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## MARCH, 1938

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good things !

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CLASS C. Ist (Trophy.) Master Terence Fairbairn, Gillingham.
Master Eric Mackay, Camberley.
Master R. Guerrier,
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CLASS D. Ist Master Patrick Driscoll, Southfields.
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# HILE the DIXIE BOLLS 

The Editor's address is 4 , Bouverie Street, London, E.C.4.

AS I WRITE it is certainly jolly windy. I suppose a sixty-mile-an-hour gale is blowing-and these mighty gusts from Old Man Wind are apt to make one-well, just a trifle irritable. Wind is a jolly fine tester : there's not much wrong with a chap who can grin in the teeth of a gale.

Yes, this is the month when hats go all aeronautical. One would think they wanted to join the Skywayman League I was battling against the wind along the milelong Southend pier the other day, and there were quite a number of people standing against the rails watching their hats bobbing up and down in the choppy sea. Whether they expected the mighty hurricane to blow their headgears back again, I can't say ; but they were all grinning, which, of course, was the best thing to do.

The wind is so strong just now that I can hardly make myself heard ; but as you all so sportingly call for a Dixie Talk every month, this month we've transplanted our camp-fire to a hollow out of the way of the booming tempest. Here, thus sheltered, the fire does burn without sending out jets of sparks like a damp squib, and although it's still gusty, we don't get asphyxiated with sudden puffs of foul, unripe smoke . . . and I reckon, if we're lucky, the fire will get hot enough to boil the Dixie.

## CAN you hear me? <br> "Yes."

RIght...0.0! (Gosh! how the wind dwarfs your voices.)

From My Note-Book. There's wind in other countries besides Britain. You overseas readers can vouch for that. Next time you Club members write to overseas pen-pals, ask 'em about the wind. I warrant they'll tell you some gusty experiences.

I remember the thrill of a wonderful mid-March gale in the Mediterranean. Equinoctial winds disturbed the sea's surface into mountainous waves, and we couldn't get on to the top deck, even had we been foolhardy enough to try. When the ship heeled over as she rose in one of those mountains of green foamcrested sea, it was not your neighbour's plate of soup that dived into your lap, but someone's at the next table some yards away. There was a touch of brotherliness about the storm, too, for you saw a chap at the other end of the saloon, and whether you wanted to speak to him or not, the sudden lurch of the ship sent you spinning and crashing helplessly into his arms. Luckily all our stomachs were shipshape, so there was no seasickness in our batteneddown deck, and when we did see the top decks again, there was nothing " forrard " but the anchors, donkey-engines, and a mass of twisted rails.
You remember that desert march I told you about some months ago? Well, our chief sensations were: Tramp, tramp, tramp, until the whistle called a halt ; then easing packs and sinking down on to the sand and taking a sip

from the precious pint-a-day water-bottle. On again, till sunset, and then bivouac. On the third day out we had covered about ninety miles of trackless desert, and were too done up to pitch tents. We just spread our blankets, used tent poles to stick up mosquito nets (this was a beastly fag, but nets it had to be if we were to be assured of sleep that night, away from the tormenting, needlepricking sandflies), and in quicker time than it took the brazen sun to ooze into the flat disk of the horizon, we were well in the Land of Nod, or Shut-Eye, to use our own term.

Crash, bang, clatter; clang-glang-clang! I awoke to the sound and feel of a mighty rushing wind. We were in the region of the Flood, so I realised afterwards what kind of a wind it was that moved over the face of the waters in Noah's day. My pole had snapped like a dry twig, and the net was hurtling through the dawn light like a grey ghost ; an empty petrol tin had collided with my boots and had cannoned off with a sound like the clanking of Marley's ghostly chains.

I struggled up, feeling and looking as black as thunder, for I had been shot out of a deep, deep, much-needed sleep. . . . but a fortnight later, when our trek was over, our humorist-who was also pretty good with his pencil-sketched this in my notebook. I have torn out the drawing and had it reproduced on this page. He certainly had the right spirit and didn't allow the wind to irritate him.

The Wind of Everest. Wind is Mount Everest's most terrible weapon, and what endurance is called for by those mountaineers who do battle with that monarch of peaks! In his book "Everest 1933 " Mr. Hugh Ruttledge writes:" By the time we reached the North Col, the wind had renewed its energies, and poured over in what seemed one solid stream of cold. No one who has been up the north ridge on a windy day is likely to forget the experience. The rocks are not difficult-indeed, it is rarely necessary to use the hands. But the wind is a torture. It hurts the eyes, in spite of protecting goggles. It imprisons the limbs in a grip like that of fast-running icy water, till every step upward is a battle. The fingers of the hand holding the ice-axe stiffen under the glove and have to be prised open and beaten to restore circulation. Worst of all perhaps is the searing cold of the air drawn into over-driven lungs. Movement becomes almost automatic, though there is a conscious effort to watch the feet of the next ahead and use the same ledges. One tries to remember that there is a job to be done, that it is all in the day's work, that the porters are sticking it without complaint."

## Yes, a mighty fine tester is Old Man Wind. Sometimes

 he is very dangerous, as when he breathes howling death

Illustrated is one of our L.N.E.R." Moguls."
There are 11 only L.N.E.R. 2-6-0 type gauge " $O$ " in clockwork offered at 83-18-0 each, a splendid reduction from 5 gns., and 8 only S.R. in electric reduced to $84-0-0$, and 12 G.W.R. in electric (d.c. 8 volts) at \&3-12-0 each.

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## THE BOY'S OWN PAPER

on the high bergs of Everest. In our country he is mostly a rascally fellow, up to all sorts of pranks, and the best thing to do is to grin at his rough antics. Grin the next time your (not your pal's) hat leaves the head when rounding a gusty corner ; whistle when he puffs your fire out; chuckle when the garden fence is blown down, for it's a chance for you to do a good turn by propping it up again. Same applies to mother's clothes-line. Rejoice that it is good clean air that Old Man Wind is blowing into you : fresh, healthy stuff, worth all the medicines in the world.

Next Month's B.O.P. contains a lot of beginnings; and as the April number is on sale four days after the beginning of spring, perhaps that is rather appropriate. 1

Look out for the first instalment of a great new serial entitled "Comrades Three". Two Australian schoolboys are lucky enough to go for a holiday in Fiji, and as Wallace Deane, the author-who lives in Australia-has worked among the Fijians, you can be assured of authentic information as well as thrills and adventures.

What do you say to a series of Secret Service yarns about the North-West Frontier of India? Righto. Next month sees the first of Patrick Turnbull's stories about Barrington, who goes into the wilds of Afghanistan in order to discover news. At the peril of his life he goes on these hazardous missions, fully aware that one slip on his part may mean . . . But-ah !-O.Y.C.N., and see.
Percy Longhurst, the well-known instructor on physical training, kicks off with the first of a series of articles called " The Way to Fitness ". Not physical " jerks " and musclebulging stuff, but natural fitness, such as how to get the best out of your running, walking, swimming, camping, etc.

Then there's a powerful story about the Barbary corsairs, called "The Galley Slave", written by that popular author, Major Gilson, whose Cornet O'Dare adventures thrilled you some months ago; also another short story entitled "Lost in the Fourth Dimension". It is about a Time machine that takes you into the Past and the Future. Weird, fascinating, uncanny reading, this !

All the usual features, and many new ones besides. . . . But'my time is up, the Dixie's a-boilin', and I've only room to tell you this titbit: Cliff Bastin, the renowned Arsenal and England footballer, has written specially for you an


The "B.O.P."'Stall at the Schoolboys' Exhibition, held at the Imperial Institute, Kensington, during the Christmas holidays. Beyond the curtain is my " Den", where I had the pleasure of meeting many readers and the honour of putting my signature in their autograph books.
account of his first Cup Final, when, at the age of eighteen, he played so large and cool a part in winning the Cup for the famous London team. Make a note of this, my merry lads all-" My First Cup Final", by Cliff Bastin, in the April "B.O.P." The article bears Bastin's autograph, too!


Bastin breaks through! Only the goalkeeper to beat! Tell your friends that this famous footballer contributes a special article in the April number of the "B.O.P.", entitled "My First Cup Final".


Go to your local toyshop or store and see the "Raider." It is a really good flying model aeroplane made by the FROG people. An entirely new method of manufacture has enabled this machine to be introduced at an extremely low price. See it today and watch how it flies.

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## LIMERICKS! LIMERICKS!! LIMERICKS!!!

## A NEW COMPETITION OPEN TO ALL READERS <br> TWO CASH PRIZES AND TEN CONSOLATION PRIZES IN EACH OF TWO SECTIONS.

MANY readers have recently submitted old and original limericks for inclusion in our " Under the Spreading Chestnut Tree . . ." feature, and it has occurred to us that a limerick competition should prove very popular. We have, therefore, devised a contest which offers an equal chance to all young limerick-lovers, whether would-be authors or mere "fans".
This Limerick Competition is divided into two sections. In SECTION ONE readers are invited to complete the following limerick:

A knowing young scholar of Sheen,
With the BOY'S OWN would always be seen.
"For," said he, " I do find
.That'tis best for the mind,

A cash prize of ios. $6 d$. is offered for the best last line, 5 s. for the second best, and Consolation Prizes for the next ten lines in order of merit.

For SECTION TWO, readers are invited to submit an original limerick mentioning the "B.O.P." Here is an example:

There was a young fellow of Tring, Who knew nought of the famed Highland Fling; But he'd cut a good caper When the next BO Y'S OWN PAPER
Came out, and would whistle and sing!
Cash and Consolation Prizes are offered, as in Section One, for the best limericks. Don't forget to mention the "B.O.P."!

## Read these Rules

Competitors may submit entries for either or both sections; but shall not be entitled to more than one prize.
Each entry must be written on a separate sheet of paper, with the competitor's name, age, and full address in the top right-hand corner.
Not more than two entries will be accepted from any one competitor.
Age will be taken into consideration,

## Closing Date

Send your entry/entries under one cover to: "Limericks", THE BOY'S OWN PAPER, 4, Bouverie Street, London, E.C.4. Closing date for Home entries is March 15th, 1938. The result will be announced in the May issue. Overseas entries received after this date and not later than May 16th, 1938, will be judged separately, and special prizes will be awarded according to the number and quality of the entries received.

SEND IN YOUR ENTRY NOW!

PICTURE NEWS


Top right : Early in the year a small unknown planet missed Earth by 400,000 miles-a near thing, so the astronomers say! If it had collided a great crater, perhaps 50 miles in diameter and a mile deep, reould have been produced on the surface. Our acrial picture shows the great crater in Arizona, caused by one of the greatest metcorites which ever hit the earth, thousands of years ago. Bottom left : "Guillemot", one of the streamlined Pacific-type engines which are being built at Doncaster. Weighs just over 100 tons, tender adds another 50 tons ; 2,500 h.p. Speed should reach 112 miles an hour.
Bottom right : Drake's Drum—which used to beat to quarters aboard the "Pelican", was recently saved from a fire wohich swept Buckland Abbey, Drake's old home in Devon.

## WHEN YOU LEAVE SCHOOL



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# *BOOKS, HOBBIES AND GADGETS 



AIR-MINDED YOUTH.
These young aviation enthusiasts received premier awards in the ${ }^{7}$ Second Anmual Competition for Model Aeroplane Construction, organised by Messrs. Hamley's, of Regent Street, London. The photograph shows (left to right) Terence Fairbairn, of Gillingham, Kent, winner of the funior Trophy for flying scale models; Yohn H. Green, of Hampstead, winner of the first prize for flying nonscale models, senior section; Dennis. H. Elmes, of Ilford, Essex, winner of the Senior Trophy for flying scale models; and Patrick Driscoll, of Southfields, London, first prize winner in the junior section for flying non-scale models. A number of other prizes were also awarded, included six books written and autographed by the Editor of the "B.O.P."

A-Camping We Will Go! It is yet rather early for that familiar cry; but, remembering the Scout motto, "Be Prepared ", now is the best time for renewing or replenishing your camping equipment for the coming season. The improved Catalogue for 1938, issued by Messrs. J. Langdon \& Sons, Ltd., makers of the famous "Uniform" brand tents, contains more than 100 pages of useful information to the intending camper. It gives details of a complete range of camping accessories and clothing, as well as particuiars of the firm's garden shelters, lawn tents, picnic outfits, etc. High-quality lightweight tents may be had for as little as 7s. IId., while for those who prefer to make their own tents, the necessary canvas and fittings are available. For the hiker there is a fine selection of rucksacks, and cyclo-campers will be interested in the section devoted to cycle bags. Pannier bags are best for carrying camping equipment on a cycle, and these cost only 5 s .6 d . or 9 s .6 d . a pair. All these goods are obtainable through retail stores throughout the country; but a free copy of the catalogue, together with the address of your nearest " Uniform Brand" agent, can be obtained (on mentioning the "B.O.P.") from Messrs. F. Langdon © Sons, Ltd., The Duke Street Warehouse and Factory, Liverpool, I.

Want to Go to Sea? Commander J. C. K. Dowding, R.D., R.N.R., Officer-in-Charge of the Prince of Wales' Sea Training Hostel, 2, Church Row, London, E.I4, tells me that there are always vacancies at the Hostel for suitable "sea-minded" boys, and adds that there is a keen demand from good shipping companies for boys who have been trained at the Hostel. Candidates for admission must be at least 5 ft . I in. in height without boots and be over $14 \frac{1}{2}$ and under 15 years of age. Fees vary according to circumstances. The full fee, £.40, includes uniform on entry, board residence, training, and a complete sea kit on leaving; orphan sons of sailors are trained free of charge. As the Hostel is situated close to the London Docks, the boys have a good chance during their training (which normally lasts six months) of seeing the actual ships in which they will have to live and the work they will be required to do.


A Class learning rope-work on the Signal Deck at the Prince of Wales' Sea Training Hostel.


CLUES DOWN.

1. Expect this at Easter.
2. True.
3. Necessary to Artists.
4. You should use this twice a day.
5. Found in 4 across.
6. Misfortunes.
7. To bend.
8. Compassion.
9. Kolynos-into every tiny
crevice.
10. Agirl's name.
11. A period of time. 20. Plants grow from this.
12. Look up and you'll 22. A conjunction.
13. Completed.
$\begin{array}{ll}\text { seeit. } & \text { 23. Adrink. }\end{array}$
14. Of value in baking bread.
15. Finish.
16. Kolynos quickly de- 24. Half. 27 lie in the sunshine. 21. A species of deer.
$\begin{array}{ll}\text { 11. Complete. } & \text { 30. Herecommends Koly- } \\ \text { nos. }\end{array}$
17. Usually in fields.
18. Merely. 33. To study carefully.
19. An advantage with 34. Preserved by Koly- 27. Fasten.
20. Kolynos. nos. 29. An animal.
21. To declare not to be 35. Prevented by Koly- $\begin{aligned} & \text { 31. Towards. } \\ & \text { nos. }\end{aligned}$ 32. To explore secretly.

## |st PAIZEE3: 2nd E2:3rd EI <br> AND TEN SURPRISE CONSOLATION PRIZES

HERE is another of the popular Kolynos Competitions—this time a Crossword Puzzle. It isn't really very difficult and the prizes are well worth winning.

Write your solution in ink in the space provided, or if you prefer, copy the square on to a sheet of paper, but whichever you do, remember to add your name and address. Enclose in an envelope marked "Kolynos" in the top left-hand corner and address to:

THE EDITOR, "BOY'S OWN PAPER", 4, BOUVERIE STREET, LONDON, E.C. 4.
Send as many entries as you like, but each must be accompanied by one of the yellow cartons taken from a tube of Kolynos Dental Cream, the Economical Tooth Paste, which you can obtain from any Chemist in 1/9, 1/- or 6 d . sizes.

The closing date is April 9th, 1938, and in the event of more than one correct solution being received, the right is reserved to divide the prize or prizes, and the decision of the Editor must be accepted as final.



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## WORLD RECORDS



Sir Malcolm Campbell in his "Blue Bird" at Lake Maggiore, Locarno, zehere, in September 1937, he attained the World Water Speed Record of 129.5 m.p.h.

$I_{h}^{\mathrm{F}}$F there is any one country in the world that should hold the land, water, and air speed records, that country, without doubt, is Great Britain. There was a period in 1931 when we did hold all three records at one time, but first we lost the water speed and then the air speed records, and the only one left to us was the land speed. Now that we have regained the water record, it remains only for us to win back our laurels in the air. We have all the necessary attributes to do so ; the technical ability, the pilots and the money.

Many people appear to be of the opinion that records of this kind count for nothing, but those who possess these views are totally wrong. Apart from the national prestige, which by itself is very considerable, it is a tangible asset of no mean order for a country to hold any one of these records. For instance, just before we lost the air speed record to Italy, a European power had decided to re-equip its air force with new machines, and had actually sent over a representative to England with the object of placing large orders in this country. At the critical moment, however, our record was beaten by the Italians, and consequently Italian machines were ordered instead. We therefore lost all the business that otherwise would have come tn us; so it can be understood what a valuable asset these records become. It is a definite proof that the country holding them is on top of the world not only in design, but also in workmanship and material.

Now, in all experimental work of this description, the instruments play a very important part, as it is by their reading that so much can be learnt. In my new boat, the Blue Bird, besides the usual engine-revolution counter, oil-, air- and boost-pressure gauges, we had two instru-

YOL. LX. PARI MARCH, 1938.
ments that required particular attention-those showing temperature of the engine and the gear-box.
We had adopted an entirely automatic method for controlling the cooling-water to the engine. In all previous instances this was the task of a mechanic, who opened or closed a valve to keep the water at a uniform temperature; but in our case the boat was built as a single-seater, with the object of cutting down weight to the minimum. Up to speeds of $90 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. this system worked perfectly, and it was only when running at full bore that other elements appeared which caused a complete breakdown. Our initial trials proved satisfactory so far as water circulation was concerned, but the gear-box showed signs of heating up, so I had to watch this instrument in particular during the first run at full speed, and neither looked at my temperature gauge nor had a chance of doing so. I had to keep one eye virtually fixed on the gear-box-temperature gauge and the engine-revolution counter at the same time. Disaster overtook us when we were travelling at a tremendous speed, approximately $140 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. We had almost completed the measured mile when suddenly there was a terrific explosion: the engine stopped dead and the boat leapt partly into the air and came down with a thud. It then pulled up within a few lengths, so quickly, in fact, that it was nearly swamped with the following wave. I was almost thrown out, and instantly thinking of a fire, looked round to see columns of steam shooting out from the exhaust pipes, which were immediately behind me, and a vast pressure of steam escaping from the wateroutlet pipe at the back of the boat. I realised at once that the engine was ruined, and looking at the watertemperature gauge, saw that the needle had gone right over to the roo deg. C. mark and was hard up against the
stop. If only I had been able to look at this instrument in addition to the others, I should have stopped the engine before it was too late.

This was indeed a disaster, and, although I had a spare motor, the one I had irreparably damaged was that which I had used in the Blue Bird car when we achieved world records, culminating in the effort at Salt Lake City in September 1935, with a speed of over 300 m.p.h. ${ }^{1}$ I was therefore greatly disappointed in being unable to win the water speed record with the same engine.

After installing the new motor, we fitted the watertemperature gauge alongside the windscreen, so that it was in full view of the helmsman, and believe me, from

1 Capt. G. Eyston, in his giant Thunderbolt, has since raised the record to the
figure of 311.42 mln . p . l . on the salt flats at Bonneville, Utah, the scene of Sir Malcolm's triumph.-E்'.
then onwards my eye was on it the whole time; for had we broken up the second engine, we should have been finished.

After carrying out some further tests with different types of water scoops, we overcame our water-circulation trouble, and, as is now common knowledge, we succeeded in regaining the water speed record for this country with an average speed of $129.5 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. There is no doubt whatever that our Smith's instruments played a large part in this enterprise, and we owe much to their accuracy and to the certain knowledge that they could be relied upon at all times. Let us hope that Great Britain will make in the near future a successful attempt on the air speed record ; if we do, I feel sure that the instruments will play just as important a part in that enterprise as they did in mine.
(Wilh acknowledgments to "Roadcraft".)


Ready for the fun

ITT'S a grand sport, believe me! Full of thrills, and absolutely different from anything you have tried before. A good stiff breeze will send you bowling along at anything up to fifteen miles an hour without any effort on your part except controlling the sail and, incidentally, your brakes!

## HAVE YOU TRIED SAIL-CYCLING?

It is, of course, essentially a sport for open spaces such as downland tracks and common land or firm stretches of sand, and not for highways and traffic roads. The photograph was taken on Salisbury Plain, which is an ideal spot for such a sport as this.

The equipment need cost but very little and is quite easy to assemble. All you need is a stout bamboo pole about 5 ft . in length, two canes also 5 ft . long, and several yards of stout cord. The sail can be of canvas or any closely woven material and should be about 5 ft . by 4 ft .

I found that an old window curtain served the purpose admirably, as this had a hem at the top through which to insert the topmost crossbar. Furthermore, when returning against the wind, it was quite a simple matter to "reef " the sail by sliding it along the cane and gathering it round the mainmast-thus reducing the wind resistance.

Be sure to lash the mainmast very securely, as it has to stand a very considerable strain. Lay the cycle on the ground and secure the pole behind the handlebars, with the base of the pole just above the shoulders of the front fork. If you can tie a clove-hitch, you will find it an excellent knot for the foundations of your lashings, as it is less liable to slip. Both crossbars are, of course, lashed to the mainmast. As you see from the photograph, the bottom of the sail need only be secured at the extremities of the lower crossbar.

Keep the sail as far above the handlebars as possible, in order to have a clear field of vision ahead of you; otherwise you will soon leave the saddle in a very undignified fashion!

The rigging from the crossbars should be made fast to the carrier of the cycle, or alternatively, to the rear fork.

All is now ready for the great adventure, so head for the wide open spaces and sail away into the blue!


## WINGS OVER WAZIRISTAN

## By <br> MAJOR J. T. GORMAN

## The Jirga

TTHROUGH the lacy branches of a deodar forest that covered the hill slopes the moon showed as though a Chinese lantern had been suspended from the night sky.

Beyond the range of its light myriads of stars blinked like so many fireflies, and the general illumination, planned as though part of a great decorative scheme, selected details of the frontier landscape like the dots and dashes of a monstrous heliograph.
Here showed clusters of mud houses, there a watch-tower; grazing-grounds appeared, with herds of cattle, goats and sheep; acres of Indian corn and rice filled sheltered valleys watered by mountain brooks.
Through all a wide stream ran, shimmering in the moonlight, bright or dull silver, as it passed belts of light or shadow.

On the left bank of this stream, encircling a deep hollow, was the compactly built village of Aremtee, its fifty-odd huts partly hidden in nullahs, overlooking an open space of beaten-down earth where the jirga or tribal council was assembled.
A strange gathering this. Transplanted thousands of miles and hundreds of centuries, it might have been a local self-government meeting of early Saxon times, with representatives of hundreds, and tribes, shires, landholders and tenants all forming a democratic species of government called the dala ; the party in power being the bande dala and the opposition the lande dala.
To say that seats in this assembly were hard-fought and sternly contested was no figure of speech, but plain fact. In this case, the balance of power had been decided by a fierce and sanguinary battle lasting for three days.

Now the victors took office, with their foes on the opposite benches, and it was this defeat which the dala was debating.
Safdar Khan, tall, gaunt and wild-looking, a powerful landowner or daftari, led for the government, speaking the purest Pushtu.
"Sher Afzal must die!" he declared, with less compunction than if a sheep or goat was to be sacrificed, instead of the young Europeanised chief of the whole tribe, who was supported by the opposition party of the jivga.
"We of the Dochi Khel scorn British ways and customs," Safdar Khan continued. "Gone is our freedom if we become vassals of the infidels, as Sher Afzal wishes. This

traitor would have us even give up the rugs and sheep-skins used by our tribe since the days of Salut, the mighty King Saul ; he would have us wear the uniform of khassadars, and lead those mercenaries bought by the tainted silver of the Raj."

Safdar Khan paused for lack of breath, and one of the lande dala took the opportunity, interrupting with a deprecatory cough.
"Nay, nay! it is not so bad as Safdar Khan makes out," he protested. "If Sher Afzal was here, he would explain all. Many tribes are under British protection, allied with the Raj, as he wishes we should be, and prosper greatly. Allowances are made to their chiefs : khans, nawabs and maliks receive much money."
"Yes," chimed in another. "The Nawab of Bir gets ten thousand silver rupees every year."
"And the Khan of Bhana had a present of one thousand rifles, while we spend all our savings to buy old, badly made weapons," a third opposition speaker deplored.
"Not to count the fifty we stole from the British camp last month!" the other chuckled.
But Safdar Khan sternly rebuked this flippancy. Let the British keep their money and rifles for beggars and traitors who wanted them, he said; the Dochi Khel needed no such truckling. The last chance to end it had come: only to-morrow Sher Afzal was to cross the pass on his way to the British headquarters, to make terms on behalf of the tribe with the political officer. He must not reach the camp; he must be captured; he must die!
There was a murmur from the assembly, half applause, half protest. But Safdar Khan, by sheer force of personality and will-power, carried the government with him.

As for the opposition, they had just been badly defeated by their parliamentary opponents; losing many killed and wounded, they were too feeble to want any more fighting, or to defend the young chief and his cause.

Safdar Khan's persistence prevailed: the debate was closed. He and his friends went into committee to make a scheme for the waylaying and capture of Sher Afzal.

Spies had brought the conspirators full details of his plans: the hour was known when he would drive over the pass on his way to the last British outpost, a few miles away.

Here Sher Afzal would be met by the assistant political agent and escorted to headquarters to complete his pact with the British.

But he might stop for refreshments at the outpost : he would probably leave his car-that fire-driven foreign monster, at the very thought of which Safdar Khan spat fiercely-and the garrison was weak; Sher Afzal could not be strongly guarded.

This was a chance for the body of picked tribesmen who would be hiding amongst the rocks near the post. No fear that they might fail to recognise Sher Afzal ; even without knowing him, what other man of their race would wear the hated British uniform, would dress as a British officer-apostate that he was!

Safdar Khan's feelings overcame him here and he raved against Sher Afzal and all his works, calling upon Allah to deliver the traitor into their hands. Since the arrangements for the ambush were already complete, some rather unparliamentary language was perhaps permissible.

## The Ambush

Last-minute work was going forward within the zone of active operations of the British force, those final touches which are always the most interesting part of a job.

The ration party with the daily supplies of food and fodder was being flagged through the stony nullahs and valleys, a long train of heavily laden beasts. The surrounding heights were picketed by khassadars or friendly tribesmen, taking turn in this duty, one day in every three, which they shared with British and Indian troops.

In addition, there were permanent posts at intervals, little mud guard-houses, each surrounded by a quickset hedge of barbed-wire entanglements, garrisoned by British and Indians.

One of these posts topped a tumbled mass of ridges which formed the most striking feature in the immediate landscape. It was planted like a huge eagle's nest amongst rocky crests, beneath which the ground dropped away almost sheer for some five hundred feet. Beyond this again was an exposed strip of flatter ground, running down to the main road.

From the commanding height of the post two subalterns watched the proceedings, lads much of an age, but otherwise very different in appearance.

Second-Lieutenant Sam Howard, fair and stocky in build, had blue eyes and a pugnacious chin. His companion, Second-Lieutenant Balwant Singh, dark and slim, was a fine-looking Rajput, belonging to the Shikarwar clan, who are of royal race and have a high reputation for bravery.

Through their field-glasses they saw " lias " established by wagging of blue and white signal flags, by flashing dotdash of heliographs between headquarters away across the pass and the pickets and posts on the khels and roadprotection parties. When this was complete, mules, mule-carts and donkeys passed along in complete confidence, while the pickets " stood to ", waiting vigilantly on the heights, ready for any sign of enemy movements.

The last beast with its load of grain, the driver carrying a red flag, trotted safely through : the pickets stood easy.
"They'll have to carry on again in a minute, though," Sam Howard remarked. "That Sher Afzal chap, chief of the Dochi Khel, is being escorted through to headquarters."
"Well, he's no business of yours and mine, thank goodness!" Balwant Singh yawned as he spoke the English learnt at Sandhurst with his present companion. "Mules are bad enough!"
" You're right-and I'm sure we deserve a long-overdue cigarette," Sam answered, producing his case and holding it out to Balwant, who in his turn shared a match with the Englishman.

Howard's thanks were muttered in a strange tongue, making the Rajput laugh.
"Pushtu, Pushtu-nothing but your old Pushtu! I don't know what you'd do if you were obliged to tackle nagri, my native language. You'd be dreaming about it !"
"It's all very well laughing at me, but I must pass that exam. or I'll be fired out of the Army. And I've only got another three weeks to mug it up, and if I don't improve I'll be ploughed as sure as we're sitting here! You're so jolly good at languages yourself that you can't understand a poor beggar like me," Sam ended lugubriously.
"Oh, you'll pass all right-never say die!" Balwant Singh patted his companion's arm encouragingly. "Look here, we'll practisc your Pushtu together-that's the way to go ahead. Just think how you've got me on working at shorthand with me, and I'm no good at that, even if it is a kind of language. I thought I'd never begin to learn all those hooks and twirls and circles."
" Well, that's an idea." Sam's face grew brighter. "Let's have a shot now. You ask questions and I'll answer."

But before the Pushtu lesson materialised a diversion took place which drove the study of Oriental tongues out of the heads of both subalterns. Almost from under their feet a couple of hares ran out, bounding amongst the rocks. Balwant Singh, with the instinct of a born hunter, sprang down after them at top speed, interrupting the sentence in flowery Pushtu which hovered uncertainly on Sam's lips.

Following in the zigzag wake of the hares went the Rajput, scrambling down the steep goat-tracks, skirting the sheer five-hundred-foot drop, now almost within touch of the beasts, now losing sight of them.

Sam Howard and the post were hidden from Balwant : he had just turned his head to look upwards, when he caught his foot, lurched sideways, stumbled and fell, then went rolling down the remainder of the steep incline, to lie half stunned on the edge of the road beneath.

How long he lay dazed, the Rajput never knew. He heard Sam's shrill summoning whistle from overhead, urgently calling him back, heard almost simultaneously a signal from the picket on the khels to "stand to ". Dimly he knew that something must be coming along the upper road, but he could not concentrate enough to realise what it was.

Balwant Singh closed his eyes for an instant, trying to clear his brain . . . and in that instant many things happened.

He heard scuffling of feet near by and heavy breathing. Then, as he partly opened his eyes, dark bodies hurled themselves upon him, hard, sinewy hands seized his arms and legs, rags were thrust into his mouth, gagging him.

## The Prisoner of the Dochi Khel

With the realisation that he was in the hands of tribesmen, Balwant Singh's brain cleared. He began a
 to sprawl in a mass of twirling turbans and baggy breeches. Free for a moment, the young Rajput indulged in a boxing display, with a series of feints, straight lefts and wary rights, finishing his round by knocking out one of the heftiest Pathans.

Several more closed with him, and they wrestled, Balwant Singh ignoring all the rules in a way which would have broken the heart of any respectable referee : not one but twenty fouls would have been registered against him. But what is that when a man is playing not for his side, but his life and the lives of others.

For the young Rajput had grasped the reason for this attack ; a muttered exclamation gave him the clue.
"Aha, think you to escape, Sher Afzal!" one of his assailants snarled, telling him that he was mistaken for the democratic young chief of the Dochi Khel.

Well, if so, they should have a run for their money. He would play up to them and give Sher Afzal every chance to escape. A moment later, as he still fought, Balwant Singh knew that he had succeeded. With a loud hoot and a long-drawn whine a motor passed rapidly along the upper road, whilst the pickets "stood easy " again, their task complete.

All this his ears told Balwant Singh, and he fought no longer. In any case, he was exhausted and let the tribesmen drag him away, roughly bound and gagged.

After lifting and carrying him for some distance, his captors threw the prisoner across a mule, for a jolting journey which seemed endless. Finally he was set roughly upon his feet and led stumbling over rough and uneven ground.

In the end, after half a mile or so, he found himself in a rock-encircled natural amphitheatre, patched with tree-clumps. Balwant Singh's escort, shouting
triumphantly, hustled him towards a group of brown-clad tribesmen, with Safdar Khan in the centre.

Urged on with prods of rifles, the young Rajput found himself staring into the most devilish eyes he had ever seen, set in a face to match. But if his captors expected approving cries of "Shabash! (Well done!)" from Safdar Khan, they were soon disillusioned. Instead, leaning against a rock, he gave vent to loud hoarse laughter which echoed away across the valley and died off in venomous sobs as the tribesman shook with hysterical convulsions and foamed at the mouth.

Bursting into wild fury, he attacked the bewildered raiders, kicking and striking them, addressing them as sons of owls, cousins of dogs, brothers of donkeys, then turned upon Balwant Singh.
"You came here by fraud, in the place of another !" he howled. "You shall die !"
"It was these men who brought me, since certainly I never wanted to see your face!" the Rajput retorted. "Let me go back to the British, my own people, since you have no quarrel with me."

Safdar Khan glared at him : then an evil smile twisted his mouth. For some moments he stood biting his nails in silence, then turned away to consult with the other leaders before addressing Balwant Singh again.
"You will write a letter containing our terms to your British friends; If they agree, good! You shall go free. If they refuse, your body will feast those vultures flying overhead. But you must write only what we say, with no word of where you are."
" Very well." The Rajput shrugged his shoulders fatalistically and sat down to write at dictation when a scrap of greasy paper, some gritty ink and a pen made from a slip of cane were brought.
The letter, when finished, was to the point. Balwant Singh was a prisoner, he said; unless the British gave up the alliance with Sher Afzal and the introduction of new ideas amongst the Dochi Khel, he would be executed. Moreover, the tribe would pay no fines, surrender no rifles. The bearer of this message would await an answer from the political officer: if it was unfavourable, the Rajput would die the day it was received, at sunset.
Safdar Khan and his companions scanned the missive word by word : the former nodded approval.
"Now sign your name in your own language," he ordered. " That is well. There is nothing to tell where you are, Take him away and guard him . . till the answer comes!"

## Aremtee

Twenty-four hours later Balwant Singh was striding to and fro in the cave which served as a cell, the entrance guarded by armed tribesmen. At any moment the messenger might return, and the young Rajput was resigned to what seemed his certain fate.
"So-exit Balwant Singh!" he told himself, at the very moment that he heard a commotion outside the cave.

A newcomer was hustled in, at the sight of whom the prisoner gave an angry exclamation.
"Sam, you utter idiot! What on earth brought you here?"
"That's a warm welcome," Sam Howard grinned.
" You don't deserve better! Why did you let yourself be caught? But I can guess... some silly plan of rescue. But you've simply made matters worse!"
" Quite. Two promising young officers lost instead of
one, eh ? Can't help it, Balwant : I had to have a shot to get you away, after you gave us that clue to your whereabouts. Sorry I didn't score a bull."
"You understood, then?" A sudden mischievous smile lighted the other's face.
" Not at once," Sam answered. "I saw the addition to your signature, yes. We all studied the letter. But it wasn't till afterwards that I realised what it meant, when I'd tramped off to the Air Station to try to wangle a lift to look for you. Nothing doing-but the flight commander showed me a map while he described a sort of a kind of a raid they're making. And Square D.6.4 was Aremtee. . . . Directly he said it I remembered that sign of yours, and saw what it was! The shorthand outline for R.M.T., of course-Aremtee!-that blessed old shorthand. And we'd all taken it for just a Pushtu postcript. Well, that gave me a line on you, and here I am!"
"It's not funny!" Balwant Singh snapped. "I wouldn't have put that clue if I'd thought it would lead you into a trap.'
" Glad, you did, even if the worst comes to the worst. 'Two's company, you know. I found a shepherd chap to guide me here, and I'd hoped to slip past the guards, but they weren't having any."
"I wish to goodness you hadn't come. There's not a shadow of a hope for either of us," the Rajput said.
" Well, just a shadow-nothing much more than that, I'm afraid," Sam allowed. "But I'll explain what that is."

Balwant Singh showed little enthusiasm as he listened to Sam's explanation.
" Thousand to one chance-of that," he concluded, and the pair fell silent, watching the sun dip towards the western mountain range. Before it touched the ridge, guards came to lead the prisoners to the council ground, where the tribe was assembled, and where Safdar Khan waited grimly for the messenger's return.

Presently a figure, brown against brownness, was seen descending a track from the southern range. Watching Safdar Khan's face a little later, as he read the message, the young soldiers knew its purport before he spoke.
" It seems your friends do not value your life as highly as we hoped," Safdar Khan snarled, showing yellow fangs.
" I did not hope they would," Balwant answered. "But surely one life is enough ; you will let my friend go!"
"He will die, too," the other said curtly. "Make ready, for your time is short. Sunset is at hand."

Again the Rajput shrugged. Glancing at Sam, he saw his eyes fixed on the southern mountains rather than the sinking sun-and it was from this direction that the sound came soon afterwards.
A dull droning roar grew louder, took shape as, like monster locusts, a flight of bombers dived from the golden evening sky over the dark mountain pinnacles. Their propellers whirred in a haze of motion, their roar sounded angry, as though protesting that this savage spot was no place for British aeroplanes.

The murmur which rose from the packed assembly of Dochi Khels became a frightened babel, while Safdar Khan shouted fiercely :
"They come without warning! Is this the fairness of which the British boast-they who say always they do not make war on women or children? Yet they are here to slay our babes, our old men and mothers-cowards and dogs that they are!"
"Surely he's not right," the Rajput spoke softly. "The machines can't bomb the place without warning; they'd not order that to save us. . . ."
"Hush! Some of these chaps may understand English,"

Sam whispered. "Take it that they are going to bomb the tribe-boast of it! And-remember what I told you!"

After one quick glance at his friend, Balwant Singh threw back his head and shouted defiance at Safdar Khan.
"Here is your answer! See how the British Army defends us! They will strike hard to save their soldiers. Many will pay the price for your deeds, Safdar Khanmany, both women and children."
A rising tumult of terror drowned the Rajput's voice; the tribesmen ran to and fro like ants, hustling their crying babies and womenfolk, seeking shelter from the expected rain of bombs. The panic was at its height, when Sam Howard's voice rang out, audible even above the roar of the aeroplanes.
"People of the Dochi Khel, listen!" His Pushtu was faulty, but comprehensible. "Ye see what comes -death falling from the skies, unless... Carry on, Balwant ; words fail me!"

At this muttered appeal in English, the Rajput took up the tale, arms and voice raised high.
"By magic power we can save you, but only if your leaders are wise, if they swear to spare our lives and accept British friendship, according to the wish of Sher Afzal, your chief. This done, a miracle shall happen, the bombs turn to harmless paper offering peace and goodwill. Speak, O people! Which shall it be ? Time is short."
Shouts rose from the frantic mob, crowding now round Safdar Khan.
"Peace-we will have peace! Let not death fall! We swear friendship. We follow Sher Afzal!"

Scowling and snarling, Safdar Khan glanced round, but there was fear in his eyes as they followed the circling planes. He lifted one hand, swore the oath required on a silk-wrapped Koran which an old mullah brought forward, which oath was repeated by other tribal leaders.
"It is well!" Sam shouted. " Since there is friendship between us, no bomb shall fall. . . . Come on, old chap ; help me work magic!"

Slowly both young soldiers raised their arms skywards; slowly and impressively they began to chant, while the Dochi Khel listened awestruck to these words of power in a strange tongue-
" Three men and a dog went to mow a meadow. . . ."
Again and again Sam and Balwant Singh repeated them, while the bombers roared overhead in formation. Then, in the tense silence of the tribe, a scatter of white appeared fluttering softly down like snow-flakes, to the ground, to heads and shoulders.
"A miracle! A marvel!" An amazed groan rose, followed by a shout from a leading tribesman who had secured one of the papers. "It is true! Here are words of peace and friendship in our own language."

Slowly the aeroplanes circled again, still showering down papers, then roared away over the mountains, while the tribesmen surrounded Sam and Balwant Singh, shouting and laughing.

In this way they led their ex-prisoners by hidden paths across the mountains early next morning, parting only within sight of the British post, where the Dochi Khel waited to welcome Sher Afzal on his return. As they took the last stretch of road Sam grinned at his companion.
" Lucky the flight bloke warned me of that projected Aremtee paper-chase!"
"Yes," Balwant nodded. "And you needn't laugh at my shorthand again, either."
"Nor you at my Pushtu! They both proved jolly useful, not to mention our community singing."


An overhaul shop-radial engine bay, Chelsea.

ITT must not be thought that the only careers in aviation are those which involve flying. There are many others -which is just as well, as everyone does not wish to fly ; moreover, there are some chaps who are debarred by not being able to pass the necessary medical examinations. To give full particulars of all the posts which are available would involve writing a book; but the following notes will give some idea of the appointments available and the method of qualifying for them.

## Ground Engineer

Ground engineers are stationed at all airports and civil aerodromes, and it is their job to ascertain that the aeroplane is fit in every way to fly. The licences they are required to hold are divided into five categories; viz., "A", "B","C", "D", and " X ". It is not necessary to hold all of these; but, of course, the more qualifications the ground engineer has, the better the post he can obtain.
The licences are as follows :
"A."-Inspection of aircraft before flight.
"C."-Inspection of engine before flight.
" B."-Inspection of aircraft after overhaul.
"D."-Inspection of engine after overhaul.
"X."-Repair, overhaul and testing of electrical equipment, instruments, parachutes, etc.
'The applicant for a ground engineer's licence in any category must :
(a) Be at least 2I years of age.
(b) Pass an Air Ministry Technical Examination.
(c) Produce proof of such practical experience or knowledge as will enable him to undertake the duties for which the licence is required.
As a general rule, a period of not less than two years' continuous experience is required. General engineering experience may count in part, but the greater portion should be in aeronautical engineering.

This experience may be gained by attendance at an approved technical training-school, or as an apprentice with an aircraft-manufacturing firm.

## Technical Training-School

A very comprehensive course, both theoretical and practical, can be obtained by attending a specialised school, such as the College of Aeronautical Engineering, Chelsea. Students may enter this college from the age of seventeen and must enrol for a probationary term before being accepted for the remainder of the course. The course for the College diploma takes from $2 \frac{1}{2}$ to $2 \frac{3}{4}$ years.

The student attends at the College at Chelsea for the period of training, which is normally fifteen months. By the end of this time he should have reached the standard which qualifies him for entry to the College aerodrome workshops at Brooklands. This second period of training, which lasts about ten and a half months, includes experience in aircraft construction, aircraft in general use, and experience in daily aerodrome work. This is followed by a final training period of six months in the works of one or more aircraft-manufacturing firms who co-operate
with the College in providing industrial educational training for civil and commercial aviation.

At the end of the course the student is in a position to take the examinations for ground engineer's "A", " C ", and " X " licences. His best plan is then to obtain a job as a ground engineer in these categories and so consolidate his training. After a year or two he should enter the works of an aeroplane or aero-engine maker, in order to get the necessary experience to obtain the further licences " B " or " D " or both.

If the candidate does not wish to remain a ground engineer, such a training will fit him for assistant works manager, works manager, aircraft inspector, and so on.

## Apprenticeship

The period of apprenticeship is usually three to five years and the age of entry is 15 to 17 years. Many firms have a definite apprenticeship scheme, the lad spending fixed periods in each of the various shops. He is required to attend classes, held either. at the works or at a local technical school, in order to acquire the necessary theoretical knowledge. On completion of his apprenticeship, the youth will generally start as an improver, then become skilled hand, charge hand, and eventually, after much hard work and years of experience, to foreman. If he desires to become a ground engineer, he should, either during his apprenticeship or soon afterwards, go to the firm's aerodrome to acquire the necessary practical experience in the maintenance and running of aircraft.

Of course, the lad may elect to serve his apprenticeship to a particular trade, such as fitting, turning, welding, rigging, etc., and specialise in such a trade.

## Design Staff

Students wishing to obtain a post on the design staff of an aeroplane or aero-eng, ne-manufacturing company should either serve an apprenticeship including a period in the drawingoffice or attend at a technical trainingcollege as described above. The ambitious youth will not wish to remain a draughtsman indefinitely, and should therefore study either in the evenings or at a day college, or by a correspondence course, for the Associate Fellowship of the Royal Aeronautical Society.

## University Students

Most of the universities now have a course in aeronautical enginecring, which takes three or four years to complete. Details of the courses vary at the different universities, and the prospectus of the college at which the student wishes to enter should be obtained.

The Northampton Engineering College, St. John's Street, London, E.C., was one of the first to start an aeronautical engineering course. Students before entry are required to have passed the London Matriculation Examination or its equivalent. The first year is occupied in studying for the Intermediate B.Sc. Examination. During the second and third year the session consists of two terms at the College, the period from Easter until the end of September being spent at an aircraft firm's works for practical experience. The fourth year is a three-term
outgoing passengers. At airports which are night halts arrangements have to be made for hotel accommodation. The handling of freight, baggage and mails has also to be arranged. The station superintendent will also be responsible for the ground staff required for handling the aircraft,
refuelling, etc., and in the case of marine bases for flyingsible for the ground staff required for handling the aircraft,
refuelling, etc., and in the case of marine bases for flyingboats there will in addition be motor-boats and their crews to look after.

A youth seeking a post in the traffic department needs a good general education up to school-leaving certificate standard, and a knowledge of the various types of civil aircraft will be useful. Before being sent to an acrodrome the candidate will in most cases have to serve several
session, at the end of which the student sits for the final B.Sc. Examination.

Evening classes are also arranged, so that a student can obtain practical and theoretical instruction simultaneously.

University-trained men are usually employed in making strength calculation and in calculating the performance of the aeroplanes under the various conditions. It is desirable that they should have some drawing-office experience in order to be qualified to take a post of assistant or chief designer.

The keen young man, whether he is on the works side or the design side, will find aeronautical engineering a fascinating subject, always with something new to learn. He will find he needs the team spirit, for the technical office, the drawing-office and the works all have to play their part in making the aeroplane a success. He will find that much hard work is required and a faculty for learning from past experience.

## Non-Engineering Posts

There are a number of posts which cannot be classed as engineering, but which nevertheless demand a technical knowledge. Such posts are in the traffic departments of the various companics. In these departments the schedules of services have to be worked out and control maintained over them. The headquarters staff has to be assisted by an outside staff. Such companics as Imperial Airways have station superintendents at the principal airports where their air liners call. He will have several assistants, whose duties will include dealing with both incoming and

Light aircraft wing construction, Brooklands.

years at the head offices of the company, in order to learn the details of air-line control and administration. He should be prepared to go abroad when opportunity offers, as much useful experience can be gained at the overseas airports.

## Posts at Civil Aerodromes

Some aerodromes, such as Croydon, are owned and controlled by the Air Ministry; others are controlled by the local authorities. The control officers in the former case are required to have had flying experience, and the same stipulation is generally made with regard to the aerodrome managers of the municipal airports.
'There is also one or more wireless operators at all civil aerodromes. They require to have training in working of wireless apparatus between air and ground. My remarks last month in Part One of this article, with regard to training, will apply in this case also. With the introduction of direction-finding apparatus and radio control in fog, the wireless operator's post becomes more important and calls for specialised knowledge.

Meteorological officer, or "weather prophet", is another position which may be sought. Meteorology demands a good scientific knowledge, and most University Colleges
 connection with the preparation and issue of weather forecasts. Every airport of any importance has its meteorological officer, and with the extension of civil aviation the demand for accurate weather reports will necessitate the establishment of more weather stations.
(Photographs by courtesy of the Aeronautical Engineering College, Chelsea and Brooklands.)

## Keeping Rover Fit

ROVER cannot be a really good pal unless you keep him fit. Keeping him healthy does not entail more than a medium amount of trouble, and your efforts will be well repaid.

Do you know that a medium-sized dog should have a two-mile walk (or its equivalent) every day? It is not sufficient to walk him once round the houses; neither is it enough to give him a long walk at the week-ends and keep him indoors throughout the rest of the week.

You may wonder how on earth you can give him a two-mile walk each day. There is an alternative, however, for a good romp each evening will serve as a substitute.

Take him to a field or some other open ground, where he can chase around as much as he likes. But it should be a place where there are no sheep or other farm animals which he might chase. Take a hard rubber ball, and let him run after this when you throw it. You will thus be able to give him all the exercise he needs, at little inconvenience to yourself.

Romping in this way, for fifteen minutes each day, will keep him in good health. He'll enjoy the game, too, and, as he will have to bring the ball back to you each time, you will be giving him lessons in obedience as well.

At the same time, don't overlook the fact that he will like a change. The daily romp should not be made an excuse for leaving him at home when you have an opportunity to take him on rambles. Your four-footed pal will enjoy the novelty of a hike as much as you do yourself.
The distance he can walk will depend largely upon his size. Toy dogs cannot walk more than three or four miles comfortably, and the big breeds, such as the mastiffs,
require to go slowly, but dogs of medium size can walk six or seven miles in comfort.

On such occasions, remember to take a few dog biscuits, and,
 if at all possible, a supply of drinking water, too. The water will enable you to discourage your dog from the bad habit of drinking from pools and other doubtful sources.

It is possible to exercise a dog by allowing him to run behind a bicycle, but this is not a plan that can be really recommended. Firstly, there is a danger that he will overstrain himself; secondly, road conditions to-day make the plan unsafe.

After your dog has returned from a long ramble, it is a good plan to examine his feet. Small stones may have lodged between his toes, and they will cause lameness unless they are removed. Look also for traces of tar.

Finally, if the weather has been wet, or if he has been roaming among long, wet grass, give him a thorough rub-down to prevent his catching cold or developing rheumatism. A good rubbing with old newspapers will dry him.

Arthur Gaunt.


READERS of the " B.O.P." will remember the account $\mathbb{1}$ in Volume 59 of the expedition of the Public Schools Exploring Society to Northern Lapland. Last year, during the summer holidays, we went for the third time to Newfoundland.

Our base camp was about fifteen miles inland from the west coast, the tents being pitched on the shores of a fine lake surrounded by uninhabited country of much grandeur. On either side, great cliffs of rock rose to a height of 1,000 to $1,500 \mathrm{ft}$. Behind us, to the eastward, dense forests of spruce, balsam pine and birches hemmed us in. Four rivers, descending through these forests, ran into the lake, two on each side of us.

The day after we arrived reconnaissance parties made three-day journeys up these rivers in the hope of finding some way through, clear of trees, for the exploring-parties which were to investigate the country away inland. They all returned with the same tale: that nothing but dense forest was encountered, and they had had a hard time struggling through it.

So for the next three days nearly all our seventy-seven


Making a " plane table" survey

## ON THE TRAIL

 - Last summer eighty-seven members of the Public Schools Exploring Society spent four and a half weeks in the interior of Newfoundland-mostly in absolutely primeval country, largely unmapped and quite uninhabited. With no porters and no guides, they were an exploration expedition in very truth.How these young explorers faced up to difficulties and won through is told in this article, specially written for "B.O.P." readers by the Society's leader and chief-

## SURGEON-COMMANDER

## G. MURRAY LEVICK,

R.N.

boys worked in shifts clearing a track to the northward for the first part of our journey. They cut a fine trail, two yards wide and three miles long, by felling trees and clearing away the dense undergrowth.

Then we all set off, splitting up into four parties at the end of two days. One party collected birds for the British Museum, bringing back nearly fifty varieties of skins. Others collected plants and insects. One party ascended $2,000 \mathrm{ft}$. into the "Barrens" away to the northward.

Meanwhile, another party, working with theodolites and " plane tables ", made a detailed map of nearly a hundred square miles of country. This was an excellent map, which reflected great credit on that party, and we are all very proud of it, and of them for having done such good work.

The country being rough and difficult, everything had to be carried on the backs of the parties as they marched along in Indian file. We often got very wet, having to ford deep streams at times; but in those forest countries

## AGAIN!

you can always make a grand fire in no time, and dry yourself without undreasing, by just turning round and round in the heat of the blaze. You have, however, to light such fires on the rocky beds of the streams; otherwise you might start a forest blaze which would spread for many miles.
'Ihere were many bears about. We heard them and saw their tracks, but they are timid things and keep out of sight. There were also moose and caribou. We caught a good many salmon and lots of trout, which were a welcome addition to our rations.

Our marching rations consisted each day of 12 oz . of biscuits, 4 lb . of cheese, 2 oz . of oatmeal for porridge, 2 oz . of margarine, 2 oz . of chocolate, 2 oz . of sugar, 3 oz . of dried reindeer meat, and an ounce of drie


Hires had to be lighted alzways on the bed of a stream, to escape the danger of starting $a$ forest fire.


Taking compass bearings on the survey.
peas to boil with it. We drank tea without milk. Naturally anyone who caught a lot of fish was very popular.

We had a transmitting and receiving wireless set at our base camp, with which we got clear communication with the Admiralty at home, as well as amateurs in Canada, America, Newfoundland and England. We also had a portable transmitting- and receiving-set with one of the parties on the march so that we could intercommunicate with the base camp, and all the marching-parties had light receiving-sets.

Many of the boys had worked up the Morse code and were able to take in the messages from base camp through the receiving-sets.

After a month of this hard life, we all returned to base camp in the open, in a wonderful state of fitness. It was a fine sight to see the boys stripped for bathing, with the hard muscles showing through their tanned skins.

## " Staying Put"

I wish every reader of the "B.O.P." could have this fine experience; but those of you who cannot may find plenty of wild country at home where you can camp with light tents and cook simple food during a holiday in the open air. It is much better than having a soft time with a hot bath and a spring bed every night; but to get the best out of it you ought to have a definite object, such as studying the habits of birds or other animals, and collecting useful notes about them, illustrated by photographs and drawings.

You can also learn to journey by compass with the aid of local maps. This acquired knowledge may be very useful to you some day. Of all the experiences gained by the members of these expeditions, I believe the long marches through rough primeval country are the most valuable.

It is very hard work, and as it goes on day after day, as you laboriously clamber over, round, and through all sorts of obstacles, it develops the capacity for "staying put" just about as well as anything I know. It doesn't take long to find out the characters of a party undergoing this test, and when camp is pitched in the evening, after a tiring day, the thing that stands out at once is the unselfishness of those who have that quality. There are many things to be done and that is a time when the great ones show up.

You get some surprises, too. On every expedition I have seen a certain number of boys who have been of no particular account at home rise head and shoulders above others who have gained celebrity in games at school. This is not intended to belittle the great importance of games, but it does show that a boy who is good at games may not be so successful when it comes to "the real thing".


$I_{p}^{1}$N the meadow where I keep my bees there is a shallow Lpond used by cattle for drinking, and not far from it is a row of young poplars. If you came that way in March, when the sun was shining and the wind was in the south, you would notice hundreds of bees at the pond's edge, sucking water from the sun-warmed mud. This is the hive's contingent of water-carriers, taking advantage of a fine warm day to get down to this favourite spot of theirs.

As you approached the poplars you would see more bees, busy up in the bare boughs, and you might naturally wonder what they were doing there.

Bees have a lot of other work to do besides that of gathering honey. Nursing, wax making, pollen gathering, propolis collecting and housework are some of their other jobs in and out of doors.

## Repairing the Hive

Those bees in the poplar boughs are collecting propolis, a risky job just now. For the sun may go in and the temperature suddenly fall, or hungry birds may discover them at work. You will probably ask: "What is propolis?" You know that sticky substance with which Nature varnishes buds in winter. Well, that is propolis. Now you will ask: "What does a bee want with varnish ?" I will tell you. The winds of March are very penetrating; the queen bee has started to lay, necessitating a high and even temperature within the hive, and so there must be no draughts and the home must be made extra snug, which may mean repairs here and there-a crack to be filled up, a tiny hole stopped, a wall relined, and so on. For this purpose propolis is the ideal thing, and the bees are adept in its use-as bee-keepers know only too well when they go to shift some movab'e furniture of the hive, to find it glued down so tightly as to need a chisel to shift it. To my mind its only redeeming feature in bee-keeping is its very pleasant scent, and whenever I smell these sticky buds I am reminded of many interesting hours spent amongst my bees.

## Why Wax is not Used

Now you will be asking yet another question. You will say: "Why cannot bees use wax, seeing that they
can make their own wax at home, which would save them the risk of going out to collect varnish just now?"

The answer is that propolis is free and can be had ready made for the fetching, whereas to the bees wax is very expensive to make. Honey to bees is as money to us. They cannot live without honey, and we cannot get very far without money. 'To make wax bees must form into a cluster and get themselves into a high temperature, and they can only reach this condition by consuming large quantities of honey. Wax is then sweated from their bodies in the form of minute white scales. These scales are then taken into their jaws and worked into a sort of putty, as you might knead plasticine, and with this workable material they fashion those symmetrical combs which are the admiration of all who see them. To make one pound of wax the bees have to consume from ten to fifteen pounds of honey, and when we consider that a bee only brings home one-fifth of a drop when returning from the fields with her load of honey, we can visualise the extent of work entailed in collecting enough honey to make this quantity of wax, and we can appreciate why the bees are careful as to the use to which they put this wax. Their combs must be fashioned out of wax-that is a bee law which cannot be broken-but hive repairs need not be done with such expensive material, and so that is why they use free and ready-made propolis.

## A Precious Store

Every available drop of honey which can be spared, and which is not required for food or comb-making, has to be stored in reserve for those long winter months when there are no flowers and winter holds the trenches.

The bees which gathered this winter store are not those who are alive to-day. They died at the summer's end, worn out with work, but they left a legacy in the form of a fully stocked pantry, before they were thrown out by their younger sisters as being of no further use. The laws of bee land are hard ones. The community in the summer is kept going by a system of piece-work. There are no rest hours and no holidays, and when the shutters go up those who are left to carry on for the winter eke out an existence on a ration which just suffices for the barest needs of life, and not an ounce more must each eat than that. Their job is to hold the fort until the spring,
with this very limited supply of ammunition, and with no hope of relief until the sallows bloom and winter is on the run.

This ammunition, in the shape of honey, is getting very very low now, and it has got to last another seven or eight wecks yet. Winter may hold the front-line trenches right up to the end of March, and when at last on the run may make the first week or two of April very unpleanant for the bees. We can imagine with what joy the bees will welcome the first real spell of fine spring weather and the sight of flowers after their long struggle on short rations, seeing their precious store grow less and less as the winter slowly dragged on, and wondering, perhaps, if spring will ever come. 'The rooks up in the elm-tops and that brimstone butterlly which came into my garden last week both reminded me that it cannot be far away. I hope they are not mistaken, for I am a bee-keeper.

## Answers to Correspondents.

In winter your dwarf Japanese trees should be kept in a room without a fire, but can be put out of doors in fine weather. About once every three years you can re-pot them. March is a good month for doing this. Use one part of sand to three parts loam. The trees should be given a fertiliser in the spring, when they have commenced to make new growth. Gas is bad for them, and they should not be put near a fire: (To L. A., Tooting.)

Your aquarium will need some growing aquatic plants, for the fish in it depend largely for their oxygen on these. Some you will need which root in the sand, some which are only anchored in the sand, and some which float on the surface.
Here are the names of a few: Rooting plants-Vallisneria or Sagittaria; Anchoring plants-Cabomba or Elodea; Floating plants-Frogbit or Pondweed.

The first and second are oxygenators, whilst the third-named are used chiefly as shade for the fish. Water lilies for outdoor ponds are very decorative, but their only value to the fish is the shade given by their flat floating leaves. (To P. H., Liverpool.)

Yes, baby hares can be tamed, and very charming pets they make, too. Here is what one writer in a daily paper says: "If a stray little baby hare comes your way, do him proud, look after him, mother him, and you will have , little friend about the house equal to a dog as a companion."
Your difficulty may be at first, if he is very young, to persuade him to eat. Many young wild creatures in captivity refuse to feed and die of starvation, but if you can get over this difficulty, the rest will be easy.
No, the Belgian Hare is not a true hare-it is a rabbit. Although it is very similar in appearance to the wild hare. (To C. T., Malvern.)

Your goldfinch with a ring on its leg is what is known as a close-rung bird, and would probably be aviary bred. You can buy a very good finch mixture from the corn-dealer's. It is sold in packets and is made up of those seeds which wild goldfinches eat.

A very good seed for these birds is hemp; they thrive wonderfully on it, and it gives them that vivacious appearance so attractive in these beautiful little birds.

The plumage of the cock and hen is the same, and it is not easy to distinguish the sexes, though the cock has a bolder eye than the hen. (To A. S., Herne Hill.)

I have written to a friend of mine about field-glasses for you, and this is what he says: "If you want a really excellent pair, there is nothing to beat the Zeiss makes, especially the type known as the Deltrentem. This is a wide-angle X 8 which I can from experience thoroughly recommend. It is a centre-focusing type, light and absolutely unmatched for field-work." (To R. K., Ipswich.)

I should advise you to get a copy of "Cage Birds," for December 3rd, 1937. With this issue is given a chart called Budgerigars Breeders' Chart, and is composed of monthly hints on feeding and management throughout the year. This chart you will find most useful. Hang it in a handy place and follow carefully the advice given month by month. You cannot go wrong if you do exactly what it tells you.
"Animal Life of the British Isles," by Edward Step, is published by Warne $\&$ Co., and I should certainly recommend this book as you are so interested in the little people of the wild. It is fully illustrated, there being III plates from photographs, forty-eight of which are prepared in colour. (To B. P., Exeter.)



Correct position for a roll-in.

HOCKEY, a game played only by amateurs, has become an immensely popular pastime, and clubs (the backbone of the game in England) are eagerly looking to schools to supply them with the right material. They need the man who-not necessarily a good playerknows how to play the game in the best spirit, is conscious of, and acts according to, its laws (written and unwritten), and who has the intelligence to act quickly and correctly according to the run of the play.
All players of games make mistakes, but these must be reduced to a minimum if pleasure is to be extracted out of a game like hockey, and if there is a desire to become a successful player.

I have been asked to write about some common faults in school hockey, and it is easy to be destructive in one's criticism. It is my intention, however, in the following article, after having coached and watched boys play for some years, to be as constructive and helpful as possible.

One has only to watch an average game this seasonwhether played at school, or even on a club ground-to notice these following ten general faults in operation during some part or other of the game. Mark them down, and make it your intention to eradicate them, if you are conscious that in the case of any of them the cap fits.

Some of the accompanying photos illustrate faults other than those dealt with below.
I. " $I$ ", rather than " $W e$ ". Hockey is essentially a team game, and is seen at its best when the ball is freely distributed and, as they say in some papers, " well aired". This is impossible if any one player has a desire-even though it be at the very back of his mind-to keep the ball longer than he should, to exhibit his skill in dribbling when to part with the ball would be to the common good, and, in short, to be in any way selfish.

From goalkeeper to forward let the thought be "Each for all and all for each".

Let your clearances (halves and backs) be so made that they are to the best advantage of the man to whom the

## Common Faults

ball is hit; let manœuyring for position, before parting with the ball, be made in the best
——By C. S. W. interests of the other man; let your centres and passes (you forwards) be given so that the other man receives them when he is in the most convenient position. Finally, to starve your wings is a sign of selfishness: as is also a failure to get unmarked, for you must help a forward who has the ball and who hopes to pass to you, by yourself moving into a position that makes his task as easy as possible.
2. Use of the body. Hockey is a game to be played with ball and stick, and we want to keep our bodies from interfering in any way with the opponent's free access to the ball. Keep your face towards an opponent when he tackles you; it is not clever to thwart his legal effort to deprive you of the ball by half turning round in his face, or giving him a nudge with your left elbow or shoulder, or even a push with your arm, when he is about to tackle from the left side.
3. Sticks. This is a fault common to us all. In your swing back take your stick backwards and THEN upwards, rather than straight up with a backward flick of the wrists. In your follow-through turn over the right wrist slightly, after impact with the ball. This may help. Test yourself at home with a friend to watch you. It is surprising how often that stick-end flicks up above one or other shoulder.
4. Getting out of position. Those who have played


Faults: (1) Feet not square. (2) One stick turned over. (3) Supporting half too close.

## in School Hockey

MARCON
Rugby football in the Christmas term sometimes find it difficult to adjust themselves to hockey at the beginning of the Easter term. A forward tries to get behind the man with the ball, who intends passing to him, while there is a tendency on the part of some to gravitate over to where the ball is ruming. Let each player recognise the bit of ground in which he is generally expected to operate, and let forwards in particular realise that each member of the five has, to a certain extent, his own "pitch". Then there will be less bunching than is often seen. Winghalves should remember to keep out on the wing, except when the opposing forwards are in the danger zone, i.e., within the " 25 ", and backs must carefully watch each other's movements and assume the right relative position at once.
5. Inability to judge distances. This is a fault generally revealed by a defender going in to tackle at the wrong moment. Some are able to judge with ease the pace of a ball on the move, of the man in control of it (or of one coming to meet it), and of the pace of the ground at the


Obstruction. Caught in the act. An incident during an Inter-County match.
same time. 'Others are all at sea in knowing when to pass the ball. They generally leave it till too late, so that the tackler has covered the intervening ground before they have realised he is so near. Others, again, do not seem to know exactly when to move forward, to intercept a pass or to deprive a player of the ball.

You must try to watch and sum up the opponent, your pace, and the speed of the ball over the ground, then to make up your mind when the exact moment for passing, tackling and hitting has arrived. Then, act accordingly.

For improving your standard in judgment of distances there is no better method than, to have a " one-a-side" game in the garden at home, on the school field, or on an enclosed piece of asphalt.
6. Use of one hand when dribbling. This is not perhaps a very common fault, but it is as well to remind ourselves that we do NOT move more quickly over the ground if one hand alone propels the ball.


What is zorong with the three defenders?
7. Hitting at sticks. Hooking sticks, i.e., the insertion of a stick below that of the possessor of the ball and the quick extraction of it, is a perfectly legitimate way of getting the ball away from your opponent. Sometimes, however, this extraction is done after a sharp hit at the stick from below or even from above. Such a method is wrong.
8. Hitting to the left. The natural tendency when hitting the ball is to swing the stick slightly across the body from right to left. Thus the ball goes off in a half-left direction. This can easily be accentuated, and the result is a game in which the ball, when hit, nearly always goes towards the left of the field, and a one-sided game-in a literal way-follows. Try to counter this fault by practising a quick half-turn to the right and a hit in that direction, or by improving your push passes, which are nearly always made from left to right.
9. "Blind" hitting. When a ball is hit or passed it should be intended for a particular player. There are backs, however, who, on receiving a hit from the opposition, bang the ball back again indiscriminately, hoping that SOMEONE will pick it up. Forwards, also, are not innocent of this fault of " blind " passing.

If possible, try to visualise the position of the forwards on your side before the ball comes to you, or glance upwards just before you hit. Then, having decided upon your objective, work out your movements and make your final hit accordingly.
10. Lack of tactics. Hockey is to be played intelligently, and as it is such a rapid game, there is need for the brain to work at top speed. Some are content with the obvious methods of attack and frustration. Others get their brains to work and scheme and plan, and it is these who will be of most use to any side.

Take, for example, the goalkeeper who has to face a corner hit. He has worked out the possibilities of a shot being aimed at a point near an upright. So he stations a back just inside each post, with instructions to stay there, and not to rush out. He himself advances, when the time comes, a few paces forward, and thus narrows the angle for the shot.

Take again the wing-half who, not content with the stereotyped method of rolling in from touch, plans out an occasional co-operative bit of work with his inside-forward, in order to outwit an opponent.

Take again a back who has a passion for cross-hitting to the opposite side of the field. He suddenly realises that this particular passion of his is resulting in his playing
into the enemy's hands, seeing that their stronger defence is on that side to which the cross-hits are being made. So he changes his tactics, and sees to it that his forwards, opposed to the weaker defence, are given the ball as much as possible.

Again, there is that inside-forward who insists on employing the through pass, even though the opposing backs are covering each other. He is not using his head. Let him change his tactics and make much more use of the short cross pass, till the moment comes when the backs are caught playing squarely. Then let the through pass be put into operation.

Lastly, take the case of a side (A)-more finished players than their opponents-who are being run off their legs by a team (B) that airs the ball with long passes from right to left and vice versa.

It may be necessary for A to change their tactics, not to keep the ball so close, and to indulge less in the clever push passes in which they generally place their faith, in order to counteract B's methods of attack.

## More Particular Faults

Goalkeepers. Are you guilty, or not, of any of the following? (1) Sometimes clearing the ball to the centre instead of to the wings. (2) Standing still on a cold day when the ball is not at your end, instead of moving about and keeping warm, so that you may be as mobile as possible and ready to get off the mark quickly when the attack approaches. (3) Through lack of previous collaboration, getting muddled with one or other of the backs. Try to remember to arrange with them that, if you decide to leave goal to go out and tackle, you will shout "Right!" or "Mine!" Then it will be the duty of the back to leave you a clear field and himself to drop back into goal till danger is past.

Backs. (I) Do you sometimes hang back too far ? N.B. Nothing hampers an inside-forward more than the knowledge that he has a back on the opposite side who is continually challenging him as soon as he gets the ball, or is even likely to intercept the pass as it comes up the field to him.
(2) Do you play level with your partner? N.B. As
one of you goes up to tackle a forward, the other should move into position approximately behind him, to cover his action and to check an attack that may be pushed down the centre.

This one-behind-the-other, or covering, position should always be kept, unless the attack is taking place within the " 25 ", when backs need to keep close up to their respective opposing inside-forwards.
(3) Do you overdo the flick (push) pass? On a muddy pitch (a game at school has often to be played on an imperfect ground), you should rely less upon the flick than on the hit. A hard, clean hit upfield under such circumstances is far the more effective type of pass.

Halves. Your failings include : ( r ) Slackness in marking. (2) Poor support of your forwards when they are in attack.
(3) Disinclination to draw an opponent before getting rid of the ball.

Be careful to watch every movement of the man to be marked and learn to cut off the avenues down which a pass to him might be made : morcover, before you yourself get rid of the ball to a fellow forward, try to beguile out of position an opponent, who is in his vicinity and possibly half blocking the way.

Forwards. You are often guilty of: Failure to tackle back; running too far down the wing (if an outsideforward) before centring the ball ; bunching together in the centre; slowness in shooting; watching shots being made at goal instead of following up ; slowness in moving those first few yards after receiving a pass.

Do please try to help your defence (N.B. "We", not "I") to keep well spaced out (bunching makes the task of the opposing defence an casy one), and to get your shots in as soon as the ball crosses the circle. A "firsttime " shot, with two other forwards following up rapidly, is still too rare an occurrence.

Lastly, quickness off the mark, whether after receiving a pass, or in order to reach a spot to pick up a pass, is vital.

I conclude with three positive commands: Be unselfish, be quick, be intelligent, and clubs will be glad of your services when, and if, you wish to join one on leaving school.

## A Useful Screwdriver

THE model-maker and handyman often experiences difficulty with a screw that cannot be placed in the hole. Often there is not room to hold the screw with even two fingers, and this is where a novel screwdriver like the one illustrated is useful.

All you need to make this handy tool is a motor-cycle wheel-spoke-a new one for preference, though an old one will do.

Cut off the threaded part and lightly " blue" the end. If you gently warm the end until it turns a light blue, any excess hardness will be removed. Now the end can be hammered out to a long taper like an ordinary screwdriver blade ; neatly file the edges and sides flat and make a thin saw-cut in the middle.

Bend one side of the slit a little one way and the other side the opposite way, and this end of the screwdriver is finished. The handle can be left any length-the longer the better-as it will be suitable for any "out-of-theway" corner. The extreme end can be bent into the shape of an eye, which will enable it to be hung up in a convenient place.

You will be surprised how firmly a screw will remain on the end if the blade is pushed well into the screw slot. A screw can be placed in the most awkward position with ease. It should, however, be given only a couple of turns, as this screwdriver is not intended for driving the screw right home.
W. G. Pike.


## CHAPTER I

## THE FORM MEETING

" YYES, but what can we do ?" asked little Dutton, II in his thin shrill voice.
" Do ?" echoed Barrington in a superior way. "There are scores of things we might do."

This discussion had arisen out of an announcement made by the head master in hall the previous morning that the Governors of Horlgate School were willing to provide a new cricket pavilion on the understanding that one-quarter of the cost was raised by the School.
"You will appreciate," Dr. Rixon had said, " that five hundred pounds is a big sum; but if we all do our share, we ought to be able to inform the Governors in a few months' time that we have done our part."

The Doctor, conscious of a suppressed gasp among his audience, had continued: "Of course, the Old Boys and the parents will help us, but the chief responsibility should fall on us who are going to reap the benefit of the new pavilion. I want each of you to be thinking out schemes whereby your form can help us raise this sum."

All that day nothing else was talked of but-The New Pavilion. Boarders lounging in the quadrangle passed their views on this scheme or that; day-boys hurrying home also explored every possible plan for raising the required sum.

Barrington, form captain of the Lower Fourth, wanted to be carly in the field, so he announced a form meeting for the following day. As the form master was a newcomer to Horlgate, and not on very familiar terms with the form yet, Barrington took the chair himself.
"Gentlemen," he began, "I hope I shall not detain you long." Barrington had heard his father begin a speech like this once and thought it was very effective.
" Hear! hear!" answered his audience.
" I have called you here to-day to ask for your suggestions for raising money for a form contribution to the Pavilion Fund. We all agree that a pavilion is necessary." Here the speaker was interrupted by roars of approval. "I am sure that the members of the Lower Fourth are all agreed we must do our bit."

It was this last statement, issued in a very decided and final manner, that had caused little Dutton to ask the
question that opened our story: " Yes, but what can we do ?"

Barrington's rather superior retort to Dutton appeared to impress the Lower Fourth with their own capabilities, and it seemed difficult for them to imagine anything that they could not do.

For some moments there was a submerged muttering. There were many whispered opinions, but not one had the courage to voice them. It was always a risk making a suggestion at a form meeting. Ideas were either wholeheartedly approved or fiercely and disdainfully denounced. The fear of the latter reception naturally made a speaker hesitant.
" I am waiting to hear your suggestions," rapped out Barrington. "I shall be glad if you will address your remarks to the chair. I believe you have something to say, Phillips ?"

The wretched youth who had then been whispering his private views to a neighbour stood up and rather falteringly began :
"Er-er-Mr. Chairman, I beg to suggest that a good sum of money could be obtained if we, as a form, produced a play. I think we could put on a decent show, and a good crowd of the townsfolk would come in to see it if it was well advertised."
"Takes too long to prepare, I reckon," said SethSmith, who was perched up on the window-sill. "I think a musical evening would be an easier proposition."
"Who'd want to hear you sing?" came a quick rejoinder.
" How about a gymnastic display?" shouted someone.
" A fun-fair ?" called another voice.
The meeting began to get disorderly, private arguments were being conducted in all parts of the room. Suggestions were supported or denounced with equal vigour, and yet there was evidently no proposal which would receive the unanimous support of the form.

A prefect looked in at the door and said there was far too much noise and the meeting would have to break up unless it could be conducted on less noisy lines. At this, Mr. Chairman Barrington brought his fist down on the table with a force that not only shook down all the pens
and pencils left by the form master, but also reduced the form to silence. He began :
" Well have ye judged, well ended long debate
Synod of Gods, and, like to what ye are Great things resolved."

The quotation from " Paradise Lost" which had been part of the passage set the previous week for repetition was a master-stroke. There was a mighty cheer for the Chairman, although no one really knew why. Possibly the form felt flattered in being able to recognise the reference.
" Gentlemen," said Barrington, " I have it." He leaned over the desk as if about to communicate some dark secret which he alone was able to reveal. "I have listened with considerable interest "-once again a memory of his father's speeches stood him in good stead-." to the many suggestions, good, bad and indifferent, that have been made here to-day. I now beg to make my own suggestion to you."

There was perfect silence as Barrington continued: " I propose that we combine all the suggestions that have been made here. Someone has asked for a gymnastic show. He shall have it. Someone else has asked for music. He shall have it. Another has asked for a play. He shall have it-at least, a short one." (Barrington was surprised at his own powers of oratory. The repetition was a very effective device, he thought.) "I submit to you, gentlemen, that we must cater for all classes. Let us call the show 'Fourth Form Frolics'; and we'll incorporate all your ideas into one bumper programme."
Barrington's extreme confidence in his own scheme
was infectious, and there was wild applause following his suggestion, which was pronounced the most satisfactory.
"We shall need a chairman for the evening," said Barrington.
" Better have Smithy," called out Forrester.
" Is Mr. Smith seconded?"
He was.
"He hasn't been here very long," added Halstead. " He mightn't care about it."

Actually, Mr. Smith had been at Horlgate only three weeks, and so knew very little of the form of which he had charge.
"You do it yourself, Barrers," called out someone. It was getting late and the day-boys wanted to be off.
"Yes, go on, Barrers ; we'll leave it to you."
"All right, chaps, I'll do my best. You can be sure of that."

And so the meeting broke up.
As the fellows were filing out, Barrington felt a hand on his arm. It was Fortescue, the form vice-captain.
"You did jolly well, old fellow," he whispered; " but you made one big mistake."
"What was that?" asked Barrington in a surprised tone.
"You ought to have told the form to keep the matter mum," rejoined the other. "If the Upper Fourth get to hear of it, the whole thing will be a complete fiasco. You know they try to wreck anything we do."

Barrington was silent for a moment. "What an ass I am!" he confessed. "Why ever didn't I think of it? Couldn't we pass the word round the form somehow that the scheme must be kept dark?"
"Yes, we can do that," replied Fortescue; " but I am afraid the mischief will have been done already."

## CHAPTER II

## BARRINGTON DRAWS UP THE PROGRAMME

BARRINGTON, who had been appointed manager Dand director of the proceedings, interviewed the Headmaster the following day. Dr. Rixon recommended that the concert should be given in the Town Drill Hall, as this would attract the townsfolk rather than in the School Hall. He agreed on the understanding that Mr. Smith had a watching brief over all the items. He lodged one objection, and that was the proposed title " Fourth Form Frolics". The head master pointed out that it was a little undignified for advertisement purposes. Moreover, only the Lower Fourth were frolicking, and in view of the historic inter-form dormitory battle of the previous term, and the consequent feeling between the forms, it was felt that the susceptibilities of the Upper Fourth ought to be respected.

Barrington knew that it would not be difficult to advertise the show or to sell the tickets. The little country town of Horlgate always supported heartily anything in connection with the School. Therefore it was not necessary to begin advertising yet awhile. Neither was it advisable, in view of his suspicion of the Upper Fourth. The advertising would be easy, then, but the drawing up of the programme was a very difficult matter.

Fortescue and Barrington were faced with obstacles at every turn. Fellows who they thought had real talent suddenly had fits of nerves or shyness, and those who had no gift for anything pushed themselves forward most obtrusively.

For instance, there was a shock-headed, angular youth in the form named Handley, who was very anxious to perform on his trumpet. Handley's trumpet had been
a joke for many years at Horlgate. He brought it to School each term and practised his playing very religiously, and then took it home with him for the holidays. He had often been asked if he slept with it.

Barrington was not very anxious to include him in the programme, but Handley was so insistent, and other items seemed so difficult to find, that he had to promise to consider him. "But I ask you!" said Barrington to Fortescue. "A trumpet!"

Bartlett, who was a Scout, had seen a very short sketch done at camp the previous summer called "The Suicide Sextet ". He asked permission for that to be included, although Barrington was not at all sure what it meant.

And then Legge wanted to sing. Legge was a very good fellow at heart, a very earnest chap. His motive in volunteering was good-but his singing was not of the same quality.
"He'll be certain to produce something dreadfully sentimental," groaned Fortescue to Barrington as they pored over a sheaf of concert notes. "He sang a song entitled 'For thee only, Arabella!' or something equally lovey-dovey, at a party we were at last Christmas."
"We must insist that if he is permitted to sing, he sings only sensible stuff," added Barrington.
"Anyway," continued Fortescue, "it's an item, at all events. Let's be thankful for small mercies. How many have you got so far?"
"Handley and Legge-if we have them-make two," replied Barrington. "Bartlett's show is three. Then there's your gymnastic turn with the other three."
"You don't want that," said Fortescue; "it'll be awful."
"No, it won't," said Barrington: " we simply must have it--that makes four."
" Four, then," said Fortescue. "Go on. Any more?"
"Yes." Barrington turned to his notes again. "Arthur and John want to have a boxing match blindfold."
"That ought to be funny," commented Fortescue. Arthur and John Crosier were twins, whose antics and adventures were a never-failing source of amusement to their fellow members in the Lower Fourth, and although they often came in for reproof from the higher authorities in the School, they were laughed at by all.
" And then there is the Henry Craske Quartet," said Barrington.
"Of course," added Fortescue. "I'd forgotten them. I only hope the violin strings don't break, as they did at the House Party!"
"Look here, Barrers, put them on twice. That makes -let me see-seven items. Getting on!"
"Then I thought we might do 'Three Blind Mice, again," said the form captain.

Fortescue agreed. This had been a very successful item at the Form Christmas Party, when the pathetic ballad had been told in the manner of the farmer, the farmer's wife, the B.B.C. announcer informing listeners of the event, the French chef who cooked the tails, and the Army Colonel who ate them. Six members of the form had represented the different characters.
"We want two more. We must have ten items," observed Fortescue. "I know-let's get Ladbroke to tell one of his ghost stories. They aren't bad."
"Good scheme!" returned the other. "We'll do it with effects-wind howling and weird noises. It'll create atmosphere."
" That leaves one more." But at that moment the bell rang for evening prayers. "Quick!" said Barrington. "Give me something to stick down. Will you do somathing else?"
" No, I jolly well won't," retorted Fortescue, as he gathered his books together.
"Well, we must have a tenth item. Shall we put Legge on again ?" asked Barrington.
"For mercy's sake, don't," said Fortescue. "I know," he added, as an inspiration seized him. "Put down for number ten 'Special Item '. We'll think out something good for a finale! "

The second bell rang. On the rough copy of the programme, which was so slowly taking shape, Barrington wrote " No. Io.-Special Item".

With that he dashed downstairs.

## CHAPTER III

## it pays to advertise

$\mathbb{P}$REPARATIONS proceeded apace for the next two weeks. Plans and programme were kept as dark as possible, and Barrington was complimenting himself on his skill in keeping the scheme secret. He was particularly

glad that the Upper Fourth seemed to know nothing about it. At any rate, if they had learnt of the scheme, they showed very little interest in it, for not one of them had mentioned it. The longer they were kept in ignorance, the greater chance had Barrington and his men of success. What a triumph of achievement it would be for the Lower Form when their rivals wandering through the town saw the bills announcing their concert! How jealous they would be, or in the commoner vernacular of the Lower Form-" One in the eye for them."

It was a proud day for Barrington when a rough proof of the advertisement lay in his hand. It was the Saturday half-day.
"Look at this, Forty," he said with pride.
Fortescue read down the bill.

> Horlgate
> Special Concert
> to be held at
> The Drill Hall on
> Saturday, March 6 th at 7 p.m.
> Tickets $: 2 /-$ (Reserved) ; i/6 (Unreserved) Obtainable at the School Proceeds for the School Pavilion Fund
"Jolly good," he said : "that'll fetch 'em. Roll up, people, roll up! By the way, when is it going to be posted up?"
"، On Tuesday," re"On Tuesday,
plied Barrington.

In bold headlines, on a large bill in coloured printing, there appeared the following notice :

Horlgate School<br>Dramatic Performance<br>of<br>"Twelfth Night"<br>Friday, March 5th<br>at the Drill Hall at<br>$7.3^{\circ}$<br>Presented by the Upper IV.<br>Produced by A. R. Ball, Esq., L.R.A.M.<br>Tickets : $\mathrm{r} / 9$ (Reserved) and I/- (Unreserved)<br>Obtainable within or at the School<br>Come and support the School Pavilion Fund

"The twisters!" moaned Barrington. "The very evening before our show!"
"Yes," said Fortescue mournfully. "And look at their prices, too-one and nine and a shilling, when ours are two bob and one and six! And who is A. R. Ball, L.R.A.M., anyway?"
"We're dished old man-absolutely and completely dished. And I thought, fat-head that I was, that they knew nothing about it. What an ass I am! Kick me, Forty! Kick me good and hard!"

But Fortescue was far too miserable to respond to the earnest invitation. He tried to commiserate with his friend.
"What annoys me, Barrers, is this : I think we can claim that our show was intended for the good of the School-for the pavilion, in fact. But their object seems to be just to score one over us. It makes that remark about supporting the School Pavilion Fund on the bottom of the bill a piece of rank, vulgar hypocrisy. They are a low lot and no mistake."
"It will be a job selling the tickets now," said Barrington quietly.
" I'm afraid it will," replied his friend ; " a jolly difficult job."

For a few minutes they walked on silently through the village on their way back to School. It was a cruel and unexpected blow.
"Well," said Fortescue, after some moments. "Any ideas?"
" I don't know about ideas, but I think the best thing to do is to call a form meeting on Monday. We must tell them the news-if they don't already know it-and if each fellow puts his back into it, we'll win through yet."
"You're a toff, Barrers, old man," said Fortescue warmly. "I'll stick by you. Yes, we'll jolly well win through yet!"

There was an air of forlorn abjection as the form
meeting began the following Monday. News of the rival performance, which might capture the audience for which they were angling, had considerably damped the enthusiasm which had been running high for some time. Some even suggested cancelling the concert, but the hall was booked, and in any case, as Barrington was careful to point out, while the Pavilion Fund was the chief issue, the dignity of the form was also to be considered.
"We must go on with it, chaps," he said.
"That's all very well," cried out Seth-Smith, " but shall we get anyone to turn up? Their seats are cheaper! They have got that L.R.A.M. chap on the bills, too. It's a low game, altogether !"
"I know all about that," retorted Barrington; " and if anyone will look a complete greenhorn if we fail, it's the chap who is managing the show. I've got more to lose than anyone, so you fellows ought not to whine."

At this point Fortescue jumped up. He was prompted not only by loyalty to his form, but also by affection for his great friend. He always spoke in a conversational manner, very different from the heavier rhetoric of Barrington.
" Look here, chaps, this won't do ; we must stop grousing and get on with the job. If you get a hit below the belt in the gym, you don't howl and ask for a win on a foul. You bite your lip and go through with it. And that is what we must do-go through with it." The murmur of applause encouraged Forty to warm up.
"Moreover, Barrington has already put a tremendous amount of work into the show." ("No, no," from Barrington.) "I say " yes '," reiterated Fortescue. "And we must back him. If the opposition is stiff, our methods must be more thorough. I suggest that we form a ticket sub-committee, who will devise ways and means for the sale of tickets in the town. We must leave no stone unturned in advertising the show. Every seat in the hall must be filled. Some of us have to go on the boards -we'll do our bits. Some of you haven't anything to do, so what about hawking tickets !"

Fortescue looked round, and was gratified to discover that he was carrying his audience with him. "I should like to propose," he continued, " that Abel-White, Wright, Harrold, and Dalton form a ticket sub-committee."

Dutton rose to second the motion, and it was carried enthusiastically.

The meeting dispersed in a much happier and more confident frame than it had met. They felt they were getting somewhere. They already visualised a crowded hall with every ticket sold. They heard the clapping from the delighted spectators and the words of praise and thanks from the Headmaster; they saw the crestfallen faces of their rivals who had tried to outmanœuvre them, and who had been completely overshadowed by their successful performance. It was coming all right, optimism reigned; and as the meeting broke up, merry peals of laughter echoed once more down the corridors of Horlgate School.

## CHAPTER IV

" THE ILL WIND-"

$I^{N}$N all the many problems that presented themselves in the next few days, Barrington and Fortescue always had one very good friend. As soon as he had heard of the projected concert Mr. Smith had said to Barrington : "A jolly good idea! I'll help you all I can." He kept to his word. He came to rehearsals and gave a word of advice in the production of the sketches; he made suggestions concerning the sale of tickets. Not only that, his bright, happy manner always cheered Barrington,
who was inclined to get downcast if anything went wrong. The concert was now only six days ahead, and Barrington and Forty were drawing up a programme in manuscrupt ready for the printer, Suddenly Forty cried out in dismay: "I say, Barrers, we've forgotten the Special Item that was. to go last."
"Oh, my hat!" groaned the other; "so we have. Whatever can we do?"
"Leave it out altogether," suggested Forty.
"No, we can't do that," retorted his friend. "The programme wouldn't be long enough. 'Sides, you couldn't have just nine items. It would look so dreadfully odd. No, that won't do, Forty, old man ; we shall have to give the grey matter another stir."
"I suppose we must," sighed Fortescue. "It seems to me I've done nothing but think and think and think these last few weeks. I'm getting a bit tired of it."

At that moment Seth-Smith entered the room. He was hot and flushed and still wearing his cycle clips, having flung his bicycle down in the quad before rushing into the School.
"Heard the latest, you fellows?"
"No," said the other two together. "What is it ?"
" Guess!" tantalised Seth-Smith.
"Oh, I don't know," drawled Fortescue.
"Half-holiday?" said Barrington hopefully.
"Not likely-wish it was," answered Seth-Smith. "Try again."
"Anything to do with the concert?" queried Fortescue.
" Yes."
"The Drill Hall burnt down?"
"Not so bad as that," laughed Seth-Smith.
"Come on! Let's have it," said Barrington rather sharply.

And then Seth-Smith looked serious.
"I've just come from the town," he said very slowly and deliberately, "and what do you think I saw? Across every one of our bills there's pasted a strip with the word 'CANCELLED' printed on it."

Barrington fell back in his chair and gasped. "Well, well, I-" He did not, he just could not, finish his sentence. "Oh, chaps!" he said, " I throw the towel in. This is a bit too much."
"Who has done it, d'ye think ?" asked Seth-Smith.!
"Who's done it!" mocked Fortescue. "I can't possibly guess. Oh no! we don't know who's done it. You don't think it's our good, kind, sporting friends in Four Upper, do you? Oh no! they wouldn't do such a wicked thing. Of course not." He rather enjoyed himself in this heavy sarcastic vein, but he soon returned to more direct language. "The twisters! The wretched twisters ! Of course, it's Lumley, Burrage, and all that crowd."
" The cunning of the whole thing is this," continued Seth-Smith: "I examined the strips very carefully. They haven't been printed by Ashby, or by any printer for that matter. If that was the case, we could easily find out who had done it, and then they'd catch it. But they were too wily for that. It's been done in Indian ink by themselves. You could never attach blame to anyone."
"What are we going to do about it ?" asked Fortescue in a rather hopeless tone.
" I think we ought to go to the Head," answered SethSmith, " and tell him how dirtily they've treated us all through."

Suddenly Barrington, who had been leaning back on his chair, with his hands clasped behind his head, shot forward and then stood up.
"Forty" he said in the same stern tone that all the form cricket team knew, "run and fetch those Crosier chaps-they can draw well. Tell 'em to come here and bring their writing-gear with them. Seth, run along to Smithy and ask him for some sheets of stiff drawingpaper, and the paste. Tell him it's for the concert. Don't tell a soul else what's happened."

In a few moments all Barrington's requirements were in the room-paper, ink, paste and the twins.
" Forty, cut out ten strips of paper, two feet six by six inches. You do the same, Seth-Smith."

The two boys fell to work with a great zest.
"Now, twins, you've got to work quickly. No fancy stuff, mind, but write this in clear print."

Barrington took a pen and wrote in a rather uncertain hand :

## " TICKETS

## GRIN !

FRIN, you little sportsman, grin !
Trough you've only been a fleeting second in. Just look up from the ground
Where your stumps are scattered round-
Look up and face the music with a grin!
Grin, you little plodder, grin!
How hopefully you gave your papers in !
But you're midway down the list-
Well, give your face a twist,
And mask your disappointment with a grin !
Grin, you little sticker, grin !
Though your pluck and nerve is wearing rather thin.
When the arc-lights dance above
Through a haze of boxing-glove,
Take your licking like a sportsman--with a grin :
Grin, old scout, try to grin !
Though you can't let on about the stew you're in.
Though you're battered and near broke,
You consume your trouble's smoke,
And there's Someone notes you've done it with a grin.

## OBTAINABLE AT DOOR."

" There you are," he said, " only yours will be better than that. Every one of those 'CANCELLED' notices must be covered up in under an hour. Now, spring to it. I'm going to commandeer some more help."
At that moment there was a knock and Mr. Smith looked in.
" Everything going all right, Barrington!"
"Er-yes, fairly well, I think," replied the form captain.
"You look pretty busy," said the master, surveying the scene of industry before him. "Can I do anything for you? I'm running into Horlgate in a few minutes. Come with me if you would like a lift."
"Thanks, sir," replied Barrington. "As a matter of fact, I do want to go to Horlgate, but not for half an hour or so, if that is convenient."
"All right-no longer, mind," said Mr. Smith as he was going out.
"Do you mind if Seth-Smith and Fortescue come, too ?" called out Barrington, rushing to the door.
"Oh no, bring the whole form!" replied Mr. Smith. " There's plenty of room on the bonnet."
"Half an hour!" said Barrington. "Work like smoke, chaps."
"What a sport old Smithy is!" said Fortescue as he carved away at the drawing-paper.

As the minutes ticked away, there was silence in the room while the five boys worked hard at their task. But soon it was done, and Barrington and Fortescue gathered the notices up quickly and hurried downstairs. SethSmith followed with the paste and paint-brushes.
"Oh, Forty," called out Barrington, as he ran down the stairs, "' will you be a sport and go back for the programme manuscript? We'll drop it into Ashby's as we go by."

In a few moments they were speeding along the Horlgate road to the town. Mr. Smith dropped them at the church, and then the three boys separated. Each of them, armed with a number of printed slips, a brush, and the paste, was under instruction to paste the new slips over the notorious "CANCELLED" notice. There was not a great number of people about, and few noticed the schoolboys at their very unusual task.
" Try again, Uppers," said Barrington to himself as he
plastered the last slip over the offending notice. As the good folk of Horlgate returned home that evening, their attention was drawn to the rather large notices
 pasted diagonally across the School concert bills, which read:" Tickets available at the door." For indeed the countermove of the Lower Fourth had been so prompt that there had not been time enough for the cruel rumour that the concert was cancelled to be spread about.
"They're enthusiastic young fellows, these schoolboys," the townsfolk thought to themselves. "We ought to support the show."

It is indeed an ill wind that blows nobody any good.

## FREAK LOCOMOTIVES

PERHAPS the greatest freak amongst locomotives was one which walked along instead of using driving-wheels. It was an early belief that steam locomotives could not climb even the easiest gradient, because they had smooth wheels running upon smooth rails. This view was supported by many of the first engines, which stuck on the slightest banks. But they also stuck upon the level, for the simple reason that they did not generate enough steam for their needs. Brunton, who made the locomotive with legs, thought he had solved the whole question when he set his machine to work. The cylinders drove a couple of legs which protruded at the rear of the engine, and plunged forked feet into the four-foot. This queer machine was tried, with a moderate amount of success, on some colliery lines, but it was obvious from the first that it would never do for speedy travel. Try to imagine, if you can, the "Flying Scotsman " digging himself along at sixty miles an hour! How the sleepers and ballast would fly!

Amongst the first engines which were delivered for Brunel's broad-gauge Great Western Railway were a pair of locomotives which had their boilers on a separate carriage, right away from the machinery, the idea being that when the boiler needed repair it would be possible to detach that portion of the locomotive, connectr up a spare boiler, and so keep the engine at work. Many people laughed at the idea then, and the new engines were classed as failures, but the idea has been copied in what are called the Garratt type of locomotive, with the important modification of the boiler being suspended between two machinery carriages. One of these freakish locomotives had its driving-wheels geared until they equalled an eighteen-foot diameter! There was always trouble with leaky pipe joints between boiler and cylinders, and though doubtless this would have been overcome in time, the locomotives were withdrawn and set to work as stationary engines.

I am not quite sure whether the Crampton engines should be classed as freakish, since they were very successful in their day, but from the point of view of design and the way they chopped up the poorly laid permanent way of their period they might be included in our list.

The idea Crampton had in mind was to have a large pair of single driving-wheels at the rear of the haystack fire-box. Then there were two, and sometimes three, pairs of small
carrying-wheels distributed along the frames from the smoke-box end to a point just in front of the fire-box.

The haystack fire-box, surmounted with a huge dome, was a rather heavy affair, and its weight was used for adhesion, giving the driving-wheels a good grip. One of the Crampton engines, called the "Namur", was built for a Belgian railway, and before it was sent out the London and North-Western said they would like to give it a trial.

The railwaymen of that day rubbed their eyes in amazement when the "Namur " calmly trotted off with a long train of coaches, forty in number, exactly three times the load given to the strongest engine on that railway. The directors of our then greatest railway promptly ordered the "Liverpool" and the "London", built on the same design as the "Namur". These newcomers did wonders with the trains, but what they saved in that direction they lost in another; in a word, the North-Western soon wanted a new railway-the pounding of those heavily weighted driving-wheels played havoc with the track. The result was that the "premier line" went back to their old steeds.
One of the greatest freaks in locomotiveland was "Fowler's Ghost", an engine which was built for the opening of the first section of London's underground system. Parliament forbade the use of the ordinary steam locomotive, because of the fumes and smuts. The engineer was set a task, and he hoped he had solved it when this curious engine was sent on its trials. The principle adopted was that the locomotive was to be supplied at the end of each trip with boiling water, and big boilers kept ready for the purpose at Paddington and Farringdon Street-points about four miles apart. Whilst the engine was running heat was to be maintained by white-hot bricks, which would also require renewal at the end of each journey.

It was a terrible business, fated for failure, since the poor old " ghost " engine was more often than not completely winded before she reached either terminus. The engine was withdrawn and sold by auction for quite a small sum, a gentleman buying her to add to a collection of old locomotives. Unfortunately, "Fowler's Ghost "was sold again later on and broken up, with several other interesting links with the past.

Daniel Gooch solved the problem of underground engines by fitting some tank locomotives with a condensing apparatus.
"ENGINEER."

## On the Road to- <br> THE <br> STORM-GOD <br> OF SCOTLAND

with "Bywayman."

OUR ride through the Western Highlands had taken longer than we planned, owing to Bill's inability to ride past grub (though Bill blames my stops to burn incense at the shrines of enthralling beauty-pretending that, really, these were only excuses for my lazy bones to dodge some more honest exertion). Our difference of opinion on this point made each of us unwilling to be first to suggest a train lift to make up for the lost time; but $I$ think we both took surreptitious, longing glances at the black line on the map which indicated where the trains from Inverness crossed the Grampians.

We climbed up from the Atlantic, with a pause to watch lumbermen at work in the woods, and another to feel dizzy on a footbridge spanning a deep, narrow gorge through which the River Broom crashed down to the ocean, and then we gained glorious compensation for our climb up the escarpment in a wild RIP along a moorland road that accompanied another river on its way to the North Sea. Then a rainstorm broke, after long threatening, and Bill claimed a halt for tea-in a hut intended to shelter roadmen. There I dangled my bait. With guileful casualnèss, I contrasted our plain " nose-bag" fare, eaten in a rough hut, and our bumpy road (so narrow that one car could not pass another, except at the " bays" provided for the purpose at intervals) with the smooth luxury of a multi-course lunch in a diningcar.
" Then be a man and admit that your weak knees tremble at the thought of the Grampians!" challenged Bill. The ice thus broken, we found it easy to agree that the sands were running low, and that a train lift from Inverness to Dalnaspidal would make up for our lost time, give us a grand downhill swoop of thirty miles or more, and might even bring the far-famed Trossachs within range.

Our decision made, we rode briskly, aided by a scurrying wind abaft the binnacle, as well as by the favouring slope (Oh! the joy of it after those days of facing hostile winds in the lumpy lands of the West !), and by lamplight we reached Beauly and enquired for the house of one Frazer whose beds and table had been recommended.
> "We swept down Glen Ogle in a wild ecstasy of shooting speed; we seemed literally to ride on the wings of the wind -shall we ever forget the aerial thrill of that swooping, whooping fight?"

Bill to finish his last-but-one cup of coffee and made my way down the corridor, ready to get them out as soon as the train stopped. I reached the middle luggage compartment and, unable to go farther, looked through the little window and found, to my horror, that the other coaches were gone! Part of the train had broken away, and I had visions of it careering downhill back to Inverness ! When I found him, the guard seemed very unconcerned. They were slip-coaches, he said, as though coaches that slipped weren't worth bothering about, and when I pointed out that, dud coaches or not, they had two decent bicycles aboard, he didn't seem impressed, but simply said if the bicycles were labelled for Dalnaspidal (looking at me as though he thought it more likely we'd address them to Timbuctoo or Borneo), they'd have been taken out at Aviemore and would be following by the next train. "So we'll have to wait for them at Dalnaspidal ?" I asked. "You'll have to go back there," he replied. "We don't stop at Dalnaspidal." The train, its climb now accomplished, went streaking downgrade, and as Dalnaspidal station reeled past the windows, I hoped the guard was right! Even so, it was vexing to be shut in a roaring, swaying train that bolted into cuttings and whisked the scenery away half seen, when we had planned to ride at ease down the parallel road!

I went back to the dining-car and explained to Bill that we must go on to Blair Atholl or else pay f. 5 for pulling the communication cord (and even then it was doubtful if the engine-driver would be sport enough to go back) : Bill, quick-witted Bill, never-dismayed Bill, ordered more biscuits and cheese.

And they told us at Blair Atholl that there was no train to or from Dalnaspidal for over four hours! So we sat down and worked out how much time and money we'd have saved if we hadn't yielded to the lure of sloth and fleshpots. But the darkest hour (as Homer or somebody said) is just before the dawn, and the dawn of hope came for us when a kind-hearted stationmaster remembered an odd goods train and worked a miracle over the telephone.

## The Stone Warrior-and Trout

Ah! the sense of freedom, with bicycles between our legs and time-tables nowhere, was so delightful that I forwent sight-seeing, even at the famous Pass of Killiecrankie itself, and Bill postponed further eating until tea-time!

We ran through Pitlochry and Ballinluig to where the waters danced at the wedding of Tumme and 'Tay, and then we advanced up the Tay Valley, which ever became more beautiful as we won into the mountains, and at the close of a perfect evening we took up moorings in a school-house with a playground lapped by the waters of Loch Tay.

What a change one night can bring! Next morning we awoke to the wail of wind and the kettle-drumming of rain against glass. We rode beside the loch (rode, said I ?-we fought every inch of the fifteen miles) to Killin. Rain curtains hid the views we desired, but we gained an impression of the Highlands as wild as Nature could contrive it. Short though the distance was, it was more than enough, and we were ready to barter all the scenery for warmth and food. The Scots are hardy folk; only one chimney in Killin smoked. We jumped at the invitation of the board that offered "Teas". But luck was out! We were ushered into a cold "best" parloured
the glimpse we had of the fire-warmed room making it all too clear that any attempt to enter there would be an intrusion on the family's privacy. So we donned dry stockings and endeavoured to counter the chill of the remaining wet garments with the insufficient aid of hot tea. . . .

In desperation, we changed back into the wet stockings and sallied out again, bracing ourselves against hurricane and deluge, but on the bridge both seemed puny compared with the fury of the Dochart in spate. The river came raging down against the stonework, great masses of water, seeming to boil in their turbulence, piled high above parapet level and charged beneath-until one wondered how the piers withstood the shock. There was a reason. The bridge rested on solid rock-a small island in midstream that had withstood many such assaults for ages before the bridge-builders came. There was about that rock, in the midst of the storming waters, some suggestion of serenity which I could not understand until, afterwards, I learned that it had been the burying-place of the Clan MacNab for centuries before the bridge was builtin the days when Scotland was wild and that torrent was a moat to keep their graves inviolate from wolves.

We turned to go, and then we saw, calm amid the turmoil, a stone warrior! Scotland has three War Memorials, each of which in its way stands for something of the Spirit of Scotland. On Edinburgh's Castle Rock the genius of the Nation has caught at the romance of War, the nobility of Sacrifice ; elsewhere a disillusioned man breaks a sword across his knee; but sometimes I think that, viewed simply as a memorial of fact, that


I looked through the little window and found, to my horror, that the other coaches were gone!

Man of Killin, steadfast in the tumult of waters as through the swirl of strife, is the truest portrayal of the Spirit of Scotland as she was-and is.

We shivered, and were aware once again that the tempest smote us hip and thigh. On we struggled until a turn of the road brought the wind more to one side. Then there was a hill to be tackled. On the map it does not look severe, but with a side-buffeting wind to complicate the art of balancing, it became a test of skill and strength as well. We accepted the challenge, heaving at handlebars to force pedals down, poised perilously as we coaxed the cranks past the perpendicular, adding strength to knack to keep on the road at all. One anxious moment came when a great lorry groaned up behind us, and the driver prolonged our danger of being blown under his wheels by slowing to offer us a lift. The noises of storm and engine drowned our voices, but we grinned our thanks and shook our heads, hoping he would understand the spirit which possessed us.

The climb completed, great mountains closed in on the road, affording shelter from side gusts and funnelling the wind to our advantage. We swept down Glen Ogle in a wild ecstasy of shooting speed; we seemed literally to ride on the wings of the wind-shall we ever forget the aerial thrill of that swooping, whooping flight? In what seemed no time at all we whirled over four miles, then the road swung more to the west, and the storm came at us again through that gap in the mountains where lies Loch Voil. The River Balvag had become a lake, Loch Lurnaig overflowed its bounds, tall trees stood in the water and the hurricane wrestled with their boughs. CRASH!
a tree on the hillside yielded a branch, frightened sheep stampeded on to the road from their dangerous shelter; CRACK! a bough right over us came smashing down as we sprinted clear. A low wall hinted at shelter and we scooted for it, shamelessly. The wall was the parapet of a little stone bridge that carried the road over a mountain torrent, and though the water almost filled the width of the tunnel, we found protection of sorts and did the best we could for tattered capes with zinc oxide plaster. Shall we ever forget that tussle with the storm-god of Scotland!

As we waited for the storm to abate, the wind tore a hole in the piled cloud mass, and through the gap we saw, high on the opposite mountain, a waterfall that STEAMED! It took us some time to realise that the wind was blowing spray in a great grey-mare's-tail up the mountainside.

Then the storm-god relented somewhat, and we seized our chance to scamper for Callander.

And in Callander we had to make a fateful choice. Asked what we would eat, Bill, in a moment of inspired optimism, enquired for trout. "Feyther caught ane yesterday and he's awa' fushin' the day, but we dinna ken if he'll be bringin' ony the nicht." "We'll wait until he comes," declared do-or-die Bill, in the firm manner of one who accepts the tremendous issues involved. So we made play with gloriously dry towels and marched down in pyjamas and borrowed overcoats, to dine or to . . .

Fortune favoursthereckless!
"Feyther" had returned, bringing another trout, fit mate for the champion of yesterday.

We raced for the table.

## FOR I'M A JOLLY ROVER

THE rain is beating, beating,
The lanes are thick with mud;
Who will come along with me,
Though fields be deep with flood?
Leave the hearthside for a while,
And hike up to the wood,
And slosh along for many a mile,
To find the old world good.
For I'm a jolly rover,
So fit and gay and true O!
Before the good old day is done
I've lots o' things to do O!
The sun is shining, shining,
O'er heath and lonely lane;
Who will come along with me,
Round all and back again?
Hitch the rucksack on your back,
Wading gorse and ditch in,
And over many a woodland track
All green with moss and lichen!
For I'm a jolly rover, So hard and strong and free O!
Before the sun has gone to rest
I've lots o' things to see O!

The stars are twinkling, twinkling,
The wind is cold and chill ;
Who will come along with me, To climb up yonder hill?
To hear the rumble of the sea, Sight harbour lights afar,
And thank the Master silently
For joys no man can mar.
For I'm a jolly rover,
To walk, and run, and leap O !
When the day has done its run
I rest content and deep O !
Things are trying, trying,
The world is bare and lone;
Who will come along with me,
That together we may roam?
I know the happy trails that lead
To things that are worth while-
A friendly word, a kindly deed,
A great, big, cheery smile!
For I'm a jolly rover,
One of a glorious band O !
It is my job each mile I go
To give a helping hand O .

# A De-Luxe Mouse Cage 

By<br>A. C. DENNIS, B.Sc.

MOST of the cages we see offered for sale in the shops are quite small, and although mice are such tiny animals, they greatly appreciate a roomy cage, for they are extremely active creatures. Let us then set to work to make a really attractive cage which would induce a wild mouse to consider the advisability of living in captivity.

In the first place a stout wooden box, about 16 in. by 12 in ., and 5 in . deep, is more suitable than three-ply boards, as mice have very sharp teeth and are apt to keep them so by gnawing their cages. If the box has a lid, so much the better, if not, some of the three-ply wood I have just scorned would be useful. A piece of three-ply 24 in . by 12 in . will be sufficient to make the closed piece of the cage, the upright partition, the shelf, the two end circles for the wheel and some strips for a ladder. In addition, four dozen cycle spokes will provide strong cage and wheel bars, while a few nails will be needed unless you can extract those from the bottom of the box very carefully, as this has to be later fitted with hinges instead. It may be found advisable to fasten the cage bars to the edge of the shelf, as well as at the top and bottom, and in this case a strip of tin should be laid across over the bars and fastened to the shelf by means of tacks driven through the tin and between the spokes. The strip of tin can easily be obtained by cutting it from an old cocoa- or biscuit-tin.

Now for the fun of construction. We begin with an act of destruction! Carefully take off the bottom of the box. Then from the lid, or from the piece of three-ply, cut two strips, one 10 in . by 5 in . for the shelf, and the other 12 in. by 5 in. for the upright partition. From this latter strip cut the two holes for doorways about one inch square, one right at the bottom, the other half-way up the partition. The latter hole will have to be cut with a fretsaw if placed in the centre of the strip, but it may equally well be placed to the edge, as the mice will probably be just as happy entering the top floor from the back edge as from the middle. The upright can now be nailed in place 6 in . from the right end of the box (see sketch), and the shelf may be fastened into place half-way up.


The fate of a mouse who scorned to use the cage de-luxe.


Diagram of Cage with front bars and end-piece omitted.
While the box is still open at both sides, it is as well to get the wheel made and fixed. For this will be needed two circles of wood 4 in . in diameter. In one of these pierce sixteen holes through which the half-spokes may be inserted, and also bore a hole through the centre of each disk. The sixteen half-spokes can be pushed through the holes round the pierced disk and gently hammered into the other disk. Care must be taken over this job, because if the spokes are put in crookedly, they will jump out again as others are being driven in. Now a full-length spoke must be driven through the partition wall half-way up the top floor, and, passing through the centre holes of each disk, must be driven into the centre of the outer wall of the top floor. The ends of the spoke, if protruding, should be bent inwards. It will be found that the wheel will spin quite freely on this spoke.

A piece of wood 6 in . by i2 in. is now required to close the end section of the cage in front, and the thirty nine spokes, full length, can be driven in the rest of the front to form the bars. It will be found a simple method to bend the ends of the spokes, the correct width apart to fit the box, at right angles to the rest of the spoke before driving them in. Mark, too, beforehand, the places at the top and bottom of the cage edges where the spokes are to be driven in, a quarter-inch apart. This will ensure the even spacing of the bars and make the cage look more "finished".

A ladder may now be made and placed in the cage to lean against the entrance to the top floor. However, although a mouse may use this for a little exercise, he will probably jump into the upper room and ignore it. Still, he may condescend to use it as a tooth file ; my mouse does.
The back of the cage, the bottom of the box, should now be fitted on with two hinges at the top. If necessary, the hinges may be sunk into the top of the cage. Then the hook is fastened to the side of the cage and the corresponding eye should be fastened on the edge of the back to fit. The whole cage may be made smooth with sandpaper and then painted or stained. The large door made by the hinged back enables one to clean the cage with ease. It also allows one's pets free egress from all parts when they are sufficiently tame for the cage to be left open occasionally. Well, good luck with the construction of your cages and remember to look at the diagram if in doubt at any point.

# DEEP-SEA DISCIPLINE 

## by GERALD NORMAN-JONES

C${ }^{1} H R I S$ LANGFORD straightened his sturdy frame with a sigh of pride as he finished signing his name as second mate of the bark Silver Spray. "Some day," he said inwardly, "I'll be captain, and signing on my own officers." His pleasant day-dream was rudely shattered by a snort of contempt from Captain Newton.
" So this is your first trip as an officer, eh ? Well, second mates learn their jobs in my ship or "-he paused and screwed up his beady eyes in a fierce glare-" I break them."
Langford's conceit receive a jolt from the captain's speech, but by the time he had reached the ship in the Salthouse dock his spirits had risen again, and he boarded the Silver Spray with a friendly smile in his eyes.
Parker, the first mate, met him with a scowl. "Who're you ?" he snapped out, as his seaman's eyes scanned the youth before him.
"I'm the new second mate. My name's Langford!"
"Yes ; you look new all right," was the churlish reply. "Well, shift your fancy togs and get busy. There's plenty of work getting this hooker ready for a 'Frisco voyage."

Langford quickly changed into working-rig and joined the apprentices who were busily engaged reeving off running-gear and bending sail. He was proud of his rank and eager to get away to sea, where he would have full charge of the starboard watch. He felt that he could handle the men firmly, enforcing a rigid but just discipline.

The following morning the foremast hands came rolling aboard, a strange mixture of men from the Liverpool boarding-houses. The first mate drove them forward to the forecastle with curses, occasionally helping one of them along with fist and boot.

An hour later, when the tug-boat was fussing alongside, Parker went forward and drummed the men out again. "In future that'll be your job, mister," he said to Langford, " and don't forget that the last man out on deck gets the boot!"
"Surely that isn't necessary?" ventured the second mate protestingly. "Men can be handied without the use of force."
"You'll do as you're told," blazed the first mate. " You'll drive the men and treat 'em rough, or they'li ride you-and mighty quick, too!'"

Langford went aft troubled in mind, for he realised that he was in one of those notorious ships where brutality passed for discipline. From the poop he could see Parker driving the men; he was shouting and cursing loudly, and suddenly he struck a sallow-faced foreigner across the mouth.


He grabbed Joe in his powerful young arms, and lifting him high over his head, hove him over the rail into the calm water alongside.

The sailor, goaded into fury by the unprovoked attack, drew out a long curved sheath-knife and raised it threateningly, but the mate with a quick movement whipped a belaying-pin out of the rail and struck the man down with a blow on the head.
Captain Newton, who stood on the poop, broke into a peal of laughter as he saw the incident. His pointed beard waggled as he laughed and his thin lips curled cruelly. But Langford felt sickened and wrathful as he saw the man rise from the deck with a streak of blood running down his face. The second mate's expression showed his feelings.
"That's not discipline: it's just dirty brutality!" he broke out fiercely.
"You think so, do you?" drawled Captain Newton. "You're scared, are you? Don't believe in driving men, eh ? Well, you're going to learn to drive them in this ship, and if you can't, then I'll send you forward to join your pleasant friends."
The men working under the second mate's orders grinned as they heard the captain berating the officer. They enjoyed seeing one of the mates being dressed down by the "Old Man". They watched Langford's face eagerly.
"He's scared stiff!" whispered one of the men gleefully. "Look at his face!"

Later on, when these men went forward, they told their shipmates about Langford.
" The Old Man talked to him like a dog, 'e did, and
the second took it and said nuthin'. Reckon 'e'll be an easy mark, what! '" said one of them.

## Langford Sees Red

Chris Langford went below at the end of his first watch as an officer puzzled and troubled. Throughout the watch on deck the captain had never addressed him except to bark out orders. Reviewing the events of the day, he realised that the captain and first mate were antagonistic because he showed his dislike of their methods of enforcing discipline, but nothing would induce him to adopt their methods. He would carry out his duties faithfully, and he would treat the men in his watch firmly but justly.

The ship was now out at sea, making southing under sail, and days followed days, until life ashore seemed to be something in the remote past. The ship was a little world, where men lived and worked, quarrelled and chummed up together, and kept their watches under the watchful eyes of the mates.

Langford handled his men quietly, but he knew instinctively that they looked upon him as being weak. The men in the port watch were livelier, and before the first mate's cursing, driving and bullying, they raced aloft to their tasks. On the other hand, the starboard watch were deliberate in their movements, and when the second mate called them they came leisurely, and looked at him with impudent eyes.

Down into the fine weather of the tropics drove the ship, down to where the sea slept beneath a brazen sun, and where tempers grew raw with the heat and passions surged in unruly breasts.

The captain snarled at the mates and sneered openly at the second. "You're a regular mamma's baby," he said scornfully to him. "Why the heck don't you curse your men and drive them like a real mate sometimes; they'd take notice of you then."

Mexican Joe, the man whom the first mate had struck on sailing-day, heard the captain's speech and retold it to the remainder of the men.
"Second mate, he soft fellow," he said. "Watch me. I make heem beeg fool one time, yes !"

When the starboard watch was clewing up some light sail Langford called to the men cheerfully. "Haul, my hearties," he cried. "Haul and sing a song!" But a gloomy silence met his endeavours to rouse the men's spirits, and when the task was over he heard them growling.
" That fellow he make work for us. He just the same slave-driver," muttered the Mexican, casting a look of hatred at the officer, who pretended not to hear the remarks.

Suppressing every rising passion and outwardly calm and unruffled, inwardly he writhed bitterly under the captain's sneers and the veiled insolence of the men.

One close, calm evening when the men were hauling on the fore-braces he crossed the deck to give them a hand. As he passed along the line of seamen strung out along the rope someone thrust out a foot and Langford went down with a crash to the deck. He picked himself up amid sniggers from the men, sniggers which grew into a burst of laughter at his discomfiture, and his blood raced madly in his veins as he heard it.
"Who was the clumsy ass who did that ?" he asked them fiercely.

For a moment there was no reply. Then Mexican Joe said cheekily :
" You wanta know, meester ? Well, I tell you, It was da Liverpool feller what wears da hard hat!"

This reply sent the watch into roars of renewed laughter, and Langford stood baffled and defeated. Then an unreasoning and blind rage seized him, and he grabbed Joe in his powerful young arms, and lifting him above his head, hove him over the rail into the calm water alongside.

Langford's momentary storm of madness passed instantly, and he jumped on to the pin-rail with a rope in his hands, ready to throw to the Mexican, but the latter, when he came to the surface and saw that the ship was motionless on the windless sea, forgot his fright and began to skylark.
"Don't waita for me!" he called to his watchmates, "I sweem ashore!"-and he laughingly waved his hand as he struck out from the ship's side.
"Come back, man!" Langford shouted, as his keen eyes detected a triangular fin cutting swiftly through the still water. "Come back! There's a shark!"

The swimmer took no heed of the shout, but looked back over his shoulder with a grin; then he saw the horror-stricken faces of his shipmates, and screamed with terror as he turned and saw the wicked-looking fin a bare fifty feet away. He turned towards the ship and made clumsy, fear-impeded efforts to regain the ship's side, and he gulped the salt water as he yelled for help. He was sinking when the second mate hit the water with a splash.

The splash frightened the shark, and Langford assisted the Mexican to the ship's side, where ready hands held out ropes to them, and in a few moments both men were back on board.

Captain Newton came out on to the poop as the incident ended, but he saw, to his amazement, the second mate climbing aboard over the rail. He called his officer aft at once.

He surveyed the dripping youth with a surprised sneer on his lips as he enquired derisively: "What the heck's this funny act, mister? Are you playing Neptune for the men?"
" I had trouble with the hands, sir. Someone tripped me up ; then Mexican Joe cheeked me, and I threw him overboard in my temper," explained Langford sheepishly.
"Threw . . . a . . . man . . . overboard ?" retorted the captain. "Tried to murder him, did you ?--because he cheeked you! You must be crazy. But what were you doing over the side?"
"I went in to help him back. He was in trouble, that's all!"
"'That's all, is it, mister ? Not by a heck of a lot it isn't!" snapped the Old Man scathingly. "You won't drive the men, and you're afraid to touch them; you believe in discipline by kindness, so you prove it by throwing a man overboard. Pah! I'm tired of you." And he turned to one of the apprentices and said: "Call all hands aft, and tell Mr. Parker I want him."

As he stood on the poop, the water dripping from his clothes, Langford reviewed the events of the preceding few minutes. Bitterly he regretted his loss of self-control and the mad burst of foolish rage. He shuddered as he recalled the ugly, cleaving fin parting the water as the shark made for Mexican Joe.

When all hands had gathered aft the captain addressed Langford so that every man could hear him. "Mister, I never take sides with the men," he said, glaring at the seamen. "Beat 'em, work 'em, and haze 'em-it keeps them out of mischief; but I draw the line at murder."

He paused and surveyed the crestfallen officer with a look of contempt, then turned to the men grouped below
at the break of the poop. "What have you dogs to say?" he asked them.
"He t'row me into da beeg sea," Mexican Joe replied, casting a look of hatred at Langford. "He try to keel me, and da shark he nearly get me! Speaka ma mates!"
" That's the unvarnished truth, sir," chimed in another man. "The second mate's dangerous -that's what he is."

But he went in after the Mexican, didn't he?" questioned the captain.
"No, he didn't," lied the last speaker. "I was just goin' to jump in when I see the shark comin' for Joe, but I slipped against the second mate and he fell in the sea. He didn't jump in!"
The rest of the men agreed with this lying account, and one of them added insolently: " And we ain't going to work for the second again. He's no good. So you can help yourself to that!"
"Go forward, you lubberly rascals !" shouted Captain Newton furiously. "And you can pack up and go with them," he barked at Langford. "I told you I'd stand for no nonsense, so you're disrated to an able seaman."
The seamen hurried away, jabbering excitedly, but Langford stood looking at the captain and first mate in blank surprise. "Do you mean that, sir?" he asked at last.
"You understand English, don't you ? " hissed Parker. " Then get forward before I boot you off the poop."
Langford turned away with a sigh and went below to pack his clothes. While he was doing so Star, the eldest apprentice, came to the cabin door.
"I'm fearfully sorry about this affair, Langford," he said sincerely. "I've just been ordered to take over your job. It's beastly rotten and unfair, but what can I do ?" he added apologetically.
Langford clasped Star's hand firmly, and the two English boys stood face to face.
"You can do something, Star," the former said. "You're taking over my job : try to do better with it than I have, but don't let Parker or the captain influence you in your handling of the men. Treat them fairly and don't bully. That's all."
Langford felt better after that, and he went forward to become a forecastle hand in the port watch with less resentment, because he believed that Star would try to carry out his ideas of discipline.

## Langford Uses His Fists

The men were waiting for their late second mate and they started to try and make him unhappy at once. "You not a mate now. You just a sailor laka me," jeered Mexican Joe. "You have a plenty tough time now. You do lika we say to you."

Langford realised that with the exception of Star he had not a single friend in the ship, and he knew that he would never recover his lost rank on board the Silver Spray. His mad action in throwing the Mexican overboard had condemned him, and had given the captain the opportunity to debase him for which he had sought.
In the days that followed he suffered mental agony, for the men with whom
he lived took advantage of his adversity to humiliate him further, while the first mate cursed and bullied him at every opportunity.

In spite of this treatment he was determined that he would yet prove that his ideas about discipline were right, and eventually the captain and first mate would see that tyranny, brutality and violence were poor substitutes for considerate control.
Then gradually, as the weeks passed, he won over the men's respect. During the time that he had lived forward he had been baited and imposed upon, and he had shown no sign of resentment, but inwardly he was debating the best way of winning over his shipmates. To show anger would have been fatal, but still he did not intend to remain passive much longer.
At four bells one dogwatch, after the men had eaten their meagre supper of weevily biscuits, cracker hash and acrid tea, Langford seated himself on his sea-chest and lighted his pipe. He had scarcely done so when a man called Battling Harry, because he bore the reputation of being a fighter, snatched the pipe from Langford's lips with a coarse oath.
"You'll smoke when you've taken the hash trays back to the galley! '" he snarled.
His action provoked a roar of laughter; but it died down as the victim rose to his feet, for in his steely eyes was a fierceness that silenced his tormentors.
He took a step forward and gripped Battling Harry by his coat lapels. By sheer muscular strength he lifted his assailant to his feet. Then stood back.
" Come on ; I've had enough of this!" he said grimly, and Harry saw that he had roused a storm. But he

was prepared to fight, and for a few minutes there was a battle worthy of the professional boxing-ring. However, Langford's youth and healthy constitution, together with a boxing skill unusual on board ship, were too much for the older sailor, for as he dropped his guard for one instant Langford scored with a right swing to the chin which ended the fight.

There was silence as Langford stood back watching his opponent rise from the deck. Then Harry said: " Put it there, son. You're the right sort. I guess that we've known it all along, for you always treated the hands properly."

Langford felt an inward glow of satisfaction as he shook hands with Battling Harry, for he knew that he had won something more than a fight with fists; he had won a fight for principles.

Parker, who was always bullying someone, made Mexican Joe, who had been transferred to the port watch, his favourite butt. He struck Joe across the face the night after Langford and Harry had fought, and because that fight had altered the men's attitude, Langford decided that the time had arrived when the mate's brutality must end.
"You must back me up, lads," he told his watchmates. " For the next time Parker tries his rough stuff I'm going to fight him, and I'll want you to see that I get fair play."

There was silence for a moment, for the men were accustomed to accept authority, even though backed by cruelty, and they were afraid of the first mate. As a body they were nervous when faced with the power of the captains and officers, though justice was on their side. These first-class seamen, fierce fighters who feared no natural danger, cringed before bullying mates. Only once in a while did men at sea, led by some wild leader, mutiny against tyranny and commit murder, black and ghastly.

Langford, with the instincts and training of an officer, wanted to settle affairs in the Silver Spray before they reached that desperate pass, and realised that upon his actions rested the future happiness of the ship's company.

His opportunity arrived quickly, for when the port watch came on deck at four o'clock the next morning -that dismal time of day when the spirit is at its lowesta black-tempered, bitter man drove them to work. Parker swore at them and picked out individuals for personal attention, then he refused to allow the men to get their coffee at three bells, but kept them hauling on the braces.

Langford tackled the mate by saying respectfully: "The men want their coffee before they begin any more jobs, sir!"

For reply Parker made a swinging blow at the speaker, but the latter side-stepped and the blow missed by feet. Parker foamed with rage and drew a belaying-pin from the rail.
"I'll kill you, you worm!" he roared as he made for Langford, but two seamen held him off.
" No, meester, you fight fair . . . and when Langford feenished with you, you feenished knocking da good mens about," said Joe, as he wrenched the belaying-pin out of the mate's hand.

Surrounded by the men, Parker realised that he was cornered ; but he didn't lack courage, so he threw his coat aside with an oath and said :
" Come on, you bantam cock. I'm going to smash you up now, and then I'll put the fear of death into the heart of every man forward."

His threat drew a low menacing murmur from the men,
and Mexican Joe said savagely: "Let me fight heem ; I keel heem for ever."
"Stand back, shipmates; this is my show," Langford said grimly as he faced the mate.

It was his show, too, for after twenty minutes of fierce fighting Parker suddenly collapsed and fell to the deck, a badly beaten man.

The noise of the men's shouts brought out all hands, and Captain Newton and Star were on the poop.
"It's mutiny, by Gad !" screamed the captain. "Stop them, Mister Star."

But Star's approach was watched, and a quiet voice said to him: "Best not interfere, mister"-and Star, nothing loath, retreated.

It was Langford who assisted the beaten officer to rise to his feet, but Parker pushed him aside as he staggered aft.
"I'll have you imprisoned for this when we make 'Frisco," he muttered savagely.
" I don't think there'll be any more bucko business this voyage," said Langford to his watchmates later on.
" You betta there won't. We see to that-now we know da mate can't lick every mans," chuckled the Mexican.

During the morning the captain sent for Langford, and he went aft, accompanied by the whole watch.
" My man," said the captain threateningly, " I'm going to turn you over to the police when we reach port. I've made an entry in the log charging you with mutiny and attempted murder."

Mexican Joe sprang forward with blazing eyes.
" Langford not try to murder me," he declared. "He save me when da shark come. Before, we tell beeg lies because we think da second officer very much fool. Now da mens know he is da best man in the sheep!"

This speech met with a growl of approval, and Captain Newton looked surprised and baffled as he dismissed the men without further remarks.

## The Fever Ship

The Silver Spray raced south to the Horn, and after a long tussle with wild west gales and high seas, she rounded that lonely cape and ran north-west into the Pacific.

From the morning of Langford's conquest over the first mate conditions in the ship improved. Parker still worked the men hard, but he ceased to bully them, and under Langford's advice the men worked willingly and smartly. It was evident that the ship was better for the change, and Captain Newton said to the two mates:
"Say, this crowd do surely move. It's years since I saw men handle sail with such smartness. Perhaps, misters," he piped, screwing up his beady eyes, "that hazing stuff wasn't so hot!"

Reluctantly Parker admitted that the port watch was extra smart, and that Langford was the smartest of all, and Star saw to it that Langford learnt of the mate's opinion.

When the Silver Spray was near the Equator a large full-rigged ship was sighted on the port bow, and as the distance between the ships grew less, it was evident that there was something amiss, for the stranger's upper sails were furled and her yards were cockbilled, while from her gaff streamed out a string of signal flags.

Star read the flags with the telescope, while the captain read their meaning from the signal-book.
"I require assistance. Have fever on board," he decoded.
"Back the main yards," cried Captain Newton, and
in a few minutes the Silver Spray lay idling in the wind half a mile from the stranger.

Almost immediately a boat left her side and pulled towards the Silver Spray. When twenty yards off the men in the boat rested on their oars. They were three gaunt spectres of men who hailed the ship and shouted their story of suffering.
" That's the Balmore, of Newcastle," one said, pointing to their ship. "We sailed from Panama a month back, and fever broke out after we sailed. We've been becalmed for three weeks, and seven of our crew have died. Five more, including the captain, are lying sick. We need someone to navigate the ship and a couple of hands to help work her."

With anxious, lack-lustre eyes they scanned the faces which lined the ship's rail, waiting for an answer to their plea. Almost without hesitation Langford called to them: "I'll come with you, lads!"
" Do you know the risks of yellow fever, man?" demanded Captain Newton, who stood looking down on the poop deck.

Langford nodded. "Yes I do," he said; " but I'm going just the same."
"Then I go weeth you, Langford," broke in Mexican

Joe. "And you can count me in, too," chimed in Battling Harry, and he followed Langford and Joe to the forecastle, where they packed up some clothes.

In a few fninutes the three volunteers were ready, but before the Balmore's boat came alongside Captain Newton called them aft.
" You fellows are taking big risks, but we can't refuse to help those people," he said. "I'm proud of you chaps, and I'll not forget you. When you reach port come straight up to San Francisco. I'll need you, Langford, as second mate again. Good luck, lads!" he squeaked.

Langford flushed with happiness as he went to the ship's rail and threw his sea-bag into the waiting boat which had come alongside, and as he climbed on to the t'gallant rail, Parker thrust his way towards him.
"Guess you and me had better shake," he said gruffly. " You're a white man, all right."

The crew of the Silver Spray cheered their shipmates as they dropped into the boat, and as the boat shoved off Langford looked up into a group of friendly faces.
" Perhaps," he murmured to himself, as he turned and looked at the fever ship rolling gently in the long Pacific swell, "I wasn't quite a failure, after all."

ONE of the great problems in modern physics is that of the origin and character of the cosmic rays. These rays were first detected about the beginning of the present century. It was observed that when a gas was enclosed in a hollow steel sphere it became " ionised"; that is, the atoms of the gas lost some of their electrons, an effect apparently produced by some penetrating rays. Further experiment showed that much of this radiation came from the earth, from radium and radioactive materials, which are generally present in the earth's crust.

By surrounding the steel sphere with a thick shell of lead it was found possible to exclude the radium rays altogether. Yet the internal gas still became ionised. Thus it was evident that rays of a far greater penetrating power, and of much greater energy than those from known sources, were existent, for they passed through the sheathed sphere as if it were absent.

It is difficult to find out anything very definite about these rays, because they do not affect a photographic plate, and they are elusive in many other ways. But one can study their properties in various ways. For instance, their energy must be tremendous, since they are capable of destroying the molecules of the air by the impact of collision; and it is this explosion that we detect by its electrical effects.

It is believed by some that the cosmic rays are a form of electromagnetic radiation of extremely short wave-length and of very high frequency, and that it is this property that endows them with such enormous penetrating power. Other views are that they may be very rapidly moving electrons or protons, or positive charges of electricity.


GONDUGTED BY C. J. McNAUGHT
impede the movements at sea-level would much rays, because their momentum would be gradually absorbed by continuous collisions with the air molecules.

About half the mass of the atmosphere lies below the summit of Mont Blanc. So many investigations and experiments were made at great mountain heights. It was considered generally more convenient to work on terra firma at comparative leisure than to use a balloon. But the modern stratosphere balloon can reach ever so much greater elevations than are available on mountains. They can rise to over ten miles, and many useful observations have been taken from the gondolas, which fairly bristle with all kinds of wonderful automatic detecting instruments. But these flights are necessarily rare and expensive and very risky in every way.

Perhaps one day we may make some use of the tremendous energy of these rays. We all have some idea of the molecular energy of coal-how one ton of coal can run a 500 -ton express train for many miles. This same energy could be contained, in cosmic-ray terms, in the weight of a cigarette-a million-to-one comparison.

Or again, if we can induce the cosmic rays to transmute the elements, and then usefully let loose the atomic energy, there would then be sufficient power available to run a liner across the Atlantic on a fraction of an ounce of material.


A five-foot span model Petrol Biplane. (Reproduced from "Petrol-Engined Model Aeroplanes', by kind permission of the Author).

CONTACT! The motor roars, falters, and roars again. The grass is flattened by the gale from the propeller. I give her a little more throttle. Condor bumps away across the aerodrome into the wind. The tail lifts. She moves faster; the wheels race across the ground. She bounces once, twice, and is off. I watch her climb steadily in wide circles up into the blue.

Condor is one of the new petrol-engined model aeroplanes-the model aeroplanes of to-morrow. They have already made some wizard flights. Not long ago one have already made some wizard flights
of them flew thirty-five miles from Cranbourne to the Isle of Wight!

I watch Condor circling two or three hundred feet above my head. She looks, and sounds, very much like a full-size machine at a thousand feet. Presently the small clock-work switch which she carries cuts off the ignition. The motor stops. She glides silently and steadily down. In a minute or so her wheelsslick through the grass. With a bump or two she is back on the aerodrome again.

Let us take a look at her before we have another flight. She is a monoplane, very much like the one in the photograph on the right. Her wing-span is 7 ft . "Span", as you probably know, is the measurement from wing-tip to wing-tip. She weighs 6 lb .

The tiny petrol motor is, no doubt, the first thing you will want to examine. You can see its details best in the illustration of the motor mounted by itself on blocks of wood for testing. It is very much like a motor-cycle engine, except that it is only 5 in. high. It works on the two-stroke principle, drives a $15-\mathrm{in}$. propeller, and actually develops one-sixth of a horse-power. The propeller turns 500 times a minute when the motor is just "ticking over". "Full out" about 5,000-five thousand revs. a minute. Phew!

The sparking-plug is an exact miniature of one of its full-size brothers. The ignition system is coil and battery. The tall black thing on the right in the illustration is the ignition coil. The loose wires at the back of it are hooked

# THE MODEL <br> By S. L. DENNIS 

up to an ordinary torch battery. The coil boosts up the voltage of the battery to make sparks between the points of the sparking-plug. Both coil and battery are hidden inside the aeroplane when the engine is fitted to it. The petrol-tank is lying down just behind the engine, between the blocks of wood. You can see the cap through which it is filled. Sticking out from the back of the cylinder is the carburettor. A small screw-knob on top of it opens and shuts the throttle. Between the engine and the propeller is the contact-breaker for the ignition and the ignition control lever. You can see the lever standing upright.

Behind the wings is a cockpit. The monoplane in the illustration hasn't one. In this cockpit sits the Cherub-a somewhat dented celluloid doll. Dressed in flying-helmet and goggles, he looks very realistic. As Condor takes off, climbs, banks and finally switches off its motor, one feels almost sure that he must be working the controls.


Swoinging their propellers!
Petrol Model Monoplanes at Northolt Acrodrome.

In the cockpit is also the real pilot-the clockwork mechanism which switches off the motor in mid-air. Before the flight you set it in the same way as you set an alarm-clock. It will switch off the engine after as long or as short a flight as you wish. Its "innards" are the works. of a small cheap clock.

A model with a good engine and without an automatic engine switch would fly till the petrol tank ran dry. I remember seeing the owner of a model without a switch. watching his machine flying right away from the aerodrome:

# AEROPLANE OF TO-MORROW 

over the very large greenhouses of a nursery beyond. He had filled the tank fuller than he had intended. He wore a very worried look till by a fluke the plane turned back and landed on the edge of the 'drome.

The wheels have caught your eye? They are like those of the little biplane in the photograph. They have very large soft, rubber tyres with very small metal centres. These are called "air-wheels" when used on full-sized

* "Petrol models are far more exciting to fly than rubber-powered models. It is very much like real flying. You have the thrill of controlling a very lively little engine in an equally lively little machine. In fact, I think it is the next best thing to Alying a full-size machine."
aeroplanes. These tyres and the telescopic spring legs of the undercarriage take all the shock of the landing.

One gusty day I saw the wings shift out of place on a machine fifty feet up. It dived earthwards like a fighter diving at a target. There was a rush to get out of its way. We expected to see a terrific smash. It hit the ground full tilt, but at a bit of an angle. The wheels, which were very near the nose took the shock and the undercarriage stood up to it. The machine bounced six feet in the air and landed upside down, but hardly damaged. Moral : the undercarriage should be the strongest part of the aeroplane.

The petrol model is the very latest thing in model aviation. The tiny light engines needed for models have only just been perfected and put on the market. Three years ago you could have counted the successful petrol models on the fingers of your two hands. Now there must be hundreds of them.

The first successful petrol model flew as long ago as 1914. It put up a record flight of 51 seconds. That remained the record for petrol models till 1932. Then it was broken by the pioneer of modern petrol models, Captain C. E. Bowden. Since then he has beaten his own record several times.

I wish you had seen him put up his present record. His machine made an amazing flight. Fitted with a very
powerful engine for its size, it seemed to leap off the ground; then it climbed steeply up to something like $4,000 \mathrm{ft}$.-nearly as high as Ben Nevis, the highest mountain in the British Isles-there it reached clouds and began to dodge in and out of them. Finally it was lost to sight after tying for 12 minutes 48 seconds. According to the rules, the timekeepers are not allowed to use field glasses or to move from the starting point, so that the best way to make a record flight is to fly as high as possible. Captain Bowden afterwards went up in a full-size autogiro to hunt for his model. He found it undamaged eight miles away.
Petrol models are far more exciting to fly than rubber-powered models. It is very much like real flying. You have the thrill of controlling a very lively little engine in an equally lively machine. In fact, I think that it is the next-best thing to flying a full-size machine. Certainly it is one of the best ways of learning how to fly and how aeroplanes are made.

I get a big thrill every time I " swing " Condor's little propelier and hear the crackle of her exhaust-there is nothing little about the noise she makes! You wait until you have a petrol model of your own climbing into the sky !
"Yes," you say. "By Jove! I'd like to try my hand at building a petrol model ; but isn't it very expensive and difficult ?"

Well, petrol models are still pretty expensive. The little engine illustrated here costs $f_{6} 6$ ros. complete with propeller. It will cost you another $f^{2}$ or $£ 3$ to build the aeroplane. Not many fellows can afford as much as that. I advise you to get some mechanically-minded grown-up friend to lend a


The Petrol Biplane in flight. (Reproduced from "PetrolEngined Model Aeroplanes", by kind permission of the Author.)
hand financially as well as with the construction. It is not difficult to make a simple petrol model. It needs a lot of patience and enthusiasm, and a pair of fairly neat hands. No elaborate tools are necessary. But more than anything it needs experience of model-aeroplane building. So unless you've already built and flown model aeroplanes, don't start on a petrol model right away. First make two or three rubber-driven models. If they are good flyers, your petrol model should be successful, too. Otherwise you risk wasting a lot of time and money.

You're still keen to have a try? Yes? That's good. The first step is to buy copies of the "New Model Aeroplane Manual " ( $3 s .4 d$. post free from Percival Marshall, 13, Fisher Street, London, W.C.I) and Captain C. E. Bowden's "Petrol-Engined Model Aeroplanes" (3s. iod. post free from the same address). The manual describes rubber-driven models with which to make a start. Everyone who intends to build a petrol model must have Captain Bowden's book. It is the best book on the subject.

There are now several good shops specialising in model
aircraft materials and engines-many of whom advertise in the " B.O.P." ; so write for their catalogues.

You should, of course, join the "B.O.P." Flying League. Write for details to the Skywayman-in-Chief at 4, Bouveric Strect, London, E.C.4. Membership will entitle you to free advice on all model-aeroplane matters.
For many of you who are reading this, the air probably has as great a fascination as the sea had for your grandfathers. The conquest of the air is, after all, the greatest adventure since the conquest of the ocean.

Many readers will probably be piloting full-size aircraft before they are many years older. Till then, they can get a taste of the excitement, and learn a great deal about it from building and flying models. Petrol models will teach them most of all.

I could name at least half a dozen of the biggest men in the modern aircraft industry who began as young aeromodellists. It will be so in the future. Go to it ! Now is the time for you to start. I wish you good luck with your models-and many " Happy Landings".

## MAKE YOURSELF A PERISCOPE

HERE is a useful gadget for Scouts and others who are keen on stalking and similar outdoor pastimes. With this instrument you can spy out the world around without the world spotting you! It also enables you to obtain a good view of processions and football matches, etc., when standing in a crowd. The model described costs less than a shilling to make.
All you need are two pieces of stout cardboard ( $\frac{1}{8}$-in. strawboard is the best), cut and scored to the dimensions shown in the diagram, and two mirrors approximately $2 \frac{1}{4} \mathrm{in}$. by $2 \frac{1}{2}$ in. The latter are obtainable in most multiple stores
for about $3 d$.


Periscope in use.


Dimensions for outside tube. Figures in brackets are for inside tube. each. Finally some pins and paste.

Score the cardboard by cutting halfway through with a sharp knife or razorblade. You will notice from the diagram that the figures in brackets are those for the inner tube and are $\frac{1}{4} \mathrm{in}$. shorter in each instance.

When bent into shape these two tubes should fit into each other in the same manner as a telescope.

Next, cut the two vision apertures as indicated in the sketch-one at the front top of the outside tube and one at the rear base of the inner tube.

Adhesive tape is the best method to employ when making the tubes. It can be bought quite cheaply from most stationers. Several firms now use it for sealing their tins and cartons, so you should have no difficulty in obtaining it.

Insert the mirrors as shown, each at an angle of


Plan of Telescopic Periscope.


The Periscope complete (front victe). 45 degrees.
These are kept in place by narrow strips of cardboard glued to the inside of the tube.
A piece of card $2 .{ }^{2}$ in. by 2 in. should be cut to form the lid of the periscope.

Your model will look much smarter if you bind all edges with tape or passe-partout. Another, though slightly more expensive method, is to cover it entirely with bookbinders' cloth. This is very hard-wearing material and will greatly lengthen the periscope's period of usefulness.
The measurements given are those of the author's own model and can, of course, be varied as desired. The larger the mirrors, the greater will be the field of vision.

Treyor Holloway.

# PUBLIC SCHOOLS FIELD-DAY 


" "IELD-DAY" in most public schools is something definitely to look forward to. It usually comes as a nice break in the term, when a day away from school routine is much appreciated. True, it is no half-term exeat, when good friends take boys out and feed them on rich food; but rather a hard day's work in the open. Bridge building, hiking and woodcraft are tasks for the Scout troop, while the sterner business of soldiering in service dress is the lot of the older O.T.C. boys.

School corps who are lucky enough to be near regular soldiers usually have an interesting programme arranged for Field-Day. This often consists of an exercise in which platoons of the school, mixed with machine-gunners, anti-tank experts, signallers, and perhaps even artillery or armoured fighting vehicles from the regulars, enjoy together a nice little modern battle. Schools not so fortunately situated fight with a neighbouring O.T.C., or even resort to interstitial warfare.

Gone, alas, is the old "Public Schools Field-Day", at which boys from one hundred schools would forgather and fight one tremendous battle!

What brilliant affairs these were, particularly in the early days of the century, ere khaki became universal !

Twice a year, in March and November, one of these campaigns was waged on the Aldershot terrain.

School cadet corps from all over Southern England and the Midlands would converge there. The Red force (white cap-bands) would derail at Brookwood and the Blue force at North Camp. The rival armies were separated by a " no-man's-land" of some four miles of fir- and gorse-covered heath, bisected by a high flat ridge.

At II a.m. each side advanced to attack, and endeavoured to seize the ridge. It really mattered little who arrived there first, for, after the clash, Blue were invariably ordered to withdraw to Great Bottom Flash (incidentally a lake), while Red, whose motto was l'audace encore l'audace, were invariably hounded on to pursue them.

These tactics were based not so much on the lessons of previous wars as on the fact that dinners for all were conveniently concentrated near Ash Vale station!

Let me describe one of these "Public Schools FieldDays", which I still look back upon as some of the most thrilling events of a long military career.

The early-school bell awakes me and I am about to turn over for the last five minutes' half-sleep, when I remember it is "Field-Day ". Up I jump, for I have things to clean, and hastily grab brush and button-stick, pink paste and field-cap. The night before I assiduously blackened my boots and painted my leather leggings with " Nubian".", but buttons and badges tarnish overnight. The honour of No. 4 Section and the College demands terrific smartness to-day.

I clatter into early school, clad in scarlet tunic with silver buttons, blue cuffs, collars, and red-striped trousers. I pay no attention to the lesson. I am asked a question, can give no answer (was wondering how many cartridges would be issued), so am sent to the foot of the classdon't care!

The bell again. Work finishes, and we troop into Chapel (opposite me I notice a corporal with a collarbadge missing). Chapel finishes, and into Hall for breakfast. College eggs-ugh!

After that I rush up to dormitory. I make sure that the parcel of mixed biscuits, bananas, cake and nut-milk chocolate are still in my haversack, and that the waterbottle is not leaking sherbet. Put the two live rounds, secreted from last College Field-Day, into separate trouser pockets so that they will not jingle and get me into trouble, and slip a piece of slate-pencil into the lining of my cap.
" Get dressed!" shouts Parkyn $I$, who is a sergeant. I put my head through my haversack and water-bottle straps, buckle on my pouch-belt, and sling on a cape rolled like a horse-collar. A few minutes later the "Fall in " is blown.

I parade and am inspected by "Shoddy". No faultsgood fellow!

Someone carries round a tray of paper bags. I take one and look inside-four Garibaldi biscuits and an apple-shove it in my haversack with difficulty.

Sergeant-major issues blank cartridges-two packets only, mean beggars! Oh, and a handful of loose ones; that's better !

We march to the station, our drums and bugles playing lustily "The Bristol Engineers" and "Solferino". Boys who are not in the Corps look on sourly with hands
in pockets. They get excused no work; good thing, too-slack brutes!

Form line on the station and wait. In steams our "Special ". The first half is filled with cadets dressed in grey, and at the end, another contingent in dark green. We entrain and go off. Later arrive at North Camp and march about a mile. An umpire meets us and we halt in the heather, pile arms, and fall out.

All around are lines of rifles and carbines, " grounded " or " piled", and, sitting around or standing, are boys from dozens of different schools. Here is Wellington in red, there Charterhouse in green, farther off Eton in grey and Malvern in blue; Marlborough have drab and Reading khaki. We see boys wearing helmets and boys wearing field-caps, others with pillboxes, and some yet again under slouch hats. White belts, brown belts, black belts, pouches and bandoliers-no two schools are equipped alike. What a colourful medley indeed !

At eleven o'clock a whistle sounds. We fall in and unpile arms. "Shoddy" reads from a "General Idea" on white paper and a "Special Idea" on blue. We learn that we are No. 8 Company of No. 4 Battalion of the 2nd Brigade-also that we are to be in reserve at the F in Fir hill. Rats !

Shouts and whistles sound over a large area and the kaleidoscope disintegrates. The Blue force is on the move-the Big Battle has begun!

Silently we move off, and after half a mile are halted and lie down. We feel depressed at being in reserve. Why can't we be in the front line?

A shot is fired and we all sit up. It is only a boy of another school who was playing with his carbine. We watch his officer "go for" him and a sergeant remove his ammunition-silly ass!

Soon after, however, a far-off fusillade announces that battle is joined. Restively we lie and listen. We munch biscuits and choco-late-some compensation is left to us.

Suddenly up rides a staff officer. Orders are shouted. Enemy, we are told, are coming up on our right. Our company doubles off and we extend and occupy a flattopped hill. A line of red clumps is moving slowly up the heathery slopes.
"No. 4 Section-Five hundred-Volleys-Ready-Present-Fire!"

We let fly three salvoes, then continue to fire independently. The enemy come nearer, till they are only one hundred yards away, firing shoulder to shoulder. The boy next to me puts an empty cartridge-case on a stone and, placing the muzzle of his rifle against it, fires. The cartridge-case whirrs through the air in the direction of
our opponents. I take the piece of slate-pencil from my cap-lining and place it in the breech of my rifle, followed by a blank. I fire it off. "Shoddy" is now looking our way.

Suddenly there is a shout. From some small pines on our left pour a crowd of grey-coated boys wearing blue-banded pillbox caps. Harrow are assaulting us in flank! We fire our last round. They are coming! Hurrah! Hurrah! One or two boys start to draw bayonets, but officers ride up from every direction.

It seems as if we are to be butchered, but happily at this moment aid arrives. A half-company of Cadet Engineers from reserve-Tonbridge, I think-" reinforce the firingline". They crowd into all empty spaces, unbutton their pouches, and open a terrific discharge from MartiniHenry carbines. We are delighted and astonished at the deafening explosions, sheets of flame, and satisfying cloud of smoke which these museum-pieces emit. The umpires are also obviously much impressed, for they stay the attackers. We are saved!

Whistles shrill and men shout. We are to retire at the double, and, trailing our arms, we leg it back. We keep on running-howheavy my Lee Metford has become! I change it to my left hand. Soon that is tired. I change it back. Still we run. At last we stop and turn about. Where are the enemy? Where are we? Nobody seems to know.

As we regain our lost breath we hear faintly " Ta Ta Ta-ta-Ta Ta Ta-ta (Let 'em alone-Let 'em alone)" -it becomes louder as every other bugler takes up the "Cease Fire". Louder also and more intense is the sound of heavy firing from all over the battlefield. Cadets will seldom forgo the pleasure of discharging every cartridge in pouch and bandolier before finally unloading. We, however, lie still. In our corps such an act of indiscipline is "not done "; besides, we have already expended all!

We march at ease back to the "rendezvous". Converging on this great hollow from the high moor are dozens of worms-red, green, blue, grey and khaki-school contingents, their backs to the battlefield, threading their way down to dinner.
At the rendezvous we find a long trestle-table, marked by our school name on a card. We pile arms, stack equipment and file past it. Each boy takes a ham roll and a pork pie, then passes to the end, where he may choose a glass of minerals.
Contentedly we sit in the heather and enjoy this comfortable ration, while we watch other corps arrive from the seat of war, and try to name them. Winchester, Rugby, Clifton, Bradfield, Dulwich pass by.
A band strikes up. Eton are regaling us with "The Honeysuckle and the Bee". We return to the trestle for cake and more drink. Harrow's band now gives a selection, while Eton musicians recover their wind. We revisit the trestle and find only cheese left.

Hullo! Merchant Taylors are falling in, and, farther away, a little column in khaki is on the march to the station! Our bugler sounds and it is now our turn . . . and so to the station, train, and back to the old College.
" Ripping fun, that," says Smith Minor, as he finishes a second helping of supper. "I don't suppose a real battle is much better!" I am inclined to agree.
And so finished pleasantly a "Public Schools FieldDay " of thirty-five years ago.
${ }^{1}$ This multitude of patterns was not confined to Cadets but was also part of the old Volunteer system.


## A PUBLIC SCHOOL STORY

## CHAPTER XXIJ

## THE HARD CORE

ON the very day after Extern had won the Cup, the bad weather secmed to be taking such a turn for the better that this morning when one and all came clattering out of their class-rooms they found that some sunshine had broken its way through the clouds. It was stealing back to the grass, to the walls of the buildings, it was busy with the buttresses of the Chapel, and great splashes of it were sprawling across the flagged path which leads along, under the arches, from Drake to Big Quad.
Beyond the arches and at the side of the path a number of juniors were making the most of this sunshine. They had fetched and set up a small tree-stump kept for the purpose, and with a tennis ball and a stick they were playing stump cricket. It was nothing like the stump cricket played in the summer, when the ball was a small rubber ball as hard as they make them and the tree-stump was "pitched" against the old door where the well had been, and the bat was a relic whittled down to a club, and you hit as hard as you could, and you bowled even faster, and you fagged out till your fingers closed on a catch when by virtue of that performance you marched to the wicket. (It was young Hughes, the left-hander with an eye like a hawk, who held all the records at that game with a smite to leg so prodigious that the ball ended up in the Sixth Room, via a window. They fined him. But his glory lives on for ever).

The game with the stick and the tennis ball was in full swing when a tall figure, walking slowly, came through the arches on to the path. The youngster who was bowling ceased on a sudden, the bataman paused with his stick lifted, the fieldsmen turned, and calling one another's attention in whispers, they all stopped and stood waiting for the person to pass.

They were doing just what they would have done had the captain of the School, or any grave School prefect, come down the path. But they might have started again directly the latter had passed. In this case, as the oncomer went by they stood looking after him with expressions of awe.
"See !" they whispered. " It's FrankJin! He looks none the worse now. But wasn't he knocked up after scoring that try !"
And they whispered: "What a try it was! Oh, what a try! See him 1" they whispered. "He won the game for Extern off his own bat!"

Then they started to play again.
There were two persons idly watching the game farther off. The larger of these was yawning and peeling an apple. His diminutive companion appeared there on timid sufferance, as though momentarily expecting to be dismissed. But now, as soon as he had perceived the cause of the game's sudden hold-up, this small creature quivered as suddenly with strange excitement
his face shone, and, exclaiming under his breath, he was darting away like a minnow, when a rough red hand seized his jacket and jerked him back.
"What's the hurry, Carnera?"
Having thus demanded, the other restored his attention to the apple until he had solemnly pared off another ring of peel, when, as he flicked this away from the blade of his knife, he observed that some people considered unpeeled apples more tasty.
" But opinions differ," he added. "And opinions change. Don't they, Carnera ?"

Franklin Minor kept silence.
"What's the matter with you, Carnera ?"
"You stopped me. I was going after my brother."
"Your brother ?" the other exclaimed, staring round and round with the blankest expression. "Did you say you were going after your brother? Where is he?"
"Oh, you saw him!" the youngster said breathlessly. "He went along the path just now. You saw him as plainly as I did. You know you did, Bunn!"

Shiner let his eyes travel down to the flushed little face. "So that was your brother!" he drawled. "I thought it looked something like him. But-well, I never!"
"You never-what ?" challenged young Franklin.
"Oh, nothing," yawned Shiner.
He went on peeling his apple in silence.
Then something snapped in the youngster, something gave way. "Oh, Bunn, please don't sham so!" he broke out in a shaking voice. "You do think, don't you, that . . . my brother . . . will be ". all right now?"
"How should $I$ know ?" Shiner said gruffly.
"But you do think so ? Don't you?"
Across Shiner's clumsy features came the glimmer of a smile. "Carnera," he growled, " you ought to have been a gadfly. A gadfly never leaves a poor creature alone. Did $I$ ever profess to know what's amiss with your brother? What business is it of mine?"
"All the same, you do seem to twig things," stammered his gadfly.

Shiner paused. "But I wonder," he replied slowly, " if they are the things worth knowing ?"
"That isn't an answer."
" Isn't it? Think again. Is it worth knowing that the chaps have stopped ragging your brother because he has caused them to. look up to him? Though it beats me entirely why the dickens they should, just for plunking a lump of stitched leather across a line!" Shiner yawned again, loudly.

The youngster's eyes had kindled, but now they flashed with indignation. "Bunn, my brother did more than that!" he insisted
"Oh, did he?"
"Yes, you know he did. He won the match for his House!"
"Did he really ?" drawled Shiner.
"Well, wasn't that a great thing! So we know that now they'll respect him." Young Franklin ceased, seeming troubled. Then, "Please, Bunn," he went on in a low voice, " what made you say that you wondered if that was worth knowing ?"

Then Shiner for the first time looked rather uncomfortable. "Carnera," he uttered, splitting his apple into two pieces and extending these both in the palm of his hand towards the youngster-" Carnera, see that apple? What's in its middle?" "Nothing."
"No? Look again!"
"The core's in the middle."
Shiner nodded. "Would you like me to go on ?" he asked.
"Please," Franklin Minor stammered out in a quick breath. Had he read the thoughts behind Shiner's wise brooding eyes?
"All right. But I warn you: the core's a hard core, Carnera. Not this apple's core, but the core of your brother's trouble. See?" uttered Shiner.
"Yes... I think ... I think I do," the faltering voice answered.
"Of course you do, Carnera," Shiner said quietly. "The chaps may look up to your brother. But that's not enough. He's got to be able to look up to himself. He's got to win back his own self-respect. That's the core."

Then one half of the apple found its way to young Franklin and the other half into Shiner's capacious mouth. And seeing how busy munching old Shiner became, he could not be expected to say any more. Franklin Minor tried once, but was told not to talk with his mouth full.
" I thought you had better manners, Carnera!" growled Shiner.

Thereupon, and still munching, he ambled away, his hands in his pockets, as usual, against regulations, and both his shoelaces flopping as he proceeded. He wanted his hair cut as well. It was shaggy and terrible. A fine chap to lay down the law about not talking with your mouth full!

His own mouth had a big piece of apple in it still when he ran into Franklin Major a few moments later. But he pulled up and grunted: "Congratters on that try, Franklin. You showed them how you could move when you chose." Then looking Jim Franklin very straight in the eyes, he smiled, and said: "I tell you what strikes me, old man: there's more to be learnt on a footer ground than in a music-room."

Franklin Major might have retorted: "Then why do you shirk rugger, Bunn ?" But he didn't. He dropped his eyes and went on his way.

A hard core, Shiner had called it. Can any suppose that Jim Franklin was ignorant of the struggle ahead. Chance had come to his aid and lifted him out of the depths by causing him to regain the respect of his fellows. But would that last? And if it did, would it be worth much unless he recovered as well his respect for himself?

His eyes were opened. That try had opened his eyes. It had shown him that he could accomplish bevond his belief., Oh, once, true enough, he had dreamed of himself as a "fierce" chap; the years ago that was, when he first came to Polehampton. But manliness had failed and shrinking prevailed, until the dream had become but a shadow which stirred in the holidays-"Yes, Tony,
fierce is our word at Polehampton for a chap whom the other fellows funk and look up to. I'm a fierce chap. So is Bill Lawrie. We're both of us fierce chaps."

Pitiable shadow without any substance.
Could he create the substance and measure up to his manliness? But he had no manliness left. It had been knocked out of him.

In this heavy mood Jim Franklin went through the day, and in the evening while he was sitting at work in his study the window was pushed up and in scrambled Jope, who nodded and sprawled himself down in the easy chair.
"Well, and how is our great hero feeling ?" he sneered.
Ignoring the sneer, Franklin answered: "I'm rather busy."
" Busy! But how's your poor head?"
Franklin murmured: "There's nothing" wrong with it, that I know of."
"Oh, I thought that it sounded swollen."
"I wish you'd clear out, Jope." "Don't fret yourself I "Jope retorted, laughing unpleasantly. "I've a famous cure for swollen heads. Did you know that?" He brought his face round slowly towards Franklin's face. "You and I have got an account to settle," he said.
" I don't owe you anything," Franklin exclaimed, with" a start. "I paid you back the last money that you lent me."
"You did," said Jope. "But you haven't squared your account yet."
He chuckled in relish of the other's bewilderment. Then he said: "You've broken a promise. That must be settled."
"A promise!" stared Franklin.
"Promises are like pie-crust: made to be broken. Or so they say," Jope said slyly, still gloating. "But wonderful heroes, dear chap, always stick to their promises. They never sham to forget them. So our last word in heroes will naturally not forget his."
${ }^{\text {" I }}$ I never made you a promise," said FrankJin uneasily.
"Indeed you did." Jope's voice had hardened. His face hardened. The gloating leer was melting like mist from his lips. "You promised to take your young brother out for a walk. Not many Sundays ago, Franklin. Why didn't you bring him ?"

Franklin hesitated. Then, "I couldn't," he said. "I was stopped!"
"That won't wash," scowled Jope.
"It's the truth."
"Very well. Let it pass. But you'll keep your word," Jope cried fiercely. "You'll bring him next Sunday., Or I'll know the reason why. By James, I will, Franklin!" He dragged himself out of the chair. "That's final!" he roared.
"You needn't shout at me, Jope. I can hear you all right. Supposing I bring my brother, what do you want with him ?"
"T told you what I wanted with him-to flay him. And that will square the account between you and me, Franklin."
" Whatever he's done
"Don't argue. Ask your brother about the Gudgeon Wood, and you can ask him as well about the row he got me into with Lawrie. I don't forget. I can bide my time," Jope said, slowly, 'and I've bided it. It isn't the impetuous fools who are dangerous. I'm not impetuous. But you know me, I think."
Franklin made a gesture of helplessness.
"That's all, then," glared Jope., "You'll bring your brother next Sunday afternoon certain." He stepped towards the window.
"Wait!" The voice which recalled him was shaking. "Jope, I can't bring my brother along."
"You refuse!"
"Yes, I do."
Jope paused, biting back uncontrollable anger. Then he nodded his head like a person who nods to himself, and fetching a chair, he sat himself down beside Franklin. "Do you know," he said, with the look of a snake in his eyes, " that I rather suspected you might take up that attitude, now that you've become such a heroic personage. Yes, yes, I rather suspected it, Franklin, dear friend. So I've brought the means to compel you," he said, laughing softly.
"You can't compel me," stammered Franklin.
"Oh, can't I?" said Jope, in a sleek tone. "Listen to me, Franklin. You'll do what I say or you'll find yourself in the soup. With me? Oh, no, Not with me, dear old friend. With the Head." He passed his tongue between his lips as he spoke.

Franklin caught at his breath.
Jope smiled treacherously.
He was smiling that smile of the traitor as he continued:
"Yes, you're going to obcy me. For consider, dear man, how I'd hate to go to the Head and tell him how all this last year you've given me the jolly old run of your study, and what giddy jamborees you and I have had here, with never the trouble of asking leave from a soul. I shall say: 'Sir, I know that the School rules have not been reprinted, but I also knew all the time, so did Franklin, that we were breaking one. Yes, I have to confess, sir,' I'll say, 'that Franklin and I have consistenly defied that rule.,' 'Consistently' is a good word, eh? That'll sting the old ass!"

When Franklin still kept silence, Jope edged his chair nearer.
"And do you remember that Saturday evening," he resumed, "when, you broke out to toddle along with me to the dancing-hall? $I$ wasn't breaking a rule then. But you were, old sportsman!"
All the colour had ebbed from Jim Franklin's face, but he said nothing.
"And do you remember?"-Jope was dropping his voice to an undertone. "And do you remember-". He came to the end of his whisper. "Old boy," he added, "the Head will expel you for that!"

Franklin flinched from those snake-like eyes which were watching his face.
Jope's tongue flickered at his lips; he was moistening his lips. "And Franklin," he leered, "I wonder if you've forgotten that money you borrowed at the smithy in Pitchley, and how I had to lie you out of that scrape? It wasn't a very creditable scrape, was it ? It wouldn't have done the School any good if it had leaked out! You haven't overlooked it, by any chance, have you? For I'm afraid the Head won't overlook it, old man."
A strangled voice responded: "You daren't tell him, Jope."
"And why not, my friend?" Jope asked, purring.

Franklin's voice, though convulsive and terrified still, came more sharply. "Because you'd be cooking your own goose at the same time."
Jope rubbed his hands together, and from the corner of his eye he gave his companion a lingering glance of amusement. Then without a trace of emotion, but licking his lips, he answered: "Yes, yes, I expected you to say that. I've been waiting for you to say it. I knew it would come. Do you know the answer ? Oh, it's a shame to strip you of the only armour you've got!" He was savouring and enjoying his victim's suspense. "There is an answer, old fellow. T'm leaving this term."
Franklin ynsped.
"Yes, I'm leaving. You'll miss me. Very sorry and all that to bid you good-bye, but my father has found me a posh job to start at Easter, and he says I can float off from here as soon as I like. I can stagger off to-morrow if I like, Franklin. But I don't Tike-not till I've squared your young brother's account."
Then Franklin saw it all : but Jope made it plainer. "So there we are, old man. You'll do as 'I say, or I'll tell the Head what I've promised-I keep my promisesand then I shall clear out and he can't do a single thing to me." He laughed again. "S Pretty neat, don't you think ? Which of us
two will bear the brunt ? I'm afraid you will. Yes, you'll reap the harvest, and I hope you'll jolly well like it ! You've only to say Yes or No-do you bring your brother? Or don't you?"
" I can't-_"
"Let me help you," mocked Jope. "Am I telling the Head by word of mouth? Not I! You fancied I was, I suppose, when I made up that little conversation between him and me, ' imaginary conversations', as the fools who write books call them!" He patted his breast pocket. "Do you know what I've got inside here, Franklin ? It's a little confession which I've drawn up in regular style! Yes! When I toddle in to the Head to bid him goodbye, I shall leave my written confession behind me! Twig now?"
Jim Franklin was sitting hunched in a stupor of misery. After studying him with a taunting gaze for some moments, Jope continued, curling his lip:
"So choose. Which is it to be? Do you bring your brother next Sunday and leave me to deal with him? Or does the Head get this . . . what shall I call it . . . this document? Look at me, you tripehound! Does the Head get this?" With the last "words Jope drew from his pocket some closely written sheets. "A lot of it, isn't there, Franklin! Make haste-yes or no?"
Jim Franklin's face had come up. It was paler than wax, and a clammy perspiration stood on his brow.
" I'll bring, my young brother," he promised.

"I told you what I wanted weith him . . . to flay him. And that will square the account between you and me, Franklin!"

## CHAPTER XXIII

## SUNDAY afternoon

THRILLING news for Drake's junior day-room-the doctor had reported Sourdon so much better and stronger that he need not take his malted milk any longer!
It was Miss Gordon who had broken the tidings to Sourdon. She knew how happy it would make him, she said. And how happy it would make his dear uncle, formerly of Pitchley! Had he heard, by the way, how that uncle was getting along? And where had he gone to reside now?

The talented Sourdon had glanced at Miss Gordon suspiciously. Yes, his poor uncle's gout had quite gone, he had answered with candour. No, he was sorry he had not heard where his uncle was living now ; did Miss Gordon think he'd been able to go back to India? But, honestly, he felt that he ought to stick to malted milk- -

Oh, had his uncle taken malted milk too? she had asked.
No. Miss Gordon didn't understand. It wasn't his uncle who had swigged malted milk in Pitchley, though he may have done when he was shooting tigers and things, but he had been referring to himself-didn't Miss Gordon think that it would be horribly bad to leave it off all of a sudden? Oughtn't he to break it off bit by bit?

Assured that there was no need of such a precaution, the resourceful Sourdon had gone off to rub chalk into his cheeks, and, after repeating the treatment the following day, had returned with the eventide and a listless expression.

Please, didn't Miss Gordon consider that he ought to be sent to the sick-room?
That depended. What was the matter with him this evening ?
He didn't know. It was this horrible feeling of faintness that kept overcoming him. He felt as if he was going to faint all the time.
Miss Gordon's composed eye had glinted. Yes, Sourdon could go to the sick-room, and there wash his face. He would feol extraordinarily better with a clean face. And if he dared to exhibit it again in her room unless and until she should summon him, he could look out for squalls.
Thus crushed, but not baffled, the Phoenix opened the back of his mind.
" Miss Gordon," quoth he, " I've got six bottles of malted millk left, haven't I?"
"Now, how did you know that?" she demanded.
Coyly he answered: " I spotted them, please, in your store cupboard."
"Well, and if we assume that the bottles in there are youra, Sourdon?"
"Have they gone on my father's account, please?"
Miss Gordon said,: " Certainly."
Then he sprang his plaintive idea. Would Miss Gordon lot him have those six bottles, he begged, because he was most horribly hard up?
"Oh, so that's what you're driving at. You think you can sell them to your friends?"
"Please, I thought I could have a shot," smiled the Phcenix invincibly.

Miss Gordon replied that she must think it over

Hope budded.
Next day the bud burst into flower. Miss Gordon had yielded.

But problem: Who paid for that malted milk? Did Sourdon's father? Or did the cost find its way to Miss Gordon's own purse? Well, after all, that seems nobody's business but hers, and a good laugh is worth more than much malted milk.

With the forethought to be expected of a financier, Sourdon's mind had already reviewed his likeliest customer. There was young Spateh, he thought, who'd be good for one bottle at least. And Tiplock? Yes, probably Tiplock would spring two bob also. Wait ! He might have to give them a discount. Say one-and-six, then. Six one and sixes made nine bob; nine solid shillings!

Well, young Spatch and Tiplock. Then, Pindar? What chance with Pindar ? Yes, malted milk was frightfully good for poetry. All the worldfamous poets swigged malted milk every night ; and the people who wrote books as well, or else no one would buy their twaddle." And Pindar couldn't deny that, in any old case, because he'd never seen mouldy authors writing their books. Jolly good! He'd nail Pindar.

That would leave three bottles to place yet. What about Franklin? Since his brother in Extern had scored that wonderful try, Franklin Minor hadn't been such a savage young tiger-cat! No, and not like such a dying duck in a thunderstorm. He was perkier now. Yes, he'd probably rise to one bottle.

That only left two, then.
At this stage of premeditation Sourdon had rested till he'd made sure of Miss Gordon's decision. Then, with the bottles safe and sound in his locker, he put the finishing touches to his good
work by securing his four prospective customers straight off (though Pindar had stuck out for a staggering discount), together with Squidger Mullet and Parsloe Minimus.
"I tell you what," he announced when he'd roped them all in. " These bottles hold more than six chaps can swig at one go. Especially," he sighed, "as I mustn't have any myself. So I vote we make a Malted Milk Carnival of it, by each man inviting a guest. You know, like the Cherry Feasts we have in the summer."
"We all squat round, do we ?" they asked him.
"Yes. Round a fire. We fix a saucepan of water over the fire. Then jam the boiling water into the milk!"
"But we can't build a fire at the School, Sourdon!"
" Of course not," he laughed. " But I know where we can build one without being spotted. There's a lane behind the Gudgeon Wood before you come to that colony of new houses. There's a jolly good field with a topping high hedge down the lane. Do you know where I mean now?" he asked.
"Yes. It's not far from Jope's, is it?"
"You've got it!" cried Sourdon. "'The farmer who owned that field has bunked. His farm's empty. You couldn't find a nibbier place for the carnival."
" Does each man bring a mug ?"
"Or a cup. Or his tooth-glass," said Sourdon.
"Yes, but when are we going ?" piped Parsloe. "We'll have to get leave, won't we ?"
"No," said Sourdon, speaking firmly, if hurriedly. "We go next Sunday afternoon. On our walk. We don't need leave for our walk. We can go where we like, so long as we're in for roll-call. So we'll have heaps of time."

And thus it was settled. But just before dinner on Sunday, young Franklin had to cry off. He had promised to go for a walk with his brother, he told Sourdon. But he had passed his share of the malted milk on to Harding.
"The very man!" declared Sourdon.
Although some word of the coming orgy had spread, yet its scene had, astonishingly, been kept a dead secret by the half a dozen guests and by their seven hosts-for Sourdon, although an abstainer, must count as a host; or their compère as he himself called it, being fond of the wireless. But the inquisitive were not to be fobbed off like that. So determined to lend their patronage to the occasion, they waited until the carnivalists had stepped off, then in twos and threes they followed at a stealthy distance. Thus it appeared that, by not very long after dinner, half the School was beginning to turn its steps towards the lane. There were day-boys among them, and juniors of every description; with an actual sprinkling of seniors, who went with detached air, as though they were merely taking their customary stroll.

It is not to be thought that they poured to the scene in one stream. They sought different routes, lest their presence become too conspicuous, and certainly too "infra dig." for the seniors. Some of the latter were cutting the Gudgeon Wood out and making the detour round Spillett's and past old Raitt's crow's-nest. Others were going across the fields. Some by the viaduct. And Lawrie and Rammell kept to the road all the way.

It was not curiosity which was taking Bill Lawrie. He had said to Rammell: "Well, old man, what do you think? If they don't look out, those kids will get up to mischief. Should we stroll along to keep an eye on them, Ram ?"
"They're Drake kids mostly, so far as I hear," Rammell smiled.
"Yes, confound them, they are! And I'm told that they intend to build a fire. They'll jolly well burn the whole place down if they're not careful. Do you remember that fire you and I lit one day in the Gudgeon? Losh! The scare we got, when we couldn't put it out, Ram!"
"That's long ago!" laughed Rammell. "But listen, old boy!

We don't know where Sourdon's bright beauties intend to light theirs!"
"Well, it won't be in the Gudgeon. 'That I do know. For the black-house knave is on the rampage this term. He'd let one or two through if they stuck to the tracks, but he wouldn't let a whole swarm." Lawrie had paused to consider. "I shouldn't be surprised," he resumed, ", if they chose those fields before you reach the new houses-",
"Doesn't Jope hang out somewhere near there?"
"I've no idea," snorted Lawrie. "I have no use for Jope. In my opinion the best place for him to hang out would be somewhere or other where he'd get a good beating every week. That's what Jope needs," he said, almost shouting. "But I was referring to that unoccupied farm," he went on. "We'll have a shot there, after other places."

Bullock Gowring and Orde had joined them as they were starting. And the four went off, laughing together.

The pair who set off for their walk a gond hour later were not Iaughing together. Jim Franklin was striding along in a strange silence; young Franklin with a hurt and puzzled expression.

Whatever was the matter with Jim? he was wondering.
How bucked he had been when old Jim had invited him for a walk! The very first time, he was thinking, that old Jim had asked him! Oh, Jim couldn't ask him before, he could understand that, not after that terrible night when he had broken into Jim's study. But everything was altered now. Everything altered! Jim wasn't a butt any longer. He'd recovered his standing. The fellows in Extern looked up to him. So did the other chaps. So why was old Jim in such a glum skin to-day? Especially after inviting him out for this walk.
"Then the youngster put a part of his thoughts into words. "Jim," he uttered, "Jim ; you're not very lively!" But he tried to make his voice sound as though half in joke.
" Aren't I ?" murmured Jim, with his eyes on the ground.
"If you hadn't wanted me to come out with you, I was going for a rag." And this time there was a shade of reproach in the voice. "Oh, were you?" Jim replied tonelessly.
"But of course I'd rather be with you any old day. It's like old times. At home, you know, Jim, in the holidays."

Jim Franklin said nothing. He was walking along in a queer fashion, beginning to step out and then slowing down again, so that the youngster had to keep changing his pace in accord. At last, when they reached the stile near the gamekeeper's cottage, he exclaimed: "I say, Jim? Where are we going? Anywhere in particular?"

Then Jim halted abruptly, and muttered :
"We'll stop here a minute."
As they leaned against the stile with their backs to the wood, the youngster had the feeling that his brother was going to tell him something at last.

There was nobody about and no one in sight, there was no stir of birds in the branches, nor life in the meadows. The afternoon was so full of silence that it seemed as though the world had come to a standstill.

Franklin Minor waited. But Jim did not speak. Then the youngster moved to shoot a glance at his brother, and met Jim's eyes, heavy and brooding, seeking his own. But Jim swung his head away hurriedly.
"Jim ? Something's up! What is it?"
"It's nothing," Jim mumbled.
"Well, why won't you look at me ?"
"Because I've better things to look at." The words, as young Franklin could tell, had been forced through Jim's lips.

He tried to force some cheerfulness through his own. "Jim, I call this a jolly rum sort of walk," he brought out.

Flinching as though he had been struck a blow in the face, Jim Franklin turned, and the youngster, turning as well, saw that he was looking at the wood with a curious and very hesitating expression.

A few moments passed. Jim set his foot on the stile.
"Well, we'd better go on," he said huskily. "We'd better go on."

He climbed the stile. And the youngster climbed over after him.

In the meantime Sourdon's party had got under way, although their fire had delayed them a good bit by sulking. Having any amount of ground to select from, they had gone right across the meadow as far as the farm buildings, to establish themselves in the lee of a derelict barn. At length they were clearing up, when one of them caught sight of a figure entering the field by the gate from the lane. He drew the others' attention to it.
"It's Jope I" they exclaimed.
Convinced that Jope had come to spy on themselves, and perhaps, in that malicious manner of his, in order to get them into a row with someone living in the new houses, who might, for all they knew, have just bought these fields, they decided to disappoint him. So hastily stamping out the remains of their fire, they looked right and left for the best way to steal off unseen. They saw it at once. For at right angles on their left stood another tall hedge, bisecting the fields and running right back to the lane.

Rather fun to diddle that beast Jope!
So they slipped into that next field, with their utensils, and collected in the ditch under the hedge. "Now, Indian file!" Sourdon commanded. "And don't make a sound. But half a mo' first, while I take a squint." He raised his head very stealthily over the hedge.
"Jope's gone!" he whispered. "No! Wait! He's come back again. He's lurking about. He seems to be waiting for someone!"

Tiplock whispered back: "Then the sooner we clear off, the better. The beast is waiting for people to come up and collar us!".

So in Indian file and on tiptoe they stole down the ditch, and were nearly at the bottom when Sourdon signalled a halt and peered through the hedge.
"There's someone else there I" he breathed.
Two other persons had come through the gate from the lane.
Jope had been waiting for them. As they advanced he went to meet them.
"So here you are at last," he said, leering.
Franklin Major said nothing. The face of the youngster beside him was flushed with disgust. "Jim, I didn't know we had come to meet Jope," he uttered in an undertone.

But Jope caught the words. "A pleasant surprise for you! What! I'm the man for springing surprises, by Jingo, I am! I suppose, Franklin Minor," he went on, "that you imagined that I'd forgotten how you behaved to me in the wood and got me into that row with Lawrie? Well! Well!" He rubbed his hands together. "But I've a long memory. , And I never mind biding my time, as your brother will tell you."

The watchers behind the hedge saw that Jope was carrying a stick.

The youngster had given no answer. He seemed scarcely to notice Jope. His eyes were fixed incredulously on his brother's distress.
" Jim, it's all right," he whispered. "It's all right, Jim. I don't funk him."
" No, you needn't, because I'm going to be generous," leered Jope. He thrust his great face with its loose sagging lips into

Jim Franklin's. "I'm not going to flay your young brother, ns he deserves. I've changed my mind. I'm going to deal with him lightly. All he's got to do is to go down on his knees and apologise."
Jope took a step back, and pointed towards his feet.
Jim Franklin found his voice then. "Is that all," he uttered hoarsely.
"Yes, that's all. First he'll apologise, then he'll thank me."
"He's to thank you for-what?" stammered Jim Franklin.
"That I'm letting him off a taste of this !" Jope retorted. He brandished his stick. "Come on!" he roared. "Down on your knees, you little scum!"

The youngster did not move. He looked at his brother. His brother stayed silent, breathing hard, watching Jope.
"Come on!" Jope bawled fiercely.
It was Franklin Major who took the step forward. "Just now, Jope," he said, "I nearly turned back with my brother. But I'm glad that I didn't. I'm very glad, Jope."
"YYou've reason to be," Jope reminded him.
"Yes. Good reason, Jope."
Jope called to young Franklin again. "Make haste!" ho commanded, "Can't you see how relieved your loving brother will be when it's finished." He struck an attitude, and his scornful look lashed Franklin Major.
Jim Franklin's arm went out and brushed his brother back. "Yes, Jope," he stammered. "I shall be awfully glad when we've got it all finished. It's time it was finished."

Jope clapped his hands. "Encore, old man! Encore !" ho scoffed.

The watchers behind the hedge could see Franklin Major's limbs shaking, and though they had not caught a word that was spoken, they were all aware that something curious was happening. But they were not aware, as they crouched in intense concentration, of fontsteps which were coming along the lane.
"This apology business," Jim Franklin said. "That's nll right, Jope. But you are the person who'll do it. .Not my young brother."
"Oh!" Jope cried derisively.
"Yes, you are the person who'll do it, Jope," Jim Franklin repeated. His voice might have been a stranger's voice from the sound of it.

Jope laughed.
"You'll apologise, or I'll rub your nose in the dust. Jope."
"Jope's laughter crackled again. His black eyebrows went up. "Oh, hark to our hero!" he spluttered. "You've gone off your head, man!"
"No. I've come to my senses," Jim Franklin said quietly. "I'll give you your chance, Jope," he added. "Get down on your knees, you brute I"
This was such a changed Franklin from the one Jope had known that even the watchers crouched behind the hedge were gaping at him, with parted lips, in amazement. Not one of them had seen that Franklin before; there was so much suggestion of formidableness about his braced figure, and so much hard resolution, and so much new power.

But Jope was not taken aback. With a snarl like some malignant beast's, he leaped forward at Franklin Major.

Next minute, and as the two were struggling together, the footsteps which had been coming down the lane ceased. They had paused at the gate, but as soon as Orde saw what was happening he would have opened the gate and rushed through had Lawrie not stopped him. "No, let them alone! Let them fight it out!" Lawrie urged. "They're not on the School ground. Let them fight it out, for Jim Franklin's sake."

Strange reason to offer! Orde stared. "Where does Franklin Major's sake come in ? " he said blankly.
"You'll see," Lawrie promised, exchanging a pleased look with Rammell, while Bullock Gowring knowingly nodded his head.

So four more silent spectators had added themselves.
Nor were they the only addition. For, arrived from all quarters excepting the gate in the lane, there had crept up now the manifold persons from the School who had come to rag Sourdon's party, and these, finding nothing but an extinguished fire at first, then perceiving some argument in progress at the field's farther end, had excitedly been drawing nearer and nearer; until eventually they formed a ring round the scene ; a ring which kept closing in as the combat proceeded.

For proceed it did. The more ruggedly built of the two, Jope had closed with Franklin Major and thrown him, and was planting a knee on his chest. And with thick breath Jope was panting: "You'd better give in", as he strove to fasten his fingers round Franklin's throat.

And now well might the latter bless those strong shoulders of his which never before had been brought into play at Polehampton.

And direly had he need to exact all their power, to resist the savage pressure upon his chest, and to save the back of his head from being forced to the ground. As he set his teeth and was blindly reaching for Jope with his arms, he may already have been tasting defeat and its bitterness. He was conscious of his brother's voice, urging, imploring, but when Jope abandoned his throat to lash blow after blow at his temples and mouth, then that voice was lost in a sound in his ears like the rushing of waters, and before his eyes Jope's face seemed to swim in a mist.

Orde was trying to push through the gate, but Lawrie prevented him; pointing to Franklin Minor, who had not moved. "We can't interfere. Give that youngster his chance, Orde," he whispered.

Maybe only Rammell understood his friend's meaning.
"Had enough, you fool! Had enough?" the crowd heard Jope roaring.

Jope could feel Franklin Major's breast struggling and heaving beneath him, and could see the terror welling in those dark eyes. Was this terror of that cruel welter of blows? Or was it the terror of failure, a failure more reaching than anything which Jope in his boorishness dreamed?

Jope was fighting in order to force his will on Jim Franklin.
Jim Franklin was fighting to conquer his own flinching spirit.

For this is what it had come to at last-at long last. Bruised, battered, at humiliation's extreme, young Franklin's brother was battling not for this moment, but for all that might in the future make life worth living. He was battling with himself, and not
together, interlocked, clinging and wrestling, till it seemed that their muscles must crack.

But Jope had the better once more in such rough work as this. And in another moment Jim Franklin grew conscious of a stinging pain in the ribs again and again. Jope was jabbing him in the ribs, with his knee, very likely; and next the mists returned and the rushing waters drummed terribly, drumming in his ears, drowning every sound else, so that the crowd and their shouting, dimly sensed, faded away. . . .
"And that's your medicine!"
It had come to his consciousness from infinite distance, as to his perception there came a vague, savage figure that had risen to its feet, and was hurling the taunt at him. He grew conscious
as well of othe figures all round, figures who had been rushing forward, and now were falling back as he struggled to hls own feet.

And it may well be that all the power slumbering in his big body, power which year after year he had lacked the courage to arouse, did now awake at one bound. Hitherto he had been fettered by moral cowardice. His fetters were gone.

For, brushing the back of his hand across his dazed brow, he went staggering forward to Jope, and, while the astounded onlookers drew back in awe, he straightened himself to rain blows at Jope's mocking face. Not caught off his guard by the onslaught, Jope tried to repel it ; but the tall, avenging figure seemed to gain strength until blow after blow went smashing through Jope's uncouth guard.

But the tall avonging figure scemed to gain strength, until blow after bloze went smashing through Jope's uncouth guard.
battling with Jope. For Jope, as it might have been said, was only an emblem. Jim Franklin was fighting to recover his manliness.

It was this that Bill Lawrie, keeper of his own counsel, could have whispered, had he wished to do so, to Orde.
"Had enough yet?"
With a crimson trickle at his nostrils and mouth, with that vicious, leering face swimming mistily above him, Jim Franklin worked one of his arms free and flung up his fist. He felt Jope's legs and knees loosen, and, striking again, he struggled to his side, then was half on his feet, on one foot and one knee, when Jope came springing heavily on to his shoulders. Both crashed down

He ducked. He dropped his hands. Jim Franklin dropped his. In a flash Jope sprang forward and struck again.
The blow brushed Jim Franklin's cheek. He tossed his head scornfully. Then, uttering a hoarse scream, Jope broke and fled. But the crowd impeded him. Franklin over took him and threw him; next, struggling hard for his own breath, he leaned over Jope, who was cowering like a whipped mongrel, and took some papers in a long envelope out of Jope's pocket.

Then, without a word, Jim Franklin went to his brother.

## CHAPTER XXIV

## THE HOUSE THAT JACK BUILT

THERE were three persons in conference with the Head after dinner next day. They were Mr. Outwood, young Mr. Brett, and Mr. Abel of Extern.


## "In marched Franklin Major with one of the ripest black eyes you cever saze ...!"

one of the senior boys in your House. Have you any idea who that boy was?"
"No, sir," said Mr. Abel, biting his lips.
" It was Franklin Major."
Mr. Abel, waiting warily, offered no comment.
" But," the Head resumed after a moment, stressing the " but ". "I did not tell the informer that he had been forestalled."

This broke Abel's silence. "Forestalled!" he ejaculated.
"Yes, Jope had been forestalled. By whom do you think ?"
"I cannot imagine, sir," Mr. Abel replied, almost distantly.
"Jope had been forestalled by the very boy he was accusing."
"By Franklin Major himself, sir! "
"By Franklin Major himself. It was this morning, as I mentioned, that Jope told me his charges, by way, as I infer, of a parting shot." The Head frowned. "I dislike Jope's methods, Well, now : last evening just after chapel there was a tap at my door and in marched Franklin Major." A glimmer of amusement succeeded the frown as the Head directed his next words towards
young Mr. Brett. "Yes, in marched Franklin Major with one of the ripest black cyes that ever you saw, Brett!"
"Sir 1 Am I an authority on black eyes!" exclaimed Mr.
"If you're not, you ought, to be," the Head returned checrfully. "I dare saly you gathered a few when you were at school. And I shouldn't suggest you were any the worse for them, either I"
"Oh, I've no doubt they did him a lot of good," chuckled the
" Thank you, Outwood. Thank you," said young Mr. Brott, as he let his gaze rest on the Outlaw's grey, tired face with something very gentle in its regard.
"Yes, in marched Franklin Major," repeated the Hend, "and he hands to me at once an astonishing document whioh our lamented Jope, he explained, had prepared for me to read. He said that he had taken it away from Jop日 because he intended to bring it to me himself. I asked him before I read it if it were true? He said that it was." The Head sighed. "And I grieve to inform you, Mr. Abel,' he concluded gravely, "that it leaves me dubiou regarding retaining Franklin Major here."
"But I don't quite understand, sir," Mr. Abol protested. "Did you say, sir, that Franklin hud taken the document from Jope?"
" Yes. Franklin Major had taken it away from Jope."
"But he hadn't destroyed it!"
"No, Franklin had not destroyed it."
"Was he sure, may I ask, that Jopo seriously, meant to inform against him ?"
"No," said the Head, with some emphasls, " he was not sure. I pressed him on thit point. "Considering all the trouble Jope had taken in writing out his charges, what makes you think that he might not huve brought them to me after all?' I asked of Franklin."
" And what was his answer, sir?"
"He said in a queer voice that he rathor believed he'd persuaded Jope to change his mind."
"Persuaded Jope! How?"
The Head smiled significantly. "Ah," ho rejoined, "I did not enquire into the meann of persuasion. I was too attracted, shull wo say, by Franklin's black eye."
"Just so, sir!" approved Mr. Brett. "But after he'd basted Jope-'
"Basted!" the Head broke in, with a fine air of horror. "You astonish me, Brett. Certainly Jope looked rather the worse for wear when he came in to bid me good-byo, but I understood, I think, that he'd run into a motor-lorry, or a battering-ram, or somem thing unpleasant of that sort. Something, at any rate-er-unexpected," the Head uttered, musingly.
" Most unexpected, sir," affirmed young Mr. Brett. "But after poor Jope's collision with the-er-batteringram, it seems amazing that Franklin Major did not destroy Jope's beastly document!"
"And thus save himself from Jope's charges renching my knowledge?"
"Yes," said Mr. Brett frankly.
The Head nodded. "Mr. Brett, it may interest you to henr,"" he said, " that I consider Franklin Major behaved bravely, J think he chose the manly part. Don't you, Outwood ?"

The Outlaw had been reflectively fingering his chin. " Mr. Head Master," he replied with the utmost formality, "in my opinion, in not suppressing that document, which ho might 80 very easily have suppressed, Franklin Major did the struight, brave, honourable thing. But I am hardly surprised-if you will allow me a moment-because Franklin Major has a young brother in my House who is a fine little chap, sir, a very fine little chap, and is one day going to put Drake House right at the top. I have a hearty admiration, sir, of his character; as has Mr. Brett of his work, and-"
"Sir, I never knew a lad who so thoroughly justified his scholarship !"young Mr. Brett interposed as swiftly as lightning. "-and," reiterated the Outlaw, throwing all logic to the winds, but what did logic count at such a critical moment-" and so, sir, I do beg to suggest that you treat Franklin Major, whatever he's done, with all lenience.'
"I second that, sir," Mr. Abel cried, seizing his chance. "As his Housemaster, sir, I want to keep Franklin Major with me."

The Head rose, regarding them thoughtfully. "My dear men," he uttered, "I selected you three for this conference because I wished to learn what you, Mr. Abel, thought of Franklin Major, and what Mr. Outwood and Mr. Brett thought of Franklin's young brother. I have gleaned your opinions. So be it. We'll keep Franklin Major. And it's very much in my mind that we all three shall live to be proud of him." He smiled happily. "That ends our conference, gentlemen."
But on this exciting day it may be remarked that everyone was talking about Franklin Major. Yet none hit the nail on the head so well as Bill Lawrie. "It was all," he told Rammell, " a sort of house that Jack built."
"How do you make that out?" said Rammell. Lawrip laughed. "Well, Ram," he answered, " young Fishface began it by being so dashed keen on the School, and things, and on his brother. Did I tell you I had a chat last night with Shiner Bunn ?"
"No, you didn't tell me," stared Rammell.
"Well, it seems that Shiner nosed out in his queer fashion that Fishface was as keen as a knife on his brother, whom he had thought to be a terribly fierce chap. But when he came here and found that was all wrong, it bowled Fishface over."
"Oh!" said Rammell.
"Yes, fact. F'unny, isn't it ? But I'll tell you what's funnier. I3less if Bunn doesn't nose out next what the mattes was with young Fishface. So he collars Franklin Major-".
"Who ? Bunn does?"
"Yes. He collars Franklin Major and tells him straight that he's jolly well got to buck up for Fishface's sake. Funny, isn't it!"
And yet "funny" wasn't altogether the word which fitted Bill Lawric's expression while he was speaking.
"And then, Ram," he went on, "I added my brick to Jack's house. For Shiner Bunn's wigging sent Franklin Major to me, imploring me to stop the silly fools ragging him."
"You wouldn't."
"No, I told him to fight his own battles. Otherwise he hadn't a dog's chance."
" Of course. But where did your brick come in ?"
"Through the rugger sevens. What about that faked draw? A risk, but a risk well worth taking." Lawrie responded. "Remembering that Jim Frankiin used to run pretty well with the ball when he first came, I thought that if he played as one of his House side, and did decently, he might recover some confidence and start feeling more of a man. And it came off. So there we are, with the house that Jack built." Then Bill Lawri,'s far-seeing grey eyes travelled to his friend's face. "Though I'm not sure, old man," he said quietly, "whether the Jack of the nursery tale was ever called 'Fishface '."
Whereto Rammell replied in an odd and ridiculous fashion.

> " ' Would you elope
> With Jope?"
he chanted urbanely. And Lawrie joined in. How Pindar, the poet, would have thrilled if only he'd heard them!
And that afternoon two brothers were pacing the playing-fields, having a good deal, as it may be, to say to each other, when they saw a figure under the double trees with a book, which it was not reading, upon its knees. It looked rather solitary.
Franklin Minor was the first of the two to distinguish it.
"Look!" he exclaimed. His cyes sparkled. " Look! There's old Shiner!"
He set off at the run. Jim Franklin went striding after him.

## WHEN THE VAC. COMES ROUND

WE'RE swotting hard and studying from morn till dewy eve,
We've turned our backs upon all outdoor joys ;
But once Exams. are over I suppose we shall get leave
To act again like normal British boys.
The days krow more exciting, each seems longer than the last,
For by grim regulation are we bound;
But won't we have some ripping games once cramming time is past,

When the Vac. comes round!
It's good to think of days ahead when, under skies of blue, The summer hours will pass just like a dream;
All problems in the background, not a single thing to rue,
As with the current we drift down the stream.
The ripping games of tennis, and the time spent by the sea, The racing with a lug sail 'cross the Sound;
All these delights we'll surely know in days that are to be When the Vac. comes round.

The glorious days of fishing in the tarn amongst the hills,
The matches 'gainst the village team we'll play ;
The joy-rides through the country, even now they give one thrills;
The bathing from the " tub" moored in the bay.
The calm and peace of evening, when the sun's last golden gleam
The day's enjoyment has so fitly crowned;
For this enforced inaction we shall let off extra steam When the Vac. comes round.

There'll be joys of woods and meadows, the lore of bird and tree,
And iolly pienics in some woodland dell;
There'll be days lived in the open, so glorious and free,
The while we climb some wild and rugged fell.
But best of all there'll be the time'neath canvas we shall spend,
Where, next to Nature, boyhood's joys abound ;
Oh, won't we have a topping time, with Exams, at an end, When the Vac. comes round!

## RARE STAMPS AND VARIETIES

(Continued from page 335)
watermark " 20 ", and the catalogue price of these errors to-day is $£, 300$ unused and half the sum used.

An interesting story is told about a comparatively minor error among the stamps of Western Australia, a country to which we have already paid a visit in connection with the "inverted swan".

A big English firm of stamp dealers received from a postmaster in Western Australia 2d. stamps printed in mauve, which was the colour of the $6 d$. stamps at that time. The postmaster apologised for sending them in the wrong colour, and still more for being forced to charge sixpence each for them, as they had been invoiced to him at
that figure. The dealer passed them on to his clients at a very modest sum, but to-day the catalogue prices them at $£_{5} 70$ unused and $£ 55$ used.

So we might turn to page after page of the stamp catalogue, finding rarities of all kinds, each with its story of scarcity, mistake, or adventure. For most of us, this study of the catalogue is the only adventure we can hope for in connection with rarities, unless we have the good luck to see some of them at a philatelic exhibition, but for perhaps one or two who read these lines there may be in store the biggest adventure of all-the finding of a hitherto unknown specimen of one of the great rarities.

## Stamps and Stamp Collecting



## Conducted by Stanley Phillips

FEW collectors can hope to possess any of the great rarities of the postage-stamp world, but everyone is interested in stamps that are worth hundreds or perhaps thousands of pounds, and we all cherish a secret hope that one day a lucky find will come our way.

What is it that makes a stamp a rarity ? Every collector has heard of the world's rarest stamp, the Ic. British Guiana of 1856 , of which only one specimen is known, because for that stamp the record high price of over $f_{8,000}$ was paid at auction, but there are many other stamps of which only one specimen exists. Some of these are varieties of a minor character which do not have the same appeal to collectors as a stamp like the British Guiana. O.hers have not been so fortunate in the amount of publicity they have received. Again, there are stamps known to be unique which have passed into a big collection at a comparatively low price, and have never again come on the market to achieve the notoriety which attends the payment of a startling figure.

There are, of course, quite a few unique stamps whose owners do not know that their specimen is the only one. There are quite a few stamps listed in advanced catalogues such as the Stanley Gibbons " Whole World " volume, which were recorded in past times as having been seen by the Editor of the day, but at the present day nobody knows where they are. These are usually varieties of perforation or errors of surcharge or overprint. They may have been lost or destroyed in course of time, or they may, even now, be reposing in some unknown collection-stamps as rare, intrinsically, as the famous British Guiana, but certainly not worth as much, for who would pay as large a sum for, say, a perforation variety of Salvador, or an inverted overprint of Nicaragua, as for a world famous rarity of a popular country?. From this you will see that popularity-yes, and fashion-plays its part in creating stamp values. You would have to go a long way to find a collector willing to pay a hundred pounds for any stamp of an unpopular Central American republic, where a dozen would bid thousands for a classic rarity like the penny " Post Office" Mauritius.

From what has been said, it will be realised that you cannot work out the values of stamp rarities by a mathe-
matical formula. It is not possible to ascertain what a stamp is worth simply by knowing how many specimens exist. Value is created by the relationship of supply to demand.

In the case of what might be called normal stamps, i.e., those which are not errors or varieties, high market values are due to the fact that few of a particular stamp were issued and that there is a fairly keen demand. You have to remember that " keen demand " for a rarity may only involve two or three collectors willing to compete for it, for naturally the number of those who can pay thousands, or even hundreds, of pounds for a stamp is not great.

Then there is the question of how many stamps havo survived of the limited number that were originally issued. It is no good arguing that, because it is known that a hundred specimens of two different stamps were issued, they will both be of equal rarity and value to-day, even if their popularity is equal. One of the stamps may have been used on newspapers or circulars, which were thrown away as soon as read, so that the stamps were for the most part destroyed. The other stamp may, with better fortune, have been employed to frank the correspondence of a particular firm with its London agents-a business house which was in the habit of keeping all its letters-so that the majority of specimens survive and are available for collectors.

We naturally find a large proportion of the world's stamp rarities among the earlier issues, which were printed in small quantities, or among temporary, "provisional" issues, which were on sale only for a short time. Look at the prices of some of the early stamps of British Guiana, Mauritius, Ceylon and other parts of the British Empire, and you will find quite a few big "plums" of the stamp world among them.

## RARE STAMPS

As far as our British stamps are concerned, the early penny and twopenny stamps are not rarities in their normal state, as so many of them were issued and preserved. Most of the recognised rarities among the earlier issues of Great Britain are what are known among collectors as "abnormals"-stamps from trial sheets which were afterwards put into circulation. Of some of these, very few specimens are known, and therc are a few instances where it is believed that trial sheets of a particular stamp were issued where no specimen has so far turned up. Only the other day I heard from America that one of these hitherto unknown raritics had turned up in a collection there, and additional specimens of some of the known ones are occasionally found, to the joy of their fortunate owners, who usually reap a substantial reward for their finds.

There is one early British rarity which does not belong to the " abnormal " class, however, but is a genuine error of the printer. Collectors call it the "Tenpenny Emblems", for it is a rod. stamp printed in red-brown, with a portrait of Queen Victoria, on paper watermarked with the four tiny emblems, roses, thistle and shamrock, instead of the spray of rose which was the correct watermark for this particular stamp. So if you have a rod. stamp of this issue, with the plate number "I " in the little circles near the lower corners, it may be the rare "Emblems" error, though it is much more
likely to be the comparatively common stamp watermarked with the single flower, or "spray".

## "G.B. Officials"

There are also great rarities among the British stamps used by Government departments on their correspondence at one time. Thus the Ios. King Edward VII stamp overprinted "I.R. OFFICIAL", for use in the Inland Revenue Department, is now catalogued at $f_{1}, 450$ unused or $£_{\mathrm{I}, \mathrm{I}} 50$ used, and the $£_{\mathrm{I}}$ of the same issue is catalogued, unused, at over $£ 300$. The is. King Edward VII stamp overprinted " BOARD OF EDUCATION" is another much sought for rarity among the "G.B. Officials", as they are colloquially called.

Do not, however, pay even the most modest sum to add one of these gems to your collection without getting it passed by a real expert, for forgeries are plentiful and not easy to distinguish; in fact, if you buy a " bargain" or " mixed lot" whose chief distinction seems to lic in the inclusion of even moderately scarce "I.R. OFFICIAL", "ARMY OFFICIAL", "GOVT. PARCELS ", " BOARD OF EDUCATION", "R.H. OFFICIAL", or "ADMIRAL'TY OFFICIAL" overprints, you may be pretty sure they are fakes.

It is natural that a stamp which is scarce and adds to its scarcity some outstanding peculiarity will be in greater demand than one which has no special feature of interest. An example of such a stamp is the " inverted swan" of Western Australia. It is rare, but I do not think it would

1c. British Guiana, 1856. The most valutible stamp.


## AND VARIETIES

be priced at $£ 300$ to $£ 900$ (according to condition) to-day if it were not for the appeal that upside-down bird has had to the imagination of generations of collectors.

The rarest Cape Triangulars are the so-called " woodblocks" which were produced locally during a temporary shortage of the ordinary London printed stamps. "They are therefore a "provisional" issue as we collectors understand the term, but their outstanding members are also errors-the id. blue, which should be red, and the $4 d$. red, which should be blue.

There is at least one instance among British Empire stamps where an error is commoner than the normal and correct stamp, or perhaps it would be better to say " where the error is the normal ".

Very shortly after the beginning of the Great War a force from New Zealand occupied the German portion of Samoa, and stamps of the German Colonial issue were surcharged with the letters "G.R.l." and a new value in pence or shillings. The r-mark stamp was thus converted to a shilling stamp, but of the 135 specimens so treated, one hundred received the surcharge " I Shillings", while only thirty-five were inscribed correctly " I Shilling". Thus the catalogue prices unused specimens of the incorrect stamp at $£ 80$, while the correct one figures at $£ 200$, unused.

## The Rare " Guiné"

The stamps of Portuguese Guinea provide an instance of an error occurring in a stamp which was already scarce.

The familiar first issue of Guinea was created by overprinting stamps of Cape Verd in the Portuguese Colonial "Crown " design with the word "GUINE" in large type, but somewhere up-country there was a post office which had its stamps overprinted in much smaller type. There were collectors even in those comparatively early days of the 'eighties, and one of them was on the spot and managed to secure a large part of the very small issue, but found very few specimens of the 40 -reis stamp available. This, like the others, was a stamp of Cape Verd, and in the small sheets in which the stamp was printed, there was an error, one of the stamps being inscribed " MOCAMBIQUE" by mistake. Of course, when sheets were overprinted for Guinea, there were one or two of these errors which received the "GUINE" overprint, and one of the rarest items I have ever had in my hands was a complete sheet of the 40 -reis of Guinea which included the error. As the ordinary stamp is now catalogued at $f 100$ and the error at $£ 35^{\circ}$ (which is cheap), you can imagine the total catalogue value of a sheet, to which must be added the extra value accruing to a unique item of this kind.

Again a word of warning is necessary, for the majority of the stamps which purport to be genuine "small GUINE" rarities bear forged overprints.

The first issue of stamps to appear in Roumania saw the light in Moldavia, and consisted of four values, 27 -paras, 54-paras, 8i-paras and 108-paras. The design is an heraldic one, showing a bull's head with a star between the horns and a posthorn below, in the curve of which lie the figures of value. The catalogue tells you that you must pay $f_{0} 1,000$ for an unused specimen of the 27 -paras and $£ 800$ for an unused 8i-paras, though a used copy of the latter will mean an outlay of $f_{1}, 100$. The other values are comparatively-but only comparativelymoderately priced.

## Forgeries as Space-Fillers.

We none of us expect to have genuine stamps to fill the spaces in our albums allotted to these rarities, but there are numerous forgeries which are only too easily obtainable, and it might be worth while putting these in your album, clearly marked, of course, to indicate what the issue was likc. Some of the forgeries will not give you a very good idea of the genuine stamps, as the forger gave the bull quite a human expression, often with humorous results.


A fine pair of Maldavias.

Chile has a rarity which, on the face of it, looks quite the same as the ordinary stamp. The stamps printed by the London firm of Perkins, Bacon and issued in Chile in 1861-62 were printed on paper watermarked with a double-lined figure representing the face value of the stamp. Thus a 1 -centavo stamp was on paper watermarked with the figure " I", and so on. Most of the io-centavos stamps conformed to rule in having the watermark " 10 ", but there were just a few which were on paper intended for the 20 -centavos stamps and had the


UNEXPECTED
Explorer: "And there, as I entered the house, I came face to face with a ferocious ape. What do you think I did?" Bored Listener: " Removed the mirror."

## SOUVENIR

Barber: " Do you want anything on your face when I'm finished, sir?""

Customer :" Well, I hope you'll leave my nose."
DIFFERENT PROCESS

First Crook: "See that man over there? He's a millionaire-made his money out of lead."

Second Crook : "So did I ; but I got two years for it." (Kenneth Pritchard, Bristol.)

GETTING ON FINE
Grandpa: "How are you getting on at school, my boy?"
Tomuy: "Jolly fine, grandpa. Centre-forward in football and right back in lessons."
(Robert Nuttall, Bolton.)

A fussy old lady once said to a railway porter: "When does the next train leave this station?"
" At half-past ten, madam," was the reply.
"What! isn't there one before that?" asked the old lady.
" No, madam," was the reply. "We never run one before the next."
(George Benson, Hexham.)

On reaching the table, the guest sat down and gazed at the coffee. The waiter came up and could not understand his fixed stare.
'Good morning, sir. Looks like rain," he ventured.
"It does," came the reply; "but the odour has a faint suggestion of coffee."
(George Miller, Dundee, Natal.)

*     *         *             *                 *                     * 

hadn't learned the language
What is your new brother's name?"
'I don't know. We can't understand a word he says." (Alex. Moon, Parry Sound, Ontario.)

MISTAKEN IDENTITY
A simple countryman saw a gaudy-plumaged parrot on the roof of his cottage. He climbed up to capture it.

The ,parrot looked at him and said: "What do you want?"

The countryman touched his cap. "Beg pardon, sir-I thought you was a bird."
(L. C. Beng, Penang.)

JUGGERNAUT
Dictator: " He drove straight to his goal ; he looked neither to the right nor to the left. He pressed forward, moved by a definite purpose. Neither friend nor foc could delay him, nor turn him from his course. All who crossed his path did so at their own peril. Now what would you call such a man ?"

Citizen (meekly): " A road-hog, sir."
(Kenneth Speed, Bristol.)

## TO THE LETTER

Doctor (to patient): "You are looking better to-day."
Patifnt: "Yes, I followed the instructions on that bottle of medicine you gave me."

Doctor: " That's fine. But, let me see, what were they?"

Patient : " ' Keep the bottle well corked '."
(Peter Kelso, Clapham.)

FraUd
Mike was going to London for the first time, and his friend Pat was giving him a few hints on what to do and where to go in the big city.
"You be careful about the Zoo, Mike," advised Pat. "You'll see some foine animals if you follow the words 'To the Lions' or 'To the Elephants', but take no notice of the sign which says 'To the Exit'. It's a fraud, and it was outside I found mysilf when I went to look at it."
(M. Simpson, Auckland.)

## HARDLY COMPLIMENTARY

The hill was steep and the load was heavy. The donkey did its best, but at last it stopped and would not budge another inch.

The driver saw a man passing.
"Excuse me," he said, " but could you help me to get this load to the top of the hill? It's too much for one donkey."

## TAKEN LITERALLY

He walked for miles, tired and hungry, until he came to a farmhouse. It was late, and the family had gone to bed. He knocked on the door, and at last a window was raised and a man's voice said: "What do you want ?"
"I want to stay here," was the reply.
"All right, stay there!" said the voice, and down went the window.
(George Dunbar, Stellarton. Nova Scotia.)

# AN X-RAY PICTURE OF THE FORD "TEN" <br> K (DEVELOPS OVER 30 B.H.P., E7.10s. TAX) $\quad \underset{\text { ( }}{x}$ 



HERE is an X-Ray picture of The FORD "TEN." Look it over, thoroughly, counting the features which you would not ordinarily expect to find on a car priced nearly as low as $£ 150$, or $£ 162.10$ s. for the Double-Entrance Saloon or Touring Car.
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Write for a catalogue of the FORD "TEN," and a copy of the booklet on the Ford Works.

# THE BOY'S OWN NOTICE BOARD 



Old "B.O.P."-ite's Offer. "I do not know if there are any members, boys ten to fourteen years of age, in this district; but if I can help them in any way I shall be only too pleased to do so," writes Mr. F. R. Bevan, of 14, St. Barnabas Road, Emmer Green, Reading, Berkshire. Mr. Bevan is an ex-Royal Air Force pilot, and has just returned from Canada after completing his full time of service in the Royal Canadian Mounted Police. He is also a very keen model builder (mainly ships and


GLUB
NOTES model aeroplanes) and stamp collector, and has been a member of the Scout Movement for twenty-two years. He's very anxious to make some young friends among local "B.O.P."-ites, and if any of you chaps feel like stepping round to St. Barnabas Road (giving Mr. Bevan due warning), or dropping him a line, I'm sure you'll find a jolly interesting friend. When communicating with Mr. Bevan, please tell him your age. He promises to answer all letters; but there may be a little delay. Many thanks for your practical interest, Mr. Bevan!

The Meaning of True Friendship is not lost upon Member GEORGE SAILES, of Swinefleet, nr. Goole, who writes: " Anver Patwa (Mombasa) is now one of my best friends, and his letters arrive here on an average every ten davs. We exchange all kinds of things that are of interest to us both as young people. But let me hasten to say that this exchange is not the fundamental factor in our friendship, and it is not carried on by either of us with the object of 'getting something back'-our gifts to each other are, I am confident, ${ }^{6}$ gifts of love '-and behind the gifts there is a deep-rooted friendship between us, which is our most treasured 'gift'. I have received, among other things, a photograph of my friend taken at the Mombasa Exhibition a month or two ago ... I have also received a beautiful wooden knifc, carved by a native. A delightful Christmas card, which came the day before Christmas, had a real photograph, in colour, of Mombasa Harbour, mounted on the inside. Newspapers also pass regularly between us."
"Smiles All Day Long." The same memberalso tells me that "Miss Ady Einhorn (Bucharest) is proving an interesting correspondent. She tells me that she 'smiles all day long' and I can almost tell that is so by the tone of her letters. She has that "knack' of writing happy, interesting letters which it is a joy to read." Lucky chap, Sailes!
"World-wide Friendship and Interest." The pen-pals scheme seems to be attracting an ever-widening circle of readers, and members are taking an active interest in its problems, as witness the following extract from WILLIAM ROBERTS, of Ramsgate: "I notice that the question of the Club coriespondence list is becoming a debatable subject amongst some members, one saying that it is a stamp market, and another saying that it is not. Although it is true in a way, a very small percentage write on 'business terms only '. Having ex-

FROM THE GOLD COAST


Here, in native dress, is BEN A. KOTEY (9194), a keen Gold Coast "B.O.P."-ite. Ben, who speaks and writes English and French as well as his own language, is an all-round hobbyist, being keen on botany, philately, dramatics, drawing, films, gardening, music, natural history, photography and postcard collecting. He is also a boxing, tennis and football enthusiast!
perienced it myself, I can only say it is not always the correspondents' fault. They are sometimes so busy with swotting up for exams. that they have little time to correspond, especially at the age of eighteen or nineteen. . . . But altogether, I think that the Club promotes a world-wide friendship and interest, or, as one member put it in the January issue (magical words!) 'the pulse of one frater-

## CANADIAN "B.O.P."-ITES



Club-member 8823, ARTHUR ERLEBACH, his dog Mickey, and his elder brother. Erlebach hails from Vancouver, British Columbia, and would like to receive letters from other boys in the Empire.

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 indicated:
3302. (Miss) G. A. Palmer Reading, ENGLAND, ${ }^{*} 4518$. C. J. Errington (London, ENGLAND, 27)-Any-
4722. D. Annett (FRANCE, i 6)-New Zealand, x 6)-New
Australia.
6223. (Miss) O. Bowley (Orston, ENGLAND, 23)-Any-
*67\%0. T. Winstone (Bristol, ENGLAND, 14)-British Empire (especially S. Rhodesia and India),
7433. H. C. C., Page (London, $\xrightarrow[\text { ENGLAND, }]{\text { Norway, Holland, } 6 \text { Swit- }}$ Norland.
*7436. L. H. Lian (Kuching, SARAWAK, I6)-Cyprus, Mauritius, New Guinea.
*7573. V. C. Avery (Birmingham, ENGIAND, 2I)-Anywhere.
*772r. K. Speed (Bristol, ENGLAND, I5)-Anywhere (coin, stamp and post-card collectors).
*7330. K. E. Hunt (Rugby, ENGLAND, 14.9)-Anywhere abroad.
*ク75I. E. Godbolt (Carnbridge, ENGLAND, 17.3 )-British Empire (except Great Britain).
*7855. Nasir-un-Deen (KENYA, 17)-Pacific islands.
*7932. D. G. L. Hughes (Cardiff, WALES, IJ)-Anywhere outside British Isles.
8016. L. T. Chee (Penang, STRAITS SETTLEMENTS, 15)-Pacific islands
*850I. W. B. Howarth (Isle of Man, ENGLAND, 15) -Anywhere outside British Isles (especially Egypt and U.S.A.;-
*8639. I. Butler (S. Ruislip, ENGLAND, I3) - Anywhers.
8578. D. Eastwood (Oswaldtwistle, ENGLAND, I6)-Germany, France, Switzer8715. R. J. Symonds (East Grinstead

Alrica. Colfast N IRETAND
8758. (Mjss) G. Corry (Belfast, N. IRELAND, 14.6)-Canada, U.S.A., Pacific
*8759. D. Reynclds (Hucknall, ENGLAND, 12.6)-British Empire (especially
877r. S. Australia, Nigeria or Straits Settiements).
877I. S. Armstrong (Motherwell, SCOTLAND, 13.9)-Anywhere, except British Isies.
9055. D. A. Thomas (N. Harrow, ENGLAND, 14)-British Colonies, Egypt
*gili. H. Yeo (Singapore, STRAITS SETTLEMENTS, 18.7) -United States, New
*9r3o. G. V. Quicke (Zululand, SOUTH AFRICA, 13)-New Zealand, Australia,
9166. C. C. Aik (Singapore, STRAITS SETTLEMENTS)-Anywhere.
*9174. Y. K. Meng (Singapore, STRAITS SETTLEMENTS, 18)-Hawaiad Islands, U.S.A., Australia.
9223. D. Freeborn (Wallington, ENGLAND, 13) - Scouts abroad.
*9226. I. White (Edinburgh, SCOTLAND I 5) -Anywhere, except British IsIes.
9281. E. Whitley (Wrexharn, WALES, I6.6)-Anywhere.
*930I. D. Devereux (Swansca, WALES, Io)-Anywhere.
*93I5. A. S. Robertson (Inverness, SCOTLANI)) Anywhere. $\because=$.
9317. J. A. G. Bigam (Edinburgh, SCOTLAND)-Canada, New Zealand,

South Africa.
93I9. B. Hawkins (Hastings, ENGLAND, I4)-Gold Coast, Egypt.
9327. L. Bowes (Dublin, IRELAND, I5.3)-Anywbere,
*9354. J. Hallam (Bristol, ENGLAND, I3)-Anywhere.
*9359. W. F. Knapp (W. Drayton, ENGLAND, I3)-British Empire.
9398. D. Goodwin (Southend-on-Sea, ENGLAND, 13)-France, Germany.
9400. D. Dixon (HOLLAND, 14.9)-Anywhere in Europe.

9418 . K. A. Scott (Stanmore, ENGLAND, I5)—U.S.A. (especially Californian fim-fans and aeromodellers).
9421. C. K. Kian (Singapore, STRAITS SETTLEMENTS, 18.6 )-Anywhere. 9423. J. Kelly (NEW ZEALAND, I5.9)-France, Germany, South Africa.

* Indicates Stamp Collector.

Sealed letters intended for pen-pals whose names appear in the above list should be sent to the Correspondence Section. "B.O.P." Club, 4, Bouverie Street, London, E.C.4, when they will be addressed and forwarded to their respective destinations. Members must qucte their pen-pal's name and Club number, as well as their own, for reference purposes, and those living abroad should enclose Imperial or International Reply Coupons (obtainable at any Post Office) to prepay postage from this country.

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# THE BOY'S OWN NOTICE BOARD 

Skywayman-Rigger-Pilot Chee Teen Lum Again. Our cheery Leaguer from Penang is as busy as ever, as the following extract from a recent letter proves: " As you know, the Imperial Airways is trying to use flying-boats for carrying cheap mails (he writes), and they are now making survey flights. Some time ago a flying-boat, the Satyrus, came to Penang; but as I had to attend school, I did not go to see it. The second survey flight was by a flying-boat of the canopus type, and you can imagine me praying night and day for it to arrive on a holiday.
"One morning, the papers announced the date of the arrival of the flying-boat, and did I jump ? It was on a Saturday and about 1.30 p.m.
"On that day, I got together an umbrella, sandwiches, a camera, the November ' B.O.P.', and my Skywayman Pass. The badge I put on my shirt, ready for emergencies, should any "ignoramus' try and stop me. I started at twelve on my bike and began to pedal hard. The route consisted of a series of ups and then a series of downs. On the up journeys I puffed, groaned, and gave off enough sweat to land the Cordelia in, and so did my bike. I imagined myself to be that hero 'Bywayman', fighting against heat instead of cold. However, the down journey compensated for all this.
" At the landing-base, I was nearly made eatable, and would be so but for the umbrella. After some time I noticed a brisking up of the people around me. I felt that the _flying-boat was nearly


THE " в.O.P." FLYING LEAGUE
due, and accordingly took my camera and unmbrelln and walked along the long pier jutting out into the sea. I was walking unconsciously when I nuw the people stop and stare in a certain direction. I looked, and there was the huge flying-bout poised in the sky. I took out the camera, but the vibrating fingers of mine delayed thing "I little, and as the flying-boat would not stay like that for long, I missed 'shooting' the Cordelia when she fitted the viow finder nicely.
"She went right over my head, made a graceful turn of nbout a quarter of a mile in diameter and made an excellent landing, or so it seemed to me. She then taxied to the mooring-buoy about a hundred yards away and stopped there. The size of tho Cordelia amazed me. One blade of the propeller was as high an a man. I noticed this when a member of the crew climbed on to the top of the machine. I took my photos; but was yery dill appointed, as the Cordelia in the picture was scarcely half an inch in size.
"One thing very noticeable is the quietness of hor engines. They posseanod a low, soft hum. I think the engine of the T'iger Moth is louder in noino than the four engines of the Cordelia. The hum in very pleasant to the cura, which explains the reason why her arrival took me by surprise." Well, that was a very interesting description, Chee Teon Lum, and I'm sure youn fellow members will agree that you deserve a specin] prize. - The Skywayman in-Chief.


This is the latest medium bomber to be supplied to the R.A.F. Its armament consists of a small cannon, two blunderbusses and an automatic, besides a formidable load of bombs. One of these can be dropped on the end of a long cord so that it can be retrieved and refilled with explosive. The hauling-in mechanism is drawn into the fuselage when landing. like the Heyford bomber, it has a retractable dustbin with a gunner in it who also operates the reloadable bomb, a small wireless receiving set just
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(Sketch and description by R. F. THOMPSON, Purley.)

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$\begin{array}{lll}\text { (A) Skywayman } & \text { (B) Skywayman-Pilot } & \text { (C) Skywayman-Rigger-Pil }\end{array}$ (A) (Cross oul all but one of thase).

1 enclose 1 s. for the Membersbip Pass, Certificste and Badge.
Coins must not be sent in ingegibtered lettera,
Newsagent's Signature
Address
March, 1938.


Noted by STANLEY PHILLIPS

INDIA'S NEW REIGN STAMPS. Collectors who were disappointed with the first King George VI portrait stamps of India, as I am sure most of my readers were, will welcome the much more attractive pictorial stamps just issued, even though they still include the ugly portrait of the King. When I first saw the new stamps I was irresistibly reminded of "Kim," for here we have some of the ways in which mails were carried in India in the days of his wanderings-and as they still are carried in many parts, for methods change very slowly in the vast spaces of the King's Eastern Empire.

On the 2 -annas stamp we see the dak (or dawk) runner, or foot messenger, who in the stamp picture seems to be armed with a spear, a necessary protection against robbers or wild animals.

Next, on the $2 \frac{2}{2}$-annas stamp we see the bullock-cart, a not very rapid method of trans~ porting the mails, and if speed


The Post in India. were the object one would prefer the two-horsed tonga of the 3 -annas stamp, or the handsome royal blue camel of the $3 \frac{1}{2}$-annas.

With the last-named value we leave the days of Kim and step into the present, for the 4 -annas depicts an express mail-train, the 6 -annas introduces a modern mail-steamer, on the 8 -annas we have a motor-lorry carrying mails, while the climax is reached on the 12 -annas with its speedy mail-monoplane.

This fine set, with its story of the Indian mail, will be very popular, I have no doubt.
India is still using the general design of the King George V high values as a setting for the portrait of the present KingEmperor. The effect is not good, as the portrait is the ugly one used for the lower values, and the poise of the figure in the central oval is not good.
An Outsize Eye. Egypt has been enjoying yet another congress so collectors may enjoy another series of stamps. The congress


## The Giant Eye.

 on this occasion dealt with ophthalmology (I shall have to get the printer to help me out with the spelling here!) and the central feature of a seally quaint design is the Sacred Eye of Horus-a truly imposing optic which seems to be poised on a tripod. The weird beasts at right and left are not the Jabberwock and the Gryphon, but the goddess Buto masquerading as a serpent and the goddess Nekhbet posing as a vulture. There are a couple of miniature eyes in the picture-writing at left and right and the borders are full of amusing stuff. I should put this set in your comedy collection.Ireland's Constitution Stamps. Ireland, no longer the Irish Free State, but "Eire", has issued new stamps to commemorate the coming into force of her new constitution, on December 29th last.

The handsome design shows a woman opening a book of antique pattern, on the pages of which are inscribed the opening words of the new constitution. The book stands on a pedestal on which are the arms of the four provinces of Ireland, including the Red Hand of Ulster, which is not part of the state for which the stamps were issued. I do not think Ulster will grumble, however, for she has allowed herself to be included in the map on the Irish 2d. stamp for years past, without protest. After all, stamp designs hurt nobody, though there have been countries which thought otherwise.

Austrian Christmas Stamps. Austria had a happy thought this year and issued two stamps specially for franking Christmas greetings. They are


Ireland's Constitution stamp. (Continued on page xviii)

## 

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## Objects

Its objects are those of the paper which for so many years has stood for all that is highest and best in life. Without binding its members to any definite vows, the Club calls on its supporters to lead a clean, manly, upright life, to be acive workers for good in the world and for the cause of Peace, not to be slackers or merely passive lookers-on.

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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 stamps issued in the United Kingdom.

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Address $\qquad$

Date of Birth $\qquad$
Being a reader of the "Boy's Own , Paper," WHICE I HAVE ORDERED FOR A YEAR FROM MY NEWSAGENT, whosename and address are given below, I wish
 (Strike out one of these two.) (GOIN MUST NOT BE SENT IN ONREGISTERED LETTERS.)

Newsagent's Signature.

## Addrese

March, 1938.

# New Stamp Issues <br> (Continued) 

so beautifully engraved and printed that they must have given pleasure to those who received them on the envelopes containing their friends' Christmas wishes. The central design is a vase of roses; the border, a novel one, introducing the signs of the zodiac.

A Locomotive Overprint. Cuba, like some other countries, has been celebrating the centenary of her first railway, and has overprinted a 25 c . stamp with a special commemorative device, the central feature of which is a quaint drawing, presumably intended to represent the first Cuban railway train.
' New Japanese Stamps. New stamps are being issued by Japan. The $\frac{1}{2}-$ sen shows a merchant vessel of three hundred years ago, which traded under licence from the Shogun, throughout the Far East. The vessel is called a goshuminbune.
On the $x$-sen stamp we have two Japanese rice-cutters at work, but I am still waiting for the key to the puzzle design of the 2 -sen, which shows what appears to be a broom on the end of a piece of rope (though I suspect that this is intended to be a posthorn), complicated by what may be a ray of sunshine, or perhaps a squirt of water, and some pieces of what I interpret as linen.

Germany's Ship Issue. I am now able to


At work in
Japan. tell you the subjects of the designs of this handsome issue, which I have aiready mentioned in a previous article. On the 3-pfennig, we have the Bremen, not the famous liner, but a Diesel-engined life-boat whose station is in the North Sea. The 4-pfennig illustrates the lightship Elbe $I$, and the 5-pfennig one of the fisk.nge-fleets of the Baltic coast of Germany.

The ship on the 6 -pfennig stamp is one of the vessels which take Germans on cheap tours, in connection with the "Strength through Joy " movement.

A sailing-vessel figures on the 8 -pfennig and a Baltic turbineengined steamer on the 12 -pfennig. More interesting is the I5-pfennig, with its view of the train-ferry Schwerin; which runs between Germany and Denmark.

Representatives of the two big German shipping lines are shown on the $25^{-}$and


By Air over Russia. 40-pfennig stamps, the Hamburg, of the Ham-burg-Amerika, on the former, and the famous other Bremen, of the Norddeutscher-Lloyd, on the latter.
Again I say that this is a fine set for lovers of the sea.

Russian Air Stamps. They will need larger envelopes in Russia if the new stamps recently issued are to be used regularly on air-mail letters. This is a splendid set for air enthusiasts, the designs illustrating some of the most up-to-date Russian giants of the air, and possibly some still to come, for Russian stamp designs have a way of looking into the future. Each aeroplane is shown in flight over a typical Russian landscape or famous city.
r United States Colonial Series. Two more stamps have appeared in the series by which the United States is honouring her colonies. The American Virgin Islands (formerly the Danish West Indies) are represented by a stamp view of Charlotte Amalie, which is not a lady, but a very pleasant little harbour in the colony, while Porto Rico, which came to the U.S.A. as one of the spoils of the Spanish-American War, is illustrated on stamps for the first time, the subject chosen being an imposing local fortress.

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R. D. HARRISON

ROYDON

## BOOKS, HOBBIES AND GADGETS-continued

Recommended Books. "The Island in the Mist", by Franklyn Kelsey (George G. Harrap \& Co., Ltd., 7s. 6d. net). This adventure yarn, based on eleven of the author's broadcast serial plays, should make an even wider appeal in its new form. The theme is rather far-fetched; but it is a well-written yarn with plenty of thrills and humour.
"Naturecraft" (Revised and Enlarged Edition), by G. J. Roberts (Naturecraft, Ltd., Loates Lane, Watford, Herts, is. net). How to make quaint little birds, animals, insects, and other models with the aid of a few simple tools, and such unusual materials as acorns, horsechestnuts, orange pips, cones, bark and moss. Most boys and girls can, with a little natural ingenuity, become expert Naturecraft modellers.
" Cigarette Card Collectors' Handbook and Guide", by Frederick T. Bason (Robert Anscombe \& Co., Ltd., is. net). Gives a short history of the origin of cigarette cards, together with chapters on Rare Issues, Collecting as a Speculation, Interesting Issues on Various Subjects, Cards of To-morrow, On Collectors and Collections, Hints on Care of Cards, Trade Cards and Curiosities in Cartophily. Chapter V consists of a standard catalogue (with values) of eighty modern sets for beginners. A useful handbook on a hobby that is steadily. gaining in popularity.
"Woodwork", by Donald Smith (B. T. Batsford, Itd., 4s. 6 d . net). "This book tells very briefly the life-story of

## "FAVOURITE FEATURES" VOTING COMPETITION RESULT.

ENTRIES for this competition were rather fewer than anticipated but the result of the popular vote has proved both interesting and useful. The EDitor's "Dixie" Yarn came first with ir6 votes; the Notice Board second with 30 votes, and Competitions third with 28 votes. Then came Books, Hobbies and Gadgets (i7 votes), New Stamp Issues (9 votes) and Picture News (5 votes).

The First Prize of ios. has been awarded to THOMAS M. HUTCHINSON, of Station House, Castledawson, Co. Derry, Northern Ireland, sender of the neatest a!l-correct coupon, and the Second Prize of 5s. to DAVID CRAIG, of The Manse, Portrose, Ross-shire, Scotland, the only other competitor to submit an all-correct coupon.

The Consolation Prize-List has been augmented, and a SPLENDID BOOK PRIZE will be sent to each of the following fifteen competitors (two errors) :
R. GALLIE, Swansea ; P. D. H. GAULD, Raymes Park; E. JOHNSON, West Hallam; D. G. KEARSLEY, Sidcup; K. LITTLE, Liverpool; D. MCCULLOUGH, Dublin ; F. F. McNAUGHTON, Edinburgh: M. W. MATTHEWS, Barrow-in-Furness; E, MILLER, Penrith; K. PRITCH-
ARD, Bristol ; S. SCOTT, Redhill ; F. WESLEY, Chesterfield ; G. ARD, Bristol ; S. SCOTT, Redhill; F. WESLEY, Chesterfield; G.
WHITBY, Barry Dock; D. J. WILKinSON, Peterborough ; K. F. WOODFORD, Witney.
some of the most important kinds of furniture that have kept man company for many ages. .. ." Fully illustrated by drawings and photographs.
" Making Pictures with the Miniature Camera", by Jacob Deschin (McGraw-Hill Book Company, I5s. net). This book is rather beyond the reach of most of my readers, but parents and older readers may like to know of it. It provides all the information essential in taking pictures with a miniature camera, and also in developing the negative and making the finished print. Illustrated with many diagrams. sketches and plates in half-tone.

Win a Cash Prize: Messrs. KOLYNOS, whose tooth-paste is world-famous, have provided a fine Crossword Contest this month (see page ix), and I want every one of you to send in an entry. It is a simple, straightforward puzzle, and the prizes are well worth winning. SEND IN YOUR ENTRY NOW

Publication Received. I have received a copy of an interesting little handicrafts magazine called " Boys' Practical Aid" (published by the Institute of Handicraft Teachers, id. monthly). The January issues contain articles on making a knife-box, a chisel-holder for lathe work, and two dove-tail puzzles, in addition to practical hints on woodworking tools and their handling, and many other interesting features. Copies and subscription rates can be obtained from Mr. Chas. Hughes, 15, Kearsley Road, Crumpsall, Manchester, 8.

## LIBBY'S CROSSWORD COMPETITION RESULT.

This competition proved very popular, entries being received from all parts of the British Isles, as well as a considerable number from overseas.

The correct solution was as follows :ACROSS: i, End. 4, Ting. Z, IOU. 8, At. 9, Race. II, P.M. I2, Metres. 13 , ET. I5, Eat. I6, Ass. 18, Ann. 20, Trap. 23, Avoid. 24, Peas. 26, Pears. 27, To.
DOWN: I, Serve. 2, Nice. 3, Doe. 5, In. 6, Games. Io, Set. II, Nram. I2, Ma. I4, In. 15, Eerie. 19, Bar. 20, Top. 21, Ada. 22, Cat.
24, Ps. 25 , So. 24, Ps. 25 , So.
Eleven all-correct solutions were received, and the First Prize of $f^{2}$ has been awarded to John Lloyd (age I2), of 49, Waterloo Road, Barkingside, Ilford, taken into consideration.
The Second Prize of $£$ I has been awarded to Willian Donshon (age Io), of Station House, Carnaby, Bridlington, E. Yorks., who submitted the second neatest entry.
The Three Prizes of ios. 6i. each have been awarded to Whlliam C. Brownlie ( 13 ), 26, Kilbowje Road, Clydebank; 1. Astor (T4), I8, Cailton House Terrace,
London S.W. $;$; and R. A. Ovirin (I6), "Mickleover," Richnond Road, Sutton Coldfield, Warwickshire.
Consolation Prize-Winners
(Corrcci Solutions) : J. St. A. Petter (r2), Nakuru, Kenya; John Fox (16), Sobara; C. A. Weeks (19), Erdington, Birmingham, 24 jimmy Tan (zo), Malacca, Straits Settlements; J. H. Beckly (in). Bowerchal
Salisbury : John F. Durant ( 3 ), Cliftor, Bristol.
(Nealcst one-error solutions): G. R. Nicolle (ri), Bulawayo, Southern Rbodesia; B. Mayes ( 44 ), Horbury, Wakefield; A. D. Hancock (16), Market Rasen; Clifford L. Dent (I4), Edmonton, London, N. 18 .

## ANOTHER CROSSWORD

## APPEARS ON PAGE IX

 CASH PRIZES.
## THE ROYAL NAVY.

## WHERE THE SAILOR LIVES AND

 WORKS.AN attractive illustrated booklet "The Royal Navy as a Career and how to join it ", which is from any post by the Admiralty and obtainable free service in the sixteen main branches tor which the Navy requires recruits. No such booblet can, however, tell the whole story.
A great attraction of naval service is that every two or three years each man's surroundings change entirely, though at each change he steps straight into the clublike atmosphere of his own "Mess"-the naval home he carries with him wherever his ship may go.
"Ench "New Entry" is allocater to one of the three "Home Ports "-Portsmouth, Devonport, or Chatham. As far as possible, he is allowed to choose the one he prefers then, after each commission at sea, he returns to ${ }^{\circ}$ a naval establishment at that port for a spell on shore.

His training completed, the naval man is drafted to the Fleet, where each commission lasts from two to three years. His first may be in a battleship or battlecruiser of the Mediterrancan Fleet based at Malta-be will then Visit Egypt, the Greek Islands, the Levant, Italy, the Riviera and many other places of interest. H's next may be in an aircraft carrier of the Home Fleet, in which he will spend three or four months of the year at his Home Port, and visit Scotland, Grbraltar, the Spanish coast, and our own seaside resorts

Then be may go to a destroyer or sloop on the China station and visit those romantic countries and islands
of the Far East. This may be followed by a comof the Far East. Tbis may be followed by a commission in a cruiser of the South Arica, or America and again. He sees the world, in fact and always from again. He sees the world,
the comfort of his own home.
As a general rule, for every commission in the Home Fleet, each man does two on a foreign station-but in between each he bas spells of "Home Service" at his Home Port. For junior ratings such spells average from three to nine montls, but when men raach the rates of Petty Officer and Chief Petty Officer they are generally longer.

While serving in the Home Fleet, each man gets six weeks' leave a year-a fortnight in April, August and December. Each time a man returns from foreign service he is given special foreign service leave-twenty two days for everv year, or two days for every odd month, that he bas spent abroad.
For all "leave " (the naval term for holidays) every man draws his full pay and allowances with an extra allowance of I5s. 2d. per week with which to purchase his food.

## RESULT OF THE B.O.P. ADVERTISEMENT COMPETITION.

Many interesting entries were received and it proved that the B.O.P. advertisements are studied with marked intelligence and discrimination.

The fallowing are the twenty-five prize winners and each has received a book written and autographed by the Editor :-

Nizam Saleen, Port Galle, Ceylon.
Alfred Longbottoa, Halifax.
Willian Paxton, Hornsey.
A. McQullin, Leicester.

Willitam Blackman, Buckhurst Hill.
R. Phelps, Bournemouth.

Thomas O'Neill, Tralee, Eire.
Max Hodes, Dunfermline
Kenneth Pritchard, Bristol.
E. L. Norman, Muswell Hill.
D. J. Wilkinson, Peterborough.

Donald Passnore, Torquay.
A. Brown, Renfrewshire.
A. Brown, Renfrewshire.
A. D. Hancock, Market Rasen.

Robert Morton, W. Lothian.
R. A. Snushall, Co. Durbain
M. G. Bunden, Beaconsfield.
M. G. Budden, Beacons

Mavid Kirk, Perthshire.
Alan Barker, Middlesbiough.
Kenneth little, Liverpool
Colin Wood, St. Boswells.
Peter Gould, Raynes Park.

## "HEDGEROW'S" RABBIT COMPETITION RESULT.

MANY readers wrote to "Hedgerow" and told him why they wanted one of his English Rabbits and how they proposed to look after it. It was obvious that many had gone to a lot of trouble to find out how a rabbit should be cared for, and some even had a hutch awaiting their prize! "Hedgerow" spent a very interesting time wading through the replies, and after careful consideration has awarded the English Rabbit to Johnny Fryer, of I3, Magdalen Road, Wandsworth Common, S.W.18. Congratulations, Johnny I

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