke, Belfast, R, G. Clarke, Lincoln; N. Clouder, Wanstead, London, E.11; R. Collyer, Eastleigh; A. Copestake, Manchester ; W. Cormack, Greenock; F. Cooper, Burnle; K. F. Cornwall, Lowestoft, G. Cowlishaw, Mansfield; D. W. Cox, London, E.2.; A. A. Craddock, London, W. ; J. Crawtord, Edinburgh; J. I. Currie, Colwyn Bay; R. Davey, Wembley; A. J. Davis, Lowestoft ; D. J. Dawe, Enfeld ; K. W. Dewar Penarth ; P. E. Dormer, Oxford; J. Drinkwater, Wickford; J. B. Evans, South Africa ; F. Fenn, London N.W.; E. Fenton, Chesterfield ; R. Fletcher, Wembley; D. L. Flood, Waltham Abbey; J. Foster, Brighton; P. Freeman, Canada; M. French, Chelmsford; A. M. Fyte, Dumbarton; E. Godifrey, New Malden; M. Gold, Moreton-inMarsh; F. J. Gore, Manchester ; J. Grampin, New Herrington; E. J. Hardy, Tottenbam, London, N.ry; R. Hatch, Chichester; W. Hatton, Winstord; JJ. Hope, Maidstone; E. A. Hughes, Denbigh; J. R. Hunt, Kimbolton; H. W. Johnston, Mancbester, 10; C. Jones, Trowbridge; C. H. Kidman, Kimboiton; C. S. King, Hackney, London, E. 8 ; R. Kirkham, Hudderstield ; L. Knight, Chertsey; C. Knights, West Hartlepool; A. G. Leonard, Maidstone ; D. Lovell, Exeter ; K. Lowbridge, Walsall; R. E. McKer row, Brondesbury Park, London, N.W.IO; J. McNay, Glasgow, S. M. R. Morgan, Wrexham; K. W. Morris, Richmond ; J. P. Norman, London, J. R. Morgan, Wrexham; K. W. Morris, Richmond; J. Pverin, Birmingham; V. Parker, Leigh-on-Sea; P. F. Pearson, New Barnet; G. K. Pidsley, Lancing; D. J. Powell, Lydney; B. A. Raby, Leicester; H. C. Rallison, Didcot; R. Read, London, N.W.ir : P. Roberts Gillingham ; E. G. Rogers, Leeds 7; G. A. Ross, Stroud Green, London, N. 4 R. Russell, Chingford, London, E. 4; J. Sanders, Mold; R. Sharp, Bradford F. Simpson, Greenock; D. L. Sladden, Rotherfeld ; D. Smith, Gourock ; J. Smith, Liverpool 13: R. M. M. Smith, Glasgow, S.W.2; R. C. Smith, Elgin ;
W. Stott, Royton; W. W. Watt, Cupar ; E. D. Webber, Sanderstead ; R. Westover, Brighton, 6 ; G. White. Stafford; R. Willcox, Canada; E. L. H. Willis, North Seaton.

No further correspondence with regard to this competition may be entered into.
LOOK OUT FOR "HOWLERS NO. 3 ".

| THE CORRECT ANSWERS |  |
| :---: | :---: |
| 1. A Tibetan Priest is called a Lama. | 6. The greatest number of centuries scored by one man in first class cricket is credited to |
| 2. The book "Bleak House" was written by Charles Dickens. | Jack Hobbs. <br> 7. The capital of the Fiji Islands is Suva. |
| 3. The Capital of the U.S.A. is Washington. | 8. Alex. James is famous as A Footballer. |
| 4. A Yak is An Animal. | 9. The Crystal Palace was designed by Slr Joseph Paxton. |
| 5. Cancelled. | ro. The town of Santa Fe is in U.S.A. |



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Wrack ", and Geoffrey Trease ; twenty-seven complete short stories by famous authors; interesting and topical articles on every subject which appeals to boys; and more than a thousand illustrations in full colour, black and white and half-tone. Make sure that someone gives you a Boy's Own Annual this Christmas !

## VOLUME FIFTY-SEVEN



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# Circus Ring Magic 

By ALAN R. WARWICK

JUST a ring-a ring that measures 42 feet $7 \frac{1}{2}$ inches in diameter, whether you find it in London at Olympia at Christmas time, in Buenos Aires in South America, or on the road among the beautiful shining mountains of Japan-but what magic it holds! Unvaryingly, it measures this 42 feet $7 \frac{1}{2}$ inches across, and round about it revolves the whole romantic life of the circus world. The caged tigers and lions, the elephants swinging along trunk to tail, the gay, painted clowns, the most beautiful horses and their daring trick riders, the Oriental jugglers, the Great Tent itself-all these are the servants of the ring!

At Olympia you see it in all its splendour and fine perfection, but the same ring for the greater part of the year is rolling round the countryside of Britain, descending mysteriously, silently, on to remote towns, remaining for a few days like
vol. inili. part 4. jandary, 1936.
some gaudy Bedouin city of tents, and then vanishing softly away in the midnight hours. 'That is the famous Bertram Mills' Circus. Other circuses, such as Hagenbeck's and Sarrasani's, are rolling across Europe and America great outfits crossing the Alps and the Andes, their progress like the advance of some secret, ancient army such as Hannibal knew.

Everything works so silently, so smoothly, so efficiently, that not many people outside the circus have any idea of the vast organisation behind it. They are aware only of its full-flowering-daring feats in the ring and on the high trapeze, the blare of music, the galloping horses, and wild motley of clowns. Only through living for a time with the circus on the road, as I have done, moving with them in the dark hours-our caravans trundling away into the dark night, powerful caterpillar tractors hauling their long trains of trailers, elephants loading up vans on wayside sidings in the

Unvaryingly, the ring measures forty-two feet seven and one half inches in diameter.
broken glare of searchlight beams-will be revealed to one in full the enormous work and skill that goes to make the circus what it is.

Let us have a look at the process of transporting an entire circus from one town to the next. Many lorries travel along the winding road; two great special trains run smoothly through the night.

This move is, as it were, divided up into two sections-the "Pull Down" and the " Build Up." First of all, the Pull Down.

The last performance in the ring is over, the final strains of the National Anthem have died away, the vast audience is pouring out of the brilliantly lighted tent. Sharp eyes will notice that the Big Top (as the great tent is called) no longer looks quite as grand and imposing as it did when the same audience went in to their seats. This is because the Pull Down has already begun. In fact, all the non-essentials, such as the elaborate entrance to the tent have been quietly detached and loaded on lorries while the performance was in full swing. Almost before the last stragglers have departed intothe night everybody connected with the circusartistes, clowns, musicians, grooms,

mechanics and helpers - have changed out of their brilliant uniforms and costumes into overalls, and each one has gone to his or her allotted job. They are moving silently and efficiently in the darkness broken by powerful floodlights.

Now the seating that surrounds the ring must be taken down. Each piece and seat, already carefully numbered, is pulled up and loaded on the waiting lorries. As each lorry is loaded it is checked out and moves off for the road, heading for the next destination, which may be fifty or a hundred miles away.

Then comes the turn of the circus animals -horses, mules, ponies, zebras $\cdots$ to be led or
two tremendous poles remain, stretching up to the sky. They weigh two tons each. Further ropes are slackened through great pulley-blocks. One of the poles inclines almost imperceptibly from the upright. Supported by a stretching rope from its still vertical fellow, it sinks slowly to the ground, and in twelve minutes two tons of iron lies prone.

The lowering of the remaining King Poleas these poles are called-is not such an easy jols, for the partner to support it during its decline is prone. Nevertheless, it has to be felled, and so it is lowered by a rope that runs up to its top from the end of the prone one. Farther and farther it departs from the vertical. 'Then a critical angle arrives when the guy rope can no longer support it. Suddenly it drops ! 'I'he earth shakes under the colossal thud. You can feel the ground tremble where you


A group of Bertram Mills' clowns. stand thirty yards away.
'The two King Poles are then divided into their component sections and hoisted on to an enormous trailer. 'I'he trailer passes slowly out of the field. Remains only an empty field that two hours ago was a gaily lit town of tents. An army of workers clean the field of rubbish and straw, and by morning, when the first locals pass by, there is not a trace of the circus that had been standing there.

Meanwhile, the circus, split up into units, is travelling by rail and road to its new pitch. Before morning light the Build Up will be complete.

When the men of the first contingent arrive they will find duplicates of the King Poles already in position. 'The first contingent's duty, however, is to erect the canvas stabling for the accomodation of the animals already on their way, or even now waiting in their circus trains on the railway sidings. Up go the poles. Guy ropes are tautened, and finally the canvas walls and roof. Electricians have been busy connecting the current; the water has been laid on by the advance guard, and everything is ready for the impatient horses and the rest of the quadruped performers.

While this work is proceeding others of the personnel are preparing the ground for the Big Top, which has now been unfurled and spread on the ground like an exhausted balloon. Ropes are adjusted, and at last it goes up with the aid of the same gang that brought it down a few hours ago, under the expert supervision of the tent-master.

I mentioned that the tent-master was a Czech. Circus tent-masters the world over are Czechs. They are specialists in tent-craft, coming from certain villages where generations of men have been experts in pitching tents and


Tamer of Beasts.
striking tents. Giant tents, such as a circus requires, are not things that can be handled by any man. Those whose charge it is have to be brought up to the game from boyhood, and initiated into all its secrets. With these specialists it is not often that a tent is lost. A hurricane may blow, but the Czech tent-master, you will find, has anticipated the hurricane an hour beforehand. Already his staff are moving round, adjusting guys, seeing how the King Poles and lesser poles are bearing up, nursing that precious expanse of taut canvas (it is worth thousands of pounds) until the hurricane has blown itself out. But if under those conditions the canvas does part at some point, you may be sure that that Big Top is done for!
'This once happened to Bertram Mills' Big Top. During a storm a rent occurred; in a few minutes the beautiful tent was a wreck of flying ribbons.

After the Big Top has been Built Up, comes the question of the seating, at which everybody must lend a hand. Mechanised detail again. Every section is unloaded in the right order, and fits neatly into place with its fellow. After that job, the canvas dressing-rooms are erected, and the artistes' trunks of costumes and properties are stowed away. The motor caravans in which so many of the artistes live come on to the ground one by one, and take up their position in a long line, known in the circus as The Street of the Artistes. Flags are unfurled and float in the breeze, the motor box office opens, and the circus that had seemingly dissolved into nothing a few hours ago is ready to receive the public once more. Indeed, this is the greatest magic of the ring.

The minimum space of ground required by Betram Mills' Circus on which to pitch when on a tenting tour is 186 yards in length and 100 yards in width. But that is the absolute minimum. At least twice the space is wanted if it can be obtained, so that the great host of caravans and lorries can be conveniently manœuvred and laid out.

Now as regards equipment. There are fifteen living caravans, all fitted with sleeping accommodation, wardrobes and other modern necessaries. Some of the caravans actually have bathrooms and showers attached.

There are 14 high-powered motor-cars, 5 waggons, huge electric signs, booking office cars, dining saloons, 6 tractors, and 30 trailers.

One hundred and sixty-eight and fifty-six quarter poles-quarter poles are short poles-are used for side walls of the Big Top; 146 poles and 33 centre poles for the stabling. There are also 9,000 feet of electric
cable and 4 Diesel engine generating plants. In addition, Bertram Mills' Circus possesses a fully equipped modern fire-engine with a staff of expert firemen on duty night and day.

Supplementing the Big Top and stabling, there are waiting tents, a forage tent, a sleeping-tent, a side-show tent, and, of course, a tent for the fire engine.

The only thing that this mobile army lacks is a padre. But even that important aspect of a community is considered. On Sundays a religious service is held in the ring by the vicar of the town, and the greater proportion of the circus folk attend. The music for the hymns is supplied by the circus band.

Horses are naturally the most conspicuous of the animal personnel in a circus. Let a circus horse once acquire a trick in the ring, and it will never forget it. And the same remarkable intelligence is to be found among circus dogs. These animals will invent tricks for themselves. Time and again a troupe of circus dogs, unconscious that human eyes were watching them, have practised and perfected tricks of great skill that they have thought out for themselves! There is one dog, Bill, belonging to the famous clown, Joe Craston, who literally understands everything that is said to him. In the circus ring he takes his cues exactly like a human performer. Joe Craston has trained him to such perfection that he is even trusted to go shopping for his master. And the dog always brings home the right change!

The elephants, too, are almost human, and it is evident to an observer that they have a great sense for practical jokes. One day I was in the stables when a stranger in a bowler hat sauntered by. The first elephant whisked his hat from off his head. The victim of the joke made a grab for it. The elephant held it tantalisingly just out of his reach, and then passed it to the next on the line. Solemnly the elephants passed the bowler hat backwards and for-
wards among themselves, tempting the unfortunated man to try to recover it. At last, when he had given up in despair, and was about to go away, one of the elephants crammed his hat on his head again!

It is an interesting fact that the elephants in a circus troupe become very attached to each other. No one would dare to break up a troupe by taking one away. The others would go on strike at once. If one elephant falls sick, the others will not leave her side until she is well again and able to take part in the performance.
An elephant in one circus had no troupe to work with, and before long she became intractable. Then her keeper introduced a small pony into her stable. Instantly the elephant became very fond of the pony and would never allow it out of her sight without fretting. The pony would always have to go into the ring with the elephant. Another elephant became so attached to a small fox terrier that she allowed the little animal to sleep on her head every night.

During performances the Ringmaster is the most important man. He is like the captain of a ship or the stage manager of a theatre. The ring and all pertaining to it is his domain. You see him in his glossy silk hat, white kid gloves and pink coat, and he is responsible for the whole performance. Chinese acrobats, sword-dancers, high-wire walkers, strong men, equestrians, clowns, even the lion tamer himself-they are all under the Ringmaster, and he can talk to most of them in their own language. He is even able to speak a few words of Chinese. He is the autocrat of the ring, and because he himself at different times has been wire-walker, tumbler, acrobat, clown and trick rider, he is greatly respected.

In fact, there are very few circus artistes' jobs he has not done in his time. Hence his tremendous authority. Born of the circus, he becomes its figure-head. In his capable hands are entrusted the wonderful magic of the ring.



Top row: N. A. Mitchell, C. Pepper, G. Gilbert, F. Vorrath, A. Lambourn, W. E. Hadley, D. Dalton. 2nd row: W. Collins, J. Best, K. R. King, A. Mahoney, G. Wynyard, H. F. McLean, T. Reid, G. T. Adkins. 3rd row: T. H. C. Caughey, M. M. Y. Corner, G. F. Hart, J. E. Manchester, V. R. Meredith (Manager), C. J. Oliver, J. Hore, D. Solomon, R. M. McKenzie.

Bottom roze : J. R. Page, N. J. Ball, B. S. Sadler, J. L. Griffiths, E. W. Tindill, H. F. Brown.

# The Third All Blacks 

## An Object Lesson for Boys

By E. H. D. SEWELL

IAM beginning this short article on the possibilities and 1 probabilities in the form of the third New Zealand team of Rugby Union football players with a bit of advice to every boy who has a rich uncle, or, less likely, a rich father.

That is, to persuade either or both of these useful relatives to book seats at once to see J. E Manchester's Men in a match.

Most especially should every boy who is anxious to learn the right way to play the best of all winter games ever invented-the Great War proved that up to the hilt; Rugby Union players not waiting for Conscription before doing their duty to King and Country-make certain of seeing these splendid fellows from overseas in action.

I am not suggesting here that these men play so well that they are invincible. Far from that, it is my deliberate opinion, expressed before they have played the third match of this tour, that they will be defeated, and that they should be defeated several times. Happily the winning of games is not the beginning and the end of them. It is how players play them that matters most. In a very long experience I have seen the honours rest with the losing side many a time.

So that really it does not matter a straw if the 1935-6 side from New Zealand equals or not the record of their .1924-5 side, which won every one of its thirty matches, or
that of their 1905 side, of whose tour I saw more matches than any other critic now writing, which won all but one of its thirty-two matches. Those two teams played sixty-two games on our grounds and won sixty-one of them. Thus Manchester and his men are trying to live up to, and to maintain. an almost impossible tradition-that of practical invincibility. So we must not be surprised if they fail to equal the records of their predecessors, David Gallaher's I 905 team, whose captain fell in the war, and C. G. Porter's team twenty years later.

## Tactics of Previous Teams

Both those teams played in the formation of seven forwards and eight backs. The present team is playing in, for New Zealand, the new formation of eight forwards and seven backs, to which we, and not they, are accustomed.

Remember that fact well, and never forget it, when you are comparing notes, since to forget it is to be unfair to our visitors. All their football, until 1934, has been played with their seven forwards packing $2-3-2$. But through the insistence of our authorities, New Zealand Rugby has had to toe the line and pack "three up " as we do in the front row.

This very vital difference does not suit their game as we saw it in 1905 and 1924.

Actually they are engaged now in "learning" how to play forward in the way in which our forwards have tried to play for several years, though not for ever. Because, after the 1905 New Zealand tour, some of our teams trifled with the $2-3-2$ shape. They made little or no headway, because most clubs could not count on having the same seven forwards week after week, while the essential extraheavy and fast-enough forward to play in the "lock" position, in the middle of the second row, was almost nonexistent and, in any case, very rare. So those clubs, chiefly Leicester and Blackheath, who had coquetted with the New Zealand shape abandoned it. The Old Leysians, it is true, played seven forwards for many years and made a success of it, but they packed 3-4, and were, if not the first, one of the first clubs to pack that way. They did so certainly long before the South African team of 193I-2 over here did so, though these last-the Pachyderm Pack, as a cynic styled them-are often stated to be the inventors of the formation which the New Zealanders are now employing.

## An Important Factor.

This matter of the formation of the pack is of the very first importance in its bearing upon the probable and possible success of the present All Blacks team. Not all who are writing about the game know that the greater part of the big scoring successes of the first two teams depended upon the moves made by their wing-forward and their scrumhalf during the split seconds after the " heel".

It was then-and nowhere else-that the defence was broken.

It was then-and there-that the try was scored.
This cannot happen on the present tour, because we have abolished their wing-forward in his 1905 and 1924 dress.

In no writings about the present tour have I read one reference to this most important factor.

So important, in fact, that it is the one outstanding reason why Manchester's Men will not go home undefeated.

## Comparisons.

Now, what of these men?
I cannot agree with the generally published estimate that their backs are so very fast. I do not suggest that they lack pace, but I do say that, until they prove it to the contrary, we must regard their back division, as a whole, as possessing no more than the ordinary pace required in first-class football. It so happens that in our last International season our own football also lacked sheer speed of foot behind the scrum. Some of our fastest wing threequarters, for example, such as Faviell and Butler of the Harlequins, did not get their caps, while there was nobody in any of our national fifteens last season so fast as K. G. Macleod (Scotland), E. H. Liddell (Scotland), J. G. Will (Scotland), Basil Maclear (Ireland), E. Morgan(Wales), C.N. Lowe (England), D. Lambert (England), all pre-war, or Ian Smith (Scotland). The nearest to the pace of these noted " fliers" were, last season, the two Harlequins, Butler and Faviell, and the Scots'stand-off half, R. W. Shaw. So that, while it would be nonsense to assert that we have nothing to fear from this New Zealand team behind the scrum (I am writing now of their International matches against Scotland, November 23 rd; Ireland, November, 3oth; Wales, December 2 ist, and England, January 4th), it can at the same time be confidently assumed that as between the probable rival sets of backs the situation, while tending
to be of fifty-fifty proportions, rather favours the Home Unions, if their selectors behave themselves! Which, unfortunately, selectors very rarely succeed in doing.

## Weight in Front.

Forward, another tune has to be played.
We have simply not got the fast thirteen- to fourteen-stone-er in sufficient numbers. Here let me interpolate that when you read about fifteen- and sixteen-stone Rugby players it is advisable to reach for the salt-cellar! In the course of 150 International games I've seen a great many International forwards $-2,400$ of them, if all the teams had played eight forwards-but I have yet to see anything like a sixteen-stone forward, while, as to fifteen-stone ones, I am afraid I must remain somewhat chary. As I am on the subject of weights and measures, I give now the details of the three New Zealand teams, which I have not yet seen published all together. Here they are :

|  | Average Weight |  | Average Age of |
| :---: | :---: | :---: | :---: |
|  | Forzvards | Backs | Team |
| 1905 | .. I3 5 | 120 | 26 |
| 1924-5 | .. 137 | 117 | 24 |
| 1935-6 | .. 1313 | I I 5 | 23 II mths. |

While the forwards have steadily put on weight the backs have as steadily shrunk, and the teams grown younger.

## A Word on Form.

Of individual prowess it is really impossible to write so early in the season with any assurance. I can only suggest that the full-back, Gilbert, looks a useful one, particularly because he has the first two desiderata in a full-back, viz., catching and kicking ability. He is a good all-round kick, and can punt with either foot. I do not know how dependable is his tackling. Of the other backs, T. H. C. Caughey, who is really a centre and not a five-eighths, looks to be the most useful, with C. J. Oliver, a centre, G. Hart, right wing, J. H. Page, five-eighths, and N. Mitchell, a wing, all good class. As are the scrum-halfs, M. M. Corner and B. Sadler.

The pick of the forwards whom I have seen are A. Mahoney, H. F. McLean, who is excellent in the loose, J. E. Manchester, T. Reid (a Maori), R. R. King, and the unlucky W. Hadley, who had his cheek-bone broken in the first match.

The team in general fully understands the vital needs for backing up the man with the ball, and of hunting in couples, while its flair for the game, what to do, and how most effectively to do it, is pronounced. It is, I think, owing to their powers of intelligent anticipation that the backs have already won a somewhat spurious reputation for having super-pace. It will be a great surprise if this reputation is maintained in the four International matches.

Already enthusiasts are choosing teams on paper to beat them. The Barbarians could do it with a back division made up of: D. I. Brown (Scotland), full-back; II. S. Sever (Sale), W. Wooller (Sale and Wales), C. W. Jones (Wales), H. L. V. Faviell or A. Butler (Harlequins), or J. J. O'Connor (Ireland), three-quarters ; R. W. Shaw (Scotland) and W. R. Logan (Scotland), half-backs, behind some such pack as P. J. Lawlor (Ireland), E. S. Nicholson (England), J. A. E. Siggins (Ireland), A. Clarke (England), P. W. Dunkley (England), S. Walker (Ireland), J. A. Beattie (Scotland) and J. A. Waters (Scotland).

# The Fourth Frobisher 

A Public School Story

By GUNBY HADATH

T${ }^{1}$ IIERE had been three Frobishers at the School-Primus, Secundus and Tertius, mighty men. every one, at work and at games.

And now, this Winter term, came the fourth and the last Frobisher; and those who remembered Tertius. so recently left, with others whose minds travelled back to Secundus and Primus, looked the newcomer over, demanded his name more than once, then dismissed him with a little shrug of surprise.

For Frobisher Primus had stood full six feet in his socks; this shrimp of a Quartus hardly came up to your shoulder. And Secundus had been broad and ruddy of face, with a ringing laugh and the air of one born to command ; this Quartus was puny and pale and spoke with a squeak. And 'Tertius, enlarging the borders of Frohisher fame, had shot and boxed for the School and off his own bat had kept Drake House cock of cricket, athletics and rugger. How little this last of the Frobishers promised to shine.

Such was the comment that many were making in Drake, as they scanned the new kid and strolled off, raising their eyebrows. Would he live at all up to his name? Well, what did that matter to the small fry whom he was pitched among in his day-room? To these it did not matter a tuppeny bit that this shy little chap was the fourth of an illustrious brotherhood. They elbowed him out of their way: they asked whether his mother washed, and when he replied that she did they declared her a washer-woman, they employed him as a target for their stale quips, and he, unresisting, returned them his amiable smile. For at least there was this to be said for Frobisher, Quartus-his smile was well worth going a long way to witness.

But it mattered to Mr. Grellett--Pa Grellett they called him, in virtue of his long reign over the House-that this Frobisher should show himself more of a man. And drawing the youngster aside one day after breakfast: " Now, Quartus," he remarked, abruptly enough, " your form-master tells me you're not very good at your work. 'That won't do, you know. That really won't do, my young friend."

Quartus kept a sage silence.
"For, you see," Mr. Grellett continued, drawling a little, as his manner was when picking and choosing his words, " you see, your brothers were not only great hands at games, but they all possessed first-class brains, which they turned to good use. They were never idle, Quartus. What about you?"

Then Quartus came out with it. "If you please, sir," he said, " my brothers used up our brains, sir. They left none for me."
"So we'll have to find you some," observed Pa Grellett,

optimist. "Don't you understand that you've got to do my House credit ?"
" Yes, sir," the fourth of the Frobishers uttered uneasily.
"That's good," was the quiet rejoinder. "You cling on to that, man. That you mustn't let the House down, for the sake of your brothers. And for our sake as well, you know, Quartus. Cling on to that."
And Quartus raised his peering eyes to Pa Grellett's, those anxious eyes of his which always seemed searching for something just beyond their sight or their reach, and "Thank you, sir," he stammered; "please can I go now?" like some little tortured creature caught in a trap. For, indeed, he felt caught in the toils of his brothers' celebrity, and was wishing that they had been duffers like to himself. If only one, he reflected, had been a real dud ; if old Tertius, just before him, had been of no use, why, then he himself could have gone on his own quiet way and nobody would have started drawing comparisons. Yes, he wished old Tertius hadn't been such a whale.

His uneasiness passed away ; to return in full force when there loomed upon his horizon the figure of Addison. For Addison was a personage and a prefect, striding, and heavy of hand, as Quartus discovered when a thumb and finger closed on the lobe of his ear. "Now, rat," came a gruff voice-tweak of the ear-" my name's Addison-_-"
"Yes, I know that," he squeaked.
"Oh, you know that already, do you? Did you know this, then-that I promised your brother Tertius to look after you ?"
" No, I didn't," piped Quartus, in terror.
His unwelcome mentor released his ear and confronted him, taking his thin little shoulders into his grip. "Well, don't look so frightened," he bellowed. "I'm not going to $\tan$ you."
" No, that wouldn't be looking after me, would it ?" breathed Quartus.
"That all depends. It might be, if you require it. So listen to me. You belong to Drake House, remember; the best in the School. And Drake House belongs to you. Can you swallow that fact? If so, you won't wander about as though you'd no right here."
"No, Addison, no," averred Quartus, hurrying the words out. After all, this big chap appeared rather decent, he thought.

But Addison's next remark made him catch at his breath. "The new kids are playing their rugger trial to-morrow, and I've persuaded Wilson to give you a good show," he said.
"Who's Wilson ?" said Frobisher faintly.
" He's captain of Rugger."
"I've . . . never . . . played footer," said Frobisher.
If Addison had staggered him, he now staggered Addison.
"You miserable little backslider-_" he was beginning, when, to gain time, Quartus enquired:
"Please, what is a backslider?"
"A backslider is a fellow who lets his clan down." A frown had crossed Addison's face, an incredulous frown. "There hasn't been a Frobisher in the School yet who wasn't a flier at footer," he said, with a growl. "I hardly remember your Primus, but I just recollect as a new kid seeing him run through the Garrison side, my first term. And they used to call your brother Secundus' the steam roller '-he was such a terror to stop when he'd once got the ball. While old Tertius "-Addison's tones had dropped nearly to reverence-" played for the county before he left school. You a Frobisher! And you've never played footer! What rubbish!"
"But it's true. I can't help it. It's perfectly true," stammered Quartus.
" I don't believe it. And I don't care a hoot," declared Addison. "You're going to play to-morrow, my man, in that trial. And you've not to tell anyone that you've not played before. Have you said so yet?"
" No," sighed Quartus.
"Then keep your mouth shut. March on to the ground with your head up, and chuck out your chest. You show them that you're a Frobisher, hang you ! " roared Addison.

## Quartus Scores, but--

Thus hurtled, willy-nilly, into the game, young Quartus did his best to smother his qualms. But his insignificant frame was soon lost in the mêlée. He was playing forward, they told him ; he took their word for it, although he might as usefully have been playing anywhere else. He panted to and fro, he ran up and down, he scarcely glimpsed the ball, he never once touched it, he made aimless grabs at
the necks of fleeting opponents-" Now down him, man! Oh, down him," he heard now and then, and believed that the bellowed injunction came from the line where Addison was performing with a touch flag. Ah, how he ached and longed to "down" somebody -sometime - and somehow! But they brushed him aside like a breath which dissolves on a pane or as a leaf may be wafted to earth at the touch of October. And what was he more than a leaf in this hurlyburly? Yet, nevertheless, did his golden moment arrive. And that was when the game was nearly concluded without a score to either the Whites or the Reds. How it happened he never knew, but in that exquisite instant he found himself with the ball in his hands and no one in front of him. Then, ducking his head, he raced off for all he was worth, one skinny arm hugging that treasured ball to his breast, the other arm stabbing the air to hand off his tacklers as he himself had been handed off time and again.

On he rushed, blindly and bravely. No one had floored him, though that outflung arm of his, as he fondly believed, had come into contact with more than one shoulder or chin. On he went, faster and faster, to tumults of shouting. On he galloped, on and on down the ground, hot with happiness; till he jerked up his head to perceive the tall goal-posts quite close to him, and the figure of the full-back, hesitant, crouching.

Ah, swerve now . . . dodge now . . . one final dash . . . here was the line . . . you have shown them a clean pair of heels, Quartus . . . over you go, man!

He flung himself over the line, the ball underneath him.
When he rose to his feet and glanced round with a shy pride, wave after wave of derisive cheering swept over him ; stupefying, terrible laughter enveloped him. He stood for a moment dazed, and then his lips quivered-and mercifully the whistle blew for " no side".

A Frobisher! What a come-down! Would they ever forget how Frobisher Quartus had scored his phenomenal try by racing away with the ball in the wrong direction and grounding it superbly across his own line? They told him afterwards that no one had stopped him or tried to stop him because the sight was too priceless; the richest thing ever seen on the ground, they declared. "It will go down to history," they chanted, " as ' Frobisher's Try'." And his day-room called him a liar. "You shammed you could play," they said. "I didn't," he answered them wretchedly. "I never shammed anything."
"But hang it all, you're a Frobisher, aren't you?" they countered. "Or is that a swindle as well ? What's your rotten name really?"

And so it went on, chaff good-humoured and chaff with a sting in it. And all of it causing the youngster to burn with confusion and lose his smile and find no more to say for himself. But Pa Grellett found something to say. "My dear chap," he uttered, " you only lost your head in a fit of excitement. Lots of grander people than you have lost their heads, Quartus, in circumstances graver by far than a game. And lots more will. So forget it. Forget it, old fellow."
"" But, sir," stammered miserable Quartus, " I've let the House down."
" The House will survive," smiled Pa Grellett.
And Addison found a word on the heels of Pa Grellett's. "Young Quartus," he observed, " you're a bit of a duffer. But as I promised old Tertius to keep an eye on you, I'll tell you what to do now. Fight the whole boiling lot of them."
"Fight whom, please ?" gasped Quartus.
"'The silly mugs of your own size, who keep on ragging 104."
" But there aren't any of my own size. I'm the smallest," sighed Quartus.
" Never mind, my young bantam. I'm ready to back you. A man who can score a try like that--"

Quartus looked tortured.
" Oh, all right! All right ! " grunted Addison, turning his head away and hastily withdrawing his own striding presence.

But worse was to come. The clouds were not black enough yet. Their inky darkness gathered when, towards the term's end, Mr. Grellett had occasion to send for the backslider. " Now, Frobisher," he began-and his manner had changed-he was standing stiffly and straightly, his hands clasped behind him - "now, Frobisher, I have tried to help you, as you know. But I'm disappointed in you. You have not helped me."
" Helped you, sir !"
" Yes, helped me."
He knew what was coming, for only yesterday morning his form-master had threatened to send up his name. " I'm sorry, sir," he muttered. "Work goes out of my head so."
" Do you try to keep it in ? I'm afraid not. Mr. Leigh informs me that you are shockingly inattentive. That won't do at all. It doesn't help me and it doesn't help your House, Frobisher. I repeat-you must think of your brothers and not let us down."

A choked voice said: "Yes, sir."
"That's all, then. You can go." And as he trailed out Pa Grellett's gaze went after him till the door closed. That gaze was a troubled gaze, but not without gentleness. "Have I been too hard on the little chap?" pondered Pa Grellett.

Thank goodness the term had barely a week more to live. And thus reflecting, young Quartus held on his way, but the expression in his peering eyes had grown more puzzled, as though that for which they were searching was farther off than ever.

## Addison's Request

With four days more to go there came Addison to Quartus. But this was an Addison changed beyond all calculation. His buoyancy had gone, his hard, striding confidence; walking heavily, dragging his feet, he led Quartus away until they were out of earshot under the trees. And then on a sudden he spoke.
"Quartus," he said, " vour brother Tertius was a famous man."
" I know that," winced Quartus, so tired of this stale reminder.

"You are sure that your brother Tertius was a famous man?"
" Don't I know it ? " groaned Quartus.
Addison hesitated, regarding him sombrely. "Then let me tell you," he uttered, " that old Tertius was never really a famous man. Or rather, he would never have been-had it not been for me."

And when Quartus, gaping, kept silence, the strained voice continued.
"This is in confidence, between you and me. It's a dead secret. Old Tertius and I were friends, as I've told you. At the end of his last year but one here, he got himself into a nasty scrape; in fact, if he had been caught they'd have sent him away. And where would his fame have been then, Quartus?"
"Nowhere," owned Quartus, his mind reeling.
"Yes, nowhere. But I saved him. He wasn't found out. But only because I took an immense risk and saved him. Old Tertius was grateful-don't mistake that-and he vowed that if ever his chance came he'd make it up to me."
" And he meant it."
"I know he did. But the chance didn't happen." Then Addison's voice broke a little, his sombre gaze faltered.
" But you have the chance," he said huskily. "You have the chance, Quartus."
" I-_"
"Yes. Now you can do for me what I did for your brother."
There was silence, shattered at last by:" I don't understand, Addison."
" Listen. It isn't a happy story to tell. All the term I've been running up tick with Boyce's, the stamp people, in the town, who are strictly out of bounds for giving our fellows long credit. Well, they've threatened to report me to the Head unless I pay them to-morrow. I swore faithfully that I would and I was going to keep my promise and take them the money, but I've just been 'gated '; I mustn't leave the School grounds for the rest of the term. Yes," groaned Addison, "it's a grim tale for a prefect, who's supposed to set an example. But there it is. And I'm in for it properly unless I can send someone down to Boyce to-morrow. But I daren't risk asking a senior. Besides, a shrimp like you can smuggle through much more easily than a senior. Nobody would mise you for an hour or so."
"But all of us new kids were particularly warned against Boyce's. Not only that, but the town itself is out of bounds, Addison."
" P'ff! The town doesn't matter. You can get special exeat."
"How?"
" By hatching up some excuse."
"And supposing I'm caught?"
"You'll take jolly good care that you're not. Now, then? Will you do this for me-paying back for your brother?"

But Quartus was shaking his head.
Imploring words flowed from Addison. "Oh, consider!" he entreated. "Next Easter I leave to take up an appointment in Egypt, always subject to a clean conduct sheet from the Head. If Boyce reports me, the Head will refuse me that. So I'm finished. I've worked so hard to get to Egypt. I'll lose that. I'll lose my whole future. Oh, you mustn't say ' No', Quartus ; you mustn't say ' No'," he insisted.

Doggedly Quartus kept silence. For why, he was thinking, should he add to his troubles by breaking bounds for Addison's sake or anyone else's? The past was past. Whatever Addison had done for old Tertius had vanished into the limbo of the forgotten.

With this passing through his mind, a sudden change took him. His features most curiously hardened, his voice struck a new note. "Addison," he said straightly, " when you began by telling me how you had saved my brother, were you keeping something back-to use later on?"
" Was I what?" exclaimed Addison.
" I mean this," rejoined Quartus, his head high. "Were you threatening that unless I came to your rescue you would rake it all up against Tertius?"
Then Addison turned on him hotly. "Of course not !" " Do you take me for a blackmailer?" he cried. "Do you ?"

Quartus drew a quick breath of relief. The answer made it so different; it made it so very different. For though he could have hardly defined his revulsion, it is certain that some inner and hidden quality had suddenly stirred in Quartus, and, stiffening, had sprung to arms against the idea of yielding in coward's fashion to blackmail. Had Addison threatened "You do this or I'll do that", it is certain that the youngster would have defied him. But this plea, this naked appeal from the man who had saved his brother's name ; from the man who, after all, had been decent to him ; from the man who was standing to lose the whole he had worked for ; this desperate supplicationcould one resist it ? Moreover, would it do the House any good for one of its prefects to fall into public disgrace ?

As this struck Quartus, he muttered; " Please, let me think, Addison." And his mind worked on. Had 'Pa Grellett not urged him never to let the House down? Well, what had he done for the House, or seemed likely to do for it ? He would be no good to the House in work or in games. Oh, supposing that he saved Addison? That would be something . . . something . . . he'd have kept disgrace from the House! If he paid for it himself, how much did that matter? He counted for nothing. Addison counted for much.
Thus he worried over his problem. Till at last :
" All right," he agreed.
Addison's face changed. "I knew I could trust you," he answered. " Will you go directly after third lesson to-morrow?"
" Yes," said Quartus.
"You can easily slip out, hop into the bus at the corner, and be at Boyce's and back before dinner without anyone missing you."
Quartus nodded.
"That's a bargain, then. To-morrow. After third
lesson. Go to Boyce and explain that I'm gated but will send his money. Now, you promise not to change your mind after sleeping over it?"
" No. I promise," said Quartus.
Addison bustled away.

## The Right Stuff

But Quartus felt no hero. Very far from it. The more he considered his promise, the less he liked it. It had to be kept, but to-morrow was a long time away ; there was all to-night to be fretting and fretting about it. Yes, his resolution might falter to-morrow.

In another five minutes the bell would be ringing for lock-up. There was nobody to see him here under the trees. There was no one to spot him if he slipped away now, and waited for that bus at the corner, and caught it ; with any luck he could sneak back before evening prep. . . .

To-morrow was such a long time away; such a long time for hideous suspense.

Irresolution ceased. He wandered off under the trees, then broke through the hedge, and doubled across the meadows. He climbed the stile, he was in the lane, right out of bounds, he could hear the bell for lock-up distantly sounding as he raced along for the corner where the bus stopped.

It was late to-night, it must be, he thought, in a fever. Ah, that was its horn. He stepped out into the road as the bus drew up-and Mr. Grellett alighted.

There was no escape, of course. 'They met face to face. With the horrified ejaculation of "You!" Mr. Grellett seized his arm and swung him right round. Then, having marched him back without a word to the School, and up to his study in the same terrible silence, Mr . Grellett closed the door, sat down at his writing-table, and beckoning the culprit to stand there in front of him, uttered gravely :
"Now, Frobisher?"
" If you please, sir, I was going," he stammered, " to the town."
"Yes, obviously. You knew you were breaking bounds? And you knew it was after lock-up? Is that so, Frobisher ?"
"" Yes, sir," he answered.
"What did you want in the town?"
He flushed, and kept silence.
"You must tell me, Frobisher."
" Please, sir, need I ?" he begged. "You've caught me, sir. I must pay for it. I'm very sorry."
" Rather late in the day to be sorry," he was informed. " You can go and wait in my anteroom till I send for you."
So Quartus passed through the other door into the anteroom. And Pa Grellett, having more than one string to his bow-as wrongdoers very rarely failed to discoverstepped into the passage and sent a boy to fetch Addison. For Addison, as he knew, had been mentoring young Quartus. Addison came and was told of what had occurred. " It's a very bad breach on the youngster's part, you know, Addison. And he's hiding something. That doesn't improve his case, does it ?"
A distressed expression broke over Addison's face. "It is my fault entirely," he said. "Sir, it's my fault entirely. I sent him into the town as a practical joke."
Mr. Grellett started and stared. "A practical joke ?" he rasped.
"Yes, sir. I invented a yarn, sir. To test him."
" A cruel joke, Addison."

" Please, sır, may I explain ?"
"If you can," Mr. Grellett said dubiously
" It was this way, sir. I promised Tertius to look after him. And not long ago I had a letter from Tertius particularly asking me how the youngster was getting on. Sir, may I read you a line or two of what Tertius says?"
"If you like," Mr. Grellett assented, in a stiff voice.
So Addison plucked out a letter. "This is the part, sir- 'Now, about young Quartus. As a very small kid he suffered from deafness which left him terribly backward. And being supposed to be delicate, he was coddled a good bit at home, and, queer as it sounds, it's a fact that neither I nor my elder brothers ever actually got inside the reserved little chap, I mean we never knew him as one ought to know a young brother. Has he got any backbone? I don't know. I wish you'd find out, old man. Though I'm rather afraid he hasn't, from what you've told me already." " Addison stopped. "You see, sir, I wrote to Tertius more than a month ago to tell him the youngster wasn't shaping too well," he resumed. "And after Tertius' letter I tried to test the youngster's mettle by telling him to go for the kids who were ragging him. But he didn't catch on. So I had another shot, sir."
"By this practical joke, as you call it ?"
"Yes, sir," owned Addison. " I shammed that I'd once helped old Tertius out of a scrape, that now I was in one myself by owing money to Boyce, but that he could get me out if he'd go to Boyce and explain that I was
he anteroom he addressed him. "Quartus" he uttered "I have had the whole story from Addison, and I'm afraid that you are an incorrigible little duffer."
"Yes, sir," answered Quartus, dropping his head.
" Because, you see, Addison's story was all an invention. That's news to you?"
"Yes, sir," gaped Quartus.
" Well, presently Addison is going to apologise. But what I want to tell you myself just now, Quartus, is that you'll never make such a famous man as any one of your brothers."
" No, sir," Quartus squeaked cheerfully.
"You see, you swallowed Addison's story too readily, which shows that you're rather a blockhead."
" Yes, sir," said Quartus.
"But, Quartus--" Pa Grellett was drawling again, just a little--" but, Quartus, my man," he repeated, "in this life of ours there are qualities worth more, believe me, than mere fame. There is selflessness, for example-worth much more than fame. And there's grit. And there is courage which overcomes fear and shrinking without any show." The reflective voice paused, while young Quartus stood staring and puzzled.
"And of these qualities, I think," Pa Grellett concluded, "our fourth Frobisher has shown that he has his full share. That is all. You can go now."

And Quartus went, blushing all over.

# ON the ROAD to 

IIighland cattle flee in panic from an oatcake!


By "BYWAYMAN"

## " WHAT ho! Jack!" <br> "What ho! Joe!"

As casually as that we met and rode away. We counted ourselves hardened travellers, you see, and neither would admit, even to the other, that there was anything very exciting in riding 140 miles through the night to London, there to board a boat for Aberdeen, the Silver City, and begin a tour of the widlest part of Britain, climb mighty Ben Nevis, see the Cuillins rising out of Skye, pass through the Glen of Weeping and . . . and . . .
" I've got a fine gadget to clean the frying-pan," said Joe, and we fell to matter-of-fact discussion of the best way to pack the tent so as to keep the rest of the kit dry.

The following evening we had our first taste of Scotland -in Limehouse ! Feeling rather quiet (a day of London sight-seeing can be very tiring-riding through the night may have had a little to do with it) we sat on the deck of the Scottish boat debating if it was true that behind the tall warehouses there were dark little dens where Chinamen ate bird's nest soup, used chopsticks and smoked opium. Then someone started to sing, the song ran from lip to lip like wildfire and by the end of the first line quite 150 voices (Scotch voices !) were singing " Loch Lomond." ("We'll be by the bonnie bonnie banks next week, Joe!") 'The song ended and there came an answering tune " Roamin' in the Gloamin' "-from the quay this timeand we perceived several hundred Scots gathered to bid their compatriots farewell. (The Scotch are like that-no English crowd gathered at Aberdeen to sing " Daisy Bell " to us!)

Next day we were in the North Sea and Scotch feet were dancing Highland reels to the accompaniment of bloodcurdling shrieks, which Joe declared were relics of the days when the wild Scotch had no other means to terrify their enemies. Before a bagpipe was invented, I presume.

The day after that was memorable. Joe tasted oatcakes!

## The Saving Oatcake.

For our first Scotch picnic we chose our site with care. For the sake of privacy we entered a field ; a turf wall broke the wind and formed a fine back-rest; for view we had a wood, set in a hollow, with mountains rising bluey-grey a great distance behind-the mighty Cairngorms; to complete a perfect Scotch picture, some Highland cattle grazed in the foreground. Of course, we weren't afraid of cattle and, anyway, Highland cattle weren't wild, were they? As though to give us an opportunity to judge, the cattle approached, advancing with lowered heads, and we began to wonder if " magnificent" was, after all, quite the right word to describe their horns. I said that if they did attack us (though, of course, they wouldn't dare) the best thing was to look them straight in the eyes; but Joe said we couldn't look straight into forty pair of eyes at once, so he waved his arms and made noises like cattle drovers do. The half circle of Bovril advertisements only closed in more, with horns lower still, and when they began to bellow Joe pointed out to me (or I pointed out to himanyhow we were quite agreed) that we weren't a bit afraid, really, but clearly it was a choice of being really rude (if we kicked them on the noses they might feei offended) or putting up with them breathing on our grub . . . unless, of course, we went to the other side of the wall, and if we did that they would think we were afraid of them. However, we decided we didn't care what they thought, and from the safe side of the wall Joe tossed them an oatcake (sure proof that he harboured no malice!). At the sight of that cake flying through the air the whole herd turned and fled in panic!

## A Penny Trumpet.

What a life we led in the days which followed! We ate when we were hungry and pitched our tent when we were tired or where some beautiful site took our fancy. We rode through woodlands, skirted lakes by wayward ways that turned and turned again, wantonly, as though to prolong
the delight and show us mountains and trees (:and perfect reflections of both) from every possible angle and height. Steep, rough, mountain-passes taught us that our tent and ground-sheets, sleeping-bags, frying-pan, saucepans and stove and Joe's oatcakes, were not so light after all. Time and time again we stopped with a quick intake of breath as the wonder of some fresh scene broke upon us. Sometimes we came upon picturesque castles, just the shells of grim keeps perched upon rocky islets, cloquent of the days when title deeds were written with swords dipped in ink that was red and warm. lirequently our road came to an end at water and we had to find a boat. As often as not the ferryman was on the other side and we had to shout or wave our arms as hopefully as we could. Once, when we wished to cross an inlet of the sea on the wild West Coast, we were instructed to "Blaw the trrroompet," and found a genuine penny tin trumpet-first cousin to one I had in my childhood days-but never a sound could I produce. However, Joe's laughter at my facial contortions was so loud that the ferryman heard him instead, so all was well.

Joe enjoyed the tour immensely. Joe had oatcakes every day.

Our feeding arrangements were delightfully simple. Shops are rare in Wildest Britain, but in the glens, wherever a pocketful of soil could be tilled, there was a homestead and the good wife was always ready to prove the jokes about Scotch meanness to be-jokes. Usually we struck camp, washed in some mountain torrent and deferred breakfast until we found the real hunters' appetite. As we rode we watched for an opportunity to buy half a pound of butter,


Even a fairy queen could be propitiated with an oatcake.
a loaf, six eggs and some milk. Then, as soon as we were really hungry (most often that was immediately we had replenished the larder!) we brought into use our combined saucepan-kettle-teapot and made a simple meal of the eggs fried in butter and such oatcakes, biscuits, cheese and fruit as fortune sent us. Sometimes there was enough left over for tea. (For some reason we never seemed to need a midday meal.) At suppertime we would forage around for a pint or a quart of milk and praise the handiness of Bantam coffee. Sometimes as a matter of convenience, we let someone else prepare our meals (the Scotch are great makers of preserves, great bakers of cakes!) and not always was payment accepted.

## Fairy Queen, Food and Midges.

Joe agrees with me that the best breakfast of all was the one we cooked on the banks of Loch Garry (up the River Garry from the Caledonian Canal). On the far side of the lake shapely Beinn Tee rose over half a mile high. His lower slopes were wooded, rich was the variety of trees, and gemming the blue waters were numerous islets, the trees on these being more beautiful still-probably because they were protected from nibbling cattle and so the branches could grow right to water level. The scene was so lovely I half feared to see an imperious fairy queen sail over the loch from some hidden leafy palace to command us to silence the Primus until we left her domains. But Joe had

hopes, not fears; he was sure even a fairy queen could be propitiated with an oatcake.

I agreed with Joe that the best evening meal was the night we dined at the Inn where All are Equal. But I must explain from the beginning.

For long we had cast greedy eyes on the road that leads to Applecross. There is only one road : in summer it is steep and rocky, in winter smooth and white. Snow covers everything and no one attempts to go that way through all the long months of short days. We went to see the view. We had heard it described as the finest in the British Isles and perhaps in the world and Bart's map (No. ig Scotland) made it very easy to believe. We vowed we'd climb that pass (the second highest road in this island, by the way) if it killed us. We'd look across the sea to Skye and pick out the Cuillins, Beinn Dearg, Beinn na Caillich and the equally tonguetwisting mountains farther north. We'd see a multitude of other islands, large and small, dotted about the sea. . . why the very map with its browns and greens scattered about the blue was a view in itself! Turning inland we would trace the way we had come with a score of mountains rushing on the sky for landmarks! Views like that would be worth climbing to see.

Well, we approached by way of Loch Long at the point where it joins Loch Alsh and Loch Duich, ferrying under the very nose of old Castle Donnan (where in the old days, no unbidden stranger approached without deadly peril, I swear !) and we ferried again by Strome Castle and pitched our tent on the far shore. The spirit of the old-time bloodthirsty clansmen, land-robbers, sea pirates, lives yetin midges! Indeed, I question if the ancestors of the hospitable people who live there now could have been half so bloodthirsty as those midges who assailed us, and sent for their brothers and grandfathers to reinforce their invasion of our tent. They came in their hundreds and every midge was fiercer that the one before. If good old Joe hadn't kept awake all night smoking them out, I wouldn't have slept a wink!

Next day we went over to the house marked on the map as Tornapress, and began our climb. Upward we toiled until at long last we reached the zig-zag which we knew ended the climb; then, encouraged to a final effort, we pushed forward with eager eyes. We saw something of which we had never dreamed through all the months of waiting, all the labour, all the miles of travel-a thick sea-fog blotting out everything!

## An Honoured Bed.

Such disappointments are the price we pay for the things that are better than we expect! We must go again.

For immediate recompense we had a delightful freewheel rush down to sea level, a 2,000-foot drop spread over four miles of fair road. We covered the four much quicker than the two of the rough climb!

All those who visit Applecross sojourn at the same house; for Applecross, though writ so large in the geography books, is but a handful of cottages and the temperance hotel is the only house that invites the stranger. To its

Stealthily we tiptoed from the sleepinghouse and fumbled for our bicycles.


## Tales of their pranks, courage and neverfailing loyalty

# SKIPDERS LAST MUSTER 



THE day came when I returned to the city to live, and for a time I left Skipper in the country, until his daughter Zoe should be old enough to do the work of the farm. Nearly twelve months went past before I sent for him, mainly because I was not settled and had no home to offer him; but all difficulties were swept aside when some friends asked that they might keep him for me.

He travelled several hundred miles in a train, cooped up in one of the dreadful dog-boxes which in those days were attached to the guard's van. When he arrived in Sydney, after twenty-four hours in total darkness, nerve-racking jolts and bumps, and most mysterious noises driving him nearly mad, he crouched in the farthest corner of his prison and refused to come out. The sudden light blinded him when the railway officials opened the door, and sundry prods with a long stick made him show his teeth and threaten pains and penalties to any who dared touch him.

In the nick of time I arrived on the railway platform. Skipper had not seen me or heard my voice for a year, but walking to the front of the excited group of railwaymen, I just said, "Skipper!" Instantly his ears stood erect, and with one yelp of joy he rushed out of the box and was on me like a whirlwind, almost throwing me down as his paws thudded against my shoulders and his long red tongue kissed my face. He cried and laughed at the same time. He even included all the grinning railwaymen in his sweeping smile, and finally sat at attention in front of me, waiting for orders. A murmur of admiration broke from the group of people who had gathered to see what was going on, and I heard such remarks as : "What a beautiful dog!" " What a glorious head!" "What eyes!"

Had it been to-day, most likely he would have been mistaken for a small Alsatian, for in shape he was much like that breed, although the expert would soon point out the differences.

But I have often wondered why the dog-loving public have missed the Kelpie as a delightful and most marvellously intelligent pet. Perhaps it is as well, for possibly, as with some other dogs, intelligence might soon be bred out of them that the fads of judges and breeders for certain shape and colour should be gratified.

IWAS afraid that the crowded streets of the city of Sydney would confuse him, and that he might pine and fret in a small yard behind a suburban house. But nothing of the sort happened. He settled in most happily, and never left his new friends, or attempted to follow anyone outside their family circle, excepting when I came to take him for a waik, and then no coaxing could induce him to leave me until I gave the order.

There were two small boys in the family, about ten or twelve years of age, and every morning Skipper went with them for a swim before breakfast. He soon taught every other dog at the swimming pool that he was the king of the place, for he delighted in a fight, and thrashed every dog that dared snarl a challenge at him. His duty was to guard the boys' clothes on the bank of the Brick Kiln waterhole, while they enjoyed themselves; and right well he did it. The boys in their turn never tired of telling stories of what the dog could do with sheep, although they had never seen him working on a station; but what they had heard from me, aided by their own very active imagination, sufficed to fill the other boys with wonder and a longing to actually see him doing the things so vividly described.

ONE morning the opportunity came most unexpectedly. The group of boys had finished their swim and were standing half-dressed at the waterhole, when two drovers passed down the street to a public-house with a small mob of about one hundred sheep on their way to the stock saleyards. Skipper had not seen a sheep for many months ; but now he sat erect, quietly grumbling to himself, and quivering in every limb, eager to be off. Then he looked with pleading eyes at the boys, and whined most dolefully.

One of the lads said to the group, in boyish style: " I bet you if I told him to take those sheep to our place, he would do it."

Instantly one of the boys replied: "I bet you he wouldn't." Immediately the lad said: "Go on, Skippertake them home !" No more was needed.

Skipper was off like a shot, and swung round the sheep which were nibbling grass at the side of the road while the two drovers were inside the small public-house having an early morning glass. Their own dog-evidently a poor
kind of animal-was knocked flying by this red fury which swept from somewhere and drove off his flock, and with tail between his legs he crept into the public-house, and thus drew the attention of the drovers to the fact that something was amiss. They quickly set off with waving whips and loud voices to save their sheep from being torn to pieces by some savage city dog-as they imagined.
But they were too late; for Skipper took those sheep down side roads to the gate of the workshop which lay behind the house where he had found a home. The gate was open, and soon the yard was filled with a baa-ing, woolly mass of sheep, while the dog took his stand at the gate.
Here he sefused to allow the sheep to go out, or anyone to come in, and even turned a deaf ear to the entreaties of the lady of the house who came running out to remonstrate. She told me that he smiled at her and waved his bushy tail, as much as to say: "Don't you worry, I know what I'm doing." But move he would not.

Almost immediately up galloped two swearing, angry men on horseback, threatening to kill any dog that dared interfere with their sheep. But Skipper stood his ground, and with flashing white teeth and a deep voice which conveyed a very definite message, warned them off, and refused them admission.

Then a panting group of half-dressed boys, following two leaders who were almost transfigured by pride, rushed round the corner and up to the infuriated but puzzled men, and when quiet had been restored Skipper's history was narrated, and the drovers looked their admiration, and asked the boys to show them what he could do.

THE lads had never seen a sheep-dog work, and except that I had told them how I whistled when I sent the
dog round the sheep, they had not the slightest idea what to do. But with the audacity of youth, the whistle was given and Skipper dashed into the yard, got behind the sheep, and brought them out into the road in beautiful style, where he rounded them up and waited for further instructions.

This was enough. The men wanted to buy him on the spot; but although they promised a good sum of money, they were told that no money could buy him. But it was Skipper's last muster!

In guarding the boys' pets from marauding cats, he earned the enmity of someone whose cat failed to come home again, although there was no evidence that he ever killed a cat. Revenge was threatened, and the terrible deed was planned and carried out. One day the family had been away for a picnic, leaving Skipper to guard the house and the pets; when in the evening they returned, they found him lying stretched on the ground, evidently in great pain. No sound came from him; but as the mother of the family hurried to him calling his name, he dragged a paralysed body along the ground, and as she stooped he licked her hand, wagged his lovely tail, and then resting his chin on her knee he fastened his beautiful brown eyes upon her face as if he would convey some message to her, and thus he passed away from the world, in which he had faithfully done his duty.

It was a heartbroken family which gathered around his grave in the garden, after an examination had revealed that someone had poisoned him ; and it was a tear-stained letter which reached me away in the country telling me that my faithful friend-my first dog chum-had finished his work and attended his last muster. Even now as I tell the story I seem to feel him pushing his cold nose into my hand, as if to say: "What are the orders for the day ?"



# Canadian Airways in Winter 

By PROF. W. HARVEY-JELLIE

A load of supplies arrives at Cameron Bay, (ircat Bear Lake.

TIIE Canadian Airways are amongst the wonders of the modern world of flight. 'The story of their rapid development is an amazing one and the description of the pilot's task in spanning the vast distances from Atlantic to Pacific and from the American frontier to the frozen north awakens a thrillof pride in the heart of the reader.
'To-day the air routes cover as by a fairy network the whole wide D) minion of Canada. You can fly by regular scheduled services from Labrador and the Atlantic coast along the 4,002 miles of the American frontier, following the line of the mighty Saint Lawrence and the great lakes, the prairies and the towering Rockies, passing Quebec and Montreal and Toronto, Calgary and Manff and Vancouver, till you reach Victoria on the western coast.

The real thrill of the Canadian Airways is to be found over the north lands with their myriad lakes and thousand islands, their interminable forests and fabulously rich mines, their wandering herds of caribou, their great rivers and their maze of hills-a miracle of variety and beauty when summer clothes them in verdure and the cataracts roar through the ravines and the lakes spread out like seas under the blue skies.
'There is a resistless attractiveness about the trackless north when snows lie deep and rivers sleep beneath the ice and blizzards sweep the szen landscape with their biting zero breath. In the long northern winters the pilots of the Canadian Airways perform Herculean feats and do some of their noblest work. Special interest attaches to the air routes around James Bay and the shores of Hudson Bay and into the undeveloped country of the North-West 'Territories.

Let me give you a few interesting facts. In 1934 the Canadian Airways carried 2,883 tons of express goods in their work of transportation; they conveyed half a million pounds of mail, they carried 17,000 passengers. Their pilots covered one and a half million miles and spent 17,000 hours in the air.

Can you realise what this means? They passed over
the trackless prairies, over the Great Bear Lake, the vast Mackenzie River, and the Arctic coast ; 4,000 feet beneath the herds of caribou and reindeer appeared like black specks upon the snow. These intrepid pilots rescued trappers who were marooned in the snowdrifts, they carried lost wanderers and sick Indians to distant hospitals; they located abandoned travellers; they discovered isolated camps. To many mining centres far beyond the iron road they conveyed machinery and lumber as well as food. They even carried teams of huskies for the sleighs of northern trappers and brought back the priceless pelts of hundreds of silver foxes.

The Canadian Airways possess twenty-five bases of operation, where they house their splendid planes - from the giant Hornets of $700 \mathrm{~h} . \mathrm{p}$. to the little Puss Moth. The pilots may be found-always ready for emergency calls as well as for duty according to scheduled time-at a hundred posts from Labrador to Yukon Territory; fuelling stations have been established even as far north as the Arctic Circle. Their services are ever ready to assist the prospector in locating new and untried fields of mineral wealth ; to aid the explorer by photographing the outlying


A lake in Labrador, 200 miles north of the St, Laverence Gulf.
lands beneath; to rescue the distressed and to support the directors of the northern mines of silver and nickel and cobalt.

Can you picture what it must mean to the hardy pioneers in some little far north encampment, after howling blizzards $50^{\circ}$ below zero have buried their huts in snow and reduced them to starvation in their loneliness, when they are startled from their despair by the buzzing noise from the clouds and suddenly catch sight of the huge plane bursting into view in the blue skies. with its load of provisions and drugs which it has brought from Edmonton or Winnipeg?

Or, again, what light of hope will sweep over the face of some pain-worn sufferer with crushed and broken limbs
when the airship arrives in answer to some call by radio to hurry the sufferer to the care of surgeons and nurses in the comfortable hospital. And yet again, one can picture the merry party of huntsmen, clad in furs and armed with rifle and rod, bent on the joys of a wild, free fortnight tracking the great game and hooking the huge trout in forest and stream a thousand miles from the din of the great cities.

Wall, let me tell you this - for enchanting variety of landscape, for excitement of novel thrills, for skill and heroism and adventure, you must come to northern Canada and get in touch with the Canadian Airways in the clear bracing days when the wide lands are clad in white winter snows.

## Chitambo

## The Death Place of a Hero

By BASIL FULLER

WHEN the world was stirred by the story of the death of David Livingstone the place of his death was vaguely known as "Darkest Africa." Yet Chitambo, the village where the great explorer died, is only 280 miles south of Rhodesian territory and 500 miles from the Victoria Falls. "Darkest Africa" is quickly growing smaller and now consists of the unexplored tracks of the Congo forests where the pigmies, the man apes and the wild game, dwell much the same as they did 3,000 years ago. Yet Chitambo remains as unknown to-day as it was in the time of Livingstone.

Chitambo is a village on the Lulimala. The hut into which Livingstone was carried shortly before he died still stands, and the natives claim that they still have the litter in which his sick body was carried. He died on April 27, 1873, and his faithful followers recorded the passing on a tree which has now been replaced by a permanent monument to commemorate his death.
The story of Livingstone's long fight is well known in Old Chitambo. Almost every inhabitant can tell you how as a Scottish youth he was taken up with the idea of missionary work, of his bitter disappointment at having to go to Africa and not to China as he wished, of his journey north across the Zambesi ; how he was rebuffed by his missionary employers and how he rescued Stanley.


The permanent monument to commemorate the death of Lidingstone.

Canadian Airways craft at Goldpines, Ontario, in the Ked Lake mining area. (The photographs in this article are reproduced by the kind permission of (anadian Airways.)

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Livingstone's last entry in his journal reads: " Knocked up quite, and remain-recover-sent to buy milch goats. We are on the banks of the Molilamo". Ilis bovs found "the great master" as they called him, kneeling by the side of the bed to which they had borne him the night before. He must have crawled from his bed in great agony, paid his last respects to his Maker and passed away. His body was not buried in Old Chitambo for his men preserved it as well as they could and, wrapping it carefully, carried it together with all his papers to Zanzibar. It was shipped to England and buried in Westminster Abbey. This was not the resting place that Livingstone would have chosen for once he wrote of the little African village : "This is the sort of grave I should prefer; to lie in the still, still forest, and no hand ever to disturb my bones."

Old Chitambo is greatly honoured that the man who opened up Africa should have died there, but if Livingstone had been buried where he wished it would have been honoured still more.


I'o Burgovne's chagrin the Socilian Postal Authorities refused 10 transmit the cable reporting the locating of the Euralia to the London office. As he left the post office with Pendock and Mugley, a gang of men suddenly pounced upon them, and after a furious struggle in which Burgoyne received a serious knife wound, the Englishmen were carried off to prison without being informed of the charge against them. Owing to the intervention of the American Consul, they were released the next morning, but after their return to the ship fresh trouble cropped up in the form of a cable purporting to come from the I ondon office, in which Wroxall was instructed to " abandon operations and proceed to Jamaica". Accompanied by Stannitorth, Wroxall left immediately for San Tome to get the cable verified, but when they arrived they found the post office shut. . . .

## CHAPTER XXI

## MySTERY

OF course, it would be!" exclaimed Stanniforth, as they gazed upon the fast-closed doors. "Every person and everything in this benighted mañana show seems to be conspiring against us."
"We're in Condalia, not Socilia."

- Doesn't appear to make much difference. Although one crowd wants the wreck raised and the other doesn't."
"And on top of it all we're ordered to pack up and abandon operations," added Bob dolefully. "Unless, of course, there's been an error in the code transmission. That's why I'm asking for a repetition."
"Or your wireless message might have been misrepresented," suggested Stanniforth. "It has always struck me that code messages are liable to a high percentage of error. Ah well! What's to be done now ?"
'There were hotels where they could sleep luxuriously, but such an idea was scorned. Since there was no official with whom the motor-launch could safely be left, the two hands must remain on board; and it went against Wroxall's principles to shirk sharing the discomforts that the men might have to undergo.

As al result Bob and Stanniforth slept as best they might upon the boat's cushions spread in the after cockpit, while Symes and the bowman slumbered in the for'ard well.

At six o'lock they were awakened by the slanting rays of the early-morning sun and found themselves in a world of almost complete silence. The noisy city had gone to rest ; the toilers were not due to resume their labours until seven. The electric trains that had kept up their jangling noise until an hour before sunrise had returned to their depots. Except for an armed policeman who was reclining on a bench smoking a long cigar, the wharf was deserted.

About fifty yards off a couple of launches were lying alongside of each other and made fast to the quay. The outer one displayed a white riding light, so evidently there was no one on duty to extinguish it at sunrise. On the bows of each craft was the word "Telegrafos".
"There should be three," commented Stanniforth. "I wonder if the other's missed? I say, old man, aren't you feeling neckish?"
" I am," admitted Wroxall. "And I fancy our crew are, too. Are you, Symes?"
"Just taken in a notch in my belt, sir!"
"All right. You two had better see if you can find a café open and get breakfast. Here's a dollar note., When you've had your meal we'll see what's doing in that line."

The two seamen went off.
Half an hour later the industrial side of San Tome awoke. Trams and motor vehicles appeared, depositing gangs of lethargic workmen around the docks. A Chilean tramp across the basin commenced to unload her cargo.

A little later on four uniformed men strolled down to the quay, paused abruptly and, pointing to the two post-office craft, began jabbering excitedly.

From scraps of their conversation Wroxall gathered that they were perturbed because one of the express fleet was missing.
"Holà, señores!" shouted Bob.
The men actually hurried.
"What is his honour's pleasure? " enquired one.
"Do you know one of your launches was destroyed by fire last night?"
"Caramba! Is that so? The President will be grieved. His son was in the boat."
"I I shouldn't be surprised if the President and his son aren't having breakfast together," rejoined Wroxall. "We were fortunate at being able to pick up the crew."
"Then it is certain that His Excellency will pay a visit to your Cyclops and thank you for your inestimable services, señor."
"Tell me ; at what hour does the chief post office open?"
"At eight, señor ; but the telegraph department is open day and night!"

Wroxall very nearly said the English equivalent to "Caramba"!
"We could not find any door open," he declared.
"Assuredly not, señor. The night telegraph office is in the Calle Balmaceda. If you will permit me, I will show you."

Bob hesitated and glanced at Stanniforth. He was dubious about leaving the launch unattended.
"Here's Symes," announced the doctor.
A few minutes later Bob got his demand for a repetition of the cablegram through. At best it would be four hours before the confirmation-or amendment-came back.

He was on the point of leaving the office when a clerk called him back.
"' This is evidently for you, Señor Ouazal," he said, addressing Bob by the Condalian pronunciation of his surname. "A Although it is not strictly official to give it you, I am satisfied concerning your identity. Otherwise the message would have to be delivered on board your ship by one of our launches."

Thanking the man, Wroxall opened the envelope. The contents were in code, but he had had the forethought to bring the ship's copy of the code-book with him.

The cablegram ran as follows :
" Wroxall, Cyclops, via San Tomë, Condalia. Annul cablegram of yesterday's date. Heartiest congratulations upon success. Explanation of your cablegram from Marco Paz requestedFinray."

" It would be!" exclaimed Stanniforth, as they gazed upon the fastclosed doors.

He returned to the counter.
"Has that cablegram of mine been sent off yet ?" he enquired. "If possible, 1 should like to cancel it and send another."

The clerk pretended to telephone to another department. Actually the form, with others, reposed in a file behind a frosted glass partition.
" I think I can recover it, señor," he declared, and hurrying out of the room, returned with the cablegram form, which he had dexterously removed and secreted in a book.

Wroxall brazenly tipped him with a one-peso note. In the circumstances it was well worth it.

Then he despatched a message to Findon \& Rayse declaring that no cablegram in code or otherwise had been despatched by him or anyone acting on his authority from Marco Paz and no message would be sent from that place under any circumstances.
"'That's cleared things up a bit, doc," he remarked joyfully, as they gained the sunlit street. "There's a lot to be investigated, but that can wait. Now we can go full steam ahead. Still keen on breakfast?"
" I can hang out till we get back on board."
"So can I. Brekker on board's worth half a dozen here. Race you back to the launch, doc!"

## CHAPTER XXII

## THE RELIC FROM STATE-ROOM 21

"IIXPENCE for a peep, including entertainment tax, Tom!" said Wroxall jokingly.
He led Burgoyne up to the decompression chamber that a few minutes before had been raised and deposited upon the Cyclops' well-deck.

A fortnight had elapsed since Wroxall's visit to San Tomè. So far no letter had been received from head office that might throw light upon the mysterious cablegram that, equally mysteriously, had been despatched from Marco Paz in the firm's secret code.

Tom Burgoyne had now practically recovered from the effect of the Socilian's knife-thrust. Fortunately there had been no complications and Stanniforth was to pass his patient fit for duty on the morrow.

It was Tom's last day of enforced idleness and he was sitting in a deck-chair on the upper deck when Wroxall came up and made his facetious remark.

Burgoyne peered through one of the thick plate-glass windows of the steel cylinder. Inside were two divers-Trevarrick and White.

Seeing the glass darken, Trevarrick looked up. A cheerful
smile played upon his features as he held up a blackened object to Burgoyne's view.

It was the cherished electric light fitting from State-room No. 21 .

At any rate, Tom hoped that it was. It would not be in his possession for another two hours. Until the air pressure within the chamber was equal to that of the normal atmospheric pressure the desired object was as inaccessible as the Crown Jewels in the Tower of London.

There was no object in remaining where he was and gazing through the observation window. Burgoyne turned away, leaving the imprisoned divers, to continue their prolonged process of acclimatization.
"You'd better go down to-morrow and see how we've progressed," said Wroxall. "In another week we'll have made a fairly clean sweep of the superstructure. It would take too long to blow away the decks to get to the bullion-room. I'm trusting ," be able to get to the gold when we bring her to the surface."
"It will be a stupendous job parbuckling her, won't it ?"
"It will," agreed Wroxall. "I'm trying compressed air in certain compartments on the port side to assist in the turning process. And the slope of the sea-bed is in our favour. All the same, it will mean a terrific strain on our lifting-gear and we haven't anything in the way of a rise of tide to assist.'
" I feel a frightful slacker having to stand off for this," observed Burgoyne, touching his now practically healed shoulde1.
"That's all right," rejoined Bob. "You were hurt in the execution of your duty just as much as if you'd met with a mishap either here on board or down there."
"So far there's been no accident."
Wroxall laid his fingers on the framework of Burgoyne's chair.
"Touch wood!" he exclaimed. "We're luckier than lat first anticipated. The current's down there, you know. Pretty fierce, but curiously there's generally slack water on one side of the wreck or the other, according to the state of the tide."
"What's her hull like now ?"
"Port side below normal load-line seems intact. We haven't been able to see what she's like on the starboard side. If it's a rocky patch on which she's lying, it will be in a pretty bad state. However, if we can parbuckle her until her keel plates are uppermost, we'll be able to see the extent of the damage."
"The explosion was on that side, wasn't it?"
"Yes; I expect to find a rent of twenty feet at least," replied Wroxall." "Trevarrick wanted to explore $D$ and $E$ decks, but I wouldn't let him run that risk. And the bullion-room is on E deck."

When, at length, the two divers were liberated from the decompression chamber, Trevarrick handed 'Iom the object which the American Consul at Marco Paz had asked for.

It was a bracket fixture representing a triton blowing a conch. The electric lamp bulb had been fixed in a bayonet socket in the mouth of the trumpet-like conch, but the terrific pressure of water had naturally crushed it out of existence. 'The whole thing was black owing to prolonged submergence in salt water.
"What is it made of--silver ?" asked I3urgoyne.
"Scrape it and see," suggested Wroxall.
Very carefully, with the blade of his knife, Tom removed the blackened surface. Underneath was a hard metal that certainly was not silver.
"Worth about sixpence as scrap metal," observed Bob. "I wonder why your pal, the Consul, is so keen on it?"
"He didn't tell me," replied Burgoyne. "But he seemed frightfully anxious to get it from stateroom 21."
" He needn't worry about that, sir," remarked the chief diver. "I thought I'd unscrew the number from the door just in case -",
"I wasn't doubting you, Trevarrick."
"No, sir: but there you are. There'll perhaps be fifty or more o' them brackets in the wreck, but you can rest certain sure yon's the one I wur axed tu get."
The work of demolishing the superstructure proceeded by


An armed policeman zeas reclining on a bench smoking a long cigar.
day and night. Divers from both ships worked in shifts, using pneumatic and hydraulic tools to cut through the metal-work and not infrequently resorting to small charges of explosives.

Since it was essential that the bottom all around the wreck should be kept clear of debris powerful grabs were employed to bring the displaced metal to the surface and to place it in the holds of the two lighters that had been hired from a firm in San Tomé
Periodically the laden barges returned to port, there to discharge their cargoes of scrap metal, which, apart from its intrinsic value, served as a reminder to the Condalian authorities that the salvage firm of Findon \& Rayse was not letting the grass grow under its feet-in a double sense.
But fifteen fathoms down grass of sorts was growinglong tentacle-like shoots of particularly tenacious and rapidly growing seaweed that not only impeded the divers' progress, but made the decks hazardously slippery.

- How do you think I'd better get this through to the Consul?" asked Burgoyne, indicating the wooden box in which the recovered fitting had been packed.

Already the horrowed American ensign had been returned with a courteously worded letter of thanks. This had been sent through the post from San 'lomé. To send the salvaged electric light fitting might prove to be a very different proposition. Although intrinsically almost worthless, it might raise suspicions in the minds of the Condalian officials. Obviously the simplest way would be to send it by launch to Marco Paz , but for good reasons Wroxall did not want any direct communication with the Socilian town unless absolutely necessary.

Wroxall was still thinking about his reply when he noticed a vessel steering on an easterly course, which meant that her destination could only be Marco Paz, since Socilia possessed no other seaport within the limits of Furioso Harbour. On her present bearing she would pass within half a mile of the two salvage ships, and, knowing the nature of their operations, she would slow down to prevent possible injury to the divers.
"Signalman!" exclaimed Wroxall, hailing the bridge. "What ship is that?"

The man brought his telescope to bear upon the approaching craft, which was still two miles off
"The Marblehead, sir," he reported. "She's flying American colours."

Marblehead! That was certainly an American name; but how could the signalman make out her ensign that was flying aft and consequently hiddenby her 'midships superstructure?

Hurrying up the bridge ladder, Bob borrowed the signalman's glass. Then he solved his own unspoken question. The wind blowing broad on the vessel's port beam made it just possible for the flag of the ensign with the tips of its thirteen horizontal red stripes to be visible clear of her upperworks.
" Will you please make the signal: 'Will you take our mails ?'" ordered Wroxall.
The hoist had hardly been sent aloft when the Marble head replied with the affirmative signal.
"There's your chance Tom !" declared Wroxall.
The motor-launch was ready and manned. Taking the corded box with him, Burgoyne boarded her and she set off to intercept the oncoming American vessel.

The Marblehead had already slowed down. The great bone in her teeth had subsided into a gentle ripple at her bows From a cat-davit a large net was being lowered.
Rounding-to, the launch came up alongside, both craft still carrying way.
" Say, your folks ain't having much of a mail day!' shouted one of the Marblehead's officers when he saw that only one small box was placed in the lowered net.
" It's for the United States Consul at Marco Paz," announced Burgovne.
" Gee! A case of whisky or an infernal machine, son?"
" Neither, as it happens," replied Tom. "Thanks awfully."

The American grinned and waved his hand. The Marblehead's propeller gave a few kicks ahead and then increased the revolutions, while the launch, tossing in her bow-wave, swung round and retraced her course

Tom Burgoyne felt very well satisfied. He had been able to gratify his benefactor's curious whim.

## CHAPTER XXIII

"WE are almost on the edge of the Devil's Cauldron!' The warning, booming into the earphone of Burgoyne's wireless telephone, brought stark realisation of the unseen peril that beset him.

He was sixteen fathoms down in almost pitch-black darkness and in company with Wroxall and 'Trevarrick. They were
wearing self-ccntained diving-dresses, and consequently, being independent of air-tubes and life-lines, their range of action was greater. Aerial communication was rendered practicable by small receiving and transmitting sets. They were following a wire track rope, previously laid by the diving-party, which led completely round the wreck.

The strong tropical sunlight would normally just pierce this hundred-feet depth of water, but the lavish growth of marine flora had prevented natural light coming to the divers' aid. Even the powerful electric lamps clamped to their belts were of little use beyond a range of five or six feet.

And, without knowing it, Burgoyne was almost on the brink of that fearsome submarine abyss where the depth suddenly increases from fifteen or sixteen fathoms to seventy-five.
"Hang on!" cautioned Wroxall again. "We're making our way under the heel of the rudder. There may be a pretty strong current on the starboard side."
"There be, sir!" announced Trevarrick, who preceded the two engineers.

Burgoyne found himself descending a fairly steep slope. He remembered that the wreck was lying close to a mound. It grew even darker. Thirty feet or so above him was the Euralia del Sol's enormous rudder, still "amidships", and actually hinged in a horizontal position. It was invisible, but he knew it was there, hanging like a gigantic sword of Damocles above his head. If the rudder-head should suddenly give way or the tiller chains part, that thirty-ton mass of metal would simply flatten out the three of them! Or, to put it another way-here was Scylla in the form of the rudder and Charybdis represented by the seventy-five-fathom deep.

Then, realising that he was on inspection duty and not dabbling in mythology, Burgoyne continued his way, gradually turning to his left as he followed the guide-wire.

It grew lighter. The marine growth was less dense and the rudder no longer intervened between him and the surface. He could make out Wroxall's copper helmet and air-cylinder-both grotesquely distorted in the dim, greenish light.

Presently they encountered pieces of jagged metal They were approaching that part of the wreck where the cutting-away operations were in progress, though for the present suspended.

The range of visibility increased. There was very little vegetation in this area. The bottom consisted of fine, white sand sprinkled with what looked like gigantic bits of broken crockerypieces of bulkheads studded with open rivet-holes, rims of scuttles, part of a jalousied cabin door, a length of three voice-tubes still clamped together, and a variety of other debris from the already demolished A and B decks. Between and over this chaotic mass moved crabs large and small. Frequently loathsome-looking eels, disturbed by the divers' approach, would kick up a little cloud of sand with their tails as they darted for safety. There were fish, too, short, tubby creatures with bulging eyes and open mouths, swimming lazily to and fro and even staring at the copper headdresses before they swam slowly out of sight.

Here the water was absolutely still. A few fern-like tendrils rose almost perpendicularly and motionless from the sea-bed, to sway gently in the disturbed water as the human invaders of Neptune's domain approached.
"Quiet enough here," observed Wroxall. "Fifty feet farther away there's quite a strong current running. We're protected by the diversion of the stream by the ship's bows. Do you notice how the ground slopes away from under the wreck ?"
"About one in ten," hazarded Burgoyne.
"Hardly. Say one in twenty. Enough to be of use to us. Ah!"

He paused. Just in front of him was a shallow gully, about two feet in depth and three in width.
"'That's handy, Trevarrick."
"Aye, aye, sir. You'm thinkin' of they parbucklin' wires ?",
"Yes. I hope it goes right underneath the wreck. We could do with more of them."
"Steady, sir," cautioned the chief diver.
But Wroxall was not to be denied. He meant to explore that gully. If it were to be used for the purpose he intended, someone must make his way through. And Wroxall was a man who would never send anyone to attempt anything that he wouldn't himself tackle.

Bending, Wroxall made his way along the natural trench. Burgoyne followed. He turned his head and saw Trevarrick close behind him.
" Best keep tugether, sir," declared the man. gets jammed, we'm there tu pull him back."

Wroxall had switched on his lamp. Tom did the same. He could see little except the hunched form of the leader and above him the barnacle-encrusted side plating of the wreck.

The utmost caution was necessary, for although their massive helmets would withstand any ordinary blow, the air-containers were vulnerable. A jagged piece of metal or even a razor-like barnacle might easily penetrate the metal case, with disastrous results to the man whose air-supply would then be destroyed.

After an apparently endless crawl, Burgoyne noticed that the plating overhead had changed in character. There were no
longer any scuttles. He realised what that meant. He had traversed the gully under the original freeboard of the ship-roughly forty feet - and twenty-seven additional feet had to be tackled-the distance from the waterline to the bilge keel-before he had passed completely under the ship.

And what if the projecting bilge keel obstructed the possible exit? The thought made him shudder. It would mean backing through some seventy feet-backing when even crawling forward entailed great physical difficulties.

Burgoyne was continuing his slow progress when in the rays of his lamp he saw Wroxall cautiously rise to his feet. For a moment he imagined that the distance traversed had appeared to be greater than it actually was and that Wroxall had emerged from under the wreck.

For the first time during this passage perilous Wroxall spoke.
"We're lucky!" he announced. "Bilge keel should be here. It isn't. It's been torn away."

Straightening himself-and what a relief it was in spite of the cumbersome diving-dress-Tom discovered that he was inside a spacious artificial cave. Actually it was a cavity in the double bottom and extending into the orlop deck or possibly one of the kolds. The rays of their torches revealed little-only a couple of shattered bulkheads looking like stage scenery when viewed from behind a dim light
" Couldn't 'a' served we better, sir," declared Trevarrick, who, like his companions, was now standing and directing his torch on the fractured steelwork.
"It all depends whether the hull is strong enough at this point to take the strain of the parbuckling wires," observed Wroxall.
"Once we get the wire passed under we can surge it for'ard or aft tu our liking, sir."

Burgoyne found himself filled with admiration for his colleagues. Here they were, fathoms deep, and not knowing whether they were in a cul-de-sac or in an open tunnel, exposed to the risk of being crushed by the subsidence of the huge mass above them and running a score of other risks. Yet they were calmly discussing technical matters as whole-heartedly as if they were poring over drawings in the chief's office
"That's so," agreed Wroxall. "You'd better have White to help you run the wires to-morrow. The sooner they're in position the better, in case she settles a bit more."

They resumed their progress. It meant crouching again, but for only a few feet. Then, forcing their way through a thick belt of seaweed, they stood in the sea-bed on the port side of the wreck.

Stood! That was an inapt word. So strong was the current that all three men were leaning sideways with feet braced against the sand, in order to prevent themselves being swept away into the not-far-distant Devil's Cauldron.
" Guide-wire must be somewhere hereabouts," said Trevarrick. "Supposin' we link hands and try tu find en, sir ?"

The suggestion was acted upon. There was no time to waste. They had been down longer than they had anticipated and the submarine current, following a period of slack water was gathering strength.

They were shuffling along, hoping to pick up the wire in their boots, when suddenly Trevarrick stumbled, made a frantic effort to recover himself and partly succeeded.
He was rooted to the spot.


Hating recovered from the shock following his narrow escape, Wroxall returned to the attack.

Wroxall and Burgoyne, who were following, stopped because ' Trevarrick had done so.
"Found it ?" enquired Bob laconically.
"I have that, sir," replied the chief diver. "A clam. It's got my boot all right. "I'es no use tryin' to wrench myself clear." Cautiously Wroxall bent and by the aid of his torch examined the trap into which Trevarrick had fallen. He, too, harboured no delusions concerning the giant bivalves that frequent tropical and sub-tropical waters.

This one was not what could be termed an enormous one. It measured about two feet across the upper shell. In addition to the vice-like pressure of the two shells it was anchored to a rock, so that ordinary human strength-handicapped by the pressure of water-would be insufficient to wrench it from the solid mass to which it adhered.

Owing to the strong construction of the diver's boot the lips of the bivalve could not crush the man's foot or even puncture the rubber-proofed canvas. The danger lay in Trevarrick attempting to pull his boot away. Then the fabric might be
ripped open. Although air would still be contained in the upper portion of his dress, water under great pressure would fill the suit up to the level of his waist or even his chest. In this event he would be doomed.
"Hold on to him a minute, Tom!" ordered Wroxall. "Shine your light down. ... Good!"
Drawing his knife, Wroxall set to work slowly and deliberately. He was hampered by the lack of a good light. He would proceed cautiously lest an ill-placed cut with the keen blade should bite into 'Trevarrick's foot.

Even as he probed to wrench open the strongly-hinged shells, Bob felt a sudden jar against his leaden-soled boot.

Another clam, much larger than the first, had suddenly closed its cement-like jaws, missing its prey by the merest margin.

Close to it was another and yet another.
The three men had blundered into a veritable trap-a bed of clams. Next to the octopus there is not a live enemy beneath the surface that a diver treats with more respect than these formidable man-traps.

## CHAPTER XXIV

RIDING IT OUT

AND Wroxall knew this. He had scant respect for sharks when he was wearing a diving-dress. Cowardly creatures, they are easily scared by the simple procedure of releasing a small quantity of compressed air from one's helmet. Swordfish, too, can be dealt with in a similar manner. It was the large bivalve, harmonising with its surroundings, and the cuttlefish lurking in the dark recesses of the sea-bed, that had to be avoided.

If this were not possible, then it meant a grim struggle in which the human element frequently paid the penalty.

With admirable presence of mind, Trevarrick kept perfectly still: Burgoyne, warned by his companions, retreated a pace, inclining the body to resist the steadily increasing pressure of the submarine current.

Having recovered from the shock following his narrow escape,

Wroxall again returned to the attack. He knew exactly where to use the blade. He had to cut the contracting muscles on each side of the upper and lower shells. Owing to the fact that the clam's jaws were slightly extended by Trevarrick's leaden-soled boot, this was not so very difficult, provided he cut cleanly and avoided slicing the chief diver's canvas suit.

He felt the blade rip through the leather-like muscles. Another cut settled the corresponding set. The contracting powers of the bivalve were destroyed. Using the blade like a lever, Bob wrenched the vice-like jaws apart.

## Trevarrick was free.

"Steady-this part's stiff with them," cautioned Wroxall.
"Aye, I've marked the spot," rejoined Trevarrick. "A little charge o' gun-cotton will make all the difference next time I come down."

A few minutes later Trevarrick almost collided with the guidewire, which at that point was about three feet from the bottom, being fastened to iron stakes.

In single file they hauled themselves along, battling with the current, until the distorted shape of the suspended decompression chamber rewarded their efforts.

It was a tight squeeze for the three of them. The airtight door was closed and the signal given for the attendants above to haul the apparatus to the surface.

Two hours later Burgoyne and his companions were able to leave their cramped quarters and breathe the pure, salt-tanged air-one of the few of Nature's lavish gifts that Man has not thought fit to impose a tax upon for his fellows to pay!

The midday meal over, Wroxall summoned his staff to the office and by means of a scale model of the wreck pointed out the various parts of the ship at which parbuckling wires were to be placed in position.

For the next fortnight the task of demolishing the superstructure continued almost uninterruptedly. Trevarrick, however, found time to carry out his promise to deal faithfully with the bed of clams. An explosive charge, electrically fired, did its work thoroughly. Not only were the shell-fish blown out of existence, but for a radius of ten yards every sign of marine growth had been removed. Consequently the natural tunnel Wroxall had found to extend underneath the 'midships section of the wreck was now clear at both ends.

Divers also set to work to excavate other trenches under the ship, so that when the time came ten massive parbuckling wires could be placed in position ready for Wroxall to attempt his daring exploit of turning the wreck keel uppermost.

Every week Wroxall sent a detailed report to the head of his firm, showing the progress of the operations and the cost to date. The latter item gave him great concern. It was steadily mounting up, with nothing to show on the credit side as far as actual receipts were concerned. He felt like a gambler who, although losing steadily, hopes to recoup himself and in addition make a fortune on the result of one lucky hazard.

Other periodical reports were sent to the Condalian Government, only they were not so detailed. These were, as Bob observed, merely to let them know that something was being done besides sending lighters laden with scrap metal into San Tome. Otherwise how were they to know what was transpiring deep down when only a relatively small number of men had individually a limited view of the stupendous task that was hidden from the rest of mankind?

Friday nights were always times of excitement on board the two salvage ships. During the afternoon the post office launch brought off the ship's mails-news from home. 'These were duly distributed to the hands not on night shift during the second dog watch.

Three weeks after he had despatched his cablegram to Findon \& Rayse asking for an explanation of the code message purporting to have come from him and sent through Marco Paz, Wroxall received a bulky letter from his chief.

In it Mr. Findon stated that he had received a cablegram in the firm's secret code and signed by Wroxall. It reported that owing to the hostile attitude of the Condalian Government, who for some reason wanted to hamper operations, it was practically impossible for the salvage work to be continued. He therefore suggested that orders should be sent from head office that the Titan and Cyclops were to leave Furioso Harbour forthwith, and since vital clauses in the agreement had been broken, the contract should be considered to be null and void.

In all good faith the firm had cabled back concurring in the suggestion contained in this forged report, and only the timely receipt of Wroxall's wireless message made Mr. Rayse realise that sinister forces had been at work. He then cabled to Wroxall telling him that in future all code messages must be sent through San Torné post office and not through that of Marco Paz.
"We've steered clear of one shoal," continued Mr. Rayse in his letter. "I don't think we need waste any time trying to discover who is in unlawful possession of the firm's code. The fact that we've scotched all messages through Socilian channels is sufficient to safeguard us. All the same, it would be interesting to find out who this fellow is and what his object is if there's anything in it beyond an attempt on the part of the Socilian authorities to prevent the salvage work coming to a successful conclusion. But get along with the good work. If you are as successful as you have been on previous occasions, I am looking forward to receiving the news, six months from now, of the raising of the Euralia del Sol."

Wroxall finished reading this lengthy letter and put it in his desk, intending to hand it on to the officers of both ships to peruse.

He was about to devote himself to the rest of his correspondence when Cap'n Brash knocked upon the cabin door.
"I thought I'd come tu tell 'ee, Mr. Wroxall, I'm not likin' the look of the weather."
"Oh! What's wrong with it? Glass is steady and the wireless weather reports don't predict any change on this part of the coast."
"Aye, Mr. Wroxall, that's the worst of it. I've been speakin' tu that nigger skipper an' he do declare there's summat behind those clouds banking up tu wind'ard. 'Twull come sharp an' suddin' like wi' a big drop in the glass almost as it's atop of us."
"Then what do you suggest, Cop'n Brash ?"
"Send the lighters in tu San 'Tommy while they"ve a chance," replied the Old Man. "We can veer out all cable and ride it nut. Holding ground's rale good; but 'tain't no call tu keep the lighters. They'll swamp sure an' certain."
"Carry on," decided Bob. "You're responsible for the ship, cap'n, and you've never let me down yet."
"Very good, Mr. Wroxall," rejoined the Old Man. "I'll be away now. We'll strike our top hamper in case and make all snug. I'll signal Cap'n Condor and tell him tu take all precautions."
A few minutes later Wroxall went on deck. In spite of her size the Cyclops was rolling in a long, sullen swell. The lighters were already on their way to the shelter of San Tome-or San Tommy, as Cap'n Brash would have it.

Both on board the Titan and the Cyclops the boats had heen hoisted, turned in and secured. Such derricks that could be lowered were lashed down firmly. Cables were veered so that both vessels rode to an open hawse, with ample swinging room to avoid a possible collision in case of a sudden shift of wind.

The outlook was not promising. Away to the nor'east the snow-capped sierras were hidden by a long, regular line of inkyblack clouds tipped by violet and greenish hues.

The air was still and excessively sultry. From a visual aspect there seemed every likelihood of a hard blow and yet the glass remained steady at 30.05 . The afternoon sun, shining in an unclouded sky, beat fiercely down. There was no protection on the upper deck, since the Old Man had ordered awnings and side curtains to be unrigged and close stowed.

The diving-parties had been recalled and six men were being " decompressed". Their lot would not be a happy one should the ship start rolling heavily before they were in a position to leave their hermetically sealed prisons.

The Titan was raising steam while the engine-room staff of the Cyclops were ordered to stand by, ready to start the heavyoil engines at a moment's notice.
"We may have to work the propellers to ease the strain on the cables," explained Cap'n Brash. "If so be it comes on too thick, we'll have to slip an' run for it. "Twu'd mean a tarble waste o' time, though, Mr. Wroxall."

Bob agreed.
"Reminds me of when I was lying off Nagasaka in the old Hermes," continued the Old Man. "Twas an afternoon much as this. I wur mate in her. Cap'n 'Tollerfield 'e says tu me: - Ben, I'm clearin' off out of it '; so we slipped and got a good offing. Lucky we did. There was an earthquake as destroyed half the town an' sent a score o' ships up on the beach high an' dry after the tidal wave had left 'em."
""Let's hope we don't have an earthquake," observed Wroxall. "That would upset everything we've done since we arrived."
"Wouldn't surprise me one little bit if there wur, Mr. Wroxall", added the Old Man. '" Just supposin' the bottom 0' Furioso Harbour came tu the top and brought the wreck with it-how would the contract stand then? It 'ud save we a mort of hard work, but would it put shot into our locker ?"
The sun sank behind a bank of cloud resembling pea soup in colour. About this time the glass, which had continued to be steady, began to fall with disconcerting rapidity. With it came

a decided drop in temperature which could not be wholly accounted for by the fact that it was now dark.

Then, giving a brief warning in the form of a deep, insistent whine, the storm burst. The first blast took both ships abeam. They swung round to the full scope of their cables, making an eight-point turn in a little less than a minute. By that time the fierceness of the wind made it impossible for anyone on deck to hear what was said unless the speaker shouted at the top of his roice.

Quickly the sea rose. The Cyclops, in spite of her size and displacement, was pitching like a North Sea drifter. The wavecaps, whipped by the furious blasts, flung spray completely over her bridge. She snubbed heavily at her cables, every jerk being distinctly felt throughout the ship.
" No use stopping here, old son," remarked Stanniforth. " Never throw away the chance of a good meal, since in this business one never knows when he'll have the next.'

For a moment Wroxall hesitated. There was no reason why he should remain on deck. Cap'n Brash, he knew, would be on duty and probably wouldn't quit the bridge during the duration of the storm.
"Right," he agreed. "Come on, Tom! Let's see what the messman has thought fit to dish up on a night like this."

In the well-lighted saloon conditions were not so comfortable as they usually were. The scuttles had to be closed, while the skylights, although open, were covered with canvas covers that in spite of being lashed down were flapping as energetically and as noisily as the "bones " at a negro minstrel concert.

While the first course was on some object suddenly dropped through one of the skylights and landed fairly and squarely in Burgoyne's soup-plate. Both he and the doctor received a considerable amount of the hot, sticky liquid, which also splashed all over the tablecloth.

For a moment or two Tom was dumbfounded. He hadn't realised what had happened, and until he wiped the soup from his eyes he did not know the cause of the mishap.

On the table, with its head in Burgoyne's plate, was a dead bird, measuring about two feet from wing-tip to wing-tip. Carried helplessly down-wind by the force of the gale, the unfortunate creature had probably struck one of the wire shrouds and had been carried through the open skylight by the furious down-draught.
"Steward!" sang out the doctor, raising his voice to make it audible.
"Sir?"
"I don't think it is usual to cut out the fish course and serve poultry before we're through the soup!"
"Very good, sir," replied the man imperturbably, as he set to work to clear up the mess as much as possible. "Will you be having another plate of soup, sir?"
Burgoyne shook his head. The incident had "put him off his feed".
"You might close both skylights," suggested Wroxall, addressing the steward. "Or we may be having more things through."

But before the man could carry out his instructions another dead bird, part of a branch of a palm tree and a gilded and rounded object subsequently identified as the Titan's foremast-truck were hurled through the partly opened skylight.

It was a striking testimony to the force of the wind-striking in a double sense, since the piece of wood hit the top of Wroxall's head with a dull thud. The masthead fitting had been carried for a distance of two cables, while the bit of foliage had travelled at least eight miles before alighting upon the Cyclop's saloon table.

The skylights had hardly been closed when the noise without increased. Raindrops as large as cherries were beating obliquely upon the tarpaulined frames and thudding upon the thick deckplanks overhead. Conversation was impossible except when conducted at the top of their voices; and since shouting and eating do not go well together the meal continued with silence on the part of the diners and pandemonium without.
"Going to face it ?" bawled Wroxall at the end of the meal.
"Not much fun in turning out on a night like this unless you're obliged to," replied Stanniforth. "I'm not turning in, though. I may be wanted professionally before this blow's over.'

Presently Stanniforth went to his cabin, switched on the light and turned his attention to a book.
"I'm going on deck, Tom," declared Wroxall, after some minutes of restless indecision.
"I I'll come along too, then,", rejoined Burgoyne.
"No compulsion, though," added Bob. "If you mean to, you'd better shove on oilskins and sea-boots."

Realising that under present circumstances it was impossible to concentrate on technical matters-for he was so devoted to his work that he usually spent two hours after dinner in his office with plans and documents relating to the operations-Wroxall staggered to his cabin and rigged himself ready for the fray.
When Burgoyne rejoined him they lurched along the alleyway, supporting themselves by the brass handrails until they gained the main companion.
It was battened down.
"Ought to have known that!" shouted Wroxall. "We'll have to go through the smoking-room and then up."

The hatch fortunately was unbolted, since there was no chance


A man muffled in oilskins came stamping along the deck. Catching sight of Wroxall and his companion, he paused and peered at them as they sheltered under the lee of a ventilator.
"Sorry, sir!"" apologised the man. "Didn't know 'twas you."
"Everything all right?"
"Dunno, sir ; the chief officer told me to nip aft and see if anything had carried away."
" Very good. Where's the captain ?"
"Along with the chief officer on the bridge, sir."
The seaman lurched aft.
Wroxall and Burgoyne exchanged significant glances. The situation that required both the Old Man and the chief officer on deck at the same time was one out of the usual run of things.
"Come on!" bawled Wroxall. "We'll have to make a dash for it."

Since the ship was lying head-on to the wind there was no shelter on either side of the well-deck until they reached the lee afforded by the break of the fo'c'sle. Above this was the bridge-an un-usually-placed structure, but necessary in a vessel such as the Cyclops, where a clear deck from fo'c'sle to poop was imperative.

It was a fierce struggle to climb the ladder. The bridge itself was in darkness, but there was a light in the close-shuttered chart-room and another in the Old Man's sea-cabin. On the bridge itself there was little protection from the howling wind. The canvas dodgers had been ripped to shreds. Only the wooden cabs on either end of the bridge a fforded shelter apart from the chart-room and the adjoining cabin.

There were two men in the starboard cab, oilskinned and sea-booted. They were peering ahead. One of them was taking a sextant angle of the Titan's riding-light. Both were oblivious of the new arrivals until Wroxall spoke.
"That you, Mr. Richards?"
The chief officer did not reply until he had identified the speaker.
"Yes, sir."
"Where's Cap'n Brash ?"
"In the chart-room, sir."
"How's she riding it out?"
of a sea breaking inboard and it was protected from the rain by the shelter deck overhead.

Just as the two men gained the open a vivid flash of lightning temporarily blinded them. The flash was followed almost simultaneously by a terrific peal of thunder that completely outvoiced the other noises of the elements.

For a few moments Wroxall thought that the ship had been struck. He stood stockstill, gripping the rails and waiting for his eyes to grow accustomed to the intense darkness following the blinding flash.
"Bit heavy that!" bawled Tom.
Wroxall shook his sou'wester-covered head and put his fingers to the flap over his ear. Conversation while exposed to the full force of the wind was out of the question. It blew so hard that even the chin-stays failed to hold their sou'westers down. It was necessary to hang on to the brim with one hand to prevent the headgear being ripped off its wearer's head.
"Heavy strain on both cables," replied the chief
officer. "We've veered them out to the bitter end. Cap'n Brash has gone to telegraph down for easy ahead both engines. That'll ease the strain a bit."
"Glass?"
"Twenty-eight point nine and still falling," reported Mr. Richards grimly. "It'll get worse before it gets better. What we've to guard against is a sudden shift of wind to the sou'east."
Thereupon he turned his back upon Bob and again devoted his attention to his sextant. It was discourtesy, although Wroxall had strictly no right to be on the bridge. Even he as head of the technical staff and director of operations was trespassing upon the domains of the executive branch-those responsible for the navigation and safety of the ship.
Suddenly the chief officer lowered his sextant and made a dash for the chart-room. Over his shoulder he shouted :
"'Titan's parted her cables, Mr. Wroxall. There'll be a most unholy smash in a brace of shakes if we aren't lucky !"


# Queer Facts About Coins 

Rare Pennies and Million-Pound Notes

By Wm. A. BAGLEY

COIN-COLLEC'TING, or numismatology, as it is properly called, is a fascinating hobby which should be more widely taken up. It is generally not more expensive than stamp-collecting. Roman coins can be obtained for about half a crown each, whilst hundreds of coins can be purchased for lessthan a penny apiece.

But it is not my intention to discuss the usual aspect of coin-collecting in this article. A young friend of mine recently had a bright idea: he would collect current coins of the realm, that is, a penny for every year. At first it was easy, but, strangely enough, the most difficult coins to come by were not usually the oldest (Queen Victorian ones), but items struck quite recently. He is never likely to get a 1933 penny in his small change, for only four pennies were minted that year. One is kept at the Mint, one in the British Museum, and two are hidden in the foundations of new buildings - one in the building of the new London University. Even 1922 pennies are becoming rare, though twelve million were struck that year.

There is a rumour that one year gold was mistakenly mixed with the bronze. We find it hard to believe this, but pennies have purposely been made dull. This was because the banks wished to avoid a sudden rush for bright new pennies round Christmas-time. Half of the 1934 batch were therefore darkened. If you decide to collect modern pennies, you will keep your weather eye open for 1922 pennies, and two varieties of the 1934 batch.

## A White Elephant.

The little threepenny piece is rather a nuisance, but there is no prospect of it being abandoned. It is in great demand for "silver collections"! They are also used by eccentric engravers, on which to engrave the Lord's Prayer.

Have you ever seen a crown, or five-shilling piece? They are perfectly legal tender, but they are uncommon, and when I recently came into possession of one I found it hard to change. A 'bus conductor preferred not to take it. A shopman said it was a foreign coin. A newspaper-boy said that he had one like that for regular attendance at school! A bank eventually changed it.

Not many modern boys have seen a golden sovereign, and certainly none have seen a guinea piece (except in a collection), as these coins are no longer issued.

Guineas are a source of vexation to the foreign tourist trying to master our coinage. The guinea takes its name


Penny of King William the Conqueror.

from the Guinea Coast. The gold discovered there, and from which sovereigns were minted, was of such fine quality, that a premium of an extra shilling was added. I always like to get paid in guineas instead of pounds, but when, for example, I go to my tailor and order a new suit, I have to pay in guineas, so this cuts both ways.

## An Elastic Fiver.

Schoolboys in fiction, though rarely in real life, receive " fivers" from their relations. These are difficult to change. Contrary to popular belief, $£ .5$ notes are only legal tender for amounts of $£_{5} 5$ and over. Shopkeepers and small traders are therefore taking a risk if they oblige you by changing the fiver. There is a story told of a tramp who made a living out of a $£ 5$ note. Where he originally got it is not known, and perhaps it is kinder not to ask. However, he would arrive at a small village, and partake, say, of a good meal at the small inn. When the bill was presented he proffered the $£ .5$ note. Of course, the innkeeper hadn't the necessary change. There was no bank, so all that the tramp could do (since he had offered to pay) was to leave his " name and address," which, needless to say, was fictitious.

He played this game for many years, travelling all over the country, and is still at it, for all I know.

## A Penny Note:

Mention of banknotes reminds us that, strange as it seems, the Bank of England once issued a perfectly legal note for a penny. It was issued in error, of course (this was in 1828), but it got into circulation, and was a source of annoyance to the cashiers. The authorities advertised for its return, and its owner asked, and received, $\mathrm{f}, 5$ for it. The note is preserved as a curiosity to-day.

At the other end of the scale the Bank once struck off four apparently genuine notes for one million pounds each! These, however, did not get into circulation. Their whereabouts were known. King George IV had one.

It is rather a far cry from our original penny to the million-pound banknotes.

Let me, in conclusion, recommend the collecting of modern English coins as a hobby ; pennies, halfpennies, or even farthings. When Christmastime comes near, and you are saving hard for presents, I should lock the coins up, out of temptation's way!

## AUTOGIRO OR WINDMILL PLANE



Alutogiro taking off from Hanzerth Aerodrome.

By H. J. C. HARPER, A.M.Inst.G.E.

AS many of you older boys will know an ordinary aeroplane is maintained in the air by its forward speed. With a light aeroplane like the Moth this speed is about 40 to $45 \mathrm{~m} . \mathrm{p} . \mathrm{h}$., but in the case of a very fast machine the minimum speed is $60 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. or even more. Of course, the higher this speed the larger the aerodrome that is required for the machine to take off from and land on. If you slow down below the minimum speed, the aeroplane stalls; that is, it loses the lift which sustains it in the air, and it will descend. When an aeroplane stalls you lose all control of it and you can move the control stick all round the cockpit with no effect. If a stall happens near the ground, the pilot will not have sufficient space to regain control and the machine will crash.

The object which the inventor of the autogiro, Señor Juan de la Cierva, had in view was to design an aircraft which would not suffer from this loss of control at the minimum speed and would at the same time facilitate the process of landing by the reduction of the minimum flying speed.

It should be explained at this stage that an autogiro is not a helicopter, because the blades of the rotating wing, which take the place of the supporting surfaces of an ordinary aeroplane, are driven round entirely by the force of the air, whether the machine is flying forward, climbing, or descending. The blades are free to revolve upon a fixed shaft or axis and are not caused to revolve by power of the engine, as is the case with a true helicopter.

The weight of the revolving blades when whirled about the shaft is more than sufficient to keep them tautly outstretched. If you swing a piece of cord with a weight
attached to its end around your head, the tension in the string increases with the heaviness of the weight and the speed at which you whirl it. The lift forces of the rotor blades are easily outmatched by the centrifugal forces of the blades which are joined to the hub by flexible joints. The attachment of the blades in this manner is required by their limited up-and-down motion as they revolve. The circle which they describe is not exactly horizontal, due to the different air action between the blades which are travelling against the path of flight and those which are travelling with it.
The niceties of aerodynamic (that is the action of the air) action under this blade action are such as only a skilled aeronautical engineer can understand, but the results are evident to the passenger, as bumps in the air are cushioned by the flexible mounting of the blades from which the fuselage is suspended.

The scheme of using a freely rotating windmill was first tried in 1919, but it was not until 1923 that a successful machine was evolved. With this machine it was necessary to taxi round the aerodrome so as to get the blades turning sufficiently fast to lift the aircraft off the ground. When the blades were rotating fast enough the pilot turned the machine into wind (i.e., so that the wind blew directly towards it), increased the engine speed and rose into the air.

The next advance was for the slipstream (i.e., the air set in motion by the airscrew) to be diverted into the blades of the rotor (whilst the machine was on the ground) by the tail plane, which could be set at a large angle for this purpose. This type of autogiro was known as the C.rg.

## The C.30a

With the latest type of autogiro, the C.30a, the rotor blades are driven round by the engine to obtain their initial speed; the exact procedure of getting off the ground, flying and landing will be described later.

It is proposed to describe this type of autogiro, as it is the latest. As will be seen from the photographs, this machine has a body or fuselage, to give it its technical name, with a radial engine (a r4o h.p. Genet Major) and airscrew. To the top of the fuselage four struts are attached which at their upper ends meet at the hub. In Fig. I the various parts are named. 'The rotor blades, three in number, are attached to a short shaft passing through the hub. On this shaft is a crown wheel which engages with a bevel pinion on top of the vertical driving shaft.

On the lower end of the shaft is the transmission bevel gear, which is connected to the crankshaft of the engine by a horizontal shaft via the clutch. The rotor shaft is hinged about a longitudinal hinge II and about a lateral hinge 1. ; to the lower end of the shaft is connected the control lever, which is led down into the pilot's cockpit.

A duplicate control lever can be fitted and led to the front cockpit for instructing pupils to fly. You will notice from the photographs that there are two vertical surfaces at the rear end of the fuselage-these are called the fins-but there is no rudder such as there is in the case of the ordinary aeroplane. 'There is also a horizontal surface called the tail plane, with two upturned portions at the tips, for stability purposes.

Now look at the pilot's cockpit. You will notice that there are two levers at the left side of his seat; the inner one controls the brakes on the wheels and the outer one is the rotor clutch and brake lever. Rather farther forward and higher up is the throttle lever for controlling the speed of the engine, and the quick release lever. On the floor in the front part of the cockpit is a bar, with pedals like the



Fig. 1. Showing the controls of a C.30a Autogiro.
rudder bar of an aeroplane; this is connected to the tail wheel and by moving his feet the pilot can steer the machine when it is on the ground.

## The First Flight

Now I think we are ready to take our first flight in an autogiro. Before starting up the engine we must turn the machine tail to wind and put on both the wheel brake and the rotor brake. Now start up the engine and run it for about five minutes to warm up; then open the throttle and verify that it will run at full revs (i.e., full speed), then slow it down. Next release the wheel brakes by pushing forward the brake lever. Now slightly open the throttle until the machine is moving at about $5 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.

Steer the machine by pressing on the rudder bar in the direction you wish to go until you get into position for taking off with the machine headed into wind. Put on the brakes again. Put the right hand on the control lever and place your feet on the rudder bar, keeping it in the neutral position. Open the throttle until the rev indicator shows that the engine is turning at about 1,000 r.p.m. With the left hand release the rotor brake lever and by continuing the movement gradually engage the clutch; this will cause the engine to turn the rotor blades.

The throttle lever is then gradually moved forward until the rotor is turning at about r8o r.p.m. Now release the quick release lever; the clutch and wheel brakes are thereby disengaged and the machine will commence to move forward. The throttle is fully opened immediately and the feet kept firmly on the rudder
bar to maintain the machine on a straight course. Allow the machine to gain speed for about three seconds and then ease back the control lever.

You will now commence to ascend, and the angle at which you climb can be adjusted by means of the control column. It must be pointed out here that the rotor is no longer driven by the engine once the clutch is disengaged. The action of the air on the blades turns them as the machine is driven through the air by the airscrew. All control when in the air is effected by means of the control lever and the throttle for varying the speed of the engine.

If you look at Fig. 2, you will see that there are three forces acting on the machine-the pull of the airscrew (you must not call it a propeller if you wish to be air-minded) T , the weight of the machine W , acting through its point of balance, and the lift L of the blades. If you pull the control lever back until the lift force occupies the position shown by the dotted line L , the action of the lift will raise the nose of the machine and it will ascend ; similarly, if you push the lever forward, the nose will fall and the machine descend. If you move the lever to either side, the machine will bank (i.e., tilt) in the direction in which the lever is - moved. The machine will now try to side-slip and the action of the air on the fins at the tail end of the fuselage will cause it to turn. You see now why no rudder is necessary.

## Landing

Having completed your flight, you will wish to land. This is how it is done. Assuming that it is desired to land without engine power from a height of 1,000 feet, the position of the machine in relation to the landing area should be about $40^{\circ}$ to the vertical when the throttle is cased back. The speed through the air is now reduced by easing back the control lever until a selected object on the ground immediately appears to be stationary. The immediate result will be that the machine will commence to lose height.

Having ascertained the wind direction on the ground by looking at the windstocking, which is fastened to a pole on a building, the nose of the machine should be turned


Reginald Brie landing on a small platform erected on the stern of the Italian cruiser "Fiume."
in this direction. 'The machine is allowed to descend practically vertically until it is about 150 feet from the ground. Then, keeping the machine dead into wind, the pilot will ease the control lever forward and approach the ground at a steady speed of about $4^{\circ}$ m.p.h.

When the machine is a few feet from the ground the pilot will ease the control lever back so that the machine loses the last few feet of height, the tail wheel touching the ground first and then the front wheels. The machine will come to rest after a run of a few feet.

The writer was recently afforded the opportunity of taking a flight in an autogiro with Mr. Reginald Brie, Flying Manager and Chief Pilot of the Cierva Autogiro Co. It was really a most amazing experience; the perfect control at low speeds was a revelation. For instance, we would hover over a spot on the ground and on one occasion the pilot throttled down his engine until we were slowly drifted backwards by the wind, perfect control being maintained the whole time. At the end of the flight Mr. Brie said :" There is the hangar right below you. I will land you just in front of it." We slowly sank absolutely vertically downwards, with no sensation of dropping, then a short glide for the last hundred feet or so and we landed and pulled up right in front of the shed.

The ability of the autogiro to land in a small space and to hover over a chosen spot makes it particularly useful for such work as the following:

Police and forest patrol work. (It has been used for traffic control at the Derby.)

Exploration and survey work.
The dusting of crops to destroy insect pests.
The extermination of locusts.
Examination of animals on large ranches.
Of course, it can also be used for many military purposes. In January last Mr. Brie landed an autogiro on a small platform erected on the stern of the Italian cruiser Fiume.
(The author is indebted to the Cierva Autogiro Co., Letd., for the diagrams, photographs and the information for this article.)

## Upside-Down Drawing

HERE is a good pastime for wet evenings when a bit of quiet is needed.
Draw heads and human figures upside down, and you will be surprised to see what unsuspected and comic effects are realised when the drawings are reversed.

Anyone can take part in this amusement, whether he is an artist or not, for the worse the artist the more crude
and humorous the result. You can also fix up competitions to see who can complete a drawing in the shortest time in this manner.
It need not be thought that this play-drawing is a waste of time, as it provides excellent training for the eye and hand.
A. E. B.


# GOOD HAUL! 

# A Brixham Trawler's strange catch-and what became of it 

By GEOFFREY PROUT

'HE ship's company of the trawling ketch Three Brothers, went thumping down to the harbour towards their boat, shouting greetings to fellow-fishers, likewise on their way to the boats, and exchanging notes about the weather.

Inner Harbour was rapidly being emptied of its boats, and Teddy Holcombe and Dave Sherwen pulled an oar each as the skipper and the first and second trawler hands sat on the stern benches and sniffed the greying dawn.

The tall masts of the Three Brothers loomed up ahead, the boat went alongside,
Teddy and Dave unshipped oars and made fast, and all stepped over on to the littered decks of the trawler.
"Stoke up, Dave," said Skipper Holcombe. "Us'll want that there capstan double-quick time this mornin'. Dish o' tea, too, as we sail out."

Dave, as trawler-boy, was glad enough to get below to the steamy warmth of the donkey-engine and stoke up the banked fire, which had kept a low head of steam throughout the week-end. He then lit the cabin stove, put on the kettle, and, as the light grew, tidied up the cabin.

The rubber soles of the sea-boots thumped about above. Occasionally a coil of rope was dropped with a thud, and the sing-song Devonshire voices called to each other in the work of preparing the trawler for sea.

There was barely enough steam to hoist the main-gaff, and Dave was well abused, though he had stoked up instantly and well. But dishes of tea served all round soothed frayed tempers, and at last the ketch, with all lower sail set, was snoring through the water, mooring-buoy dropping astern.

Soon her great bowsprit was sawing the air above the wash of the sea from the south-easterly blow. Dave shivered as he came above and looked round at the leaden sky and the forbidding waste of waters ahead. This had been his life for two years-perilous, toilsome, grubby, poverty-stricken. He liked the sea. He loved the trawler, and sailing. He gloried in the smashing power of the fine stout ketch, the roar of the hissing foam, the straining sails as the wind boomed in the stout canvas.
Yes, the yachting part of it was fine! But that roll, roll, roll all the week, shooting the trawl, drawing it along the bottom, hauling, emptying the catch from the bag, then shooting again, drawing, sorting, gutting, boxing, hands
chapped, teeth chattering, and the trawler, broadside on, tugging at her warp-roll, roll, roll!

## Found Amongst the Rubbish

They had a miserable five days of miserable weather and miserable catches. They trawled off the Eddystone, then the Start Bank, and now they were driving northward on one long last draw towards 'Torbay.

The mouth of the River Dart was broad abeam, and Skipper Holcombe announced that they would haul trawl in a quarter of an hour.

The big ketch rolled on sullenly, tugging at her quivering trawl-warp which sawed through the combers as they came snarling towards them. The stout vessel lunged to windward into the hollows, and then rolled to leeward on the forward slopes, tugging anew at her momentarily slackened trawl-warp, drawing the trawl-heads and foot-rope over the sand twentyfive fathoms below.
"Ready at the capstan, la-ads!" called Skipper Holcombe. "Us'll haul now. Slip that there burton, aft, there, and stand by to hand the warp, Bill. ... There her swings, head to it. Give'n the steam, Dave !"

Dave, astride on the heaving deck, turned the little hand-wheel and the capstan began to revolve. winding in the warp which Bill Holcombe handed and coiled as it was released from the gripping whelps of the barrel. Tom and Teddy stood by with buckets, sluicing water over parts where the friction of the straining rope made heat. So the huge warp came in and the coil grew higher and higher in front of Bill as he patiently paid down the heavy rope.
Trawl-beam was awash at last, was drawn close up under the bows of the pitching ketch, and then it was heaved alongside and the hissing steam and the clinking of pawls ceased as the capstan was stopped.

Trawl-heads were now secured, and the great net drawn in till the fish tackle could be hooked on to a sling round
the bunt of the net. Once more the capstan, now cleared of the trawl-warp, was started to heave on the fall of the fish tackle purchase.

Up, up went the bag, big and heavy, streaming and swaying, showering water on to gleaming oilskins. It hung there above the deck, and then Skipper Holcombe released the rip-cord of the cod-end.

Eager to see the catch, the fishers crowded round as the heavy bagful of fish and rubbish was shot on to the deck.
"More rubbage than fish, durn it!"growled the skipper. " Weeds, stones, and what fish there be bein' most all of it offal. We bain't seein' much hauls of prime this month! All right, la-ads, get to it an' sort, an' chuck over the rubbage."

While Skipper Joe and Brother Bill stowed the trawl and gear, Dave, Teddy and Tom waded about amongst the catch and began to sort over the fish and rubbish. Dave heaved overside a couple of round stones, and then picked up a long cylindrical box, rusted, and with a bit or rotten rope attached to it by a clove hitch.
"Golly, Ted, look at this!" cried Dave. "See, Tom, 'tis an old chart-case!"
" By gum, so it be!" said Tom, taking the case and shaking it. "Charts inside, too, an' not much water."
"' 'Tis the first chart case I ever see wi' a padlock on it," remarked Teddy, pointing to the small rusty padlock in the hasp.
"'You'm takin' it easy, bain't 'e ? " bawled skipper from aft.
"Well, us's found an old chart-case, Joe," called Tom.
Skipper Joe and Bill came zig-zagging across the deck to where Dave, Teddy and Tom were standing.
"What was the rope round it for?" asked Skipper Joe.
" Mebbe one or t'other o' these dogfish could tell 'e-_-" began Teddy, then ducked as his father clouted at him with his great, freckled fist.

Skipper Joe shook the chart case close to his ear, then stepped to the companionway. He pitched the rusty cylindrical box down the booby hatch into the cabin.
"That'll wait," he said. "Sort over them fish, you three. Come on, Bill, let's get all the durn gear stowed and head the old scow home-along."

Within an hour the decks had been cleared, trawl-beam and net stowed and lashed down. The big ketch, mainsail double-reefed and a little jib-headed topsail steadying the gaff, went smashing, foaming north-eastward towards Brixham in a rising gale from the nor'ard.

## Puzzling it out

Brother Bill was at the helm and the rest of the ship's company were below in the hot little cabin, having a meal which had been prepared by Dave. The trawler was closing in on Berry Head, the double-flash of the lighthouse being already visible in the failing light. Other trawlers were also making a night return to moorings.

The meal over, Skipper Joe bashed off the padlock from the chart-case. He pressed the rusty cylinder against his chest in an endeavour to lever off the corroded lid. At first it defied his efforts.
"Stick it, Joe," guffawed Tom. "Her'll give in a minute, and then us'll see what us's got in the lucky box."

Skipper's luck was out, however, in regard to the " lucky box." The lid suddenly gave under his great powerful hands, and half a pint of rusty water splashed up in his face, while the chart-case sprang from him as if catapulted-broken-rimmed body one way and lid the other, and wet papers scattering all over the cabin table.

Everyone but skipper roared with laughter. Ile, however, was too busy wiping rusty water out of his eyes even to make angry remarks about the mirth of his companions. Dave was splitting his sides as he hung on to the rail of the companion ladderway, his body swaying rhythmically to the heave of the trawler. Brother Bill, leaving the tiller for an instant, poked his head down the booby hatch.
"What's the bloomin' joke, below there ?" he called.
"Joe's scented hisself wi' chart-case billidge-water," laughed Tom. "He'm in a proper mess!"

Dave, sobering, picked up some of the papers on the table. They were cut-out parts of charts, and all were stamped "M.Y. DOROTHY, R.C.C." There were some papers, too, rust-stained and sodden, but with the writing readable. They appeared to be private letters, for the most part.
" Motor Yacht Dorothy? " said Skipper Joe, giving his eyes a last wipe as Dave read out the name. "Her's a Dartmouth yacht-or was. Changed hands last spring arter the old owner died. He died at sea, and on the Dorothy, ye'll remember. Powerful fond o' that motor yacht he was."
" I wonder how the chart-case got lost overboard," said Dave.
" That there bit o' rotten rope attached wi' a clove hitch be funny," said Teddy. " Leastways seems so to me."
"Oh, it might ha' happened in a dozen ways," said skipper. "Bloke wi' the chart-case tied to the rope, swingin' it amusin' like, an' it flew overside, meble."
"Ay, but wouldn't the blamed thing ha' floated?" objected Teddy. "There weren't enough water in it to keep it down of itself, spite of the douse ye got on your face, dad."

Skipper Joe scratched his damp, wispy hair.
"H'm, yes, that be funny," he said. "But mehbe it went overside wi' a good length o' rope and the rope dragged it down when it had got sodden. Hemp like this'll sink when well soaked.
" It must have been a good length of it to be heavy enough to pull that chart-case down," said Dave.
"Well, mebbe it were a good length-must ha' been," said skipper. "An' the chart-case would float up, raisin' a few yards o' the rope from the bottom. The rest would get silted up wi' sand, as we well know. Then our trawl comes along, an' the foot-rope drags the chart-case down, an' breaks off the rope, it being rotten arter a long spell in the sand, just where we found it broken."
" That must be it," said Tom. "Well, clear them charts and things off the table, Dave. Cram them back into the case. There's Bill bawlin' for us to get above. Reckon we'm gettin' near under Berry Head."

## At " Devon Towers"

Saturday morning's sale on Brixham Quay brought fresh disappointments. Bidding was sluggish, and the share-out was nothing more than a mere pittance, even for the skipper. The fishers wearily climbed up to Mount Pleasant Terrace, glad of the coming week-end rest.
Dave, unable to stop thinking about the old chart-case they had picked up in the trawl, set off on his bicycle in the afternoon, meaning to inquire at Dartmouth to find out something about the Dorothy and her owners.

The Dorothy, he learnt on the water-front, had been sold to Plymouth by Mr. Brent, the owner of Devon Towers, a big country house some distance inland from Dartmouth.

Dave got the whole story about Mr. Brent. He had been manservant to Mr . Templecombe, a widower, only the previous year and had in some way dominated the life of the old gentleman. Mr. Templecombe had died at sea on his yacht, the Dorothy. The will, which had been sealed and filed at his solicitor's, left everything to Brent. Young Mr. Templecombe, the son and presumptive heir, had been cut off with a shilling. But Mr. Brent had done the only decent thing. Young 'Iemplecombe lived at " Devon Towers," not as its master, indeed, but as someone with a right to be there. He managed the estate, and Brent, shunning society, lived in solitary luxury and rarely spoke to anyone.

Off cycled Dave to " Ievon 'Towers." He there, at the lodge, met young Mr. '「emplecombe, a merry-looking, fresh-faced young man of about twenty-three. He had been exercising the dogs and he paused at the lodge while Dave, his bicycle propped against the gates, made inquiries of the lodge-keeper's wife.
"Can I help you ?" asked young Templecombe.
Dave hooked a forefinger to his cap.
" I'd like to speak to you, or Mr. Brent," he said. "It's about a chart-case belonging to the Dorothy which we picked up in the trawl during the week while the Three Brothers was trawling off Dartmouth in twenty-five fathom--"

Templecombe drew Dave swiftly away from the lodge door where the lodge-keeper's wife was standing.
" We'll walk up the drive and you can tell me," he said. Then, when out of earshot from the lodge :" Not too much
of anything before her. She'll make a yarn out of anything, and tell everyone she sees. What's this about a chart-case?"

Dave told his story. Young Templecombe halted, grasping his arm, while the dogs crouched down on their haunches, waiting.
"Papers, you say? Did you read them? Only some? And parts of charts? Old letters ? No-nothing else ?"

Dave shook his head.
"We haven't gone through it all very carefully," he said. " We found nothing important. The papers got scattered when skipper slopped the water in his eyes. But I crammed them all back $\qquad$ -"
"Listen!" Young Templecombe was excited. "I can't explain now, but there always was something fishy about my father leaving all this to Brent while I, his son, and quite in his good books, existed. My father died at sea, on the Dorothy. Brent was with him, as his personal servant. My father always would have Brent with him ; yet he was afraid of him. That chart-case may explain why--you never know. You see, you found it with rope attached, and I remember, on the Dorothy, some talk about my father always having his chart-case padlocked. Now, why should this chart-case be lost overboard-with a rope round it, on the very trip when my father died. We know it was lost then, for the solicitors, having heard about it, inquired for it and it was missing when the yacht got in. It was an inquest job, you see, since the death had occurred suddenly at sea, and the captain wouldn't allow anything to be removed from the cabin on the yacht getting to her mooring. . . But we mustn't delay. I'll run up and get the car. You stay here and I'll pick you up on the way out. We can get your bike in the car when we pass through the lodge gate. We must board the Three Brothers to-night, and I must see that chart-case, . ."
'Templecombe sprinted off, the dogs bounding beside him. Dave, slightly "'mazed " as he himself put it, stood waiting, excitement growing as he began to piece things together. . . Brent, knowing of the existence of secret papers in the chart-case ; knowing of the sealed and filed will at the solicitors, leaving all to him; fearing that a later will might be in the chartcase, and being already aware of the captain's orders that nothing was to be removed from the cabin, could easily have attached a weight to the chart-case and dropped it into the water via the cabin porthole as the yacht swiftly bore old Mr. Templecombe, at rest at last, home to Dartmouth Harbour, with
in

her flag at half-mast. Dave's imagination worked double-time.

But he was not left long to wonder. Young Templecombe came tearing down the drive on a bicycle.
"Car's gone!" he said gaspingly. "Brent's gone off in it-and through the western gate, which is never used except by our fodder wagon!"

## A Rough and Tumble

While Dave ran beside Templecombe's bicycle, the young man gaspingly continued :
" He went off hastily, so Lake-our butler-says. Mrs. Greeve, down at the lodge, had telephoned up only a moment before, so I hear. She heard you speak of the chart-case and the mention of the trawler's name, and she told Brent, for sure! She's an old crony of Brent'salways was. There is something important about that chart-case. Here's your bike. Pedal it quick into Dartmouth with me. We'll cross to Kingswear and get a car that side, and so post-haste to Brixham. Come on, kid, step on them!"

Into Dartmouth they swept. They were ferried swiftly across to Kingswear. Here Templecombe hired a car. They hummed along the road through Churston and so towards Brixham. At a cross-roads, Templecombe gripped Dave's arm, nodding towards the back of a car disappearing towards Totnes.
"That car!" he gasped. "Ours! Brent--he's been in Brixham, for sure. I wonder what he has done there?"

The hired car soon deposited Dave and young Templecombe close by the statue of King William on Brixham Quay.
" Better wait-you may be needed," said Templecombe to the driver. "Now, Sherwen, where's your boat? It's falling dark, but you can find the trawler, I suppose ?"
"It's always in the dark we row out in winter," said Dave. "I could find her blindfold."
"Then lead on, and we'll row like fury."
The heavy trawler-boat snored through the water under the powerful strokes of Dave and Templecombe at the oars. When near, Dave cried:
" There's someone on the trawler! Look, boat tied up alongside and light in the cabin-_"

Templecombe twisted round and looked angrily towards the ketch.
"Aboard—quick—silently as possible!" he hissed. "Sherwen, show your pluck, and jump in on them with me!"
"Righto!" said Dave excitedly. "Anyone that's no right on our trawler gets one in the neck from me, chartcase or no chart-case. Let me jump below first, Mr. Templecombe. I know the lay o' the cabin. You cop anyone trying to get out, an' pile him back into the cabin-_"
"Trust me!" said Templecombe, grimly. "Sherwen, I'll make it right with you for the risk you're taking-_","
" Pooh, it's up to me, anyway, 'cos it's our trawler," said Dave. "Follow close, though!"

They sprang nimbly aboard, ran towards the booby hatch of the lighted cabin, heard an alarmed shout belowthen Dave launched himself feet foremost down the ladderway, crashing a heavy body down with his feet as he descended.

Someone clutched at his throat and half choked him. Dave hit out, struggled, tore at the strong wrists of the man. Well he knew him-a trawler-man of the ruffianly type, and a bullying terror in Brixham.

Dave punched at the man's stomach and made him grasp. But the pressing fingers at his throat did not relax. 'The pair reeled about the cabin. There was a crash as two other forms came hurtling to the foot of the ladderway. . . . Gasps, thuds, writhing bodies. Over went the stove crash! Then, as all seemed to be swimming red in Dave's eyes, he saw the blurred vision of Templecombe, his eyes blazing, leaping towards his captor.

The pressure on windpipe released, Dave reeled dizzily. The red mist cleared from his eyes. He saw Templecombe fighting, hitting out ruthlessly, right, left, the sickening dull thuds of registered blows sounding between the painful gasps of the fighters.

Dave lurched over. But a blow on the ear felled him over a prone form on the cabin floor. He groaned, strove to rise, flopped down again, then painfully got to his knecs. He looked round to see Templecombe sending his antagonist back with a deadly uppercut to the jaw. . . . Heard the crack of the impact. . . . Saw the burly blue-guernsey-clad figure slide down the bulkhead at the end of the cabin.

Swayingly, Dave stood on his feet, looking over. Templecombe had swept the blood-matted hair from his eyes with his hand and a sudden backward jerk of his head, then, fists still clenched, he peered down at the form of the ruffian. His fists unclenched.
"What-how-have you killed him?" quavered Dave.
"Darn nearly, I hope!" gasped Templecombe " Help me make this precious pair helpless with a bit of rope, Sherwen. 'I'hen we'll get our own paws on that chart-case."

The Three Brothers, resplendent in fresh paint, new sails. and gear, lifted lazily over the swell as the capstan hauled trawl. In came the warp. It was a bright, not-too-cold winter morning. Young Mr. Templecombe stood by Dave at the engine throttle.
"Here's wishing good luck to this haul," said Templecombe to Skipper Joe.

Skipper grinned.
" Us's likely to have plenty o' good luck wi' the new gear you've provided, sir," he said.
" An' plenty o' good markets since the Kelvins you bought for us was installed," broke in Bill. "Us can keep trawlin' till the last minute now, an' still get in for the best $o$ ' the market. I do like sailin', 'tis true. But a good pushin' screw under the quarter do help sometimes!"
"Well, the Three Brothers deserves all she's got, and more," laughed young Templecombe. "It has been a treat for me to come on this first trawling trip since the gear was renewed and the engines installed. And I'll stand the racket for the trawler's upkeep for as long as you skipper her, Joe, and have her run by the tamily. Dave's got me behind him, too, whatever he chooses, later on, for a living. . . ""
"Wonder where old Brent is?" said Dave, as he regulated throttle.
"Bain't no one likely to find out, I reckon," said Bill, sweeping his arm round in coiling the warp as it was released from the capstan. "He showed his guilt proper by puttin' them ruffians on to searchin' the old scow's cabin for that there chart-case. Good job they didn't get their fists on the proper will that was in it. If they had they'd ha' destroyed it quick, as they was told to, by Brent, soon's they heard you an' Dave that night. Powerful wicked man, that Brent must ha' been, so to terrorise your old dad into makin' a will out favourable to himself and a-cuttin' off of you, an' havin' it sealed so's it'd be all
unbeknown to the s'licitors, too. But the ol' gennelman diddled him wi' the padlocked chart-case in spite o' Brent weightin' it an' sinkin' it out through the port-hole. That accounts, o' course, for the case not gettin' covered wi' sand on the bottom. It must ha' sort o' floated up, like them moored submarine mines they used in the War, and what us trawlin' blokes since have sometimes nearly been blowed up by. Floatin' up a bit from the bottom, the weight silted up, the rope gettin' rotten, an' our trawl just happening along-_"
"Ay, us can get many a good haul wi' this nice noo gear

# Wassailing the Apple Trees 

## A WEST COUNTRY CUSTOM

By WILFRED ABER

MANY quaint old customs survive in the West Country. At Carhampton, near Minehead, on January i 7 th, which is the eve of old Twelfth Day, a ceremony is performed known as " Wassailing the Apple Trees".

The word "wassail", by the way, comes from the Anglo-Saxon " waes-hael", meaning "Health unto you". In West Somerset dialect it is pronounced " wazzayal". Wassails, which used to mean a liquor composed of apples, sugar and ale, were drunk on all sorts of merry occasions in the past, but to-day the word is only heard in connection with this practice of "singing to the trees".

If you were staying at Carhampton in the middle of January, you would probably hear, about seven o'clock on the evening of the 17 th, the tramp of many feet accompanied by much laughter and jesting. Then, presuming you were curious enough to put on your coat and follow the wassailers, you would witness an interesting sight.

The band march on till they come to the first apple orchard. Here they form a ring and sing lustily the quaint old wassail song. The words are traditional and of great antiquity. After each verse the leader of the band shouts in stentorian tones:

> "Hats full, caps full, three bushel bags full! Hip, hip, hip, hurrah!"

And the rest of the party join in heartily.
One line of the song: "And a little more cider will do us no harm ", is a hint to the orchard owner, which is invariably acted upon. A bucket of hot cider with toast floating on top is immediately sent out. The pieces of toast are carefully picked out and put in the apple trees for
us has got," said Skipper Joe, raising his hand in the air as a sign that the trawl-spans were in sight, " but us'll never get a better one nor that time when the trawl drawed across that there moored chart-case. That were a good haul, that were, for everyone-_"
" Except Brent," guffawed Teddy.
" 'Tisn't the first time a man has got tripped up proper by the footrope of a trawl net," said Dave.
" No, but the first time it has happened with the trawlnet in twenty-five fathoms," laughed Templecombe. Truly, strange things do happen at sea!"

the robins next morning. The cider itself then refreshes the throats of the wassailers, who have all the other apple orchards in the neighbourhood to visit before their night's work is done.

Imagine the scene if the night is bright and frosty, with perhaps a moon silvering the rugged branches of the trees. Beneath stand the men in their rough working clothes. You might be watching an old Druid ceremony of the Dark Ages, though the talk of the wassailers is probably enough to reassure you that you are not.

Having finished their drinks, they all march up to the back entrance of the house, singing a verse which ends with the words: "So open the door and let us all in ", a request that is instantly complied with. The men then spend a short time dancing with the household, and don't forget to raise three hearty cheers for their host and his family before they go on their way.

In past days this custom of wassailing the apple trees, which was thought to ensure a good crop of fruit the following autumn, was observed not only throughout the West Country, but in Herefordshire and Sussex as well. In Sussex it was held on December 26th. The boys of the village took part in it and were known as the "Howling Boys '".


Ey STANLEY PHILLIPS

ALTHOUGH we are only now coming to the stamps bearing the portrait of King George V, all the provisional printings of the Edwardian stamps, which we discussed last month, were issued in his reign. 'This period of the provisional Edwardian printings formed a kind of entr'acte between the King Edward stamps proper and the new Georgian portrait era.

In June, 1911, the first stamps bearing the portrait of the new King were issued. These were the $\frac{1}{2} d$. and the $1 d$. and they did not please the public at all. Messrs. Harrison \& Sons were still more or less in the experimental stage of their work and the designer had not given them an easy subject to reproduce, as there were far too many fine lines in the King's hair and beard which tended to clog up during printing and made the stamps look very poor from the point of view of portraiture.

The Royal likenesses on stamps had always been more or less conventional, however, just as they are on our coins, so that the popular outcry would probably not have been so great, had it not been for the fact that on the $\mathrm{I} d$. stamp violence had been done to an animal in which the man-in-the-street takes a great interest-the British Lion! The dolphins below the portrait on the $\frac{1}{2} d$. stamp were all right but the British Lion was starved !

Of this first $\frac{1}{2} d$. and rd . there are two dies of each. The differences in the designs, caused by the change' of die, are slight but easy to recognise. Illustrations will be found in any advanced catalogue. The watermark of this first group (both dies) is the Crown, as it had been for British stamps since about 1880, but in August, r912, $\frac{1}{2} d$. and id. stamps of the second dies appeared with the Royal monogram " $G \vee R$ " below a small crown as watermark. The monograms were arranged one above the other in vertical rows, and in this form the watermark is known to collectors as " Simple Royal Cypher."

There was an error of perforation in both values with the Crown watermark. Normally perforated 15 x I4, a few $\frac{1}{2} d$. and $I d$. were issued perforated 14 all round. The $\frac{1}{2} d$. might be found by anyone as quite a few have turned up since. As it is catalogued at $f 20$, it is worth while testing all the $\frac{1}{2} d$. stamps you find of this issue, with a perforated gauge. The $1 d$. is even rarer.

The outcry about the starved lion had its effect, for in January, 1912, six months after the appearance of the first Georgian $\frac{1}{2} d$. and $1 d$., these stamps were issued in
improved designs. In the $\frac{1}{2} d$. the King's hair and beard are lighter (among other changes) while in the $1 d$. the flanks of the lion are carefully shaded, thus doing away with that half-starved effect.

These two stamps in the improved types at first came on the paper with Crown watermark, but when the watermark was changed in August, 1912, they too were printed on paper watermarked with the "Simple Royal Cypher." In December, 1912, another change was made in the watermark, which was rearranged so that instead of the Cyphers falling in vertical columns, those in one row were opposite the gaps in the horizontal row above. This watermark is called "Multiple Royal Cypher." The only stamps found on this paper are the "improved " $\frac{1}{2} d$. and $1 d$., and also the same values in the next issue $I$ am going to describe. These latter came mainly from the rolls used in stamp vending machines.

In spite of their efforts the unfortunate printers could not satisfy public opinion, even with the fattened lion, so they decided to make a fresh start. As the stamps we have already described belong to a sort of experimental period, let us list them now before we go on to discuss what we may call the definitive series.

> Georgian Issues. Experimental period.
> First types. $\frac{1}{2} d$. and $\mathrm{I} d$. Wmk. Crown, perf. $15 \times 14$. Die A and Die B of each value. (Errors: Both values perf. I4.)
> $\frac{1}{2} d$. and $1 d$. Die B, Wmk. Simple Royal Cypher.
> Improved Types. $\frac{1}{2} d$. and $1 d$. Wmk. Crown.
> $\frac{1}{2} d$. and $\mathrm{I} d$. Wmk. Simple Royal Cypher
> $\frac{1}{2} d$. and Id. Wmk. Multiple Royal Cypher.

There were five designs in the new definitive series, which began to appear towards the end of 1913 , or six, if we include the special design used for the values from $2 s .6 d$. to $£ \mathrm{r}$. The values, as allotted to the various designs, were as follows:
$\frac{1}{2} d$. and $\mathrm{I} \frac{1}{2} d . \quad 1 d$. and $2 \frac{1}{2} d . \quad 2 d ., 3 d$. and $4 d . \quad 5 d ., 6 d ., 7 d$. and $8 d . \quad 9 d ., \mathrm{I} 0 \mathrm{~d}$. , and $\mathrm{I} s . \quad 2 s .6 d$. to $f \mathrm{I}$.

The designs were not good, from the artistic point of view, but the British public is never over-critical on that
score, so that the stamps were accepted and the designs, slightly adapted, are still in use for our present photogravure stamps.

Dealing with the values from $\frac{1}{2} d$. to Is. first, these were all on paper watermarked " Simple Royal Cypher" and perforated $15 \times 14$, except that, as noted above, the $\frac{1}{2} d$. and id. also come on "Multiple Cypher " paper. There were numerous accidental variations of colour during the long life of these stamps and quite good "shade" collections can be made. There were also several deliberate changes. These include the alteration of the $2 d$. from a yellowish to a reddish orange, of the $3 d$. from a reddish to a bluish violet and of the 9 d . from a blackish colour, called " agate " in the catalogue, to olive-green.

There was a slight change in the design of the $2 d$. at one period, a new die being introduced. If you look at the frame lines at the top of the stamp, at either side of the crown, you will see that there is an uncoloured space divided into two by a coloured horizontal line. In Die I, this line divides the uncoloured space unevenly, the lower portion being narrow and the upper wide, while in stamps of Die II the horizontal line divides the space pretty evenly. In Die II the white line round the words "Two Pence " is thicker than it is in Die I.

The $6 d$. of this issuc was always on chalky paper and was printed at Somerset House and not by Messrs. Harrison. For a short time it was perforated 14, but usually has the $15 \times 14$ perforation. The $8 d$. which was on yellow paper, came out during the war on a muddy yellow-buff paper which had coloured threads in the texture of the paper which can be seen under a magnifying glass. Such paper is called " granite" by collectors.

There are two plate flaws which are worth looking for. In the id. the letter " $O$ " of "ONE" sometimes had a kind of tail which made it look like a " Q " while the $\mathrm{I}_{\frac{1}{2}} d$. is known with the last " E " of "PENCE" broken, reading " PENC「"."

The sheets of all these stamps had "controls" on the marginal paper. 'Ihere were trial runs of most values at Somerset IIouse before IIarrisons started the printing
proper, and sheets printed at Somerset House can be recognised by the fact that there is a dot between the letter and figures of the control, e.g. "A.iz." The range of controls of this issue is from A.12 to W.24.

The high values from $2 s .6 d$. to $f_{1}$ were in a really fine design, showing Britannia and her sea horses, with an inset portrait of the King. They were at first printed by Messrs. Waterlow Brothers \& Layton, but towards the end of 1915 printings by Messrs. De La Rue were issued, except of the $£_{\mathrm{I}}$ value, which had been dropped by that time, as unnecessary. Towards the end of 1918 the work of a third printer was issued, the firm concerned being Messrs. Bradbury, Wilkinson \& Co.

In 1924, Messrs. Waterlow \& Sons, Ltd., gained the stamp printing contract, and printed the $\frac{1}{2} d ., 1 d ., 1 \frac{1}{2} d$., $2 d ., 2 \frac{1}{2} d ., 3 d ., 4^{d .}, 5^{d} ., 9^{d}$., 1od. and $1 s$.--the $7 d$. and $8 d$. values being no longer required. Their stamps were printed on paper watermarked with a new type of Royal Cypher, the letters " $G$ " and " $V$ " being in plain block letters instead of in the fancy " Script " letters of earlier watermarks. The $6 d$. was still printed at Somerset House and in 1926 the use of chalky paper was dropped and the stamp was printed on the ordinary unsurfaced paper.

It was during the period of the Waterlow contract that three British commemorative issues appeared-the first we had ever had in this country. These were the ugly "Wembley Exhibition " stamps of 1924 and 1925 and the stamps issued in honour of the Ninth Congress of the Universal Postal Union, which was held in London in 1929. The inclusion of a $£_{\mathrm{r}} \mathrm{s}$ stamp in this latter set was an act of courtesy to the delegates, who have come to expect gifts of stamps on these occasions, and who would, perhaps, hardly have been satisfied with a set valued at fivepence-halfpenny!

The recent change in the method of printing our stamps from typography to photogravure, has already been discussed in our New Issue pages, together with the British Silver Jubilee stamps, so there is no need to repeat the history of this new era. Later on, when the photogravure series is complete, it may form the subject of a special article.

## "Boy's Own" Crossword-No. 3.

for amusement only.

## DOWN.

1. Wanderer
2. Great event.
3. 'The present season.
4. Extreme fear.
5. Catch suddenly.
6. Terrible.
7. Decree.
8. Middle of day.
9. Root vegetable.
10. Toll.
11. Drag.
12. Belonging to.
13. Leg joints.
14. Heathen god.
15. Officer Commanding (abbrev.).
16. Sicilian volcano.
17. Join with stitches.
18. Quadruped.
19. Act.
20. One-third Tyrant.

Solution next month.


## ACROSS.

1. Fresh.
2. Bicycle for two.
3. Suppose
4. Assist.
II. Under age.
5. Outer edge.
6. A stage-player.
7. East Central (abbrev.).
8. Biblical name.
9. 'Tourist Trophy (abbrev.).
10. Conjunction.
11. Class.
12. Supposing that
13. Renovate.
14. Bright-red colour.
15. Poem.
16. Famous yachting waters.
17. Rock bottom.
18. American ejaculation.
A. R.

## THE LUCK OF

"THALLO, Tammas, what's the "ltime?"
"Half-past eleven o'clock, Misther Donald, an a braw, cauld nicht it be," replied Tammas MacTeagle, the old caretaker of Balgracie, in a broad, Highland drawl.
" Good. Have you got the knob of coal and the herring ? I'm going to be first foot at the Graeme's to-night."
"Ye'll have to rin, then, Misther Donald," replied MacTeagle, gazing through the window of Balgracie Hall across the wild moor, which was buried inches deep beneath a layer of firm, sparkling snow. "It's a lang way to the Graeme's, ye ken."

Sixteen-year-old Donald Lindsay, the last Lindsay of Balgracie, scrambled into a thick tweed coat, and laughed good-humouredly.
"Oh, I shall take the short cut through Glen Mohr."
The old Highlander, who had by this time, fumbled in his tartan, and produced a brown paper package containing the luck-bringing coal and fish, which are essential when one is going "first-footing" in Scotland on New Year's Eve, looked up sharply, his keen eyes suddenly anxious beneath his shaggy red brows.
" But, Misther Donald, ye'll not be going by the Glen, when it's choked up wi' a snaw-drift?" he demanded.

Don threw on a plaid muffler.
" It's not as bad as all that. Granted, it's pretty difficult going in places, but I know the rotten patches, and besides, I shall have a lantern."
" Aweel, aweel, ye'll be having your own way, the same as all your clan. Well, good nicht to ye, Misther Donald, an' as I shall na' be seein' ye before the morning, I'll wish ye a guid New Year."
"Same to you, Tammas."
" An' I mean it, lad, for ye'll need it," muttered Tammas to himself, as he trudged along the snowy path towards the Lodge. "I canna think what the auld Laird, your grandfeyther, had in his mind, when he made that will, cutting ye an' your father out, an' leaving Balgracie to your cousin, Hamish Huntley, an' he a gamblin' ne'er-dowell.
"Aye, it'll be a bad day for all of us, when Balgracie passes out of the Lindsay hands, to someone of another name. An' it'll come too soon, for Misther Hamish'll be hame from abroad any day now. E'en now, I can hardly believe it o' the old Laird, for he were mighty fond o' young Donald, for all the family quarrels. Still, the lad's got the Lindsay pluck, an' he's got the Luck of the Lindsay's, too, an' that's worth having."

The Luck of the Lindsay's sparkled in the black marble fireplace of Balgracie Hall.

A giant cairngorm, firmly set in the marble, it gave back glimmers of topaz-yellow light, as Don looked at it.

The boy knew the history of this precious stone, which, for generations, had, so the legend ran, brought good
"If the jewel had not head in the heat of the battle. whisper fallen ..." Thus the Lindsays had whispered darkly among themselves. However, the cairngorm had come back into their hands, and hat remained as a heirloom ever since.
" I'll: take care of it, too," murmured Don to himself. "It's all I shall have of Balgracie. Not that it's so bad for me, because I was leaving soon to go into the Air Force anyway, but it's rotten luck for Dad with his war wound-and if it had been anyone else but Hamish."

And a hard, bitter look came into Don's eyes as he set off at a brisk pace across the windy, snow-swept moor. Tammas Mac'Teagle's remarks about Hamish Huntley had not been far from the truth. The old caretaker's description of Donald Lindsay's cousin as a "gamblin' ne'er-dowell " fitted Hamish to a T.

Don had not heard MacTeagle's whispered comment, but all the same, he knew that Hamish Huntley was the last person who should be the owner of Balgracie. This was not due to any jealousy on the boy's part, although the bitter quarrel that had broken out between his father and the good-hearted but peppery old Laird, had come as a real bomb-shell, and his grandfather's astonishing will, disinheriting Don, and leaving him nothing save the family jewel, which had no great value except its reputed luck-bringing powers, had been the final straw.

Even now Don could hardly believe it. He and his grandfather had always been such chums. However, the will was plain enough, and Hamish would be home any day now.

Once more, Lindsay felt a spasm of rebellious anger against his cousin. The old Laird, of course, had never been told, but Don knew very well why Hamish Huntley had gone abroad. He had got into a bad scrape regarding some money, from which Don's father had, with great difficulty, managed to extricate him. Even then, Hamish had had to leave Scotland until such time as the trouble should blow over.
"Still, it's no use whining about it, especially on New Year's Eve," said Don to himself, as he set foot in the lonely rock-studded gulley, which was Glen Mohr.

Indeed, well as Don knew the way, all his thoughts were centred on making a safe passage through the valley. which was an eerie spot at the best of times. The wind
moaned and whistled among the twisted shrubs and snowcovered boulders, which studded the bottom. Drifts of soft, treacherous white snow, hiding deep pitfalls in the ground, lay on either side. Each gust sent crisp powdery flakes eddying about his feet. Don, however, knew every inch of Glen Mohr, which played an important part in the fortunes of the Lindsays. The clan, it was said, had held it for three days and three nights against the red-coat forces.

Even now, on certain nights, the villagers declared, strange sounds could be heard above the wind; the noise of drums and ifes, the rattle of musketry-shouts.

Don was not more superstitious than the next man; he cannot to this day explain what made him suddenly pull up in the middle of Glen Mohr.

The red glow of the lantern he carried showed him a deep pot-hole in the ground -a valley within a valley, from which the edge had crumbled away. The light shone down the fissure straight on to the face of a man.

He was lying, strangely huddled on his side, almost buried beneath a heavy fall of snow. His black hair was spattered with flakes, and he made no motion or sound when Lindsay hailed him.
" Made a false step in the dark, poor beggar," murmured Don to himself, as he scrambled with all speed down the fissure. "Stunned himself, too. Wonder how long he's been Iying there? He'll be dead, if I don't get him out."

Climbing down that miniature precipice was a tricky matter in the dark. Every movement sent stones rolling to the bottom, and the twisted bushes to which the boy clung brought down showers of snow upon his face and arms. Sinking knee-deep in the treacherous drift, he reached the unconscious man, and turned him over.

A hoarse cry broke from Don's lips.
"Hamish!"
Hardly able to believe his eyes, Lindsay seized the lantern, and shone it full on to the still, half-frozen features. Now there was no mistake. That lank, black hair, curved beak-like nose, thin, somewhat sneering mouth, at the corner of which was a scar, were indisputably those of his cousin.

Hamish Huntley had returned. He had come back to claim Balgracie.

Kneeling on the snow, Donald Lindsay bent with something very like hatred over the unconscious man. Why, he asked himself rebelliously, should he trouble to save Hamish Huntley? IIamish, who had never been a friend, and who, while flattering the old Laird to his face, had sneered at him behind his back. Hamish, who had squandered his fortune, and who had no love either for Scotland or for Balgracie.

Too well the boy knew what would be the fate of the old house if it should pass out of Lindsay hands into those of Hamish Huntley. For a few months, perhaps, all would be well, then it would be sold by its owner to pay gambling debts.

The thought struck Don that, had it not been for this accident, Huntley would have been hastening across the moor, to be first foot at the Lindsays.

The bitterness in the boy's face deepened. To return on New Year's Eve, of all times, was typical of Hamish. He had had many instances before of his cousin's twisted sense of humour.

Suppose-to his horror, Don found himself playing with the thought---Huntley was left to his fate? Why, Balgracie, of course, would revert to the Lindsays, and the old manor would be saved.

Nobody had seen Hamish enter Glen Mohr. The country between the sea-port and the Glen was a snowswept

wilderness. As for the Glen itself, Don knew that no one, not even the sturdy Highlanders, would approach it at dead of night. Local superstitions were too strong.

Huntley, then, would not be discovered for several hours. His long sleep in the snow would by then have done its work, and when he was found it would be too late.

Don leapt to his feet, his decision made. He would pass on. But somehow he found himself down on his knees again, raking away with all his might at the snow.

Working feverishly against time, for there was very little life left in the half-frozen man, Don managed, with the aid of sticks and stones, to dig his cousin out, and to haul him clear of the drift. Then another difficulty presented itself. Hamish was powerfully built, and Lindsay, although a well-grown youngster and a good climber could not hope to scramble with him up the side of that pot-hole.

There was only one thing to do. Wrapping his coat around Hamish for extra warmth, Don clambered to the top of the pit, and rushed out of the glen. He ran like the wind across the moor, up slippery hills, and down valleys; the ice cracked beneath him, as he splashed knee-deep through the frozen burn. Soon, hot and breathless, he was hammering loudly at the door of the lodye.
" It's Hamish," he jerked out, as Tammas MacTeagle appeared. "He's lying half dead in Glen Mohr. Bring a rope and haul him out. Hurry!"

At Tammas's shout, half a dozen brawny men, who were sitting up with him to see in the New Year, came out of the Lodge, and presently, with Don as guide, the whole party was setting off at a brisk pace for Glen Mohr. It was Lindsay himself who scrambled down into the pit and helped to haul the still senseless Huntley out of his prison. It was Don who, while Hamish was being carried home, and safely installed in one of the bedrooms of Balgracie, streaked off again across the moors for a doctor.

And all the while, his footsteps echoed after him: "Fool! Fool! Fool!"
" Better to be a fool than a knave," he muttered to himself, half an hour later, as he stood before the fire in Balgracie hall. The flames, in accordance with the good old Scottish custom, had been kept burning briskly over midnight, to usher in good luck for the New Year.

Hamish, upstairs, had been thawed out, and was now well on the way to recovery. He had seen his young cousin for a few minutes, and had thanked him casually for the part
he had played that night. He had immediately gone on 10 discuss the various changes he would make, as the new master of Balgracie.

Don glanced at the fireplace. The luck of the I indsays, in its black marble setting, glowed like a drop of licuicl amber.

Huntley's raillery still rang in his ears. Suddenly he remembered that the great cairngorm was rightfully his. The old Laird had definitely said so in his will. Here, at any rate, was a part of Balgracie that should not pass out of the family. With a sudden fierce determination, Ion drew out his penknife, and hacked at the jewel in its setting.

There was a click and a whirr in the wall above the fire place.

To his amazement, the boy saw a panel slide back, disclosing a small, dark pigeon-hole, above the mantel.

Thrusting his hand into the aperture, Don drew out a closely-written paper, and, with wildly beating heart, read it through again and again.

It was his grandfather's last will, leaving Balgracie in the hands of the Lindsays. It was signed, sealed, and witnessed. It was dated a full month after the previous will bequeathing the property to Hamish Huntley.

Hamish, then, was not Laird of Balgracie. The rightful owners, Don realised with surprise and joy, were his father and himself. The old Laird had regretted that first will almost as soon as it was made, and forgiving his son the whole quarrel, had made a new will in his favour of the Lindsays.

In his proud way, however, he had refused to breathe a word about this; he had, instead, added a codicil to his previous will, leaving Don the Luck of the Lindsays, and trusting to his grandson to discover the secret.

Don stood for a few minutes, gazing at the giant cairngorm, which glimmered pale yellow in the light of the flames.
" The Luck of the Lindsays," he breathed. " It's come to our rescue again after all. But," he added, in a voice from which sympathy was by no means absent. "It's pretty rough luck on Hamish."

But Hamish Huntley was forgotten as Don's friends, Bruce and Ian Graeme, came swarming over the threshold, the usual New Year's offerings in their hands.
" You didn't come first footing it to us, Don," laughed the former. "So we've come to you. A Happy New Year."

## Postmen that Swim

AN island of the Tonga group, Niua-Fu in the South Pacific, is famous as probably the only place in the world where postmen swim round to deliver letters. The island is encircled by coral reefs and strong currents, and it is very dangerous for small boats, or, indeed, boats or any kind to approach. Once a month the mail boat comes from New Zealand, and for this the white inhabitants eagerly watch. The boat anchors quite two miles from the shore, and out to it the native postmen must swim. The first swimmer carries a short stick, at the end of which is a cleft. In this cleft is the small bundle of outgoing letters. One of the steamer's crew lowers a bucket over the side as the swimmer approaches, and into this the
letters are dropped. A biscuit-tin closely sealed and attached to a rope is then dropped overboard, and this contains the ingoing mails. The floating tin is cleverly steered through the water by the swimming postmen, and piloted in the direction of the shore as quickly as the wind and tide will allow. For many years, whatever the weather, the swimming postmen of Niua-Fu have conveyed and collected the mails in this curious manner. The work is not without a considerable element of danger, for the sea is often infested with sharks. The islanders are expert shark-killers and no serious accident has ever occurred, although there have been some narrow escapes.
S. L. Bastin.


## The Wreckers

HOWEVIER well lighted the coasts and skilful the men who navigate ships to and fro, there always has been and always will be a terrible toll taken by storm, fog and mist, especially upon coastwise traffic. Even the great Atlantic liners are in considerable danger during some of the sea mists or fogs which settle down so quickly and completely block out all lights, and sometimes even dull the warning sounds to such an extent that they are not heard.

Since the coming of steam, however, although the number of ships has greatly increased, particularly in certain seas, there has been a decided increase in safety. There are many appliances, such as submarine signalling, which enable the captain of a vessel to feel his way gradually in all but the worst fogs, when he must anchor down if anywhere near the coast.

It is strange to reflect that there was ever a time when our countrymen would welcome a wreck, and indeed seek to ensure it. Those days have happily passed, since, apart from the better lighting and warnings which are given from the coast, there are available improved charts and pilots whose local knowledge is really astounding. Again, steam is such a valuable motive agent that a ship getting into a bay or inlet can work her way out again, whereas in the days of sail her fate would have been sealed by merely entering such waters.

The toll of shipping a century ago, before steam had really made a successful headway, was tremendous. As a rule the vessels were small and most of them of the coasting type, but now and then a rich West or East Indiaman
would miss her way and come ashore in a fog, or be driven there by a terrible gale. The people living on those shores regarded a shipwreck with complacency. They were sorry, of course, for the poor sailors and the passengers, but they argued it was no concern of theirs if a ship was driven ashore, and when she broke up her cargo formed a valuable addition to the rather straitened circumstances of the populace.

The numerous stories which have been told of the dwellers on an inhospitable coast luring ships to their doom have a strong foundation in fact, but in writing of those distant days the chronicler has often embroidered his story with " facts" which are pure fiction.
Going back right into the past as far as the Middle Ages, it is clear from contemporary records that wrecks and their cargoes were considered the property of the king. This law was not made in order to enrich the king by despoliation, but simply to discourage the attempts which were too frequently made to lure vessels to their doom. Various kings had the matter before them, and they passed laws which should ensure that the original consignee of the cargo should have first claim upon it.

But there were evasions; for example, by an Act of Henry I, it was laid down that when a ship became stranded it could not be treated as a wreck if a man or an animal should escape alive from it. In such cases the royal bailiff was empowered to take charge of the cargo, and if the owner of it made a claim within a year and a day following the date of the wreck, it might be restored to him. It thus appears that if a vessel were lost with all hands the cargo
was no longer bound by these regulations, which, of course, makes it clear that such a vessel coming ashore would be a godsend to the people round about the coast. Nor would they be encouraged to attempt the rescue of the crew or passengers, so that, in a sense, what is now considered the first essential in case of a wreck, that of the safety of the passengers and crew, did not arise.

Is it surprising, therefore, that false lights were made to lure vessels ashore, and that little or no attempt was made to rescue their people? It is said that many of the people on a rocky coast would tie lanterns to the horns of cows in order that their movements would suggest another ship, thus encouraging the vessel out at sea to make towards what was possibly an extremely dangerous coast.

## Old Stories of Wrecking.

We often hear the term "flotsam and jetsam", but do we realise its real importance? Flotsam was held to be wreckage when the vessel had broken up and the goods carried in her were floating in the water between high and low water marks. But jetsam was of an entirely different order ; this applied to goods which had been thrown overboard to lighten the ship when she struck, or when she was making a fight for her life. There was another word used in this connection, viz., ligan. This applied when heavy goods were buoyed before being thrown into the sea; the buoy, of course, would mark the place where they were lying and enabled their salvage to be attempted, always supposing that the line attached to the buoy had sufficient length so that it floated upon the surface.

The word wreck came to be used as meaning cargo which had been cast upon the shore high and dry. If no owner put in a claim for the ligan, the Crown took possession of it, but flotsam and jetsam, and also any ligan which was thrown high and dry, became wreck, and was, therefore, subject to the regulations governing wreckage.

There was a time when wreckage thrown up on the shore became the property of the owner of the adjacent land, and there were a good many fights between the Crown and the owner of the land in order to determine the latter's claim.

In the middle of the last century a case occurred in which a dog, left on board a ship which seemed likely to become a wreck, was the means of saving the owners of the vessel something like $£, 4,000$.

It appears that the ship was on a lee shore following a storm and it seemed impossible that her anchors would hold. Her men decided to take to the boats, but her captain refused to leave her until the position became so threatening that he had to decide to come away. The ship was then drifting inshore and it was obvious that unless some help could be given to her she must be wrecked.

The men of Clovelly would not launch the lifeboat, and the vicar of Morwenstow went to Appledore to beg the men of that place to take out their lifeboat. The distance was too great, however, and the boat was mounted upon a wagon and taken over land to Morwenstow. When the men of Clovelly saw that the captain had left his ship they argued that it became automatically a wreck, but, unfortunately for their claim, when they got out to it they found that the captain had left aboard his dog. Notwithstanding this, the lifeboatmen made a claim of $£ 3,000$ for salvage; the owners contested this because there was still a live thing aboard-to wit, the dog

As the result of litigation the men from Clovelly obtained only one-tenth of the sum they asked for, but the owners of a couple of steam tugs which had rendered valuable assistance, secured $£ 600$.

Going back farther into the past to deal with the
wreckers, there is a record that the Farne Islanders, who were unusually devout men, were, nevertheless, keon on wrecking. It is said that whenever they saw a slip in danger they went down on their knees and prayed devoutly "that the Lord should send her to them"! 'Ilibe writer who records this also mentions that if the ship marlaged to avoid the rocks on their islands the Farne people would give up their praying and cry:" The devil stick to hor ; she is away from us . . ."

A tragic story of wrecking is told of the Welsh coast. A landowner had begun to waste his money in riotous living, and his estate was greatly reduced. Finally, his only som, keenly disapproving of his father's bad habits, sailed for abroad and was gone for some years. Soon after the boy had gone abroad a ship with a valuable cargo was thrown up on the rocks, not far from where the old rake was drinking away his substance. Summoning his servants, he went down to the shore and secured a valuable booty, much of it consisting of drink, which seemed heaven-sent to this old soaker. The rest of the cargo was so valuable that having got it into his house he felt sure that his fortune was made again.

It occurred to the old miscreant that he could possibly have further success in this manner if he hung a lantern at his turret window. Within a very few years this ruse had succeeded beyond all his anticipations, and several valuable ships had piled themselves up on the rocks below his house. One night the old fellow heard a gun of distress from the sea. It was a dark, squally night, and the servants of the house were on the point of turning in. Although the squire, for such he had now become, had heard the signal of distress, he allowed the whole of his people to go to bed ; then he hung out his lantern in the turret window and waited.

As he expected, the ship steered for the light and in an hour she was pounding to pieces on the rocks below. Then he aroused his servants and pretended that he wanted $t 0$ do all he could for the poor fellows who were in the wreck and trying to reach the shore. A few were washed up alive, some dead, and by a strange fate the last body to come ashore was that of his only son! The young man was not dead, but he lived only long enough to see that his parent was his rescuer. After this the downward course of the old squire became much more rapid and finally his estate was sold and passed to other hands, whilst he died the death of a drunkard.

Apart from those miserable wretches who actually ensured the wreck of a ship it is possible to find records of others who, whilst not luring vessels to their doom, were very perturbed when it was proposed to put up a warning light. In 1619 the inhabitants who dwelt round the Lizard, with its deadly Manacles not far away, actually sent in a petition against the erection of a lighthouse ; in this petition the following words occurred: "That it would take away God's grace from them and they would have no more benefits from shipwrecks." As these men had, within a few years of the date they signed the petition, salvaged something like $£ 3,000$ of silver from a Dutch vessel, we can well imagine their concern. Moreover, practically every house thereabouts was built from the timber which had come ashore from wrecked vessels.

Throughout the years there are many records of brave attempts to rescue the cargo from wrecked vessels. In some cases these followed the saving of the crew, but in the majority of instances the crew paid the great penalty which so often followed the going ashore of a sailing ship, especially in those days when the life-saving apparatus was as scarce as the warning light.

There is a story still told round Chesil Beach of how a fine full-rigged ship, on her maiden voyage from London to Australia, went ashore and was lost. In many houses hereabouts there are mementoes of this great wreck, and all the people of the coastline were busily employed in salving a very mixed cargo. It is said that some of them were drowned in their attempt to secure some barrels of spirits which were being buffeted in the huge waves.

In the chronicles of John Wesley he mentions that the Cornishmen were singularly adept in the plundering of wrecked ships, and he rejoiced that the only people who would not share it were the Methodists.

The story is still told at Morwenstow, and indeed in a few other parishes round about the Cornish and Devon coasts, that whenever a wreck occurred during divine service the tale was carried quickly to the clergyman, who showed no reluctance to terminate the service forthwith and join his congregation on their way to the shore.

The Scilly Islanders were perhaps more grateful for wrecks than any other body of people of these islands, since they were so cut off in the days before steam that a wreck


A wrecked schooner mirrored in the silent and placid pool where a few hours before the raging seas had buffeted her to destruction.
was indeed heaven-sent. They had a Saint called Warna ; to him they offered frequent prayer, particularly in the winter, when things were going hard with them, that he would be merciful and send them wrecks to aid them in their distress.

So much for the wreckers. Whether half the tales told be true or not, it is certain that one of the greatest benefits brought about by the adequate lighting of our seaways and the decline in wrecks is the withdrawal of that terrible temptation to welcome a disaster for the immediate benefit to the salvors of the wreckage.

## ABC of Useful Knowledge

Aber means mouth of a river; thus we get Aberdeen, mouth of the Dee; Aberavon, mouth of the Avon.

By: a dwelling village, town; Rugby, red town, Kirby, church town.

Cam : crooked; Cambridge, bridge on the crooked river.
Den, Dean : a valley or ravine; Camden, crooked valley ; Southdean, south valley.
$\mathbf{E y}, \mathrm{Ea}$ : an island; Anglesey, the island of the Angles; Chelsea, shingle island.

Folk: people; Norfolk, the north people; Suffolk, the south people.

Glas : dark green; Glasgow, the green wood; Ardglass, the green height.

Ham; home, town; Cheltenham, town on the Chelt; Grantham, Grant's home.

Inver: mouth of a river; Inverness, mouth of the Ness ; Inveresk, mouth of the Esk.

Kill : church or chapel ; Killarney, the church of the sloes; Kilmany, church of the valley; Kilmarnock, church of St. Marnock.

Law, Low : hill; Greenlaw, green hill ; Hounslow, hill of the hounds ; Ludlow, the people's hill.

Minster : Kidderminster, the church on the hill beside the water : Westminster, the church in the west.

Nant : valley; Nantwich, dwelling in the valley; Pennant, head of the valley.

Old : Oldbury, old town.
Pont : a bridge ; Pontefract, broken bridge ; Pontypool, pool at the bridge.
Rath : fort ; Rathdrum, fort of the long hill.
Scar : cliff ; Scarborough, town on the cliff.
Ton : a town; Southampton, south town of residence.
Wall : a bay ; Kirkwall, the kirk (church) on the bay.
Yar : rapid; Yarrow, rough or rapid river. A. E. B.


# Nature Study Circle 

STANDIN'G closely up against a thorn hedge and looking to the right or the left, we see, if the weather has been mild for any length of time, and there have been no severe frosts, a pleasant glow of colour which, on a sunny day, gives an effect of comfortable warmth to the hedge. This colour comes from a wealth of hawthorn berries which so far have been ignored by the birds. Come again in a couple of weeks' time, when the intervening days have seen the land locked by frost, and there will be scarcely a berry left on that hedge. Thrushes, redwings, fieldfares, blackbirds, wood-pigeons, and any other birds that prefer berries to starvation, will have made short work of these winter rations.

On mild days in winter, as you walk the fields or lanes or woodland at any hour, you notice that everywhere the birds are feeding. There is not a ditch, a brook or meadowside or open space where some bird or other is not hunting for food. Then a frost comes and all these soft or easy places are suddenly cut off as a means of food supply. There is a blockade of all the usual and most convenient sources. And so all the birds that can eat berries immediately rush to the hedgerows and the garden shrubberies, and what looked like an excess of berries a while ago, soon begins to point to a shortage, and, as the frost persists, you wonder whether the frost will give in before the berries give out.

When it becomes a near thing-that is to say, a matter of days before starvation faces many birds--you cannot fail to notice how apprehensive they have become. There is a fear expressed by silence; the birds say nothing, but creep about under every bush and tree, feverishly searching for anything that will provide nourishment of sorts. When the ivy berries, the holly, the privet and the bryony berries have gone and the wild things are eating bark, and rooks come into the garden for bread, then you may know things go hardly outside, and you can help to save the situation with bird-tables, and by scattering corn and seed in the hedgerow banks and under the bushes.

To make your bird-table attractive and to do the most good with it you must stock it with a mixed grill, as it were, for all birds, as you know, do not feed alike. A good mixture is one made of fat, chopped suet, scraped raw meat, crushed hempseed, chopped nuts, mashed potatoes, baked breadcrumbs, currants and cooked greens. The whole made into a kind of pudding will form a meal to suit all tastes and the most particular palates.

It is a good plan to have a bird-table made in the form of a small dovecote, with partitions like you would have for pigeons, which prevents squabbling and sorts out the

Gonducted by "HEDGEROW"

## A MIXED GRILL

visitors into small groups, instead of all pushing one another about and the strongest getting all the best food.


My own bird-table is like a house with a thatched roof, and has dovecote entrances and the sides made of basketware, which I find lasts longer and looks nice. If it is wet weather, the birds can feed in the dry, and the food does not get nasty and messy. That is the advantage of a bird-house.

It should be erected near a window, so that you can watch the visitors, and the birds will like it better if it is near a tree, for from its branches they can first survey the land to see that all is safe, and after the meal they can go back into the tree, clean their beaks and preen their feathers in comfort. As an additional attraction you can smear the branches of the tree with some of the same mixture as I have prescribed, and by this means will attract the very shy birds that would not call at the thatched house.
Do not forget to supply a drink. This is all the more necessary when frost has cut off their usual supply. I run a well-stocked food-house all the year round, with the result that my little thatched house is known far and wide by the birds as a place to come to in any food emergency. In the winter my garden is visited by practically every bird in the neighbourhood at some time or other, and I get, too, the "uncertain visitor"; you have read about this in my previous talks.

As the news of a hospitable house spreads amongst the tramping fraternity, so does the news of a well and regularly stocked bird-table and drinking-fountain spread amongst the birds, and you are known to all and sundry. Not only will they come to feed and drink and bathe in your garden-they will sleep and nest there, too ; so do the thing properly and put up nesting-boxes as well. It won't be long before they are wanted.

Soon the countryside will be waking up and you will have a lot to amuse you out of doors amongst the things of the wild. The first brimstone butterfly isn't very far away, catkins will be flowering in the hazels in a matter of weeks, bumble-bees haven't much longer to sleep, and rooks are already making eyes at one another. We are not out of the wood yet, but we are very near the right side, and early January seems different somehow to late December, although only a few days may separate the months. In the meantime, a Happy New Year!

## Answers to Correspondents

Write to me as often as you like. I do enjoy receiving your letters and answering them. There must be heaps of questions you keep wanting to ask, heaps of things you do not know, but
would like to, so start right away and bombard me with all sorts of questions. I shall not mind; the heavier the post the better I shall be pleased. The invitation to write to "Hedgerow " which always appears on this page is not just an empty phrase; it is a genuine request and desire to help you learn about Nature to all my readers.

Your new pond will not be fit for goldfish until the cement has completely dried and no longer poisons the water. Let it stand full of water for about three weeks, then empty it ; let it stand dry for a few days, then refill it and try it with just one or two fish, and if these appear to be all right, then put in some more. You will require some water plants Here are a few: Anacharis, water crowfoot, duckweed, willow moss, water mint and water iris, and you might put in some water snails, which will help to keep the pond growth clear of slime. (To A. R., CHippenham.)

It is not unusual for hedgehogs to come out on a very mild winter night, especially if there is a spell of mild weather. I caught one in my summer-house last January, where he had gone to lick at the fat which had come off my saw when cutting logs, these being piled in the summer-house. I kept him for about six months, and he became very tame, but I released him in the summer. I fed him on raw meat, raw eggs and bread and milk. Sometimes he would slecp for weeks and nothing would tempt him from his warm bed of hay in an old rabbit hutch, but when he did wake he made up for lost time by consuming plates of food. (To D. W., Wallington.)

I would suggest you bought "British Spiders", by Edward C. Ash, and "British Insects", by J. H. Crabtree, both inexpensive books and easily carried in the pocket, and fully illustrated. Later you might get " Bees, Wasps, Ants and Allied Insects of the British Isles", by Step, a more expensive book, but excellent in every way. And you would like reading the book "The Spoilers" by J. Henri Fabre, published by Hodder \& Stoughton. (To B. P., Reidhil.l.)
"The Animals' Home Doctor", an encyclopædia of domestic pets, is the publication you are thinking of. It was published in about thirty parts. I dare say you could buy these parts bound, or you might advertise for them. It was published by the Amalgamated Press. That little book "Everybody's Animal

Doctor', by Rosslyn Mannering, might help you. It mentions, besides other animals' diseases, those of dogs, cats, rabbits, cavies, rats, mice, squirrels and monkeys. (To N. S., Worthing.)

There is nothing to be alarmed at by the fact that you have found several dead bees on the alighting-board of your hive. They will be old bees that have not managed to survive much of the winter. On any fine day, if the sun has any power in it, the bees will take the opportunity, at this time of year, to do a very little house-cleaning, which includes bringing out the dead.

If there is any doubt as to shortage of food, slip a cake of soft candy under the quilt and immediately above the clustering bees, but do it quickly, or you may do more harm than good. If you know they have plenty of food, on no account interfere with them at this season.

The pigeon's feather you enclosed was fretted by insects. If you hold your pigeon's wing up to the light and extend it, you will see lots of little holes in the webbing. Sprinkle the bird with Keating's Powder, under the wings, under the rump feathers and in the neck feathers; repeat the dose in about two weeks' time. Whitewash your loft and clean out the corners, and burn any feathers lying about. Also scrape all the perches as frequently as necessary. (To E. M., Warwick.)

Your rabbits should be fed twice daily and at regular times each day. If you only give one meal a day they will overfeed and will never be in good condition. All food must be fresh. Bran, oats, good sweet hay, carrots and swedes make a good variety. Be careful at this time of year not to give frosted food, it is the very worst thing for rabbits. Keep the hutch clean and dry, and give plenty of clean bedding. Sawdust is good for the run and absorbs the moisture. (To F. T., Bromi.ey.)

Don't wait until next summer. There is no better time than now to begin the study of trees, for you will see the other side of the picture, that is to say, the tree in its naked shape. You will notice the different colours too of the various trees, for they have colour now in their bark as well as when they are clothed with tinted leaves. Take photographs now and compare them with those you take of the same trees in summer dress. "Wayside and Woodland Trees," by Edward Step, is the book you should get and it is a handy size for the pocket. Take it with you on your walks. (To B. H., CARDIFf.)



MY first experience with gorillas was over twenty years ago. I was following a wounded elephant in the great Congo forest when I heard a troop of monkeys chattering as if with fright and, thinking investigation might be worth while, I cautiously approached the sounds and there saw the cause of the commotion. A big male leopard had seized a monkey and was in the act of eating the entrails; but on spotting me he bounded away, not before I was able to get a shot at him, the bullet breaking his hind leg.

The going was fairly open, the trees being big with but little underscrub, so thinking he could not go far I followed, and shortly came in sight of him licking the wounded limb. He heard me before I could make certain of my shot, running away on three legs, making good speed. The trees and the line of fire prevented me taking a running shot, so I hurried after him. The beast made for an abandoned village, and then I saw what I took to be a giant of a man standing in the path of the leopard. I shouted and increased my pace, only to find instead of what I supposed a native, a huge gorilla.

Neither animal would give the right of way, so there was only one thing left and that was to attack each other. The leopard took the initiative, trying to claw the gorilla which, however, seized his opponent as a cat would a mouse by the throat and proceeded to tear the leopard limb from limb with his powerful arms. I heard even the bones cracking! Being very interested, I withdrew some distance, so that whilst watching the proceedings I might also have the chance of a few shots if the gorilla felt inclined to treat me the same way.

Even when there was no more life left in the leopard, the fearsome-looking monster picked up the body as if weighing only a few pounds, and continuously threw it on the ground. Then the gorilla, after deliberately stamping all over the

carcass, pulled it along to some castor oil trees and proceeded to bury it beneath a collection of boughs. When the operation was finished to his satisfaction he stood up and looked my way.

I did not wish to kill the beast unless forced to, and also wanted to follow him up to see where he went, hoping there might be a family circle, containing a baby that I could capture. I waited a short time and then took up his trail, but soon lost it, so returned to the scene of the tragedy and went over to the buried leopard. On removing the branches I found the leopard smashed to a pulp, not a bone in his body had escaped destruction, and if I had not seen the combat with my own eyes, I should have unhesitatingly said it had been killed by an elephant. I took a look round the clearing to see if I could notice anything else of interest, but found only a place where the gorillas had been feeding on the young banana shoots. I returned to camp minus any meat, but with the firm intention of trying to obtain a baby gorilla.

THAT night around the camp fire I questioned some pygmy natives I had with me about gorillas. I found the little people's statements different from their bigger brethren, whose information consists partially of facts and part fiction, and whose narration wanders so frequently from the subject as to almost cause murderous thoughts to arise in the listener's mind. But patience with the native will in the long run achieve something.

I arranged with the Pygmies that they should go in search of gorillas, trying to locate a family containing a baby which would be easy to capture.

The following morning a native of one of the near-by villages told me that some gorillas had been raiding their shambas (gardens), and that he was certain there was a young one amongst them. We set out and quickly arrived at the scene of their depredations. Taking up their trail we followed as quietly as the thick undergrowth made possible and after about an hour we heard the beasts, and, approaching cautiously, saw one of them swinging on a thick vinc. Ile would swing for a minute, then climb hand over hand, then let go of the vine and beat his chest with his hands. I was more than amused with his antics, and, whilst I was watching him, four more appeared, two males, two females--in fact a regular family group

As they seemed to be unaware of our presence, I settled down to watch, having no idea of using my rifle unless in a case of due necessity ; but a mongrel dog belonging to one of the villages upset our calculations, and, no doubt to show what a wonderful hunting dog he was, dashed out with shrill barks, making for one of the gorillas. For a moment they all started in our direction, then one of the gorillas made for the dog, which promptly ran back to his master, who was accompanying us. The gorilla swung himself from vine to vine and was soon amongst us. We broke into yells hoping to scare him away, but in his anger he came straight for us with grunts of rage, hair bristling and grimacing in a most ferocious way.
Knowing what those terrible canine teeth and powerful arms could do, I hastily fired and brought him down with a bullet in his brain. The others fled. The dead animal was not full grown, his measurements being : height 5 feet and his chest 68 inches. I was annoyed at being forced to kill him, as I had wished to be able to study the animals more. We stayed in that part for another month, but I never came across any more.

MY next experience occurred about 2,000 miles distant from that camp. I had been exploring the Inzia River which flows from Portuguese Congo into the Kwelo in the Belgian Congo, which joins the Kwango and the Kasai Rivers, these latter emptying into the Congo River.

A Dutch captain was giving me a passage on his cargo boat. By night we tied up, as it was too dangerous to run downstream, and one night we did so early, needing meat,
and as I knew that part of the country held many buffalo I felt pretty certain we would get meat enough for all the crew. We had not far to go before we ran into about twenty of the beasts grazing near the river.

The captain and I both fired, dropping one and badly wounding another. My companion suggested that I fetch the boys to cut up the dead one while he endeavoured to get another shot at the wounded buffalo. The captain had not been gone more than a few minutes when he came rushing back without his rifle, yelling that some great man with the face of a monkey had snatched his rifle away. I accompanied him back to investigate the phenomenon. We were soon at the spot, but could see nothing, when suddenly he grabbed my arm and whispered, "Look!" I did so and saw a huge figure striking a tree with some object. I fired, but the light being bad, could not see whether I had registered a hit.

We examined round the tree, but finding no trace of blood, gathered that I had missed; we picked up the object the animal had been battering against the tree, proving to be the captain's rifle, which I am afraid he would never use again. Darkness coming with that suddenness that is characteristic of Africa prevented us pursuing our search. Only the light from the ship enabled us to get there safely, notwithstanding much stumbling and many imprecations.

I am still very much in doubt as to whether the ape took the rifle out of the captain's hand, and think the latter must have dropped it in surprise at meeting such an apparition. The animal probably picked up the weapon and, scenting something human about it, thought it needed killing and killed it to the best of his ability.

# The Best Boxer in the World 

By ROBERT M. MACDONALD

THE question is always being raised as to who really is the champion boxer of the world, and whether he is of British, American, German or some other nationality. People have different opinions, but I think that the best boxer in the world is an Australian born and bred. At any rate he has toured the world and never has been defeated, and without much doubt could take on Neusel and Petersen, one after the other, and beat them both. This sportsman, however, is very modest and has no desire for either money or the Championship Belt. In private life he is very domesticated and an ideal father, and is even timid when meeting men whose opinions regarding sport are different from his own.

But he is well known in Australia, and Australians being a sport-loving people are very proud of their unparalleled boxer. Indeed, such is his fame that he is the original of one of the figures on the coins, and is known everywhere throughout the great land of the Southern Cross simply as "the Old Man."

When boxing the Old Man uses his right and left marvellously, but though perfect in his defence he is rather weak in attack, and consequently he always wears down his opponent in preference to knocking him out at once.

When induced to travel abroad by his business managers, who are very astute men, the Old Man is extremely reserved and keeps closely to his own apartments. His unaffected dignity is such that although he does not readily respond to the flattering advances made by many of his fellow oversea travellers he remains their friend.

Most pugilists while at sea keep in practice by the use of the skipping rope, but the Old Man prefers to skip without the rope, and never displays his agility on the deck as many other oversea travelling boxers are fond of doing. He has a strange dislike of dogs, and if any canine quadruped comes near him his nerves are always affected. Indeed, on several occasions when exasperated by the presence of dogs he has killed one with one blow.

The Old Man has no love for the crowded cities, and when not on tour will do almost anything to keep away from them. Of course, as his managers point out, his wealthdrawing power is greater in such places, for only in them are there sufficient people eager to see the world's champion boxer to make his presence lucrative to all concerned.

Having no need for money, he concurs only listlessly, but he never disappoints his managers and, to date, has always beaten any man who has donned gloves and stood before him. He finds no pleasure in triumphing over his opponent, and the shouts of the applauding multitude of spectators fill him only with sadness. But he is under management and must fight whether he is willing or not.

He is a strict vegetarian and has never been anything else. He excels in most other sports which depend upon swiftness and sureness of action, and although the records to his credit were not made under the rules of any British or American organisation, his long jump has never been equalled by anyone, nor has his time in doing the hundred yards, the half mile and the mile.

It is a pity that the Old Man is only a kangaroo.


## HELP

Rent Collector: " I'm to give you warning that the landlord's going to raise your rent."

Tenant: " That's good news, because I can't raise it myself!"
(From E. V. Hulse, Eccles.)

THE GOOD TURN
" Well, dad," said Jimmy, the scout, taking his chair at the breakfast-table, " I've done my good turn for the day."
"What!" exclaimed his father. "You've been very quick about it. What did you do ?"
"It was easy," exclaimed the boy. "I saw old Mr. Brown going for the seven-twenty train and he was afraid he would miss it, so I let our dog loose and Mr. Brown got to the station in time."

> (From C. Brett, Great Coates.)

ONE WAY ONLY
It was rush hour at the railway station.
" Over the bridge for Morecambe," called out an agitated porter, as loudly as he could. "Over the bridge for Morecambe!"

An old gentleman tapped him on the shoulder. "Which is the train for Morecambe, my man?" he asked.
"Over the bridge for Morecambe," replied the porter.
"But I have a tin chest," the old gentleman told him.
" Guv'nor," said the porter, through clenched teeth, "I don't care if you have a brass back, copper legs or castiron feet. It's over the bridge for MORECAMBE!!"
(From E. Strickland, Aldershot.)

> THE UPPER IS LOWER

A traveller informed a Pullman ticket agent that he wanted a Pullman berth on the train to New York.
"Higher or lower?" asked the agent.
"What's the difference ?" asked the traveller.
"A difference of fifty cents," replied the agent, continuing: "The lower is higher than the upper. The higher price is for the lower. If you want it lower you'll have to go higher. We sell the upper lower than the lower. In other words, the higher the lower. Most people don't like the upper, although it is lower, on account of its being higher. When you occupy an upper berth you have to get up to go to bed, and get down ta get up. You can have the lower if you pay higher. The upper is lower than the
lower, because it is higher. If you are willing to go higher it is lower."

But the poor traveller had fainted.
(From G. Jocelyn, Canada.)

One day Mrs. Jones was in the wash-house washing when she heard a noise in the kitchen. She came running in, and saw Johnny had the mantelpiece clock in pieces on the floor. "What are you doing?" asked his mother.
"Just killing time," replied Johnny casually.
(From P. Earl, New Zealand.)

## whistling the hat back

A gentleman was taking his family for a holiday, and while in the train he noticed little Tommy gazing intently out of the window. So, slipping the lad's hat off, he pretended it had blown away. The little fellow was much concerned, and his father said he would whistle it back again. Thereupon, he whistled, and, sure enough, the hat was back on the boy's head.
A few minutes later the father was reading his newspaper. when suddenly Tommy snatched off his father's hat and threw it out of the window, saying :
"Now, father, whistle that back, too!"
(From S. V. Warnock, Belfast.)

## The duet

" Do you know the name of that song?"
"Which ? The one the singer is singing or the one the accompanist is playing?"

FACT OR FANCY
" Willie, where's Johnnie ?"
"If the ice is as thick as he thinks it is, he's skating, but if it's as thin as I think it is, he's swimming."

## PRIZES FOR fOKES

The Editor will be glad to receive jokes and humorous stories from readers for this page. They need not be original, but where they are selected, the source must be stated. Small prizes will be given for any that are used.

Address, The Editor, "Boy's Own Paper", 4 Bouverie Street, London, E.C.4, and mark envelope or postcard "Chestnuts".

# FROG AVIATION COURSE 

## No. 1-THE WING


used, but when it was discovered that the lift was not due to pressure from underneath, so much as by a vacuom caused above the upper surface, a rounded or cambered shape was found the most effective, streamlined underneath as well as possible, for rigidity as well as for efficient shape. The FROG is the only model aeroplane with cambered wings constructed on the proper aerodynamic principles -it is the only one therefore on which the science of flight can be correctly illustrated and studied. The FROG wings are detachalle and in the event of a crash fall off undamaged.

The sole purpose of the wing, or "aerofoil surface" as it is called in acrodynamics, is to lift the aeroplane, and keep it in the air. The lifting force, however, of every wing brings into being al corresponding force of "drag" which tends to slow up the progress of the aeroplane. Roughly therefore, the greater the "lift," the more force is needed to push the machine forward-but the amount of drag depends on the design of the wing. The skill therefore in wing design is to obtain the lift appropriate for the intended speed, with the minimum of drag. Plain flat inclined surfaces were first


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Please send me your "Frog' coloured leaflet with particulars of the "Frog" Flying Club and of how to obtain handsome en med Air Force pilot badges.

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## DR. BARNARDO'S HOMES



WILL YOU, THIS NEW YEAR, RESOLVE TO HELP A DESTITUTE CHILD?
Become a partner In the work of Dr. Barnardo's Homes, Which always supports a family of about 8,300 destitute boys and girls and babies. It will give you great happiness.
$10 /=\begin{aligned} & \text { will feed one child } \\ & \text { for a fortnight. }\end{aligned}$
Cbeques and Orders payable " Dr. Barnardo's Homes Food Fund," and crossed, should be sent to Dr. Barnardo's Homes, 189 Barnardo House, Stepney Causeway, London, E.1.

## CAREERS for BOYS

## DO YOU WISH TO BECOME:

## Artificer

Carpenter
Coppersmith
Draughtsman
Electrician

## Fitter

Instrument Mechanic
Operator (Signals)
Surveyor
Musician
If so, why not let the Army train you. You receive pay while you are being taught a trade.


READERS of 'I'ue Boy's Own Paper may remember .that the Schoolboys' Own Exhibition was first organised by Mr. Ernest Schofield in 1927, 'with the well-known sections Stamp Street, Airway Avenue, Handicraft Corner, Careers, Bookworm Burrow, etc.

It will he very interesting to our readers to know that the Exhibition will this year be held at the Imperial Institute and Jehanghir Hall, University of London, January Ist to IIth, I936, II a.m. to 6 p.m. daily.

There will be (1) A Cinema with a Gaumont-British Schoolboys' Own Programme, (2) A Hall of Explorers organised by Commander Bernacchi, O.B.E., F.R.G.S., and (3) A Hall of Science, in which eminent persons will give short talks with demonstrations or lantern slides each afternoon at 3 p.m. (Programme will be announced later.) In this Hall, Major Raymond Phillips, O.M.E., will give three demonstrations daily at 12 noon, 2 p.m. and 4 p.m., of the "Auragraph," the "Electric Eye," Radio Controlled by Radio, a New Burglar Alarm and a Unique Model Railway.

The Junior Bisley Cup will be fought for at the Rifle Range, and valuable prizes will be offered in the Amusement Section of the Exhibition. The Skybirds League will be showing, also Hobbies, while special competitions will be arranged by the Boy Scouts' Association. There will be a special Air Section under the organisation of the Air League of the British Empire, while the Army and the Air Force will make displays.

Each year the Schoolboys' Own Exhibition attempts to give boys a happy annual reunion, where all may forgather and see what has been done for them and their friends in the world of science, commerce, sport, and other fields. This year a special effort is being made to give boys the chance of having a wonderful summer holiday in Canada, or an Easter or summer holiday in a sailing ship.

## The "Boy's Own Paper"

The Boy's Own Paper Stand at the Schoolboys' Own Exhibition is always a centre of attraction, and again this year it is no less of an attraction.

In the centre of the stand there will be a fine collection of books, some of which should be in every boy's library. Whether it is school or adventure yarns, transport or Nature stories, every taste is more than catered for in the fine collection of books published at the Boy's Own Paper office.

One of the special attractions will be that the Editor of

the B.O.P. will autograph all copies sold of books written by himself ; these books are real thrillers and will keep you in suspense until the last page; so make sure you buy one of them, and so introduce yourself to your own Editor.

On this stand the first volume of the Boy's Own Paper, issued in 1879, will be on show, and it is well worth a visit just to see this relic of the past, and to look at the kind of illustrations and stories which our fathers and grandfathers used to read in their young days. Alongside this first volume will be the Jubilee Number, issued in 1929; it is interesting to note that a similar copy bound in vellum was presented to H.R.H. The Prince of Wales.

It goes without saying that the "Boy's Own Annual" will be on this stand, and anyone not knowing this fine production should make a point of seeing it. It is full of stories that thrill and amuse, as well as articles on almost every conceivable subject.

Many pages could be taken up telling you of the interesting things on the Boy's Own Paper Stand, so come for yourself and see it all. Do not forget to wear your club badge if a club member, or your Skywayman badge if a member of the B.O.P. Flying League.

## The City of the Future at the National Savings Movement Stand

Traffic that moves ; lights that flash in and out ;" ramps " that carry vehicles, winding round the tall tower to the landing stage on the top-these are part of a model, " City of the Future," which is the main attraction at the National Savings Movement Stand (No. D.4). Anybody can set the model working by means of a photo-cell in front of it. Boys visiting the Stand can also find out how " National Savings" will help them to realise their ambitions for the future.

## The R.A.F.

On the Royal Air Force Stand some interesting exhibits, featuring part of the work carried out by airmen and aircraft apprentices in the various skilled trades of the Royal Air Force, will be on view. These exhibits have been supplied by the School of Technical Training, Halton, where, in addition to a special course of training for skilled fitters, the majority of boys who enter the service by examination between the ages of fifteen and seventeen years receive a three-years' course of apprenticeship training before being posted to units of the R.A.F. as fully qualified tradesmen.

As a result of the expansion of the Air Force, vacancies for some 2,000 well-educated boys occur each year, and excellent opportunities of securing an efficient training and of embarking on a fascinating career with many possibilities of advancement are offered. Representatives of the Recruiting Branch will be in attendance at the Exhibition to answer questions regarding careers in the Royal Air Force and to furnish appropriate literature on the subject.

The exhibits include a selection of aircraft fittings made by apprentices at Halton and a model locomotive made by members of the Apprentices' Model Engineering Society. Other interesting exhibits will be items of equipment used in the training of fitters (armourer) in the repair and maintenance of armaments and armament gear.

Opportunities also occur for the training of a limited number of boy entrants in the trade of photographer, and the selection of aerial photographs supplied by the School of Photography, South Farnborough, will be illustrative of the skilled and attractive work on which airmen of this trade are employed. An F. 6 Type Camera (sectioned), as used in the Service, will also be on view.

Scale models of the S. 6 (winner of Schneider Trophy) will also be shown, together with other Service aircraft.

## Chemistry

All schoolboys interested in ${ }^{-}$Chemistry should visit this stand, No. B22, and inspect the model Home Laboratories.

Special sets of equipment are offered for the period of the Exhibition, including an enlarged " Sample Parcel" of Apparatus, price $2 s .6 d$.
Many exhibits of scientific interest are displayed on the stand.

Demonstrations will be given at intervals during the day.
A New Catalogue has been prepared for the Schoolboys' Own Exhibition. Come along and get your copy !
F Remember that all orders placed at the stand will be sent Carriage Paid.

## Have You ever Seen a Lime?

L. Rose \& Co., Ltd., are again exhibiting a range of lime fruit products, featuring, of course, the lime juice cordial for which they have been famous this last seventy years. Being the largest individual lime-growers in the world, their resources enable them to guarantee a continuity of the quality always associated with their products. The opportunity should be taken to inspect the fresh limes on the stand, as a supply of this little-known fruit will be displayed.
Whilst lime juice is their main product, fruit drinks in variety of the highest grade are shown, as also is a rangc of food products-lime marmalade, lime curd and West Indian honev-together with pastilles and the very seasonable lime delight.
A representative sample parcel is offered at a special price during the Exhibition.

## Hobbies

Hobbies are being displayed on Stands Nos. 1) 12 and $\left.^{2}\right)_{13}$, and here will be seen demonstrations of the variety of uses to which the fretsaw and fretmachine can be put. Little things like jigsaw puzzles are seen, and there will be a display of the wonderful models of ships, St. Paul's Cathedral, aeroplanes, etc., as well as some of the hundreds of articles which can be cut by any handy fellow. If you are interested in woodwork at all, be sure to make a call here, where not only can you see all the tools and materials, but you can try out for yourself one of those delightful machines which are so useful, and almost essential to any handyman.

That extraordinary wood which is lighter than corkknown as Balsa wood-will be on view, and those who make model aeroplanes will appreciate its value when they handle a piece, and realise its extraordinary lightness.

## C. T. Brock \& Co.'s "Crystal Palace" Fireworks

No Schoolboy's Exhibition would be complete without a fireworks exhibit. At Messrs. C. T. Brock \& Co.'s Stand there is on view a show that should satisfy the keenest firework enthusiast. There is a complete set of fireworks of all kinds, from the humble halfpenny squib to the giant bombshells, which are a feature of the great Crystal Palace displays. An interesting feature is a scale model of a fireworks display as it was set out and fired by Messrs. Brock's operators at one of the many fired to celebrate His Majesty's Silver Jubilee, with everything complete down to the smallest detail.

There are, too, fireworks which serve other purposes than amusement only; life-saving, signalling, vermin destruction and the testing of drains.

A model of the Crystal Palace, composed of hundreds of small fireworks, will be sure to attract attention, although, to tell the truth, these fireworks are empty of explosives, as are all those displayed on the stand, otherwise some enthusiast might be tempted to apply a light in the hope of witnessing a record indoor display.
A demonstration explaining how fireworks are made and how the various effects are produced will be given each evening in the Quadrangle (weather permitting).

## Schweppes

Everybody is familiar with Schweppes' Table Waters' and Boy's Own Paper readers will be able to enjoy their famous cordials at specially reduced prices. This in itself is worth a visit to this stall, and visitors will want to stay a long time to try their tempting and delicious nonalcoholic wines.

## Win a Cash Prize at Bassett's Stall

Do you want to win 65 ? Then you must go to Bassett's Stand at the Schoolboy's Exhibition. They are making a big show of their famous Liquorice Allsorts. With every, $2 d$. carton is given away a free entry for a "Pic-Saw" competition-a fascinating new game that you are sure to enjoy. There are $f_{10} 10$ in prizes, the first being $f_{5} 5$, one of $£_{3}$, and four of ros., as well as numerous consolation prizes. Make sure you don't miss this great opportunity, or these jolly good sweets! On Bassett's Stand you'll see some interesting photos of members of the Australian Cricket Team sampling (and obviously enjoying) , Bassett's Allsorts. These were taken when the "Aussies" visited Bassett's factory while on their tour last year.

## ROYAL AIR FORCE

## VACANCIES FOR BOYS

Boys are accepted for training in the Royal Air Force in three categories (aircraft apprentices, apprentice clerks and boy entrants), as described below.

## I. AIRCRAFT APPRENTICES.

AGE LIMITS. Applicants must have attained the age of 15 and be under the age of 17 years on the first day of the month in which they wish to enter the Service (see below).
METHOD OF ENTRY. Entry is by competitive examination Applicants "possessing an approved first school certificate with specified "credits" may be exempted from the examination. The competitive examinations are conducted at numerous local centres throughout Great Britain and Northern Ireland.
METHOD OF APPLICATION. Prospective candidates should normally apply through the Headmaster of their school to the Local Education Authority for the requisite nomination.
DATES OF ENTRY, ETC. Entries take place twice a year, in January and in August. The examinations are held in the preceding November and June respectively. Nominations for the November examination must reach the Air Ministry not later than the first Tuesday in October and for the June examination not later than the first Tuesday in May.

Aircraft apprentices receive a three years' technical training (with continued general education) in one of the following highly skilled trades: fitter, wireless operator mechanic, fitter (armourer), instrument maker. Their initial engagement is for 12 years' regular Air Force service from the age of 18 , together with the period of training previous to attainment of that age.

## II. APPRENTICE CLERKS.

AGE LIMITS. Applicants must have attained the age of $15 \frac{1}{2}$ and be under $17 \frac{1}{4}$ on the first day of the month in which they wish to enter the Service (see below).
METHOD OF ENTRY. Entry is by selection from among candidates in possession of an approved first school certificate.
METHOD OF APPLICATION. Applications should be made to the Air Ministry, in the first place.
DATES OF ENTRY. Entries take place quarterly, in January, April, July and October.

Apprentice clerks receive 18 months' training (with continued general education) and are subsequently employed on accounting or general clerical duties in the Royal Air Force. Their terms of engagement are generally similar to those described above for aircraft apprentices.

## III. BOY ENTRANTS.

AGE LIMITS. Applicants must have attained the age of $15 \frac{3}{4}$ and be under the age of $17 \frac{1}{1}$ years on the first day of the month in which they wish to enter (see below). Boys under 16 years will normally be accepted for training only as wireless operators.
METHOD OF ENTRY. Entry is by examination and by direct nomination.
DATES OF ENTRY. Entries will take place three times a year, usually in February, May and September, but vacancies in the trades of armourer and photographer may not always be available at the May entry.
METHOD OF APPLICATION. Application should be made as described in the case of aircraft apprentices (see above).

Boy entrants are trained for 12 to 16 months (according to trade) in the skilled trades of armourer, photographer or wireless operator. The initial engagement is for 9 years' regular Air Force service from the age of 18 in addition to the period previous to the attainment of that age. Airmen who enter the Service as boy entrants may be selected for training as air observers or airmen pilots.

The official regulations, giving full information regarding methods of entry, conditions of service, pay, etc., are contained in A.M. Pamphlet 15 (aircraft apprentices), A.M. Pamphlet 9 (apprentice clerks) and A.M. Pamphlet 54 (boy entrants) which may be obtained on request from the Inspector of Recruiting, Royal Air Force, Victory House, Kingsway, London, W.C.2, or from any local Royal Air Force Recruiting Office.

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## The Skybird League

Not the least of the attractions at the Schoolboys' Own Exhibition will be the display stand of the Skybird League, where all members and prospective members will be welcomed. Throughout the period of the Exhibition there will be someone in attendance from Skybird League Headquarters, to answer questions, explain any difficulties which have arisen in regard to Skybird Modelling and to enrol new members. There will be a visitors' book for all Skyleaguers to sign. The signatures will be numbered and there will be a surprise for twenty lucky members of the Skybird League. The lucky ones will be named in The Aero Modeller February issue. In addition to the display of models, which will include the first Skybird Flying Boat, there will be on show with the League Challenge Cups, two new trophies-one presented by the Air League of the British Empire and the other by the publishers of The Aero Modeller-for Skybird League Competitions. There will also be a series of most interesting photographs of models and drawings sent in to Headquarters by members. Shipserics League will also be represented at the Skybird Stand, where there will be a very interesting display of Shipseries Models.

## Marconiphone

The Marconiphone exhibit on Stand No. A. 7 depicts the development of radio instruments from its earliest days to the present time. The earliest instrument on show is part of that used by the Marchese Marconi, G.C.V.O., in his early experiments between the Isle of Wight and the mainland. In a temporary station set up at the Royal Needles Hotel, Alum Bay, in 1897, Marconi used certain crude apparatus, part of which is on show. The development of radio is traced through the succeeding years, and particularly the war period, and on to the early development of the Broadcast receiver, from the time that the Marconi experimental stations came into operation in 192 I up to the present day. Here is seen in detail the work of one of the greatest scientists of all time, and how radio, so indispensable in the modern home, has grown from the crude apparatus used forty years ago.

## Paul Clive \& Co., of North Harrow, are

Specialists in Conjuring Tricks, Practical Jokes, and Novelty Mechanical Toys. At their Stand can be seen a large and very amusing selection of Jokes ideal for New Year Parties. To those interested in Magic this exhibit will also make particular appeal. The demonstration of all their lines, including some exclusive items, will take place during the day.

Mr. Paul Clive, who is a member of the Magic Circle, will be there most of the time, and will, if desired, give personal attention to any purchaser of conjuring tricks.

A visit to this exhibit will certainly be greatly enjoyed.

## A Novel Camp Bed

You want to go camping, but the reason why you hesitate, or why you are prevented from doing so, is because you would have to sleep on the ground, which is uncomfortable and rather dangerous.

The Hounsfield Patent Camp Bed provides a solution to your problem. It is constructed of rot-proof canvas and rust-proof steel, without any wood. The bed is light, weighing $8 \frac{1}{2} \mathrm{lb}$. portable, measuring I yard in length when folded, flexible, allowing the bed to conform to the irregular shape of the human figure, thus making it remarkably comfortable. It is made in six sizes (ranging from 12s. $6 d$. to $26 s .6 d$.), and is shown on Stand No. C. 22 .

## "Army Careers"

Boys of to-day are thinking seriously of their future. Readers of the thrilling and imaginative stories in the Boy's Own know that impossibilities never occur. 'Ihey are familiar with Napoleon's statement about every private soldier carrying a Field-Marshal's baton in his knapsack ! They also know that the exceptional career of Sir William Robertson rising from a private to FieldMarshal proved the rule.

Preparation and application for enlistment in the Army to-day cannot be regarded lightly. Education, character, qualifications, are carefully examined; and if the War Office could be persuaded to display a slogan for boys of thirteen to sixteen desirous of apprenticeship, it may well be: "No duds need apply", for this is indeed the situation.
" AGREEABLE SURPRISE"
"Careers for Boys" is a fascinating pamphlet issued by the War Office, and removes all doubt about the type of boy entering the Army to-day. The Army is admitting only the best, and if you consider yourself within that category, and desirous of laying the foundation of a prosperous career, you should visit the Schoolboy's Exhibition and-as the Sergeant-Major is alleged to say-make a "bee-line" for the War Office Stand-where you will find sympathetic individuals prepared to listen and tell you all about it. "Careers for Boys" is the pamphlet to ask for, and I promise that you, and your parents, are in for a very agreeable surprise when you read it. You can, of course, write direct to the War Office for it, and when you do be sure and mention the Boy's Own."

## Stamp Collectors Catered For <br> Of great interest to all visitors to the Schoolboy's

 Exhibition will be the stand of Messrs. Healey \& Wisc, Ltd., the fifty-year-old City stamp firm.There will be on view many interesting and valuable postage stamps. There will be a facsimile of the rare one cent British Guiana stamp which was found in a schoolboy's collection in 1872 , and which is now insured on Lloyd's for $£_{10,000}$.

There will also be an unused facsimile pair of the Post Office Mauritius stamps issued in 1856 . Some years ago two of the originals of these stamps used on a cover were sold in Paris for $f^{I 1}, 000$. At their stand it will be possible to purchase stamps from id. upwards, and all kinds and descriptions of stamp albums, catalogues, handbooks and other accessories will be available.

Any collector who finds difficulty with his hobby will also, so far as possible, have his troubles solved for him at Healey \& Wise's Stand.

## Loughborough College

The exhibit staged by Loughborough College is a revelation of what can be done by students. This college offers unique courses of training. The students attend lectures and laboratory practice one week, and alternate weeks gain practical experience in the productive engineering workshops.

The exhibit shows a very fine hydraulic testing machine, a panel of lead glass work, an example of basketry, a specimen of lead work, and a selection of furniture. The whole of the exhibit has been produced by student labour.

There are 300 public schoolboys attending this college, and they come from places as far away as Australia, Rhodesia, Canada, Palestine, and the home country.

The printed matter available on the stand gives a very favourable impression of the conditions under which the students receive their training. The college has its own generating station, its own factory, its own residential halls, its own swimming pool, its own stadium and is unique in character as in productive activity.


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We have had a hunch that this sort of thing might be troubling you, and so have had special binding cases made to meet that emergency. The illustrations do not show the bright red facings nor the handsome gold paint at the back ; but you can see how simple it is to open this self-binder in the centre and slip your B.O.P. under one of the strong thread cords. Your paper is then firmly held in position and can be opened quite flat at any page.

Thus you have a book that grows month by month-a book with so handsome a binding that it can be taken and shown at your school or college. It can be left on the best table in the best room of your home, and will enhance the style of all three. It can be put in your bookcase or on your bookshelf, and will add dignity wherever it goes.

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For that sum you entirely rid yourself of such exasperating situations as-when you want to refer to one of Hedgerow's notes, for instance lugging that particular number out from the bottom of a pile of other literature, thereby causing the said pile to collapse from the shelf to the ground, or of having to hunt all over the show in order to find a special item in the Notice Board columns, whether the matter concerns the Club, Skywaymen or General Correspondence.

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Send your four " bobs" to me, the Editor, Boy's Own Paper, 4, Bouverie Street, London, E.C.4, mark your envelope "B.O.P. Self-Binder", and I will do the rest.

Cyclometers : The joys of cycling are doubled when you can register just how many miles you have covered, and a good cyclometer is almost a necessity for longdistance runs. The "Veeder Regular Square Case Cyclometer" (price $7^{5 .}$, or black-bronze finish $7 s .6 d$.) is a handy instrument to have attached to your machine. It is dustproof and waterproof, and since it has no springs in the mechanism, it cannot skip or register too much. The figures are large and close to the glass, making it easy to read from the saddle. It registers up to $9,999.9$ miles and is then ready to repeat. The "Veeder Trip Square Case Cyclometer " (price 15s. 6d., or black-bronze finish $16 s .6 d$.) is an even

more attractive purchase. In addition to all the good points of the "Regular" it has a small dial which can be set to zero at will, and can therefore be used to show the mileage in each trip. The accessories for attaching these cyclometers are available at moderate prices, and on application to Messrs. F. E. Dickinson. St. Andrev's House, Holborn Circus, London, E.C. 1 , you can obtain a booklet giving full instructions how to determine the correct size of cyclometer for your wheel, and a full description of these invaluable instruments.

Winter Sports : I have just received an interesting Sports Catalogue from Messrs. T. H. Prosser Go Sons, Ltd., 548, Holloway Road, London, N.7. Every conceivable sport is catered for in this booklet, and the point which will appeal to most of you is that Prossers' are a manufacturing firm who are offering their goods direct to the public, thus eliminating middlemen's profits, and enabling the purchaser to obtain really good value at unrivalled prices. Everything necessary for Badminton, Squash, Lacrosse, Rugger, Boxing and all other sports is here at moderate prices, and the excellent quality and high workmanship are assured by the firm's generous offer to refund the money on goods returned to them within seven days, provided they are unused and in good condition. Write off for the catalogue straight away and see for yourselves the remarkably low prices at which you can obtain these goods.

Godden's : This firm has an exceptionally fine selection of stamps, ranging from the cheaper and medium-priced specimens which are offered to clients at approximately one-third to one-half catalogue prices, to stamps of the early or "classic "period, which are the soundest possessions from the point of view of capital appreciation. Their stamp albums seem to be designed to meet every requirement of the real enthusiast, and you can obtain these for as little as 25. 9d., or, if you want to make a really sound investment for a growing collection, they have a series ranging from 20s. upwards Any of the albums in this series will provide you with a lasting and attractive setting for your stamps. As your collection grows, further volumes can be added to these albums, and the special quality of the paper and the perfect arrangement make them
 a reasonably-priced nezessity to the keen enthusiast. Accessories are also obtainable at moderate prices, and I strongly advise you to write off to Messrs. Frank Godden, Ltd., 359, Strand, London, W.C.2, for their catalogue straight away and judge for yourself the merits of the excellent service which this firm offer to their clients.

Lionel Trains : If you are a locomotive " fan" the Lionel electric trains and their accessories provide you with all the fun of a real railroad. In the more expensive models, which are obtainable from 55s. to 215 s., all trains have three-position automatic reverses and can be controlled at a distance from the track. Some of the
(Continued on page $\left.x_{x v z}\right)^{\text {- }}$

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models have a chug-chugging device which gives the sound of real locomotives. Heavy-gauge steel is used in construction of both engines and carriages, making them almost indestructible and ensuring long service, while the component parts are in easy access for cleaning. The "Junior" models, ranging from 32s. to $38 s$. $6 d$., are characterised by the same fine workmanship that goes to manufacture the more expensive engines. In addition you can obtain signal-boxes, floodlight towers, freight sheds, automatic points, and other wonderful accessories, and straight and curved tracks which enable you to make a fascinating lay-out and add to the joys of a model railroad. The Lionel Service Depot, of $35 / 36$, Aldermanbury Avenue, London, E.C.2, will be pleased to send a free illustrated catalogue to any reader of the Boy's Own Paper
" Argh'", by M. E. Buckingham. (Country Life, Ltd., 75. $6 d$. net.) Have you stood in front of the tiger dens at the Zoo, and watched the great beasts pace backwards and forwards behind the bars? One of them suddenly ceases his restless prowling, stands motionless, and gazes in your direction. You try to catch his eye. But it is not at you that he is looking. You are much too insignificant. The captive is seeing only with his mind : he is thinking of his past happy days in the jungle.

If you want to know what those days were like, then read this book. One day fire ravages the jungle (this is a terrible, wonderful chapter), and all the beasts flee before the conflagration, seeking safety. Many perish, and Argh is found unconscious by a forest officer. Argh is still very much of a cub, so Mr. Mainwaring takes him to his bungalow and tames him.
"I shall call you Argh" (which is the Hindustani for fire) "We are going to be friends," he said.

They were . . . until one day -
Yes; a fine book, and beautifully illustrated with remarkable camera studies of the jungle beasts in their wild state.
"Spunyarn", by Commander H. B. Boothby, D.S.O. (G. T. Foulis \& Co., Ltd., $5 s$. net), will aggravate the appetite of wanderust in any boy who reads it

There was hard work and fun aplenty in the author's early days, when he served as an apprentice before the mast of a sailing ship. Rations were : $1 \frac{1}{2} \mathrm{lb}$. of "salt horse" and $\frac{1}{2} \mathrm{lb}$. of the coarsest and commonest flour, and quarters in the forecastle were " just an iron house ... the bunks standing back about eighteen inches from the edge of the door. There was a small skylight and that was all-no stove or heat of any kind, the only light being a duck-lamp, a sort of thing like a coffee pot with a wick in the spout burning colza oil."

For years he sailed the seven seas, and I am sure that the Commander is as hearty, good-natured, fair-minded, and as thoroughly good a fellow as one pictures him from the breezy style in which he writes his adventure-filled reminiscences.

After battling through a Biscay sea, he writes: "Let the reader try to imagine himself for three or four weeks without a dry rag to put on or a dry place to sleep, working, when on deck, generally up to his knees in water. Then he may possibly realise what fine weather and the sun again meant to us The voyage passed without anything worth mentioning, and we arrived into the beautiful harbour of Falmouth. How lovely it all looked! To appreciate English scenery to the full, you must have been, as we had, for nearly four months through all sorts of weather with nothing even to see but water."

Commander Boothby-the first D.S.O. for the Merchant Service-has written a jolly readable book, and boys who are boys will find interest in every page of it.
" Pogo ", by Joseph Berger (Eyre \& Spottiswoode, 5s. net), is a rollicking, nonsensical tale of good humour, relating the story of some weird adventures in the skin of the circus horse, wherein the legs are in and out of trouble all the time.
"Sea Ponies", by M. M. Oliver and E. Ducat (Country Life, $8 s .6 \mathrm{~d}$. net), relates the adventures of children and their ponies at an unconventional seaside holiday camp, where they have a fine time organising a circus act at the local gymkhana.

Life of Fokker: The life story of Anthony Fokker, the famous inventor of aeroplanes, is told by himself in "Flying Dutchman" (Routledge, 5s. net). From his early days, when he was the bad boy of the school, and spent most of his time in devising inventions which helped him to evade the just wrath of the masters, until he became an industrial force in the aeroplane world, Fokker's life has been crammed with excitement, and his experiences make thrilling reading.

Wireless : " How Wireless Came", by John I angdon Davice (Routledge, 6s. net), describes in simple and concise language the scientific history of wireless, and gives a clear account of those basic facis about electricity which puzzle the uninitiated. The book is well illustrated with exceptionally clear diagrams which will help you to unravel the mysteries of the wircless box, and give you an intelligent understanding of the fundamental facts of this fascinating science.

Rogues of the Sea : A grand collection of pirates parade their misdeeds in "Sinbad's Book of Pirates" by "Sinbad"-Captain A. E. Dingle (Harrap, 5s. net). From Pierre le Grand to Blackbeard, the book accompanies all the greater pirates from the Blue Caribbean to Madagascar, from Newfoundland to West Africa; planks are walked and gunpowder burnt. The pages are full of daring encounters and cold-blooded butchery, with death or a pot of gold at the end of the skirmishes. It is a fine book for those who like blood-curdling yarns, and the last story of all, which is a peep into the future, is the best of the lot.

Schoolboy's Diary for 1936. (Charles Letts.) It seems to me that this diary is as essential to a schoolboy as is a compass to a ship or a sextant to a surveyor. Here are things that are so much a part of his world : Latin, French and Greek verbs, trigonometry, logarithms, a table of solubilities, records of the Boat Race, cricket, soccer, rugger, and public schools achievements. If a pal challenges you with: "In what year did oo-and-so win so-and-so ?", all you have got to do is bring out your diary. There are three prices-is., is. $6 d$. and $3 s$. I have the shilling one, and it seems jolly good value to me.

Necessary Luxuries : The words "Chocolates" and " Cadbury's" are almost synonymous; indeed, it is difficult to think of one without the other, and to the oft-repeated question "What shall I give?" the obvious answer is "Cadbury's chocolates". Cadbury's this year are offering a whole gallery of boxes costing from forty shillings to sixpence, and many assortments are packed in beautiful presentation caskets that are a gift in themselves. An outstanding example is the "Keepsake" Casket at $7 s .6 d$., which was specially created for Cadbury's by a famous Viennese designer. Just the thing for your mother, sister, cousin or aunt! I haven't sufficient space to tell you about the other good things in the Cadbury range, but it won't take you long to pop along to the nearest confectione: and see for yourselves !

Schoolboy's Own Stamp Club : I have just heard of a new stamp club for schoolboys which has been formed to promote friendships between collectors and provide a super-organised service whereby young philatelists can arrange for the circulation and sale of duplicates to other members For the moderate subscription of 2 s . 6 d . per annum you will be kept au fait with all the latest stamp news by the circulation of monthly stamp notes, and the club will supply you with sheets on which you can mount your duplicates; these will then be sent round to other members, who will select the stamps they require, insert their membership number in the blank space, and remit the purchase price to the club. All stamps, unless a price is definitely stated when sellers submit their sheets to the club, will be priced reasonably by the club, and the small charge of one penny in the shilling will be made on all sales to cover office expenses, postage and insurance. Later on, when the club is well and truly launched, it is hoped to organise competitions and to found a "Stamp Friends" section, which will give you an opportunity of making contact with members who have similar interests to your own. A copy of the rules and regulations governing this club can be obtained by sending stamped addressed envelope to "The Schoolboy's Own Stamp Club," Richardsons, London Road, Blackwater Camberley, Surrey.

The publication of the R.T.S. Annuals is the chief event of the year for thousands of boys and girls. "The Boy's Own Annual," (12s. 6d. net), is packed with stories of spirit and adventure, and contains well-illustrated articles on travel, sport and hobbies. "The New Empire Annual" ( 7 s .6 d . net), is a lavishly-illustrated volume containing stories and articles which relate queer customs and strange facts about the out-of-the-way corners of our Empire. It is a book to delight the heart of all true Britons. In "The Schoolboy's Annual," (3s. 6d. net), you will find a feast of good things; there are stories and articles by such well-known writers as Arthur Russell, S. T. James, Sid Hedges, E. H. D. Sewell, and a host of other old friends. Girls are catered for by "The Girl's Own Annual," (izs. 6d.) net,

## BOOKS, HOBBIES AND GADGETS

which is full of excellent serials and short stories dealing with adventure and $s$ hool life. Sports, handicrafts and hobbies are also included in this well-produced volume. "The Schoolgirl's Annual," (3. $6 d$. net), is an attractively bound book containing bright, bieszy story and articles which will delight all readers. Running down the catalogue of other R.T.S. books, I have picked out a few which will make adventurous holiday companions for you. The books by Major Challes Gilson, an author who is always sure of a warm-hearted reception, include "The Fire Gods," "The Lost City," "The Realm of the Wizard King," "The Silver Shoes," "The Mystery of Ah Jim," and "The Scarlet Hand, ' (2s. $6 d$. net each). Then there are three books by Robert Harding which will delight all B.O.P. readers : "Stirring Tales of Yore," (2s. net), which has already appeared in serial form in the B.O.P. is a collection of adventurous tales of old heroes. "Dallenger of the Police" ( $2 s .6 d$. net), relates the adventures of an intrepid Secret Service Agent, attached to the Military Police in India. His amazing exploits in his attempt to outwit the nefarious Tulmar Ali, the Shinwari, are full of excitement and suspense. "Pioneer Jack" (2s. 6d. net), is another gripping yarn of modern treasure-hunt in the ancient City of Babylon. "Treacherous Waters," by Alec Lumsden (2s. $6 d$. net), is the exciting story of a holiday two boys spent in a little fishing village down in the West. Smugglers, adventures and mystery make this a first-rate tale. "Mr. Purpose Jones'

Eyes are Opened," by Reginald Callender (1s. 6d. net), is the story of a prosperous, retired soap magnate, who, without warning, is transferred to an African jungle, where he has some alarming adventures which entirely change his outlook on life.

Publications Received : "Here and There", by Stephen King-Hall (Pearson, $1 s .6 d$. net), a record of the talks on current events which have already been broadcasted during the Children's Hour. "The Riverside Mystery", by John G. Brandon (Methuen, 7s. $6 d$. net), a good intricate detective yarn, with plenty of thrills and excitement. "Street Fair", by Marjorie Fischer (Routledge, $6 s$. net), a book for boys and girls of eleven to twelve, relating the adventures of John and Anna in Paris. "Round Pegs ", by Howard Rubie (Bell, 3s. 6d. net), gives some commonsense suggestions for choosing a career. It is written from a practical and understanding viewpoint, and will be of value to both boy and parent. "Hammered Ship-Shape", by Clew Garnet (Methuen, 5s. net), is a saga of a boy apprentice : a tale of hardship, endurance and courage in the days when sailingships were the principle means of navigation. Every chapter has an authentic ring. "Pinto the Mustang ", by T. C. Hinkle (J. W. Arrowsmith, 5 s. net), is a story of Wyoming and the Golden West, in which young Joe and his outlaw sorrel colt, Pinto, run into deathless adventures with thieves who have stolen the latter. A tale well told in easy style and simple language.

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You are an eel! Your object is to seize the wormy bait inside the wicker-work trap and get out again without getting caught. You are allowed to go through openings which have their prongs turned inwards away from you into the next compartment, but NOT through openings turned towards you, except, when escaping, you can slip through the two prongs at the wide entrance of the trap.

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The six pictures reproduced above have each been given titles, which appear in the coupon at the foot of this page. To qualify for one of the handsome prizes, put the figure of each picture against what you think is the correct title of the picture in the coupon. Therefore, if you think that No. I picture is called "A Story With No End," you would put the figure I against this title in the coupon. When you have given titles to each picture, fill in your name, age, and address, cut out the coupon and post to :-"Missing Titles No. I", B.O.P., 4, Bouverie Street, London, E.C.4. (Comp.), to reach this office not later than February 12th, 1936. The prize of $£ 3$ will be awarded to the neatest correct solution received, the prize of $£ 2$ will be awarded to the second neatest correct solution, and the prize of $£ 1$ will be awarded to the third neatest correct solution, and a hundred surprise consolation prizes will also be awarded. The correct solution will be kept locked in the "B.O.P." safe until February 12 th. Prize-winners will be announced in the APRIL "Boy's Own Paper." No correspondence in connection with this Competition may be entered into. The Editor's decision is final.

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Jan. 1936

NEW ZEALAND'S Health Stamp. Every year New Zealand issues a charity stamp which is sold at a premium in aid of health organisations. This year the design is a novel one, for it allows us to peep through a keyhole at a scene on a New Zealand beach, where a pretty little girl, clad in a bathing-costume, is seen playing on the sand. The designer does not explain how you can look at a beach through a keyhole, but perhaps he was in a bathing hut!

New Sudan Air Stamps. Two new high values have been added to the current air set in the "Statue of General Gordon" design. These are the 7 piastres, printed in two shades of green, and the 10 piastres in brown and blue. There is also a new high value in the popular "Camel postman " type, a 20 piastres in pale and deep blue. This latter is in the large size.

A Beautiful Mourning Stamp. One of the most beautiful stamps ever issued is the one which has just appeared in Belgium in memory of the late Queen Astrid, who, as readers will remember, was killed in a motor accident in Switzerland. The charm of the stamp lies in the simplicity of its design and in the beauty of the portrait of Queen Astrid, which is the central feature. The double cross in the lower right-hand corner is the emblem of the fight against tuberculosis, and there is a 5 -centime premium on the stamp, which goes to the anti-tuberculosis funds.

Ugly Stamps from Argentina. Very few of the stamps issued by Argentina have any claim to be called beautiful, and the new set of postage stamps, which bear portraits of people famous in the history of the country, will do nothing to improve its reputation in this respect. We have seen the portraits of many of them on previous stamps. Here are the values and the names of the people shown on each: $\frac{1}{2}-\mathrm{c}$., Belgrano; x-c., Sarmiento; 2-c., Urquiza; 3-c., San Martin; 4-c., Brown; 5-c., Moreno; 6-c., Alberdi; IO-c., Rivadavia; 12-c., Mitre ; 20-c., Guemes.

Red Cross Stamps from Brazil. Three big oblong stamps from Brazil commemorate the third Pan-American Congress of the Red Cross. They show a Red Cross nurse helping a wounded man and bear in Spanish the motto : "Charity in peace and war". There are two red crosses on each stamp, one on the nurse's cap and one in a kind of sunburst at the side of the design.

New Air Stamps from Danzig. It is some time since any serious change has been made in the stamps


New Danzig Air Stamp. of the free city of Danzig, but recently some new air stamps have appeared. The lower values are oblong in shape and show a big aeroplane. The crown above two crosses in the lower left-hand corner forms the arms of the city. The high value, the 1 gulden, is of normal, vertical shape, and has a conventional pattern, representing an aeroplane, as the central feature of the design, with the arms on the body of the plane.

## Noted by STANLEY PHILLIPS

Historic French Colonial Issues. France has been celebrating the tercentenary of her colonies in the West Indies and has issued special commemorative sets for French Guiana, Guadeloupe and Martinique.
The lower values of the French Guiana series show the retaking of Cayenne by D'Estrées in 1676. His fleet is seen off-shore, while a land-ing-party with a lavish display of flags is in the foreground. The higher values show some of the products of the colony and one of the native inhabitants.

Guadeloupehas a scene which shows the famous Cardinal


West Indian Tercentenary. Richelieu founding the French
West India Company, three hundred years ago, on the lower denominatons, and on the others some real pirates, who, as the stamp inscription records, are Victor Hugues and his corsairs, in 1793.


Queen Astrid.

Martinique honours the memory of Pierre Belain, Sieur d'Esnambuc, captain-general of the island of St. Christopher, who carried out the first settlement of Martinique in 1635 . The stamp view shows the landing of d'Esnambuc and his men. The other design from this colony refers to the abolition of slavery in the French colonies, which took place in 1848 .
Readers who have studied the history of Napoleon Bonaparte will recall that the Empress Josephine was born in Martinique.

Triangulars from Mozambique. The triangular air stamps issued by the Mozambique Co. in commemoration of the opening of the air line between Beira and Blantyre (Nyasaland) have been succeeded by a regular set having the same design but rectangular in shape. Both the sets are very attractive, as they have been printed in England.
A Quaint Map Stamp. Spain has reproduced a very old map in the design of a new stamp in memory of one of her early explorers, Iglesias. I cannot find anything about him in the reference books, but according to the stamp inscription he made a voyage to the Amazon. The quaint stamp costs very little and is an interesting addition to a "map " collection.

Great Engineering. A wonderful engineering feat is com memorated by the new 3 -cent stamp from the United States, which affords a most striking view of the great Boulder Dam which has recently been completed. Looking at the stamp view, one thinks that the dam is holding up much more water than it can possibly manage and that one would rather be living above it than below! Probably the engineers know their job. Certainly the designer and engraver of the stamp knew theirs.

Anniversary of Assassination. New stamps from Yugoslavia commemorate the first anniversary of the assassination of the late King Alexander, who was murdered in France in October 1934., The stamps show the late King in admiral's uniform, which is obviously based on British naval dress.


Boulder Dam.


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