CHAPTER ONE

Day Dreams

HOW FAR BACK, I WONDER, IS IT NECESSARY TO GO INTO THE ORIGINAL conception of *Boleh** in order to explain, and attempt to justify, her oddities ?

One's ideas on yachts, their hull form, rig, etc., are, like one's taste in women, modified by experience, but are mostly an affair of passion and prejudice. If one has loved a particular type of craft in early youth, some one or more of its characteristics will be indispensable in any prospective boat of the future. A spoon bow or a square-sail yard will become as fixed a necessity in one's dream ship as blue eyes or silky hair in women with whom one falls in love. For the real origins of *Boleh*, therefore, we should go back to my boyhood days at Salcombe, Devon, when I learnt to row in the dinghy that had once belonged to my grandfather's 30-ton yacht, *Zephyr*, and when I sailed my first model —an 18-inch wooden gaff-cutter named *Britannia*, which had a rounded bow (then a modern innovation), and a straight keel. She had very pretty lines, with plenty of sheer, was painted black above and red below the water-line, and smelled deliciously of varnish.

It was at Dartmouth, I think, that I first began to notice the differences between one boat and another in design and handling. Some special arrangement made by my " tutor," Mr. Bashford, permitted me to come over from Salcombe on my motor-cycle during the summer holidays and take out the college boats. I sailed both whalers and Montagu cutters single-handed, inside and outside the harbour, and became very fond of these types—particularly the double-ended whaler, with its great sheer and its ability in broken water and big seas. My ideal yacht, in those days, would certainly have been a whaler, with a cabin just big enough to sleep, cook and eat in.

When I was a midshipman, power-boats were the thing. Past, even then, were the days of landing and bringing off liberty men in sailing-launches or pinnaces. As a sub-lieutenant, I went in for flying, and for some years rather drifted away from the sea and boat-sailing. I remember, however, a Whitsun week-end when I was one of a party (which included a very sea-sick Airedale dog) that chartered a Solent one-design yacht and attempted, amongst other examples of bad seamanship and over-confidence, to sail across to France in a south-

* " Can," " Can do," used by Malays almost in the same sense as " O.K."

westerly blow. We split the mainsail and lost the dinghy ; but being a sturdy, well-designed vessel, she got us home safely.

The big beamy, twin-masted Gozo boats with their two lug-sails, which I met during a commission in the Mediterranean, made a considerable impression ; but it was not till I went out to China, in 1932, that the dream of designing and owning my own boat really became fixed and permanent.

On the coast of China at that time—and I doubt whether it has changed even to-day, in spite of all that the Japanese and others have done—no one could fail to be struck with amazement at the vast fleets of river, estuary and seagoing sailing-ships encountered. It was nothing extraordinary to see, off Amoy or Swatow, two hundred ships at a time, and all out of sight of land ; and on the rivers and creeks, the traffic was sometimes so heavy as almost to obscure the banks.

I had a seaplane in H.M.S. *Cornwall*, which gave me an ideal opportunity to study the various types of Chinese junk under all conditions. When they were out at sea, thrashing into half a gale of wind or lying to their nets, I used to fly past them low; or I would land alongside them when they were working land and sea breezes in the sheltered waters of the inlets of the West River or in Bias Bay, the pirates' hide-out.

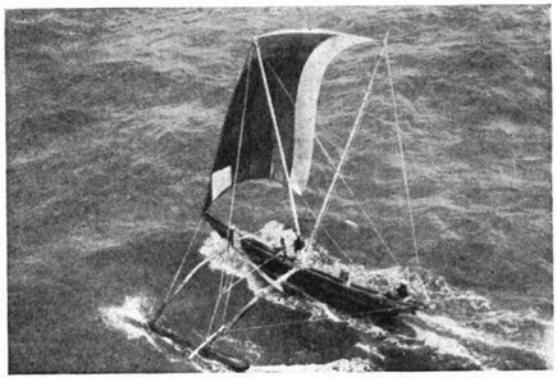
In China there is a set pattern of vessel for each area of the coast and each of the major rivers. All the junks sailing from Tsingtao, for instance, will conform very closely to a type—a type quite different from that working from Tientsin, the Yangtse estuary, Amoy, or Hong Kong—all of which have their individual characteristics, according, I suppose, to the seas they sail, their function and cargoes, and the mentality of their crews. Within the type, each individual junk conforms very closely, though there is still sufficient divergence for natural selection to operate.

There is also an overall pattern for the junks of China, from which no type digresses much further than the individual from the type. The main features of this family are : maximum carrying capacity, with seaworthiness ; flat bottoms ; lug-sails (nearly always stretched to a wing-like shape by battens or a multiplicity of booms) ; very stout masts, with few stays ; reefing rudders, low bluff bows and transom sterns—usually with a projecting false stern beyond the transom ; poop deck built atop, housing the cooking and sanitary arrangements, ducks, pigs and chickens, women and children.

What impressed me chiefly about the Chinese junks—apart from their great number, which, when one considers the opportunity there has been for evolution amongst them through the ages, seems an insurance that no feature has survived which is not worth either its weight or its cost of construction at sea—were their load-carrying capacity, their speed before the wind, the rapidity and ease with which they can

CHUSAN JUNK

GOZO BOAT



CEYLON OUTRIGGER

HONG KONG JUNK

shorten sail and their ability to point high into the wind when necessary in narrow waters. They make considerable lee-way when so pointed, but so also does the Norfolk wherry or Thames barge.

I did two commissions in China, and came away with as great an admiration for Chinese craft as for the seamanship of the men and women who sail, *yuloh*, quant, or row them. I thought, and still think, that the Chinese have evolved a better design for safe, comfortable, commodious and reasonably fast ocean or coastal cruising than has come from a Western nation. The Tea-clippers are, of course, excepted; but besides exceeding the scale of even the largest Chinese junk (the sea-going variety of which average about 30 tons and range from 10 to about 300), these were one-purpose fast ocean-cargo carriers, and dangerous on a lee shore or in narrow waters.

In 1934, and again in '36, I sailed a good deal in *Madcap*, a 15-ton Bristol pilot cutter then belonging to a friend of mine. With various crews, sometimes myself acting as temporary skipper, sometimes as cook, we entered most of the south-coast ports of England and a few of those on the north coast of France. She was fitted with roller reefing to her gaff mainsail, which meant a heavy boom. When lowered, this boom was supported by scissor crutches, fitted into notches in the deck, which only stayed put when the weight was on them—horrible contraptions only excusable in dinghies ; also the long, heavy boom tended to dip into seas when running. At the worst this meant a gybe ; at best a heavy jar to the gaff and to the whole ship when the boom swung forward again. She was very comfortable and seaworthy, but slow and slack in stays. She had a petrol-paraffin engine, which, like many of that vintage, usually failed to start, stop, or go astern in emergency.

In 1937, I was back in the Mediterranean in H.M.S. *Glorious* and lucky in having a captain (now Lord Fraser of North Cape) who always encouraged enterprise. He allowed me to go on two cruises in the ship's pinnace, a 40-ft. open boat with engine, fitted with loose-footed gaff rig, the mast capable of being stepped and unstepped—albeit requiring the united efforts of four men to do it. The first cruise was seven days in the Greek Islands following the ship ; the second from Crikvenica to Split in the Adriatic. On both of these short cruises we were able to make fast, stern to wharf, in delightful little harbours almost every night, obtaining excellent food and wine from cheerful Greeks and friendly Dalmatians at incredibly low cost. If it ever returns to approximately normal conditions, the Eastern Mediterranean will be again one of the finest cruising grounds in the world for yachts with moderate draft. My ideal cruiser at that time was modified accordingly —maximum draft 5 ft.

During the war, I had no sailing beyond a few fishing excursions in the remarkable outriggers that work from the west coast of Ceylon.

These average 25 ft. in length in the main hull. The outrigger, which remains to windward, balancing the pressure on the sails, is merely a shaped log, about 15 ft. long, joined to the hull by two curved booms. Two masts, set at about 30° to each other, and pivoting from the centre of the main hull, are stayed fore and aft and to the outrigger athwartships. They carry a tall rectangular sail, of which either vertical edge may be used as luff or leech, according to which tack one is on.

Going about, or rather changing direction end for end, is not quite such a difficult or laborious process as may be imagined. But the Cingalese, like most Eastern peoples, are realists as regards exertion : they do not undertake the manoeuvre more often than is necessary. Therefore, although the fish are plentiful only on a comparatively narrow bank, one board out and one board back (the wind being generally parallel to the coast) is the usual day's fishing programme.

The speed of these canoes is astonishing, and they must be fairly seaworthy for, although they are often out of sight of land, accidents are seldom heard of.

For some time I played with the idea of a scaled-up version of an outrigger, say 120 ft. long, which would give a 6-ft.-wide corridor cabin with plenty of head room, no rolling, and all stores and water in the outrigger. If it stayed together, one should be able to cruise in such a vessel at an average of 10 or 12 knots, with a maximum of 20 or more, since the 30-ft. version does a good 10 with a stiff wind abeam. The only serious difficulty would be in achieving sufficient flexibility in construction. In the native craft, everything is bound together and stayed with coconut-fibre ropes and string ; the only component in the whole contraption that does not bend is the outrigger log itself, which is a solid lump of mango tree.

After the war, I did a six-weeks' cruise to the Baltic in a " mystery "-class yacht, a fast and lively vessel, with most of the modern improvements in the way of upper-deck gear, and Calor-gas cooking below. She had one feature I very much liked : two large sliding hatches aft on the cabin roof, the leeward of which could almost always be kept open. I believe this idea was originated by Dr. Noel Sergeant of Salcombe.

All these years, then, I had been imagining that *some* day I should build a boat, travel the oceans, and live aboard her. No one yet having invented a cheap Diesel amphibious caravan, I felt that a yacht was the best means of visiting remote parts of the world in comfort, cheaply, and not as one of a crowd of tourists. When the bomb fell on Hiroshima, the plan seemed to me more sensible than ever. During night watches at sea, on mountain walks, or whenever the mind was free to turn to the subject, I pondered on the lines, the rig and the lay-out of the boat as I would have her. Many, nay, most Englishmen have a similar plan at the back of their busy, workaday consciousness ; few ever get the opportunity to carry it out.

For me, however, this chance came when I was appointed, first to the Naval Air Station at Sembawang, Singapore, and later Boom Defence Officer at Loyang in the same island.

At Sembawang, Japanese prisoners of war, organized by that enthusiast, Cmdr. K. W. Beard, R.N., who is widely known in the Service as " Bog," built a series of model yachts, including my first prototype *Boleh*. It was from watching these careful and clever craftsmen that I learnt enough to be able to build a modified version on an accurate scale of 1 inch to the foot. At Loyang I had, for the first time in my career, a settled shore job for two years, with space at hand to build my full-size craft and materials and labour available.

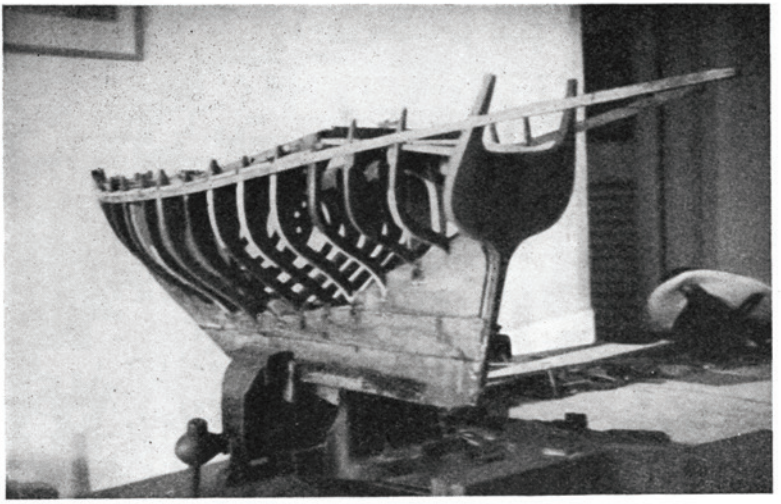
By a stroke of luck, not apparent to me at the time, the Japanese prisoner-of-war engaged on *Boleh* Mark I was repatriated before she was ready for sea, and I had to finish her. But for this, my lack of dexterity with any kind of tool would certainly have prevented my attempting to make a scale model of the projected vessel. Without the model, I should not have been able to try out and satisfy myself that the peculiar hull-form adopted was seaworthy ; and, lacking this assurance, I should have been obliged to be far less daring in the final design of *Boleh*.

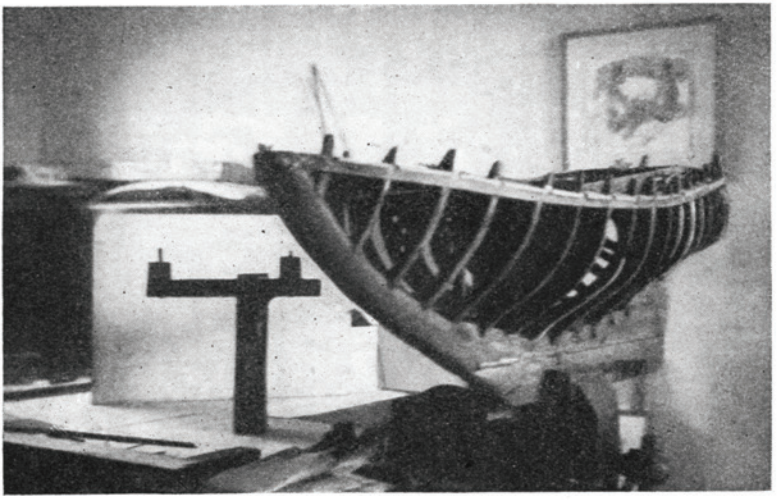
All my spare time from April to September, 1947, was devoted to the building of this model, *Boleh* Mark II. First, I drew the " lines " (with the help of various books on yacht design) as for a full-size vessel. Then I built the backbone, fitted the lead keel, stepped the frames in place, planked and decked her. She was fastened throughout with bamboo nails (of which I calculated I used something over 6,000), plus a good deal of glue. The wood used was mostly scrounged off the scrap-timber heap at the back of the woodworkers' shop, and the masts and spars were of split and glued bamboo. I steamed the planking over a " Primus " stove, and bought a sewing-machine with which to make the sails. Luckily, the last-mentioned work was taken over by the kind-hearted wife of our Pay Commander.

When *Boleh* Mark II was finished, I set off with " Bog " Beard on fourteen days leave. We packed up *Boleh* Mark II and " Bog's " latest Jap-built racer and went to stay at Port Dickson, where we had heard there was a reasonable bathing beach.

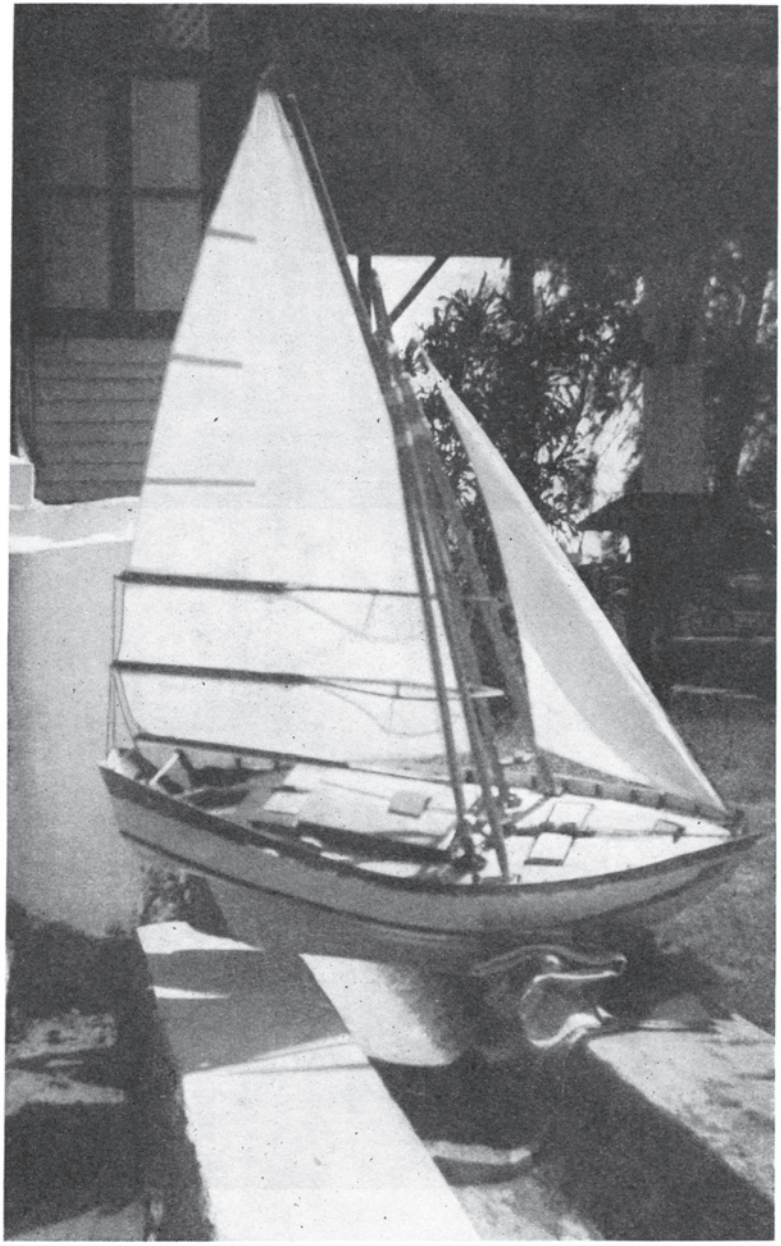
How well I remember the anxiety of the first day's trials ; the unpacking of the two yachts, the stepping of the masts, the rigging of the sails ; the photograph I took before committing *Boleh* to the sea and to the foundering that then appeared to me inevitable —and the last minute decision to postpone the trials for a few hours to allow the weather to moderate, and ourselves to gain more courage !

All the more was my triumph. therefore, when the miniature *Boleh* not only proved seaworthy, but also showed she could hold her own





WITH BAMBOO NAILS AND GLUE

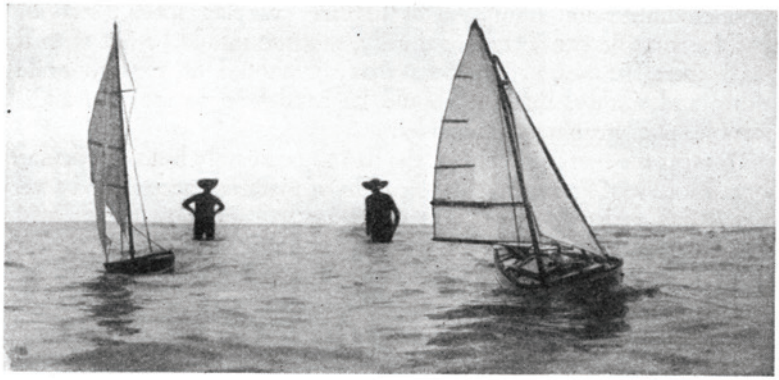


THE MODEL *Boleh*

with " Bog's " racing model, which was of the same water-line length but Bermuda-rigged, with a mast almost twice as high as mine.

Port Dickson turned out to be an ideal place for model-boat sailing. At low water, and even at a half-tide, there was a lagoon of considerable size, and not too deep to wade about in, with a sand bar to the open sea. When the wind was right, almost all kinds of sea conditions were available in miniature for our trials.

" The two mad Commanders," as we not unnaturally came to be known, could be seen early or late, for five or six hours a day, whenever the tide was right, up to their hips in the sea, but protected from the sun by large straw hats, at either end of a strip of water a hundred



THE TWO MAD COMMANDERS

yards or so wide, sailing their boats across to each other. The scale of the celebrations when trials were successful, and of the fortification our spirits required when things went wrong, added much to our reputation for eccentricity amongst the charming people living in the locality, themselves not backward in finding an excuse for a party.

We did not carry out trials to the actual destruction of the yachts, but very nearly so, for the breaking seas on the bar when it was blowing hard must have been equivalent to those raised by a hurricane for a full-size vessel. More than once both models were knocked flat with masts and sails momentarily in the water.

I had brought two rigs for *Boleh* ; one a normal loose-footed gaff mainsail, with orthodox mast ; the other " my own invention," somewhat after the Chinese-junk bamboo-lug rig, but involving a quadruped mast and two wishbone booms, in addition to the main boom. As the trials progressed, there was no doubt that the latter was the faster and more efficient rig. It also looked much nicer.

CHAPTER TWO

Designing

i

WITH THE SUCCESSFUL COMPLETION OF THE TRIALS WITH THE MODEL *Boleh*, I turned my mind to the far greater task of planning the full-size craft.

I will attempt to describe the hull and rig as finally, and with some misgiving, adopted. What went wrong with the rig, and why, and how we corrected it, will appear in the narrative of the voyage.

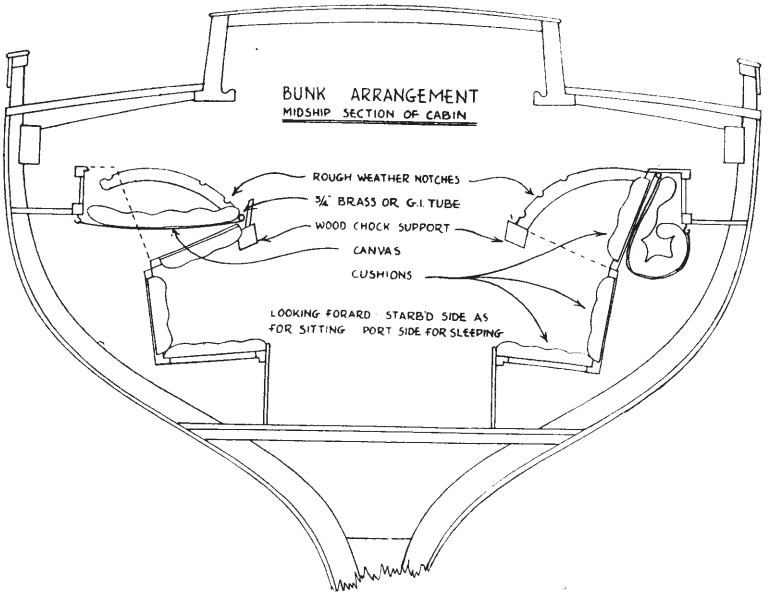
So far as the hull was concerned, I had long ago decided my guiding rules : firstly, that she must be strong and safe, and have a high tons-per-inch immersion figure, so as to carry varying loads ; secondly, that she must be comfortable ; thirdly, that she should be fast with the wind abaft the beam ; fourthly, that she should be easy to build ; fifthly and sixthly, that she should be handsome to look at, and, if possible, manageable single-handed.

To meet the first requirement she had to be heavily built, particularly so as my lack of knowledge of strengths of materials necessitated a very high safety factor to cover errors. Heavy construction meant heavy ballasting or wide beam. I plumped for both. To be able to carry heavy loads without sinking too much in the water meant an overall flare (saucer shape) for some distance above the water-line. I gave her pronounced flare everywhere, except right amidships, for at least a foot above the designed water-line.

For lying to in a gale, and also for steering steadily while before the wind and sea (both very definite safety requirements), a long straight keel and considerable lateral plane or keel area is necessary. *Boleh's* keel was to be some 20 ft. long, and she was to draw 6 ft. 9 in. forward and aft.

To be comfortable at sea, one must have ample room for eating and sleeping ; the cooking arrangements must be good ; and there must be plenty to eat and drink. I devised a main cabin with two full-length bunks—a modification of the Root berth idea—folding out over the settees on either side and,when not in use, forming backs to them. At a pinch, the bunks and settees could all be occupied at the same time. The fo'c'sle would have two cots ; and my cabin, right aft on the starboard side, a built-in berth. The galley would be amidships and fitted out so that meals could be prepared and cooked with the minimum of difficulty, whatever the weather prevailing.

Another ingredient for comfort is ease of motion. I planned very " slack " bilges, i.e., no sharp corners, and a deep keel ; and thanks to these, *Boleh*, when completed, rolled gently and with moderation, though apt to pitch rather violently, owing to her very buoyant ends.



To be fast down-wind, one would really like to have no keel at all, light displacement, and a long, straight run ending in a pretty counter. I managed to achieve a long, straight run and a little bit of sawn-off counter, but a deep keel and heavy displacement had to be accepted.

For ease of building, sharp or reverse curves had to be avoided, and rather heavy scantlings used throughout in order to provide a safety margin for slightly inaccurate work or bad design.

So what I arrived at was a heavy-displacement hull (16 tons), with plenty of room inside it, wide beam—12 ft. 3 in. (for a water-line length of 32 ft. and overall length of 38 ft.), a long, deep keel, with 4 tons of lead at the fore end of it, soft bilges, and as sweet a run as I could give her.

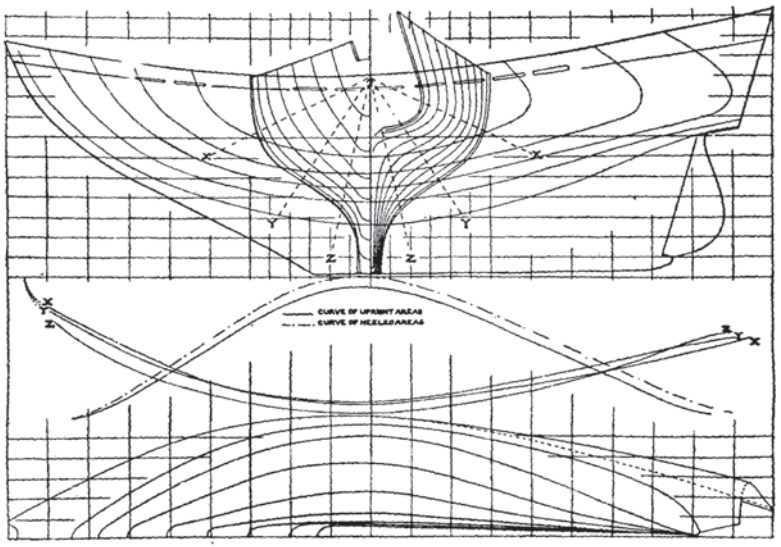
In drawing the lines of the original model, the factors mentioned above had, of course, been taken into consideration, but not in detail. Now that I was faced with the possibility of building the vessel itself, all the details had to be worked into the hull, and the lines had to be modified and re-balanced, the stability, curve of displacement, etc., checked and re-checked. This involved many long hours of work, and it was several months before I was satisfied with the 1-inch to the foot set of lines, and these were again modified slightly when I came to draw them out full scale.

Sail plan was, of course, considered at the same time as the lines. I have said something already of the alternative plans tried in the model. I still strongly fancied the lug-sail, so decided to go ahead with that rig,

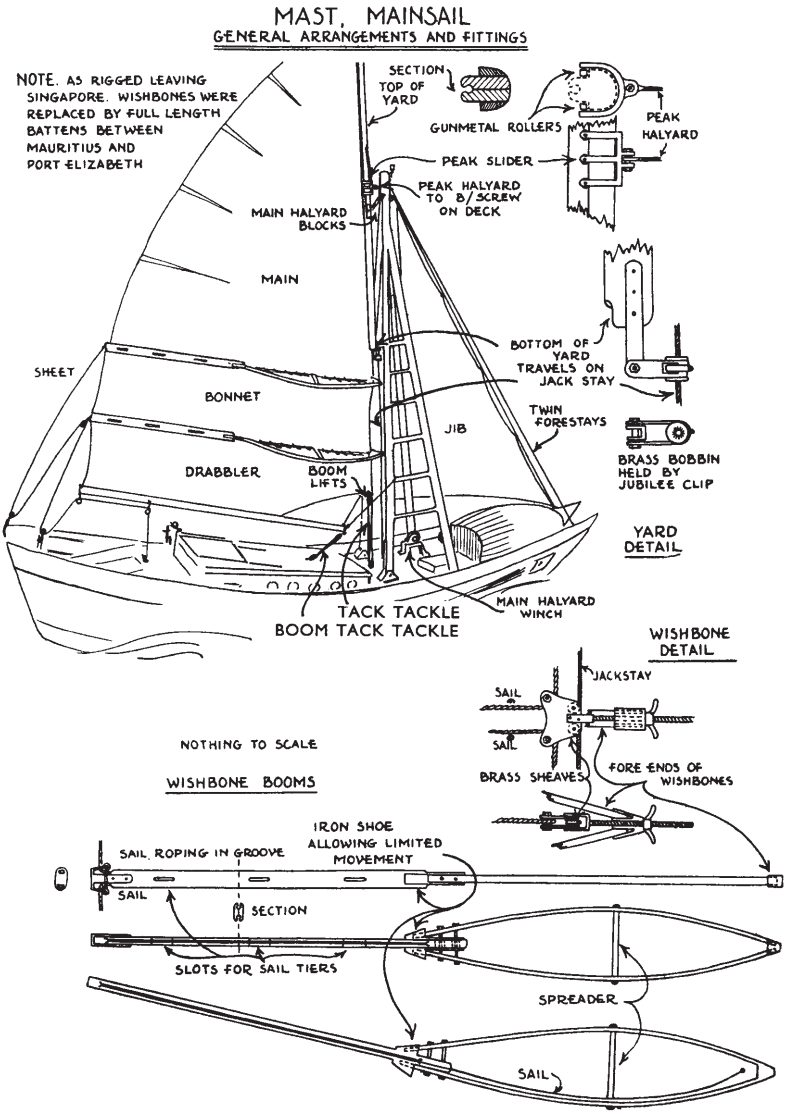
fondly imagining (this was in the spring of 1948) that there would be plenty of time to change to the gaff rig after trials, if necessary. As it turned out, neither time nor money was available to make the change and we sailed with this remarkable rig almost untried. I will endeavour to describe it in a little more detail.

The two main advantages of the Chinese-junk type of sail are a well-spread area of flat sail and easy reefing. The disadvantages are the weight of the many booms or battens (a reliable estimate given me for the weight of one junk mainsail was 3 tons !), and the fact that on one tack the lug-sail is to windward of the mast, which, besides inducing a very bad shape for windward work, makes for excessive chafe.

I reduced the number of booms to three, and split the mast so as to allow the sail to be central between the two halves. The main lower boom was of normal type ; the two wishbone booms, however, were complicated affairs and very heavy. The sail was in three pieces—main-sail, bonnet and drabbler held together by lacings forward and by the wishbone booms aft. The root end of the yard and the fore ends of the wishbone travelled on a jackstay, running from deck to cross-trees. The peak halyard led to a slider on the yard, and would require no attention when reefing, as the yard would travel nearly vertically up and down, being held by the slider at the top and by the jackstay at the bottom. The mainsheet ran from the top wishbone to a block on a horse at the extreme after end of the ship, thence to a block on the lower



THE LINES



DETAILS OF RIG

wishbone, thence to another travelling block, up to the boom and through a lead block to the cleat.

All this is very difficult to describe in writing, but I think the sketch and photographs make the rig, which is essentially a sliding gunter* as seen on thousands of 14-ft. dinghies, quite easy to understand.

The result was a beautifully setting mainsail. I will say no more on that subject for the present.

The lessons learnt during the building and sailing, the gadgets that worked, the gadgets that failed—these will emerge in the pages that follow, and a general summing up appears in the form of an appendix on page 207.

ii

Simultaneously with the detailed designing of the yacht, other important sides of the complete project had to be dealt with. I had to know how much time was available for building, decide where and how to build, engage labour, and order materials.

Almost as soon as I took up my job as Boom Defence Officer, I wrote to the Admiralty asking how long I could expect to serve at Loyang, and requesting six months' half-pay leave, to sail my yacht home on completion. It was nearly three months before I got a reply, and in the meantime I saw a number of boat-builders and contractors in Singapore, hoping to find a reliable firm to build to my plans on a reasonable contract. The provisional estimates I obtained were all a great deal too high. They averaged £2,500, whereas, allowing for the inevitable extras, £1,000 was the highest I could go. Gradually I was driven to the conclusion that my only chance was to get permission to build at Loyang (which has sheds, slipway, pier, etc.), buying my own materials, and employing my own labour.

In June I received the Admiralty's reply as follows :

> "I am to inform you that the appointment of Commander R. A. Kilroy, D.S.C., R.N., will be of two years' duration, i.e., until January, 1950.
>
> "I am to request that this officer's application for leave may be forwarded at a later date for consideration."

This was non-committal, but generally satisfactory, so I at once saw the local admiral and applied, in writing, to build within the depot at Loyang. The reply was dated 9th August and gave the necessary approval, subject to certain conditions covering the Admiralty against "... any compensation which may become payable as a result of (a) injury to any workmen employed by you for any purpose connected with construction of this yacht, or (b) injury to any other person or property arising from work of any kind in connection with building the yacht or from any act of any workman, etc., etc. ..."

* See glossary : Gunter rig.

CHAPTER THREE

Building the Hull

i

SO BY MID-AUGUST, 1948, I KNEW I COULD GO AHEAD. MY TENTATIVE arrangements, made through Mrs. Douglas Young, wife of the then District Officer Trengganu, and the harbour-master at Trengganu, to engage two Malay shipwrights from that port at $85.00 (approximately £10) a month, plus food and lodging, were immediately confirmed ; timber was selected and ordered, and the drawing out of the lines to full scale was commenced on the concrete floor under my bungalow. By this time also, I had been lucky enough to meet George Jarvis, a chargeman of shipwrights in the dockyard. He had sailed with me several times in my Star boat and, having seen the model and plans of *Boleh* became a most enthusiastic adviser and co-operator in the work, as well as the first volunteer to be one of my crew. During the early days of building, I discovered that he was a Salcombe man and that his father used to supply our house with coal when I lived there as a boy. We forthwith decided that, if we ever got as far as sailing *Boleh* home, Salcombe should be our port of arrival.

When the full-scale drawing was completed on the floor, we calculated the sizes of all the main components—keel and deadwood, frames, planking, beams, deck—and placed an order with Sin Lam Chong timber-yard of Singapore. The first four enormous baulks of *chenghai* timber, forming the keel and part of the deadwood, arrived by lorry on the 22nd September. When I saw them unloaded, I felt for the first time the terrible sinking feeling—the conviction that the task we had undertaken was far beyond our capacity—which I was to experience at every major crisis during the building of *Boleh*.

Here is the bill for those four logs :

Chenghai Baulks

1 pce.	20 ft. by 24 in. by 9 in.	$240.00
1 „	12 ft. by 22 in. by 11 in.	114.71
1 „	18 ft. 6 in. by 20 in. by 10 in. ..	154.42
1 „	12 ft. by 18 in. by 10 in.	96.60

Chenghai (or *Chengal*, as it is more correctly written) is immensely heavy—59 lbs. to the cubic foot, as compared to oak's 41 lbs. Note the dimensions, and then visualize the logs, if you can. It was a Wednesday afternoon, I think, when they arrived and they just stayed where they fell until the week-end. I had not the courage to set about moving them, and wondered how much I should be able to sell them back for ! However, when Jarvis arrived on Saturday, he did not appear unduly

dismayed at their size, and it was not long before we got them into position with jacks and hand-cranes, and I was taking my first lessons in the use of the adze.

The following week I had an exhibition of my paintings in Singapore, to increase the funds available for the yacht. It was not very successful. At seven o'clock in the morning of the 4th October, the last day of the exhibition, two of my Malays, Embong and Ali, arrived and work commenced in real earnest.

Those early days of the building—when I had become accustomed to the size of the real thing, when everything was going well, when the forecast date for completion, even with only the two Malays working, was still the spring of 1949, and when the designing, overseeing, purchasing, etc., though exacting, were still well within my powers—were some of the happiest I have ever spent. Jarvis was always there for week-ends, and often other friends and helpers. Although we worked hard on the vessel, we still occasionally took time off to sail *Sirius*, my Star boat, either racing or for bathing picnics. For the first time in my life, I had my own private residence to do what I liked with. There were Chang and another boy to look after me ; Dopey, my dog, and his wife, Twirp, to go walks with—and always the enthralling interest of watching the hull of *Boleh* take shape to my designs, under the skilled craftsmanship of Embong and Ali, of both of whom I grew very fond.

But to return to the business of building *Boleh.*

One of the major problems was how to launch her when completed. Shelter from the weather being essential, she was built just inside the main shed—the only large covered space available. The site was ideal for building, two minutes' walk from the bungalow, safe to leave tools lying around in, completely dry, and with plenty of room to work ; but it was three or four hundred yards from deep water, and our most powerful mobile crane could lift only 8 tons. We planned, therefore, to cast the lead keel separately, place it on the launching trolley on the slipway, then lift the incomplete wooden hull, transport it to the slipway and fasten the two together.

We could have dealt with the lead keel in several ways, but we elected to make a wooden template of the top surface of it, drill the holes for the keel-bolts through both the template and the wooden keel—this at an early stage in the building, when it was easy to work the augurs—and then cast the keel-bolts solidly into the lead keel when running it, using the template to hold the keel-bolts in position.

Being forced to make this decision so early on, we were obliged to fix the general shape of the lead keel, which would have to form a smooth continuation of the wooden hull, select the position of the keel-bolts, and calculate—or at least make a guess at—the weight of lead required.

Estimate of displacement, November, 1948.

Main wood keel	1,400	lbs.
Deadwood	1,400	,,
Stem	900	,,
Horn-piece	1,300	,,
Frames and beams	2,000	,,
Planking	2,500	,,
Deck	1,400	,,
Internal wooden bulkheads, etc.	2,000	,,
Engine and installation	300	,,
Fuel	900	,,
Water and tanks	1,600	,,
Masts, sails, rigging	1,600	,,
Fastenings	1,500	,,
Crew, gear and stores	5,000	,,
Chain cable and anchors	800	,,
	24,600	lbs. = 10.9 tons
Add lead	5.3	,,
Total :	16.2	tons

When it came to calculating the exact disposition and weight of the lead keel (i.e., to making the mould for the casting) it was, in theory necessary to know the weight (and its distance from the centre of lateral buoyancy) of every piece of timber and every fitting in the vessel, as well as the weight and position of water, petrol, stores, and crew. In the early days we did weigh each timber as it was built in, but this practice soon died a natural death.

However, as a ship has to float to her designed water-line, and her total displacement is known from the lines (in this case 16.2 tons), one must know approximately the weight and position of centre of gravity of one's lead keel before one casts it ! So, using the revised displacement estimate given below (there had been three intermediary ones, each requring some slight revision of interior plan), I made a scale model in balsa wood of the proposed lead keel, dipped it in a jug filled to the brim with water so that the water overflowed, and measured the exact quantity of water required to refill the jug. Then, relying on Archimedes, and with the help of Molesworth's engineering tables (marvellous book), I calculated the weight of a full-scale lead keel of the same shape, and proceeded by trial and error until it was right, i.e., 4.3 tons, with centre of gravity—if I remember rightly—seven inches ahead of the centre of buoyancy. The centre of gravity of the model was found by balancing on a knife-edge.

Estimate of Displacement, 6th June, 1949.

Already built in :

Main wood keel	1,400	lbs.
Deadwood under	1,220	,,
Stem	510	,,
Forward horn-piece	600	,,
After horn-piece	340	,,
Transom	100	,,
Keel fastenings	200	,,
Sawn frames	1,700	,,
Steamed frames	500	,,
Planking	3,180	,,
Cabin roof—trunk		
sides	518	,,
front	54	,,
Shelf by 2	400	,,
Deck beams	950	,,
Floors	350	,,
Plank fastenings	200	,,
Knees	350	,,
Cabin floor beams	150	,,
Mast steps	150	,,
Internal stanchions	150	,,
King plank	500	,,
Covering board	300	,,
Rail cap and fittings	100	,,
Bulkheads	200	,,
	14,122	lbs.
=	6.3	tons

Planking.
(18 planks each side)

		Lbs.
6 lowest	70	=420
4 next	80	=320
3 ,,	90	=270
1 ,,	100	=100
2 ,,	110	=220
2 ,,	130	=260
		1,590
		x 2
		3,180

To be added :

Rudder	350	lbs.
Deck planking	900	,,
Cabin roof planking	200	,,
Cockpit planking	150	,,
Deck fastenings	150	,,
Cabin floor	150	,,
Anchors	300	,,
Cables	350	,,
Lockers, etc.	300	,,
Stove, ice-box, galley	100	,,
Bulkheads	250	,,
Water	1,500	,,
Fuel	1,500	,,
Engine	350	,,
Masts	1,600	,,
W.C.	100	,,

Plumbing	100	lbs.
Berths	150	,,
Personal effects ..	350	,,
Sails, spars	650	,,
Crew	750	,,
Food	1,500	,,
	12,550	lbs.
=	5.6	tons
	6.3	,,
	11.9	tons
Add lead :	4.3	,,
	16.2	tons

Of course, all the above was worked out much later. At the time of which I am writing (towards the end of 1948), the details of the junction of the lead and wood keel and of the launching (there being just not enough water at the end of the slipway to float her, even at spring tides) were horrid problems that we put out of mind in order to deal with the immediate situations as they arose.

Many and varied they were, too. First, we found dry rot in our main keel timber and had to cut away a large chunk of it. Then there was the lead to find—a story in itself. Then there was the engine. At one time we thought we had wangled a 12 h.p. Diesel for " disposal " for £5. When that fell through, many days were wasted searching the back yards of Victoria Street, Singapore, and inspecting " highly recommended " second-hand engines, all of which turned out to have some major fault. In the end, we ordered an 8 h.p. Stuart Turner from England, and very glad I am that we did. The sails had also to be designed and made under contract. They were as follows :

(a) Two working mainsails, each about 550 square feet. One was of heavy white canvas, the other of slightly lighter canvas and brown in colour.

(b) Five jibs : storm, small worker, large worker (No. 2) and two Genoas, the last named 300 square feet each.*

(c) A very heavy trysail.

(d) Two spinnakers (both home made), the larger 500 square feet, the smaller 250.

These sails had to be " barked " or tanned. My spare bath was used for soaking them after boiling in the bark mixture ; it was still a dusky red when I left the bungalow.

The masts and spars had to be procured in the rough, shaped, built and varnished ; the stove, table, bunks, and all interior fittings designed ;

* See Jib, glossary, page 224.

anti-fouling paint tested ; water- and petrol-tanks built ; and a thousand and one other things thought out to get the best and most economical result.

My Service work occupied all normal working hours, besides necessitating quarterly visits to Hong Kong, which took me away from the yacht for a week at a time. But it also had the advantage of the use of a car to travel in, and Service reasons for frequent visits to the dockyard and to Singapore town itself.

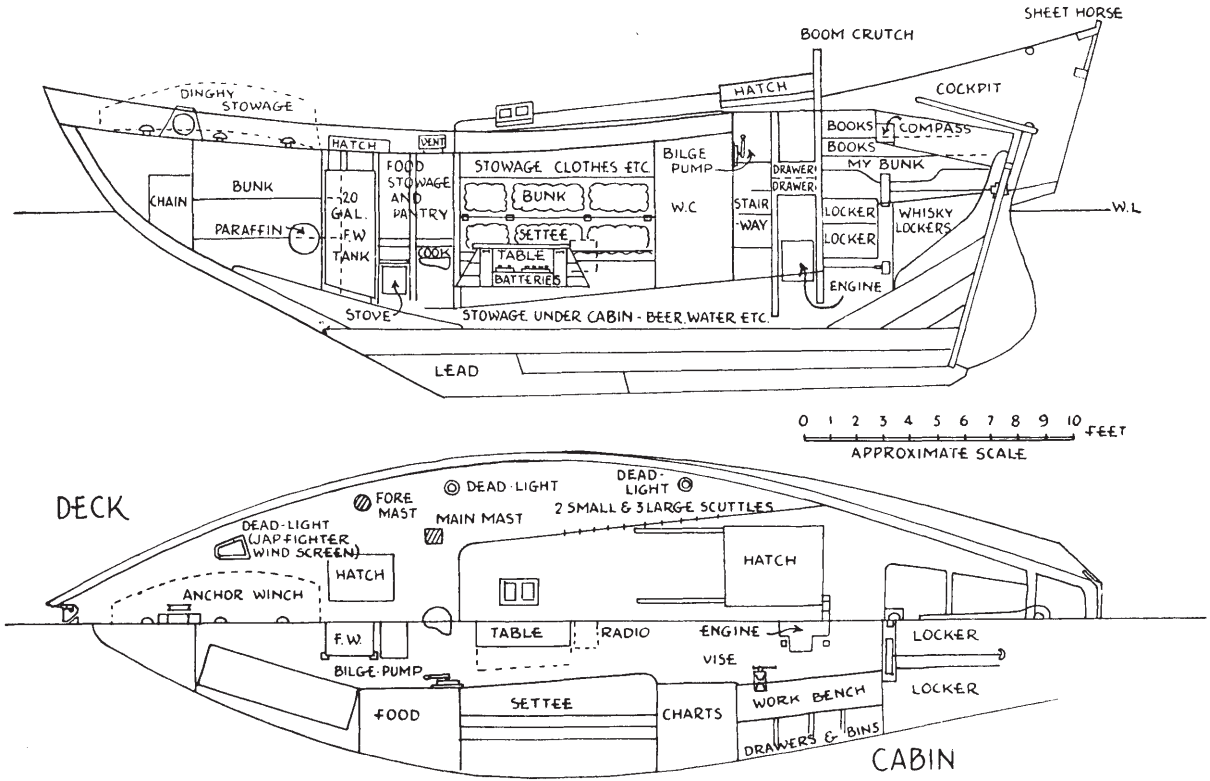
ii

By January, 1949, it became obvious to me that we should not finish by midsummer unless we got more men on the job. Embong, therefore, recruited one Awang by letter. He arrived in February, and Embong was then sent off to Trengganu for a week's leave, with instructions to bring back one more good shipwright and the remainder of the seasoned *chenghai* planks required for the hull, which I had been unable to get in Singapore.

Of the many minor disasters that occurred—the bolts that broke off in the driving, the steamed frames that split in being bent to shape, the mistakes I made taking off sections from the floor, resulting in hours of extra work—suffice it to say that we had our fair share. Bad luck is so often only a nice name for clumsiness. The inherent perversity of insentient things—so constantly and forcibly made evident to me when working on *Boleh*—was hardly noticed by Jarvis or the Malays. I maintain, however, that I really am unlucky in small things—by way of making up for such large slices of luck as the opportunity to build *Boleh*.

Small things can be sufficiently annoying, nevertheless. Take the fate of my first set of construction drawings. I had managed to get *Boleh*, complete with sail plan, hull, hull sections, centres of effort, centres of buoyancy, scantlings and construction notes, all on one large sheet of special tracing-cloth. This I then had to ink in, so that copies could be printed for our use. It was a long, tedious task, but by the end of three weeks, only a small section remained to be done, and, by starting one morning at 5.45, I had the whole thing finished by breakfast time, except for the rubbing out of the old pencil-marks.

I had to attend a meeting at the dockyard at 9 o'clock, and had first to go to the office, which left me with very little time. Whilst drinking my coffee, I began on the rubbing out, with Lim Fok Gnow, my most intelligent Chinese steward of those days, standing watching me and simply itching to help in some way. It was a rather slow process, as it required some care to prevent the dry ink from coming off in places with the pencil-marks. At last I could delay no longer, so I explained the difficulty of the ink to Lim and left him to carry on while I dashed down to the office.



LAY-OUT OF THE COMPLETED VESSEL

As usual I was detained there a little longer than I had meant to be. When I returned to the bungalow some twenty minutes later to collect the drawing, Lim presented me proudly with a completely clean sheet. The ink-lines that he could not get off by heavy application of the rubber he had erased with one of my safety-razor blades.

I was fond of Lim.

iii

Embong came back on the 19th March with the new hand, Wan Ali, and the *chenghai* planking, their impending return announced in a three-word telegram, as follows :

" EMBONGBINSALLEH MENGGANTIBAHARU KESINGAPORE "

As usual, they arrived in the middle of the night, unfed, and with the taxi unpaid, but it is impossible to be angry with these charming people.

I wish I had the skill and the space to describe in detail the methods and craftsmanship of my Malays. Embong, particularly, was a delight to watch working with any tool ; or marking off a piece of timber, a knee or frame, with his ingenious black-ink line-marker, equivalent to the English chalk-line, but more accurate ; and the whole apparatus self-contained, compact, and always ready for use.

Apparently it is to an unknown Frenchman, sole survivor of a ship sunk or burned by the fighting Prahus of the Sultan a century or so ago, that we owe the excellence of the Malay shipwrights of Trengganu. They say that the prisoner proved so useful in the Sultan's shipyards during captivity, and built so many fine ships, introducing ideas new to the Malays, that he was eventually set free and enjoyed special royal patronage for the rest of his life, in return for instructing the people in shipbuilding.

I have not attempted to verify this story ; but certainly there is a distinct type of trading vessel still built in Trengganu, whose lines suggest a French origin ; and certainly, too, the methods of Trengganu shipwrights differ from and are much superior to those current in the rest of the peninsular.

Apart from the masts, which were of Douglas fir, and the shelf, covering-board, hatches, coamings and internal fittings, which were of teak, *Boleh* was built entirely of Malayan timber. The characteristics of Malayan hardwoods are, generally speaking, great strength and toughness, coupled with great weight. *Chenghai*, the timber used almost exclusively in the building of *Boleh* (the deck, a lighter wood called *melawis*, and the above-mentioned teak items, were exceptions) is almost the strongest and heaviest of Malayan timbers.

In deciding the scantlings (cross-sectional area) of the various members therefore, I had to be careful not to make the ship too heavy and unnecessarily strong. Lloyd's rules for the construction of wood

yachts (the standard reference for deciding scantlings) deal with no wood stronger than oak, which has a maximum bending load of 8,280 lbs. per square inch, as compared to 17,680 lbs. per square inch claimed for *chenghai* ; so it was obviously permissible to go considerably below Lloyd's limits. In fact, being concerned, as I said earlier, with safety first and foremost, I conformed very closely to these rules and only in one instance did I go below them. My outside planking should, according to the rules, have been approximately $1\frac{1}{4}$ in. thick. I made the garboards (lowest planks) $1\frac{1}{4}$ in., but the remainder were only 1 in. thick.

Another difficulty in buying or selecting timber in Malaya is that of language. Chinese and Malays from different districts have a variety of names for the same timber. *Balau*, for instance, an excellent wood for keels, I have heard referred to also as *Teruntum*, *Susu*, *Damar Laut dain*, and *kiju bisi*. There is ignorance, too—or the simulation of ignorance—even among the buyers and sellers of timber, as to the different species and varieties of timber and even as to the part of the trunk from which a particular baulk has been cut, a most important factor in strength and durability. For the English amateur buyer there are consequently many pitfalls !

So *Boleh* was not constructed as designed ; rather did design adapt itself to the construction in hand and the materials available. I soon learned to take Embong with me for all important purchases, and timber was ordered according to what seemed right and practical, provided that it received his approval.

Most of the frames (ribs) were " sawn," that is to say, built up out of curved pieces sawn from a straight plank and fastened in double or treble layers to make the complete shaped frame. Others were formed of natural " crooks "—curved boughs of dead trees (*champadok*), which I carried away from the Changi airstrip, then being cleared for longer runways, and which fitted the desired curve of the hull when converted and trimmed. Others, again, in order to save weight, labour and space within the hull, were designed to be steamed and bent to shape. These gave much trouble. They were too large in cross-section to be steamed and bent in a single piece ; so, as it was also desired that they should have some taper upwards from the keel, I had *chenghai* sawn to lengths 12 ft. by $2\frac{1}{2}$ in. by 3 in., and then cut diagonally to produce two tapering pieces 12 ft. by $2\frac{1}{2}$ in., 2 in. thick one end and 1 in. the other. By steaming these separately and then clamping them together, base to base, a laminated tapered frame 4 in. thick at the keel end and 2 in. thick above deck level was produced.

This was splendid in theory. The only trouble was that for a long while we could not get the necessary bend into them without breaking or splitting. We boiled them three or four at a time in an improvized boiler (the butt end of an old hollow iron telegraph-pole), and, with

WEDGES, CLAMPS, PEGS AND BRUTE FORCE

" MUSTEE BOLEH ! "

wedges, clamps, pegs and brute force, bent them, still steaming, to fit the curves on the scrive board (four old work-benches clamped and nailed together, with the shape of each numbered frame painted in on top).

There were many failures. Some went during the initial bending, usually sending the man on the end flying off the bench ; some would appear to take the nip quite happily and then would split as they cooled. "Mustee boleh !" Embong would say as he drove in the wedges, meaning that this one had *got* to take the bend—but the wastage rate, at about 5s. for each failure, was alarming.

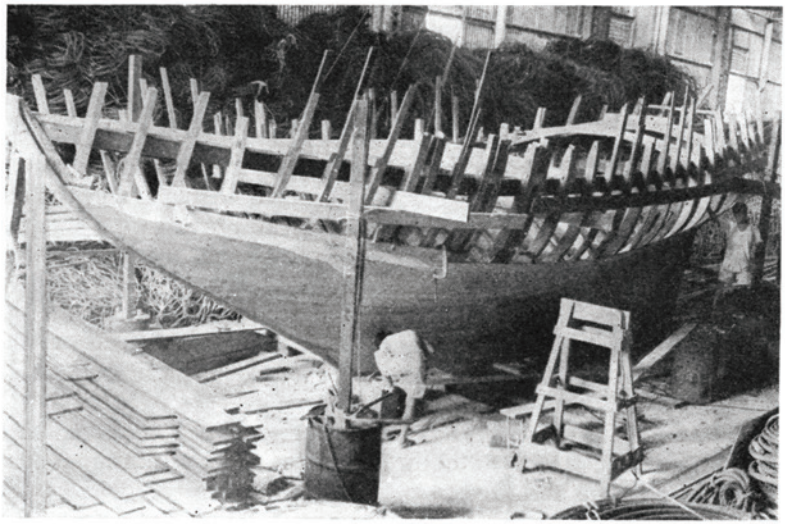
We tried different periods of boiling ; moved the boiler nearer to the scrive board to avoid loss of heat before bending ; added soap to the water ; thinned down the wood and tried with different timber—*balau*, *merbau* and *meranti*.

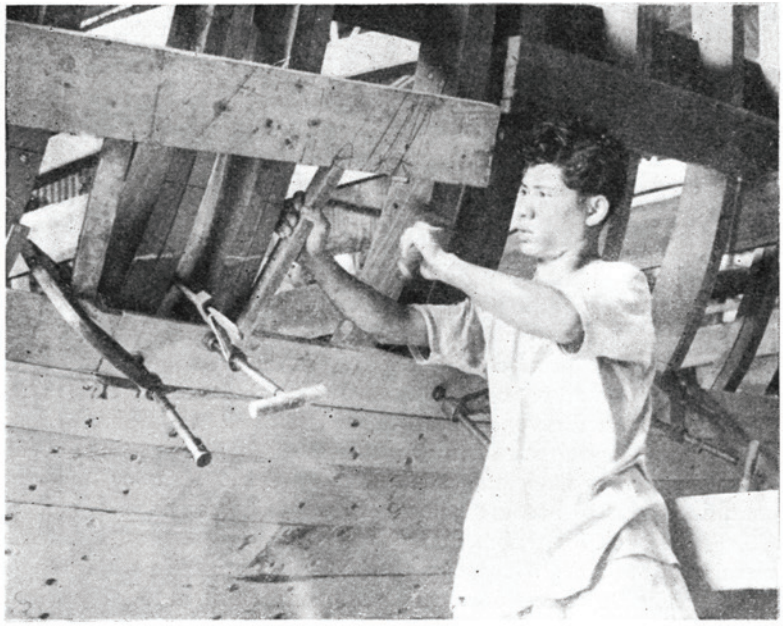
Merbau would, I believe, have proved successful if we had continued with it, for three out of four of the trial pieces took the maximum bend perfectly ; but the Malays were so emphatic that *chenghai* could, would, and must bend if properly steamed, that we persevered with it. Eventually, by reducing the boiling period to one hour instead of three or four, and by prayer and patience, we managed to bend the number of frames required.

By May we were still working hard on the planking up, and it was clear that our launching date, which we had intended to be in mid-June, would be at least two months later than that.

At about this time, I selected my crew for the projected trip to England —or, to be more accurate, they selected themselves. When I had started to build, people had heard about it and those interested and available had soon got in touch with me. Of these, two decided to join me : Lt.-Cmdr. Aplin, then King's harbour-master at the Naval base, a trained navigator and one of the best dinghy helmsmen in Singapore ; and Lt.-Cmdr. Rusher, a gunnery officer employed at that time on Intelligence work in the Far East. More to my purpose, however, was the fact that, besides being a very amusing companion, John Rusher was an enthusiast on food and catering. On the voyage, he turned out to be in addition a very efficient amateur electrician, accountant, radio-broadcaster, and Press-and-social relations officer ! His notes on food for a long voyage appear as an appendix to this book (page 213). Peter Aplin, as well as navigating with confidence and accuracy under all conditions, was to become sailing-master and boatswain and, next to Chang the cook (of whom, more in due course), the most important member of the crew. George Jarvis was to accompany us as shipwright and engineer. It was extraordinary lucky for me that all four of us were due for home leave at about the same time.

Peter and John now became frequent members of my week-end working parties, besides putting in a great deal of good work behind





PLANKING UP

the scenes. Peter provided close liaison over various work placed with the dockyard, learned sail-making and actually constructed our heavy storm jib himself. John experimented with the preservation of eggs and various other perishable goods, and searched the Singapore markets for cheap canned foods and kitchen utensils.

CHAPTER FOUR

The Lead Keel

i

THE DAY WE " CAST " THE LEAD KEEL was perhaps, the worst day of all. Certainly it was the most strenuous and exhausting.

Careful and elaborate preparations had been made for this, since, as I have already mentioned, a high degree of accuracy was most necessary. The mould or trough into which the lead was to be poured was made in concrete, the top of it level with the ground. When the concrete had set, our precautions to prevent it flooding, though most comprehensive, were unavailing. Many times we emptied it with buckets and dried it out with wood fires and blow-lamps. On either side of it we set up cauldrons in which to melt the lead. They were built up on bricks to leave room for the furnaces, and a pipe was led off from each to overhang the trough. We devised an iron plug inside each cauldron, with a wire leading out over the top, the plan being to get the lead in all cauldrons ready at once and then pull the plugs.

A most complicated and ingenious structure was devised to hold the 1½ in. brass keel-bolts rigidly in position and well submerged in the lead during the " run " or casting.

Books on amateur boat-building and yacht-construction usually touch rather lightly on such subjects as running lead keels, but they always mention, as among the advantages of lead over iron, the ease with which lead can be run; so we did not expect any serious difficulty.

When we had everything right, as we thought, and had collected the necessary quantity of scrap wood for the furnaces, we sent for the local expert in the full expectation of having our arrangements approved and being able to go ahead at once. But nearly everything was pronounced to be wrong with our plan. The template must be altered to

allow for contraction of the lead in cooling ; the pipes from the cauldrons must be replaced by clay troughs or ducts, for with pipes more than an inch or two long, the lead would cool and grow solid in them ; the interior-plug idea must be abandoned and special tools made for the insertion of exterior clay bungs, called botts ; and the run-off from the cauldrons must be in succession, not simultaneous. We were also reminded that some antimony had to be melted first in each cauldron, in order to harden the lead. Besides being dangerous to touch, this metal is very difficult to melt.

Luckily it rained that week-end, so we could not have proceeded in any event. By the next week-end, all the alterations and modifications had been made, and I remember that the day dawned bright and clear as I went to light the furnaces at 5.45 in the morning.

The whole party was on the site by 7 o'clock. We dried out the mould by half filling it with paraffin and setting it alight, and when we went to breakfast at 9 o'clock, we were all full of confidence. The lumps of lead in the cauldrons were beginning to get soft, like chocolate bars in the sun ; and, with two Malays left stoking the fires, all seemed set for a run at 10 o'clock.

When we got back to work, however, the lead looked much the same as before breakfast, and wood for the furnaces seemed to be running short. One of the cauldrons had cracked, and the precious mixture of lead and antimony was running out into the furnace. Also, one of the special clay botts was leaking a thin trickle of lead into the trough, where it was solidifying and building up like grease on a candle-stick, and eventually overflowing the trough on to the ground each side.

Violent action was necessary and taken. The first requirement was more wood. Besides the off-cuts from the yacht timbers, there were plenty of large baulks of rotten timber in the depot ; but it was hard work collecting them and splitting and reducing them to a consumable size. The lead in the leaking cauldron was then run off into the mould, which it covered to the depth of an inch or two and immediately began to solidify. The other two cauldrons not being ready, it was necessary to try to keep this lead liquid until they were. Blow lamps were brought into action, but the heat from all round was too great to operate them effectively ; raking hot embers from the furnace on to the lead was more successful, and by this means we also managed to clear the accumulation of lead from the duct of the leaking cauldron.

The heat from the re-stoked fires soon began to have an effect on the lead, as well as on ourselves, and by about 11.30 a.m. the second cauldron was pronounced ready to run. When the bott was removed, however, nothing came. An oxy-acetylene burner eventually had to be drawn into service before the short length of pipe could be made hot enough to allow the lead to flow. When it did, it shot across the mould with considerable force, and a good deal of very hot lead was flying around

for a time—too much to allow of close observation of the run, or of making any attempt to control it.

The cinders and half-burnt logs in the mould floated on this leaden tide, which raised the level in the mould to about 6 inches, just covering the heads of the bolts, and then, as the flow dwindled, built up under the end of the duct to ground level. This time the lead went on boiling and spluttering for twenty minutes or more, and there was time to re-stoke and re-load the cauldron with lead ingots before running No. 3.

But it was already obvious that only unremitting toil could possibly produce enough liquid lead to fill the mould before dark, and, in spite of the heat, everyone, including several bystanders, set to with a will, so that the insatiable furnaces were somehow kept going full blast all day. Jugs of iced water were sent down again and again from the bungalow.

No. 3 ran beautifully, but there was by this time so much heat, and the furnaces had become so spread about in the effort to keep the lead in liquid form until in its right place, that the heavy wooden structure holding the bolts in position was also burning well.

We went to lunch in watches, those remaining on duty toiling like galley-slaves to keep the heat on and the cauldrons fed with lead.

We had long since given up the careful counting of the pigs of lead put into the cauldrons by which means we had hoped to know accurately the final weight of the keel. New pigs were now being added whenever the cauldrons looked as if they could take them and we could raise the energy to lift the pigs, which were 70 lbs. each. At first we handled these with tongs and took great precautions to prevent getting splashed with molten lead. By the end of the afternoon they were just tumbled over the rim of the cauldron by hand, or even thrown in—luckily, without serious accident.

After a time we discovered that fires on top of the lead in addition to those under the cauldrons, although adding to the smoke and general confusion, melted the lead more quickly.

I forget exactly how many runs we made ; how many times we had to forage for more timber, bring the acetylene burner into action, make new botts, or use the fire-extinguisher. I only know that the last run of the day, with the last of the lead, just filled the mould to ground level, and that this took place at ten past six. Five charred and blackened men returned to the bungalow, and it was some time before tea—immediately followed by beer and whisky—had any reviving effect on them.

By 9 o'clock the lead was cool enough to walk on. When I measured the distances, centre to centre, of the six protruding bolts and compared them with the template, only one was vertical and in its proper place. Two were more than half an inch out and leaning over at a drunken angle, while the other three were a quarter of an inch or more wrong.

Since these were Naval brass bolts 1½ in. in diameter, now sunk 9 in. into 4 tons of lead, and since the greatest error tolerable for all to enter the holes in the wooden keel was $\frac{1}{16}$ in., and no digression from the vertical, the result of our day's labour was disappointing, to say the least of it.

We were all too tired to face the problem that night ; but if anyone had told me that we should have the bolts all in correct position by the end of the following week-end, I should not have believed it possible ! When we did, in fact, achieve this I felt that, however difficult the problems and situations ahead of us, somehow we should find a way of getting over them.

The apparently impossible was achieved by :—

(a) Hoisting the whole keel out of the concrete mould, and laying it on its side.

(b) Boring out—using oxy-acetylene burners, much as a dentist uses a drill on a decayed tooth—a cavity all round each bolt to the depth of 4 in. to 6 in.

(c) Heating the bolt itself and, with great care and the assistance of a long steel tube fitting over the bolt, inducing a double bend to bring it out of the lead vertical and in the exact position required.

(d) Up-ending the keel again, and running in lead to fill up the cavities.

ii

Mid-June had come and gone and still our launching date was not in sight, although by this time the hull was planked up, the cabin trunk sides in place, and most of the decking laid.

Ramadan, the Mohammedan Fast or Fasting period coming in July, it seemed a good plan to let the Malays take their rest at home and not at my expense, so I sent them back to Trengganu on the 3rd July. Jarvis continued to come down at week-ends, and we worked feverishly to get the vessel ready to go out into the open and be " married " to her keel on the slipway. The bungalow was very full those week-ends in July, and we became a good deal more ambitious in the scope of the work that we, as amateurs, could take on. We actually completed the laying of the deck and all the caulking thereof, and I personally fitted the teak rail-cap from amidships forward both sides—a task that, six months earlier, would have been completely outside my ken.

We decided that it would be a good thing to get the move to the slipway completed whilst the Trengganu Malays were away. Various plans for effecting the junction of the hull and keel, and subsequent launching (the two problems being closely associated), had been under discussion for months. Rejecting all the wilder schemes, such as lifting the two components, marrying them together on a barge or raft, and then sinking the raft, we dealt with the problem as I will describe.

But first the problem. The wooden hull, by now near to the maximum the crane could lift, was resting on chocks on the concrete floor of the " hangar," shored up with timbers either side. Railhead for the steam-crane was 50 ft. away, outside the hangar ; but a mobile motor-crane, capable of lifting slightly less, could operate inside. The depth of water at spring tides at the seaward end of the slipway was found to be about 1 ft. less than the draft of *Boleh*, and there was a considerable slope ; but we decided straight away that we would somehow get over the launching difficulty. Beyond the slipway there was only soft, thick mud and we thought that, if necessary, we could dig a channel in this to take her.

The problem remaining was to marry the wooden ship to the lead keel on a launching trolley on flat ground at the head of the slipway, just within reach of the steam-crane ; and then to get the launching trolley, yacht and all into position on the sloping slipway, ready for launching.

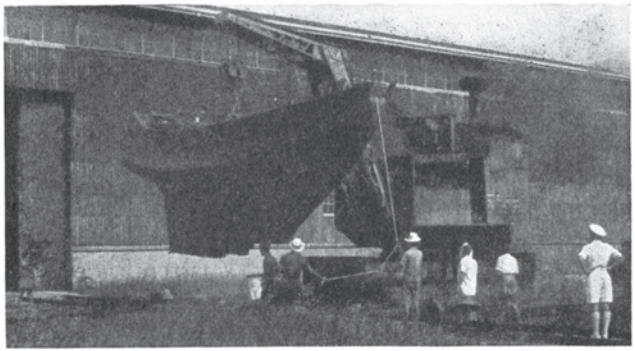
To get the wooden hull out of the hangar, we decided to jack up the fore end, insert a small rail-trolley in the gap in the wood keel where the lead eventually was to go, then lift the after end of the ship with the mobile motor-crane and trundle her out of the hangar until opposite the steam-crane railhead. Here the shores would be put in again, the mobile crane unhooked and the steam-crane hooked on to slings amidships. She would then be lifted bodily and travel by rail the 200 yards to the head of the slipway, where the lead keel was to be all ready placed on an old assault craft steel launching trolley which was providentially found in a corner of the depot. The marriage of the hull and keel would take place there, and the launching trolley would then, by means of wedges, tackles, hydraulic jacks and persuasion, be engineered from its skewed position on the flat at the top of the slipway—necessary on account of the limited reach of the crane—to a proper alignment down the slope, ready for the launching.

On Friday, the 22nd July, we moved her out of the hangar. This was an anxious business, as all shores had of course, to be removed and she was unsupported forward against taking a list. Apart from a very heavy shower immediately we got outside, which, the deck and cabin roof not having been completed, put 8 in. of water in the bilges before we could get the tarpaulins over her, all went well and we shored and chocked her up opposite the steam-crane for the night.

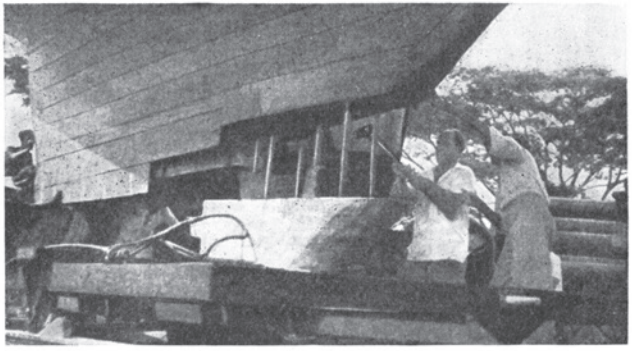
The next morning this crane picked her up, travelled down to the head of the slipway—at what seemed to me the reckless speed of almost one mile per hour—placed her over the bolts and lowered her down.

With a little help from Jarvis using accurately weighted blows of a sledge-hammer, the bolts slid into their well-greased holes and inch by inch the gap between wooden keel and the top of the lead was narrowed.

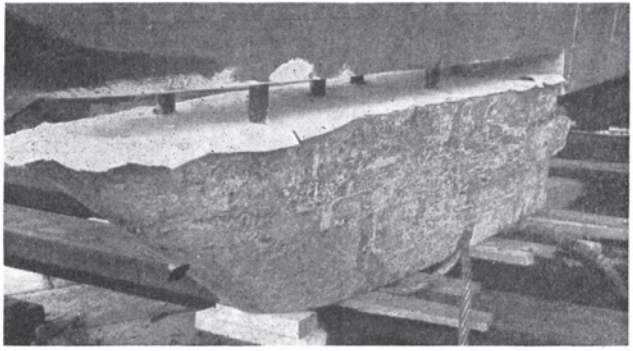
To minimize expense, for I had to pay by the hour for the crane and



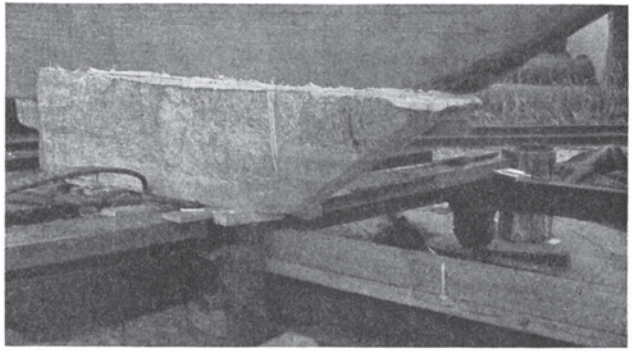
AT RECKLESS SPEED



ACCURATELY WEIGHTED BLOWS OF A SLEDGE-HAMMER



INCH BY INCH



A SOLID SHIP

the labour involved, we drew fires when there was still 6 in. to go, and allowed the hull to settle during the night, volunteers being encouraged to climb aboard and help shake her down. The next day it was possible to get one, and then the remainder, of the nuts on the keel-bolts and draw her down. By midday she was a solid ship.

The whole of this operation required the most careful measurement and calculation : some of the clearances on the route were under 2 in., and the safe limits for the load on the crane had to be narrowly watched when lowering the hull into position. Had it not been for the methodical preparation and attention to detail of my assistant Boom Defence Officer, Lt.-Cmdr. Lewis-Williams, R.N., the cheerful confidence of Mr. Lindsay the depot chargeman, and the extreme competence of Ah Hai, the chief rigger, and his gang (all of whom were volunteers)—not to mention Jarvis, who, of course, was everywhere at once—the feat would certainly not have been possible.

Before dark on that Sunday *Boleh* was shored up on the trolley, with a complete canvas roof built over her, and all the debris of building had been cleared up in the hangar. For the first time for many, many months I quite seriously considered the possibility that *Boleh* might one day be launched.

CHAPTER FIVE

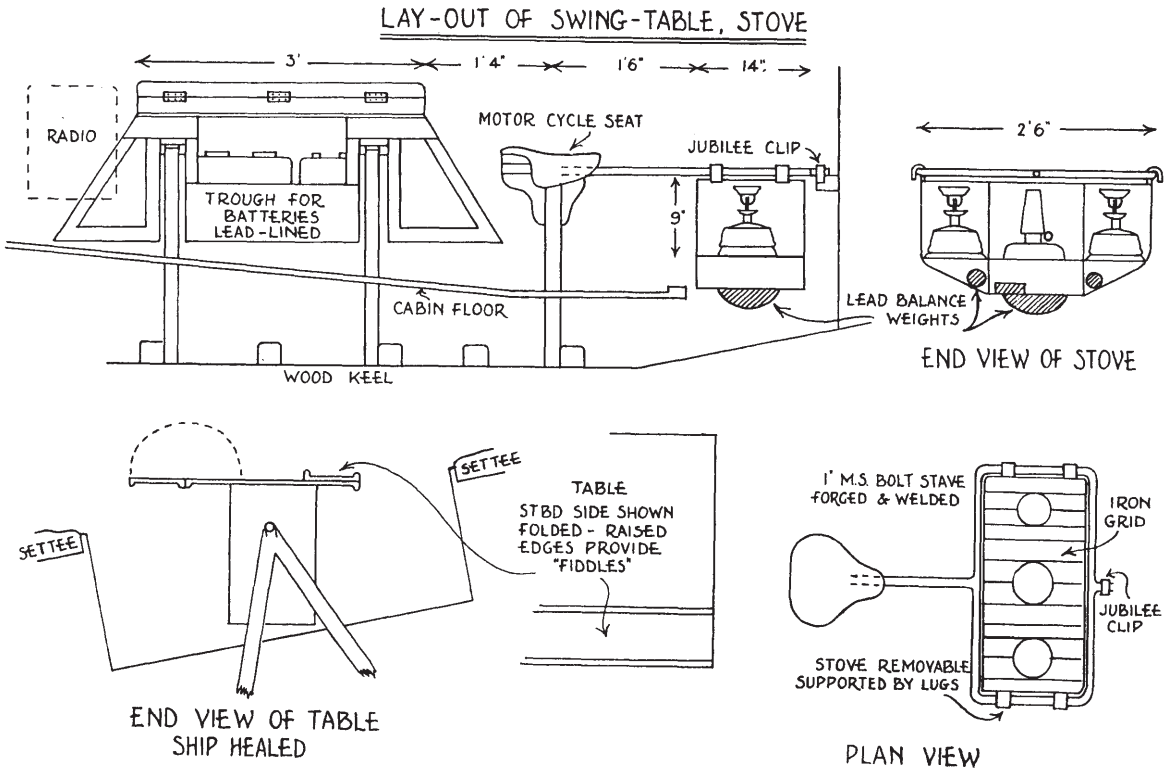
The Launch

i

THE MAIN HULL WAS NOW COMPLETE AND IT MIGHT HAVE SEEMED THAT there was not much more to do, but a yacht at this stage of construction is very deceptive. All the interior work, fiddling stuff that takes much more time than one realizes, has yet to be done : the provision of bunks, lockers and bulkheads ; the installation of the lighting system, entailing the complete wiring of the ship ; the fitting up of the lavatory and the galley.

This last was amidships under the mast and consisted of a motor-cycle saddle for the cook situated between the swing-table and the swing-stove. The latter was 2 ft. 6 in. by 11 in. by 10 in. deep, with space for three " Primuses " working at once, or two " Primuses " and a wick-stove to take an oven on top. Ballasted with lead, it could swing freely (sometimes too freely, as we were to find) up to 90° either way, with saucepans, etc., in place. A jubilee clip with asbestos lining would help to damp oscillations in heavy weather.

The swing-table was ballasted by the batteries for the electric light, which was found to be an admirable arrangement. The top was made to slide off for the purpose of servicing the batteries.


LAY-OUT OF SWING-TABLE, STOVE
3'
1'4"
1'6"
14"
RADIO
TROUGH FOR BATTERIES LEAD-LINED
MOTOR CYCLE SEAT
JUBILEE CLIP
9"
CABIN FLOOR
WOOD KEEL
2'6"
LEAD BALANCE WEIGHTS
END VIEW OF STOVE
SETTEE
SETTEE
TABLE
STBD SIDE SHOWN
FOLDED - RAISED
EDGES PROVIDE
"FIDDLES"
END VIEW OF TABLE
SHIP HEALED
1" M.S. BOLT STAVE
FORGED & WELDED
IRON GRID
JUBILEE CLIP
STOVE REMOVABLE
SUPPORTED BY LUGS
PLAN VIEW

On either side of the stove, and within easy reach from the cook's seat, lockers for crockery and food stretched from the under side of the deck to the bilge, over a good 4 feet or more of the ship's length. Immediately ahead of the galley was an 80-gallon water-tank standing vertically amidships, with gangway either side leading to the fo'c'sle. Additional water could be kept in cans under the floor-boards, and a salt-water tap drawing direct from the ocean, was abreast the cook on the starboard side.

The fitting out period was very hectic, for besides interior work and many unforeseen fittings that had to be bought and installed, there was the exterior to be finished : the rudder to be built and slung ; the winch and other deck fittings to be bolted down ; the seams to be caulked and puttied ; the sheathing and its felt undercoatings applied. Then there were both interior and exterior sandpapering, painting and varnishing. Masts and spars had to be finished, and all the standing and running rigging designed in detail and provided—a very much more complicated business, even with the simplified rigging of *Boleh*, than one might imagine. More obstinate articles than blocks, shackles, thimbles and splices, I do not wish to have dealings with. Each must be exactly right for the purpose, fit its neighbour, and take up exactly the amount of room allowed for in the rigging plan.

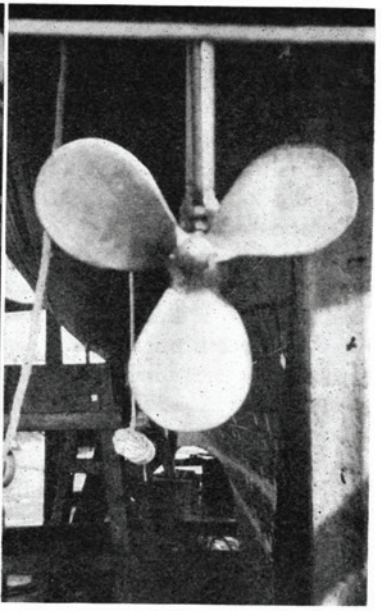
In addition, there was the installation of the engine, with its hull connections, exhaust-pipes, fuel-tanks and petrol-leads.

So we needed all the assistance we could get and were glad when, after being so completely out of touch with us that we had almost decided they were not coming back at all, Embong, Awang, Ali and Wan Ali eventually returned at 3 o'clock in the morning of the 11th August. We had also many other helpers with the semi-skilled but heavy work such as sanding, painting, caulking, puttying and varnishing ; and, by a special stroke of good fortune, Cmdr. (E.) MacDonald, R.N. arrived to join the dockyard staff just in time to see my engine in. Without his enthusiastic assistance and indefatigable resource, I doubt whether *Boleh* could have been finished in time to attempt the voyage. Owning a yacht in England, and having raced with Illingworth, Mac knew more about ocean sailing and the gear required for it than any of us. He was very soon forced to give up all social engagements in order to become a regular week-end worker at Loyang, along with the rest of the crew.

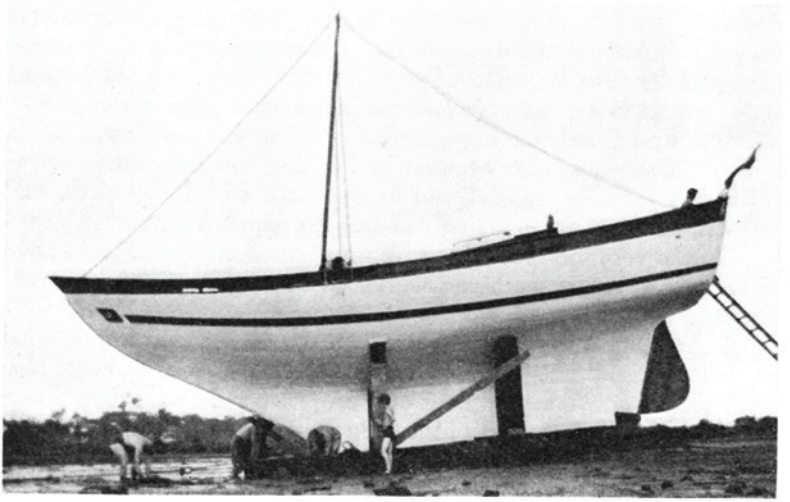
The engine mentioned above was to drive the dynamo for charging the batteries, and also for use when the wind failed us ; and so that *Boleh* should not suffer the drag of a propeller and shaft when power was not required, I evolved a little gadget that came to be known as the " drive "—though there were to be times during the voyage when we gave it other names.

The removable portion of this gadget was made up from parts of an

AWANG, TOH CHER LIONG, EMBONG



THE " DRIVE "



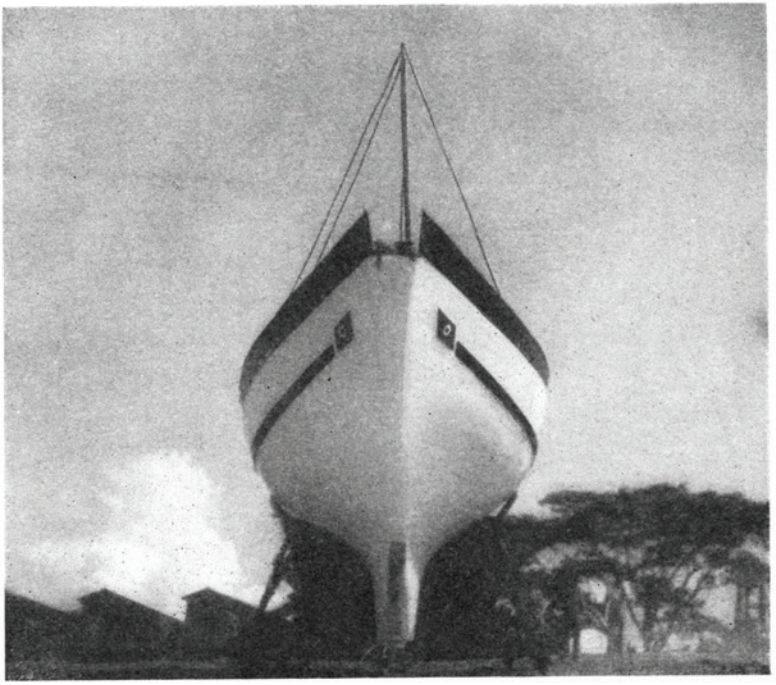
THREE COATS OF WHITE, BLACK WALE STRAKE AND RED EYE

old outboard engine, and consisted essentially of a metal clutch driving the propeller through two sets of bevel gears and one intermediate shaft at right angles to the clutch-shaft and propeller-shaft. My 8 h.p. Stuart Turner engine drove the clutch-shaft at half-engine revs through a belt drive, the clutch-shaft emerging through the transom a few inches above the water-line. When unclutched, the gadget—alias the " drive " —could be removed bodily and stowed inboard.

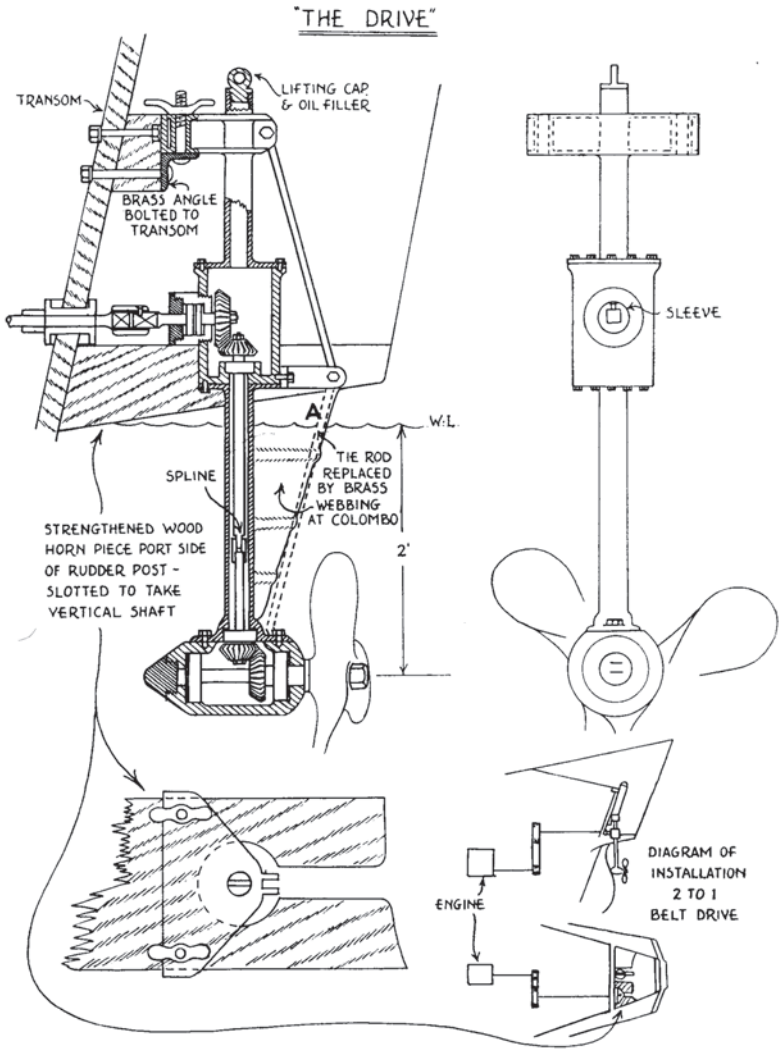
ii

Three happenings in August tended to make the job in hand more difficult than it already was. The first was purely financial—the need to raise more funds—and was due to bad estimating. The second was an urgent call for a harbour-defence boom to be constructed at Hong Kong, which meant a great deal of extra work for me and the depot. The third was the arrival of an Admiralty signal appointing me Air Staff Officer to Flag Officer, Malaya, which would mean my immediate removal, lock stock and baggage, to Sembawang or the Naval base, both more than 20 miles away by road.

These additional obstacles were got over one way or another—the



READY


"THE DRIVE"
TRANSOM
LIFTING CAP & OIL FILLER
BRASS ANGLE BOLTED TO TRANSOM
SLEEVE
A
W.L.
THE ROD REPLACED BY BRASS WEBBING AT COLOMBO
SPLINE
2'
STRENGTHENED WOOD HORN PIECE PORT SIDE OF RUDDER POST - SLOTTED TO TAKE VERTICAL SHAFT
ENGINE
DIAGRAM OF INSTALLATION 2 TO 1 BELT DRIVE

last chiefly through the personal intervention of Admiral Sir Patrick Brind, Commander-in-Chief, Far East. But it was now urgent to get *Boleh* afloat and mobile as soon as possible. The tempo of work had to be stepped up far beyond the level at which it was pleasant. In fact, the period between mid-August and the 23rd October, the day of the launch, was amongst the most trying I have been through. I could not sleep properly and was not far, I think, from a nervous breakdown.

John Rusher heroically and most effectively took over all the social arrangements for the launching. Mrs. Douglas Young—" Mutt " to her friends—was to perform the ceremony. Some two hundred and fifty guests were invited and we planned to make a little money by holding an auction of my pictures, books and *Boleh* souvenirs during the party. Here is a copy of the invitation card :

" God willing and the tide serving
The Junk Yacht Boleh
will take the water at
H.M. Boom Defence Depot, Loyang,
about noon on the 23rd October, 1949.
Mrs. Douglas Young will break the traditional bottle, and there will afterwards be a small celebration and a lightning auction of objects d'art and bric-a-brac—
at
Number One Bungalow.
The Master, Master's Mate, Carpenter
and Cook of the vessel would esteem
it an honour if.....
.....
would assist them on this unique occasion."

We had moved the trolley, with *Boleh* chocked up on it, down to the bottom of the slipway at low tide on Saturday, the 22nd, and secured a wire to the base of it leading out to H.M.S. *Barnwell*, one of the bar vessels moored at the head of the jetty some 300 yards away across the mud. The question was : would the winch of *Barnwell* be able to heave the launching trolley sufficiently far into the mud to allow *Boleh* to float off at high water the next day ?

Mutt and I went out to a party that evening. When we returned at midnight, with some difficulty negotiating the long, wobbly gang-plank to get aboard, I was unable to see or feel any signs of *Boleh* being anywhere near afloat. We jumped about on the bows and attempted to make her roll by swaying from side to side on the deck. Mutt was sure that *Boleh* had life in her, but I was unconvinced. I turned in with the prayer that to-morrow's spring tide and Lieut. Asker's powerful winch would between them do the trick.

Sunday dawned a perfect day, and the programme mostly went according to plan. People began to arrive very early, including several who had sailed over from Changi. We had a bar on the slipway and another under the bungalow, and the champagne—presented by the French Consul, who did not really believe we should do anything but drink it—was smuggled aboard in the neck of time.

A report that the tide had already turned panicked me into signalling the launch a few minutes early, so that it was all rather a rush. At the very last minute my faithful old hound, Dopey, came paddling out along the gang-plank, obviously insisting on being one of the party, and was hoisted aboard. *Barnwell* heaved away on the winch, and the trolley began to move off the slipway. Mutt smashed the bottle with a mighty swing against the bows, singing out, "I name you *Boleh* —and may you live up to it!" *Boleh* pitched gently as she slid off the trolley and was afloat.

Not only afloat, but, as designed, level fore and aft and 3 in. above her full-load water-line, which would be reached when mast, spars, crew and stores were aboard. No one, I might say, was more surprised than myself. The generous "horse's-neck" that was immediately served up from the cabin by Jarvis was decidedly welcome.

The early launch prevented many of our guests, including the Commander-in-Chief, who arrived as we came alongside the jetty, being actually present for it ; but a large proportion came aboard as soon as we were secured, and it was encouraging to see that fifteen people in the cabin and the same number on deck made little difference to the trim of *Boleh*.

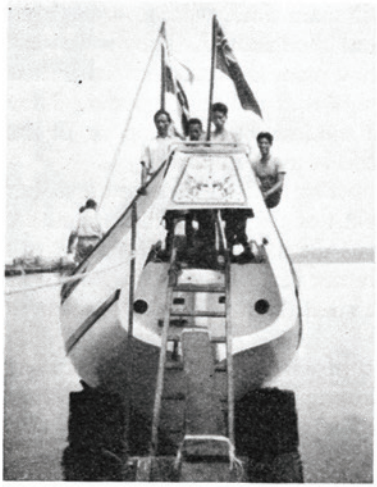
The auction that followed was more than well handled by John Rusher. Our guests let themselves go to such an extent that, when all the expenses of the party had been paid, nearly $2,000 were added to the funds available for completing the fitting out of the vessel.

iii

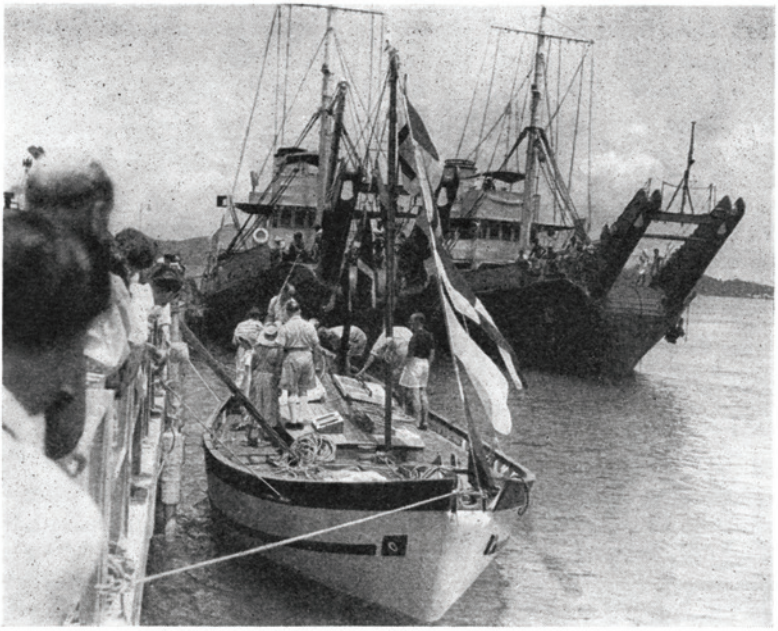
During the following week two things became apparent : firstly, the progress of the work was very much slowed down by the distance which now separated the yacht from our small workshop at the head of the slipway, and by the difficulty of getting aboard at low tide ; secondly, *Boleh* was making more water than she should.

At first we thought she was taking up all right and that a week or two would see her the dry ship I had always insisted on as a major necessity, and which no expense or labour had been spared to obtain. Gradually, however, it was borne in upon us that the leak was permanent and considerable. It was somewhere aft by the stern-post, but we could not discover its exact origin.

Omar and Amat, two Malays who had been part-time boat-boys for my Star in former days, and who had been paid for taking a fluctuat-



THE DAY OF THE LAUNCH



BOLEH AND *BARNWELL*

ing interest in the building during their spare time, were now engaged on a permanent basis as ship-keepers, and lived aboard. They were very cheerful young rascals, but the mess they made down below with their cooking hardly compensated for the work they did on the upper. They also greatly exaggerated the extent of the leak by their reports of the number of hours a day they had to spend at the pumps !

I had toyed with the idea of taking one or both of them as crew, but it soon became obvious that this would not do. Cleanliness, method, and a willingness to work at all hours of the day or night (qualities not conspicuous in any Malay and certainly not part of these two otherwise charming characters) are essential in a small boat in which one has to live.

In spite of all difficulties, not the least of which was the fact that I had to be away most of each day now, dealing with Naval Air problems, work progressed fairly satisfactorily. The spars and their fittings were made and fixed, interior furnishing completed, ironmongery and crockery bought (though the last, together with knives and silver, was nearly all sent to me as a present from my sister in England). Rigging was set up and rove off, cleats and fairleads fitted ; engine, batteries and all lights and wiring tested ; the 8 ft. 6 in. dinghy designed and built. These and a hundred other jobs were done within a month of launching.

CHAPTER SIX

Trial Cruises

ON SATURDAY, THE 19TH NOVEMBER, *Boleh* WENT AWAY UNDER SAIL for the first time, and on Sunday we took a large party out for the whole day looking for wind. Unfortunately, apart from one minor squall, which nevertheless convinced me that backstays to prevent excessive bend at the top of the mast were necessary, the winds were very light. For several hours in the heat of the day, we were drifting becalmed, with fourteen thirsty humans and three even thirstier dogs aboard.

I have to admit that I was very depressed on that Sunday night. It seemed to me that *Boleh* was too slow ever to make ocean cruises, whereas the model had led me to think that she would be fast for her size and weight. The rig also, now seen for the first time complete to full size, appeared to be far too complicated, too full of gadgets, for serious sea work ; and various details, particularly the lead to the peak halyard, obviously required modification. We held a conference that evening, at which I put forward various alternative rigs for *Boleh*, stating, so far as I could guess them, the advantages and disadvantages of each and the time and money involved in alteration. A good deal of whisky

was consumed during the discussion ; but there was no doubt in my mind afterwards of the genuiness of the vote of confidence in the existing rig. Modifications and adjustments we agreed we would make as necessary and as experience dictated, but we would give the present rig a try.

Thus I was able to cancel my tentative order for a baulk of Oregon pine, 9 in. by 9 in. and 45 ft. long, for an orthodox mast.

The next thing, we decided, was to find and cure the leak, and to organize the move of myself and all my belongings from the Loyang bungalow to H.M.S. *Terror* mess at the Naval base, where my Service work was now centred.

After investigating various schemes, I decided that the surest way to find the leak would be to hoist her out in the Naval dockyard, pump water into her, then see where it came out. This method would be expensive, but, I reasoned, should be certain and therefore cheapest in the long run.

On December the 5th we were hoisted on to the west wall, water was run in up to the top of the floor-boards, the sheathing was removed where necessary, and a convincing stream of water issued from a scarf in the deadwood. This was sealed with two stop-waters, seams recaulked and new sheathing put on.

All my available unskilled labour was simultaneously employed scraping off the anti-fouling paint from the metal sheathing—a much more laborious task than the application of three coats of this paint, which, against professional advice, I had insisted on. Luckily, I had agreed to leave the rudder unpainted, in order to prove the efficacy of the anti-fouling paint. When we hoisted out, there was an average of $\frac{1}{4}$ in. of barnacles on the anti-fouling, whilst the rudder looked exactly as it did when we launched.

On the 8th, *Boleh* was put back in the water and was sailed, under spinnaker only, by a volunteer crew back to Loyang. Careful measurement showed that she was making water at almost exactly the same rate as before.

Two of the Malay shipwrights left the same afternoon for Trengganu; but Embong and Ali stayed on, determined to find the mysterious leak.

On December 12th, I sailed the yacht up to the Red House Yacht Club jetty, and beached her close to, with legs out either side, for a further attempt to find the leak. Then I drove to Loyang to close up the bungalow and remove myself, baggage, household, and dogs to H.M.S. *Terror*. At 9 o'clock that evening I got back in pouring rain—to find that *Boleh* had fallen over on her side at half-tide, due to one of the legs digging into a patch of soft sand. She was lying over at 50°, and it seemed probable that considerable damage had been done to the planking where the bolt holding the top of the leg went through. Jarvis, who had been there when the accident occurred and had taken all possible action to prevent further damage, calmed me down. Omar

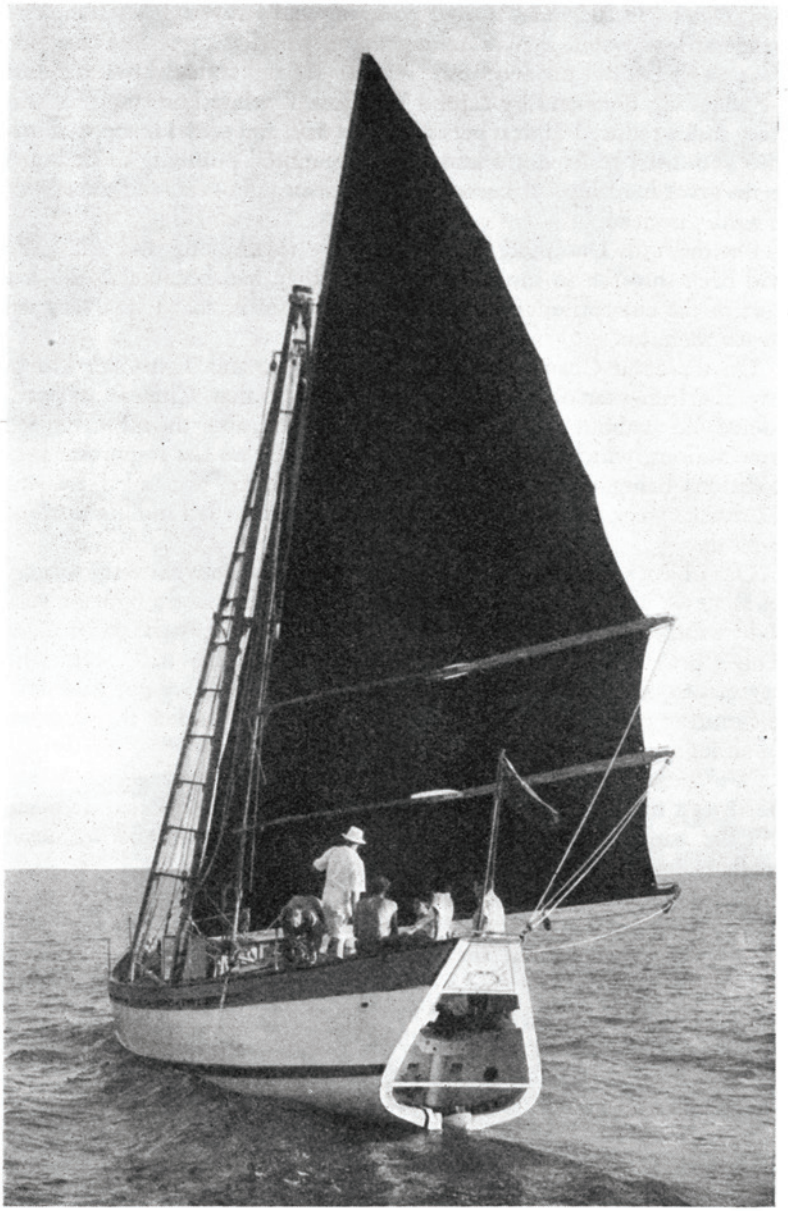
THE TRENGGANU MALAYS
Wan Ali, Awang, Embong, Ali

and Amat were sleeping aboard as though nothing unusual had happened and were only complaining slightly of the difficulty of staying in their bunks. I obtained some supper at the Yacht Club, and waded aboard at about 11 o'clock.

High water was about 4 a.m. I shall long remember that night ; the alarming angle, which made moving about in the semi-darkness difficult —if not dangerous ; the incessant downpour ; the doubt whether she would lift to the rising tide, and the curious light I saw when from time to time I woke up to look at the clock. This light I eventually realized was caused by phosphorescence in the water leaking through the crack in the hull-planking where the whole weight of the ship was bearing on the leg.

At 3 a.m. I sent Rais, my driver, to collect Jarvis. He and Peter Aplin arrived soon after, and by 5 a.m. we were secured alongside the Yacht Club pontoon. The rain stopped, and the sun came up gloriously, making shining snow-capped mountains out of the retreating clouds. . . .

But we were no nearer finding the leak ; so the next day we laid *Boleh* alongside the Club building at high water, with one leg out and a large number of heavy warps holding her upright. As soon as the water began to retreat, Embong and Ali got busy once again ripping off the sheathing and the black felt undercoating, attempting to track down its source. For the next three days we tried all known methods of leak-divining—even to filling the after part of the ship with a strong solution of potassium permanganate and looking for a pink stain on the sand at



TO FIND ALL KINDS OF WEATHER
CHRISTMAS DAY, 1949

low water. In the end we tried pumping and swabbing her bone-dry inside at low water, then watching to see where it came in as the tide rose. This last did produce some results. By tightening down the nuts of offending bolts and by careful injection of white lead, the leak was very much reduced ; but it persists to this day, and why I made so much fuss about it I really don't know, for 5 minutes' pumping in 24 hours is no great hardship. It keeps the bilge clean and sweet, and the labour is hardly noticed.

On the 15th December I said good-bye to Embong and Ali. We had been through so much together and they had become so much a part of the enterprise, and were so interested in it, that I was very sad to see them go.

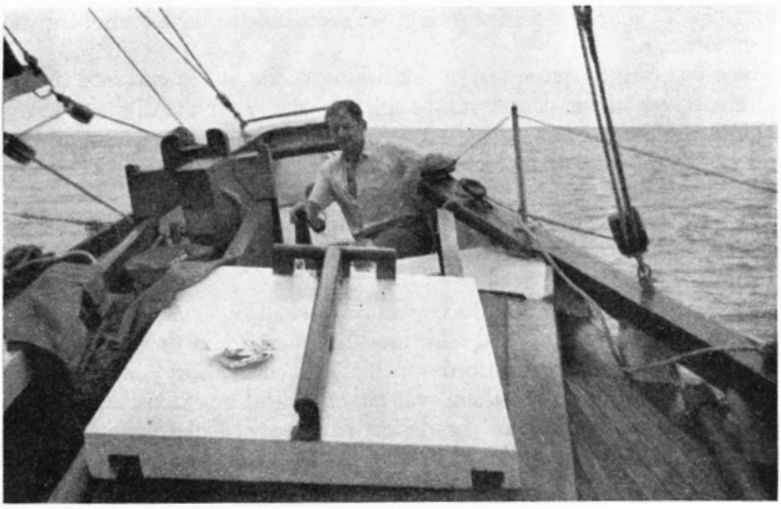
On the 22nd Chang Hai Kun, my ex-cook, and Toh Cher Liong, my fourteen-year-old " general nuisance " (alias Chinese steward) joined and at about 1 o'clock on Friday the 23rd, after the most frenzied preparations, which clashed not a little with the no less important preparations being made for the Yacht Club dance, we sailed for our Christmas week-end trial cruise. Mac fixed it at the last minute to come with us.

Our object was to find all kinds of weather and see what went wrong. In fact, we had a fair variety of weather, though mostly light or very light winds, and a highly enjoyable short holiday. Only the unfortunate Toh Cher Liong, who was seasick throughout the trials, but who revived to double his usual nuisance value as soon as we got back into the calm waters of the Singapore Strait, failed to appreciate the pleasures of sailing in *Boleh*.

We went out to the eastward, meaning to tumble about in the north-east monsoon, and hoping vaguely to beat up to Pulau Tioman, but the wind was very light until Christmas afternoon and we never really got near any of this group of islands.

Christmas lunch was the high spot of the cruise. The stove worked perfectly, and Chang, with John Rusher in an advisory capacity, produced a meal much more than adequate to the occasion :

Bols
Foie gras on toast
Bols
Sherry
Chinese Mushroom Soup
Roast Turkey and Chipolata Sausages
Roast Potatoes
Green Peas
Chateau Margaux 1942
Plum Pudding
Brandy Butter Sauce
Camembert Cheese and Biscuits
Liqueurs



CHRISTMAS TRIAL CRUISE

All except the man on watch (I forget who the unfortunate was) slept during the afternoon. At five it breezed up a bit. At six, as we pulled down a precautionary reef with the ship moving around not a little, Peter Aplin summed up the day by saying, " That was the finest Christmas dinner I ever lost !"

It was, indeed, an uncomfortable night, but the next day was fine again, and the wind eased as we ran back towards the Horsborough Island lighthouse.

By a slight error of navigation, or of my steering when we were trying out the twin spinnaker rig during the forenoon watch, we failed to sight land when expected and at 4.30 came under a very heavy storm-cloud, which brought first heavy and continuous rain, then strong squalls from all directions ; then again heavy rain with confused swell and no visibility.

We had by this time lost some confidence as to our exact position, particularly as there had not been time to swing the compasses before leaving. When a Dakota passed over us at 100 ft., obviously bound for Singapore, but heading N.N.W., we wondered if he had any better idea than we had.

At about six o'clock it began to clear. All hands immediately applied themselves to identifying the land, in which occupation, with the exception of the Navigator and myself, they were no less confident than varied in their conclusions.

However, with a breeze soon making from the north-east, it was not long before Peter picked up the Tanjong Berakit lighthouse bearing 260°, 5 miles approximately (which put us about 15 miles S.S.E. of our D.R.). With the engine going, we were able to lay a course for the Horsborough.

Not wanting to get amongst the fishing stakes at the entrance of the Johore River in the dark with a foul tide, we spent the night cruising around the Strait. At 5 a.m. we were close off Singapore, and, as the sun came up on a perfect morning with a light northerly breeze, we entered the boat channel off Tana Mera.

In brilliant sunshine, we beat slowly up to the dockyard and tied up again alongside the Red House pontoon at about 6 o'clock the same evening, Tuesday, the 27th.

The short cruise had been successful beyond all expectation. Although the list of modifications and additions (amongst them the inclusion, in future, of a corkscrew and bottle-opener in the inventory) covered over a hundred items, none of them was either radical or extensive.

All the major factors in the design had worked excellently. *Boleh* had shown that, given a good breeze, she could do her 6 or 7 knots in comfort, that she could work to windward very prettily in light breezes and calm water, that she was easy to handle and could heave to easily and safely. The cooking, eating, and sleeping arrangements were all

extremely satisfactory. The cabin was cool, airy and very habitable at sea. The electric lighting system, which included working lights on the mast, was excellent and the "drive"—that little gadget of mine—had worked, if not perfectly, at least well enough to propel the ship at 3½ knots in a calm.

My most enduring memory of our trial cruise will not be *Boleh's* performance, however, but the face of the horrible Toh Cher Liong, when, despite his strong protests, I dragged him on deck at 5 o'clock in the morning to see stretched in front of him, with nothing but two miles of calm sea intervening, all the lights of the waterfront of Singapore.

CHAPTER SEVEN

Preparations for the Voyage

UP TILL NOW, I HAVE SAID LITTLE OF THE PLANNING OF THE VOYAGE AND our choice of route. The outline plan was made early in 1948, when I imagined that there would be plenty of time during the later stages and after construction to study in detail the wind, weather and ocean-current charts, and work out time schedules. In fact, the stress of building the yacht and the very late date of completion did not allow of this being done as thoroughly as I should have liked. Peter, who, as navigator should have been consulted about the route in the first place, was not recruited till the spring of '49 and then had even less spare time than I had.

The object was to get *Boleh* home to Salcombe by the safest, quickest, and most pleasant route. Having read various accounts of head winds and the piratical, reef-strewn coasts of the northern half of the Red Sea, I had early decided to go round the Cape, accepting the vastly increased distance to be covered. This decision was clinched when I read Major Bossard's account of Yam Seng's voyage from Singapore to England,

which, if I remember aright, closed with the words : " . . . if I were doing it again I would go round the Cape."

The proper sailing-ship route from Singapore to the Cape is via the Sunda Strait and direct, calling perhaps at Cocos, Rodriguez, and Mauritius. Although this route would have shortened the journey by some thousands of miles, and, from Sunda Strait onwards should have been sailed in favourable winds, I ruled it out, chiefly because it would have meant a tremendously long first leg, out of range of facilities for any large-scale alterations or additions that might be found necessary : also it meant crossing the tracks of possible cyclones in the South Indian Ocean. Lastly, I had several friends in Ceylon whom I particularly wished to see, as well as a small reserve of money in the bank at Colombo.

I had originally hoped to leave in the first week of January, 1950. Optimistic study of the wind charts with a pair of dividers set at 120 miles a day for the trades, and 75 in the doldrums, produced a planned schedule : Sabang, 15th January ; Colombo, 28th January ; Seychelles, 22nd February ; Diego Suarez, Madagascar, 6th March ; Durban, 12th April ; Cape Town, 7th May ; St. Helena, 1st June ; Ascension, 9th June ; England, 10th August. This allowed 14 days at Colombo, and an average of 4 days at each of the other ports.

This route and schedule would give us generally fair but light winds in the Malacca Strait, with a strong favourable current at the northward end of it and out into the north-east trades in the Bay of Bengal. From Colombo, by a slight diversion to the north to start with, we would again be able to use the north-east trades down to the equator. We expected light variable winds in the Seychelles area, then a favourable current off the African coast eventually becoming the Agulhas current, which I hoped would sweep us round the Cape all right, even if we had head winds. Thence to the equator we should get south-east trades, cross the doldrums somewhere to the westward of Cape Verde Islands, and take the north-east trades on our starboard beam up to or beyond the Azores. From Azores to the English Channel, winds would again be variable, but generally westerly.

There were at least two snags in this plan : the first was that, in order to obtain the wind and weather hoped for, it was essential to be away early in January, and not be behind schedule anywhere. The second was that, even at that stage, the digression to Diego Suarez—one reason for the choice of route—appeared to me likely to be impracticable, both on account of the time factor and the probable weather on the north-west coast of Madagascar.

As it turned out, we could not leave before the 18th January, as both John Rusher and Peter Aplin had to wait for their reliefs to arrive. Looking back on it now, I think we should have decided there and then to go direct from Colombo to Mauritius, but by that time letters had

been written, the route stated, and John had tentatively arranged a meeting with the French Navy (and others) at Diego Suarez. Besides, there were the ugly red lines of hurricane tracks on the weather chart.

I remember that, in spite of knowing how important it was to get away in good time, the unavoidable delay was a great relief because there were so many jobs still requiring attention—radio to be fixed and tested, swing-table to be modified, sails to be tanned, blocks varnished, shackles galvanized, engine-drive and propeller to be put right, jerry-cans for water-storage to be steamed out—to say nothing of the stowage of stores and personal belongings and the odd jobs of painting and varnishing. I doubt if we could have got away earlier, even if John and Peter had been free to come.

The deferment also gave us the opportunity to enter for the all-comers race in the Royal Singapore Yacht Club Regatta—an idea that greatly tickled our fancy. The all-comers is always the best race of the day, and we thought that *Boleh*, amongst the fifty or sixty odd boats, ranging from Fireflies to Sydney Skiffs and Stars, but none of them more than one-eighth our size or weight, would cause quite a stir and make things lively at the start.

Our original idea was to dress up as Chinese sailors and have Chang at the helm. Although this ambitious scheme fell through, we had a very fine race and a most enjoyable day. There being quite a good breeze, we spent the morning obtaining ringside views of Sydney Skiffs capsizing. At lunch time we anchored off the Yacht Club, hoisted the gin pennant and had a very memorable session. All the Naval officers and their crews present at the regatta, besides some others who recognized the green and white pennant at our masthead, rallied to the call. At one time there was a Star, two Sharpies and four R.N.S.A. dinghies made fast astern of *Boleh*, whilst down below in the cabin Chang ministered to the wants of an estimated number of thirty guests.

The Kirby Green family, who had been enthusiastic supporters of the *Boleh* project ever since they heard of it, and also had themselves cruised in the Atlantic in their smack-rigged yacht, volunteered as extra crew for the race, and we all enjoyed ourselves thoroughly. We just reached the starting line on the gun, scattering the small fry in all directions. With many oaths given and taken, we kept up with the best of them for most of the first round, when there was a fresh breeze. But the course being inside the breakwater on one leg, the constant tacking and the dying wind eventually told against us. However, we beat one converted air-borne life-boat and two small day-cruisers, and the committee awarded us a very fine prize in the form of a silver tankard.

This week-end, with the passages it involved between Singapore and the dockyard, was excellent value, as, besides some much-needed relaxation, it gave us a final opportunity of trying out the new gadgets and modifications resulting from the Christmas week-end.

The " drive " was not, unfortunately, amongst those that proved entirely satisfactory. Two major faults had shown themselves : the propeller I had bought was too large, or had too much pitch ; and the clutch, which then consisted of male (brass) and female (steel) hexagons with a sliding driving-shaft, gave continual trouble, the male wearing down, becoming nearly round, and rotating inside the female. Mac had to take the whole thing to pieces again, fit a new male hexagon of high-tensile steel, and re-do other important bits. If there had been time, he would have redesigned and remade the " drive " completely, in which case we should probably have been saved the chronic troubles and fearful expense—to say nothing of our frayed nerves—that this invention of mine was later to cause us.

Mac and Jarvis were working on this and other snags up till midnight on the day before we finally sailed from the Red House Yacht Club.

The last week was inevitably chaotic, but was made less so than it might otherwise have been by the kindness of the committee and members of the Yacht Club, who allowed us to lie alongside their pontoon and to clutter it up with the vast collection of indispensable items of our stores and equipment, which had to be embarked and stowed at the last minute.

Besides all the work aboard there were the farewell parties, including a memorable lunch with the Commander-in-Chief and Lady Brind, and the clearing up of all our private affairs to be attended to. I had limited " personal effects " to 65 lbs., so we all sent most of our clothes to England in packing-cases. The money problem we solved, as far as we were able, by getting as much advance pay as we could, squaring our bills and turning the cash left over into traveller's cheques.

It was only in the last ten days, also, that Chang finally decided to be the fifth member of my crew as cook and steward. He had been with me ever since Sembawang days and was, and is, an example of the finest type of Chinese servant. He comes, of course, from North China — Shanghai. When he offered himself as crew, and when, after the essential bargaining as to wages had been settled, the wise men of his family approved and confirmed it, I was as surprised as I was delighted, for the Chinese are essentially practical and not very venturesome people, and Chang had in the last two years acquired a local-born Chinese wife and a family of two children.

Omar and Amat, the two lazy, laughing Malays, had to be paid off and sent back to Loyang. Toh Cher Liong was returned to his family and, I hope, sent to school. Poor Toh Cher Liong ! He was such an ardent seaman—until he tried it. We shall all remember the queer places and attitudes in which he chose to be sick during the Christmas week-end—" Toh Cher Liong, if you must be sick, please don't do it over the chicken curry ! "—and seeing him eat his first meal for three days !

The problem of my hound, Dopey, was solved in the only way possible—by finding a really good permanent home for him in Singapore. For the last week or so, although usually rather against boats of any kind, he had spent all his spare moments on board. On several occasions he even negotiated the step-ladder down to the cabin on his own and slept there happily amongst the feet of visitors and working parties. He could not have made plainer his intention of coming with us, and I would dearly have liked to take him. If he had been a younger dog I might have done so, but, although only three, he was very conservative and set in his ways, and I felt that the probable seasickness, the heat, lack of exercise and the difficulty over sanitary arrangements would have been too much for him.

We might have taken a cat, and would certainly have signed on a parrot, had it not been for the complete embargo on their entry into England. So we had no pets beyond the fish and birds that adopted us on the trip and sometimes stayed with us for days or weeks.

Private and public affairs having been settled, the ship having taken in stores and water, permission to proceed having been obtained from Flag Officer, Malaya, and John having given a radio talk on the subject of our projected voyage, all preparations for departure were completed by 0130 on the 17th January, when we had a final whisky with Mac at the Club before turning in.

Without the assistance of Mac, who helped in everything, from designing main halyard blocks to swopping my propeller for one originally designed for the Admiral's barge, of Mr. Allsopp, who put in many, many hours of work on the rigging, of Lt.-Cmdr. Earl, who fixed the radio, of Lieut. Purvis, who took on any hard or heavy work just for the fun of it, of the Kearneys, the Kirby Greens, and many other cheerful and willing workers, we should, I think, still be lying at Singapore—with a " For Sale " notice in the papers.

CHAPTER EIGHT

Departure from Singapore

i

ON THE MORNING OF THE 17TH JANUARY, A LARGE CROWD OF FRIENDS assembled at the Red House to see us off on our 30-mile trip to the port of Singapore, where we were to pick up Peter and attend to certain matters before our formal departure on the morrow. In perfect weather and promptly at 9 o'clock, we cast off and stood away under engine and all plain sail. Ships in harbour hooted, everyone cheered, and several boats with batteries of kodaks and Cine cameras followed us down the Strait.

PREPARING TO LEAVE RED HOUSE JETTY

Off Loyang we met a motor-cutter full of my old friends from the depot, come to wave and shout their good wishes ; and the Changi Yacht Club fired a farewell gun for us as we crossed their starting-line. Was it on this trip or an earlier one that John invented his oft-repeated story against me ? Anyway, it must have been on one of the trips round to Singapore when Peter was not on board, John acting as navigator. John says that, having just shown me his four-point fix clearly and perfectly cutting in our position on the chart, I looked anxiously round at the obvious patches of shallow water and the long lines of fish-stakes surrounding *Boleh*, saying : "I only wish we really knew where we are!"

At 5.30 in the evening, we anchored off the Master Attendant's pier and I rushed ashore to change the last of our money, to get our clearance, bill of health, etc., and to arrange to top up with 2 dozen more bottles of beer.

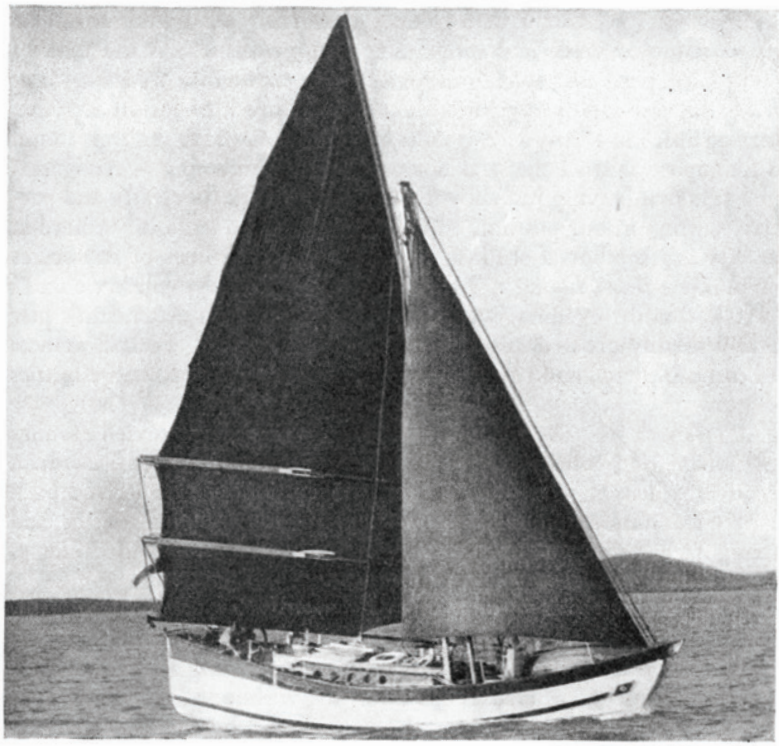
At 7 o'clock we were collected by the Kearneys for a farewell evening with Mac. John volunteered to remain aboard as ship-keeper—a sudden access of zeal that was never fully explained. When we arrived back some time after midnight, we were given to understand that he and Chang had spent the whole evening working anchors and cables as *Boleh* dragged with wind and tide in the crowded anchorage.

We were again lucky with the weather, but I shall always think of the morning of our departure from Singapore as one of the most trying I have ever gone through. By 7.30 I was ashore, chasing after four pieces of *chenghai* timber, ordered as spare for our wishbones, and some 1 in. teak for our bow-board. When I eventually found the timber, fixed the price and paid, the taxi-man refused to take it, and, after unsuccessful attempts to arrange a lorry or find a more willing driver, I had to leave the *chenghai* behind.

When I got back to the ship, with only 20 minutes to go before our advertised time of sailing, I found her invaded by friends and newspaper reporters. However, Peter and John had somehow hoisted the mainsail and everything was ready for getting the anchor. So, waving and shouting farewells all round, and pushing cameramen over the side into their sampans without ceremony, we were away on the dot of 9 a.m., with a following breeze to take us out past the Royal Singapore Yacht Club (they gave us a starting gun and flew a signal, which we could not read, but guessed its meaning), and through Keppel harbour into the Malacca Strait.

We had been afraid that the tide, due to turn against us at 11 o'clock, would stop us before we got through Keppel harbour and possibly—horrid thought !—drift us back again in sight of the Yacht Club. But by noon we were five miles clear and Singapore, and all that it had meant to us for the past two years was fading in the distance.

It was very hot. We were all excessively thirsty and our fixed ration of liquid refreshment seemed quite inadequate.

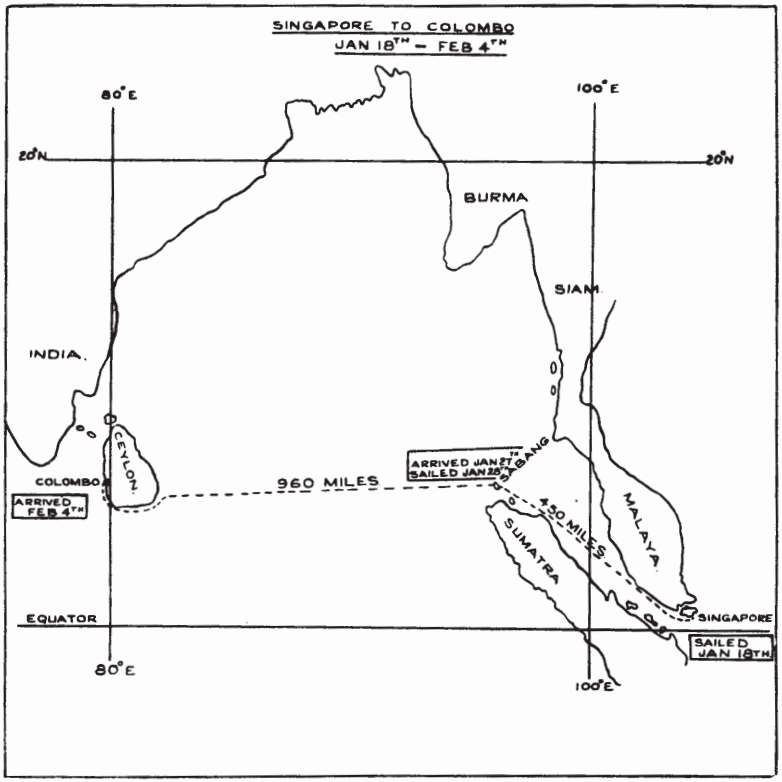


LEAVING SINGAPORE

ii

At about 2 o'clock the following morning, John, who was on watch, called H.M.S. *Alert* with a pocket torch. This meeting had been tentatively arranged beforehand, as we knew her time of departure from Malacca for Singapore the previous evening. Shortly afterwards, she circled us and we heard the voice of our Commander-in-Chief hailing us across the water, wishing us " fair winds and a successful voyage."

The two ships manoeuvring in the darkness, the late hour of the night, and the deep voice of Admiral Brind carrying across the water, somehow contributed to make this farewell more impressive than any that had gone before. It was only then, I think, that I fully realized that our friends were all now astern of us ; and felt to the full the responsibility I had taken on in attempting the long voyage ahead in this curious craft—my own invention—with the eyes, if not of all the world, at least of the Navy and of our friends at home and in Singapore upon us. It was up to us now to justify their faith and confound the few who had scoffed.



iii

Next day we had very light on-shore and off-shore breezes, and only made 66 miles noon to noon. There was no sign of any north-east monsoon. In the afternoon we found a strong north-going tide close inshore, and sighted the islands south of Malacca before dark.

That night it was very cold and wet with heavy squalls—known as Sumatras—following each other in quick succession. In the heaviest squall we dropped the jib and lay wallowing almost stopped and pitching sharply in the short steep seas. I became very worried because I thought I heard the two foremasts (which are let half an inch into 3 inch thick deck chocks extending over three beams) working themselves loose. Peter, who came on watch at 2 a.m., expressed immense confidence in the masts and a careful inspection, during which I got myself very thoroughly and unnecessarily soaked, soon established the fact that the sound was due to a jib halyard block banging against the mast.

This was by no means the last time I was to be deceived by an alarm-

ing noise into thinking that something was seriously wrong with the ship or her rigging. The hollow timber vessel seemed to act as a sounding-board with a focus at the head of my bunk. On one occasion, when I thought that the engine had come off its seating, or at least the water-tank come adrift, I eventually traced the origin of the sound to a tin of cigarettes rolling from side to side in a locker.

After breakfast (fish-cakes) there was plenty of work to be done : setting up the forestays a little, lashing the dinghy, and attending to various other matters. We passed Malacca during the morning. There was a very nasty short sea, and the veal loaf for lunch, as Peter records in his diary, had no attractions. Chang was in very good form. " How," wrote Peter, " he sits over the ' Primus ' all day so cheerfully and isn't ill, I don't know ! "

In the evening there was a fine blow and, for an hour or two, we made about 6½ knots dead on course, which was a nice change after flogging against head winds.

" Up to Port Dickson this p.m.," wrote Peter, " chilly and wet off and on. Middle watch to-night, so off to bed early."

I had worked out the watch-keeping routine before we left. As this is a most important affair in the organization of any small ship, and as ours worked extremely well, with very slight modification, throughout the trip, I give it here : John, Peter and Jarvis—Jarve, as we called him—were in three watches of three hours each, except for the dogs and afternoon. I kept from 5 to 7 in the morning, and the forenoon from 8 to 12.15, and was stand-by at night. During the day, the longest off-watch was stand-by. These watches can be tabulated thus :—

	Morning	watch	0200 — 0500	A.
Second	,,	,,	0500 — 0700	Skipper.
	Relieve	decks	0700 — 0800	B.
	Forenoon	watch	0800 — 1215	Skipper.
	Afternoon	,,	1215 — 1530	C.
	First dog	,,	1530 — 1800	A.
	Last dog	,,	1800 — 2000	B.
	First	,,	2000 — 2300	C.
	Middle	,,	2300 — 0200	A.

So, except for myself, the watches changed each day, giving a little variety. These watches fitted very well with our meals, which were :—

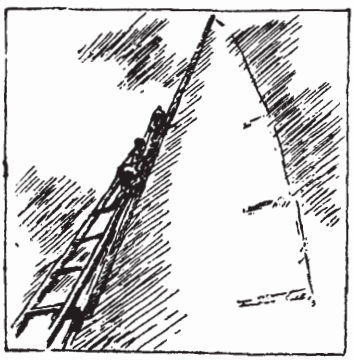
Breakfast	—	0740
Lunch	—	1200
Tea	—	1540
Supper	—	1940

The next day, Saturday, the 21st, was pleasant, quiet sailing, with light northerly breezes, but hardly passage-making. The day was notable, however, in that we met our first school of friendly dolphins—

wonderful to watch at play at such close quarters from the bows—and baked our first batch of bread. This was organized in true gunnery style by John. The actual baking, in our small portable oven over two "Primuses," was a relatively simple affair ; but the performance beforehand—the measuring and mixing of the ingredients, the making of the ferment, the brewing, the making of the dough, the kneading and the knocking back thereof, the moulding of the loaves, the taking of oven temperatures, etc., etc. (all times of course, to split seconds)—filled the rest of the crew with admiration, not unmixed, I fear, with doubt as to the result. When, however, four crisp, brown, fragrant cottage loaves were brought on deck just before tea time to cool off, our mouths watered for them, and they proved as good as their looks.

From then onwards throughout the voyage we usually baked once every four days at sea—and better bread would be hard to find ! John says that the secret is in making the ferment with an Australian dried-yeast preparation, called "Dribarm," which keeps in tins for about six months without refrigeration.

Peter's diary for the day, besides noting the extraordinary suitability of the sarong for a yachting rig in this climate, has some bitter remarks about the peak halyard and the unpleasantness he experienced in working on it up at the top of the mast in a choppy head sea.



Sarongs are so good because they keep the stomach warm, do not chafe between the legs, and dry quickly after rain. They do not show the dirt, and wash easily.

The story of the peak halyard, a length of special $\frac{3}{4}$ in. stranded steel wire, was a long and tiresome one. At the time of which Peter was writing, it passed through a block hanging on the after side of the mast and was attached to a slider on the yard by means of an eye-splice (see diagram page 13). The movement of the yard when sailing tended to crush and chafe the spliced wire against the cheeks of the block, and in less than a week of hard sailing it had parted. We fitted a temporary chafing-pad, but it was not until we reached Minikoi that we finally solved the difficulty, and then only after I had offered a bottle of champagne for a successful solution—but of that in its proper place.

iv

As the sun went down that evening, we looked our last on the coast of Malaya as we laid our course for the One Fathom Bank lighthouse

and Achin Head. A vast thunder-cloud over the coast looked exactly like the photographs one sees of atom-bomb explosions. Some pretty weather under it, we guessed.

Just after dark, we spoke the cable-laying ship, *Retriever*. They asked us over, but I judged it too risky to attempt going alongside ; and launching the dinghy would have taken too long. They told us that the weather off Penang, where they had been the day before, was very unsettled, with strong northerly squalls.

Sunday was horrible, exceptionally dark all day, due to low cloud and rain, and with a most extraordinary wind. We must have been in the middle of a tropical storm such as we had seen in the distance on the previous evening. At about 8 o'clock in the morning, a large black storm-cloud advanced on us from the south-west. We tied down a reef before it broke on us, which was lucky, for it blew from every point of the compass in a succession of heavy squalls. No sooner had one been dealt with, than another would be detected, either by the increased roar of wind and rain, or by lines of white foam on flattened seas, coming in from a new direction.

" The last time I remember anything like this," wrote Peter, " was during a Malta convoy, when we in *Westcott* had been detached to escort *Liverpool* back to Malta. We were heavily attacked by torpedo bombers, which came in from every direction. The wind to-day gave the same impression of purposeful variety of tenacious attack."

Chang attempted to make sausage-rolls, which, after they had been on the cabin floor once or twice, and several seas had descended through the fore-hatch into the stove, were served as " sausage-and-batter fricasse *a la mode*." Notwithstanding this, Chang took a philosophical view of the weather, but asked me—as a matter of interest—whether it was likely to be like this all the way to England. I told him that we could expect such weather off the Cape of Good Hope, but, with luck, nowhere else.

In the evening we were left wallowing and slatting heavily in the very uncomfortable sea left by the storm. Just before dark we discovered that the slatting had sprung our main boom, which Jarvis thereupon set about mending.

The work-bench, fitted with a vice, was on the port side aft, abreast the engine. It had tool-lockers above and out-board, and bo'sun's stores under. When dealing with major items such as the boom, a good deal of the work had of necessity to be done on deck. Nevertheless, it was at times like this that we were thankful for the space given over to the work-bench.

The next day, we were somewhat doubtful about our position, little or no record having been possible of our wild dashes in various directions through the storm. We picked up the Sumatra coast before noon, however, and had a pleasant blow from the north-east during

the afternoon. Towards sunset, we passed two picturesque fishing-boats, with bright blue moon-shaped sails running before the wind.

On the Monday and Tuesday we made little progress, with variable and very light winds ahead all the time. Peter expressed himself rather worried about the mainsail. Owing to its odd design and construction—two large booms with wishbone attachments in the centre—it tended to lash about when there was not enough wind to keep it quiet, and the canvas could not be expected to stand up to this sort of treatment for an indefinite period. "In addition," he wrote, "the noise is most nerve-racking. Cannot think of any alternative at present."

There were plenty of fish all round us, but when we tried to catch them, they came up and laughed at us. All we achieved was to get our fishing-tackle tangled up with the log-line, to the pardonable annoyance of our navigator. Even without fresh fish, we did well for food. Water was not so satisfactory ; the jerry-cans cannot have been properly cleaned, and the water we drank was oily and brown with rust. However, it appeared to do no harm.

Peter now began taking sights—"after $4\frac{1}{2}$ years they come out well." As our daily positions may be of interest, they are, when known, quoted henceforward in the text—this with the exception of the Sabang-Colombo passage, which followed the steamer tracks. Out of sight of land, sights were usually taken during the forenoon and afternoon. In accordance with normal practice, however, the position at noon is usually that recorded. Where no position is given, it indicates that, for one reason or another, no fix was obtained. The daily run is in nautical miles and is always given from noon to noon unless otherwise stated.

Wednesday, 25th January. Position : 4° 40′ *N.*, 98° 40′ *E. Run :* 70. Now a week out from Singapore, we were making really poor progress, and had had to motor most of the night. Swell from the north-east promised wind, but there was as yet little breeze. The troublesome peak halyard was still holding up, the temporary chafing-pad seeming quite successful ; but as a precaution we prepared a spare halyard by putting a splice in one end of another length of $\frac{3}{4}$ in. stranded wire. If the one in use chafed through, the spare could be rove through the block on the slider, and the eye-splice completed. Peter wrote :

> "Mainsail still slatting its head off. Infuriating. I do hope we pick up some breeze to-morrow. It will take us about ten months to get home at this rate. She is obviously not fast to windward. Her bluff round bows stop her very quickly in any head sea—but the course home is meant to be down hill all the way. . . . Chronometer keeping excellent time, which is a blessing, because I haven't much faith in the wireless-set. . . ."

v

We found these days in the northern half of the Malacca Strait very tiresome ; we were getting along so slowly—nothing but light head winds with a popple of sea, calms, and an occasional fair wind out of a passing thunder-storm, lasting perhaps half an hour. There was constant sail-trimming to be done, and the " drive " would often be shipped and unshipped twice or three times a day.

But there were compensations—we did more bathing in this part of the trip, I think, than in any other, and *Boleh* is ideally suited for bathing while under weigh. There is a bar at just the right height across the open stern to make it easy to get aboard, and also to tow from when the ship is going too fast for swimming. It was fun in light airs to swim some distance off and see how *Boleh* looked under sail—and towing from the bar, either on one's back or front, when doing 4 knots was a delightful sensation, like a vibro-massage applied all over the body at once.

Then there was the pleasure of sleeping on deck under the stars, watching the moon grow larger every night, and the feeling of thankful release from such mundane affairs as office routine, dinner-dates, and the like.

Besides our always varied and excellent meals, there were drinks to help split up the day : a glass of beer at 10.30, followed by a gin at 11, then beer again at 5.45, and one whisky—on special occasions two—between then and supper. We had managed to get some of the whisky and gin free of duty, and the brewers had made me a presentation of beer. Chang, though a master at pouring tots, was never prevailed upon to join us.

I know that many skippers of yachts frown on liquor of any sort at sea. Maybe it is unnecessary, and maybe, in these days of discriminatory taxation, I shall have to get used to doing without it, both afloat and ashore. I can only say that with my crew—average age 38*—the mellowing effect and the loosening of tongues induced by the evening session was most salutary to our tempers and contributed largely to the overall cheerfulness and contentment of the company.

vi

Thursday, 26th January. Position : 5° 30′ *N.*, 97° 30′ *E. Run :* 78. With a fair wind for once, we passed Diamond Point, the north-eastern tip of Sumatra, at about noon. We were all very glad to get round the point, for it meant the end of the Malacca Strait and, we hoped, of the weather associated with it. There was a nice following breeze—the first time we had had the wind really free for a week—and after tea we hoisted the big spinnaker, making about four knots, which was very

* There were several birthdays during the trip, but when we left Singapore our ages were as follows : John Rusher 37, Peter Aplin 35, George Jarvis 34, Chang 35, author 46.

CHANG

JOHN RUSHER

satisfactory. When the wind died at about 10 o'clock in the evening, we lowered all sail and motored.

Friday, 27th January. Run : 40. Sabang. We were making along the north coast of Sumatra for our first port of call since leaving Singapore. This was Sabang, on the island of Pulo Wai, which lies some miles off the north-west coast of the main island. Peter wrote in his diary :

> " Was woken at 6 a.m., after the middle, to take star sights, which did with very bad grace. Robin then saw land that certainly looked like Pulo Wai, but was much closer than my sight indicated. Took check sight, which agreed with first. Robin still unconvinced, which is bad because half the art of navigation is confidence. Took a third sight, much against my will—Robin still unconvinced ! . . . Pulo Wai was sighted about an hour later, exactly where it should have been. Face and confidence recovered."

The wind came from aft, so we left the mainsail down and hoisted the large spinnaker to starboard, with the Genoa jib boomed out to port. It was nice and quiet with no mainsail.

CHAPTER NINE

Sabang, Pulo Wai

i

THE LAND I HAD FIRST SIGHTED WAS AN OUTLYING POINT OF THE MAIN island. Pulo Wai, although of similar shape, gradually assumed a very different aspect, in that, apart from some light green patches (later identified as sugar plantations), it was entirely covered with tropical forest. No houses were to be seen on the hills or foreshore, and the dark, mountainous island, with heavy surf breaking all along the black, rocky coast, had an inhospitable, even uninhabited appearance. However, as, in a freshening breeze, we brought the lighthouse abeam just after dark, a few fishermen's lights appeared along the shore. A mile farther on we opened up the entrance to Sabang harbour, dropped the jib, and, now in calm water and light airs, motored slowly round the point and up towards the head of the land-locked port. A few street lights and the dim, dark silhouette of cranes, warehouses and coal-conveyors indicated the position of the town and berthing wharves.

It was some time before we could get anyone to answer our shouted enquiries as to where we might anchor or moor up. Eventually a group of men and boys, in nondescript uniforms, took our warps and we secured alongside an immense wooden wharf, built out into deep water and supported on iron piles and girders. This wharf and, as we saw next day, nearly all the other port installations and some parts of the town, had been severely damaged by bombing—a fact of special interest to

me, since I had helped to plan the Naval Air attack that had done it during the Japanese occupation, and knew most of the torpedo bomber and fighter pilots responsible.

Our uniformed helpers, all armed with revolvers, turned out to be civil police of sorts. One of them spoke enough English to tell us that the harbour-master and the chief-of-police must give their permission before we could go ashore. The harbour-master came, said he would telephone military and civil police to make it all right for us to go ashore for a meal (though he did not sound optimistic about our getting it), and departed in a hurry, saying that he did not like leaving his wife alone in the house.

Much coming and going, telephoning and sending of messages ensued ; but we did not get ashore that night. The armed Indonesian police were not exactly hostile, but very officious ; not exactly rude or bumptious, but childishly proud of their uniforms and, even more, of their guns. If we had all just walked ashore in a body, they would probably have come with us quite amicably and found for us such food and entertainment as were available—but we did not like leaving Chang alone, nor did it seem at all impossible that, if their pride were hurt, they might boyishly let off one of their guns.

So our arrival in our first port was celebrated aboard *Boleh*, drinking and talking late into the night and affording our " guards " ashore a better entertainment, I imagine, than they had enjoyed for many a weary month in that moribund little port.

Our only requirements the next day were petrol, water, and, if available, fresh vegetables ; and to obtain clearance for the next port, Colombo. To achieve these objects, however, I had to motor all round the town in a police jeep-van, see a whole host of officials, and obtain signatures from each of these on each of a large bundle of documents, which I had to fill in in triplicate. It took me the whole morning, and meanwhile the ship was invaded by another batch of officials wanting to search her for seditious literature, amongst other things.

The whole port administration of Sabang, which was once a thriving coaling-station, was in the process of being handed over to the Indonesians by the Dutch. The Indonesian officials with whom I dealt seemed to know no more about the forms we both signed than I did myself—its was the formality that counted. One felt that they were glad of the visit of even such a small, unimportant vessel as *Boleh*. The forms we filled in were useful evidence, perhaps, of the necessity for their nice uniforms, for their offices, secretaries and clerks.

There were only three small coasters in port with us, and the future of the place does not seem bright. There appears to be no industry, and little cultivation (sugar and pepper). Four out of five men are in uniform and the remainder, and women and children, mostly wretchedly poor. Houses and streets are dilapidated, most of the wharf machinery is out

of action ; there is not much to be bought in the shops and little food in the market.

Yet its port facilities are excellently planned and built ; the setting is most picturesque, and the splendid harbour almost completely landlocked. In its heyday it must have been a most thriving, happy little place.

I regret to say that we indulged in some black-market activities—obtaining both money and food for relatively small quantities of American cigarettes ; but this, we felt, was to some extent excused by the unfair rate of exchange imposed on my Singapore dollars in buying the 40 gallons of petrol we took aboard.

There was only a light breeze to take us out of the harbour, when, after we had had a hurried lunch, our personal guard—by now very friendly—let go our lines at 1300 ; but white cumulus clouds had been marching across the sky all the morning, and as soon as we were clear, we picked up a fresh easterly and then north-easterly breeze.

As so often happens when making, changing, or reducing sail, the wind shifted just after we had rigged all the gear required for the spinnaker and Genoa combination that had proved so successful the day before. Whenever this occurs, a great deal of unnecessary work is done by the crew to no purpose, so relations between the skipper, the one who has guessed wrong about the wind, and the crew, who have to do the work (and knew all along that the wind would shift like that) are apt to become temporarily a little strained.

ii

It was a splendid run across the Bay of Bengal to Ceylon. Day followed day with only minor changes in the strength and direction of the wind (varying between force 3 and 5) ; the puffy white trade-wind clouds followed each other in endless succession overhead ; the sun shone by day and the moon by night, and *Boleh* stamped along in

fine style. This was trade-wind sailing as I had imagined it (we little guessed at the time how many months were to go by without again experiencing anything like these settled conditions) ; but, even so, it was surprising how much the aspect of the sea, seen at such close quarters, varied from day to day ; and how the wind, blowing over the open ocean, shifted all the time—every 15 to 20 minutes, about 10 degrees either side of the normal for the day, and each day, up to 20 degrees either side of the normal for the trip. The passage also, of every cloud overhead produced a temporary slacking up in the wind. We thought this could most probably be explained by the fact that the clouds themselves were merely visible evidence of the wind having lifted off the water at that point.

The changes in the appearance and character of the sea, which at times seemed to include changes in the actual composition of the water-viscosity, animal or vegetable content, or some other factor—were much more mysterious. Throughout the voyage I was to be amazed at the extraordinary variety of surface ripples, sea and swell observed. It is, I think, quite true to say that on no two days was the sea, on close examination, the same. Sometimes its aspect might be completely transformed within a quarter of an hour or less. The most variable factor in these changes is, of course, the surface ripple. But the rapidity with which the sea, and even the swell, will sometimes spring up or alter its shape or amplitude—and the strange flats that sometimes appear amongst the ridges and furrows—are quite astonishing. On some days a force 3-4 wind will produce white horses covering the sea in every direction ; on another, no seas will break under force 5.* Sometimes, in light winds with perhaps a long, easy swell and no sea, the surface ripples run in smooth lines all roughly parallel. Five minutes later, with no other appreciable change in conditions, all these tiny ripples are running against each other, forming miniature pyramidal wavelets and deepening the colour of the sea by several shades of blue.

Our conversation in the evening sometimes dealt with these problems and mysteries of the sea and weather, which, in spite of years of seafaring only then, when we were at such close quarters, appeared as such ; but more often there were technical discussions about modifications to the rig or gear, or defect lists to be made up for attention at the next port. More often still, we repeated our best stories, talked politics and scandal, drifting from any old subject to another, just as conversation would in other circumstances—in wardroom, club or pub.

Sunday, 29th January. Position : 5° 40′ *N.*, 92° 32′ *E. Run :* 164 *since Sabang.* " Grand wind all day," wrote Peter. " Sights at 1700 gave us 180 miles in the last 24 hours. Terrific going ; doubt whether we shall ever improve on that. . . . Just as I was writing, a sea came over the weather-deck and amidships, and splashed through the open ports aft

* The Beaufort scale. See Appendix I, Navigation (v).

FULL MOON, BLOWING HARD, WIND ABEAM

—also over the helmsman's bunk, which will 'larn him' . . . Robin wants to take in a reef, but is meeting much opposition. . . . Have heard no news on the wireless since we left, and don't feel the loss in the slightest—the thought of the Election campaign, now presumably in full spate, leaves one quite cold. . . . Although the sea hasn't been really rough, because the wind is free, and sea astern or on the quarter, I have been very pleased with behaviour of stomach. . . . "

When we were about half-way across, we held a sweepstake on the date and hour of our arrival. Chang waited until the rest of us had made our guesses and then chose a date 24 hours earlier than the most sanguine. I feared at the time that he was going to be very disappointed, but he won easily, for we did the passage from Sabang to Colombo breakwater in seven days to the minute.

On the night that we made our landfall, I took Peter's middle watch (11 to 2) so that he should get some sleep. It was full moon, blowing hard, wind abeam, and *Boleh* was charging along—through, over, and in the waves. Spray was flying everywhere, but the ship was almost upright and seeming completely unconcerned. For the first time I felt real confidence in her and her gear. There was no longer any doubt that, given plenty of wind on or abaft the beam, she could hold her own in comfort with other good yachts of her size and weight.

It was a magnificent three-hours sailing, during which we picked up the Little Basses light and bore away for Great Basses. I was reluctant to leave the helm and turn in when John came up at 2 o'clock.

In the morning the south-east coast of Ceylon stretched away to starboard, with the high ranges—the hills from Ella gap to the Horton plains, which I knew well—just distinguishable in the blue distance.

The wind kept up nearly all day, and we coasted along past Hambantota, Tengalla, Matara, and Weligama, all old friends to me, to Galle, which we passed at dusk with wind dying. The land breeze brought the smell of burning coconuts, lime-kilns, temple flowers, and curry being cooked.

We started the engine when it fell calm, and slept on deck—very contented with our first open-sea crossing.

CHAPTER TEN

Colombo

i

OUR SPIRITS WERE SOMEWHAT DAMPENED THE NEXT MORNING BY THE short, choppy head sea and light wind—conditions in which *Boleh* behaves her worst. There was trouble also with that much-abused bit of mechanism, the " drive."

We tacked close inshore of the bathing beach of the Mount Lavinia Hotel, once famous for its Sunday curry tiffins and for the magnificent grove of palms that enfolded it—the latter a casualty to anticraft defence planning during the war. At half-past one we were met just outside the great breakwater that guards Colombo harbour by Mrs. Nicholson (" Tej " in the Yacht Club and to her friends), wife of the Commodore. Handling her " water-wag " with accomplished ease, she passed aboard four bottles of iced beer and led us to our anchorage off the Yacht Club. Here we were very soon assailed by harbour officials, police and Press, their boats doing their clumsy best to remove the nice white paint from *Boleh's* sides.

To our surprise, we found that we were expected to arrive on that day ! We discovered later that this was based on a chit John had sent to friends, telling them where to address letters.

The conflict between the impossibility of adhering to a schedule in sail (especially when not in the trade winds), and the desirability of warning people that one is coming and telling friends where to write, is not easily resolved on a trip like ours. It is a strange fact that everybody including Naval and port authorities, has got so used to clock-work schedules that it cannot be realized how unreliable any estimate of one's time of arrival in a sailing ship must be. I am afraid that this led to people worrying about us unnecessarily at several places, notably Madagascar and Durban, when we were not up to what was supposed to be our programme.

ii

It was at Colombo that we first experienced the spate of questions from the interested and curious, to which, thenceforth, we had to learn to provide answers at every port. The requests for information were many and varied, and, apart from the idle and stupid ones—such as " Do you anchor at night? " or " I suppose you keep close to the coast all the way ? "—showed a sincere interest in how things worked, how we lived, and how the voyage was planned. Below are but a few of these questions, with my answers—as far as I can remember them.

" What induced you to build *Boleh* ? "

" I am forty-six and, war and revolution apart, should retire shortly. I have always wanted to build a yacht to live in and get about the world cheaply and comfortably. I designed and built *Boleh* because she seemed to be suited to the purpose, to my means, and to the material and labour available. She is heavily built and not very fast, but she can sleep eight at a pinch, is safe and snug, and has plenty of space and spare buoyancy for overloading."

" How do you keep discipline with a crew so individualistic and varied ? "

" I don't try to."

" Why that quadrupod mast ? "

" Why not ? It looks strong, there are no shrouds to worry about, you can climb it easily, and the weight in *Boleh's* design, which includes plenty of ballast and plenty of beam, doesn't matter. Besides, it gives me room below for the swing-stove and swing-table."

" What is the hole in the stern for ? Doesn't the sea come in there when large waves follow from astern or on the quarter ? "

" The hole, if you must call it so, was designed with the idea of letting pooping seas go out over the stern—also for bathing and sanitary purposes. So far, no heavy seas have come in over the top and none up through the hole, so I can't say whether it lets the sea in or out the better."

" Why such a high stern and such low bows ? "

" The high stern gives me an extra cabin aft, as well as a cockpit that keeps dry in most weathers and is practically impossible to fall out of, or get washed out of by a sea. The bows are not especially low, though they appear so by comparison with the stern. There is a great deal of lift in the forward sections of the hull, and I have never known her to bury her nose in the way some sharp-pointed, heavy-displacement boats are apt to do."

" What is the idea of this queer outside-drive propeller ? "

" I wanted a sailing-ship, but I don't like lying becalmed for two days within sight of port. It is detachable, so can be taken inboard when not needed. If it were fixed, the propeller would hold back *Boleh* when under sail."

(The frequent references in these pages to the " drive's " disorders will enable the reader to understand that I could have said much more —and did—about that little invention of mine.)

" How do you, as skipper, fill in the time at sea ? "

" My day starts at ten minutes to five in the morning, when I am called to go on watch. I call the excellent Chang at half-past six. He passes up to me the remains of the cocoa—if any—then gets breakfast. At seven o'clock I am relieved and go down to eat breakfast."

" How do you manage about washing ? "

" It is surprising how little of this you can do with when the inducement is not strong—when you have to do it in the open in cold, unpleasant weather."

" Do you use fresh water ? "

" Oh, no—sea water, with special soap and some stuff called ' Teepol ' which smells rather vile, but is very effective. I shave without much difficulty in cold salt water with salt-water soap, but not very often."

" Coming back to your daily routine, what do you do after breakfast ? "

" At eight o'clock I go on watch again until twelve-fifteen, when I come down, write up the log, and have lunch. I sleep, read or write

till tea-time, which is twenty minutes to four. In the dog-watches, there is work to be done on deck, and the planning of next day's ' ideal course '—as well as any necessary changes in sails or their trimming. Before it gets dark, I go round the upper to see that all's well—sheets clear, no unnecessary chafing, and so forth. Supper's at twenty to eight —bed eight-thirty or nine. Then I'm available all night if the man on watch wants any help."

" And the crew ? "

" With the exception of Chang, who cooks and cleans, they keep the rest of the watches and work on deck during the forenoon. The watches are arranged so that each man gets one heavy day, one medium day and one light day in succession. But there's not much spare time for any of us, even in fine weather."

Another popular question, at Colombo and elsewhere, was : " Don't you get on each other's nerves during the long stretches at sea ? " This matter is dealt with at some length elsewhere in these pages, but I can mention here certain rules that I have found very useful.

(i) When in harbour, see as much of other people and as little of each other as possible.

(ii) Do what you consider to be twice as much work as anyone else aboard before you count virtue to yourself for your gratuitous contribution to the general good.

(iii) When the rest of the crew are particularly difficult, assume that the cause lies in yourself. You are probably over-tired, bilious, or suffering from an attack of self-pity.

(iv) " The judicious application of alcohol," as my old friend Murray-Park used to describe it, is a more important aid to the art of living afloat than it is ashore.

iii

We stayed ten days at Colombo. It was a hectic and, on the whole, a rather trying time. Although I personally had two delightful days with friends in the country, and the hospitality and help extended to all of us by the members of the Yacht Club and others, and especially by the Nicholsons, could not have been kinder or more cordial, we had some difficult jobs to get done and decisions to make, and conditions for living and working were, to say the least, unsettling. The berth (we eventually moored to a buoy with stern anchor out) was not only extremely uncomfortable, the ship rolling and pitching heavily, especially in the afternoon and evening, but also dangerous—due to lighter and tug traffic—*and* dirty ! It took six weeks at sea to get rid of the ingrained oily soot that worked its way into all our sheets, halyards, and other cordage. This was also our first experience of living partly on board and partly ashore, and everything got rather disorganized. The dinghy

was always the wrong end when one wanted it. The Yacht Club was inside the dockyard and, therefore, one could not ring for a taxi.

The replenishment, alteration, and defect list for Colombo contained some 40 or 50 items. Three of these were of major importance. The first two, which were to find a cure for the slatting of the mainsail, and to prevent undue chafe in the eye-splice of the peak halyard, have been mentioned more than once in previous pages. Various solutions to both had been put forward and discussed on the way across. The third was the repairing of the " drive."

We had come to the conclusion that the only way to stop our mainsail slatting in light airs was to lower it altogether. Therefore another light sail—either an outsize in Genoa jibs or a loose-footed mainsail—must be made to replace the mainsail under these conditions. A new mainsail was something of a tall order, considering that there were no sail-manufacturers, sail-lofts, or even professional sailmakers in Colombo. It is only due to the tenacity of purpose of Peter, who gave up a visit to Neuralia and stayed on the job instead, and to Joseph, the Club serang, and the Club boys, that we were able, on the day before sailing, to hoist a brand new and most beautiful looking loose-footed white mainsail of cotton duck. Its dimensions were approximately 40 ft. each in luff and leech and 25 ft. along the foot ; its area about 550 square feet. Peter marked out and cut it, the seams were sewn by two Indian tailors on two ordinary sewing-machines ; and Joseph and his crew roped it.

The fuss we had getting the two tailors, with their two sewing-machines sitting up in rickshaws, in through the dockyard gate ! Going out again, the poor fellows were locked up for two hours under suspicion of having stolen the machines. But the job had been well done. After a good two months' actual sailing use under varying conditions, sometimes by no means light, it was still almost as good as new.

In an attempt to prevent chafing of the peak halyard, we exchanged the block for a brass dead-eye, which was held to the mast by a strop. The small, rounded dead-eye would, we hoped, not only give a better lead to the wire and splice when the yard swivelled and fell away to leeward on a wind or when rolling, but would also control the yard better and prevent excessive movement either way.

As for the " drive," a preliminary examination showed that the strengthening strut (marked (a) in the diagram on page 38) had sheered and that the whole of the lower shaft-casing was bent. Jarvis stripped the thing down, assessed the damage and its remedy. A ball-race at the bottom of the intermediate shaft had gone, and the lower shaft-casing, besides being buckled, was badly cracked where it joined the upper gear-box. A local firm was called in to replace the ball-race, straighten the shaft-casing, and to replace the strut by $\frac{1}{4}$ in. brass webbing brazed on to the after side of the shaft.

When the job was completed, I did not much like the look of it, for the shaft-casing was, even to my eye, plainly not straight. I said so when presented with the bill, but we were persuaded, against our better judgment and because we had arranged to sail the next day, to accept it. The Englishman in charge said he was willing to stake his reputation on the job—not, as I pointed out, that that would be any help to us if it broke down when we were 500 miles from the nearest land and had no wind.

Simultaneously with the progressing of these three important items, all sorts of minor repairs and improvements were going on on board. The jerry-cans were brought ashore and steamed out prior to replenishing with water, and John, besides broadcasting for Radio Ceylon, set about ordering dry and fresh provisions, whisky, beer, paraffin, petrol, oil and all the other things we needed. We expected to be about a month on our way to Seychelles and did not know what would be available there, so had to be pretty well stocked.

As soon as I got back from my two days' holiday, Peter and I started enquiries with regard to weather and the best sailing route to Seychelles. We made no progress at first, in spite of much telephoning, but eventually arranged a meeting with the captain of a large Arab dhow, one of three of these splendid looking ships then in port.

The meeting took place at 10.30 on a very hot morning in the office of his agents—a room about 12 ft. square in a ramshackle building in the depths of the Pettah, the native trading quarter of the town. The agent was a very polite, dapper little man, who did his best to interpret for both sides as the four of us sat or stood round a small table, drinking sherbert and poring over charts of the Indian Ocean. But the dhow captain, a jovial old pirate of large proportions, with a face like overdone beef-steak, while eager to help, spoke only a very few words of English, and, though he had cruised for years between Ceylon, the Maldives, Bombay, and the Persian Gulf, had never been to Seychelles.

We left without ever being sure whether he had really understood what we wanted to know, i.e., the general run of winds and currents in the north Indian Ocean at that time of year, and whether it would be better to go direct to Seychelles or take a more northerly route via Minikoi, in the hope of holding the north-east trades longer and in greater strength. So far as we could understand from the agent, both routes were pronounced to be excellent.

We tried as many other sources of information as time allowed, but heard nothing of any assistance to us. We were forced to the somewhat ominous conclusion that sailing-ships just did not go from Colombo to Seychelles.

One more important thing to record of Colombo was our sailing victory over the Yacht Club in their own " water-wags "—one for each of us—female crews being provided, four boats a side. The Club sug-

gested that it might have been a better match if we had sailed five boats a side and had had Chang as our fifth helmsmen ! Actually it was a very close, as well as a very enjoyable, race—though sailed on the only day during our stay when the wind did not start working up until after 11.30. By that time, the sails were furled, the Club bar and *Boleh* lounge were open, and the serious preliminaries to a Sunday curry tiffin were in progress. On the afternoon and evening of that day, no work is recorded as having been done aboard.

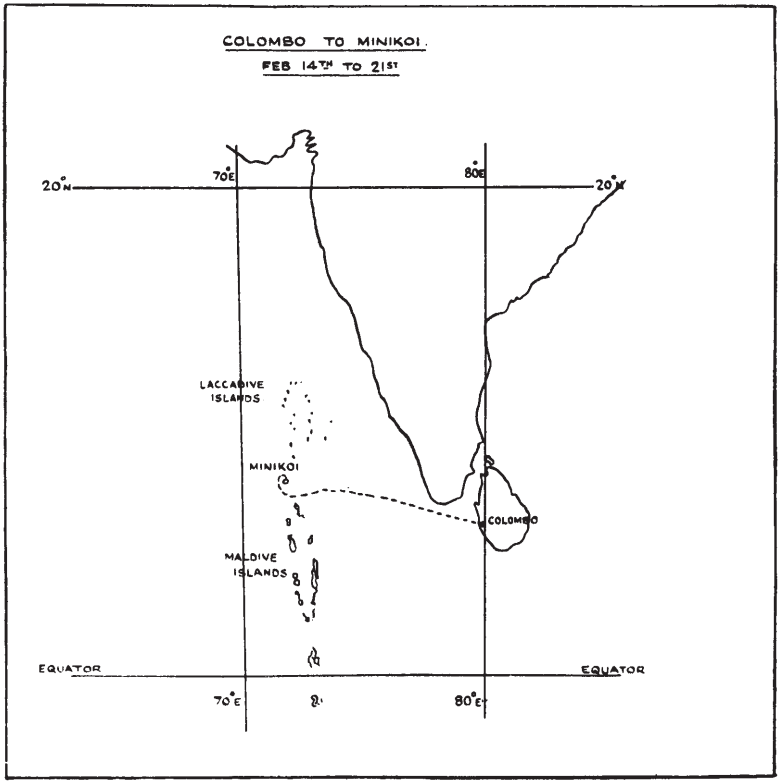
Monday was a very full day, therefore. Water, stores, fuel and oil had to be embarked, the sails bent, the ship prepared for sea, and last, but by no means least, we had to get our clearance and bill of health. Owing to some misunderstanding over reporting our arrival—despite the fact that customs-officers, port police, immigration and health authorities had all boarded us on arrival and taken away with them the usual forms filled in and signed correctly in duplicate—obtaining clearance in Colombo was more troublesome, required more forms, and involved more visits to more officials even than in Sabang. It was 9 o'clock at night before it was all amicably settled.

iv

Our final choice of route to Seychelles was via Minikoi (sometimes spelt Minicoy), that lonely coral atoll between the Laccadives and the Maldives.

We left Colombo on Tuesday, the 14th February—Peter's birthday —at 9.30 in the morning, dipping to the Yacht Club as we went. There was a nice little breeze to take us out past the shipping, but as soon as we were clear of the harbour entrance, the wind dropped and we lolloped around just outside. About noon the wind freshened from the north-east, and by 3 o'clock it was blowing hard. Peter wrote :

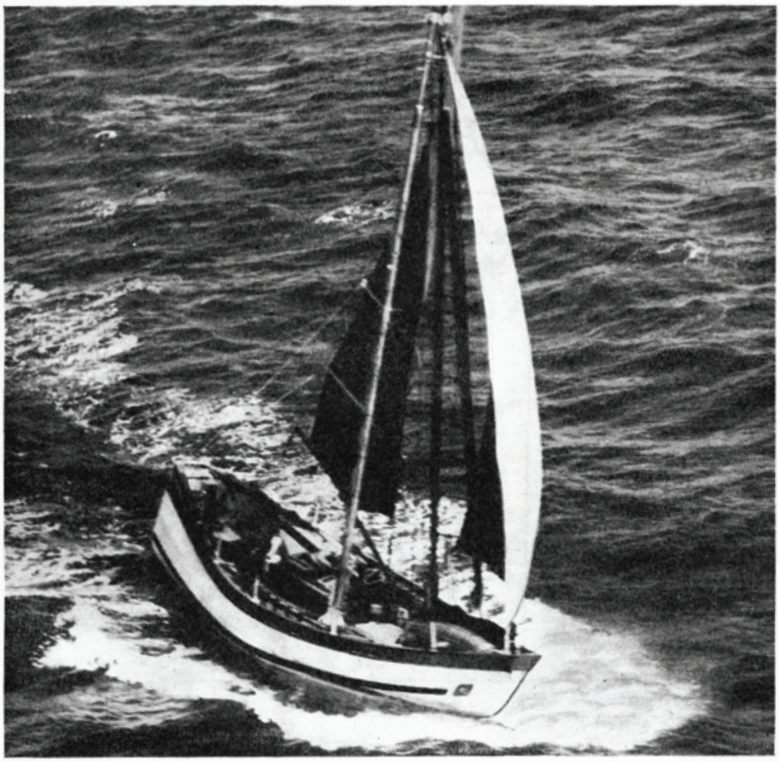
" Shortened sail before dark—two reefs, and she needed them. . . . John, Jarve and I very seasick. Didn't enjoy my birthday at all. . . . "



I have a clear picture of Peter whilst we were pulling down that second reef. With one foot on the lee rail and most of him overboard, he was hauling taut a tier, shouting something at me and being violently sick—all at once !

Wednesday, 15th February. Position : 7° 26′ N., 78° 02′ E. Run from Colombo : 123. It was still rough, but we were going quite well to the north-westward. In the evening the mainsail started slatting again. We attempted a remedy by reeving fore-guys to both wishbone booms in addition to the normal main-boom guy. During the night, on Jarvis's watch, we were all called by him in what Peter describes as " the sepulchral tone he reserves for gloomy occasions." The lower wishbone boom had broken right across, completely beyond repair.

We lowered the mainsail and hoisted the new loose-footer. It was a great success and looked very nice.



LEAVING COLOMBO

Thursday, 16th February. Position : 7° 54′ N., 76° 24′ E. Run : 46. There was almost no wind and we made very slow progress. Friday was no better—worse, in fact, for we developed engine trouble. First the " drive " gave out and then the engine itself fell victim to a mysterious internal complaint.

" The wretches," wrote Peter, " who did repairs to the ' drive ' in Colombo have put a bend in the shaft, which has caused an odd thing called a spline, or something, to break. Jarve has made a temporary repair, but reckons it will only hold for a very short period in an emergency. However, as the whole engine appears to be u/s, it doesn't make much odds."

Plodding slowly westward, we had much trouble with the peak halyard. Owing to the weight of the main and wishbone booms in the old mainsail, the yard was kept back off the mast ; but with the loose-

footer, the yard was inclined to thrash forward and bash the splice on the head—vary unfair treatment !—and the splice was soon cut to ribbons.

Saturday, 18th February. Position : 7° 50′ *N.*, 73° 55′ *E. Run :* 87. Our bad luck continued. A ball-bearing broke in the dynamo that charged the batteries for the electric light. Also we were badly set to the southward, quite contrary to the current charts. Wind was very light, and we made no progress back to the north. We renewed the splice of the peak halyard, putting bulldog grips on the lower end. All the other rigging was giving no bother at all, but the peak halyard remained a problem. The brass dead-eye put in at Colombo was no better than the block had been—it still allowed the yard too much scope —and even after hours of thought and discussion, we were unable to produce a solution. The only useful suggestion came from Jarvis—a hole right through the solid wood of the mast-cap. We felt that this might be on the right lines and decided we would have a go at it at Minikoi—if we got there !

Sunday, 19th February. Run : 55. We were still well to the south, with Minikoi now about 40 miles to the north-west of us. However, the situation improved somewhat during the day. There was a rainstorm in the afternoon and we managed to make about 12 miles to the northward.

" I was on watch," records Peter, " and it was just like racing a dinghy trying to get the last foot out of her. The wind was very variable and it was rather fun. . . . Usual peak halyard trouble. Am getting quite a dab at splicing. Our sail goes up and down every time the bell rings ! . . . "

Peter wrote in his diary that we were not " fussed " by the series of misfortunes that had occurred since leaving Colombo. This was certainly true of the crew, who did not then or afterwards evince anything other than absolute confidence in our ability to complete the voyage planned ; but for myself I must admit that, if not fussed, I was at least very anxious about our whole project. Since leaving Colombo I had been reading the *Pilots*, studying wind-charts, calculating distances and dates, and it was clear to me that we were already very late and that speed was essential if we were to make the Mozambique Channel and get round the Cape before the southern autumn. Instead of going fast, we had been drifting in light airs for days. We were now almost downwind and current of Minikoi, the only place within hundreds of miles where we could hope to effect repairs to our broken wishbone boom, solve the peak halyard difficulty, or be able to charge our batteries. The engine-drive could not be properly dealt with at Minikoi, so we should be without auxiliary power, anyhow, till our next civilized port.

That evening, therefore, as soon as the whisky had been served out,

I tried to put the position and possible alternative plans to the rest as clearly as I could, in order to be sure that we all agreed on what we should do.

Briefly, the position was :

(a) Heavy mainsail only usable with drabbler removed, i.e., as though with one large reef down ; useless to windward in light winds.

(b) Loose-footed mainsail could not be sheeted flat enough for really close-hauled work.

(c) Engine-drive out of action, except for emergencies.

(d) No electric light.

From (a) and (b) it followed that we might take a week or more to reach Minikoi—a week critical to our whole programme, for the north-east monsoon was already dying and it seemed from the wind-charts highly important that we should round the Cape by the end of May at the latest, because from then onwards contrary winds and storms could be expected to increase both in strength and frequency. But it was essential, if we were to stick to our chosen route, to call at Minikoi to make our main power-plant, i.e., our sails, fully efficient, as light head winds were to be expected in the vicinity of Seychelles.

From the information available in the *Pilot* it seemed doubtful whether we should be able to get the " drive " repaired even at Seychelles, for, besides the bend in the shaft, it was by now apparent that the alloy casing enclosing the bottom bevel-gears and propeller-shaft was so badly corroded that it could not last long. To be certain of proper repairs to this, possible ports were : Durban, on our route, but 3,500 miles away ; Aden, a broad reach in the north-east monsoon, and 1,700 miles away ; Cochin, quite close on the Indian coast, but up wind and current ; and Colombo. Diego Suarez was, in my opinion, already out, on account of strong head winds and currents off the coast.

Electric light was not absolutely essential as we had enough paraffin to last us a month or more ; but it would be uncomfortable without it, and the inactivity might damage the batteries. It also deprived us of an adequate compass-light and of the lights on the mast. The navigation-light, a combined red and green lantern was at the top of the mast, half-way up which, under the cross trees, were two 8-watt working lights, which lit the foredeck and the sails—on a dirty night, worth an extra hand aboard.

Taking all these factors into consideration, the prudent course seemed to me to be : firstly, to change our route and go home via the Mediterranean, thus making sure of our major repairs in Aden ; secondly, since no serious windward work would be involved in the passage to Aden, to limit the time spent trying to beat back to Minikoi to, say, three days. This plan would shorten the whole trip by many thousand miles,

but meant facing the very unpleasant 500-miles stretch at the north end of the Red Sea, where we could expect continuous fresh to strong head winds, with short steep seas and badly charted reef-strewn coasts, the haunt of Arab pirates either side.

I say that this alteration of plan seemed prudent, and it was as such that I put it to the rest of the crew. But I did not myself want to adopt it, and when the others all voted strongly for sticking to our original plan and taking our fences as we came to them, I was much relieved. We only disagreed on the limit to be put on the time which should be spent, if necessary, in working back to Minikoi. Peter was for no limit —or anyhow as much as a week or ten days—whereas I felt that if we did not get there in three, we might go on trying without result till the monsoon changed.

No decision was reached on this point, our discussion being terminated by the sighting of the loom of Minikoi light over the horizon. This was duly celebrated by another of Chang's special measures of whisky—and I for one turned in in a much more cheerful frame of mind than I had felt since leaving Colombo.

CHAPTER ELEVEN

Minikoi

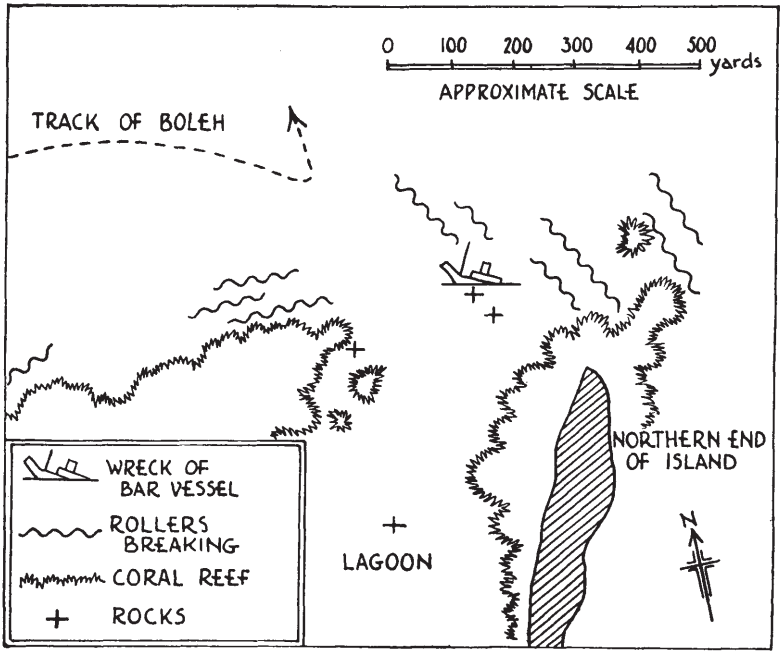
i

Monday, 20th February. Off Minikoi entrance. Run : 45. WE TACKED twice during the night, bringing the Minikoi light above the horizon, but still to windward and up-current. By daylight the lighthouse and the tops of coconut trees were clearly visible, as we worked round to the westward of the island on the starboard tack. The wind was light and fluky all day, but we gradually drew nearer the entrance, which lies at the north-west corner of the atoll and is distinctly, if ominously, marked by a Bar vessel which is ashore and gradually breaking up on a rock or coral head, right in the centre of the channel.

We did not seem to make much progress during the afternoon watch, the current pushing us away to leeward as fast as we gained ground to windward, but when Jarve came on for the first dog-watch, a nice little rain squall blew up and he stated his determination to reach the entrance before dark. At about 5.30, when we were only four miles off the entrance, the breeze died away and I decided to try the engine for this short distance. Thanks to Jarve's repairs, it went strong. Peter wrote :

" . . . as we got near the entrance it appeared quite certain that we

should never make it in daylight, and a worse thing to do than try in the dark I don't know. It looks something like this :

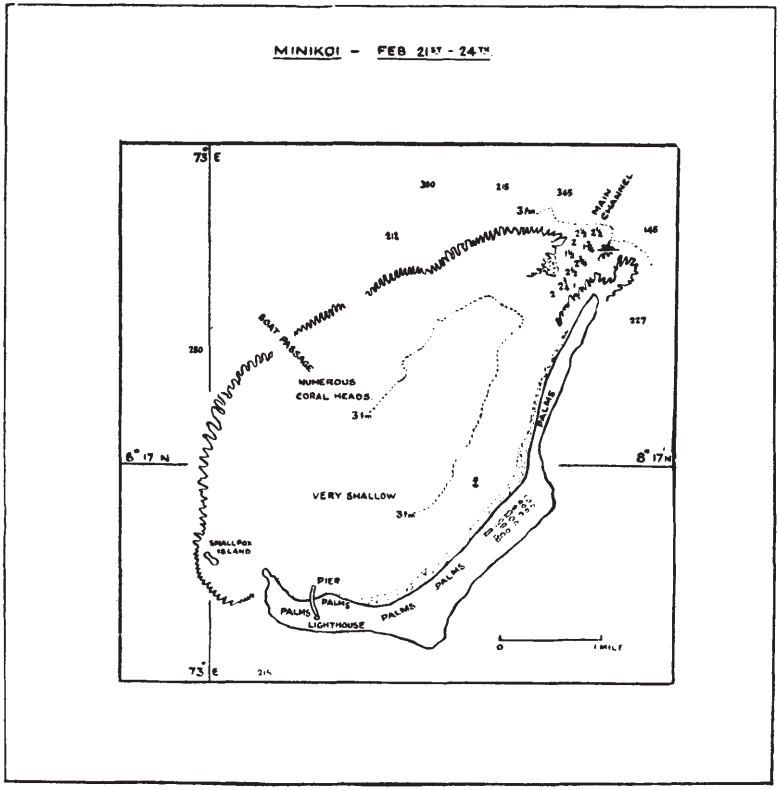


" From about a quarter of a mile, it was not at all clear which side of the wrecked vessel we should go, and it was rapidly getting dark. However, we stood on. I was absolutely horrified at this, which seemed complete madness, and told Robin that I could not possibly pilot her in. Thank God Robin then turned away. The sound of the breakers was loud in our ears. John afterwards admitted that he had been as terrified as I. . . . "

We stood off and on all night. Fortunately, the breeze freshened again and we were easily able to maintain against the current our position relative to the island. The next morning we were close in to the land. Even in daylight the entrance was quite alarming, rollers breaking close to the channel on both sides, and the water so clear that, as one approached the reef-edge from the very deep water just outside, the bottom was pale green with brown patches of coral—and all too clearly visible.

At 7.30 a native boat with a piratical looking crew came out, and

thinking they were bringing us a pilot, we lay off and waited for them to come up to us. But they were merely bent on fishing. However, after a little persuasion and some manoeuvring, an inoffensive but singularly unintelligent seeming man was transferred to us. With the help of signs, and what Peter could remember of his Hindustani, he piloted us to our anchorage half a mile off shore, opposite what appeared to be the centre of the village. The route followed was highly com-



plicated, with many and violent alterations of course emphatically indicated ; whether these were really necessary or merely undertaken to impress us with our pilot's knowledge and skill, it was hard to say. He asked for eight rupees pilotage money but only got five because we had no local money with us at the time, and we soon learnt that the cost of any service or article obtained from the islanders was fixed by the gentleman known locally as the " Government Ahmin," and no one haggled or argued with *him*.

This pleasant and good-natured official boarded us on arrival in his 16-oared barge. The oars were long poles with round boards on the end, operated by boys, 10 to 14 years' old, whose chief adornments were their curiously painted eyebrows. The Ahmin spoke very little, if any, English, but appeared interested in everything and liked our lemon squash and ginger-bread biscuits. His baboo, a very seedy looking, pock-marked and wall-eyed person, spoke English fairly well and, when we went ashore to discuss repairs to the wishbone boom, did all

he could to help us. He took us to various houses and, after " much drinking of very dubious sweet tea amidst a cloud of flies "—the phrase is Peter's—we eventually tracked down a man who undertook to fix it —and looked as though he could. The broken boom was brought ashore to be copied, and timber selected. This we more than suspected had once formed part of the bar vessel on the reef. We also obtained two excellent bamboos for use as main boom for our loose-footed mainsail and spare spinnaker boom.

Before lunch we met the doctor and the meteorological and radio staff, all Indians from the mainland and speaking English fluently. They do one-year spells at Minikoi. The lighthouse-keeper was a Cinhalese and we were given to understand that he would probably change our money for us. I walked out there in the afternoon and was able to exchange a few Ceylon rupees for Indian currency, enough, with the aid of some small presents from our ship's stores, to meet the modest bill for our stay on this queer, delightful little island, which is seen from a distance by so many on passage to and from Ceylon, but is visited by so few. We stayed there three days and wished it could have been three weeks.

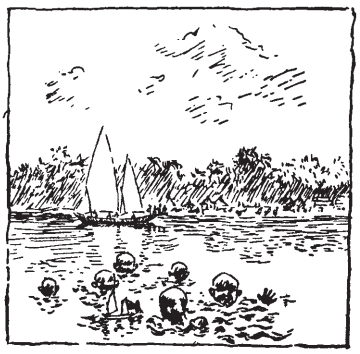
" Only criticism," wrote Peter, " is the millions and millions of flies, which are a curse after flyless Singapore. Dried-fish industry or D.D.T. ? "

Less of the first and more of the second might certainly have improved matters, yet for all its flies, Minikoi has many merits. The village is picturesque, well organized and spotlessly clean ; the people friendly and quite unspoilt, though naturally a little shy of us ; the lagoon all that a tropical island lagoon should be ; and the fishing boats extremely interesting—and beautiful to watch under sail.

These boats are beamy, low, light-displacement craft, with, however, surprisingly deep, straight keels when seen out of the water. They have a sort of platform aft, from which, presumably, the fishing is carried on out at sea, but on which all the more important members of the crew stand about in graceful attitudes when the craft are proceeding in or out of the lagoon—our only opportunities to observe them closely. They carry two big sails set on very long yards, but on short, stumpy masts. The fore lug-sail is much bigger and heavier than the after one, which is lowered instead of reefing. I imagine that they normally carry much weather-helm, and the lowering of the mainsail in strong winds helps to balance them. They reminded me strongly of the Gozo boats* and added a Mediterranean touch to the scene.

The people, too, suggest Egypt or Morocco rather than Ceylon or India. They are Mohammedans. All the women dress alike, in dark red or plum-coloured one-piece garments. The men have shaven heads and wear baggy Moorish trousers, drawn in and embroidered at the ankles.

The young men go to sea as Lascar crew of merchant ships, then come back to pass the rest of their days on Minikoi. How often during their service some of them must sight their home island before they return to it at last ! The middle-aged and old men catch *maas*, a species of tunny, going daily during the season several miles out to sea in the boats described above. The boys learn to be seamen—to row, to sail,



* See illustration, page 3.

to make nets, splice ropes, and to swim like fishes. It was amusing to see approaching the ship a whole flotilla of childish heads, black, shaven and smiling, usually with three or four toy boats amongst them, excellent miniatures of the local craft. We were about half a mile from the shore, and some of the swimmers were only five or six years old, which somewhat alarmed us until they were close enough for us to see that each of the younger ones had a small raft under him—a solid chunk of balsa or other very light wood.

Everywhere we went on the island, we had a following of about fifty of these boys.

The Indian doctor, a most agreeable man, told us a lot about Minikoi and its people. Although the men all go to sea as seamen, the women never leave the island. The matriarchal system obtains, all the houses being owned by the women. When a man wants to marry, he has to build or otherwise provide a dwelling for his betrothed. This she lives in after marriage, but the husband's main abode remains his mother's house ; he is only a visitor at his own.

" However," wrote Peter, " the men appear very contented. Thousands of children. Perhaps there's not much else to do."

There are three social classes, distinguished, amongst the women, by ear-ornaments. The classes are fairly well defined, but transposition from one to another by marriage, etc., is not unusual.

They depend for their livelihood on fish and coconuts, the latter producing an excellent coir rope. Most of the fish is dried and exported to India in return for other kinds of food and the various things the island does not produce. We found the fish very dull eating.

Under the benevolent but watchful eye of the Ahmin, they practise a very advanced (or ancient) form of socialism. Everything is pooled and divided up among the clans or families, who then pass on to the authorities a proportion of their share by way of tax for public services, etc. The system really seems to work, too.

There is a school, where all the children must spend three years and be literate in their own language before they leave. So said the doctor, but it did not seem to us that the school was much attended, or taken very seriously by those who did attend.

With our business concluded, we went back aboard for lunch, but before we got a chance to have it, we were visited by most of the locals we had just met ashore. It was after two o'clock before we got rid of the last of them and were able to eat our meal and settle down for the afternoon.

Peter wrote in his diary :

" . . . most pleasant under the awning and far too hot to work. Over the side for a swim from time to time. Bathing in these conditions and with no bother about clothes is going to make any other swimming seem very tame. . . . In the evening, sat on deck with a

quiet whisky, watching the sun go down. Really, this is nearer my idea of paradise than anywhere I've been for a long time. The lagoon is lovely—about four miles by two, beautifully clear, greenish-blue, ringed by palm trees on one side and a coral reef on the other, over which the surf breaks. . . . It was nearly perfect. A young moon, absolute calm and peace, and wonderfully cool. We just sat and gossiped quietly and eventually slept on deck. . . . "

ii

Our next hop was to be to Seychelles, and one of the things that had been exercising us a good deal was how long we could expect to hold the north-east monsoon winds, which were already very light and unsteady, and whether it would pay us to gain westing before striking south, particularly as we had to cross the counter-equatorial current, which could be expected to set us to the eastward as soon as we got within 100 or 150 miles of the Seychelles group. Accordingly, I went ashore the next morning (Wednesday, the 22nd) and sought out the rather vague but charming Met. Officer. I gave him our proposed route, our reasons for choosing it, and the expected period of the voyage, and asked his advice. He undertook to telegraph the head office at Poona for information about the weather to be expected.

We spent the rest of the day doing odd jobs around the ship. She had received rough treatment in the crowded harbour at Colombo, so John got busy washing her down, preparatory to painting her on the morrow. Jarvis and Peter had another go at the peak halyard, boring a hole for it to pass through the mast-cap. Of the results of their efforts Peter recorded :

" I think we're on the right track."

They were ; the cure invented by Jarvis was to prove most effective and was duly celebrated when we reached Seychelles.

An incident that morning threw rather too searching a light on the character of the author, but I suppose that in the interests of truth it should be described.

The people of Minikoi, being Mohammedans, do not eat turtle ; therefore the creatures abound and grow fat in the clear waters of the lagoon, and have no fear of men or boats. A particularly supercilious and self-satisfied specimen spent the Thursday morning lazily paddling round the ship, breathing heavily and somehow suggesting a fat and elderly Colonel at Cap d'Antibes.

John mentioned turtle-soup, which idea found favour and a contract was made with four native boys in a passing boat—one turtle for sixpence plus four cigarettes.

I was working up the mast and for some time watched with amusement the children's efforts to lasso or harpoon the turtle as he surfaced

unconcernedly, but always just out of range of them. An hour or so later, however, I was rudely undeceived as to the turtle's immunity by shouts of triumph from the boat, shortly followed by its arrival alongside with the turtle in tow, a rope around its neck. I called for John. John called for Chang. Chang, who I think had had previous experience of turtles, had retired to the lavatory and stayed there longer than usual. Meanwhile, the turtle was—with difficulty—hoisted aboard and lay on its back on the starboard deck, grunting and waving its arms and looking more like a retired colonel than ever.

John brought a knife, and made a few irresolute passes at the old gentleman's wrinkled neck, but showed signs of wanting to consult one of his cookery-books before beginning in earnest. This was too much for me. With horrible visions of the death struggles at the hands of a hesitant and unskilled executioner and the ensuing shambles on deck, I told John to heave him overboard again and tell the boys to let it go.

This was easier said than done. He was levered overboard all right with the dinghy oars, but his captors were naturally reluctant to believe that their splendid turtle was disdained by us. John reported that he could not make them understand and that he thought they proposed to slaughter it ashore and bring us off the meat.

"Anything," I said, from up the mast, "so long as they take him away or let him go."

After a good deal more talk and the handing over of the crew's reward, the boat and turtle departed towards the shore—the old gentleman's fate still, I hoped, in doubt.

That evening, however—and the next—the richest of turtle soups was on the menu, as well as the most delicious turtle steaks ; and no one, I think, enjoyed them more than I.

"There's glory for you ! " as Humpty Dumpty said to Alice.

iii

Thursday morning saw us still busy putting the ship to rights. John began painting her top sides, while Jarvis worked on the engine and the "drive." We received a visit from the lighthouse-keeper's assistant, inviting us to visit the lighthouse. We could not all go, and I was anxious to do some sketches of the local people, so Peter volunteered to stay aboard while John, Jarve and Chang took a picnic lunch to the lighthouse. I was glad about this for Chang's sake ; he had been rather down in the dumps of late.

Peter wanted to check the chronometer and also to take some photographs, so when I returned from my sketching, he went ashore and walked out to the radio station, where the operator, "after talking for three-quarters of an hour, produced a check in which I have no faith at all. He talked so damned long that I had no time left to take any

WOMAN AND CHILD

PETER, CINHALESE SCHOOLBOY

MOHAMAT

AISSA

MINIKOI SKETCHES

snaps, which annoyed me immensely, as there were some most interesting and unusual subjects for a change."

On his way back Peter met the party returning from the lighthouse. Chang, with a great sack of coral and shells of various descriptions and sizes on his back, was bubbling over with joy.

I did not expect to get a speedy answer to my enquiries about the weather prospects, but that afternoon a communication from the Met. Officer arrived. It quoted the route-forecast received from Poona, which ran :

> Your signal regarding Sailing Yacht *Boleh* to Seychelles aaa Route chosen has favourable winds most of the way aaa Winds will be even more favourable if a more south-easterly course could be taken from Minikoi to Seychelles direct, provided voyage completed by last week repeat last week in March aaa Normal winds during period Minikoi to equator north-east 5 to 10 knots aaa South of equator to Seychelles north-east 10 to 15 knots.

This was so clear, and seemed to indicate such an unusual degree of efficiency in the meteorological world, that we modified our route considerably, making direct for a point 150 miles due north of Seychelles, instead of going west and gradually curving south to this point, as we had intended. I do not think that we lost by it, for our troubles mostly came beyond that point, but I regret to record that our logged wind-speeds and directions, except for the first few days, bore little or no resemblance to those forecast. Between the equator and Seychelles, we were completely becalmed for four days. For a week, the wind never blew from between north and east, or reached a strength of 10 knots.

But that is looking ahead. With our choice of route thus decided, we made preparations to leave Minikoi early the next morning. The new wishbone boom was supplied, approved and paid for ; a pilot was engaged to take us out ; fresh water and food—chickens, eggs, fish and about fifty young coconuts still attached in bunches to their branches—were taken on board. The total cost of our three-days' stay, which included the new boom, the two bamboos and all the provisions, amounted to 50 rupees—£3 15s. " If only," wrote Peter, " the rest of the world was like this ! "

The sun was going down, and the fishermen were pulling their boats up on the beach, for to-morrow was Friday, a Mohammedan holiday.

iv

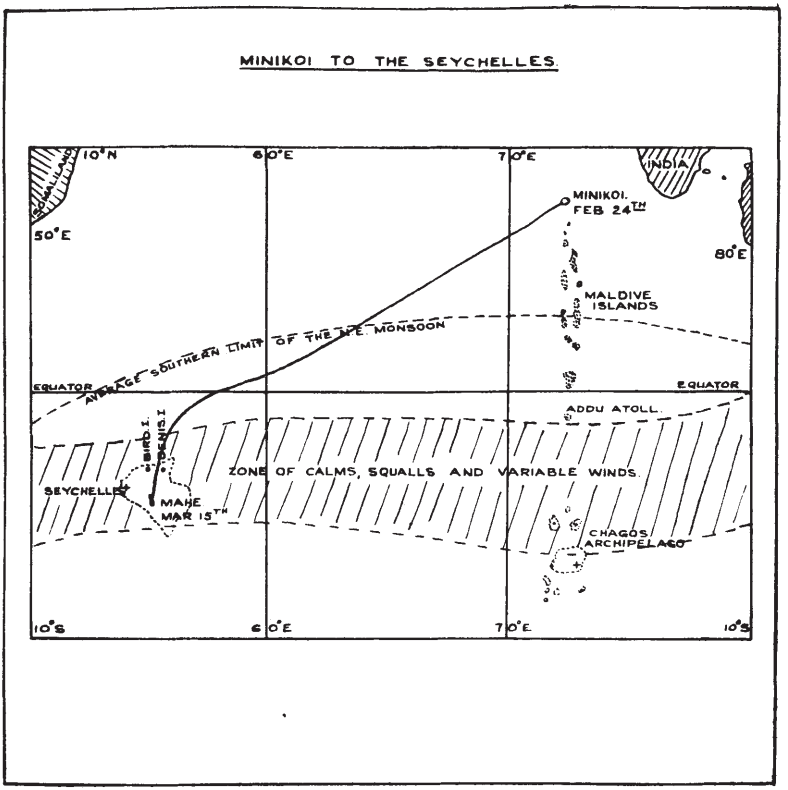
Friday, 24th February. Run : 15. We were up early, to get ready for sea. The Ahmin came aboard with the pilot at 10 o'clock, and we got under weigh with Genoa and the brown mainsail setting perfectly with the new wishbone boom. The entrance was four miles almost

directly to windward, which meant that we would have to beat all the way—quite a tricky bit of pilotage.

"The whole lagoon," wrote Peter, "is dotted with coral heads, growing up to within one foot of the surface—so thickly in places that it sometimes seemed as though we had entered an alley-way between them from which there was no way out. The coral heads show as dark brown or grey patches against the brilliant light green of the deeper water. We were often within fifteen feet or so of a coral head, but our pilot stood up in the bows and picked a course without hesitation, indicating to Robin the course to steer—a most competent performance altogether. . . ."

That may have been so, but it was not always clear to me whether the pilot was indicating which way to go or pointing out a rock ; nor did it help much that one of his eyes looked 20° to starboard when the other was looking right ahead.

However, we got clear of the reefs in due course and hove to whilst their small sailing-boat came up with us to take off the Ahmin and



pilot. Then, after saying good-bye, sincerely hoping that we should see our Minikoi friends again some day, we squared off before the wind.

As soon as we had got our offing from the reefs, we lowered the brown mainsail, only hoisted for close-winded work leaving the lagoon, set the loose-footer on the new bamboo boom, big spinnaker to starboard, and were away for Seychelles, our trophies, the branches of young coconuts, swinging across the stern.

That night Peter recorded :

" Took our departure at 1500, Minikoi then bearing 060° 6½'. A fair N.E. breeze, and going well. Hope for a pleasant, peaceful trip. . . . Afraid we shall get some calms. Estimates for the passage vary between 20 and 40 days. . . . Streamed and reset the log. Wonder what it will be when we arrive—a guess, 1,370 miles ? "

CHAPTER TWELVE

North Indian Ocean

i

Saturday, 25th February. Run : 136. THE NORTH-EAST BREEZE PERSISTED, and we had another good day's sailing. The peak halyard was behaving very well ; we hoped that it would continue so. The sails were still quite new, yet some signs of incipient chafe were already observable, so we wrapped baggy-wrinkle round a number of odd spots. During the night, the wind had fallen and there was a slight quartering swell. Steering in the dark hours was difficult, for, with the dynamo out of action, we were without a compass-light. The binnacle was at the fore end of the cockpit, placed centrally and a little above the level of the helmsman's feet ; the 6-watt bulb had a dimmer switch and nothing could be better when the amps were available. But now we had to rig up a paraffin lamp to shine down on the compass. It was not very easy to see by and was liable to get caught up in the mainsheet, besides getting knocked over by—and burning—the helmsman's knees.

" Steering," wrote Peter, reflecting the fretfulness of us all, " was hell. No convenient stars, ship all over the place, the spinnaker getting hell knocked out of it. I do hate not having a proper compass-light. One gets off course and steers badly. This irritates me and therefore I steer even more erratically. Everything bangs about and life is hell. For the lack of a nail a ship was. . . . "

Yet, by and large, we were bundling along well, as Peter concedes in his diary. One gets testy over small things at sea—and argumentative. Jarve was emphatic that he could detect a set or current when at the helm out in the open ocean. This, he alleged, he was able to do by observing the angle of the log-line, or the wake to the fore and after

line of the ship, by the shape and look of the seas, or by some other mysterious means never clearly stated. Provided he did not alter course or the trim of the sails on the strength of it, this innocent conviction could hardly, one would have thought, have mattered much to us—and yet I seem to remember that we got quite hot and bothered in our attempts to prove its fallacy.

Was this evidence of our lack of confidence in ourselves ? Not everything, after all, is known about the reaction and interaction of earth, air and water in their relative movement. Alone on watch at night, one muses on such subjects. It is surprising where they lead and how little one finds of which one can say, after close analysis, that one is really certain.

Sunday, 26th February. Position : 6° 37′ *N.*, 69° 18′ *E. Run :* 120. The spinnaker started to tear slightly in the afternoon, but we got it down before much damage was done. The tear was dealt with by Chang most efficiently in half an hour. Peter wrote :

> " Find I am quite useless with needle and thread, as opposed to sailmaker's palm and needle. When these sails start requiring extensive repairs, it is going to be a bit of a business. . . . We now have the mainsail and both Genoas up and drawing nicely—the one to starboard boomed out. Really very fine press of sail, about 1,100 square feet, I should think, making 5 to 6 knots."

Our radio set was far from satisfactory and we could seldom make it work, but that evening we managed to get a time signal, much to the relief of Peter, who was able to assure himself that the chronometer was behaving very well.

Monday, 27th February. Run : 110. Peter spent most of the morning roping the foot of the big spinnaker, a long and tiresome job, but well worth while. We had scarcely got it set again when the wind flew into the south-east and it had to come down in a hurry, leaving the fo'c'sle a tangle of ropes, bamboos, and the hundreds of lashings involved in the rigging of our spinnaker poles. It was not until later in the voyage that we evolved a very good and simple arrangement for the inner ends of the spinnaker poles—a wire jackstay on the mast and a " hake's mouth " in the bamboo, thus allowing the root end of the pole to be slid up and down as required, and very quickly and easily stepped and unstepped.*

ii

To cover the remaining ten days of our leg from Minikoi to Seychelles, I think I can hardly do better than let Peter's diary tell the story, with little interruption on my part. Peter's jottings not only paint a very good picture of life aboard *Boleh* in the North Indian Ocean, hundreds of miles from the nearest land, but also mark the stages of his

* See diagram, page 158.

illness, which was to cause us much anxiety before we sighted the light of Denis Island, Seychelles.

" *Tuesday, 28th February. Position :* 4° 48′ *N.*, 66° 03′ *E. Run :* 104. As to-day has been so perfect, I'll put it down in some detail. 0640, called by Robin. Set spinnaker and then took over watch. Lovely fresh morning, with little cirro-cumulus clouds and a nice following breeze. 0800, relieved by Robin. Took sight for longitude. Breakfast—coffee, bacon and eggs, toast and marmalade. 0830-1130, general morning's work—mostly bo'sun's. Put 6 piston-hanks in storm jib, and fitted grummet-strop to tack. Jarve and John busy on the upper. 1200, gin. 1230, lunch—cold tongue, ' Spam,' boiled potatoes, cabbage-salad, cheese. 1245, took sight for latitude. 1330-1515, excellent sleep. Parked down on the fo'c'sle on a sail beside the dinghy. Read a little, and then really got down to it. 1545, tea—toast and jam, cake. 1600-1800, lazed around, wrote a letter and gossiped. 1800, took over watch. Weather still perfect ; making 5-6 knots. While on watch, Robin and I had first game of chess—great fun. Should have taken star sights, because the sun put us rather far south, but chess was too exciting. We finished in the moonlight, with a glass of whisky. 2030, to bed on deck again.

" *Wednesday, 1st March. Position :* 4° 15′ *N.*, 65° 20′ *E. Run :* 70. Bloody night. Couldn't sleep, probably because slept too much yesterday afternoon. Weather became very tiresome. Clouds built up into enormous masses. Very disturbed atmosphere, with wind all over the place. Handed spinnaker at midnight. From then on till 0430 hoisted and lowered sail, gybed, tacked and generally ——— about. These local tropical do's are the devil—quite unpredictable. If you steer to avoid them, they alter course and come after you. I feel I was one up in the end, however. The jib had been banging its head off, so I lowered it, thinking that the wind would automatically behave—and it did. Kept jib down for an hour—on the principle that if one takes an umbrella it will never rain. By 0600 the weather was grand again.

" Weary, but for some reason very busy this morning. Went round all the gear, which seems to be pretty good, including peak halyard. Did some *dhobi*—a job I loathe. The final result is twice as grubby as the original, and salt water really doesn't have much effect on grease. However, it does stop clothes getting sour and nasty. Had a good bath, and by 1200 felt rather smug. The coconuts over the stern sometimes get mixed up in the mainsheet, but the milk is delicious. Only five left now, unfortunately.

" About 750 miles to go from noon to-day, so we're almost half-way.

" *Thursday, 2nd March. Position :* 2° 39′ *N.*, 63° 38′ *E. Run :* 104. Pleasant day. Following breeze still force 3-4. Could hardly be better ! About 1700 we had a concourse, to try and decide the best means of dealing with these odd nights, so that (a) the vessel proceeds from A to

B reasonably fast, and (b) (more important) the owner and crew don't spend their nights fighting with recalcitrant sails. Decided to have a go at twin-jib rig. Boomed out the two Genoas and lowered mainsail. Worked a treat. At a later date we shall try to fix Marin Marie's automatic steering arrangement ;, but she does more or less steer herself like this, and life is much less trying on watch. No chafe and no bother. I fancy we lose about a knot or slightly less with this rig, but well worth it for peace of mind—at night, anyway.

" *Friday, 3rd March. Position :* 2° 04′ *N.*, 62° 20′ *E. Run :* 118. Very peaceful night, almost boring on watch. Perfect full moon. Lay back and thought beautiful thoughts in between going down to pump out the bilges to keep myself awake. Of course, to be difficult, the weather was perfect and we should have gone better and just as quietly with mainsail up. Roped one side of large spinnaker this morning, and the other whilst on watch this afternoon. A damn tiresome job, but worth doing, I think.

" The date question is quite absurd. If it were not for taking sights and using the Nautical Almanac, wouldn't know if it was Christmas or Easter.

" Did a little chart work this evening, and find we've done 760 miles since leaving Minikoi—average 4.47 knots over a week. Quite good, as we haven't done much pressing. Very difficult to decide on a trip like this how much to drive the ship or consider comfort first. I think Robin now has a pretty fair mean. At first, I'm sure he nursed her too much and shortened sail far too soon, and often unnecessarily—however, very understandable over one's first brain-child, especially as it has so many unorthodox features.

" Talking of unorthodoxy, have been having a quiet battle over the amount of string and number of gadgets we are collecting aloft, and think I am making headway. It is frightening to be on watch and realize that, with one other chap, it will take you above 15 minutes to be in a position to go about. Very wrong at night, even if perfectly safe and acceptable in the settled weather we've had during daylight.

" Nice breeze now. Pottering along quietly under twin jibs.

" *Saturday, 4th March. Position :* 1° 12′ *N.*, 61° 38′ *E. Run :* 70. Blood appears to be a little out of order. Robin notices the same thing, scratches get mouldy quickly, and now I have a boil on my elbow. Can't think why, because food is good and varied and all the vitamins carefully seen to by John.

" Wind light and variable ; took in twin jibs and set mainsail again.

" *Sunday, 5th March. Position :* 0° 55½′ *N.*, 60° 07′ *E. Run :* 70. Had big session with chart, atlas, *Pilot*, etc. All agree reasonably on our route, but have a slight bias towards a more northerly course, so we are keeping our course as a southerly limit. Westerly set very appreciable now and a great boon, as wind is very light and variable.

" With only my very short experience of them, do not consider twin jibs justified. It seems that one must be able to guarantee really steady trade-winds, otherwise one's course is too inflexible.

" At 1640 a great moment ! John hooked a good 'un. It took him 50 minutes to land and turned out to be something resembling a marlin, about 22 lbs. Very fine achievement and reward for 5 weeks' plugging. The colouring of the fish was astonishing. Wish I had had a colour film. Luminous blue round the head, vivid yellow scales on the body, and a dark blue tail—quite unbelievable. 44 inches long. John had a hell of a fight because, although he has a first-class reel, the rod is home made—nothing more than a broomstick. . . . "

JOHN HOOKS A GOOD 'UN

At the time, I was fully convinced that the fish we had caught, one of a small shoal that had been swimming under or around the ship for more than an hour—and seen through the crystal-clear water they were, if possible, more striking in appearance than out of it—was of some rare species, almost unknown to the angler if not to science. It positively glowed with colour : from the side, beaten gold with cerulean blue spots ; from above, deep cobalt blue with brilliant phosphorescent edges, and the blues reflecting the light in some quite magical way. The large forked tail was reddish gold, veined and edged with blue.

Who could believe that such a fish, if often caught, could have failed to achieve a world-wide reputation for beauty, greater than the peacock or the bird of paradise—whereas we did not even know what fish it

was, and John insisted on boiling one of my silver tea-spoons with it (in accordance with K.R. and A.I. article 1002 (ii) and B.R.5, chap. 1 (g)) to make sure it was not poisonous !

We called it a golden marlin until we reached Seychelles, when, by means of description and cross-questioning by experienced deep-sea fisherman, its identity was finally established as dorado, or, as they call the fish in those parts, dolphin. We then remembered references to the colours of a dying dolphin, which I, at least, had always thought applied to the ordinary dolphin that one sees every other day playing round the ship—small cousin to the porpoise. The fish was excellent eating ; white flesh and very tender.

" After the excitement, a good game of chess with Robin, followed by several games of fox-and-geese with Jarve. From the sublime to the " gorblimey " ! But I find I am better at the latter.

" *Tuesday, 7th March. Position :* 0° 11½′ *N.*, 57° 58′ *E. Run :* 69. No diary yesterday (run 72). Boil most unpleasant, making me feel very low. John putting on hot fomentations. Hope it will come to a head in a day or two. Very slow progress, light airs and at night calm except for rain squalls. However, very good set with us, 25 to 35 miles a day.

" We are faced with a most interesting navigational problem. At present, a fairly strong set is taking us about S.W. This set eventually turns south and then east, and in about 2°-4° south becomes the counter-equatorial current. The problem is (a) to find out each day which way, and how much, the current is setting us as we get further south, and (b) to adjust our course and track so as to reduce the time spent in the counter current to a minimum. (a) is not easy because, in this weather, it is impossible to know with accuracy what course and speed we are making. Sights are very good so far, but, as the altitude of the sun at noon is 85° odd and increasing, it only bears south for a matter of minutes, which may be cloudy.

" Had a filthy great shark following us for a couple of hours yesterday morning, pilot-fish in attendance. He took a fish's head we chucked over, but laughed at the bread sandwich, well filled with mustard powder, which John put over for him.

" Robin getting very impatient with our progress, but no one else unduly worried. Runs for the past three days : 70, 72, 69, of which almost half is current. No wind except in squalls. It looks as though we might have been wiser to keep a bit further north after all, but difficult to say. . . .*

Wednesday, 8th March. Position : 0° 50′ *S.*, 57° 10′ *E. Run :* 62.

Thursday, 9th March. Position : 1° 38′ *S.*, 56° 22′ *E. Run :* 73.

Friday, 10th March. Position : 2° 35′ *S.*, 56° 09′ *E. Run :* 68.

" No diary for past three days, as I have been somewhat flattened by my boil, which turns out to be a carbuncle of the first magnitude and

* For further notes on this matter, see Appendix I, Navigation (ii).

gives me hell. The others have been very good and taken my watches. No doubt good for me to rest, but one gets rather bored and I feel as irritable as hell ! Have just blown up at Robin, who is being more dense and stubborn than usual over the navigational problem before mentioned. This has been made ten times more difficult by the wind becoming south-westerly.

" All went well until yesterday (set favourable and still strong), but star sights showed that it was changing rapidly and setting us south. Star sights this morning showed a south-easterly set, which all followed on what I expected—that is, westerly turning south, then east to form the counter-equatorial current. It averages one knot, and as we are only making about one knot ourselves at present, the effect it has on our course is tremendous. We should obviously start the motor now and potter along gently on about 240°-270°, but no ! Robin has some weird intuition and we just sit here doing damn all."

My weird intuition—alas, only too accurate—was simply that I did not expect the " drive " to hold up for more than 12 hours at the most, and it should therefore only be used when we were quite sure that its use would be effective.

" Really, boils are the end ! The last couple of days I've felt so exhausted it's been misery, and of course one does not sleep very well.

" A few pictures and incidents from the last two or three days :—

" A very large black cloud sitting just astern of us. About 130 yards away, the wind was audible and visible (going vertically upwards), and we were becalmed.

" Another squall took John aback before breakfast one morning, and snapped the bamboo we use for the loose-footed mainsail boom (no great disaster, as we have a spare). Wind went from 5 to 30-40 knots in less than 3 minutes.

" Fish jumping. I haven't seen them myself, but everyone else has—small fish which jump 40 feet out of the water. . . . "

This is no exaggeration, and the fish were not so small, either—probably 10-15 lbs. I saw them on three occasions, and each time the mind was deceived by the height into thinking them birds and looking for the wings. It was not until they plunged back into the sea that astonished realization came. Whenever these aerobatic fish were reported, there were particularly heavy squalls and thunder-storms in proximity, but I have no idea whether there is any connection between the two phenomena.

" . . . Several whales about, the nearest 50 yards. Rather fun to see and hear them blow. Whales are out of place, surely, on the equator, which, by the way, we crossed on the night of the 7th-8th.

" I have just seen the " drive " being got out and fitted, so perhaps my outburst has done some good.

" *Saturday, 11th March. Position :* 2° 58½′ *S.*, 56° 00′ *N. Run :* 14. Becalmed all day.

" *Sunday, 12th March. Position :* 3° 05′ *S.*, 56° 00′ *E. Run :* 5.

" *Monday, 13th March. Position :* 3° 25′ *S.*, 56° 01′ *E. Run :* 26.

" The engine only lasted 2 hours ; the " drive " then finally threw its hand in. Since then the weather has been pretty unkind, but I suppose what one must expect in this part of the world—variable light winds with long periods of flat calm. All the time, the current has been setting us implacably eastward at one knot plus, making it very difficult for us to maintain anything like our track to Denis Island, Seychelles. This small island, which lies some 60 miles to the northward of Port Victoria, Mahé, our present destination, should be our landfall. To maintain a track over the *ground* directly towards this point at the speeds we were making through the *water* meant steering a course very nearly due west. There were various cries at times to relax and have a bash at a direct course as soon as we got a favourable slant of wind, and I had to act the parts of Scrooge and Jonah combined, in clamping down on any diversion to the south. Most unpopular.

" To-day, we have had a let up and made reasonable progress since 6 o'clock this morning, and a spot of real breeze from a whacking great cloud formation. It is now 8 p.m., and we have just seen the loom of Denis Island light ahead. Very cheering, but we are not out of the wood yet. The last 60 miles have taken us 5 days. . . . "

iii

In spite of our exasperation with the wind—sometimes it looked as though it would never again visit that part of the ocean—we could not fail to be impressed by the extraordinary beauty of the mornings and evenings. We seemed to be in a magic circle of calm, surrounded by detached cumulus clouds watching us as they towered up and up into the sky, but moving never a step towards us. The nearest would be, say, 5 miles away ; the farthest poked their heads above the fine line of the horizon 30 miles or more from us. The atmosphere was so clear that stars could be seen the moment they came above the rim of the sea (which more than once deceived us into taking them for lights of ships), and could be followed right down into it.

As the sun set, the clouds lit up like Chinese lanterns, turning the sea below into a sheet of gold and purple silk. After dark, so still was the sea, all the individual stars could be seen reflected in it as points of light, sometimes difficult to distinguish from the stabs and flashes of phosphorescence emitted by the fantastic forms of fragile marine life that swarmed in the warm water.

Peter rightly said that we were " not yet out of the wood " when we sighted the loom of Denis Island light. There was no reason to expect the breeze to last long, and we supposed that we still had the adverse

current to contend with. As it happened, however, this storm (which differed also from most we had encountered in that the wind blew in towards the blackest of it, instead of the reverse) continued to drive us until 3 o'clock in the morning, and the current either slackened a great deal or turned with us.

I was on deck with Jarve about midnight as we came storming up towards Bird Island light. After days of drifting on a windless sea, with steerage way only, we now seemed to be fairly flying through the water. It was a wild, dark night lit only by terrific flashes of lightening to the south-eastward, against which we were soon able to see the little island, densely covered with coconut trees, silhouetted in minute black detail as it rushed towards us.

When we brought the light abeam and altered course for Mahé, the main island, we knew that we were now in shallow water and could anchor if becalmed again ; so our battle with the hostile current was over. Nothing was said at the time ; but I think we shall both remember it, coupled with the magnificence of the storm, as one of the bigger moments of the entire voyage.

The next morning, all the islands of the group lay before us in brilliant sunlight, each with a small plume of cloud over it, which grew during the day and turned into heavy thunder- and rain-clouds in the afternoon. We had light airs all morning, and, for some reason—reaction, I suppose, from the tension of the previous week—tempers were short. Chang had his first explosion of nerves—some obscure business over washing the cabin cushions ; the course to be steered gave rise, as it often did, to friction ; and the crew were generally at sixes and sevens. From extreme optimism in the early morning, I sank to gloomy forebodings about the next leg to Durban and to wondering whether our very varied temperaments would stand the test of the even longer and more difficult stretches ahead.

Depressing thoughts did not last, however, and were entirely swept away by the exhilarating night's sailing, when we stood on and off with a fresh breeze, calm water, and clear starlight close in under St. Anne's Island, and by our early-morning arrival at Port Victoria, Mahé.

We tacked in, past the inviting white-sand beaches, palms, and flowering tropical foliage on the off-lying islets, up the narrow channel to the jetty against a puffy breeze off the mountains. The entrance, although well-marked, is quite tricky, coral reefs on both sides and a narrow twisting channel, but *Boleh* behaved herself beautifully, never looked like missing stays, and I felt proud of her performance when we let go and dropped the sails 50 yards from the jetty.

CHAPTER THIRTEEN

Mahé, Seychelles

i

THE THREE CHIEF ITEMS ON OUR DEFECT AND JOB LIST FOR SEYCHELLES, besides replenishing with food, fuel, and water, were :

1. To get Peter thoroughly fit again. Although the carbuncle was in the post-eruption stage and definitely on the mend before we arrived, it had been an alarming business, and I wanted medical assurance that there was nothing chronically wrong with him, or which could not be put right by a short rest-cure ashore.

2. To put the " drive " in order if possible. This depended on our finding a workshop and engineers capable of making a brass casting to enclose the bottom bevel gears, and of fitting a spline to the shaft.

3. To decide on and plan in detail our route from Seychelles to the Cape.

The Port Captain, Chief-of-Police and Port Doctor found us at breakfast when they came aboard. It was already hot, the cabin was crowded, and I was tired from many hours on deck during the night and early morning ; nevertheless, with the help of these three cheerful officials, we were soon well on the way to achieving our three main objects.

Peter, under doctor's orders, was banished to a life of ease and luxury at the Beau Vallon Hotel, on the other side of the island—though not before the champagne won by Jarvis for the solution of our peak halyard troubles had been suitably dealt with.

The Chief-of-Police put me in touch with a firm of engineers who said they could do the job on the " drive."

Captain Sauvage introduced me to Captain Lanier, master of the *Vanguard*, an ex-M.F.V. now in the service of the local government, whose long experience of these waters, both in steam and sail, was of the greatest help to us in deciding our route to the Cape.

What was perhaps even more valuable to me at the time than his knowledge and experience, was his immense optimism, for I had reached some pretty gloomy conclusions about our probable future progress. It was now mid-March, and I thought that we must be too late to attempt the Mozambique Channel* and that the route via Mauritius would take so long that strong head winds off the Cape might make the turning of that corner very difficult, if not actually hazardous.

With regard to the Mozambique Channel, here is what the *Pilot* has to say :

> The Northern monsoon begins in September or October, the southern monsoon in March or April, and the change of season is

* See chart, page 107.

generally accompanied by squally weather. . . . The Southern monsoon is considered the fine weather and healthy season, and is generally free from gales, but there is much more wind and sea at this time in the Mozambique Channel than during the Northern monsoon, and vessels proceeding southward frequently encounter a wind with a force of about 7 of the Beaufort scale and a heavy sea.

Though I had considerable confidence in *Boleh's* performance with the wind on or abaft the beam, I did not think we should go either far or fast against force 7 of the Beaufort scale and a heavy sea !

The alternative—to go via Mauritius—meant, so far as Peter and I could judge from the wind and current charts, going due east for 600 or 700 miles—with the counter-equatorial current to help us, certainly, but in doldrum weather—in order to pick up the south-east trades on the beam, when we turned south. If we were going to make Durban, this meant adding something like 800 miles to our shortest course via the Mozambique Channel.

Lanier saw the problem quite differently :

" If you want to go to Durban, my dear chap, it's easy ! From here you strike across to Cape Amber—like *this*. Then you can work land and sea breezes all the way down the coast of Madagascar to about *this* point and stand over to the African coast, 200 miles or so north of Durban. Then you have the Agulhas. *It* will take you to Durban.

"But," he went on, turning up a larger scale chart including Seychelles and Mauritius, " if you want to get to Cape Town quickly, *this* is better, you know." A broad sweep indicated a curved route to Mauritius. " There's no need to go all that way east. Just take the wind as it comes ; make south and east as opportunity offers. . . . No, you can't go straight, of course. Ask Captain Sauvage about that. He once went as passenger in an 80-ton schooner to Mauritius, and they tried to go straight ; it was about this time of the year, too. After eleven days at sea they were back here, thirty miles north of Denis Island. Ha, ha, ha ! "

He laughed good-naturedly, as at the inexperience of children, though the predicament of the captain of the schooner did not seem particularly funny to me.

" No, not straight." Again a vague curve was indicated on the chart, passing just to the north and east of the Cargados Islands. " You'll pick up the trades about here, in 8° or 10° south, and they will be light with more east than south in them. In your ship you will find it *easy*."

I mentioned cyclones. " Cyclones ? No ; the season is really over, you know. No, don't worry about cyclones, my dear chap. Most unlikely. Mauritius radio will give you plenty of warning of them, anyway, and they are easily avoided. . . . Let me see, yes, in your ship I should think in twenty days to Mauritius, and perhaps three weeks or a month more to Cape Town. Easy, my dear chap ! "

We came away from Captain Lanier in a much more cheerful frame

of mind. One thing, however, we agreed that we must have before leaving Seychelles—a serviceable radio-set, capable of picking up Mauritius weather broadcasts.

It was, of course, a great disappointment to us to give up our visit to Madagascar and to fail in our appointment with the French Navy, but this had for some time, to me at least, appeared inevitable. We tried to let them know of our change of plan, but we heard when we arrived at Mauritius that French naval aircraft had actually carried out some searches for us to the northward of Madagascar—another example of the inadvisability of promulgating one's plans ahead on trips of this kind.

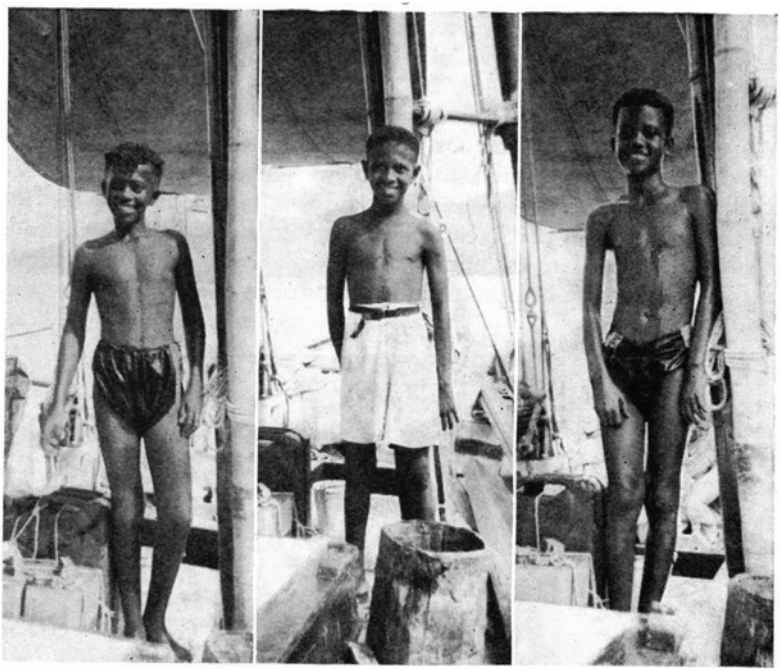
ii

Of our stay at Seychelles, of our cheerful evenings at the Club, lunch with the Governor, bathing, drives round the lovely island, and hospitality extended to us so generously by all, and of the friends of both sexes whom we made (not least among them Simonne and her three delightful companions, who came down to call on the ship the first evening, in the rain, in picture hats and bare feet—to find only the captain and Chang aboard !), I should like to write fully, but must content myself with a bare outline.

We stayed nine days. With an anchor out forward and stern secured to the jetty, the dinghy could be pulled on a line the 10 yards or so separating stern from wharf. This made us rather public, and the leisurely people of Seychelles love something new to look at ; but it was easy to embark and disembark without disturbing Chang, and guests were not put off from visiting us by a troublesome boat journey.

John stayed at the local hotel. Chang remained obdurately aboard, except for one visit to the Chinese restaurant, and Jarvis and I made the ship our headquarters.

Three local boys, with the charming names (pronounced in the French



GUY, DAVID AND ARIEL

manner, of course) of Guy, David and Ariel, joined us the second morning, ostensibly to work aboard—do the chores, scrub out the bilges, sand-paper, paint and varnish ship's side and bright work—but, actually, to enhance their prestige with their friends, to eat our food, bathe, go fishing in the dinghy and generally have the time of their lives.

I usually slept on deck, and, when it did not rain, the mornings were cloudless and really beautiful. A ripple from a light air off the land would just disturb the reflected image of The Three Brothers—the high, jungle-clad granite peaks over the town—in the clear, transparent water. Two white tropic birds performed each morning a languid aerial love-dance against this verdant background. Their linked, swaying flight was the only movement in the stillness, unless one looked down under the ship, where fish of curious but graceful shape and luminous colouring swam shimmering amongst the coral.

Soon after sunrise, Chang would be eagerly hauling out sufficient fish for our breakfast (usually far more than sufficient). Then we would wash and swim, detail the three Creole lads, who by this time would be arriving with presents of eggs, limes or bananas, to their morning's work (?), and sit on deck in the sun a little, before going below for the delicious meal Chang would have ready for us.

Sometimes we would have lunch on board also, when Chang would make us a fish curry or an omelette, and the afternoon would be spent working, bathing and fishing by turns. But more often we were invited out for lunch, in which case we would stroll up to the Club to bathe and change at about 11.30.

In the evenings, often as beautiful as the early mornings, we usually had visitors aboard. The sun set early behind the shadowed peaks and we had our drinks on deck, enjoying the cool still air till all the stars were out. Then to the Club again and out to dinner.

It was a delightful, lazy, easy-going life and we all, except Peter and probably Chang, would have liked to spend three months or more there, for the bathing and fishing is some of the best and most varied in the world ; and, besides the main island of Mahé, there are a number of outlying islands of romantic history and appearance, which one sees on the horizon and longs to have time to explore. However—" I should take to drink and degeneration in no time, if I had to stay here," said Peter. To which we replied that we wouldn't much mind if we did !

Looking back now on the whole voyage, I believe I liked Seychelles best of the places we visited, and intend to go there again as soon as an opportunity occurs—if only to attempt to paint the scenery and the black and coffee-coloured Creole people, and to hear their soft, dreamy, amorous voices once more. But the latter part of our stay was marred, particularly for me, by a sordid squabble over the account for repairs to our wretched " drive."

I had been so glad to find a firm willing to undertake the job that I had asked for no estimate, merely telling the honest-looking foreman to keep expense as low as possible, and getting Jarvis to oversee and assist with the work. The original bill, which arrived on a very hot morning, when none of us was feeling too strong, was for Rs. 1,498, the equivalent of well over £100 ! Since Jarvis' estimate, worked out on known costs of material and labour, plus overheads, was 150 to 200 rupees, our first thought was that the amount was intended to be read as Rs. 149 As.8. A visit to the head of the firm soon shattered this forlorn hope, although it achieved a small reduction in the amount claimed, by removal, as the firm put it, of the charges for overheads.

The ensuing arguments which, after I had offered Rs. 600 " without prejudice " against the firm's lowest quotation of Rs. 1,100, ended up in the courts with an attorney empowered by me to represent my case, was particularly tiresome in that every extra day in harbour prejudiced our chances of fair weather round the Cape, and because, in such a small community, it was very difficult to find qualified engineers to inspect the work and record their evidence. Everyone was tied up in one way or another with the enemy or with the government, which naturally could not be involved. However, all our friends and acquaintances in the Club agreed that the charges were extortionate and advised me not to pay. So, after making all the necessary arrangements and leaving most of my available cash in the hands of the lawyers—and spending the rest on a new radio-set—we weighed anchor just before dark on Thursday, 23rd March, a rainy, blustery evening, three days later than I had intended.

In gratitude to my lawyer and in acknowledgment of the justice of the courts of Mahé, I have pleasure in recording that, on my return to England I found letters showing that the total cost, inclusive of lawyer's fees, had been about Rs. 650—some £50.

CHAPTER FOURTEEN

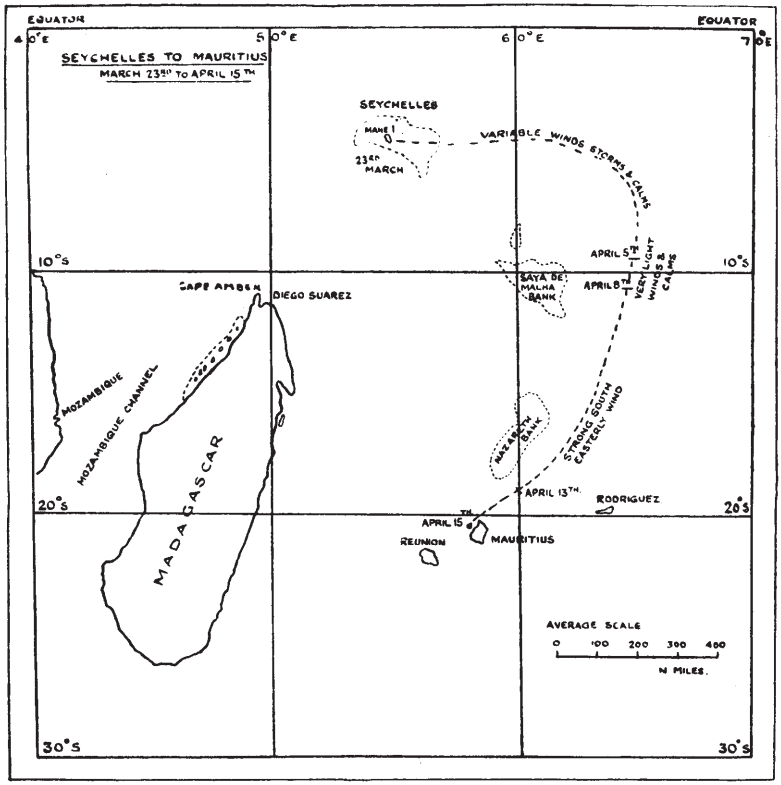
In Search of the South-East Trades

i

WE HAD NOT THE COURAGE TO FOLLOW CAPTAIN LANIER'S ADVICE completely ; it would involve the risk not only of fouling the reefs that would be to starboard, but also, possibly, of missing Mauritius and finding ourselves with the east coast of Madagascar for a lee shore. However, after our chat with him we decided that it would not be necessary to go so far due east as we had previously thought essential. Nevertheless, our change of route meant going back nearly 500 miles, to where we could pick up the south-east trades for Mauritius. No doubt

we ought to have given more consideration at Colombo to the direct route to Mauritius—but it is very easy to be wise after the event.

There was, of course, the possibility of cyclones, despite the confident assurances of Captain Lanier. The season for these in the areas we now had to traverse is very roughly from November to April, the worst period being the two middle months, January and February, so we



hoped that, by the time we got down to 10°S., which is their normal northern limit, there would be a good chance of skipping through.

"It will be absolutely essential, though," wrote Peter, now fully recovered from his ailment, on our first day out from Mahé, "to watch the weather like a hawk and not relax for a moment. Have just been reading a good but very terrifying pamphlet describing cyclones, with tips on what to do and how to avoid them. I hope sincerely that we shan't need it. . . ."

This pamphlet terrified me, too, and with the same sort of effect as

has the reading of a medical guide to diagnosis—which always convinces me that I am suffering from at least four fatal diseases and that death is likely to supervene at any moment. It set me seeing cyclones in every evening sky and every jump of the barometer needle. Below is an extract from this excellent but formidable publication ; it has obviously been written in the security of a nice, quiet office ashore :

> *The Inner Zone.* Here, the full fury of the cyclone is unloosed. The wind sweeps round the zone with almost unimaginable force. . . . The whining roar of the hurricane is sometimes heard before the inner zone is reached and is a sign of its approach. . . . The wind blows stronger and stronger as the storm centre approaches, and attains its greatest fury in the innermost ring of this inner zone, where velocities of over 150 knots probably occur at sea. . . .

It is not often that official publications rise to such heights of descriptive writing ! " The whining roar of the hurricane " was a phrase that tended to haunt the memory in the early hours of stormy-looking mornings.

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At about noon on Friday we saw our last of the outlying islands of Seychelles. There was a good following breeze all day, but it died away in the evening, so we started up the engine. Let Peter's diary be quoted for the sequel.

Saturday, 25th March. Position: 4° 16½′ *S.* 57° 14½′ *E. Run from Victoria, Mahe :* 98. The engine worked for 5 hours last night, then the miserable " drive " went again ! Jarve has spent all day on it, and hopes it might work now. But obviously there is a basic weakness in the thing, and with the number of worms, wheels, races, and the Lord knows *what*, it can *never* be reliable. Why the hell we can't have a plain straightforward shaft and propeller, at a tenth of the cost, is entirely beyond me.

John and I had a terrific clear out and re-stow in the fo'c'sle. Hard work, but well worth doing. Infuriated at the end of this by being asked by Robin to get in and unrig the spinnaker booms. I don't mind doing work if it is necessary or useful, but this chopping and changing (we only rigged the booms yesterday), and being unable to see any sense in any order given one, merely makes me angry and tiresome. . . .

As may be guessed from the above entries, all our tempers were a little strained those days. We were holding a course almost directly back towards Singapore, not a cheering thought ; the weather was very variable and quite unpredictable (making me unduly jumpy about cyclones) ; and the recurring failures of the " drive "—on which so much money and effort had apparently been wasted—really were enough to try anyone's temper. The new radio was also a sad disappointment to us, for we were unable to pick up Mauritius. Not that this was a fault in the instrument, which was otherwise working very well. Our

trouble was that we had not obtained full details of wave-lengths and times of transmission, and in spite of much effort, we could not get the weather forecasts.

Sunday, 26th March. Position : 4° 09′ *S.*, 58° 09′ *E. Run :* 55. It was quite a pleasant day with a southerly, very light wind, but enough to keep us going. Peter notes in his diary that the curious threatening weather and lurid sunset which had rather worried us the day before had cleared a good deal and that the barometer was back to normal. He continues :

> " An hour's trial with the repaired ' drive ' quite satisfactory, but not even Robin has any longer any confidence in it lasting. . . . I had the first watch to-night (2000-2300) and really enjoyed it for a change. Had a small puff—15-20 knots or so—for a few minutes, and it was grand to feel her spring to life again."

In the afternoon there was an incident that put me off bathing over the side for months. Jarve had caught a dorado and was just getting it alongside when a shark, which had been following us for some time, whipped all except the head off the hook. I have fairly often seen sharks take a bait, and always before this they had appeared slow, rather clumsy and quite timorous brutes. But this dorado must have been bleeding, I suppose ; anyway, the shark came at it with terrific speed and cut through the thick body and backbone, just behind the head, with as much ease as one snips off nettle-heads with scissors. There was no struggle, not even a hard pull on the line. One moment there was a 30-lb. dorado flashing clear in the sunlight a few feet from the side of the ship ; the next, Jarve lifted the dripping head aboard. A quicker, neater, or more blood-curdling job than that shark's, I have never seen done.

Monday, 27th March. Position : 3° 53½′ *S.*, 59° 12′ *E. Run :* 70. An almost windless day. The engine and " drive " ran satisfactorily for five hours. Peter, our navigator-cum-bo'sun, busied himself greasing the gear, having noticed that the cowhide covering for the strop of the mainsail-sheet block, which ran on a horse across the counter, had dried up and was in danger of falling to pieces. This he thoroughly greased, then bound with mackeral line and a strand of tarred sisal.

" Shackles," he wrote, " are standing up to salt water and salt air better than I anticipated. Keeping them well greased with a mixture of Stauffer's lubricant and white lead is the perfect answer, and they need it even if they're galvanized. How useful it would be if someone would include in a book on ocean sailing all the simple, practical expedients which, when you know them, seem so simple and obvious."

On the upper, frequent inspection and liberal applications of variously mixed quantities of white lead, Stauffer's grease and tallow were pretty generally effective in checking the corrosion due to salt water and salt

air, which, both above and below decks, was far more rapid than we had supposed possible. In the shelves, lockers and other stowages in the cabin and fo'c'sle, rust was not so easily seen, and frequent inspection more diffcult. Tins containing such things as sardines, fruit, preserved meat, cigarettes and ship's biscuits were affected ; even buckets were among the casualties from this cause. The only solution was to use up old stock before starting on new, and to turn out all lockers at the end of each trip.

Some of our paint and varnish tins suffered the same fate. Besides the loss, the resultant mess was itself a minor disaster. We learnt to transfer paint and varnish to bottles—carefully stowed, of course—thereby preventing the danger of rust, and very largely reducing the waste due to the crust on top of the contents in the usual wide-mouthed tin.

At tea time we had a long discussion about water. The usual quantity embarked was about 150 gallons, which was kept in three sorts of container : the bulk of it—80 gallons—in the tank amidships, about 15 gallons in bottles, and the remainder in petrol-cans. These last we had found to be quite useless ; the water became brown and, as Peter put it, " almost solid " ; yet it was the water in these that we invariably used first, and would arrive at our next port with all our good water still unused. We now agreed that the procedure should be reversed.

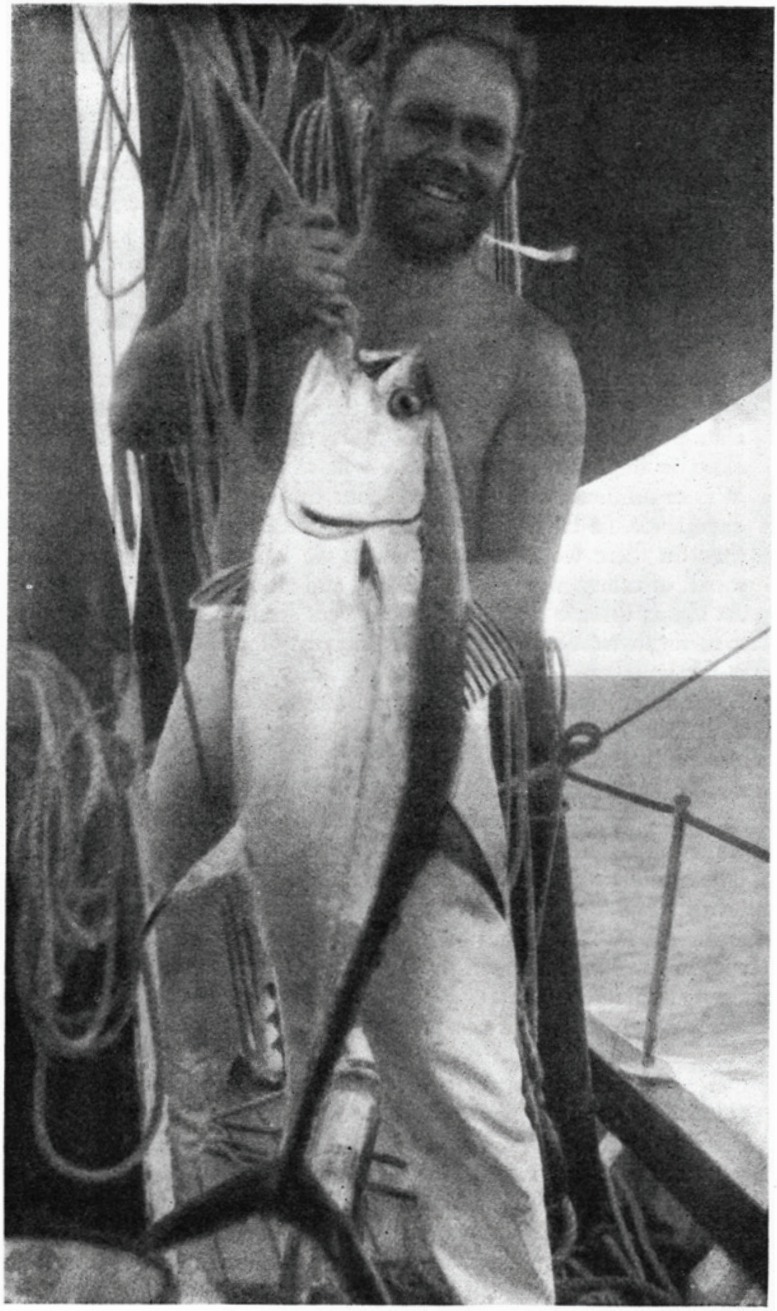
We also decided that we could be a little more generous with our allowance. Up to then, we had averaged about 2½ gallons a day for all purposes, which was not too bad, considering we were in the tropics. This we increased to 3 gallons, which would be ample and yet still leave us a good margin.

Tuesday, 28th March. Position : 4° 03′ *S.*, 60° 17′ *E. Run :* 50. Another quiet day, with a dead calm in the afternoon. This is a more unusual thing than might be supposed ; nearly always there is a light air from somewhere.

The " drive " when we tried to use it, lasted less than two hours. While I was unshipping it, which entailed sitting on the bar across the stern with my own stern pretty close to the water, a shark came nosing round and looking most unpleasant. Peter grabbed at the bamboo gaff and managed to get him a top dead-centre prod—which gave general satisfaction.

We found that incorrect assembly of the " drive " at Mahé had led to the bottom roller-bearing going. When this was replaced and the apparatus brought again into use, the spline broke—and then the top half of the intermediate shaft.

" Did *dhobi*," wrote our diarist later. " Complete failure. Really it is a bore. . . . Very good supper—spaghetti a la Robin, with a glass of red wine on top of two whiskies, so felt very cheerful and unlike bed. Tummy behaving very much better so far this trip. It does make a difference to one's outlook on life. . . . Gossiped on the upper about Salcombe.



JARVE'S TUNNY

. . . This diary astounds me. I've frequently tried to keep one before, and never got past January 4th. It will save me writing letters, and I find it a damn good safety-valve on occasions. . . . "

Wednesday, 29th March. Position : 4° 34′ *S.*, 61° 14′ *E. Run :* 70. We were getting rather south of our track and the favourable set was less pronounced. It was hard for any of us to hold a course north of east when we knew that, once we picked up with the trades, our course to Mauritius would be west of south.

Peter, who had the afternoon watch, described in his diary how the customary peace of that period of the day was disturbed by the sudden unaccountable animation of the ocean's inhabitants.

" Everyone asleep but me. All one hears is grunting and snoring from down below. Usual flat calm broken after an hour or two by a nice little breeze making up from the north and we began to forge ahead. The motion—or perhaps it was the sound of a whale blowing close on the beam—roused Jarve, who came up and got his line out. Within minutes he had hooked a fine fish and, mindful of his recent experience, he fairly whipped in the catch, a 30-35 lb. tunny. From then on there were fish everywhere we looked—schools of whales, shoals of tunny, flying-fish, dorado, and all sorts. . . . "

At about three o'clock, the wind went straight round from north-east to south-west and blew just as merrily. It really is an astonishing area for weather.

" Just about finished our fresh food," runs a later entry for the same day. " Feel we could do better and keep it longer by being more careful what comes aboard and how it is stowed. Food and the cooking of it is a most important consideration on a voyage like this. Unfortunately, I have very different ideas from the rest on how it should be managed, so have to keep them more or less to myself. . . . "

There follows a long homily on the subject of food, which it would be hardly fair to Peter to include here, for he often made us laugh by quoting his mother's ideas on cooking in the holidays, and I think he takes after her in liking simple food, particularly soup, stews, rice and fruit, either fresh or stewed. " Curries and highly spiced dishes," he wrote when detailing his hot-weather diet, " are out, also fried food of any sort." Jarvis and I, on the other hand, liked curries, while John preferred his dishes " tarted up " and with plenty of fat.

In an appendix to this book, John has written his remarks on provisioning, food and cooking. Anyone who reads it will agree that it is a most convincing analysis showing how much care and skill was put into that important side of a voyage such as ours. What he did in provisioning, storing (we had no refrigerator aboard), and producing day-to-day menus was first, to ensure a balanced diet with the necessary vitamin content ; second, to provide variety ; and third, to meet individual likes and dislikes as far as possible without prejudice to the

majority and without undue strain on Chang and the limited cooking facilities.

This entry in Peter's diary, which was merely the letting off of steam in criticism of John's catering arrangements, was a typical symptom of the curious irritation that at times—in bad weather, or more especially in prolonged calms and light winds—we all felt towards each other, and bottled up as best we could. At such times, each member of the crew resents the slightest interference with what he considers his particular job, and at the same time—the two tendencies seem to be complementary—feels that he could do the other man's job a great deal better than it is being done. It becomes a matter of difficulty to avoid offering those very same " helpful suggestions " that one would oneself resent so fiercely !

Peter, as navigator and bo'sun, and Jarvis, as engineer and handyman, were less liable to criticism and advice than John and I, who were peculiarly vulnerable in this respect since we dealt in things about which everyone held strong views, which he was eager to express. My sail-changing and John's catering came in for more disapproval—spoken and unspoken—than any other part of our organization.

I think it is worth while going into the matter in some detail at this point in my narrative, for the interaction of personalities and the psychological aspect generally of a long trip is one of the most interesting sides of it. The lesson I learnt, which may or may not have general application, but which I hope to profit by in future, was : lay down clearly and in detail (possibly—or would that be too pompous ?—in writing at the beginning of the ship's log) the duties of each member of the crew. Thereafter, interfere as little as possible with their methods ; never offer helpful suggestions, and discourage the discussion of other men's jobs.

I hope the impression is not given that we often squabbled about food and sails. Far from it. Nor were navigation and engineering subjects entirely free from criticism or the provocation of friction. But when wind and sea were against us for any length of time, a strained atmosphere did sometimes make itself felt—and it was on such occasions that we found the evening " noggin " such a good peace-maker.

Sitting at sunset with our first whisky of the day—on deck when near the equator, or down below in the cosy cabin when rounding the Cape—the hard words, pent-up feelings and arguments of the day, so searing to one's temper at the time, became things to joke about or to discuss openly and without rancour. The other person's point of view, instead of being fuddle-headed, bigoted, nonsensical or definitely malicious, would gradually appear to have some ground in fact or feeling, and the result—if not complete harmony and agreement amongst us—would, at least, be a better understanding and possibly a mental note by one side to respect and make allowances for an idiosyncrasy of the other.

Many chroniclers of ocean voyages pooh-pooh the idea that the crew, cooped up in a small ship for months at a time, are liable to get on each other's nerves. We, on the other hand, agreed—during those evening chats—that each was positively odious to the others at times.

"Jarve," we declared, "annoys us when he ponderously lays down the law on subjects we think we know more about ; and when he litters the cabin with his filthy clothes. We concede that, being engineer as well as 'chippy' chap, he gets the dirtiest jobs and also has the smallest locker space, but this habit still annoys us."

"Peter," we asserted, "annoys us—or rather, we annoy him—because his bowels do not work very well at sea ; and when all known remedies fail, he has a filthy temper and comes out all over in boils and carbuncles."

"John," we maintained, "annoys us by being deaf to any suggestions for the improvement of his admittedly excellent diet ; by sometimes not giving us porridge on cold mornings ; by the song and dance that, being a gunnery officer, he invariably makes over any job undertaken ; and by writing and receiving what we consider to be far too many letters."

"Robin," affirmed the others, "infuriates us chiefly by his ingrained pessimism regarding the wind, the weather and the ship's progress, and by his constant calls for reduction in sail, in the expectation—so far quite unjustified—of something carrying away ; and by his dangerous and disgusting habits, which include dropping cigarette-ash everywhere, leaving lighted cigarettes about, dropping clocks and torches overboard at night, and failing to shut off the seacock in the lavatory after use, which results in an unpleasant overflow."

Chang was the one exception. He was so unobtrusively efficient, so skilful and knowledgeable at everything that requires doing aboard a small vessel, from emptying a full bucket of swill over the side in rough weather—no mean feat when it has to be carried right through the cabin, up the main companion-way and over to leeward without a drop split—to mending a "Primus" or pulling a splinter out of one's foot, that I do not think he ever annoyed us. He did, however, fly off the handle himself once or twice for some imagined criticism or loss of face, which the language difficulty prevented our fully comprehending.

Chang understands English very well indeed. He believes that he also speaks it very well. When he is excited, he certainly speaks it very fluently, but after three years of training I can still only get about one word in five when the subject is anything more than household affairs, food, clothing or money.

Thursday, 30th March. Position : 4° 52′ *S.*, 62° 32′ *E. Run :* 83. There were enormous rain-clouds about, but we were averaging 3 knots, which is really good for that part of the world, and so far the heavens had not fallen upon us. If one encountered such clouds as we saw there

daily in, say, the English Channel, one really would think the end of the world was in sight. It was interesting to watch these cumulus formations building up into prodigious towers over an area of 15°- 30° of the horizon and going up to 20,000 feet or more, like an explosion. Quite often in 15 minutes the storm would have blown its head off and disintegrated.

We got to know their looks pretty well, and when we relieved each other on watch, the " turn-over " was often more concerned with the progress of storms than the progress of *Boleh*.

" That black fellow," one would be told, " has just passed across the stem. Hardly a drop out of her. That one, on the starboard bow, has blown its head off and won't give any trouble ; but don't know about the one beyond. She's boiling up nicely ; bearing hasn't changed for twenty minutes and she'll soon be ripe. Plenty of rain—maybe wind, too. *Good*-night."

Friday, 31st March. Position : 5° 24′ *S.*, 63° 30′ *E. Run :* 65. We could not complain of progress, considering the latitude we were in. Our forecast on leaving Mahé had been 60 miles a day, with the help of the engine when necessary. Despite the fact that the engine had only given us about 30 miles in all, we had maintained a daily average of 73 miles.

The sea was as full of tunny as beer of bubbles. Looking astern we could see the brownish heads of fifty or sixty in each wave. However, we failed to land any. John had one, but it broke his hook, and Jarve another that straightened his out. And they were not small hooks, but three inches long.

" Chess again this evening, but can't compete with Robin, who uses his pawns so well that I never get started."

Saturday, 1st April. Position : 5° 59′ *S.*, 64° 06′ *E. Run :* 48. By common consent, all April Fool jokes were taboo. After studying the wind-charts and our curving track towards Mauritius, Peter and I decided that we had got very nearly sufficient easting, so we were able to take full advantage of a grand breeze with spinnaker to port on a course nearly due south.

Jarve caught a 30-lb. tunny in the morning and filleted it like a master with chopper and carving-knife. They are beautiful fish to look at and all good solid flesh, but we found them rather strong and difficult to eat much of.

In the evening the tunny were chasing flying-fish all over the ocean. There were great splashes and thumps as they landed. Eight flying-fish ended up on board and made a delicious dish for Sunday's breakfast.

Sunday, 2nd April. Position : 7° 04½′ *S.*, 64° 37′ *E. Run :* 73. A good run in 24 hours for those parts.

Peter spent most of the morning with log and charts, getting out our noon positions and days' runs since leaving Singapore. Our first deck-log, the book in which all such details were recorded, had gone over-

board by accident soon after leaving Colombo, so his task was not an easy one. He managed it, nevertheless, and a brief summary is given below :—

Departure and Arrival	
Left Singapore	0900, 19th Jan.
Arrived Sabang	1900, 27th Jan.
Left Sabang	1300, 28th Jan.
Arrived Colombo	1300, 4th Feb.
Left Colombo	1015, 14th Feb.
Arrived Minikoi	0900, 21st Feb.
Left Minikoi	1000, 24th Feb.
Arrived Mahé, Seychelles	0800, 14th Mar.
Distances in Miles	
Singapore to Colombo	1,465
Colombo to Minikoi	439
Minikoi to Mahé, Seychelles	1,397
Total	3,301
Average Speeds in Knots	
Singapore to Sabang	2.5
Sabang to Colombo	5.65
Colombo to Minikoi	2.6
Minikoi to Mahé, Seychelles	3.45

It was very encouraging to find that we had averaged just over 3.5 knots all the way from Singapore to Seychelles. In fact, it was so good that Peter feared he had made an error somewhere, but if there was one, he could not find it.

We had had some very tricky weather and more than our fair share of calms, but we felt that if we could pick up the south-east trades, we should have enough wind, and some to spare, from then on as far as St. Helena, Ascension—and beyond. It was even possible that we might improve our average runs sufficiently to bring us back on our scheduled times for the latter part of this voyage.

About sundown there was a most amusing interlude. We were all on deck, with our evening drinks, when tunny started breaking surface all round in chase of flying-fish, which came buzzing over the ship, about ten to fifteen feet up, first in ones and twos, and then in shoals. They do anything up to 30 knots in the air, and it was really quite an alarming bombardment. There were four direct hits : Jarve received two on his ample torso, Peter one just under the ear, and I one on the temple, when I had my glass to my lips. Amidst much laughter, Chang, as excited as a small boy, chased the flapping fish into odd corners. Several went straight down the hatch into the cabin. We collected 28.

" Small incidents like this," wrote Peter, " are a great tonic on a long trip, and disproportionately amusing."

There was a magnificent westerly breeze most of that night. It was up to force 6 at times, but unfortunately it was accompanied by heavy rain. Poor old Jarve, who had the 11-2 watch, was almost drowned, and when he called me out at about 11.30, I got nearly as wet as he did. I spent most of his watch, after shifting from Genoa to working jib, sitting half-way in the starboard companion hatch, standing by to help with jib-sheets, etc. I have never seen—or, rather, felt—rain like it. Several times we said, " It can't rain any harder ! " But it did. The wind was quite heavy in squalls, but it was the extraordinary darkness, which kept on increasing, that made us uneasy, for we knew there was a nearly full moon somewhere in the sky. I suggested, half seriously, that there must have been an eclipse of the moon about midnight, having once experienced through this cause, on a long night-reconnaissance flight over the Mediterranean, a very disconcerting change from bright moonlight to complete darkness. Reference to the *Nautical Almanac* in the morning showed that my guess had been right. Had I known beforehand, I should not have stayed up there so long or got so wet !

Monday, 3rd April. Position : 8° 16½′ *S.*, 64° 55′ *E. Run :* 73. The west wind dropped during the night, and we came out into clear skies and very light airs from the south-east. We hoped that this was the beginning of the south-east trades. At about 10.30 in the morning, we completed our 4,000 mile at sea since leaving Singapore, which was a good excuse for a slight celebration in the evening.

Tuesday, 4th April. Position : 9° 08′ *S.*, 65° 05′ *E. Run :* 53. " Miserable day," was Peter's sad conclusion. " S.E. trades trying to do something, but getting nowhere. Fairly large swell, which, with this light breeze, is most uncomfortable. . . . Barometer rather low to-day—the lowest yet. As there is no wind, it relieves us of the necessity of deciding what to do about it. We're rather cyclone-minded at present. . . . . Horrid afternoon. Sail slatting and bashing about, so I lashed the tiller, went forward and sat on the dinghy, and sulked ! "

Wednesday, 5th April. Position : 9° 37′ *S.*, 64° 52′ *E. Run :* 33. The wind continued very light and mostly southerly. The barometer was low again, but there were no other signs of anything out of the usual. The long, oily south-east swell persisted and we had given up taking it seriously.

Thursday, 6th April. Position : 10° 02′ *S.*, 64° 28′ *E. Run :* 32. " Wind light and dead ahead ! However, the weather is delightful—clear skies, cool, and quite a different atmosphere from that in which we have been for the last month or so. A craze for playing ' Jutland ' has swept the ship, and the merits and demerits of concentrated and dispersed salvoes are keenly discussed. . . . Still can't get Mauritius radio for the weather reports."

Friday, 7th April. Position : 10° 10′ *S.*, 64° 28′ *E. Run :* 14. Fourteen

hard-won miles ! There were no signs yet of the trades, the southerly airs persisting.

"In spite of all I have against it," wrote Peter, "I did some *dhobi* to-day—two sheets, a pillow-case, a shirt and a towel. Have just been reading Anson's voyages wherein is described how the water they embarked in S. America was very similar to the Thames water, in that 'after two days it became putrid and foul, and then purged itself and became crystal clear, all the sediment falling to the bottom.' I am leaving my *dhobi* on deck in a bucket, in the faint hope that it will also purge itself. . . ."

For supper we had an excellent *foo yong hai*—tinned crayfish omelette with fried rice. Afterwards, with not a breath of wind, we downed all sail and played "Jutland," Jarve and Peter against John and me. Our first two games were a win each, and the third a most exciting battle to a draw, each side being left with one destroyer.

Those games of "Jutland !" There were times when we became so enthralled that we did not notice that the ship was 45° off course and the sails all ashake !

Saturday, 8th April. Position : 10° 24′ *S.*, 64° 28′ *E. Run :* 15. The wind showed signs of coming to life, and from a better direction. By the afternoon we were doing about 2½ knots—not much, but better than nothing.

"One might," wrote Peter, "call this a fish-gazing day. We've had all kinds of fish around the ship, easily observed in the calm, clear water, and the prize went to an enormous great sword-fish. All fishing stories aside, this one was certainly 15 ft. long, and what a beauty ! I've seen pictures of Yankees in Florida standing beside their catch—but never anything like this size. With him (or her) were three or four sharks—one 10-12 ft. long and very sinister. Swimming around quite happily in this company were also several large tunny—or bonito, as I'm going to call them in future. Perhaps they may taste different under the new name. Poor old Jarve's fishing is rationed now, because we just can't eat it all. He's only allowed to catch one every two or three days. . . ."

That is the trouble with fishing on a trip like ours. There are either too many fish or none at all, or they are too big and heavy for the gear. There is also the danger of walking on the hooks, and of the line getting foul of the log. Between Seychelles and Mauritius, the dorado were sometimes as numerous as the tunny, swimming so close alongside us that they could be gaffed from on deck. But one tunny or dorado makes meals for five people for two days, and one very soon tires of the diet—tunny especially.

The lure we found most effective was about six inches long, the head made of lead and the body of white cock's feathers. This on a trace six feet long, or even less, seemed to fetch them if they were about. Any

speed between three and seven knots was all right, but we did best at about four. A gaff was essential.

On my next trip, I shall take a wide-mouthed, long-handled net with a fine mesh, and a magnifying-glass or microscope. Then we shall be able to take a close look at the weird small creatures and the plankton with which some parts of the ocean are filled.

CHAPTER FIFTEEN

The Trades with a Vengeance

Easter Sunday, 9th April. Position : 11° 25′ *S.*, 63° 48′ *E. Run :* 70. It was rather important that we got to England by the end of August—Jarve earlier, if possible—so we were all greatly cheered by the freshening breeze in the afternoon. There seemed little doubt that we were in the trades at last. Under the Genoa and the new loose-footer, we pushed along well. Then the wind strengthened still further and the sea became so rough that I saw—even before the afternoon was out—that we ought to change back to the working mainsail ; but knowing this order would be most unpopular, I shirked giving it. This weak-mindedness enabled Peter to write next day in his diary :

" Last evening's blow turned into quite a gale, and we were caught with our trousers properly down. Having had a strong breeze all day, we foolishly turned in with the Genoa and large light mainsail—which cannot be reefed—still up. About 10 p.m., we changed Genoa for No. 2 jib. So far, all well, but doubt was beginning to creep in as to what the hell we were going to do about the mainsail.

" Came on watch at 11 p.m. and had a hard job trying to avoid (a) letting the mainsail flap to such an extent as to tear, or (b) pulling the stitches out of her. The bamboo boom went, but we managed to recover most of it.

" By 4 a.m. it was obvious that something ought to be done, as each squall was stronger than the last. We had tried brailing up, but complete failure. Couldn't cope with it at all. So now it was decided that the only way to get the sail down was to take out the bolt holding the head of it at the top of the yard—and hope for the best.

" As bo'sun, I seemed to be the trapeze artist. It was quite an unpleasant few minutes up there in the grey light of dawn. However, all went well and down it came with a rush, to be gathered in on deck by John and Jarve. Miracles of miracles, it was still intact. As it had been up for 12 hours in wind more or less of gale force, it says a lot for the canvas and the work put into it at Colombo.

" We were left with a big swell and sea, and only No. 2 jib up.

To our surprise and delight, she jogged along quite happily with this rig, wind just for'ard of the beam, making about three knots and almost steering herself.

"In light weather one longs for the performance of a light-displacement vessel, but when it's like this, heavy-displacement is the job. . . ."

It was a wild wet morning, reminding me very much of the spring gales that always seemed to coincide with the joint manoeuvres of the Home and Mediterranean Fleets in the North Atlantic in the days before the war. Then, of course, I had observed the weather from the height and security of the bridge of a battleship or aircraft-carrier ; now we were at much closer quarters to the elements.

A heavy sea had built up and the wind whipped the tops off the breaking crests of the combers, which, seen against the paleness to the eastward, shone with a cold grey, menacing light as they advanced upon us. In the troughs of the waves, only the steep foam-flecked side of the mighty roller, with its overhanging roof of broken water, could be seen. On the crests, as *Boleh* each time confidently rose to and breasted them, the ridges and furrows stretched away to windward in a tormented pattern of grey and white.

Later, when the sun momentarily forced its way through to light up the masts and spars—seeming thereby to reaffirm the life within the ship, so small an object in the lifeless grey ocean—it made, out of the spindrift to leeward, a brilliant rainbow hanging low over the foaming crests.

Monday, 10th April. Position : 12° 54′ *S.*, 62° 52′ *E. Run :* 105. Our best day's run since leaving Seychelles. We were still getting along quite well under jib only, with the wind between east and east-south-east, force 6 to 7, all day.

After all the sun and dry weather we had had, the decks and cabin-roof were leaking badly. The skylights and the six scuttles on either side, although giving excellent ventilation, were also very far from waterproof.

"Dry clothes quite a problem. A dead-light right over my head drips on me with monotonous regularity as I lie in my bunk trying to sleep."

Tuesday, 11th April. Position : 14° 04′ *S.*, 62° 16′ *E. Run :* 79. It was still blowing hard and we continued under No. 2 jib.

Wednesday, 12th April. Position : 15° 54′ *S.*, 61° 07′ *E. Run :* 124. The wind was easing slightly, so I decided to hoist the top section of the heavy working mainsail. Peter took a line for use as temporary halyard aloft and threaded it over the bolt at the top of the yard and down to the deck. Then, when we had hoisted the sail from on deck, he had to go up again, take out the pin, cast off the halyard, and put the pin back in again through the cringle in the head of the sail.

" Sounds easy, but I had a rather uncomfortable time. The top of the mast appeared to sway through 20 ft. of arc at times, with a nice jerk at each end thrown in for good measure.

" Making 6 knots or more now, but jibs are being most tiresome. Piston-hanks are fairly popping off, leaving the sail thrashing about held only by the halyard. These hanks are rather rough bits of work and cut through the seaming twine that holds them to the sail.

" Have decided to alter the Beaufort scale. Instead of saying, ' Wind force so-and-so,' we shall say in future, ' Four piston-hank wind,' meaning four will go in an hour.

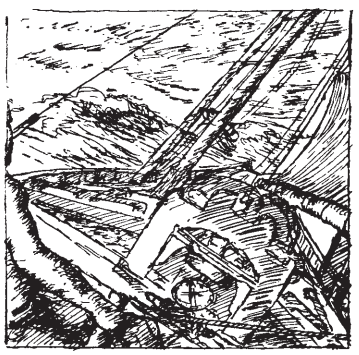
" Still soaking wet down below. A lot of caulking to be done at Mauritius."

For me the afternoon was an anxious one. Out on our starboard bow were the Cargados, that group of islands and dangerous reefs lying 300 miles north-east of Mauritius. They would be very nasty things to have close alee, and if the wind were to veer, they would be dead to leeward during the night.

The wind increased, and in the early hours of the morning, the halyard of No. 2 jib, which was hoisted to starboard, parted. The sail blew into the sea, but was luckily recovered and re-hoisted on the port forestay and halyard.

Till dawn the wind grew in strength, but backed at the same time, which freed us on our course and allowed us to pass 40 miles to windward of the Cargados.

Thursday, 13th April. Position : 18° 00′ *S.*, 59° 49′ *E. Run :* 149. The wind had developed into a gale. " Ship behaving awfully well," wrote Peter, " but hope wind does not increase much more or we may have to heave to, which would be infuriating—with Mauritius only 188 miles away at noon. . . . Very pleased with sights, which have been tricky the last few days. The ship has had a good deal of motion, and sea and swell have often obscured the horizon, but they still turn out very reasonably. It is about four times as hard to work out and plot them, though. Getting the D.R. from the chart, which is by now pretty sodden, takes about 10 minutes—with one's feet jammed against the lavatory door on the other side, and holding on like grim death to the sides of the chart-table."



The gale gave us some hours of extreme anxiety. If the wind had freshened much more and veered, we should, as Peter wrote, have been forced to heave to, with a large area of coral reefs and shoals dead to

leeward. But in the afternoon the heavy swell suddenly disappeared, the wind and sea moderated.

In the evening, for the first time, we picked up Mauritius radio.

Friday, 14th April. Off Port Louis, Mauritius. Run : 166 (0530, *Saturday, 15th*). We had now just a nice breeze. During the afternoon, we sighted Peak Island, which lies a few miles to the northward of the main island of Mauritius. That night we worked down the coast of the main island to a position off Port Louis. Although the gale had worried us and had made us thoroughly wet and, at times, rather miserable it had really been exactly what we needed. First, it had given us all complete confidence in the seaworthiness and ability of the ship, so much so that we discarded our large and inconvenient sea-anchor and gear at Mauritius ; secondly, it had shown up the absolute necessity of fitting a halyard for the mainsail, which would permit it to be lowered without either climbing the mast or lowering the yard on deck ; and thirdly, it had made evident many leaks and bad stowages. When these faults had been rectified at Mauritius, we were in far better condition, both morally and materially, than we should have been if we had had only fine weather on the way there.

CHAPTER SIXTEEN

Mauritius, Island of the Dodo

i

IT WAS DAWN ON SATURDAY, THE 15TH APRIL. PETER AND I WATCHED THE sky lighten as the sun came up behind the hills that rise in a jagged amphitheatre round Port Louis harbour.

The view from off shore is wonderful. The brilliant green of sugar plantations covers, as with green velvet, all the lower parts of the island, which incline, vast and sweeping, towards the sea. Through this cultivated land, which is divided into large fields or enclosures of generally rectangular shape by hedges of darker green cactus and avenues of shady trees, jut amazing rocks, defying gravity and looking as though cut out of cardboard.

Above the sugar fields, scrub, coarse grass, cactus and jungle climb the spurs and creep into the narrow clefts and waterways of these mountains. But the steep cliffs and all the higher parts are naked granite rock ; black, grey, brown or yellow—grim, arid and forbidding in contrast to the rich fertility below.

A gentle, cool breeze, just enough for pleasant sailing, came off the land as we slowly worked our way in. At 6.15 we called the others, had breakfast, got the anchor on deck, launched the dinghy and " prepared for entering harbour."

As we beat up the narrow channel of crystal-clear water, threading our way amongst fishing-boats and buoys, we gazed with fascinated eyes upon the prosperous, luxuriant and almost melodramatic country, picking out with interest the landmarks mentioned in the *Pilot* and tracing, by the smoke from a train winding its way up the incline, the course of the single railway line from the port to Vacoas, the hill station.

Clouds, drifted across the island by the south-east trades, covered the highest peaks, but Pieter Both a remarkable needle with a huge boulder balanced on its very point, was clear, and Port Louis itself was bathed in brilliant sunlight.

I do not know of any port—not even Rio—that has a more magnificent and inspiring setting as seen from the sea ; or, it must be admitted, with so little to attract in the appearance of the town once one gets ashore.

The port officer, Captain Watson, who came off to meet us, was exceptionally helpful. He arranged for us to berth alongside the tug *Maurice*, introduced us to her captain, made us free of the port facilities, lent us men to work aboard, and generally assisted us in every possible way. This welcome was particularly pleasant and reassuring because, from the sailing directions, one gets the impression of a port bristling with regulations and abounding with red tape.

Visitors started coming aboard as soon as (even before) we were secured. But they were all bent on helping us in one way or another, so most of the smaller items of ship's requirements were fixed on the spot. Whilst we drank beer with our guests in the crowded cabin, our sails were all taken ashore to be washed out in fresh water and be thoroughly dried, and most of our bedding was similarly dealt with. The captain of the tug and the bo'sun of the yard both promised us any assistance we needed with caulking, painting, varnishing, etc. Repairs to the " drive "—our main worry—were also put in hand.

Immediate ship's business having been dealt with, John and Peter soon fixed up to stay at Vacoas, the hill station : John with Hugh Fielding, a delightful chap, ex-R.A.F. pilot, with whom, we discovered, I once flew in a Catalina from Ceylon to Adu Atoll ; Peter with Commander Watley, of the Mauritius Naval Force. Jarve and I elected to sleep aboard for the present, but accepted all other invitations.

About 12 o'clock, C.P.O. Williams, Commander Watley's right-hand man, took us off to the old fort, now Naval training barracks, for a real wash.

The shower-baths were in a disused dungeon, the water was cold, and it was all rather primitive ; but that first wash is, I really believe (without any wish to decry its other attractions), my most pleasurable memory of Mauritius. It was a brilliant morning ; the sun shone through the rustling green leaves of the plane trees in the courtyard, and the water was fresh and *unlimited*. We soaped, lathered, blew like whales,

and sluiced off time after time, feeling the layers of salt on our bodies and caked in our hair gradually dissolve and disappear. The sensuous pleasure was similar to that which one experiences after the finest of Turkish baths, but far more intense.

That evening we went for cocktails at the Gymkhana Club, followed by a gargantuan meal at Commander Watley's. Jarvis and I returned aboard about midnight, but it is rumoured that the others were later to their beds in Vacoas.

Next day we enjoyed bathing and a supper picnic at Grande Bai, where, in season, yacht-racing in very fast-looking, shallow-draft Bermuda-rigged craft attracts sailing men and society generally, for there are valuable prizes to be won, and there is much heavy betting on the results.

The day after, we visited the Dodo Club at Curepipe, and other fine places where a jolly fine time was had by all. John was once again invited to give a talk on the radio, which he did with his usual competency—this time in French.

ii

Meanwhile, work aboard progressed very satisfactorily. Deck and cabin-roof seams were caulked ; a permanent halyard for hoisting and lowering the main, with the yard up, was made and rove, and cleats for it fitted at the foot of the yard ; the ship's sides were scrubbed, sanded, and painted ; the bow-board, which had been smashed by head seas, was repaired ; all running and standing rigging overhauled ; new jib-halyards made ; the storm trysail hoisted for trial ; and innumerable small jobs, including cleaning out and varnishing, undertaken.

It was discovered that a great deal of the water that had been getting below had been coming in through a deck ventilator, which, hidden under the dinghy, upturned on chocks over the anchor-winch, had been wide open all the way from Seychelles !

The " drive " was returned to us completely overhauled and bench-tested. It had been re-aligned, straightened, and fitted with a new solid vertical shaft instead of being in two halves joined by a spline. I am not allowed to say who did the job for us, but I can mention that the cost to us was for materials only. What a change from Mahé !

We had not intended to stay more than a day or two in Mauritius, but an unsteady barometer and rumours of a cyclonic depression to the north-westward kept us there for over a week.

When not up at Vacoas for one or other of the many parties given, Jarve and I spent our evenings in Port Louis, where we saw a very different side of Mauritius life from that of the well-to-do citizens, who all have houses up at Vacoas or Curepipe and evacuate Port Louis at 5 p.m. daily. Then all the shutters go up—and the only entertainment to be found in the otherwise completely dead town is in the few taverns

and restaurants that keep open in the Chinese quarter. Apart from seafaring men from ships in harbour, the people one sees about are, for the most part, poor and badly dressed. The streets are dirty and inadequately lighted at night ; houses and shops are decrepit and sorely in need of a coat of paint. The local rum is cheap, however, and, as far as our observation went, heavy drinking seems to be the pastime of that portion of the community. None the less, Jarve and I had some quite amusing evenings in the places we visited ; and my drawings of the locals made us popular guests.

Then there was Appavu's bar, where we would make a short call before going on to an eating-house. The Appavu family are the genial ship's chandlers who supply your ship with anything from *biscuits de matelot* to flowers and dancing-girls. In the bar, which is annexed to the shop, you will meet, if you call in there any forenoon between 8 and 12 o'clock, most of the well-known men of the town, besides at least one officer from any ship in port. Bank managers may be seen rubbing shoulders with ships' bursars ; garrison officers with Australian jockeys ; Governor's A.D.C.'s with doctors and customs officials. It is said that if you want information about anything or anybody in Mauritius, you need only call in at Appavu's. If you are lucky, too, old Mr. Appavu will show you some of the accounts and correspondence of the company, going back well into the days of sailing-ships, or will bring out old charts for your inspection.

One very wet and blustery day (as at most other ports we called at, the Mauritius weather was pronounced to be " utterly unseasonable "), we were bidden to lunch at Le Réduit—Government House. We were shown into a delightful old-fashioned drawing-room, with a log fire burning in the grate—the first I had seen since leaving England in 1946. The rain beating down outside and the wind whistling round the house

across the deserted tennis-courts made it all seem very homely, very like England. Sir Hilary and Lady Blood were charming hosts, and gave us a lunch equally memorable for quality and quantity. We guessed they must think that we starved aboard.

During lunch we learned a little of the history of the island and of its famous one-time resident, the dodo, as well as being given some idea of the peculiar composition of the people and the problems they are faced with.

Mauritius, when discovered by the Portuguese in 1505, was uninhabited, except by the dodo, which they named *doudo*—simpleton. They abandoned the island after a time, and in 1598 it was occupied by the Dutch, who held it until 1710 and then gave place to the French. In 1814 it was formally ceded to Great Britain by the Treaty of Paris, and over a hundred years later confirmed, by its voting in the general election of 1921, its wish to remain under the British Crown. It has a population of nearly half a million, of which some 300,000 are Indian, 150,000 Creole, 13,000 Chinese, 10,000 of French descent, and 200 English.

The political situation is made no clearer by the fact that a large proportion of the Indian section are British subjects, whatever leanings they may now have towards India or Pakistan !

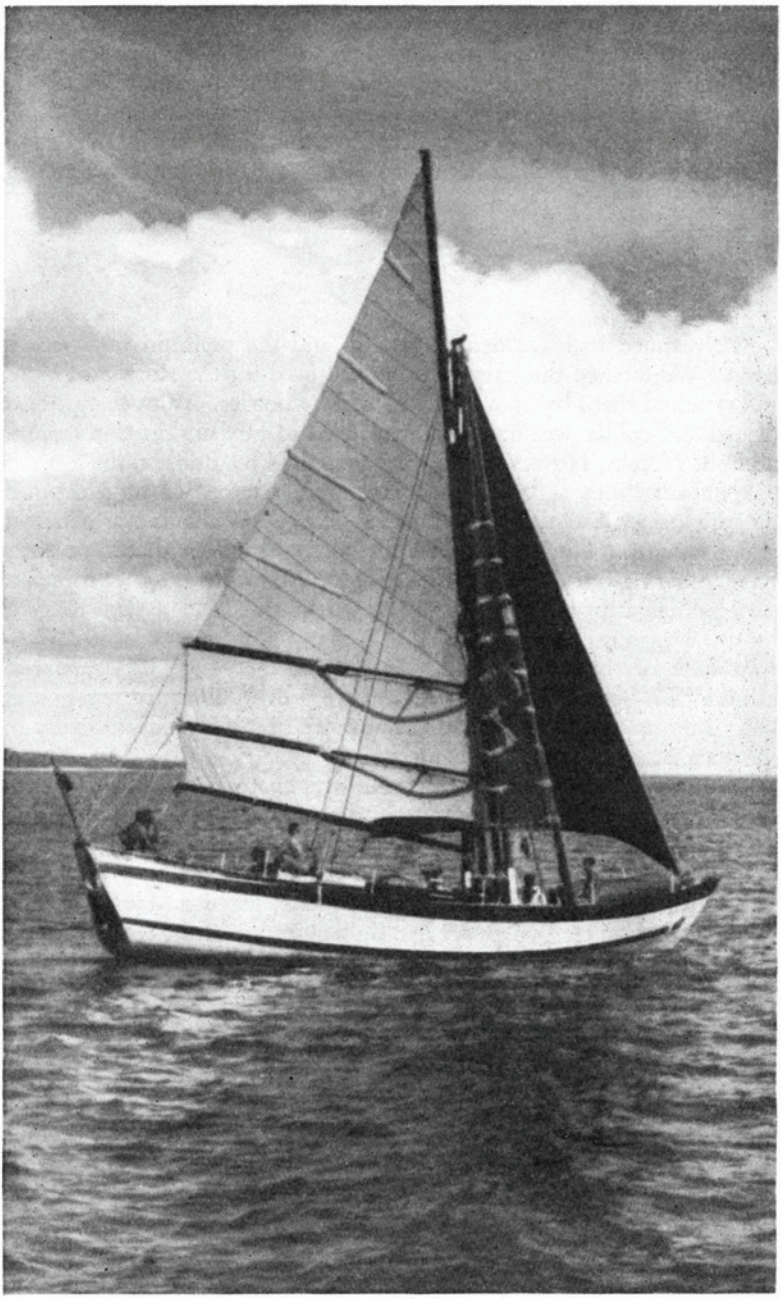
My own impression—founded, be it noted, on an acquaintance of only just over a week—was that too great a gap exists between the very rich, i.e., the French landowners and a few Indian merchants, and the rest of the community, and that this gap would have to be narrowed, one way or another, before long.

I had many volunteers to join the crew, educated and semi-educated youths of mixed descent. They all said the same thing : that there are no prospects of getting on in Mauritius.

On Sunday, the 23rd April, I took a day off from the ship and walked up Le Pouce, the mountain that stands above the port. It was a steep climb for one accustomed to the sedentary life aboard a small sailing-ship, and it was made no easier by losing my way in thick wet scrub jungle ; so it was satisfactory to find I could cope with it after a fashion. The views on the way up and down were splendid, but unfortunately the top was in cloud, besides being covered by swarms of a particularly unpleasant little flying insect.

I learned later that these insects had been imported experimentally to exterminate a species of shrub that was choking other growth on the island. I thought that the cure bid fair to be a worse evil than the disease—which would be nothing new in Mauritius, for mongooses imported to kill the rats, which formerly ate the sugar-canes, are now, I understand, a worse pest than their victims ever were.

On my way back into the town, I paused to inspect a memorial needle standing in the Champ de Mars. It was of granite, ten feet square and



LEAVING MAURITIUS

perhaps thirty feet high. Besides the original dedicatory inscription, there was another about half-way up. It was just below a mark where the single slab of granite forming the tapering top part joined the composite base, and it conveyed this sinister announcement :

> The top of this Monument, above this mark, was blown down by the cyclone which struck Port Louis, Mauritius, on the 29th April, 1892.

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We planned to leave next morning, and the preliminaries were in hand. We ditched the jerry-cans we had used for the storage of water and replaced them by used beer and whisky bottles. With the prospect of bad and colder weather ahead, we tried to buy oilskin trousers, but without success. However, we were presented by Booker, the assistant port officer, with a sou'wester, which, on account of its great size, became known as " the Booker tent." C.P.O. Williams was generous also, giving us a fine tea-pot with a capacity of no less than four pints. Remembering our difficulty in picking up Mauritius weather forecasts, we obtained a list of radio stations and their frequencies, with times of routine transmissions.

In spite of these and other preparations, there was the usual last-minute rush—clearing up on deck, stowing everything for sea, getting sails ready, and so on—all made even more tiresome than normally by the peculiarly hot and sticky morning.

There really ought to be some kind of a check-off list for preparing for sea and for arriving in harbour, as there is for taking off and landing in an aircraft. It is so easy to forget something. I have mentioned the open ventilator that we overlooked at Seychelles.

Yet, I believe, the only thing we forgot on leaving Mauritius was a white feather duster, which we had sighted in one of the shops, and out of which Jarve wanted to make new fishing-lures. Peter even remembered, half an hour before we slipped, to get his hair cut.

We got away at 10 o'clock, with crew, ship and gear in excellent fettle. Commander Watley and others saw us off in his flag-ship, an ex-T.R.V. They took a whole film of photographs which they then threw aboard us—an admirable idea, for usually such snaps never catch one up afterwards. We were clear of the entrance by 10.30 and by mid-day had made 6 miles. With a following breeze and the engine going, we sailed gently down the coast, travelling south, our next port of call not yet decided. In the afternoon we were becalmed, and it was not until early the following morning, when the E.N.E. breeze strengthened again, that we lost sight of land.

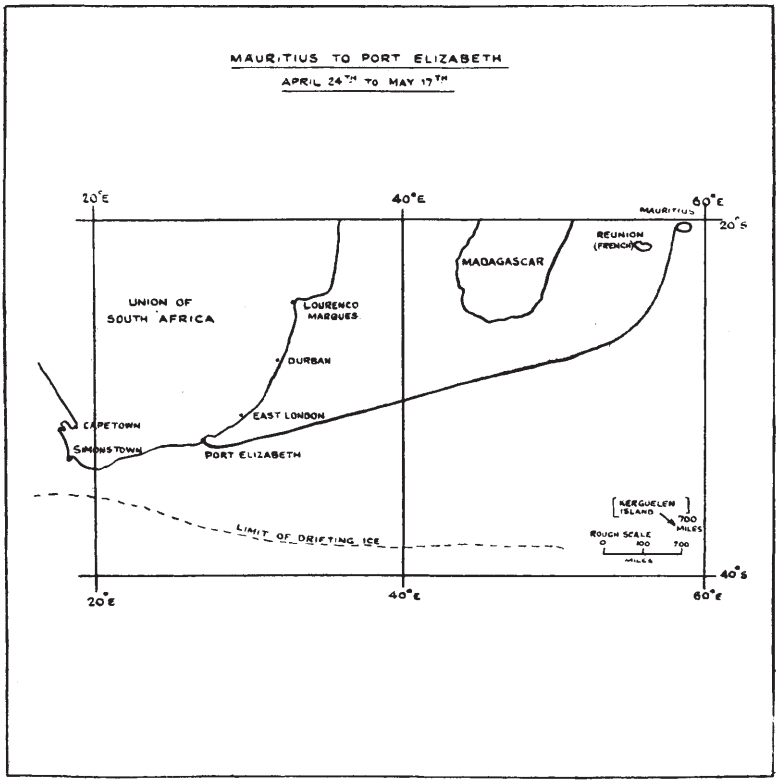
CHAPTER SEVENTEEN

Trouble with the Mainsail

i

Tuesday, 25th April. Position : 21° 13′ *S.*, 57° 10′ *E. Run :* 70. THE meteorological reports forecast a southerly wind after a day or two, so we made full use while we could of the E.N.E. wind, our intention being to curve to the S.S.W. and pass Madagascar in latitude 29° S. We did six knots most of the day. There was a choppy sea, and we all felt slightly seasick.

Wednesday, 26th April. Position : 23° 04′ *S.*, 57° 00′ *E. Run :* 112. Peter wrote : " Don't trust this position. The sight was highly dubious, and as for the chart. . . . ! It was printed in 1907, the compass-rose is marked off in points, which aren't actually named, the variation is miles



out, and the scale is less than one inch to a degree. Most difficult. If the position is correct, it means that we've had a northerly set. . . . It should be south-westerly."

We had a busy morning with the heavy working mainsail, which had stretched too much to fit the yard. We lowered it at 0830, not an easy task with all the booms and associated gear on it, and worked in a new cringle at the throat, with a couple of strengthening pieces of heavy canvas. We hoisted it again at 1030, but set about it the wrong way and it took us nearly an hour.

" Definitely getting chilly now," recorded Peter after his night watch. " Wore two sweaters, my corduroy trousers and the ' Booker tent '—and still not warm. The ' tent ' is most effective as a protection against the elements, but it is all you can do to see out of it. ' Feeling ' the wind is out of the question, and when running before any kind of sea, one feels a good deal safer outside the ' tent '; ship a lot more water-tight after the good work done at Port Louis.

Thursday, 27th April. Position : 24° 52′ *S.*, 56° 23′ *E. Run :* 114. A good run and a quiet, uneventful day. We were beginning to get back again into sea routine. It is surprising how unsettling a few days ashore can be.

Friday, 28th April. Position : 26° 25′ *S.*, 56° 17′ *E. Run :* 92. " If one were stupid enough to do such things for fun or exercise," wrote Peter, " to-day might have been called a day of sail-drill. We are supposed to be in the south-east trades, and the weather this morning looked set with the wind aft. But since then it has been veering and backing, freshening or easing, every time the bell rings. Last night I boomed out the Genoa, so the set up this morning was full mainsail and jib boomed out. Thence :

" 0830 Took in boom and set jib normally sheeted. Lowered working mainsail and hoisted loose-footer.

" 0910 Lowered jib and hoisted spinnaker.

" 1100 Lowered spinnaker and set Genoa boomed out.

" 1250 Took in boom and set Genoa normally sheeted.

" 1615 Lowered loose-footer and hoisted working mainsail.

" 1620 Lowered Genoa and set working jib.

" Quite a performance, and, from the look of the sky, there's time for a few more yet (1800). . . . Very tiresome, especially as we are now left thumping into a very short head sea and getting nowhere. However, we are improving out of all measure in the way we can pop the sails up and down. . . . "

It was a perfect afternoon, not so tropically hot as we had been used to. There was a lovely sun, a pleasant breeze, and the whole sky was an extraordinary clear and gentle blue dotted with small white cumulus clouds. A beautiful (but rather sinister) wave pattern of cirrus at 30,000 feet was moving at high speed from the west.

That evening Peter set down in his diary some observations that were almost prophetic.

"During the last dog-watch the heavy working mainsail was fairly beating its head off. I still don't like it with wishbone booms. Unless there is a strongish wind, or no sea at all—and, of course, that is rare—the booms slat appallingly and frighten me far more than a gale of wind. I am sure that these booms could be reduced in weight enormously, and then it might be a practical rig ; but not, I think, a good one for an ocean-going yacht, in which, I am more and more convinced, simplicity, ease of handling, and strength must be the first considerations. Simplicity above all things. If it's simple, it's easy to handle and probably adequately strong. Our mainsail gear is strong enough, but it is neither simple nor easy to handle."

He had just written these lines, when there was an ominous crack, and the upper wishbone boom snapped at the join, followed closely by the lower one.

"Down mainsail and up loose-footer—the final sail-change for the day ! Finished cleaning up the débris by 10 p.m. All somewhat weary. . . ."

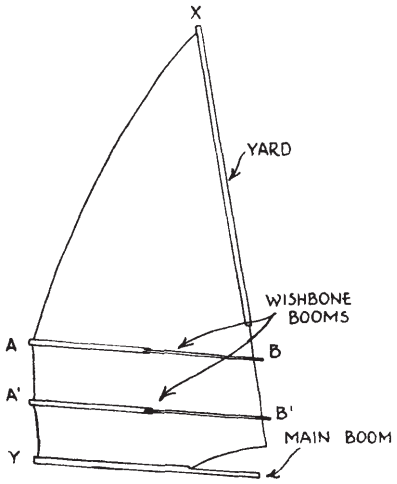
Both booms had gone in exactly the same way as had the original one, which we replaced at Minikoi, i.e., immediately abaft the iron shoes or sockets into which the curved wishbone fitted. At this point, the Douglas fir booms were $2\frac{1}{2}$ in. by $2\frac{1}{4}$ in. in cross section, so the force required to break them, purely due to the sail swinging about in light winds, must have been considerable.

I think we were all distinctly relieved when they *did* go, for when the sail slatted it shook the whole ship in an alarming and nerve-racking fashion and one felt that something more important than the wishbones, for example, the jackstay or the yard, might carry away.

Saturday, 29th April. Position : 27° 07′ *S.*, 55° 39′ *E. Run :* 52. As has been mentioned earlier, *Boleh* had two working mainsails, both three-sectional and of the same size and shape, but one (white) heavier than the other (brown). We were now faced with the problem of making these set without the wishbone booms—or finding an alternative rig. The difficulty with the working mainsail as first designed was that, in order to get a comparatively large area with a short boom—that is, to approximate in shape to that of the Chinese-junk sail—excessive roach was necessary in the lower portion of the sail ; and this demanded a thrust to push it out into position. At A and A^1 (see sketch) the leach of the sail must be held out against its natural tendency to make a straight line between X and Y. This thrust must be taken up at B B^1 by the jackstay. Hence the wishbones.

With the resources then available on board, getting the mainsails to work again efficiently without wishbones appeared to me beyond us. However, we all of us set our minds to the problem, and Peter and Jarve

were optimistic that we should solve it, as we had that of the peak halyard. Meantime an alternative rig was necessary, and we decided to use the loose-footed mainsail for light and medium winds, and the top third only of the heavy mainsail when the wind became too much for the loose-footer. This called for modification and extension of the main



MAINSAIL, SHOWING REQUIRED THRUST

boom, so that it would take either of these sails. Peter's diary reflects the enthusiasm with which he—and indeed all the crew—went to work.

> " Big session this forenoon. First, we redesigned and lengthened the main boom by about 5 ft. . . . Finished this with its various blocks, strops, shackles and fittings by noon ; had lunch, then swopped booms. The next job is to try to produce, out of the three parts of the old mainsail one, in one piece, that will keep some sort of shape. Previously the wishbones kept the shape. Without them it may be tricky. However, it will be interesting to try. . . . "

Sunday, 30th April. Position : 27° 46′ *S.*, 54° 36′ *E. Run :* 71. The plan evolved by Peter and Jarve was to sew the three parts of each mainsail together, make pockets along the joins, and slide in wooden battens, with brass sheaves, fitted in the forward ends of them, riding on the jackstay. The first experiments were on the brown sail. Jarve made the battens by scarfing the two parts of the old wishbones together (1½ in. by 2½ in. *chenghai*), while Peter did the sewing. John and I took on an extra share of the watch-keeping. It was a wonderful sunny day

with a pleasant cool breeze, conditions which greatly assisted the rapid progress of the work.

" Great day sail-making, assisted by innumerable suggestions from Robin, John and Jarve. Talk about a Soviet ! Tacked the top section of the brown mainsail to the bonnet in a very temporary fashion, added a batten made up by Jarve (20 ft. long), and the result was so encouraging that we are going ahead trying to make a job of it. Sewed the two together properly this afternoon, and started making pockets to hold the batten in place. It really will be rather a thing, if it actually works ! "

We were most anxious to get both mainsails modified before we reached the next port, whether it was Durban, Port Elizabeth, East London or Simonstown.

" We are very indefinite as to where we are heading for. A navigator's paradise ! It would be funny if one were bowled out by some future commanding officer for passing one mile off Cape So-and-So instead of five, and saying, ' Well, sir, in my last ship we worked in hundreds, not units'."

Monday, 1st May. Position : 27° 49′ *S.*, 53° 03′ *E. Run :* 85. " All day the sky has been full of the blackest, rainiest clouds I've ever seen. I had the afternoon watch, unfortunately, and at 1430 it fell on us ! Good opportunity to try out my wet-weather gear. So far, this consists of shorts, sweater, oilskin coat, and towel, the whole covered by a gas-cape with ' Booker's tent' atop. After three inches of rain in an hour, I was still dry, so when we get some oilskin trousers we should be pretty well fitted out to deal with cold and wet.

" Wind still astern, but very variable. For some reason, there is a great vogue for booming out the Genoa to windward. Excellent while it lasts, but every time the wind shifts you have to move the boom round to the other side. Much too much like hard work."

Tuesday, 2nd May. Position : 28° 34′ *S.*, 51° 28′ *E. Run :* 98. The wind fell away to nothing during the dogs, so we brailed up the mainsail and all turned in. I made up a bed on deck, watched the brilliant night, dozed, and kept one eye lifting for a change in the weather. As before, when we were becalmed on the way to Mauritius, the barometer was abnormally low, the sea calm except for a rather confused long, low swell and the sky a perfect vault of blue and violet at sunset, with a few puff-ball clouds on the horizon. It was a strange experience to lie silent and becalmed, with no sails set, out there in the middle of the South Indian Ocean, with no land and probably no ship within 500 miles or more. One does not often feel the space around one in a small ship, because the horizon is quite close at all points and sets familiar limits to the daily scene. But if one could see, or imagine, all that empty desert of blue water beyond the horizon, one might well feel lonely.

During the night one small cumulus cloud formed right over our heads. Gradually it grew in size, thickened and darkened until, by the first light of dawn, it could be seen that quite a large area of sky was covered. Then a ripple darkened the water, the breeze stirred ; a hundred yards away I could hear the rain falling. It was time to get away. Jarve came up and between us we made sail.

Wednesday, 3rd *May*. *Position :* 28° 55′ *S.*, 51° 11′ *E. Run :* 26. A chastened Peter wrote : " Sad disaster this morning due to my clumsiness. We were about to try out the modified brown mainsail with two battens in, and Jarvis was working fast to finish the second batten. To save time, John and I prepared to slide in the first, and in doing so—which involved getting one end well out over the bows to insert the other end in the pocket—dipped it in the sea, when it immediately bent back, snapped off and sank—with the weight of the brass fitting Jarve had spent most of yesterday making for it. Calamity, calamity—and all due to my clumsiness.

" Unfortunately, no spare wood to make a replacement, so will have to use a bamboo for one batten, which will mean widening the pockets —damn ! "

In happier vein, he continued :

" Saw our first albatross to-day. I have seen much bigger ones farther south, though. If it were not for ' The Ancient Mariner,' I feel these birds would never have been classed as anything but large gulls—which is really what they are.

" Delicious stew for supper. Wish John could give us them a bit more often. . . . "

That evening we were averaging 6 knots, and for once the breeze looked a little more settled.

" The days are delightful, but nights very chilly. Brought out my last line of resistance to the cold—a submarine sweater which reaches to my knees. . . . "

Thursday, *4th May*. *Position :* 29° 34′ *S.*, 48° 45′ *E. Run :* 137. The best day's run for a long while, in spite of another accident. When John was on watch in the afternoon, he had the misfortune to be caught by a sudden change of wind and, in gybing, broke the boom on the weather backstay. It was blowing quite hard, so after some discussion, we continued on jib only and did very well under it, averaging 3½ knots, the deck being left clear for Jarve, busy once again on a repair job to the boom.

To our other forms of recreation, we had now added crosswords, having been given at Mauritius, besides a number of novels, a lot of old copies of *The Daily Telegraph*. This was very useful, for the man on watch could also join in, difficult clues being passed up for him to chew over. The novels Peter, our champion reader, was rapidly working through.

Friday, 5th May. Position : 29° 59′ *S.*, 46° 55′ *E. Run :* 98. In the morning there was still too much wind for the loose-footer, and the modified brown mainsail was not ready, so we hoisted the upper section of the heavy mainsail (equivalent to two reefs) and got along well. The wind, which had been backing steadily, was now north-east, force 5 to 6, and easing a little. We imagined that a depression was passing to the south of us, in which event we could expect north-west winds very shortly. We hoped we were wrong.

Saturday, 6th May. Position : 29° 43′ *S.*, 45° 00′ *E. Run :* 85. We were not wrong, but luckily for us, the wind had worked its way round through north and west to south by 8 o'clock in the morning. But it was a disagreeable night. Peter wrote :

> " Had a most objectionable middle watch. Came on at 0200, when sky was as black as ink, with distant lightning. 15 minutes later it started to rain and continued till five. Wind all over the place, and lightning so bright I was quite blind at times. However, kept moving in approximately the right direction. . . . "

The day was not much better. There was intermittent rain and a leaden sky ; and the ship bounced about uncomfortably in the cross sea left by all the shifts of wind we had had in the past 24-hours. We were now definitely under-canvassed, but I was reluctant to change the two reefs for the light mainsail, which could not be reefed.

We were now nearing the stage of the passage when it would be necessary to decide which port we should make for.

" My guess is Durban," wrote Peter, " with a saver for East London. I don't think we shall stick it as far as Simonstown. A pity we are not making the best of some good sailing weather. . . . we can't afford to waste time. . . . "

Sunday, 7th May. Position : 29° 30′ *S.*, 43° 55′ *E. Run :* 75. We had a trial of the modified brown mainsail in the morning, before hoisting the loose-footer. It was a great success. If the bottom panel (the former drabbler) set as well as the bonnet, which had now lost its identity and become part of the mainsail, all would be well.

In the afternoon, albatross were landing in the sea ahead of us and paddling themselves into the air again when we came too close. Peter wrote of them :

> " They are much more impressive when you see them in relation to another known object. On the water they look just like fat geese. Robin has it that the dodo (Mauritius) was originally an albatross who just got tired of flying round and settled down in the then uninhabited island, grew fat, and lost his wings. Their heads, beaks and facial expressions are certainly similarly stupid."

Monday, 8th May. Position : 30° 14′ *S.*, 41° 55′ *E. Run :* 110. The major event of the day was the successful trial of the completed mainsail.

> " It sets beautifully ; the only thing now requiring modification is

the reefing arrangement, which I'll have a go at to-morrow. The evolution—or revolution—of *Boleh's* gear during the trip has been most interesting. I think Robin was very courageous in attempting the wishbone lug-sail rig ; if someone does not have a go, obviously there will never be any advance, but still there is a great deal to be said for the orthodox, which has been tested out over many, many years. Thank goodness we have now got back to a more or less orthodox sail ! "

Although I joined whole-heartedly in praise of this product of our sailing-master and shipwright, which was certainly a great deal simpler, very much lighter and far less frightening than our former rig, my own view was that we had by no means reached a final solution. Although reasonably satisfactory, the new rig did not stretch the sail quite sufficiently ; it also remained to be seen how much weather the new battens would stand. At the end of the trip, I made some notes on this matter ; these are to be found on page 208 *et seq.*

We are now slightly more optimistic about missing out Durban and going on to the Cape, which we felt we ought to do if we could. Time was getting short.

CHAPTER EIGHTEEN

Gales South of Madagascar

Tuesday, 9th May. Position : 30° 46′ *S.*, 40° 34′ *E. Run :* 77. THERE was a good breeze and we thought we were going to do well until it piped up hard and we had to lower the mainsail. Even then, under jib only, with the wind and sea astern, we did 4½ knots, but rolled very heavily at times.

Wednesday, 10th May. Position : 31° 26′ *S.*, 38° 14′ *E. Run :* 126. Sixteen days out from Mauritius. In the morning, attempts were made to complete the reefing arrangements on the brown mainsail, but the canvas had got wet and was impossible to work on.

Nevertheless, there were other little jobs to be done. The jib-sheet spectacles (made in Mauritius) had come to pieces, and John made a very fine new pair. The log-line, which was badly frayed at the splice on to the swivel, possibly due to the efforts of a very hungry fish or small shark to swallow the log, needed re-sewing and serving over. This and the piston-hanks on the jib, which were up to their old pranks again in this wind, were taken in hand by Peter. It was not a bad thing to keep him busy, because he always ran through such books as we had aboard long before the end of each passage.

I feel very guilty about this question of literature. When Peter mentioned it before we sailed from Singapore, I said I would take a

small library and felt sure I should have enough books to keep us all going. John also had engaged to bring some good books.

I made three errors of judgment : firstly, I thought that working, eating and sleeping would leave hardly any time for reading ; secondly, I judged Peter's reading capacity by mine (Jarve just managed to finish one book during the whole voyage), whereas Peter reads the ordinary sized novel in a day, and Tolstoi's *War and Peace* in two or three; thirdly, both John and I brought complete editions of Shakespeare, but in such small print that I, at least, needed spectacles in broad daylight, and by our dim electric light, reading them was out of the question. The remainder of the ship's library was an indiscriminate collection of novels, murder stories and magazines.

On a trip such as ours, one wants good, solid, well-written books—trashy stuff is useless—and the books chosen should be light enough to hold in bed, be printed in large type, and not too valuable. If they could also be waterproof, it would be an advantage. Next time I shall take Jane Austen, some Dickens and Thackeray, *Don Quixote*, Anatole France, Balzac, Proust, Dostoievski, Chekhov and Tolstoy, plus Alain Gerbault's cruises, and a book on ocean birds and fishes.

Thursday, 11th May. Position : 32° 12′ *S.*, 36° 02′ *E. Run :* 108. It was still blowing hard and in the right direction. For the past 36 hours we had been running under jib only and had been making 4 knots or better.

> " Finished reefing arrangements in the mainsail this morning. Hellish hard work, and I feel a bit queasy. Jarve and I battling with Robin to get more sail on her. An exasperating business, because we are wasting days of cracking good sailing weather. At lunch time managed to get a second jib up, boomed out the other side and made extra two knots immediately. In the evening got the mainsail up, but Robin insisting on two reefs ! It took us an hour to do, but will be easier next time."

These criticisms were probably deserved, but I should say in self-defence that if, as we all then hoped, we were going to press on to the Cape, the most important thing at this stage was not to tire out the crew before meeting the heavy weather expected. Extra caution was also called for by the state of our main boom, and the then untried practicality, as far as reefing went, of our modified mainsail. The main boom was a far from reassuring sight. It had been broken three or four times and patched up by Jarvis with odd pieces of timber, and had recently been increased in length.

A thing we now sadly missed was sitting on deck in the dog watches, having our evening tot. With the cold weather and early darkness, this was now out of the question.

That night we ran into the occlusion following the recent depression that had provided all the wind we had been having. Wind during the

night was all over the place. There were squalls, heavy rain, then calms, with a confused, angry sea. The mainsail, as Peter put it, was " slatting like a five-barred gate left ajar in a gale—but nothing like what it would have been if we still had the wishbone rig."

We were now about 350 miles from the African coast, and would very soon have to get out the coastal charts.

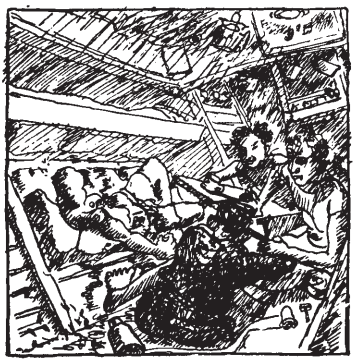
Friday, 12th May. Position : 33° 14′ *S.*, 34° 42′ *E. Run :* 102. Another easterly gale blew up and at times we were going, in Peter's descriptive phrase, " like a bat out of hell."

Saturday, 13th May. Position : 32° 47′ *S.*, 32° 35′ *E. Run :* 107. The gale continued and the sea was rough.

> " But she is such a beautiful sea-boat that she made no bother of it at all. Rather uncomfortable down below at times, but not too bad."

At eleven o'clock that evening I was in the cabin, pouring out a cup of cocoa for Peter, who was on watch. To do this, I was crouching to weather, well chocked off, as I thought, with one foot braced against the lee settee, on which Jarve was asleep, but I had to let go with both hands in order to hold the " Thermos " and cup. In the middle of the operation, a big lurch sent me flying across the cabin—and the flask and my head hit the empty lee bunk simultaneously. Hot cocoa and broken glass descended on Jarve and blood spouted from the side of my head. John, who was in the windward bunk, afterwards described the scene as a mixture of broken glass and blood, with Jarve wallowing like a porpoise in cocoa.

It was not a deep cut or a painful blow, but it must have been very close to an artery, for I have never seen blood flow so fast. By some miracle I had saved about half the cocoa in the cup, and this—rather heroically, I thought—I passed up to Peter, before John got to work on me with razor, to shave off the hair round the cut, cotton-wool and bandages, whilst Chang and Jarve attempted to clear up the shambles in the cabin.



It was still blowing hard, and I proposed that we should lower the mainsail till daylight, my main reason being that John was due to go on watch at 4 o'clock in the morning and I was not too sure that he could cope in a gale with that amount of sail.

From the first day of the voyage, I had been studying the helmsmanship of the others. Any skipper must do so—and come to some pretty firm conclusions, too, if he is to sleep without anxiety. Peter inspired

confidence, and when he was on watch I never had a moment's worry. He liked to flog her, but never beyond the point of safety, and he was the " steadiest " helmsman of the lot of us. George Jarvis learned his sailing at Salcombe as a boy, and had the instinctive " feel " for a sailing ship, and an awareness, when on watch, for signs of strain or chafe in any part of her gear. The only things that worried me were his occasional carelessness as regards course (due to his great fondness for fishing), his inexperience of traffic at night (very rarely a consideration, for there was little of it), and his disinclination to call me, which he never did until *after* the situation had become too much for him to deal with single-handed.

John, on the other hand, had only very recently taken to sailing, and had no background of experience beyond that which any Naval officer absorbs during his training. He was extraordinarily keen when we started the voyage, however, and had, perhaps, a clearer *mental* grasp of navigational and sailing problems than any of us. But he has a very active mind, which tends to be engaged on other things besides sailing, and, at that time, I considered him decidedly over-confident.

We could ill afford to waste fair winds, yet I felt that, in the circumstances, the wisest course was to lower the mainsail. The usual discussion ensued, and I was prevailed upon to carry on with the mainsail set. As a precaution, I rearranged the watches so that I went on at 4 o'clock instead of John. This involved letting him know that I had not full confidence in him ; I would far rather have lowered the sail.

During my watch, the squalls were pretty heavy (I find one gauges the weight of the wind largely by the strength and pitch of its whistle in the weather backstay), and I was very anxious about the boom, which kept dipping in the sea as she charged down the fronts of the waves. I had designed *Boleh's* boom exceptionally high and short, especially to avoid this unpleasant habit but, as mentioned earlier, we had lengthened it again to make the light and heavy mainsails more easily interchangeable. The boom was held by a boom-guy, of course, but I feared that this and/or the boom would " let go," as Calahan says.*

The sensation during squalls was rather similar to, though more prolonged than, that which I used to experience in the middle of an uncontrolled downhill telemark—when one's skis inevitably point straight down the slope—a strong feeling of exhilaration not unmixed with fear.

As the light came, the squalls gradually eased and seemed to be less frequent, so when John took over at 7 a.m., I thought we had seen the worst of it. But in the middle of breakfast, heavy rain came, with a squall more violent than any we had had before, and *Boleh* lay over for

* H. A. Calahan, American author of *Gadgets and Wrinkles* and many other books on yachting.

EXHILARATION NOT UNMIXED WITH FEAR

about three minutes at a pretty steep angle. John nursed her through that squall—estimated force 8 or more—very skilfully ; not a sail shook.

Months later, reading John's diary of that time, I discovered that, far from being over-confident, he had only in the previous few days gained full faith in his own ability to handle *Boleh* in heavy weather. It was a pity I had not left the watches unchanged.

So easy is it to be deceived by the outward seeming of people and things.

Sunday, 14th May. Position : 33° 37′ *S.*, 29° 54′ *E. Run :* 136. We worked out into clear skies during the forenoon, wind and sea easing all the time ; and, as we looked back, we could see what we had come through—greenish low scud, a layer of stratus, pile upon pile of boiling cumulus and cork-screw cirrus above. By two o'clock in the afternoon we were becalmed, wallowing in a left-over sea, some 90 miles from Port Elizabeth.

It had been a boisterous period ; three days of continuous gales. It was fortunate for us that they had been on the quarter. In one 24-hour period we had logged 168 miles, which was the most we had ever done —and that under double-reefed mainsail and small jib.

" Sun sights," wrote Peter, " were pretty hopeless over the last couple of days. The seas completely obscured the horizon proper, and stars were out of the question. Must get some stars to-night and find out where we really are !

" Food excellent. Even in the very bad weather, hot delicious meals were produced by Chang. Very good for morale. It would be hell to be reduced to tinned cold meat every time it blew.

" Had a look at my clothes—horrible sight, mostly soaking wet and filthy. Wish we could find a guaranteed dry stowage for clothes. . . . Also had a shave. I really was getting disgusting. One great advantage is that one does not have to look at oneself. . . . "

Star sights came in very nicely, but we seemed to be getting a southward set against us. By noon we had covered 1,887 from Mauritius—our longest trip yet as regards mileage, though still three days short of the Seychelles-Mauritius passage, which had been 1,545 miles in 23 days.

It being John's birthday, we celebrated with a large jug of buttered rum.

Monday, 15th May. Run : 71. The *Pilot* is not very clear about the Agulhas current in that area. In one place a table shows average strength of the set as 1 knot or less for May, and in another 3-4 knots is quoted. Although we were not yet in the full strength of the set, we were getting set south-south-west at 2 knots.

It was a warm and sunny day, with a light breeze, so we took a lot of our gear on to the upper, to dry off. The deck eventually looked like a back garden on wash-day. The wind fell in the evening, and we got

the engine going—noisy, but we were making 3½ knots in the right direction.

" First signs of land to-day—several butterflies," wrote Peter. " . . . We are now just south of Port Elizabeth, so it looks unlikely that we shall call there, and may be we shall make Simonstown in one after all. . . . "

CHAPTER NINETEEN

Port Elizabeth and Dreaded Cape Agulhas

i

IT WAS NOT TO BE, HOWEVER. THE NEXT ENTRY IN PETER'S DIARY RECORDS our arrival in Port Elizabeth on the 17th May, 23 days out.

Tuesday, the 16th, started with a pleasant sailing breeze from the S.S.W., though variable, with occasional mild squalls out of a clear sky. At midday, we saw two waterspouts hanging from clouds that passed to the north-eastward of us ; and at about 4 o'clock a rather dirty looking layer bore down from W.N.W. The wind piped up very fast, and we were much too slow getting into action. The result was that, in attempting to pull down a reef with the sail too full of wind, we broke the main boom again and also snapped the top batten in the pocket. This meant getting the sail down before it got torn ; and shortly afterwards I decided to run for Port Elizabeth, then some 40 miles north-east of us. We were getting pretty low in food and water, and, besides the desirability of replacing the boom, I reckoned that, if dirt were coming our way between there and Simonstown, we should all meet it better after a short rest and refresher in port.

We reached in towards Port Elizabeth under jib only ; sighted the Cape Recife light about 8 p.m. (when still perhaps 25 miles away) ; closed in to about 8 miles at 0200, and then stood on and off until daylight. It was a foul night, with heavy wind and rain squalls—the " Booker tent " somehow got blown overboard in the darkness—but it was good to see how easily *Boleh* handled under the jib, and to note that, with jib-sheet slightly eased and sail just full, she worked slowly to windward.

As soon as it began to get light, we set course for the entrance and passed between the breakwaters at about 1000. The wind had eased a lot by then, but it was raining and pretty dismal, so we were very thankful when, officialdom being placated, we got a berth alongside the South African Naval Reserve Base jetty. The S.A.N.R. made us free of all their facilities, and it was not long before I was in one of their steaming hot baths.

By 1230 a representative of Messrs. Koehler & Co. had been down,

seen the broken boom and our rough drawings of the proposed new one, and had given us a provisional estimate of £10.

There was not a great deal of work to be done aboard, for we had got as much of it as possible finished before reaching port. Peter wrote on this question :

> " Up till now we have always had great lists of work to be done on arrival, which, though difficult to avoid, is an extremely bad thing. After a long spell at sea, one wants to be free of work in harbour, which is always unpleasant. People will come aboard at the most inconvenient times, and generally everything takes four times as long and is twice as difficult. My ambition is to get in, do any essential ship-keeping, but otherwise have one's time free to enjoy oneself." He was now to realize his ambition. He went to stay at the Port Elizabeth Club, while the rest of us kept very irregular hours aboard.

Everyone we met (except the floor manager at one of the hotels!) took a keen and friendly interest in us and did all they could to make our stay enjoyable. Newspaper men, it is true, became rather a bore—though with the very best intentions—because they came in succession, and often asked identical questions. If only they would all come at the same time, or would bother to read each other's articles, it would save a lot of trouble.

Two ships of the South African Navy were in, and they sent over to call officially on us an officer of the guard, sword and all.

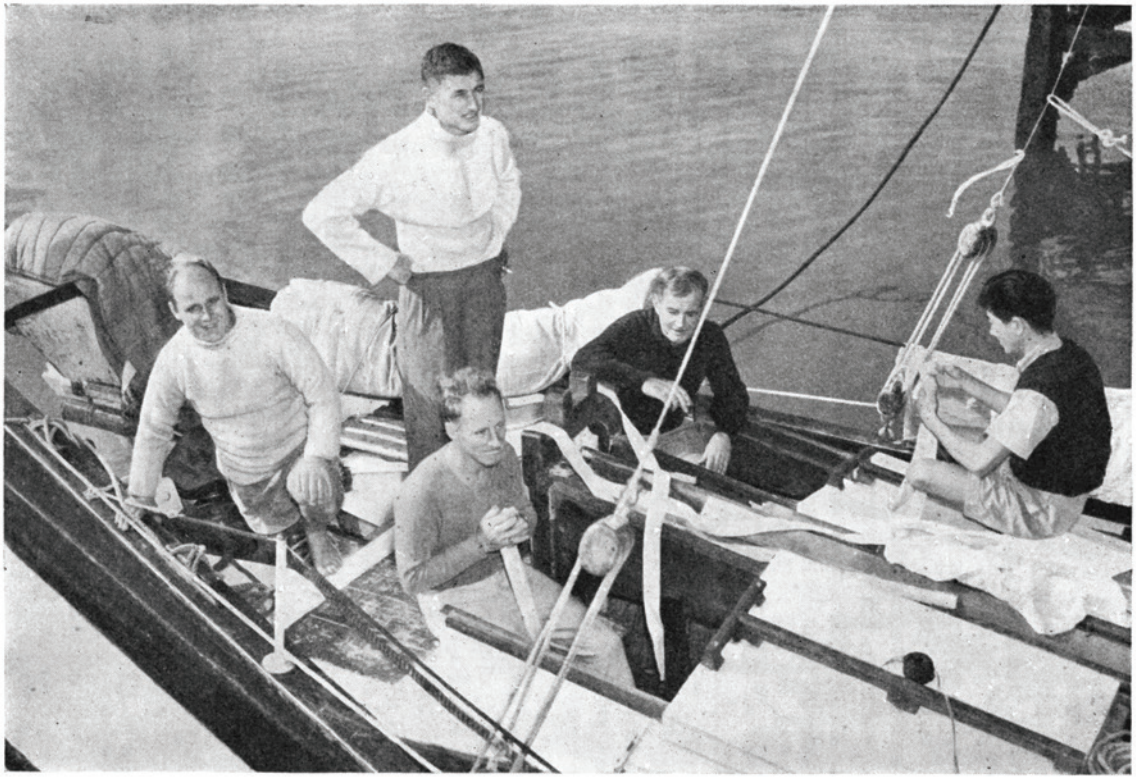
" Great occasion," wrote Peter. " Apparently he was persuaded by the R.N.V.R. types, who already knew us, to leave his finery in the drill-shed nearby and come aboard normally clothed."

I have other pleasant and enduring memories of our stay. In these rank high the lunches served at the Port Elizabeth Club, followed by Stilton cheese and cigars ; and buying a pair of trousers for Chang, who, as usual, was being difficult about setting foot on shore.

A number of good people—Messrs. Cherry, Proctor and McWilliam, to name but three—did all they could for our enjoyment. One day, Mr. Cherry drove me round the city—the rapidly expanding residential area and the even more impressive outskirts where lie the motor and general engineering factories, and where huge new buildings are springing up like mushrooms—and tried to explain to me the reasons for the boom on land as opposed to the apparent emptiness and inactivity in the well-equipped port.

Then there was the drive in Hugh McWilliam's monster car to his delightful house and to the Schwartzkop Yacht Club, both of which he designed himself. At the Club, after admiring their beautiful class of light-draught planing racers (again, McWilliam's inspiration), we were treated to an oyster-and-crab banquet such as aldermen dream of.

McWilliam nearly joined us for the trip to Simonstown, which would



AT PORT ELIZABETH

have been fun and very good for us I think, but unfortunately he was prevented at the last moment.

While at Port Elizabeth we met quite a lot of experts, who expressed themselves able and willing to forecast the weather and currents we should experience between there and Simonstown. They were all different. The only one we took at all seriously was a pilot, an old sailing-ship man, who said that no one could predict weather on that bit of coast, but that after Cape Agulhas it would " probably be bloody."

Messrs. Koehlers made a first-rate job of the boom and replaced our battens in clear Oregon pine of the best quality. These were ready in three days, despite holidays ; and the price, including a gallon of excellent yacht varnish thrown in for good measure, remained £10. But more than one of the senior executives of the firm are keen yachtsmen !

On the morning of our departure, there were still some shopping commissions to be done, including the purchase of some oilskin trousers, and it was Mr. Cherry, as usual, who made this possible : Cherry, with his car always at our disposal, asking no questions, never getting in the way, never coming on board when he was not wanted or it might be inconvenient.

Having got the clearance papers—four important looking documents with immense red seals—we were ready to sail. It was Sunday and a large crowd came down to see us away. An off-shore breeze had sprung up half an hour before, which made it rather tricky turning the ship round and making our get-away under sail. However, with the assistance of Cherry and Proctor, we achieved this without any of the men, women and children—and reporters—being whipped into the water by our warps.

We cleared the breakwater at noon. A light but following wind took us out around Recife lighthouse and gave us an offing, but then it fell away and we had to start the engine.

II

Monday, 22nd May. Position : 34° 22′ *S.*, 24° 21′ *E. Run :* 86. It was extremely cold and the new yellow oilskin trousers were very acceptable to the man on watch. The wind was bitter, but there was not much of it, so we had to use the engine a lot.

" The row that ' drive ' kicks up," complained Peter in his diary, " is incredible. It's like living in the engine-room of a particularly noisy destroyer."

Tuesday, 23rd May. Position : 34° 32′ *S.*, 23° 18′ *E. Run :* 52. " A very tiresome day. Light head winds and calms. Light head winds with even the slightest of head seas are certainly *Boleh's* weakest point of sailing. She just stops still and pitches fore and aft out of all proportion

to the provocation. In my watch we bumped up and down over literally the same spot for three solid hours. Most mortifying."

This from Peter, who continued :

" Coast very uninteresting. We have been too far off, 15-25 miles, to see anything of it really, but don't think we have missed much.

" I have been reading a book called *Analysis of* 100 *Voyages to and from India and China.* It is highly amusing -and instructive, too, because it is arguing the case for ' the occasional application of steam power ' to shorten passages to and from the East. It was written in 1839, and gives a tabulated analysis showing exactly where and how long the ships of those days were held up by calms. The number of days' and hours' delay is computed at the end of each voyage, and there are such remarks as, ' Captain X was delayed 36 days, 15 hours, during which the occasional use of steam power would have been advantageous.' Some understatement ! "

This book was to be of great assistance and interest to us in planning our route between Ascension and England. We plotted a number of their tracks from the ship's records, which showed that we had a good chance of calling at the Cape Verde Islands without undue delay or diversion from the best route to England, In fact *Boleh* followed in the tracks of the old square-riggers pretty closely all the way.

We were also much amused by some of the instructions for the voyage of the first ship to be fitted with " Melville's Patent Propellers," and the description of the voyage itself :

" Engineers' instructions—Blow out the boilers occasionally, to get rid of the concentrated salt-water, which would otherwise be highly detrimental to them. Indeed, the blow-off cock might at all times be kept gently running : put in some potatoes frequently, to prevent incrustation. . . . Never start the engine too rashly with full power of the steam all at once, as by so doing you would probably blow all the water out of the boiler. Keep sober, and be carefully attendant to your duty. . . . "

How these instructions were carried out by the engineers can, with a little imagination and reading between the lines, be guessed from the following extracts from the " Log-book of the Merchant Ship *Maria*, 460 tons (James Black, Commander—Gardner Urquhart & Co., Owners), laden with a general cargo and drawing 16 feet 6 ins. water, bound from London to Bombay, the first sailing vessel fitted with steam-power for occasional aid during Calms or Light Winds " :—

Dec. 13 : Calm and fine left W.I. Docks. Steamed down river. . . .

Dec. 31 : Light winds, inclining to calm. At 3 p.m. commenced steaming ; at 7 p.m. breeze freshened ; let off steam. W. Hove, Eng. suspended for abusive conduct.

Jan. 10 : 6 p.m. commenced steaming ; shipped small paddles ; blew off occasionally, and refilled boilers.

Jan. 16 : At 4 commenced steaming. At 8 blew off. Lost a paddle, from the nuts coming off.

Feb. 12 : Light airs and heavy swell. At 2 p.m. commenced steaming ; found Engineer neglectful and inefficient.

Mar. 24 : Light variable winds, with rain. At 5 a.m. commenced steaming ; could not start larboard engine : both Engineers ignorant of their duty.

Mar. 26 : The Engineer having damaged the safety-valve, did not commence steaming till 6 a.m.

Mar. 29 : Found blow-off pipe, starboard side, foul ; let off steam, and cleared it ; cleaned funnels and flues.

Mar. 31 : Force-pump out of order. Confined 2nd Engineer, J. Clark, for theft and drunkenness.

April 1 : Blew off occasionally. J. Clark confessed he had broached a cask of beer.

April 2 : Light variable winds. Blew off occasionally. Cleaned boilers, funnels and flues. Several of the crew refractory.

April 4 : Confined Thomas Davis for mutinous conduct. Cleaned funnels and flues.

April 9 : Engineer and Carpenter getting broken shaft out of the wheels of the starboard engine.

April 10 : Carpenter making a wheel-shaft with spar and iron bolts. Hove evidently quite at a loss.

April 11 : Liberated Davis from confinement. Captain Black able to leave his bed. . . .

Needless to say, the instructions for the Engineer were often quoted at Jarvis ; but " Engineer and Carpenter getting broken shaft out of wheels of the starboard engine " was too close to a description of our own troubles with the " drive " to be lightly quoted !

Wednesday, 24th May. Position : 34° 37′ *S.*, 22° 07′ *E. Run :* 60. A much better day. In the morning we were off Mossel Bay, with an easterly breeze gradually increasing. This we were very lucky to get, the prevailing winds being between north-west and south-west. It continued freshening nicely until 5 o'clock in the afternoon, but by 6 o'clock we had to take down one reef and set the small jib instead of the Genoa, which, until then, we had had boomed out to starboard.

The night was perfect, with a lovely moon, a clear sky and a strong breeze. We were going at very nearly our maximum speed, with breaking seas all round.

" Several ships about," wrote Peter. " In fact, I saw as many ships in my watch as we have seen at sea since leaving Colombo—three in all !"

The wind kept up till towards daybreak, when we picked up the light of Agulhas, the southern tip of Africa, at 30 miles.

Thursday, 25th May. Position : 34° 54′ *S.*, 19° 40′ *E. Run :* 124. By

0730 Agulhas was abeam. There was a curious haze over the coast in the morning and the sky looked rather like a nor'-wester brewing, but by noon the breeze had gone and we were motoring along with the jib down and the mainsail gently flapping.

We had a small celebration at lunch time, the dreaded Cape Agulhas being then well astern. Normally, all except the man on watch would get their heads down for an hour at least after lunch but it turned out such a heavenly afternoon, and so much of interest was to be seen, that I stayed on deck with Jarvis ; and in fact spent a considerable time up on the cross-trees reporting new forms of animal and fish life as they came in sight. The long and confused swell off Agulhas had faded out and we were now motoring in almost complete calm, with the African coast some ten miles away to starboard. The air was cool, but the sun shone brilliantly, and over the coast silver and white layers of high stratus emphasized the pale blue sky. So still and glassy was the sea that small objects, or any disturbances in the water, were easily visible some way off.

Our unusual interest in the sea was first aroused by the great quantity of plankton to be seen (we had just been reading that splendid book, *The Kon-Tiki Expedition*, so knew what it was). Jarvis wanted to devise a net to catch these curious forms of life, so that we could try out the famous " plankton soup." Luckily, or unluckily, we had no material suitable for netting.

The next items of interest were a small fleet of Portuguese men-of-war—not under their full-size painted sails, as we saw them later in the trade-wind latitudes, but interesting none the less. They appear to be a species of jelly-fish, elongated and inflated so as to float, and fitted with a high ridged back which forms the " sail."

After the Portuguese men-of-war, edible kelp was reported from the mast-head ; and then in quick succession—white cormorants (afterwards identified as a species of booby), Cape pigeons, penguins, and quite a large gathering of seals playing on the surface.

Towards sunset, a line of dark water to port indicated a breeze coming, and we waited anxiously to check its direction. If the first breaths we felt were tokens of the beginning of a nor'-wester, we might yet be stopped and possibly held up for days before reaching Simonstown—although we only had 60 miles to go. There are many cases on record of old sailing-ships sighting the Cape and then being blown back round Cape Agulhas, not to sight the Cape again for a week or more.

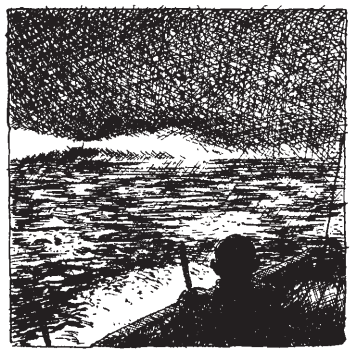
When the breeze reached us, however, or, rather, when we reached it, it was clearly from astern and we were able for a time to fill the sails. " Old Neptune," we said, " is on our side at last ! Let us, therefore, offer him appropriate libations."

When I came on deck at about 10 p.m. (unable to sleep properly in

the after cabin, right on top of the engine and " drive "), the breeze had died again and it was utterly calm.

I took my blanket and two American army quilts on to the fo'c'sle and made a bed for myeself on the lowered Genoa.

It was cold and there was a heavy dew, but—what a magnificent night ! Phosphorescence, such as I have never seen, glowed and flashed from the bow wave, lighting up the mainsail which was sheeted in and just shivering in the breeze we made. The mountainous African coast could be seen faintly to starboard, whilst moon and stars shone with peculiar brilliance overhead. Best of all, though, was to see the Cape of Good Hope light flashing away steadily against the dark silhouette of the Cape promontory. To see it come abeam and know that we had turned our worst corner, and should be in Simonstown in the morning. . . .



CHAPTER TWENTY

Simonstown, Cape Province

i

Friday, 26th May. Run : 77. THE SUN ROSE ON FRIDAY MORNING INTO A clear blue Cape autumn sky. With still a few miles to go to Simonstown, a north-westerly breeze sprang up and was just strong enough to allow us to enter the small enclosed Naval harbour under sail at 8.45. The breeze increased to force 5 in the afternoon, which would have been inconvenient, to say the least, if we had been a day later.

The Captains of the two sloops in harbour, *Actaeon*, Commander the Viscount Kelburn, D.S.C., R.N., and *Nereid*, Commander E. D. Norman, D.S.O., D.S.C., R.N., and the K.H.M. (with berthing party, catamaran, and dockyard warps), were waiting to meet us as we came alongside the wall between the two ships.

They joked with us about the various estimates we had given of the date and time of our arrival. We were three days early on the last of these, and about three weeks late on the first. Then, quickly and efficiently, they took in hand the ship, ourselves and the programme for our stay. Peter, Jarvis and I were given cabins aboard *Actaeon*, John in *Nereid*. Chang was offered accommodation also, but preferred, as usual, to stay aboard *Boleh*.

After a hot bath in David Kelburn's comfortable quarters aboard *Actaeon*—and the minimum number of essential Service calls—social engagements, sport and amusement were the subjects under discussion over the forenoon gin. After all, the main object of our stay, which I had fixed provisionally at 12 days, was recreational. The list of alterations, additions and repairs to the ship was a small one, the only major item being " slipping " to clean the bottom. The Press hardly bothered us ; and the customs, port authority, etc., only paid us short formal visists on the morning after we arrived. So a forenoon's work a day aboard the yacht was about all that was required of any of us.

Peter went up to the Met. Station on our first day in—" lovely spot, about 1,200 ft. up in the hills above Simonstown, with a most wonderful view across False Bay to the mountains by Hangklip and down towards Agulhas. There were only three Met. officers, and they produce, from very sparse reports, all the shipping forecasts for South Africa. . . . "

John was shown the Cape by his aunt (among others), who looked us up very soon after our arrival—a most charming and amusing person. When asked why she had settled down on her own out at the Cape, she smiled and said, " Well, you know, I look upon myself as an old pony out to paddock, and I find this is a very adequate paddock ! "

Peter was looked after by *Actaeon's* wardroom, and particularly by No. 1 and his very attractive, newly married wife from Knysna. As is to be gathered from his diary of our trip, Peter loves to sleep. The complaints I heard from *Actaeon's* officers about the late nights they kept in his company were sufficient assurance that he found some pastimes in Cape Province even more enjoyable.

Jarvis, as always, fell completely on his feet the first evening ashore—this time, I believe, at the Junior Officers' Club. The number of very youthful and charming girls he invited to our Sunday forenoon party was a fair measure of his activities.

There were only two flies in the ointment, so far as I was concerned. Firstly, there was no mail for us on arrival (except five letters and three postcards for John, which simply did not count) ; secondly, when it did arrive it included a letter for me indicating that, if I hoped to make any money from publishing an account or record of the trip, it must be ready as soon as possible after our arrival in England.

This bomb-shell fell after two days and nights of David's hospitality and guidance. I had met a number of the nicest people in Cape Province,

MAIL AT SIMONSTOWN

including revisiting some old friends of a previous visit in 1946. I had made dates, fixed to give a *Boleh* cocktail party, been invited to dinner with the Admiral—and, generally, was so well organized for a thoroughly good time that my first reaction was to cable back, " Tak Boleh," which means in Malay, " No can do." However, after reviewing my own, the ship's and the crew's finances (all in a lamentable state), much thought and some discussion with John and Peter, I decided to undertake the task. The rest of my visit was, therefore, rather interfered with—I won't say spoilt—by the rigours of first authorship. Writing and ship's business made a pretty full day's work. The evenings, however, I mostly managed to keep free.

Judging from the not very frequent occasions on which I saw them, John, Jarve, and Peter also made good use of their evenings. Chang was hopeless ! I made several attempts to secure contacts for him ashore but, so far as I know, he only made his usual single excursion to the nearest barber. However, he enjoyed the entertainment of guests aboard. Most forenoons we were " open " before 10 o'clock, and we gave one Chinese chow lunch party and two supper parties. Luckily, too, there was mail for him from Singapore with good news of his family, and, perhaps best of all, he was able to feed almost exclusively, and at no expense either to me or himself, on the fish that he caught in the harbour.

On Thursday, the 1st June, we tried to beach *Boleh* in False Bay, in order to scrub her bottom—a process that is more tricky than I had realized when designing *Boleh's* legs for the purpose and the arrange-

CHANG ABOARD *Boleh* AT SIMONSTOWN

ments for fitting them. At Singapore one leg had dug into the sand and she had nearly capsized ; at Simonstown, where the sand was hard, the legs seemed to be too long, so that the whole weight of the ship was coming on them as she bumped in the slight scend there always is in False Bay.

" After some acrobatic and aquatic dinghy work—and some bad language," wrote Peter, " we had to abandon the attempt and, instead, arranged for her to be lifted out by crane and parked on the wharf on Friday. This is always a somewhat terrifying operation, but it went without a hitch. Bottom pretty clean, but well worth a scrub ; and pleasant to know that we can expect to remain clean until we arrive home. . . . Cockroaches or rats have eaten several holes in our large spinnaker, a fact which was discovered and rectified. . . . "

While at Simonstown, we had the heavy white mainsail dealt with in the same way as the brown one, the three parts being sewn together and the pockets for battens added. I do not think we used the brown mainsail again until after arrival at Salcombe. It is shown in the photographs on pages 56 and vi, facing contents page, while the white one, as before modification, is to be seen on page 127—leaving Mauritius.

Water also engaged our attention. The bottles we had used since discarding our jerry-cans at Mauritius took up a good deal of space and were a great nuisance to clean and fill. We now replaced these by rum jars, which were heavy, but otherwise good.

Although the " drive " was now a reformed character, the propeller still needed modification, so in order to reduce the thrust and allow the engine to gets its revolutions, Jarve took an eighth of an inch off all round each blade.

On the morning of Tuesday, the 6th, the Admiral came down for ten minutes to look round *Boleh*, and stayed nearly an hour.

" Very amusing," wrote Peter " and interested in everything on board. Chang, I think, rather tickled by all the gold lace he was sitting next to. . . . "

We had hoped to sail that day, but the Met. Officers prophesied strong north-west winds for two or three days. How right they were, and how glad we were to be lying peacefully in harbour on Wednesday ! In the evening, however, they were more optimistic and advised us to leave early on Thursday.

" The weather team here," recorded our navigator, " really did us proud. . . . They took an enormous amount of trouble on our account, and certainly produced the answer."

The engine developed a slight fault on Thursday morning, which delayed us till after lunch. We finally slipped at 2 o'clock, after the exchange of several signals with the C.-in-C., *Actaeon*, *Nereid* and others, and, with the engine going, beat down False Bay to Cape Point, which

we rounded at 8 o'clock in the evening, switching off the engine with relief.

Our first meal was dinner.

" Curry," wrote Peter. " I thought it poetic justice that the cook and *maitre d'hotel* were both seasick. For once I was in good order. . . . "

Perhaps John had thought we should all be sick, and thereafter never ask him for curry again.

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I would like to be able to write much about Cape Province ; the houses, gardens, pictures I saw, and the delightful and amusing people I met; but even if I could do justice to the subject, this account of *Boleh's* voyage is not the place for it. I will merely mention that, in spite of some lessons, I failed to learn Canasta, but learned to play High-Low, a new and intriguing form of poker, in one ; failed to see a cinema show, but had the " Harry Lime Theme " from " The Third Man " by heart before we sailed.

Cape Province is beautiful, a lot of very fine people live there, and a more magnificent view than that looking down the Drackenstein valley would be hard to find in Scotland or anywhere else. Thirty years ago it must have been a wonderful country for a young man to start life in. I would not care to live there now.

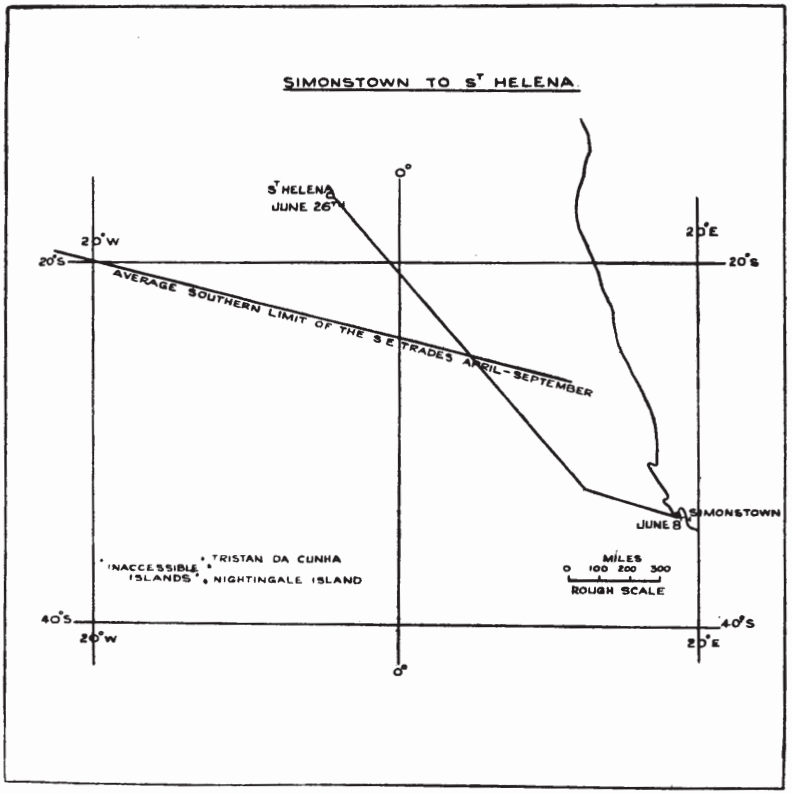
CHAPTER TWENTY-ONE

Northward Under Twin Genoas

Friday, 9th June. Position : 33° 48′ *S.*, 17° 19′ *E. Run :* 83. IT WAS tremendously good for morale to have got round the famous—or infamous—Cape Agulhas and Cape Point, and to be heading north intentionally for the first time in months. Bound for St. Helena, we dropped the powerful light of Cape promontory over the horizon before dawn, making an excellent offing to get clear of land influence on the weather. The night had been calm, but the wind came in my watch, 5 a.m. to 7 a.m., and we were soon crunching out a nice white bow wave, close-hauled to port, making 4 to 5 knots.

Our ambition was to push northwards as fast as possible, hoping to reach the trades, whose southerly limit is about 27°-28° S. at that time of year, before we were beset by a nor'-wester. Friday night was very cold, and we felt quite envious of the people in England with their heat-wave.

Saturday, 10th June. Position : 32° 30′ *S.*, 16° 22′ *E. Run :* 94. It began very calm and we had to use the engine. Then the wind came and we did well, close-hauled to port, making 4 to 5 knots.



"I have often said before," observed Peter, "that *Boleh's* weakest point is close-hauled with a short head sea, and it is so ; but given a decent breeze of force 3-4, such as we now have, she goes extremely well."

Albatross were still with us, also a tiny bird with black head and back and a small white waistcoat.

"Saw two seals behaving most oddly as we sailed by. It looks as if even seals must have their fun."

We now had plenty of fresh books and magazines, given us at Simonstown. We had also bought a couple of books of crossword puzzles, *Telegraph* and *Observer*.

"We did two *Telegraph* ones to-day. Either they were very easy or we're getting very good at them ! The *Observer* ones include 23 by Torquemada's successor—even with the answers, I can't understand half the clues. . . ."

Sunday, 11th June. Position : 30° 43′ *S.*, 15° 03′ *E. Run :* 124. The

wind freed during the night, so that we were very satisfied with our progress to the northward, which was also aided by a favourable current. Peter checked the compass for deviation, for the second time in its career.

" Still no error. Miraculous, considering that it is quite uncorrected and surrounded by engine."

He had bought 200 oranges in Simonstown for about twelve shillings and now wrote :

" There was some slight differences of opinion over the advisability of stowing such a quantity in addition to ship's stock bought by John, but I think everyone is now agreed that it was well worth it. First time I've been able to eat as many oranges as I wanted since Argentine days, 15 years ago. . . . "

Monday, 12th June. Position : 29° 25′ *S.*, 12° 55′ *E. Run :* 127. The wind was south to south-east all day, force 4 to 5, and we began to hope that we had already picked up the south-east trades. We felt we were very fortunate if we had, for it was unusual to find them so far south in June.

Peter had a busy morning working out average daily speed between Singapore and Simonstown, and made it 3.3 knots, which was very good, everything considered. The distance was 7,365 miles, and, by the time we had left Simonstown, we had spent 93 days at sea and 49 in harbour.

That evening it was noticed that the groove in the boom was being forced apart by the roping of the mainsail where it entered, thus beginning to split the wood. We lowered the mainsail for repairs to the boom, and boomed out the two Genoas to port and starboard. This was a great success. We were logging 6 knots with no strain on the gear and very little chafe anywhere ; and the ship steered herself, in spite of quite a sea rolling up astern and occasionally plopping a breaking crest on board.

Tuesday, 13th June. Position : 28° 07′ *S.*, 10° 37′ *E. Run :* 166. With four copper rivets, Jarve repaired the main boom, and it looked as good as new. John rewired the mast-head navigation light, which had been giving trouble.

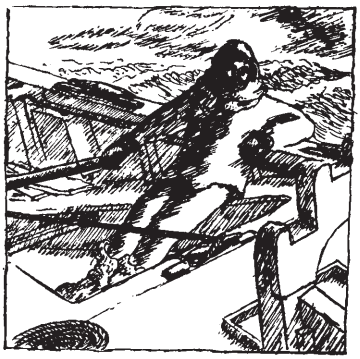
The wind was now a steady south-east, and we continued to reel off the knots.

" Nice on the upper when working, but chilly below," wrote Peter " and damned cold on watch at night. Am very pleased with my cold-and-wet weather gear : shirt, two small pull-overs, two heavy sweaters, pants, trousers, heavy sea-boot stockings, oilskin coat and trousers, and sou'-wester. Excellent. (I forgot my muffler, which is 10 feet long.) "

Wednesday, 14th June. Position : 26° 22′ *S.*, 08° 08′ *E. Run :* 161. With a steady south-east wind, force 5 to 6, we had been doing nearly

our maximum sustained speed for 48-hours. The rig, twin Genoas of about 300 square feet each, boomed out on bamboos 23 feet in length, was perfect under the conditions prevailing.

" No sign of any ships since the first day out," wrote Peter. " Quite extraordinary how empty we've found the ocean. Few ships call at St. Helena now, of course, so I suppose we are not on any direct shipping route. . . . Weather getting slowly warmer at last. Very pleasant sitting up in the sun during the afternoon watch—but still wearing three sweaters. . . . "

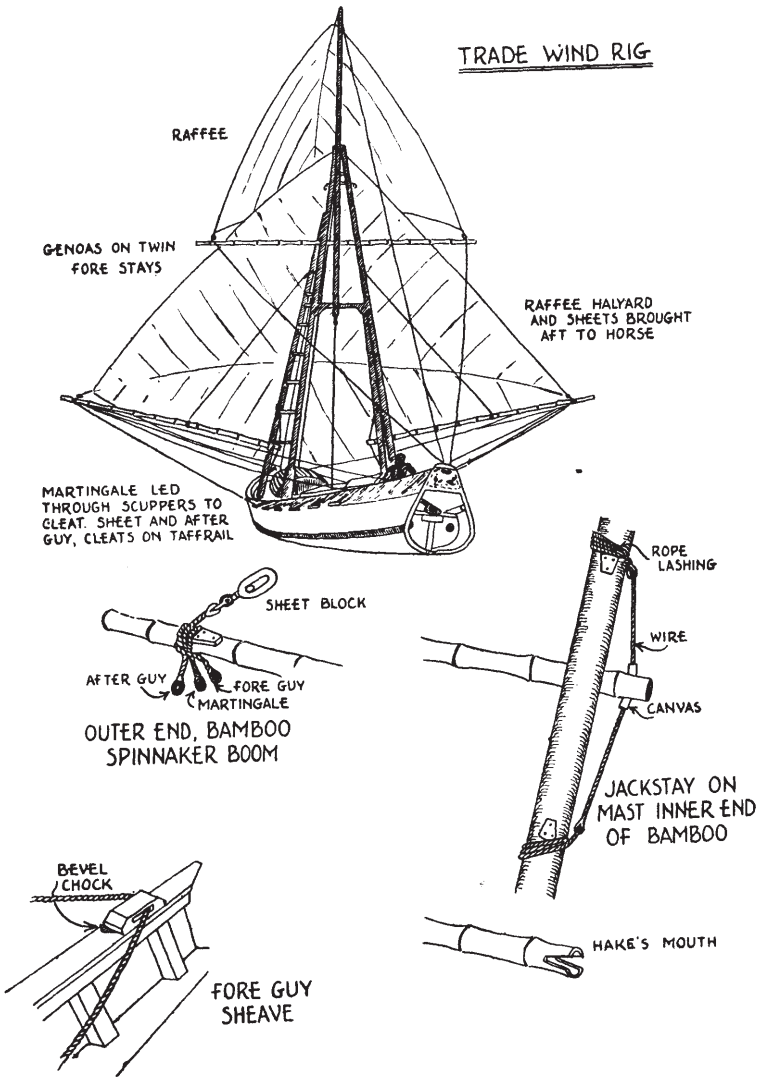


Thursday, 15th June. Position : 25° 15 *S.'* 5° 35' *E. Run :* 152. For a couple of days we had been considering the possibility of hoisting the small spinnaker (250 square feet) from the peak of the yard, above the foreside of the Genoas, so as to give *Boleh* a little more urge when the wind fell lighter.

That Thursday morning, when the wind force was 3 to 4, we gave it a try. First we rigged an 18-ft. yard or spreader through the mast athwartships about 8 ft. down. This was fitted with blocks at each end to lead the spinnaker sheets down to the stern. Then we secured a block to the top of the yard to take the halyard, which again was led aft to the horse for belaying. Next we sewed a downhaul made of silk parachute cord into the centre of the foot of the small spinnaker, hoisted and sheeted her—" and," wrote Peter, "she rides as full and steady as a matron's blouse ! "

The sketch indicates roughly what it looked like. We thought of various names for it : " skynnaker," " gadget supreme," " spinnaker royal," and " raffee," which last was probably the correct one.

" At any rate," decided Peter, " I bet no one has hoisted anything quite like it before, and another 250 odd square feet helps us along. Have a colour film in my camera and have been busy using it up. One Genoa is a reddish pink, the other white, and the spinnaker royal (home-made from cheap N.A.A.F.I. shirting material) a bright yellow."


TRADE WIND RIG
RAFFEE
GENOAS ON TWIN FORE STAYS
RAFFEE HALYARD AND SHEETS BROUGHT AFT TO HORSE
MARTINGALE LED THROUGH SCUPPERS TO CLEAT. SHEET AND AFTER GUY, CLEATS ON TAFFRAIL
SHEET BLOCK
AFTER GUY
FORE GUY
MARTINGALE
OUTER END, BAMBOO SPINNAKER BOOM
ROPE LASHING
WIRE
CANVAS
JACKSTAY ON MAST INNER END OF BAMBOO
HAKE'S MOUTH
BEVEL CHOCK
FORE GUY SHEAVE

While Peter and I were engaged on these affairs, Jarve mended the guard-rails, which had been badly knocked about in harbour. This was a relief ; with guard-rails secure, one has a greater feeling of confidence while moving about the upper, especially during the night. These rails ran through thick rubber hose-pipe of bore just sufficient to take the wire.

On this and subsequent days, John was at work on our rather complicated electrical wiring system. Besides testing it all through and repairing where necessary, he drew out a very professional looking wiring diagram for insertion in the ship's book.

Chang was seldom idle. Just then he was busy with the tea-pot—that unusually fine and capacious creation given to us by C.P.O. Williams. This had lost its handle, and Chang now converted it into a real Chinese pot, with a beautifully made canvas jacket fitting snugly round the lower portion, and the handle replaced by two pieces of wire, in Chinese fashion, which made it easy to pour without burning the fingers, and easy to stow by hanging up.

We were all in good spirits, better behaved and more tolerant of each other than we had sometimes been. Chang, too, was in much better form and very cheerful. Getting round Cape Agulhas had indeed been a fine tonic. Jarve mixed one of his special dynamite cocktails to christen the spinnaker royal—or raffee. And there was added cause for celebration, for we were not only half-way from Simonstown to St. Helena, but had also completed half the distance from Singapore to England.

We had done 479 miles in the last three days, which was really excellent going and gave promise of a quick trip to St. Helena.

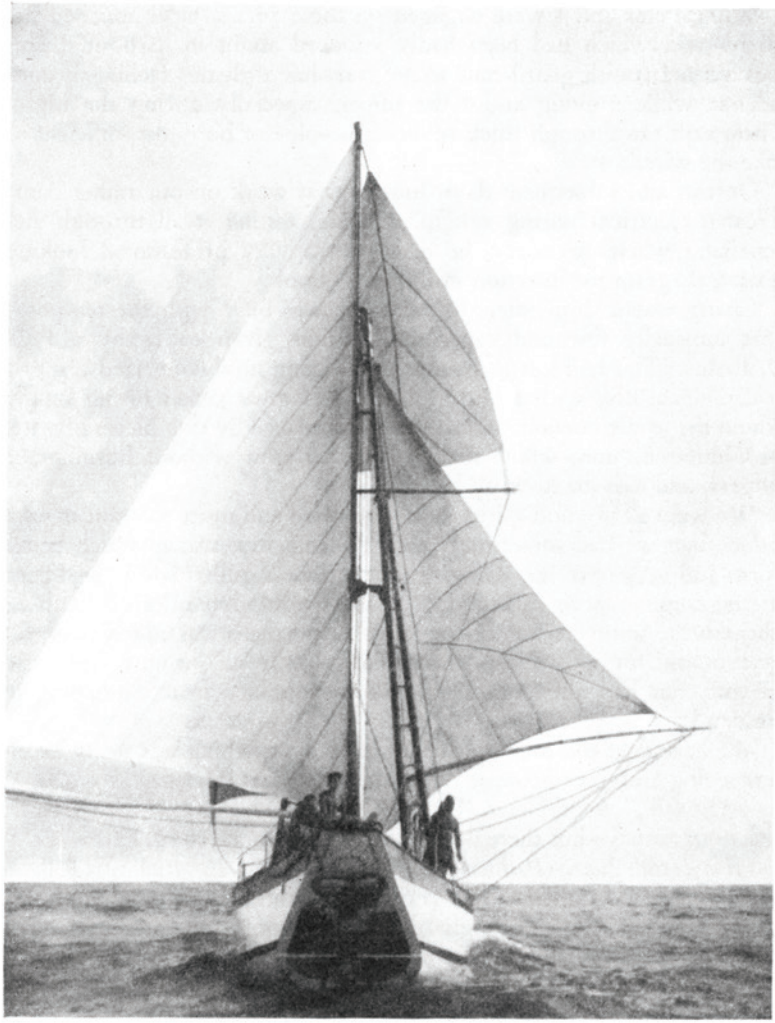
" The talk," wrote Peter, " is all of possible ways by which we could set more canvas—but there doesn't seem to be much room left."

Friday, 16th June. Position : 24° 18′ *S.*, 4° 14′ *E. Run :* 95. Peter wrote : " Wind rather, in fact very, disappointing after our high hopes of a really fast passage ; light during forenoon and later variable—tiresome with this rig—and lighter still.

" Much work going on. John dealing with mast-head light, which has developed one of those mysterious faults known only to electricians. It seems probable that the leads up the mast have been used as convenient " things " to hang other " things " on, and that they don't stand up well to this treatment.

" Jarve making a whisky ' save-all ' or container to hold the glass of the helmsman. Very often with the ship rolling, one's glass of gin or whisky, or one's cup of cocoa, spends its time chasing round the cockpit. There is now a magnificent container of sheet-brass to keep such important articles under control.

" Chang refitting the after rotary-pump, which recently got clogged with yellow paint from upset pot thereof.



TRADE WIND RIG

" Robin at the helm.

" Self spent forenoon varnishing blocks and sorting out rope, running gear and spares. All our bright work is getting very shoddy, and now seems a very good time to try to get things up to scratch. Nothing looks worse than weathered varnish.

" Slight panic later, when Chang reported No. 2 jib had been eaten by cockroaches. This was probably part of the same attack as that on our large spinnaker, but little impression has actually been made on the very heavy canvas of the jib. I've got a feeling that it all happened in Mauritius, where we put our sails aboard the tug next door for drying and storage.*

" Renewed the log this a.m. The old one has been three solid months in the water, so not surprising it looks a bit moth-eaten now.

" Filthy programme on the wireless this evening from a commercial station. It isn't until one hears foreign stations regularly that one appreciates how good the B.B.C. is.

" Discussion to-night on the evils of the present world. Decided that the only answer was to take all the scientists, put them in an atom bomb and explode it over the Kremlin. . . . "

Saturday, 17th June. Position : 23° 36′ *S.*, 3° 18′ *E. Run :* 65. Another disappointing day, with light variable winds becoming south-westerly. We pottered along till lunch time, hoping the south-east trades would return, then downed all sails and started up the engine.

Sunday, 18th June. Position : 22° 51′ *S.*, 2° 27′ *E. Run :* 60. We were becalmed, or very nearly so, and had to use the engine all day—and this in an area where the trade winds should have been firmly established. Our general feeling of frustration is reflected in Peter's diary :

> " All my varnish work has been rather wasted—most of it thoroughly stepped on or barged into. Very difficult to get this sort of thing properly done at sea, and worse in harbour. . . . The books we accumulated at Simonstown are rather a busted flush. I have never read such utter tripe as I have, in desperation, on this voyage. . . . "

Our jib sheets, which were of 2 in. mixed sisal and manilla, were proving troublesome, fouling everything else when coming about, so we replaced them by the jib halyards (1½ in. Italian hemp), using 1 in. Italian hemp for the jib halyards. We hoped this would be strong enough.

Monday, 19th June. Position : 22° 10′ *S.*, 1° 18′ *E. Run :* 77. " Wind still abominably light and variable ; motoring a good deal of the time and making poor progress. In addition, I have a mysterious skin complaint, which is dreadfully sore and making me feel very dull. It is a

* A nest of mice was discovered in the forepeak when we arrived at Salcombe. Chang purchased a mouse-trap ashore and, at breakfast the following morning, produced a small corpse for my inspection. He must have come aboard at Mauritius. Quite a journey for a mouse.

curse. I was just getting to the stage where I could cope with the prevention and cure of boils, but this is quite beyond me, having never seen anything like it before."

Poor Peter ! We tried treatment with penicillin ointment, and hoped a doctor would be available at St. Helena.

" Filthy night on watch—very light winds and drizzle. Under the odd rig, was quite unable to compete with the changes in wind direction, and when eventually all the sails were aback, I left them to sort themselves out. And they did, too. . . . "

Tuesday, 20th June. Position : 21° 31′ *S.*, 0° 12′ *E. Run :* 72. We thought in the morning that the trades might be doing their stuff again, but the wind died away during the afternoon and we had to depend on the engine once more. Of the 50 gallons of petrol we had embarked at Simonstown, only 15 were left—and we were still about 500 miles from St. Helena.

" Anyhow," said Peter, " we set out to sail from Singapore to England, not to motor ! "

There was, however, another side to it : the engine was also used to charge the batteries and, even when not needed for the " drive," had to be run for about an hour a day, both at sea and in port. Without petrol, we should be without electric light.

With light airs from unhelpful directions, differences of opinion are bound to arise over the best course to steer and the best sails to carry. So it was with us in the tiresome circumstances in which we now found ourselves. Peter was for suiting the sail carried to the weather and steering the right course ; I for keeping the existing rig and going as much as 45° off course, if necessary. Peter wrote at the time :

" Robin has fallen in love with the twin Genoa and raffee. This rig certainly has many advantages ; when running it is undoubtedly superior to any. If the wind is more or less aft, it will push her along very well, even in light or very light winds. It also has the advantage that you haven't a boom (and boom-guy) gybing around all over the place.

" Nevertheless, under present conditions, I favour the light loose-footed mainsail, with bamboo boom. It is a far more flexible rig ; in fact, one can do anything with it except run dead before the wind. I feel that in using the other rig, one is accepting all the disadvantages of the square sail rig, with only one of the advantages."

There was much to be said for both rigs, and our passage to St. Helena was probably helped or hindered as much by the one as by the other. But at the time—that is to say, after a considerable period at sea, when the days' runs have suddenly become very disappointing and it appears an urgent and vital matter to improve them—one is blinded to the sense of opposing arguments, which appear either wilfully contrary

or just plain stupid. Tempers rise, and only in the evening—after drinks and a good supper—can one hope for peace and reason to be restored.

One of our difficulties in the South Atlantic—and this persisted practically as far as the equator—was the curious dissimilarity of the sky to what one expects of a trade-wind sky. Those delightful little fine-weather

trade wind clouds, like flocks of woolly sheep, drifting steadily over were never seen two days together. Instead, we had cumulo-stratus, with a few gaps for the sun ; or completely leaden skies ; or great islands of stratus with lanes of blue beyond, streaked more often than not by cirrus or alto-cirrus. This, and the frequent variations in strength and direction of the wind, kept us in a constant state of uncertainty—whether, in fact, we were really in the trades and whether the sails hoisted at the time were likely to need trimming or shifting within the next 6 hours or less. Only for a very short period—4 days either side of Ascension—were we to hold a really steady wind ; and even then the clouds did not always by any means conform to the trade-wind pattern. All of which naturally tended to undermine confidence in any particular sail plan adopted.

Another peculiarity of the South Atlantic that we thought we detected —a peculiarity that helped to offset the unsteadiness of the wind—was the lesser tendency here for seas to become steep, awkward or breaking in a given strength of wind. South of Madagascar, or so it seemed to us, a force 5 wind would produce a considerable sea with steep sides and many breaking tops. In the South Atlantic the same strength of wind would produce longer, more even, and more gently sloping seas ; and though there might be plenty of " white horses " they would not affect any part of the wave except the top, seeming to get left behind on the back of the rollers rather than to curve over and fall forward down the faces of them. The number of occasions on which we noticed this apparent innocuousness of the wind (or sluggishness of the sea) made us

think that it could not be coincidental ; but of course there are so many factors affecting sea and swell which one can only guess at on the spot (i.e., length of time wind has been blowing and over what expanse of sea, also how much less strong or stronger it is blowing 20 miles further up-wind, and how many directions the old swell had before the new one began to make up), so many and varied factors, that comparison of exactly identical conditions is impossible—for amateurs like us, anyway.

Wednesday, 21st June. Position : 20° 55′ *S.*, 0° 45′ *W. Run :* 62. We had crossed the meridian of Greenwich. The wind was the same, and we had now practically run out of petrol.

" Must say," conceded Peter, " that the old thing is doing its stuff well, but I'm not sure that I would not just wait for wind. . . . My skin disease less painful, but not very nice. . . . No albatross to-day. Looks as if they left us exactly at the geographical limit of the tropics. . . . "

Has anyone yet solved the problem of how the albatross navigates ? Or, indeed, how any bird or flock of birds returns to a known locality beyond the horizon ? Any form of bird or animal version of Radar is out, of course. So, presumably, it must be a pure sense of direction : an ability always to turn directly towards home. But, in the case of the albatross, must he not also have a means of gauging his *distance* from that home ? If not, he must sometimes be faced with prodigious air journeys to reach it.

He lives and has his being in the air. The air, not earth or water, is his natural element, so one may suppose that he regards the air (as we the earth) as being still, and the land or sea as moving when the wind blows. " Sea moving very fast and making the air rather bumpy and unsteady," one may imagine him thinking when it blows a gale. The speed of all but fast liners being small compared to his gliding speed, ships, too, he most likely considers as human-inhabited, garbage-leaking rocks stopped in the sea. At least, the albatross's habit of landing ahead of *Boleh* and his indignant, surprised expression when overtaken and forced to move out of the way suggests this.

Suppose, then, that an albatross leaves his home in South Madagascar or Kerguelen for a planned sortie of, say, three weeks ; after two days he picks up a ship going west at 12 knots (to him, I infer, a human-inhabited, stopped rock), and stays with it during a period of strong gales from several different directions (to him, I say, sea streaming away one way or another faster than usual). How does he work out his time to turn for home ?

Even assuming that the albatross knows the ship to have movement, and that he can judge its speed and direction accurately (surely a fantastic proposition)—or, more possible but still difficult to believe, that he can somehow estimate the total relative movement of sea to air, and add

to this the vector of his travel through the air—a highly complicated navigational problem still remains.

No, the conclusion I came to after much pondering of the matter between 5 and 7 o'clock in the morning was either that the albatross knows all along the range and bearing of his base, or that those that follow ships for long periods must frequently be lost.

Another possibility I have just thought of: they might be very sensitive to temperature or to barometric pressure. Either of these would give them a direct guide to approximate latitude. But what of longitude?

However, I am told that Josh Slocum crossed many oceans with the assistance of an old alarm clock which he boiled in oil; so there really appear to be "more things in heaven and earth. . . ."

Thursday, 22nd June. Position: 19° 52′ *S.*, 1° 57′ *W. Run:* 92.

Friday, 23rd June. Position: 18° 44′ *S.*, 2° 57′ *W. Run:* 89.

Saturday, 24th June. Position: 17° 40′ *S.*, 4° 40′ *W. Run:* 90.

Sunday, 25th June. Position: 16° 41′ *S.*, 4° 45′ *W. Run:* 74.

Four very uneventful, but really plaseant days.

"Having told Robin at about 7 o'clock on Sunday morning that St. Helena was then about 90 miles away," wrote Peter, "he, an hour later, asked for the binoculars because he thought he could see an island."

We sighted St. Helena on Sunday afternoon, when there was a good breeze from the port quarter. We hoisted the loose-footed mainsail, with both Genoas also set and drawing.

When Peter took over from John at 2 o'clock on Monday morning, the island was about 8 miles away, and clear in the moonlight.

> "Sailed round the eastern coast. Very impressive at about 0500, when a large hill with vertical cliffs on the seaward side—called The Barn, and very aptly named—was towering into the sky above me."

CHAPTER TWENTY-TWO

St. Helena

Monday, 26th June. Run since noon, 25th: 76. AT 7.30 IN THE MORNING, we secured *Boleh* to a convenient buoy in the roadstead at Jamestown, the capital and seaport of this British island. We left the port spinnaker boom rigged and made the dinghy fast to the sheet outhaul—a good idea for keeping the dinghy clear when there is a slight swell, and winds and tides are light and variable.

From the sea, the island has a most forbidding appearance. There are tremendous cliffs of petrified lava, rising to 1,200 feet high and completely barren, with hardly any green to be seen except a few trees

in the town itself, which is pressed in at the bottom of the valley between two steep, stony hills.

"Doctor, police superintendent and harbour-master came off at about 0930," wrote Peter. "Very much nicer than being boarded immediately on arrival, when everything is quite chaotic and we are probably trying to have breakfast. . . . Engaged two boatmen to look after us. No. 1 is a very ingenious rogue and as black as your hat; No. 2, I think, deaf and dumb."

Superintendent Ogborne, a delightful west-countryman, had just come to St. Helena from the liaison unit working in conjunction with the Russian police in Berlin. He took me to "sign the book" and meet the Governor's staff in the picturesque old castle at the gates of the town, while, aboard *Boleh*, the doctor examined Peter, diagnosed ringworm and treated it accordingly.

The Colonial secretary, Cecil Rankin, discovered himself to have been in the same term as I at Osborne and Dartmouth, which gave us a good deal to talk about when John and I went to dine with him and his charming wife the same evening.

The only things we needed from St. Helena—beyond the usual supplies of provisions, petrol and water—were two bamboos and a signal from the Governor to his deputy in Ascension and to the Consuls at St. Vincent and the Azores, to acquaint them of our probable visit to these places. It pays to be expected and known about when arriving at a strange port. Rankin took on the latter commitment most efficaciously, while Supt. Ogborne arranged the other with the assistance of the forestry officer and the director of public works.

After a call at the very old-fashioned local pub, where we met another section of the small "ex-patriot" community—the population is, of course, all-British, so the 15 or 20 odd families coming from England have to be distinguished by this title—we all returned on board for a late lunch.

In the afternoon I went for a solitary walk up the hill above the town. I climbed some 1,500 ft. up and reached a patch of grass, shaded and sheltered by casuarina trees, where I lay in the sun for an hour enjoying the feel and smell of the land again, and its sights and sounds. What a good bed grass makes to rest on, and how pleasant it is to roll a ball of old red earth between the fingers!

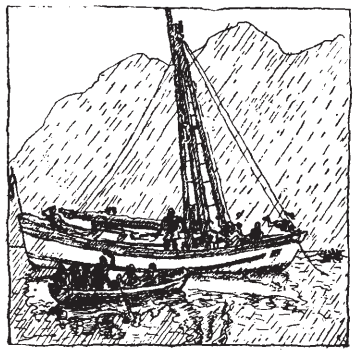
From this vantage point I looked down the narrow cleft in the hills on to the town and *Boleh*—just recognizable amongst the barges and boats moored in the bay; and then 'way across fifty miles of pale blue ocean to the horizon—beyond which we must travel on our way to Ascension.

Some labourers, working in a nearby plot of market-garden, came over to talk to me and to ask about *Boleh*—for they guessed at once who I was. It was a pleasant shock to find that English was their language.

They spoke slowly, with perhaps a slight accent or drawl, in rather old-fashioned phrases, and expressed a courteous interest in our voyage and what I could tell them of the places in the outer world that we had visited.

I got back on board just in time to change and go ashore again with John, to have dinner with the Rankins.

The next morning at 7 o'clock the local barber (also believed to be the local sheep-shearer) came aboard. I never discovered who made this arrangement, but as John was asleep and the other two still ashore, I submitted my head, though with pretty bad grace, to his scissors. It was a painful experience—the slight roll of the ship certainly did not serve to improve his clipper work—so, as soon as it was over, I got John up and saw him and Chang go through the same punishment.



We had several visitors on board during the forenoon, and experienced some difficulty in getting rid of them in time to dress for lunch with his Excellency the Governor, Sir George Joy. When they left, we had just 15 minutes to change and be ashore to meet the cars sent for us—a nearly impossible feat for four people in our small hot cabin, but we managed it somehow.

Lunch was a formal affair, but Sir George went out of his way to be pleasant to us ; and the rest of the company—mainly government officials—were very cheerful and friendly.

The house has a lovely setting amongst old trees, looking out across a stretch of lawn to the sea, 2,000 ft. below and some 6 miles away. There are lots of pictures, some good old furniture, chintz chair-covers, and a polished, creaking main staircase. We were amused at the brass plates on the guests' bedrooms : Admiral's, General's, and The *Baron's* room !

After lunch, and having been introduced to Jonathan, a tortoise, actually 200 years' old, who lives in the garden, we were driven round the island in his Excellency's car. We were in clouds and mist most of

the time, which was a pity, but perhaps it served to strengthen the curious impression one got of driving along an English country lane—cool grey light, green pastures, cows, hedges with occasional trees growing out of them, chickens running across the road, and mud. It was quite difficult to convince ourselves that this was the same " barren " island we had seen from the sea, and to realize that on the charts it is a mere dot in the South Atlantic, almost a thousand miles from anywhere.

We were taken to see Longwood, the house where Napoleon lived in exile until his death. We were shown round by one of the gardeners, who " had all the answers." The house is eaten away by white ants (they say that a shipwreck brought this pest to the island), and is practically falling down. We understood, however, that the French Government to whom the property was presented, have now voted a considerable sum for its renovation, which is soon to be commenced.

An odd feature of the little garden, the only part of the establishment at present showing signs of care in its upkeep, is its sunken paths, like trenches or uncovered air-raid shelters, which were made " so that Napoleon could walk in the gardens without being overlooked by the English soldiers." The motif of his hat appears frequently in the surrounding objects ; flower-beds, fish-pond, summer-house and chimney-pots all suggest the well-known shape.

During our short stay in the island, we found the St. Helenians to be uniformly quiet, good-mannered people, if a little languid—a word of which they themselves make frequent use : " Not tired, but languid, doctor." They are an extraordinary mixture of races—Dutch, Portuguese, English, Chinese, Malay, Javanese, African. One of the tolls paid by ships in the old days was one Javanese slave every time they called for water or other supplies. Many more slaves were brought there by the British East India Company, but slavery was abolished when the island became the property of the British Crown. In the South African war, Boer prisoners were interned there, and in the second world war, when the Mediterranean was closed to us, it became a port of call for ships bound for India and the Far East.

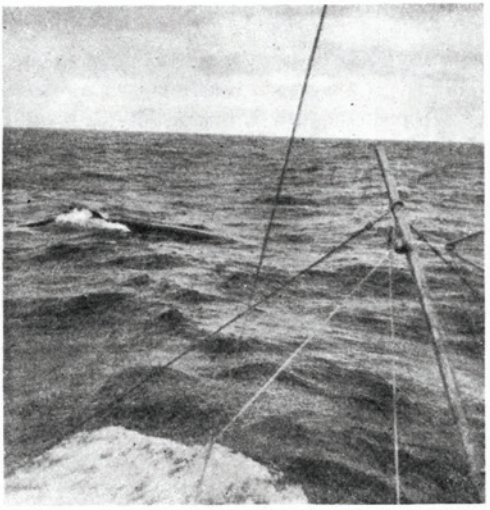
The population is about 4,000 of whom 1,700 are under sixteen, and the main difficulty they face to-day is unemployment. The sole industry appears to be the production of hemp. Farming is only on a small scale.

I should add that a distinctly unpuritanical attitude towards sexual matters is general. The women are passionate, and girls under 16 are carefully excluded from organized dances. Nevertheless—or perhaps we should say consequently—they make the most devoted wives, and many of the troops of the war-time garrison took their St. Helenian brides back to England with them.

" Must mention the Fixed Red Light on the pier," wrote Peter. " This is the only navigational light in the island, and on the chart it looks quite impressive. In fact, it consists of an ordinary old-fashioned

SOUTH-EAST TRADES,
PETER AT THE HELM

CHANG FISHING



THE WHALE

street-lamp with a red pane facing seawards and an oil hurricane lamp inside. It must be visible for at least 100 yards."

We left on Wednesday, the 28th. In the morning several guests, a troop of boy scouts, provisions, half a sheep, a couple of live cockerels, water, petrol, two huge bamboos, and the Governor with his entourage all came off to *Boleh*—and in that order. We managed to get rid of the boy scouts just in time, and hid the sheep under the fore-hatch as his Excellency stepped aboard. Chang made tea for our guests. I had beer. It was my birthday.

CHAPTER TWENTY-THREE

A Short Leg to Ascension

WE SLIPPED AT 2 O'CLOCK IN THE AFTERNOON AND GOT AWAY WITH Genoas and raffee set, with the wind on the starboard quarter. Soon we were blanketed by the island and light airs came from many directions, so we had to hoist the loose-footed mainsail. We hoped to find the south-east trades before very long. Ascension was 700 miles away—quite a short leg, for a change.

Thursday, 29th June. Position : 15° 27′ *S.*, 6° 21′ *W. Run :* 47.

Friday, 30th June. Position : 14° 02′ *S.*, 7° 48′ *W. Run :* 120.

After a very bad start, with the wind still light and variable and ourselves "not tired, but languid," by Friday the weather had much improved and it really looked as if we were in the south-east trades at last ; there were the nice puffy fracto-cumulus clouds that one associates with monsoons and trades.

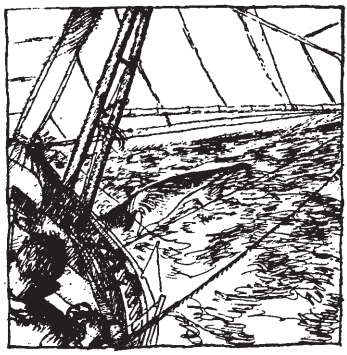
The sheep was providing us with some excellent meals. John had the two cockerels cooped in a wooden box forward on deck.

"Fine birds," wrote Peter, "but, my goodness, how stupid they are —and dirty ! John is nobly looking after them himself, which is more than I would."

Saturday, 1st July. Position : 12° 28′ *S.*, 9° 35′ *W. Run :* 142. With the wind south-east and force 5 or better, we were rolling heavily, but making splendid going under the Genoas and the raffee. In the morning we had a most interesting, if somewhat alarming, encounter with a whale. This is Peter's description :

> "Think it may have been a blue whale. It appeared to be playing with us—or inviting us to join in a game. It kept shooting past, first on one side, then on the other, and doing a sort of 'victory roll' under the bows. As he was 50 ft. long and probably weighed 30 tons, we hoped he would not get too intimate. At times he was literally, and not exaggerating, 10 ft. off the ship's side. After a couple of hours of this, during which John got, we hope, some good pictures,

he must have thought we were rather dull, for he went off in search of something better—perhaps a girl friend—leaving us to enjoy our pre-lunch gin in peace. He could have given us a very heavy if not dangerous clout if he'd felt like it.



" Later. Am assured that 10 ft. *is* an exaggeration. They say 3 ft. no more."

Sunday, 2nd July. Position : 10° 34′ *S.*, 11° 10′ *W. Run :* 152.

Monday, 3rd July. Position : 8° 52′ *S.*, 13° 02′ *W. Run :* 151.

The wind was behaving splendidly, exactly as we had optimistically imagined it would all the way from 30° S. to the equator.

The first cockerel had already been killed and eaten. On Monday its fellow went the same way.

" I don't think they are worth the trouble," wrote Peter. " A tin of chicken is very little more expensive, just as good to eat, and far less trouble and dirt, ugh."

I strongly concur !

Tuesday, 4th July. Position : Ascension. Run : 106. We had hoped to sight Ascension at extreme range at sunset on Monday, but the weather was too cloudy and we did not pick up the island until 1 a.m., when it was about fifteen miles away. By 5 a.m. we had come up to Georgetown, on the north-west coast, and secured in darkness to a mooring-buoy a few hundred yards from the pier. While doing this we lost our log through failing to get it in in shallow water—yet one more reason for a check-off list for preparing for sea or arriving in harbour !

At 7.30 we received a call from Mr. C. Windsor, the port captain, who is also chief provisioner for the island. He presented us with our bill of health, gave us " *pratique* by proxy " for the doctor, and informed us of all the arrangements that had been made, or could be made, for our stay, which was to be until the following Saturday. We were all invited to live ashore, and we all went—even Chang. John stayed with Mr. and Mrs. Williams, Jarve with Mr. and Mrs. Goatley, and Peter with Mr. and Mrs. Cox. I was the guest of Mr. H. L. N. Ascough and his wife. He is manager of Cable & Wireless Ltd., who lease the island from Great Britain. Everywhere we were treated by all with the greatest friendliness and consideration. As Peter wrote :

> " Nothing was too much trouble. More and more, and especially in small places, one is struck by the enormous kindness people show to visiting yachts : the smaller the place, the greater the hospitality. . . . Everyone in Ascension really has been splendid. I think I have enjoyed my stay here more than anywhere. The Coxes couldn't have been nicer, and the others all have the same impression of their hosts, and indeed of everyone on the island."

At the Ascough house, I enjoyed the very best of hospitality—that is, I was allowed to do exactly as I liked and when I liked, within the framework of the household routine. Company, conversation, the radio, drinks—all were always available, but not compulsory, and in the cool of the evening, my host was ready with his car to take me wherever I wished.

We arrived between steamers, which, at Ascension, means that everyone is busy with mail. So Mrs. Ascough wrote letters every morning, whilst I got ahead with this book. At 12 o'clock we would compare progress over a gin-and-tonic. After lunch, a short rest—then to writing again until 6 o'clock.

While engaged on this unaccustomed literary work, I complained to Chang that I was smoking too much.

" Smoke all same strong sleep," said Chang. " Wanchee much work head, mustee smoke. China man smoke opium can plenty write, make money plenty easy. Plenty easy, money go."

Peter has an excellent account of our stay at Ascension. Below is an extract :

"Before going on with the story of our doings, a word about this unique island. It is more or less circular, with a diameter of about 7 miles ; all cinders, sand and lava, and, except for the top of a hill known as Green Mountain, quite barren. Reputed to be an almost perfect example of a volcanic island (I quite believe it ! —there are 29 cones of extinct volcanoes, and the rivers of clinker or lava which flowed from the craters when they were active are beyond imagination). It is one of that great chain which appears to run through the Atlantic from Azores to Tristan da Cunha. Parts of the island are covered very sparsely with a dreary brown grass, apparently due to an exceptional fall of rain they had some two

months ago. Lovely coloured sea all round, but unfortunately no good for bathing because of sharks and very dangerous swell.

" The place was originally settled by the Marines, and later commissioned as H.M.S. *Ascension*. Its first use was as a naval base for ships working on the anti-slavery patrols and also (I believe) guarding Napoleon at St. Helena.

" The achievements of the Marines over the period are almost incredible. The mountain is 2,800 ft. high and very steep. At the peak there is a small green patch and here they built a farm. No nonsense about wooden sheds—great solid cow-byres, pig-sties, a farm-house, three or four other houses including a hospital, water catchment (with aquaduct in tunnel right through the top of the mountain), etc., etc., all in good solid stone and very much resembling the old barracks at home. The stone for all this and for the road had to be quarried and carried somehow up this hill. Then, at Georgetown itself, there are all the garrison buildings, complete with church, club, houses, cottages, and water supply in pipes from Green Mountain. The three forts at Georgetown are straight out of P.C. Wren and would, I believe, still laugh at a direct hit from a 15-inch shell.

" In the club they have hanging on the wall several enormous turtle-shells on which are painted the names of the island's commanding officers, and later of the managers of the E.T.C.* They appear to have struck a bad patch about 1850, because, after four names in succession, are the words " Died," or " Invalided," and after the fifth, " Removed ! " I wonder what happened to *him* ?

" The road up the hill is, for about 1,500 ft., a series of hairpin bends round which even a jeep only just makes it in one. All built by the Marines, with the help of some Kroomen imported about 100 years ago. Apparently each ship that came from England brought some variety of plant which was replanted on Green Mountain. Now each Manager of C. & W., continuing the tradition, has to plant a new tree, shrub or flower before he leaves the island.

" The Marines eventually left, and the ship, H.M.S. *Ascension*, paid off in 1922. The E.T.C., who had, of course, been there some years already and had made the island an important junction for their cables, now lease the island. They have carried on many of the naval traditions : they have " leading hands " instead of foremen, a " leading hands' mess," the stewards make up " bunks," not beds, etc., etc. !

" The six cables—Rio, Buenos Aires, St. Vincent (2), Cape and Freetown—all land at a place called (very rightly, and more of this later) Comfortless Cove, thence by land wire to the station at Georgetown. I was shown round the station, but being extraordinarily stupid at anything electrical, could not understand a thing. It seemed very clever and highly efficient. The staff now consists of about 30 British (20 wives—not staff), and about 150 St. Helena men, who come on a two-year contract, but stay longer if they can. Before the re-transmission and monitoring of messages was made practically automatic, the staff was very much larger, so there is no housing problem.

" After the hand-over in 1922, the next thing that hit the island, which certainly must have caused more stir than anything since the original eruption, was the advent of 1,500 Americans to build an airstrip. This was early in 1942, when American planes were being ferried over to the North African campaign, and

* Eastern Telegraph Company, now part of Cable & Wireless Ltd.

farther east, as fast as possible. Some types were unable to make very long hops, and Asencion was chosen for an intermediate landing place.

" Building an airstrip in 90 days does not sound much in these modern times, but if you could see what they had to transform in the way of raw material—a valley and hillside of lava—you would begin to appreciate the difficulties they had to face. But first the men, the machines and the thousands of tons of building materials had to be landed over one small stone pier, equipped only with a 20-ton and a 1½-ton crane. A heavy ground swell prevents anything but rowing boats lying alongside. Then they had to build a road and a camp to live in, and finally the airstrip with all its appurtenances. It was a tremendous achievement, which, we were glad to learn, made all the difference to the North African campaign.

" To go back to where we started : at lunch time we went to the club and met everybody. Thence to the mess for lunch, where I was foolish enough to talk about golf. So, at 4.30, went off with a nice chap called Welbourne for nine holes ! What a course ! Most enterprising of the islanders, and no doubt good for their health, but very, very bad for my morale. The greens are sand, and although quite true, tremendously slow. Fairways are sand and clinker, every shot like playing out of a heavy bunker.

" Wednesday we decided to paint out the cabin of the yacht, and this took up most of the day. We did not actually finish till Thursday. The original painting was hurriedly and badly done at Singapore. Quite a job getting two good new coats on, as we first had to clear out the cabin, then wash, sand-paper and clean off drips of paint, etc. It's a great improvement, now. Quite professional.

" Thursday we went to lunch with Surgeon-Captain and Mrs. Perkins, a very nice couple. He retired from the Navy in 1933, and since then has been island M.O. Went on leave once, but did not like it a bit ! At tea time the Coxes drove me to Comfortless Cove. It is at the edge of a great stream of black lava, a tiny little sandy beach, but the only place in the island where one can swim. About 100 yards inland is a cemetery. I should think, without any exaggeration, *the* bleakest in the world ! In 1838, a ship, H.M.S. *Bonito*, had yellow fever on board, and they landed ten of the victims at this cove to die. Food was sent to them daily from Georgetown—placed nearby for them to collect. As each one died, the others buried him, and the last dug his own grave and lay down in it. One or two of the graves are almost as they were then, a small pile of dirty sand, earth and clinker, since marked with an oak head-board. The whole atmosphere

of the place is quite awful—using the word in its right sense ; I have never been anywhere so dreadful.

" We were the guests of the mess for dinner, very pleasant and not too frightfully late. Subjects of conversation, amongst others, former days in the island, yacht design, habits of turtles and wide-awakes (a bird which comes to the island in thousands every nine months to nest, but has not been seen to nest anywhere else).

" On Friday, Jarve and I drove up to Green Mountain with Williamson, who looks after the maintenance of the island—roads, water supply, farm, tree-planting, control of labour, etc. He is an excellent jeep driver, and managed the whole climb without backing once at corners. This, I believe, is considered quite an achievement. The top part of Green Mountain is the antithesis of Comfortless Cove—green grass, trees and civilization, cows, pigs, vegetable gardens.

" Right at the top of the mountain, in a thick grove of bamboos, is a little pond called the " Dew pond "—quite lovely, with a water-lily, goldfish and frogs complete. There is also a " wishing chain," strongly recommended, though no one knew its history. We all wished. Then a walk round the summit clear of the bamboos. The S.E. side of the island is naturally much greener than the other, and good pasture for the sheep and cows extends down about 1,500 ft. Funnily enough, the sheep are reputed to do better on the sparse brown grass down in the clinker. There are 700 sheep on the island.

" Arrived back at Georgetown at 7.20. Quite the loveliest evening I have had during the whole trip. Cocktail party in the mess—very well managed in spite of the fact that everyone *sat*."

I feel I must just add to Peter's one or two of my own notes about our visit to this oddly fascinating place, which has a total population of about 170. First, a conversation between Ascough and Williamson, both of whom have done more than one tour of duty on the island, and came to it originally, I believe, during or just after the last war but one. We had been lunching at Ascough's hill bungalow, and listening to tales of the old days when there were no cars or jeeps. There were then 25 bachelors on the staff ; and walking, climbing and shooting parties at week-ends, followed by real old-fashioned eating and drinking, afforded the normal relaxation from duty.

After lunch, we walked round the top of the mountain by the same route as already described by Peter. When we came out from the bamboo grove on to the other side of the mountain, with its wide view over steep slopes covered with guava shrubs to the barren southern cliffs and the sea, Ascough pointed out a small bay below, which, he explained, was called Dead Man's Cove and, turning to Williamson, said:

" There used to be the remains of a wreck on the rocks there and a cross marking a grave, I think—but I haven't been there for some time. Have you been down there lately, Williamson ? "

" No, not very recently," said Williamson, quite seriously, and without a change of expression. " It was about seventeen years ago, I think, when I was there last."

Peter has described the barren and forbidding appearance of the island, and indeed it is so. Nevertheless, I believe that many an artist—and not necessarily one with a Dali* complex for fantastic deserts—would find inspiration in its primitive landscape and its rocky colouring, which ranges from black to yellow and red against the ultra-marine sea and pale violet sky. Some of the hills are a rich strawberry colour. Nor would a writer in search of a theme find the island's history by any means lacking in novelty or interest ; and a better headquarters for a writer or painter in search of peace in which to work than one of the bungalows " up the hill " would be hard to find.

But, in case anyone should take this suggestion seriously, a word of warning. The Company and its manager and staff are jealous of the rights, privacy, peace and happiness of their island ; idle or tiresome visitors are not encouraged. So it would be well, before planning to go there, to make sure that you are acceptable to both. The manager is king of the island and if he does not like your looks or habits he will kick you out—or, more probably, not let you land at all.

We were told that the island is a comparatively new one. 50,000 years, I believe, was mentioned as the expert's guess. How old, I wonder, are the trade-winds ? It was evident from the shape of the many volcanic cones that, during the island's formation, the trade-wind blew the mud, dust and cinders in exactly the same direction, as to-day it streams the flag of cloud from the peak away to the north-western horizon.

CHAPTER TWENTY-FOUR

Across the Equator

Saturday, 8th July. Run : 10. WHEN we left Ascension at 10 a.m., we were watered and stored for one call on the way to Salcombe, but had not yet decided whether this should be the Cape Verde Islands or the Azores. In addition to our normal water supplies, we now took on another 45 gallons, which were stowed in a drum on deck.

Mr. Ascough and other friends came out to see us away. The wind was dead off the land, so, with a slip rope, we secured stern to the buoy, then, at the word " go," hoisted

* Salvador Dali, Spanish Surrealist.

both jibs boomed out, ran up the raffee—and were away to a fine start. We should have liked to see it from ashore.

The sky was blue, there were good strong trades—and we hoped to stick to them for some time to come.

Sunday, 9th July. Position : 5° 57′ *S.*, 16° 30′ *W. Run :* 157. At 10 o'clock in the morning, we did our 10,000th mile since leaving Singapore, with 5,000 still to go to England. This last 5,000 promised to be easier than our first 5,000, although we should have some tricky spots—the doldrums and the Azores " high "* to deal with.

Monday, 10th July. Position : 4° 35′ *S.*, 18° 07′ *W. Run :* 129. We were still going nicely, but the wind was showing signs of slackening and the sky was not encouraging.

We got on to our last ocean chart and could now see our rough track stretching to Salcombe. When we had left Port Elizabeth, Peter had worked out our E.T.A. at Salcombe to be the 12th September. We wondered how correct this would be.

On that day, taking advantage of what, from the general weather signs, looked like being the last of our fine weather that side of the doldrums, we varnished the masts. John and Peter took on this not very easy or pleasant task, with the ship rolling and the varnish trying to spill itself all over the place. We felt, however, that it was well worth the effort.

> " Tremendous improvement. . . . The only snag is that if one gets involved in the big jobs, routine bo'suning goes adrift. Some of our shackles are red with rust and horrify me. Galvanized shackles are a must—especially on a long trip like this."

We were now able once again to take our evening tot on deck. This one small social occasion of ours had not been possible for some time past and we welcomed its return.

Tuesday, 11th July. Position : 2° 52′ *S.*, 20° 02′ *W. Run :* 147. Peter put this position down with some trepidation. " It's about 50 miles ahead of D.R. Very odd. The only explanation is the Benguela current. Unfortunately we have no current-maps for this part of the world, so am working rather in the dark of my very hazy memory."

A great school of porpoises was around us in the afternoon, jumping high out of the water and landing with a splash, presumably trying to clean themselves. There were other fish, but all seemed too big to catch with Jarve's gear ; they either parted the line or bent or broke the hook.

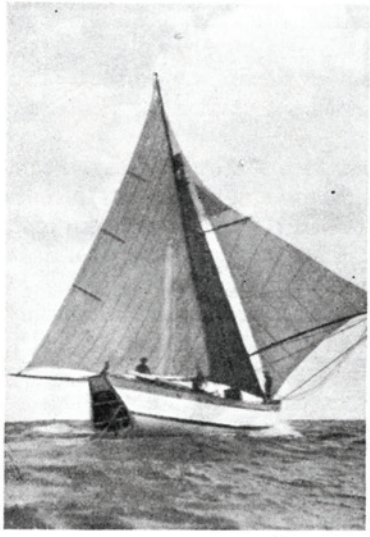
Wednesday, 12th July. Position : 1° 14′ *S.*, 21° 15′ *W. Run :* 126. " Well, yesterday's position seems to have been right after all. No one more surprised than the navigator ! Another 30 miles or so of set to-day.

" Still very busy with crosswords. Spent most of my waking hours

* The anti-cyclone that, in summer, centres near those islands.

CROSSING THE LINE

BETWEEN ASCENSION AND



CAPE VERDE ISLANDS

THE AUTHOR AT WORK

struggling with a particularly difficult *Times*. Even took it up on watch at night to work on by torch-light."

Thursday, 13th July. Position : 0° 42′ *N.*, 22° 00′ *W. Run :* 120. We had an amusing morning photographing *Boleh* with everything up. We launched the dinghy, and first John and then Peter went in it armed with cameras, towing 50 to 100 yards astern. They took altogether about 30 photographs, so we hoped we should get some good ones.

" She looked grand," wrote Peter, " with loose-footed mainsail, both Genoas and the raffee hoisted, and most of them drawing well. . . . We happened also to have been crossing the equator during this performance so both John and I reckon that we've now hailed Neptune from an 8 ft. 6 in. dinghy 450 miles from the nearest land (St. Paul's Rocks, only 60 ft. high), and 650 miles from the nearest proper land. Makes quite a good yarn to tell the Yanks, anyway."

Jarve and I had a bet. I gave him 5 to 1 against our averaging 100 miles a day from the equator to Salcombe. The odds were acknowledged to be generous, but for Jarve to win, we should need a lucky run through the doldrums and the Azores " high." I should have been delighted to lose the bet.

Friday, 14th July. Position : 2° 40′ *N.*, 23° 05′ *W. Run :* 119. The south-east trades had been shy to start with, but they were being very kind to us now, with a splendid breeze of force 5. This proved too much for the raffee ; the port sheet parted and we had to hand it.

" John and I," wrote Peter, " made slight alterations to our folding bunks, to make the outboard edges easier on the hips and shoulders—a thing we've been meaning to do for months. Gave it a trial, and results are extremely satisfactory. Woke up at a quarter to twelve, just in time for lunch."

Saturday, 15th July. Position : 4° 30′ *N.*, 23° 30′ *W. Run :* 134. At 10 a.m. we were a week out from Ascension, with 945 miles on the clock*. This was very good going. Most of the last 2,700 miles had been done under twin Genoas and the raffee, but now the wind was failing and it was growing noticeably hotter.

" I look," wrote Peter, " with mixed feelings of doubt, hope and loathing at the ' drive,' which I fear will have to work for its living again very shortly."

John and Chang measured the water in the main tank and found that we had used less than 20 gallons in the last week which was very satisfactory.

Sunday, 16th July. Position : 6° 12′ *N.*, 23° 22′ *W. Run :* 97. " Busy morning," wrote Peter. " John and I continue ' internal decorating.' Jarve caulking the deck fore side of cockpit. After lunch Robin, despite

* The clock-face of the patent log, which is driven by a brass rotator towing astern all the time. The figures recorded are seldom the same as those measured between astronomical fixes.

warnings, insisted on painting the port side of the cockpit. This was obviously too much for Neptune or Boreas or whoever the head man may be for the weather in this area. Within an hour it poured with rain, and the nice S.E. trade that we had managed to carry this far has disappeared—I fear for good. At 1700 had to get the ' drive ' and engine going, which meant walking on what the rain had left of Robin's paint. The mess ! "

Just after the rain there was great excitement when we sighted a ship—the first, apart from those sighted when coasting between Port Elizabeth and Cape Town, since 28th February. This one, a tanker, which we saw through thin sheets of grey rain against a yellow western sky, was bound north-east and we were about on her beam, so she very likely did not sight us. " Curious, though," remarked Peter, " how even so small an incident as the sighting of a ship livens up the day."

Chang opened a tin of South African bacon. It looked and tasted exactly like fresh rashers of bacon. We were at a loss to understand why, if it can be done, all tinned bacon should not be equally good. we also had some South African tinned butter that tasted like fresh butter.

At 11.45 a gentle breeze came up from the west. Peter, who was on watch, hoisted the jib, and at midnight he and I unfurled the mainsail and stopped the engine. Within a quarter of an hour we could see an inky black line of cloud converging in a sort of wide triangle with its apex to windward of us. Five minutes later, the wind was blowing at gale force from the north-west. We noticed how much more quickly this squall travelled than any we had met in the doldrums near Seychelles.

When the squall had gone by, the wind backed and we held our course for the rest of the night.

Monday, 17th July. Position : 7° 50 *N.,'* 23°22' *W. Run :* 108. It was becoming apparent that six months' pretty continuous use was begin ning to tell on some of the running rigging. In the morning we had to renew the topping lift for the loose-footed mainsail, which had parted for the third time. The block was unsuitable and the 1 in. hemp no longer reliable. We put in a new block and replaced the hemp by 1½ in. sisal. In the afternoon the outhaul of the loose-footer parted. It had had to take the whole weight of the wind in the sail, but it was 1½ in. Italian hemp, and this was the first time this stuff had parted. Peter wrote with truth in his diary :

> " It is frightfully important to keep your spare rope dry. Being bulky stuff to stow, it is liable to get pushed into odd corners, forgotten and very soon spoilt "

When the outhaul went, we brailed up the loose-footer and were soon going well again under twin Genoas, the wind being surprisingly steady and well on the quarter.

Chang amused us that evening. A week or two previously he had

made a measure for our drinks by sticking a piece of plaster round a small gin glass. Nothing had been said, but he must have gathered that we preferred the earlier arrangement, for although he still used the same marked glass, he now paid no attention to the plaster, but filled the glass nearly to the brim.

Tuesday, 18th July. Position : 9° 46′ *N.*, 22° 50′ *W. Run :* 108. Exactly six months out from Singapore. " Quite a long time," wrote Peter, " and that life seems far away. On the other hand, the time has not dragged in the slightest. I find it has absolutely flown."

The engine was working hard again. There were very slight signs of a north-easterly breeze, but this did not greatly please us, for we did not want to meet the north-east trades just yet ; we were too far to leeward to make the Azores easily. Whether we went to St. Vincent or not was immaterial, except that we were almost out of fresh vegetables, even onions.

Wednesday, 19th July. Position : 10° 28′ *N.*, 22° 56′ *W. Run :* 54. The day's run was very poor, but we had to expect it in that area.

When we ran the engine at night, my bunk became too hot and noisy for comfort, so I usually made a bed of one of the jibs on the fo'c'sle. On this night and the next, the sea was very clear and phosphorescent, and we were visited at about 2 o'clock in the morning on both nights by a school of porpoises, which gave a magnificent display all round the ship. We could only just see their shadowy forms shooting under the ship, but their tracks were like the fiery tail of a comet or the shower of sparks from a crazy rocket. It is astonishing how such heavy beasts can twist and turn, dive deep or leap clean out of the water. On Wednesday night—after the engine had broken down with magneto trouble, Chang and I lay on deck and watched them for a long while, as the ship lay stopped, just rolling gently. There was no sound, except the grunting and blowing of the porpoises as they surfaced.

Thursday, 20th July. Position : 11° 22′ *N.*, 23° 06′ *W. Run :* 54. We were still in the doldrums. Jarve mended the motor.

Peter had been reading *The Kon-Tiki Expedition.*

" Very well written and most amusing, but what a mad craft ! People have laughed at some of the few unorthodox features in *Boleh's* design, but. . . . ! "

Friday, 21st July. Position : 12° 00 *N.*,′ 23° 28′ *W. Run :* 42. The wind, which was N.-N.N.E., could not have been more wakward, for it was coming from exactly where we wanted to go. There was also a small choppy sea, under which conditions *Boleh* is never at her best.

In the morning we passed close to *Peru*, a Swedish M.V., looking very clean and smart.

" We exchanged waves," wrote Peter. " No glamour ! "

When she had gone by, we hoisted the working mainsail instead of the loose-footer, which had now so much bag in it that the foot was 7

feet away from the bamboo boom at the farthest point, even when close-hauled.

That afternoon the wind came round to N.N.W., then fell light. We tacked, and started the engine. On this and the ensuing two or three days, head winds made our tactical problem—to select the safest, most pleasant and quickest sailing route to England—rather acute, and Peter and I did not see eye to eye as to how to tackle it.

As I have mentioned, we needed to make only one call on the way to Salcombe. The choice was between St. Vincent (Cape Verde) and the Azores. Either, or both, these landfalls might, however, be difficult to make ; St. Vincent because we might not be sufficiently to windward when we picked up the trades, if we met them south of the island ; and the Azores because they lie rather off the best sailing track home and would probably be, at this time of the year, on the edge of an area of calms and very light variable winds—the Azores " high."

We were now within 250 miles of St. Vincent and on a reasonably good bearing, assuming N.E. winds, but we were beset by light N. by E., N. and N.W. winds.

Peter wanted to set off full and by on the starboard tack, pick up the N.E. trades proper in due course (as we were bound to do), and make a wide sweep to the Azores. This plan would immediately have resolved our present difficulties and left us with a perfectly straightforward problem, for the present at any rate : to make the best course for the Azores.

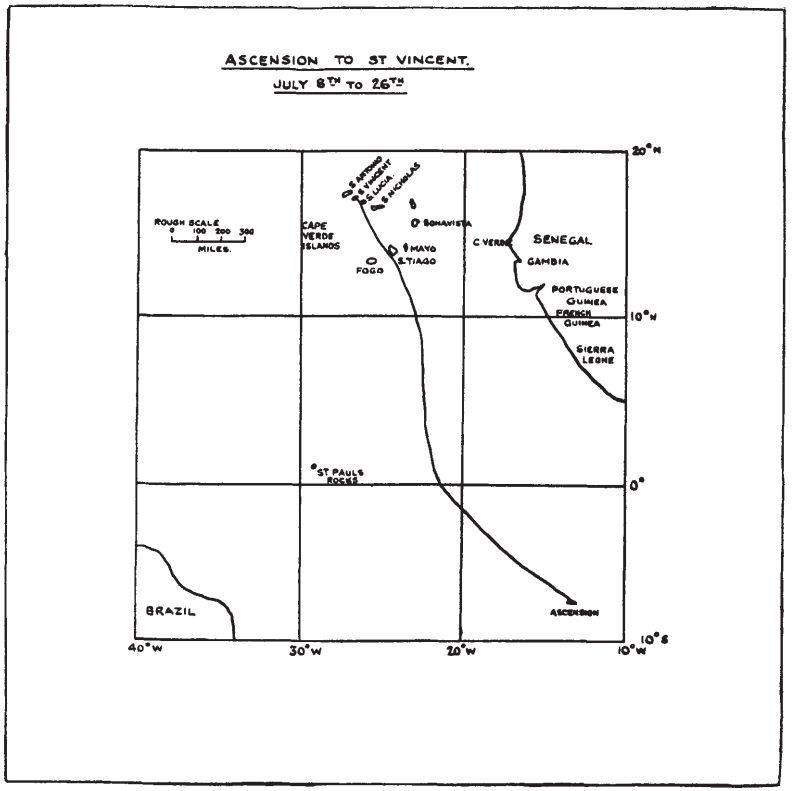
I, on the other hand, felt that a bird nearly in the hand was worth several in a very distant bush. Two or three extra days spent making St. Vincent would, I thought, buy cheaply the confidence with which we could then set course for England, with stores and water enough to make any further port of call unnecessary.

This major difference of opinion on the planning of the voyage was the more difficult in that, by the time I discovered it, the divergence of view was already too wide to admit of calm discussion ; and in a small boats anything other than complete, or apparently by complete, agreement between skipper and navigator is to be discouraged !

So poor Peter had to suffer in silence whilst his carefully laid sailing plan was spoiled by my over-riding and unsatisfactorily explained or justified decision to reach St. Vincent, if we could.

Saturday, 22nd July. Position : 12° 52′ N., 23° 48′ W. Run : 60. There was an added reason why we should call at St. Vincent : the engine was using up far too much lubricating oil, and we wanted to find out why and, if necessary, have it adjusted.

" Personally," wrote Peter, " I think we would do better to forget the engine, which has just about been flogged to death, anyway, and sail home. . . . Afraid I am rather unfair to the actual engine ; it is not that but the ' drive ' that makes most of the noise and all the trouble.



The engine made very angry noises at me last night. I de-clutched in a panic, thinking that they were the first indications of incipient break-down. However, all appears to be well ; it's merely a ' thing ' in the bottom of the ' drive,' which, I understand, is all right really. How the engine stands up to the running it gets, I don't know ! It's been going continuously (except for half an hour's rest I gave it) for the last 36 hours. . . . "

Poor old " drive " ! What a flow of bad language has been directed at its bronze and steel innards ! Yet it had done more to help us than I ever thought it would. Besides getting us in and out of several harbours, it had taken us through at least 300 miles of calms, and on one stretch—from Agulhas to Simonstown—had probably saved us two days or more.

I am every bit as allergic as Peter to engines and their inseparable accompaniments—noise, smell, and, with a fixed propeller, drag. That was why I devised the outboard " drive," originally intended only for use in getting in and out of harbour and in emergency.

GEORGE JARVIS

But Jarvis had different ideas about it. He wanted to be able to do at least 200 miles on any one leg under power only, and naturally favoured an orthodox straight drive out through the hull, with sailing-clutch or feathering propeller. When, however, I stated my intention of trying out the removable gadget, he loyally supported me and put in many long hours of hard and dirty work curing its many ailments. Our experience certainly showed that, if you elect to voyage through areas where calms occur, and you have an engine, you will want to use it. If it works, it will save you some time and distance (perhaps not a very considerable amount) and, at all events, you will not be stationary for hours or days together.

If you are in a hurry to get somewhere, therefore, or if you have not the temperament to abide calms gladly (which I would like to have, but haven't), a heavy, reliable, fool-proof, orthodox engine and fixed propeller, giving a speed of at least 5 knots, with minimum noise and smell, is indicated.

If you are an enthusiast for sail and a philosopher, with time on your hands to boot, have a petrol-driven electric-lighting set, use or oil-lamps and candles.

Being keen on sail, but no philosopher, I attempted a compromise—"The drive." Perhaps, due to Jarvis' enthusiasm for making fast passages, it was asked to do too much ; but after all, he was the man who mended it.

Saturday was a horrid, muggy day. The sun in the morning and evening was very pale, and actually invisible when still 10° above the horizon. I put this down to sand in the atmosphere, which was later confirmed ; it comes over from the Sahara.

We gave the engine—and ourselves—a rest between 7 and 8 o'clock in the evening, and were practically stopped. A huge school of porpoises joined us, as well as several sharks. Peter wrote :

> "We got much satisfaction out of jabbing the latter with sharp bamboos as they nosed up under the stern, which made them most angry. We had always believed that sharks and porpoises did not consort together, and that therefore with porpoises about it would be quite safe to bathe. How very wrong! Here they seemed to be on more intimate terms."

Sunday, 23rd July. Position : 14° 06½′ *N.*, 23° 34′ *W. Run :* 75. A breeze got up from the north-westward in the night, and at last we did a little sailing, with the nearest Cape Verde island 60 miles north of us. But the wind veered to north during the day, so we made little progress. At. 10 p.m., the "drive" broke down, making, as Peter put it, "very expensive noises."

Monday, 24th July. São Thiago (*Santiago*). *Run :* 62. We picked up this the largest island of the group at dawn.

"Had a most satisfactory piece of navigation after breakfast," wrote

Peter. " Sight at 8.15, then land fix of three points on the island. Allowing the run between fixes, the four lines cut on a pencil point. Taking sights as I do, day after day, hundreds of miles from land (only sun, too lazy for stars), one often wonders if in fact one is really where one says one is. A check like this morning's is very good for morale."

We were practically becalmed all day and, without the engine, on which Jarve was busily working, we moved very slowly up the coast of the island towards the little port of Tarrafa on the north-west tip.

Although very much bigger and higher (5,000 ft.), São Thiago reminded us of Ascension, except that, not having had the Marines in command for a hundred years it is considerably less cultivated. Save round one little village, we saw not a patch of green ; all was bare, with " glaciers " of lava stretching down from the volcanoes to the sea.

After two trials, the " drive " was still making strange noises. Jarve took it down again and eventually found that, from hard use, the bottom horizontal shaft was badly worn, allowing too much play in the gear-wheels, and that a roller-bearing needed replacement. In the evening he took a rest from his struggles with ball-races, thrust-collars, bushes and bevel gears, the first whisky was served, and peace prevailed.

Sitting on deck, we watched the bull-nosed porpoises and their families and the tunny jumping.

" Porpoise, tunny, shark, and unidentified fish somewhat like bream," wrote Peter, " all present again this evening. The porpoises are great fun to watch—when not on the go, so grandmotherly ! "

Thrown into high relief by the setting sun were the great cliffs and gloomy ravines of São Thiago.

Suddenly, high above the horizon in a yellow patch of sky close to the sun, appeared, between two cloud-banks, the faint but clear outline of a majestic volcanic cone—a wash of palest blue over the gold. It was the island of Fogo, 9,400 ft., and about 35 miles away.

John and I were reminded of Fujiyama. Seen like this, and the effect perhaps heightened by long familiarity with a perfectly horizontal horizon, Fogo was no less impressive than the eternal inspiration of Japanese artists. Yet who has heard of Fogo ?

Peter and I were straightaway making plans to return this way some time, explore the island and climb the mountain. It rises from sea-level to 9,000 ft. in about 4 miles, and, unlike its neighbours, must have luxuriant tropic vegetation.

We agreed that, if you go cruising in out-of-the-way places in a small yacht, time and money should be equally at your disposal ; otherwise, you are only tantalized by the places you see, but cannot explore, and the people you meet, but have not time to know.

It was quite difficult to persuade Chang that what he saw through the binoculars really was a " more bigger one island."

Tuesday, 25th July. Position : 15° 25′ *N.*, 23° 56′ *W. Run :* 33.

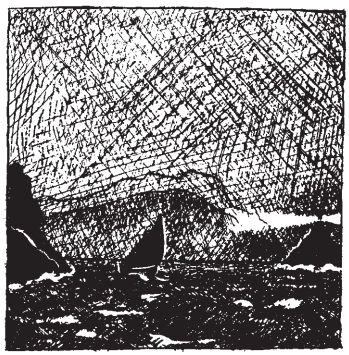
There was hardly a breath of wind all night, yet the sea was so calm that we were able to keep going. When we were within 5 miles of Taffara, I called a conference to decide whether we should stop there or adhere to our original plan of going on to St. Vincent. After some discussion, our choice was St. Vincent, where there would be no language and currency difficulties, and where we were far more likely to get the " drive " put right. Besides this, we were expected at St. Vincent and could not afford the time to call at both places. Our decision was further strengthened by a fair wind that piped up just then—the first for many days.

Wednesday, 26th July. Position: 16° 37′ *N.*, 24° 46′ *W. Run:* 87. The wind backed at midnight and was almost dead ahead, but it improved later and we were able to work up to Foul Channel, between St. Vincent and the next island. We took this route in order to avoid being blanketed by the whole bulk of St. Vincent, but almost came to regret the choice. Peter wrote :

> " Foul Channel *was* foul. There is only some 10-12 fathoms in the middle of it, and several hundred fathoms each side. It cooks up some wicked tides, anyway. At one time we were being swept strongly towards the beach—an occasion when a reliable engine really is wanted."

We reached St. Vincent (Sao Vicente to the Portuguese) and anchored off Porto Grande at 10.20 p.m. A very efficient port official came out to us in a small launch. He told us where to anchor, that the port doctor would be on board at 6 a.m. (which we took with a pinch of salt), and to be careful of thieves.

This was a most satisfactory arrival in every way : entering by moonlight, silent under sail ; jet black cliffs to port, and away to starboard the sharp, conical island carrying the lighthouse, with surf breaking heavily on its rocky cliffs ; the lights of the port and of ships at anchor suddenly discovered as we turned the corner ; the calm after



running before a fresh wind and following sea. All this served to create a romantic atmosphere.

We just fetched through the line of ships—real sailing-ships : inter-island traders, graceful schooners, heavier-built ketches and cutters. As John let go, Peter took the halyard off the cleat, and the mainsail dropped quietly on deck. . . . Sounds of music ashore. . . . Dogs barking. . . . A voice from a boat lying off. " Evening, Cap'n, want a boatman ? " . . . Silence. . . . One suddenly realized, staggering a bit, that the ship was quite still—no movement to balance against. . . .

We cleared up, then went below for a final whisky before turning in. In view of the warning about thieves, I slept on deck, but nevertheless we had a bucket pinched.

CHAPTER TWENTY-FIVE

Portuguese St. Vincent, Cape Verde

i

THE GLAMOROUS EFFECT OF ST. VINCENT WAS NOT, ALAS, WELL SUSTAINED in daylight, yet we enjoyed our two days' stay there. On Thursday morning, we found we were an hour and a half ahead of local time, so we had finished breakfast long before the doctor and police arrived.

When we had been given *pratique*, Jarve and I took various parts of the " drive " ashore to the workshops of Messrs. Wilson, Sons & Co. Ltd., shipping agents and engineers, where we arranged with Mr. D. MacDougall, the firm's engineer, to make a new bottom shaft and generally refit the contrivance.

Peter stayed aboard to overhaul the standing and running rigging. " Peak halyard still in very good shape after 3 months' use. Main halyard awfully rusty on the winch and just above it where spray comes over, but quite all right after cleaning and greasing. Replaced starboard jib halyard, which had had its day. Running and standing rigging now appears pretty good ; one or two small jobs to be done in the Azores area, then we shall have her ready for the North Atlantic."

In the evening we attended an excellent party given for us by Mr. Wyndham, the British Consul, and met the British community. Afterwards Peter and I dined with Mr. Johnson, chief of Cable & Wireless, while John and Jarve enjoyed themselves with some of the younger members of the community.

Next morning, Friday, I engaged a couple of divers to clean off all the grass and other growth accumulated on the hull since we had left Ascension—a considerable crop in three weeks. There was keen competition for the job. The island is terribly poor, with work only for

about 2,000 of the 30,000 inhabitants. There is no water, nothing is grown, and there are no local industries. St. Vincent depends for its existence on the British firms that bunker ships, and on Cable & Wireless, the staff of which is a fraction of what it used to be. Mr. Longley, the chief's first assistant, lives alone in a mess designed for twenty or more bachelors. The number of ships calling there—largely Argentine beef ships—is also falling off.

"Mrs. MacDougall told me," wrote Peter, "that they pay their servants 30s. a month, and don't feed them! The Portuguese only pay £1."

Further pieces of the "drive" were taken ashore for rebushing and the whole thing, with bearing replaced and a new shaft in bronze, was then reassembled and judged to be in better order than ever before. Wilsons were extraordinarily kind and helpful. All the work was done at cost price and, in addition, Mr. MacDougall made their launch available for us whenever we wanted it, day or night.

When Mr. MacDougall visited us, he and Chang got on extremely well together, having both been in the Silver Line—Chang as cook, the other as chief engineer. He made more of an impression on Chang, we believed, than any visitor since the Admiral at Simonstown.

Nearly half the British community (which is only 35) came off that morning to have a look at *Boleh*. John made an expedition over to *Hyreania* (Captain Robertson), a tanker of the Baltic Trading Company, and returned with details of the Salcombe tides and a case of tinned beer. Peter wrote of other ships in the port:

> "It is unusual to come across commercial sailing-ships at all these days, and here there were quite a number—fishing, trading, and passenger vessels. Cutters, 20-30 tons, very workmanlike and quite well kept. Some larger schooners of 100-200 tons, one of which had very nice lines reminiscent of the Banks schooners.
>
> "I stood on the pier and watched the bum-boats landing some of the cargo from these schooners. Very mixed bag: bananas, barrels, furniture, animals, etc. One bum-boat had a pig and a goat aboard, and the lifting of these the 10 feet up to the pier was worth a guinea a minute to watch. The pig was roped with a clove-hitch round his belly and did not like it. He was extremely vocal. In fact, he voiced his displeasure in no uncertain terms and the usual crowd collected—two or three people actually handling rope or pig, and fifty others telling them what to do. As good as a show at the Palladium any day! Wish I had had my camera."

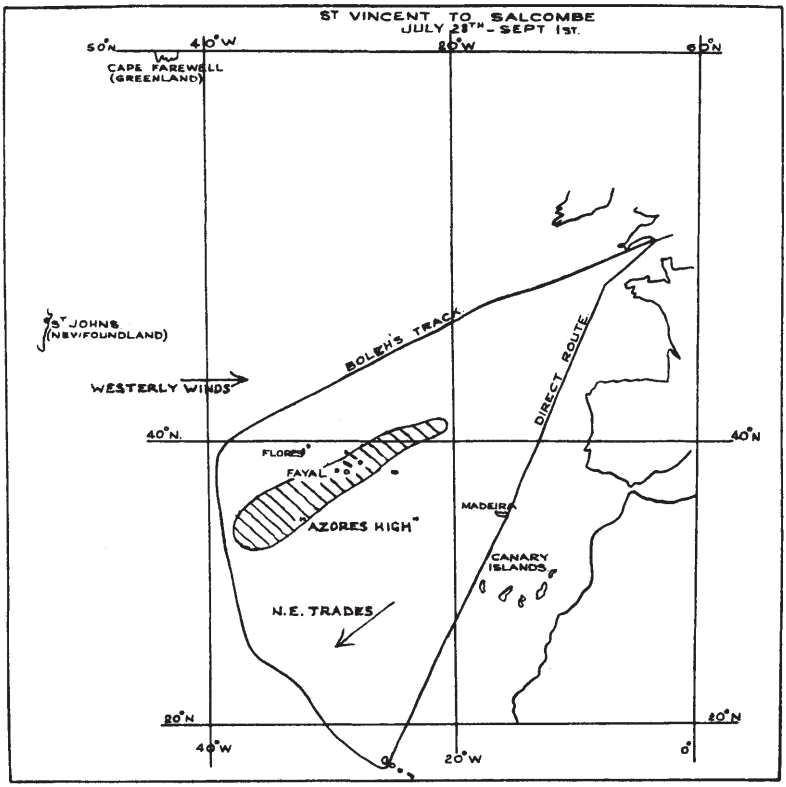
We sailed at 6 p.m., swishing out of harbour with a fine breeze astern. But it only lasted a couple of hours, after which, when we had got in lee of the mountainous island opposite St. Vincent, it became very fluky and inconstant, and remained so till about 3.30 on Saturday morning, when we picked up a good northerly breeze that rapidly took us clear of the islands.

ii

Saturday, 29th July. Position: 17° 01′ *N.*, 26° 05′ *W. Run:* 67. We were now off on what proved to be the last long leg of the voyage. We did not, of course, know this at the time and still hoped to call at Corvo or Flores, the most westerly islands of the Azores group, but, as previously explained, we were not now in any way tied to calling there, and our track from St. Vincent until we reached the latitude of the westerlies of the North Atlantic would depend on the winds we met on the way.

We had first to cross the main current of the north-east trades, here some 800 miles wide, in which we could expect fairly constant winds of strength 3 to 6, varying in direction only between N.N.E. and E.N.E. These we had decided to take a good full and by—in fact, nearly on the beam.

It would not pay us to attempt to shorten the distance to England by



sailing closer to the wind. To hold a course of north, for instance, even if we had been able to do so, would merely increase the probable extent of the patch of calms and variables, which we should have to cross after losing the north-east trades, as well as increasing the distance to be covered to reach the westerly winds, which sweep up in a wide curve from the American and Newfoundland coasts to England and Northern Europe, passing to the northward of the Azores.

A track of 325° true was what we aimed at in passing through the north-east trades ; direction always to be sacrificed, if necessary, to speed. In the variables we should curve northwards. If, in so doing, the Azores came within striking distance, we would call at the most convenient ; if not, Salcombe would be our next port.

On the trip from Ascension to St. Vincent (1,765 miles), our average speed had been 4 knots, and the daily mileage 96. Since crossing the equator, on the 14th, our daily average had been 78.7 miles, so, for Jarve to win his bet with me, we should have to be extremely lucky in getting a quick passage through the area of calms.

Sunday, 30th July. Position : 18° 10′ *N.*, 27° 27′ *W. Run :* 107. The wind was steady at north-east by north, and we hoped that the north-east trades would be more reliable than the south-east trades had been at first. The sun was nearly overhead at noon, so our navigator got our position by a series of shots a couple of minutes either side of noon. During that period, the sun went through north to west, giving the chance of a thoroughly reliable fix from the sun in about five minutes.

Monday, 31st July. Position : 19° 25° *N.*, 28° 55′ *W. Run :* 112 We were sailing full and by, making 312° true, with weather that reminded us of that fine passage from Sabang to Colombo. If the wind were to veer a point or two, it would have been ideal.

Tuesday, 1st August. Position : 20° 57′ *N.*, 31° 03′ *W. Run :* 151. At last we could say : " Due at Salcombe next month." It had been a fine 24 hours' run. The wind had been north of north-east most of the time, so we could not make as much to the northward as we should have liked, but we had no cause to grumble—except that we were bouncing about quite a lot and a number of small leaks overhead were becoming rather a nuisance.

" The skylights in the cabin roof," wrote Peter, " are absolutely excellent for letting in light and air, but unfortunately, they are just as good at letting in water. The only way to keep them all tight is to take the hinges off and screw them down."

Wednesday, 2nd August. Position : 22° 51′ *N.*, 33° 07′ *W. Run :* 161. Two minor disasters slightly marred a grand day's run : Chang's famous teapot jumped off the stove, lost its spout, and was reluctantly ditched ; and one of our three remaining " Thermos " flasks also got broken.

Thursday, 3rd August. Position : 24° 25′ *N.*, 34° 28′ *W. Run :* 122.

There was a chill in the air at night, but the days were lovely—clear blue skies, with pleasant, soft trade-wind clouds, and very refreshing.

" The experts," wrote Peter, " are very busy working out our E.T.A. at Salcombe, and are fairly convinced that we shall arrive this month. I think they are very optimistic. . . . We seem to be in a bad spot for wireless reception. Very difficult to get the B.B.C., and we missed the excellent crime serial we have been following—' Love at Leighton Buzzard.' "

Friday, 4th August. Position : 25° 57′ N., 35° 19′ W. Run : 100. There was a big forenoon programme of work on the upper : cleaning, washing, scraping and sand-papering in preparation for painting and varnishing. If the weather held for the next fortnight, we ought to see a transformation in *Boleh's* appearance—on the upper deck, anyway.

" Weather also very good for morale," wrote Peter. " All very cheerful. I dropped one of the teak legs used to support *Boleh* when beached (8 ft. by 6 in. by 4 in.) on my little finger and was only bad tempered for ten minutes. But if the weather were always like this, I suppose the ocean would become like Brighton beach."

With all this work in progress, it became difficult for me to find a suitable spot in which to lie in the sun after lunch and—in theory, at any rate—write this book. When we were in the south-east trades with the twin-Genoa rig up, I used to take the mattress from my bunk and fix it, according to the sun, either right aft across the high transom, where it made a most excellent bed, with sufficient dip in the middle to prevent me falling overboard, if by any chance, I dozed off for a moment ; or in the eyes of the ship, forward of the forestays, where it bent easily over the bow-board in the form of a most comfortable arm-chair, in which, however, it was advisable to remain awake.

In this latter position, the back of the arm-chair was supported by the two forestays ; ahead there was nothing but sea, sun and sky. I felt no wind because of the Genoas and the mattress at my back. It was as though I were being propelled across the wide ocean in a bath-chair—a delightful if somewhat odd sensation ! My legs hung down over the bows and, if we were travelling fast, spray from the bow wave tickled the soles of my feet.

Nowadays, I dared not take the mattress up on deck, for fear of messing up someone's paint or varnish work.

" We had four whiskies to-night," wrote Peter, " which I believe is

a record. Robin says it's a good job there's no land in sight, and observes that there is no excuse whatever for such heavy drinking. . . . John says the reason for the exceptional amount of ' encouragement ' doled out to-night is that Monday, August 7th, being Bank Holiday—which means all the types at home are now busy packing up for an even longer week-end than usual—Robin, to the contrary, has plotted for us a harder day's work than ever. The whole thing is obviously a bribe. . . . "

Saturday, 5th August. Position : 27° 40′ *N.*, 35° 42′ *W. Run :* 98. Much work on the upper.

Sunday, 6th August. Position : 29° 26′ *N.*, 36° 04′ *W. Run :* 113. The north-east trades were doing their best to make up for all the others that had not come up to expectations, giving us 4¾ knots in the direction in which we wanted to go.

" Very busy morning painting and varnishing. Also Jarve and John shifted the radio from under the chart-table to the after end of the swing-table. Reception seems to be far better, and the charts can now be restowed in their proper place. The only fear is that the radio may, in rough weather, get a knee or a sea in a vulnerable part of its anatomy. . . . Excellent supper based on macaroni and washed down with some red ' infuriator ' we bought at St. Vincent. Not a vintage wine, perhaps, but. . . . "

CHAPTER TWENTY-SIX

The Horse Latitudes

Monday, 7th August. Position : 30° 53′ *N.*, 37° 05′ *W. Run :* 98.
Tuesday, 8th August. Position : 31° 57′ *N.*, 37° 51′ *W. Run :* 72.
Wednesday, 9th August. Position : 32° 45′ *N.*, 39° 12′ *W. Run :* 85.

During these days of perfect summer weather, but light winds, tremendous activity was shown by all hands in an effort to smarten up the ship and repair the damage done by wind and sea-water to our upper works, paint and varnish.

John and Peter, working starboard and port side respectively, were specially keen competitors. The amount of sand-paper, varnish and paint consumed soon became alarming, in spite of the very large stock we had laid in. Rationing had to be introduced, and the number of coats of varnish allowed on each part of the bright work strictly laid down. All this work was, of course, inspired by the desire to look our best on arrival at Salcombe, with which event our thoughts were now beginning to be much occupied. When all the excitement of arrival was over, we might wish ourselves back again in those sunny, gently rolling seas.

Thursday, 10th August. Position : 34° 04′ *N.*, 39° 40′ *W. Run :* 82. We were still plodding slowly north-westward in wonderful weather, and had now reached the theoretical south-west corner of the Azores

" high," a position from which we hoped to swing round to the north-east and turn our noses definitely towards home. It would be interesting to see if the wind now veered and became southerly or westerly.

We were on the very eastern edge of the Sargasso Sea.

" It is surprising, at this distance from the centre," wrote Peter, " how much weed there is about. No fish, except an occasional flying-fish and the small shoal of tiddlers which has been sheltering under the hull for several days ; no birds to be seen. . . . "

Friday, 11th August. Position : 34° 54′ *N.*, 39° 35′ *W. Run :* 51. To-day the sea suddenly became very full, if not of fish, at least of many varied and extraordinary forms of oceanic life. Unfortunately, none of us knew anything of marine biology, so we could not identify the creatures, and they take such queer, fantastic forms that it is impossible to find words to describe them.

We had half a dozen small yellow fish, about 8 in. long, living under the hull. They nipped out from cover every time we passed a patch of weed and inspected it for food, presumably any tiny fish or shrimps that might be living in it—then back like a flash under the counter. We were getting quite fond of them—all, that is, except Chang, who tried to secure one for supper, fortunately without success.

" This afternoon," wrote Peter, " we saw five terrific jumping fish, one of them white, one yellowish, and the others black or dark grey. . . . They breathe, and very loudly, so must be mammals of a sort. They made a noise like an 8-inch projectile when they hit the sea. . . . "

Besides patches of the peculiar Sargasso seaweed, the water was full of plankton and fish spawn of many shapes, sizes and colouring ; countless multitudes of transparent cell-like objects, generally circular, cylindrical or disc-shaped, drifting at various depths in the clear water.

These and other forms of diminutive life, one would much like to observe and identify under a magnifying-glass or microscope. There are white, eel-shaped objects that divide and become two independent beings ; tiny worms that fly ; water-spiders and water-fleas that appear to dive ; shrimps that climb up on the seaweed ; swimming crabs ; and a thing that looks like a minute cross between a crayfish and a moth. It is about an inch long, flaps its wings (?) in the air, uses them as paddles on the water and as fins for swimming under the surface.

Then there are the Portuguese men-of-war. They are 4 to 6 inches long, with a blimp-like body surmounted by a high serrated fin or sail, which is picked out in pink and purple markings. They are practically transparent and look, as they float past, like a fine piece of Venetian blown glass. We saw many thousands of them ; the first just after rounding Cape Agulhas and the last, I think, on the 9th August,

when we got clear of the north-east trades proper. Near the Cape, they were very undeveloped as regards sail-spread and colouring, and seemed to be at their biggest and brightest on the southern side of the north-east trades, a day or two out from St. Vincent.

Pondering on the reproductive necessity of these Portuguese men-of-war, John and I produced two opposing theories. John said that they sail day and night to remain approximately in the same geographical position throughout their life cycle. I said that they start their lives somewhere near the equator as swimming fish of a kind, use the Gulf Stream—and its opposite number in the South Atlantic—to reach the area from which the north-east and south-east trades blow, then, shedding fins and tails, set sail on the happy voyage to meet their mates near the equator, where the fastest-sailing males have the pick of the most brilliant females !

Though we felt the lack of a book to tell us about all these curiosities, I suppose that, had we had one, we should have lost some of the pleasure we got out of theorizing about them.

Very much at first hand, I was able to verify a story from the *Kon-Tiki* book—that of the flying squid that landed on the roof of their cabin. I thought this sounded slightly tall until three of these pink-winged octopuses or octopods flushed from a bow wave and came over the ship with the wind, narrowly missing me at the helm. One of them, retained in proof of the occurrence, landed in the cockpit and was subsequently used for bait. How, and under what compulsion, did these very un-airworthy-looking organisms learn to fly ?

But that was some days earlier, in the N.E. Trades. Now it was so calm that we got the dinghy into the water during the dog-watches, and Jarve and I touched up the ship's sides. Some clouds appeared to be forming up in the west ; they might mean a westerly breeze.

Later that evening, the ship lying still on the calm sea " as idle as a painted ship upon a painted ocean," we much enjoyed taking trips in the dinghy to observe *Boleh* from a distance and watching for the " green flash " as the great orb of the sun sank below the rim of the horizon.

Coming back aboard for our drinks before supper, John remarked on the queer insecure feeling one had out there in the vastness of the ocean, despite its calm and harmless aspect, and how the ship, after all those months, had come to have for us a very real home-like feeling.

We felt almost as we imagined the small fish that had adopted the shadow of *Boleh's* hull as protection must feel when they returned to her from their short excursions to inspect the patches of Sargasso weed drifting by. We wondered what would happen to our shoal of friendly fish when we entered the colder, more boisterous waters of the westerlies of the North Atlantic.

Saturday, 12th August. Position : 35° 28′ *N.*, 39° 41′ *W. Run :* 35.

Sunday, 13th August. Position : 36° 10′ *N.*, 39° 54′ *W. Run :* 45.

Only 80 miles in two days, which was not advancing us very far or fast towards England. The westerly wind had not yet materialized.

COMPLETE PEACE

The barometer was still very high. Until it fell, we could expect this weather to continue. Presumably, it was part of the Azores "high," rather further west and north than it should be. We supposed that we were now in the horse latitudes, that belt of calms at the northern edge of the north-east trades.

"I should like to have the time and money to spare," wrote Peter, "just to sail around in my own vessel in this area for a month or so. For a change, one could drop the sails and just lie in complete peace. It is the most heavenly weather I've ever met."

But we had neither time nor money to spare. Peter continued :

"Very busy week-end for the workers. At last we are beginning to see the results of our labours on the upper deck. Robin, who is

doing the after part, i.e., cockpit, may be an artist of great repute, but is absolutely disorganized at this game. He is always stepping on or otherwise disfiguring the work he has just done ! Of course, the cockpit is about the most difficult to deal with because it has got to be used, but Robin's repeatedly unsuccessful attempts to get a good coat of paint on have produced some cursing and much merriment.

" Chang very busy cleaning up down below and has made an excellent job of painting the lavatory. Anything he takes on he does with uniform efficiency and the minimum of fuss. I think all Chinese are practical and ingenius. Chang is eminently so."

Monday, 14th August. Position : 37° 14′ *N.*, 39° 39′ *W. Run :* 64. There was quite a lot of traffic these days, and aeroplanes flying overhead at night from east to west—the first we had seen since the Malacca Straits. The beautiful dorado were around again. They seemed to enjoy swimming just in our bow ripple—I cannot call it a wave. Jarve gaffed one by the tail, but just failed to get it aboard.

Tuesday, 15th August. Position : 37° 41′ *N.*, 39° 10′ *W. Run :* 38. The barometer was climbing higher and higher, while the varnish and paint situation became critical. We celebrated the arrival of Princess Elizabeth's daughter.

Wednesday, 16th August. Position : 38° 44′ *N.*, 38° 42′ *W. Run :* 66. The calm days and perfect weather were not being wasted. The upper deck now looked like a yacht, which it certainly had not a fortnight previously.

There were minor excitements. A U.S. Army transport 'plane circled us at 500 feet, then flew off westerly.

Thursday, 17th August. Position : 39° 29′ *N.* 38° 36′ *W. Run :* 46. After slowly rising all the time, at noon that day the barometer started to fall. Within a matter of hours, along came the hoped-for south-westerly breeze. We trusted it would stay.

A similar trans-Atlantic 'plane to the one on Wednesday carried out the same manoeuvre.

" Rather against his will, for exhibitionism is not one of his traits," wrote Peter, " Robin displayed a sign that Jarve had made, with ' Yacht BOLEH, R.N.S.A.' in large white letters on it. To his horror, the 'plane, after circling low three times, reversed its course and disappeared in the direction of the Azores. Robin immediately concluded that they had misread the sign and had turned back to dispatch a doctor to us."

Friday, 18th August. Position : 40° 20′ *N.*, 37° 38′ *W. Run :* 70. We were 7 months out from Red House jetty, Singapore. Since noon on the 9th August we had covered some 500 miles, of which only 30 or so had been under power. Considering the light airs that had prevailed, this was very good.

Saturday, 19th August. Position : 41° 32′ *N.*, 35° 40′ *W. Run :* 114.

Sunday, 20th August. Position : 41° 53′ *N.*, 34° 27′ *W. Run :* 59.

" Christmas pudding for lunch to-day," wrote Peter. " Robin found the lucky sixpence (actually 10 cents Seychelles) and presented it to Neptune. So far no satisfactory response, for the westerly breeze, which made up on Friday night, died away to nothing at midnight last night.

" Distinctly colder. This really is the North Atlantic at last. What a change from a few days ago ! Worked up a good sweat with some very energetic sail-changing which, so far as progress was concerned, achieved nothing at all."

Monday, 21st August. Position : 42° 09′ *N.*, 33° 25′ *W. Run :* 48.

Tuesday, 22nd August. Position : 42° 35′ *N.*, 32° 17′ *W. Run :* 57.

Wednesday, 23rd August. Position : 43° 25′ *N.*, 30° 55′ *W. Run :* 76.

Let our diarist tell the story of these three days also.

" Little of startling interest. Temperature until to-day (Wednesday) has been around freezing, although the thermometer in the cabin persists in recording 72°—absolute nonsense !

" We had a few days of N.N.E. winds, which have not advanced us much. However, the wind has been freeing slowly all day to-day, and at noon we paid off a couple of points, boomed out the second Genoa to port, and are now doing a good 5-6 knots.

" More odd fish seen. John reports whales (200 of them in line abreast, steering south), which, from his description, sound like a cross between a black camel and a submarine. Robin and Jarve regularly sight turtles, gin bottles, 200-lb. tunny and other such. I must be as blind as a bat, because I never see anything but sea. Too busy sailing, of course !

" Have been an industrious bo'sun the last few days, and have now spare halyards ready for main, peak and jib. It seems rather unnecessary at this stage of the trip, perhaps, but they will always be useful next season, and some of our running gear is not what it was six months ago. By and large, though, it hasn't done badly. In the last seven months we have only parted one jib halyard, and that because we allowed the jib to flog during a gale, and the halyard chafed through on the metal cheeks of the block. This, of course, leaves out of account the old peak halyard, which parted, with unfailing beastliness, whenever one went to sleep, until Robin offered a bottle of champagne for a cure. Since then I have only renewed it once in five months. Admittedly, the splice —which still gets rather a thrashing—is now looking very jaundiced.

" Have been studying Calahan's book on rigging, and find I've been doing almost everything wrong ! After reading how he did a common splice, I was so concerned that I went up and re-spliced the lee backstay right away, and would have done the weather one also had not Robin pointed out that it was serving a very useful purpose as it was.

" I write in the evenings, in the midst of—and despite—the conversation around me, which at the moment has backed to women and wine, and Robin, being applied to by Chang for permission to pour the third tot (which we have had with unfailing regularity for the past fortnight), comes out with the wonderful statement : ' I don't want to establish a precedent '."

CHAPTER TWENTY-SEVEN

The Last Thousand Miles

Thursday, 24th August. Position : 44° 35′ *N.*, 28° 02′ *W. Run :*141. Wednesday's breeze ceased towards midnight, then freshened again and remained about north-west, force 6, throughout the day. By 4 p.m. we were 1,000 miles from Salcombe.

" Slight disaster with mainsail," wrote Peter, " the lee backstay having cut through the bottom panel for a length of 12 in. Attacked it with needle and thread. I think it will hold for a bit."

This was no mean feat of sail-making, Calahan or no Calahan ! The old vessel was lee-rail-under during the whole performance, doing about 7-plus knots ; and Peter, with his feet on the cabin roof and body well out over the Atlantic, seemed at times to be supported at his outer extremity only by the sail-maker's thread he was plying.

Friday, 25th August. Position : 45° 18′ *N.*, 24° 51′ *W. Run :* 144.

Saturday, 26th August. Position : 45° 55′ *N.*, 21° 52′ *W. Run :* 124.

Some time around midnight on Friday, the top batten cracked and we had to lower the mainsail. This was one of the few occasions on which Jarve's over-confidence, coupled with my reluctance to go on deck unless called for, let us in for a spot of trouble.

It had been blowing hard all day, almost gale force at times. In the morning there had been sunny intervals and the breaking crests of the waves were a fine sight as they roared by. But towards sunset, threatening clouds had rolled up, the seas had become steeper, and I had wondered whether we should reef before turning in for the night.

Jarve had taken over the watch at eleven, and I—and Peter, too, as I discovered afterwards—had lain awake ever since, listening to the mounting note of the wind in the squalls, feeling every lurch to leeward of the labouring vessel, and wondering when Jarve was going to do something about it.

When I *did* go up, I had to turn the crew out in a hurry, and we had a tough struggle with the sails in the darkness. An hour earlier, we should have had the moon to work by, the wind and sea would have been less and the damage to the batten might have been avoided ; moreover, we should not have lost so many good miles

from our day's run as we did whilst hove to during this operation. As it was, the dawn was breaking before we had got the mainsail down and safely stowed, the working jib set to port, with Genoa boomed out to starboard, and had squared off again before the wind.

The wind remained north-west, force 5 to 6, all day Saturday, but by 10 p.m. it had eased and, Jarve having mended the batten, we re-hoisted the mainsail. It was very cold, even in bed.

Sunday, 27th August. Position : 46° 47′ *N.*, 18° 49′ *W. Run :* 139. " Nor'-westerly winds still holding well, and we are making pretty decent strides across the old chart. This particular one has been in use now for a month. It has three different latitude scales on it, and I've changed the longitude innumerable times. To-morrow we should be on the British Isles chart."

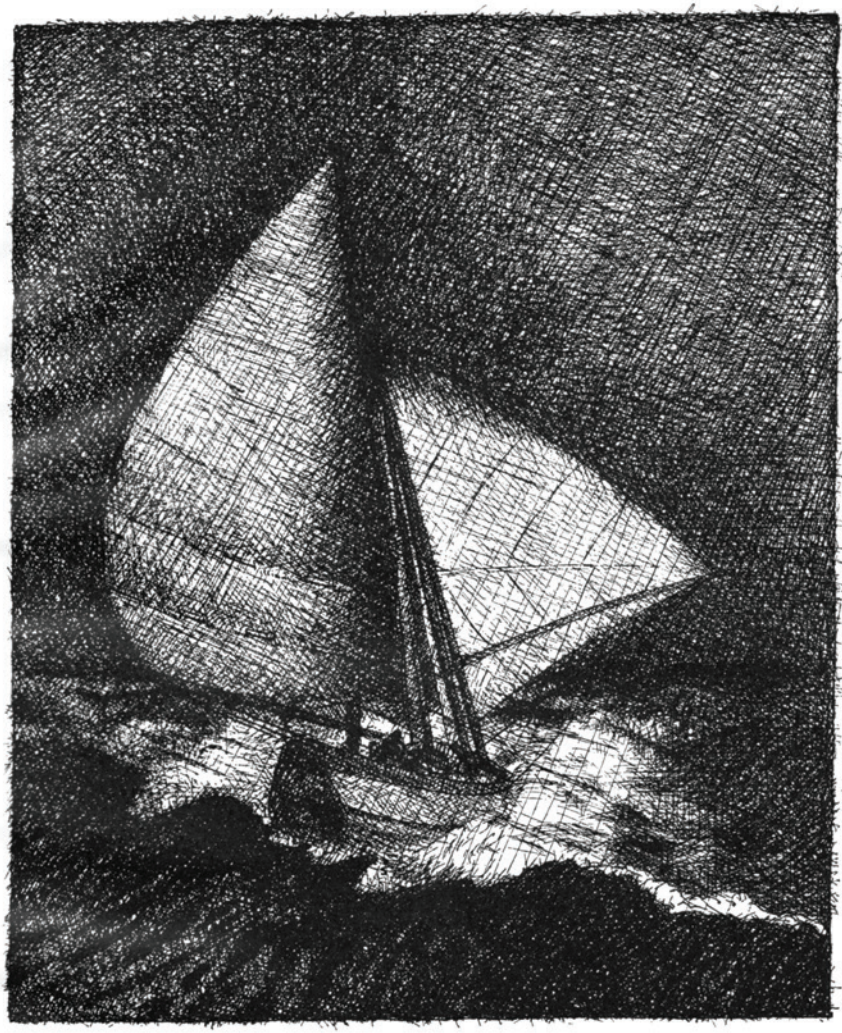
Monday, 28th August. Position : 47° 24′ *N.*, 15° 34′ *W. Run :* 137. Another fine run, with the wind backing a little. It looked as if, with any luck, we might arrive at Salcombe before the week was out. Even Chang seemed to be affected by the general excitement due to the end of our long voyage being in sight—though arrival at Salcombe could hardly be a home-coming for him ! He was seen going through his collection of cowries, coral and clam-shells from Minikoi, and also putting a new patch in his much-mended pair of shorts, made out of spare material from the yellow spinnaker. Jarve, whose ambition it was to buy the first round of drinks at Salcombe, made a thorough, if not very productive, search for English money in every corner of the ship. John was continually testing the apparatus he had arranged for signalling to other vessels—remote control of the mast-head light by means of a Morse key.

That evening we picked up the medium-wave B.B.C. weather forecast for the first time, which made us feel we were once again within the fold of English sailing men—just one of the hundreds of yachts and fishing-vessels that daily adjust their plans according to the shipping forecast.

Jarve produced the teak shield commemorating the voyage, which he had been working on intermittently for the past week, and asked me whether it could be now screwed to the bulkhead in the cabin. The words " Singapore to Salcombe, 1950," inscribed in gilded lettering above the names of the crew, were too presumptuous for my superstitious imagination.

" Not till we sight Bolt Head," I said.

Tuesday, 29th August. Position : 48° 25′ *N.*, 12° 28′ *W. Run :* 140. We still made splendid progress and the excitement was mounting. The wind had backed to south-west, and it was not so cold. Although we were getting towards the end of our stocks of most kinds of food, our meals, thanks to John and Chang, seemed better than ever. After much use of the engine in the Azores " high," petrol was running very



NINE KNOTS AND NO APPARENT EFFORT

low. The quantity remaining was recorded each day in the log, and we had to cut down on the use of lights. Reading in bed was banned.

About tea time on Tuesday we came up with quite a fleet of tunny-men, and had anything up to twenty sail in sight from then until dusk. They were all working slowly across the wind with reduced sail and their enormous fishing booms out, and they made a fine picture, with their sturdy hulls and gaily coloured foresails. We wondered what they thought of us !

" On watch at 2015 this evening," wrote Peter, " I reckon *Boleh* went faster than she has ever been before. We had up full main and both Genoas, and, with a very fresh wind on the starboard quarter, I am sure she was doing 9 knots—and no apparent effort. Feel that this is really the first time we have given her a chance to show what she can do. Unfortunately, we carried away a small chock holding the bottom lashing of the spinnaker boom jackstay, so had to get the starboard Genoa in."

The rest of the night was most unpleasant. We all got soaking wet in the heavy rain, and the wind veered and fell light towards morning.

Wednesday, 30th August. Position : 48° 40′ *N.*, 9° 56′ *W. Run :* 102. Recorded in the remarks column of the log at 0700 is this entry : " A lovely English summer morning—damned cold, raining like hell, and the sun nowhere to be bloody well seen." The wind died by 8 o'clock and left us wallowing about most uncomfortably in a very confused little sea, the absence of wind causing the mainsail to slat so badly that the mainsheet—1½-inch Italian hemp—was stranded. Everything below was damp or actually wet through, and our supply of dry shirts was getting very low.

It was, indeed, a cheerless start to the day. Fortunately for us, by 10 a.m. a light breeze set in from the west, the sky cleared, and we were able to start drying things off on the upper, as well as proceeding with other necessary work. Chang cleaned out the awful mess in the bilges ; Peter replaced the mainsheet ; Jarve battled with engine and batteries ; and John started on the laborious business of washing the covers of the cabin cushions, which Peter described as being " in a decidedly sordid state."

Sights put us just in soundings, and the sea was now much greener. At noon we had 260 miles to go, so were optimistic enough to reckon on arriving at Salcombe on Friday night or Saturday morning.

By tea time things aboard had much improved and our tempers were in better order than they had been in the morning. All the clothes and cushion covers were dry or nearly so, scrubbed floor-boards were back in place, and everything had been squared off again down below, so that the cabin was no longer a sight to shame us on arrival.

There was a fairly steady light breeze N.W. by W., force 3, during

the night and we were able to make slow but steady progress on a course of 080° to pass 10 to 15 miles south of the Lizard.

John—it always seemed to be John who called me when I was fathoms deep !—put his head into my cabin during the first watch to say that a ship was coming up from astern and would I come on deck and take the helm, so that he could call her by light and get her to report our position.

I am afraid that I was unduly slow in getting on deck, being unimpressed with the urgency of the matter. There would be plenty of ships to-morrow or the next day, I thought, to pass in a warning-of-arrival signal for us. Anyway, by the time I got up there, the ship, which was travelling fast, was nearly abeam and, as she was slow in answering, John got no further than receiving her name—" Swedish ship *Guayana* homeward bound "—and was still spelling out " *Boleh* " when she drew ahead beyond the range of our small light and signalled back, " Can't read you. Good luck."

I regretted my lethargy when, due to low visibility and a series of mischances, we failed to get our signal through to any ship during the next 36 hours—not, in fact, till we were five miles off Salcombe, which was much too late to set in train the elaborate organization, worked out by John, by which all our friends and relatives were to be warned of our impending arrival.

Thursday, 31*st August*. Early in the morning the wind veered and became fresh to strong at times, causing a rather steep short sea. Conditions in the forenoon were bad for sights and when Peter put her down on the chart at 1520, a fairly large " cocked hat " put us about 55 miles 220° from the Lizard. Having, therefore, been set considerably to the south, we altered course to 070°, estimating that we should sight the Lizard at about 11 o'clock that night.

At 2310 the loom of the light was reported, but, although I went up above the cross-trees, the light itself was obviously well down over the horizon, so we must still have been getting set to the southward.

Unfortunately, we could not now lay a course very much better than 065° to close the land, the wind having veered to N. by W. and fallen light, whilst the short, uncomfortable seas stopped the ship unless kept a good full.

Once again I was called during John's watch, and this time I tumbled up on deck in quick time. I did not regret it, for I was up soon enough to see the lights of R.M.S. *Queen Elizabeth* approaching out of the haze to the north-east. She passed us very close, outward bound, the decks empty, it being 4.30 a.m., but all lights on. She looked like Regent Street, lit up for Christmas shopping, going by at 30 knots. Even Chang was impressed.

Of course, she left us astern far too quickly for any signalling. I do not think the idea even occurred to us.

Friday, 1st September. The morning dawned cold and foggy, with light airs from between west and north. We closed the land on a course of 055° with the wind mostly free. But it was slow progress as we gradually worked our way back into the main thoroughfare of Channel traffic. Land was reported more than once about breakfast time, but in each case the houses or hotels turned out to be the upper-works of tankers or coasters, lit up by the morning sun shining through the haze.

At about 9 o'clock we were several times close to the aircraft-carrier H.M.S. *Ocean* as she repeatedly turned in her tracks to fly off or land on aircraft. We thought we might be recognized and had all our signals ready, but those aboard had more important things to think about than identifying strange-looking sailing-craft, if they even sighted us.

We were soon in amongst the main Channel traffic and must have passed within eight miles of Eddystone, although we did not sight it. By some mischance, too, we never had a real opportunity to make our reporting signal, giving estimated time of arrival at Salcombe. Ships appeared and disappeared so quickly in the summer haze ; besides we were so close now, it seemed unreasonable to bother a busy outward-bound liner with all the business of passing on an item of news, important to us, but in which they would probably have been quite uninterested.

So we let them all go by and kept our eyes skinned for the land.

" The first thing we shall sight," I told Peter, " will be Bolt Head, right on the nose."

And so it was. I sighted the outline dimly at 12.15, just before going off watch, and recorded it in the log. But when they came on deck, John and Jarve were disbelieving—particularly Jarve, which shook me not a little.

Whilst I was having a hasty lunch, Jarve sighted a white fishing-boat and, much to Peter's annoyance, we altered course towards it, partly to confirm our exact position, but chiefly because Jarve was sure he would know the crew. As we came up with her, the two men aboard were hauling crab or lobster pots with their power winch. Jarve hailed them with :

" Hullo, Ron. Hullo, Bill."

They paused in their work long enough to shout :

" Hullo, George. Had a good trip ? "

One would have thought that we had only been away for a week-end sail !

A few minutes later, having pulled up their pots, they motored up alongside and tossed several real Devonshire apples aboard.

" We'll let 'em know you're coming ! " they shouted as they made off towards Salcombe at 6 knots. " Keep well up the Prawle side. There's a strong ebb running."

Five miles south of Bolt Head, the top batten broke again, which quite spoiled the appearance of the mainsail and made us shy of photographers.

The wind was light and the tide was setting us down, but as we slowly drew near the Mew Stone, the haze dissipated and the afternoon put on all its late summer glory for us. The harbour entrance was alive with yachts and we had the sensation of a tired old hen coming into a crowd of bright new chicks. The coast on either side looked more magnificent in its green and gold and purple even than I had remembered it. Salcombe opened its arms to us.

As we approached the bar, I told Jarve :

" Bring both backstays to the mast. We may have to gybe when we get abreast the Castle."

" You'll *have* to gybe ! " said Jarve in his usual downright manner, and with a Devonshire accent much more marked than a few hours back. " And before that, tew."

The wind was fluky, but we did not gybe. Nor did we have to use the engine as we rounded up, dropped the mainsail, and, midst a tremendous welcome from the Mayor townspeople and summer visitors, let go just above the ferry.

Peter, methodical to the last, recorded in the log :

" 1610 : Let go stbd. anchor in 8 fathoms.

" 1615 : B.U. to 22 fathoms on stbd. anchor. Laid out kedge."

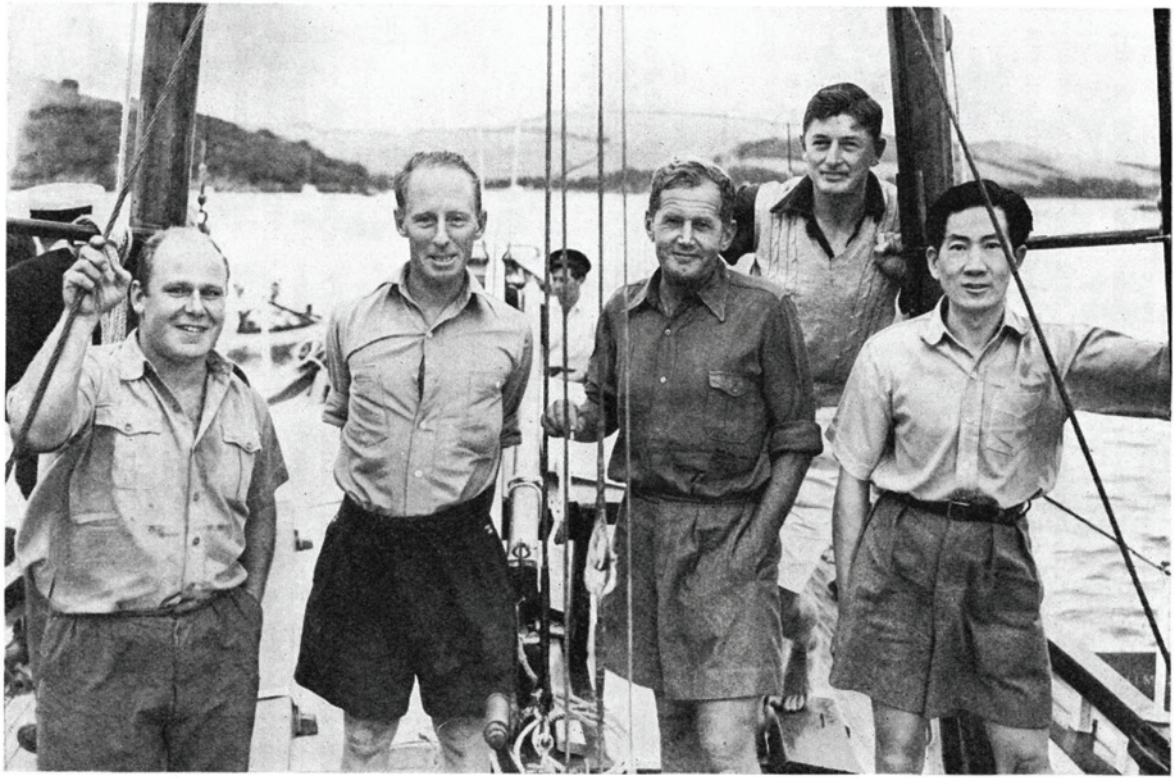
Epilogue

MARCH, 1951

Boleh IS IN A SNUG LITTLE BERTH AT THE BACK OF MR. EDGAR COVE'S shipyard at Salcombe, and now that I have been put in charge of the Sea Cadets (Western Area) with my headquarters at Bath, I am able to get down aboard her for occasional week-ends. She dries out every low water and I had a good deal of difficulty at first in getting her to stand upright on her legs. However, she seems to have settled down in the mud all right now. I hope to get her sailing again this year and possibly visit the Solent or Thames.

Soon after our arrival at Salcombe, Jarve and I, with Mr. E. Distin, the coxswain of the Salcombe lifeboat, at the helm, took friends and relatives, twenty-one men, women and children—and two dogs—for a sail in Salcombe estuary and outside, which greatly amazed the simple natives. The photograph on page vi was taken on that occasion.

At the R.N.S.A. dinner in December, *Boleh* was presented with the



SKIPPER AND CREW AT SALCOMBE

JARVE JOHN ROBIN PETER CHANG

Cruise Challenge Cup. This was received by Peter, the only member of the crew able to attend. After being at H.M.S. *Dryad* (navigation school) teaching sub-lieutenants, he left this month to take up a post on the staff of the High Commissioner, Control Administration, Germany. His letters to me from *Dryad* on the subjects of teaching and sub-lieutenants are choice examples of his particular style of invective.

John has given a series of lectures about our trip at naval establishments and elsewhere. He has also spoken on the B.B.C. in the "Something to Declare" programme. He was appointed temporarily to H.M.S. *Excellent* (gunnery training school) at Portsmouth, but is shortly to come to Bath with his wife and family, having been given an appointment with the Director of Naval Ordnance.

George Jarvis is working as a shipwright at Devonport dockyard and, in his spare time, is building a 21-ft. half-decked racing sloop, with which he hopes to win many races this summer. I call on him every time I am down in the Plymouth area. Inasmuch as our daily run from the equator to Salcombe worked out at 74 miles, mainly due to persistent calms south-west of the Azores, he lost his bet with me and has duly paid up like a man.

Chang left this country in October last, to return to his family in Singapore. Before accompanying him to Liverpool and leaving him in the hands of the Blue Funnel Line, I took him up from Salcombe to London to show him all the sights. When we got back aboard *Boleh*, I asked him what, of all the things he had seen, had impressed him most. He replied :

"I think so yes, I see one place can go down all same railway—come up all same stairs, no walk. Shanghai no."

Which may be interpreted : "I admired your underground stations and moving staircases very much. We have nothing like that in Shanghai." For Chang, Shanghai has the best in everything, so this was praise indeed.

Embong writes to say that he and Ali were very proud when they heard of our arrival and that they are now building Police launches on the East Coast of Malaya.

APPENDIX I

If I Did It Again

Lessons Learnt and Conclusions Drawn

THE HULL

(i) *Boleh* is very bluff forward (the stem-piece is 12 inches wide and barely rounded) and very full above water, both forward and aft. This seems to give her great longitudinal stability when running in a heavy sea, and to reduce the tendency to yaw or broach to—though the very

long keel may be more important in the latter respect. But in a light wind, even a very small head sea stops her dead.

After drawing the lines, I checked them for balance by the metacentric shelf system. The result was a very nearly straight shelf, but to make it quite straight, I filled out above the water-line aft. Had I fined down forward instead, which would have given me the same effect the resultant hull-form might have been better.

If I had the design to do again, I would give her another two feet on the bows and make them sharper.

(ii) I found that my estimates of cost and building-time (also the estimates of those who might be expected to know) were about 300 per cent low. I estimated four to five months and £1,300. She took just over a year and cost more than £3,000. Had my guesses been more accurate, I should not have incorporated nearly so many untried and experimental features in the design and rig.

(iii) *Boleh* was built with timber bought, for the most part, only just before or after building started. It was, therefore, not fully seasoned, for timber is not kept long in Malayan yards. Unseasoned timber is more difficult to work than the fully dry wood and it shrinks terribly.

If I planned to build again, my first concern, particularly in Malaya, would be to work out timber requirements, buy the timber, then have it converted and properly stored for drying.

Sail Plan, Masts and Rig

(i) I have described in the narrative the failure of the wishbones and their replacement by full-length battens. These we broke and replaced or mended five times between Mauritius and Salcombe. On each occasion, the break was due to the sail taking up too much curve in strong winds. They were found not so efficient as the wishbones in stretching the sail and obtaining an aerofoil shape.

The trouble is not yet finally solved. The present battens, made at Salcombe, are of Canadian elm and seem pretty strong, but I still believe that effective light wishbones could be made which, in conjunction with a bipod mast, might have possibilities for racing craft. I hope to experiment further with wishbones made in light alloy. But I doubt whether they would ever be practicable for the open sea.

I thought, before trial, that the advantages of this rig, coupled with the sliding-gunter yard, would be :—

(a) That reefing could be effected easily and quickly, and if necessary off the wind, by lowering away on the main halyard.

(b) That when reefing, the yard would come down with the sail, so that there would be something of the effect of a reefing topmast.

(c) That the sail would set very efficiently when close-hauled, due to the wishbones and multiple-sheet arrangement.

(d) That the bonnet, drabbler, or both, could be taken in altogether, as an alternative to reefing, when short-handed or when several days or weeks of heavy weather were expected.

In practice, only (b) and (c) proved of real value—though reefing, is easier, I think, than any other form except roller reefing. More than once, we found it advantageous to hoist only the top third of the mainsail.

On the other hand, the hull is too bluff and heavy for really close-hauled work in even a mild lop, and the unforeseen disadvantages of the wishbones in anything like their present form, together with the appalling slatting in light winds, certainly outweigh all advantages.

(ii) The peculiar *Boleh* masts go, of course, with the sliding gunter. The yard had to be central, so a jackstay for the lower part of the luff, and for the upper part, the yard sliding on a traveller, seemed the only way of doing it.

The masts seem very strong and have given no trouble so far, though the slight "working" of the two foremasts, when thumping into a head sea, has often alarmed me.

This type of mast has some advantages :—

(a) No shrouds are required.

(b) It is very easily climbed, as it is fitted with rungs like a ladder.

(c) When the yard is housed, it is very low.

(d) It allows space for the central cooking-range and swing-table.

Having given insufficient thought to the design, we put too much taper in the after masts just above the point where they join the two foremasts, with the result that we had to fit backstays to deal with the bend up there. This type of mast ought not to need backstays.

(iii) Like most ocean cruisers, *Boleh* has twin forestays—well-known and obvious advantages, and essential for twin head-sail rig. They are 10 in. apart at the stem and 8 in. at the mast-head, so that the tendency for them to get crossed when reaching in strong winds is minimized.

Our trade-wind rig, which we were unlucky in not being able to carry longer, consisted of two Genoa jibs, and our small spinnaker set as a raffee (see page 158). The Genoas could be trimmed a good deal, but not the raffee. With this last drawing properly, the latitude for course is 15° either side if dead down-wind ; without the raffee, 45° either side.

I do not think this rig could be improved upon for steady trades, but when, as frequently happened to us, the trades become variable, it leads to a good deal of bad language. Some easier, quicker and simpler method of rigging and unrigging the booms would be a great improvement.

There is much to be said, though, for bamboo booms if cruising in the tropics, where they can be obtained very cheaply. They are tre-

mendously strong for their weight and, with a " hake's mouth " cut in one end and screw-chocks to take guys, sheets, etc., at the other, they are, in all except looks, as good as or better than the best hollow-built spar.

(iv) In addition to the sails mentioned on page 19, *Boleh* carried the loose-footed mainsail made at Colombo. This, as with the two other mainsails, was about 500 square feet, and did splendid service in winds up to force 5. The storm jib was not used, and the heavy trysail has not yet been hoisted in anger.

(v) The ship carries moderate helm (hard work only in strong winds on or near the beam), runs steadily and handles quickly and easily. A curious feature of her balance is that in calm seas she will sail close-hauled under large worker or Genoa, and she will lie to or jog along slowly under small or large worker in winds force 6 to 7.

Upper Deck Fittings

(i) The navigation-light, a combined red and green electric lantern, is at the top of the quadrupod mast. There appears to be nothing in the rules against this and we found it an excellent plan. The lights are not obscured by sails (except the raffee) or anything else, and they are clear of salt-water damp.

(ii) Running the wire guard-rails through thick rubber hose-pipe was an admirable arrangement, for, besides the rubber taking the chafe and being easier on the body than bare wire, the sheets, etc., rotate the tube, thereby making a roller-bearing surface.

(iii) The 8 ft. 6 in. dinghy, upside down on chocks over the anchor-winch, we found convenient to sit astride or hold on to when shifting head-sails, etc. A couple of bilge-rails with hand-holds, or a deeper keel with holes in it, would be an added improvement.

(iv) A large (8 in. diameter) screw-down ventilator amidships over the galley was a very good thing. The skylights and scuttles gave good ventilation, but they leaked abominably and are on my list of essential modifications.

(vi) There are two fore hatches 18 in. by 18 in., and two main hatches 3 ft. by 1 ft. 9 in. For the tropics, I think this is a good plan. In any climate, two main hatches are a great help in solving the traffic problem, for the top of the hatch with legs inside is a favourite place to sit !

(vi) The " drive," already much discussed (and, I think, somewhat maligned) in the main narrative, comes in, I suppose, as an upper-deck fitting. It caused us much annoyance and expense, but had no defects on arrival at Salcombe. With some modifications in design and soundly constructed, it has real possibilities ; it has advantages over even the most perfectly feathering propellers in that :—

(a) There is *no* drag either of propeller or tail-shaft and bracket.

(b) If it goes wrong or gets foul, there is no need to dock or haul out to clear it.

(c) A large slow-revving propeller can be used.

We did nearly 500 miles under engine, sometimes with help from the sails. In a flat calm, the 8 h.p. Stuart Turner gave us 4½ knots.

Internal Arrangements

(i) Our various arrangements for the stowage of water are described in the narrative. I think the answer to this question is somehow or other to build in tanks adequate to the purpose. On a small yacht this is not easy.

(ii) The only criticism I ever heard of the work-bench (5 ft. 6 in. by 1 ft. 6 in.), which was used almost daily for one purpose or another, was that there was insufficient room for two to work at once.

(iii) When folded, the bunks make backs for the settees, giving a good wide cabin. When opened out, there is still just room for one to sleep on the settee under, so four in the main cabin is quite feasible.

(iv) Stowage for clothes is another item on the list of essential modifications. There is plenty of room out-board of the bunks and under the settees, but I had not realized the extent to which bilge water will travel up the lee side of the ship in heavy weather. It seems that lockers with completely waterproof bottoms, sides and ends are necessary. If the lids can also be made water-tight, so much the better. I shall advise members of any future crew to bring only one pair of shoes !

(v) The cooking arrangements are as important as most things in a small cruiser. I think our layout is pretty good, with the cook on the motor-cycle saddle amidships and between swing-stove and swing-table, with food-stowage pantry and salt-water tap to starboard, more food-stowage, glass-rack, fresh-water tap and bilge-pump to port. The folding swing-table was in use, without much difficulty, for 95 per cent of our meals. Glasses of lime-juice, even a " Thermos," stand on it quite safely in normal weather.

(vi) We found Chinese bowls (and chopsticks, for that matter) exceptionally suitable to the common types of food and to the conditions of eating it at sea. Firmly wedged in a corner, with a bowl of curry or *foo yong hai* in one hand and chopsticks in the other, one can eat in comfort and security on any dirty night.

John contributes other comments on the subject of cooking, etc., on page 221 *et seq*.

Navigation

I tried to get Peter to write a piece on navigation, but he said, " It's all in the books already," and, " I could teach anyone all he needs to know, by rule of thumb, about small-craft navigation in three two-

hour sessions, but only experience and practice will make him a competent or safe navigator."

He did all our navigating. I was merely an interested and sometimes interfering amateur. It is as such that I diffidently make the following comments :—

(i) On an ocean passage of this nature, sun sights are normally adequate. It is well to remember, however, that if the run and set between sights is not known reasonably accurately, and if the two positions do not cut at a good angle, the resultant fix will be extremely unreliable and even dangerously misleading. The value of a single position-line should not be forgotten. For instance, making Salcombe without having previously sighted land, single position-lines on the right bearing enabled a landfall to be made " on the nose " without difficulty. Star sights were taken occasionally before making land and normally give a more accurate result. The disadvantages are twofold : firstly, at dawn or dusk, with a height of eye of only, say, 10 feet, it is difficult in a heavy sea or swell to distinguish the true horizon from the top of a wave ; and secondly, morning stars disappear so confoundly early !

(ii) Experience showed that, early on in the trip, not enough attention was paid to the effect of known ocean currents. For example, when making Seychelles from the northward, the course to be made good was 210°. The counter-equatorial current in this area sets east between 1 and 2 knots, and under the existing conditions of squalls, light variable airs and flat calms, progress was extremely slow. Allowing for a set of only 1 knot, the course to steer to make good 210° was, at 2 knots, 240°, and at 3 knots, 230°. For very long periods, *Boleh* merely stemmed the current. It would have obviously been more prudent to have previously made well to the westward, so that an approach of, say, 130° could have been made. In this case, the current would have assisted instead of impeding progress.

(iii) Though Peter and I understood one another (generally) with regard to what we wanted *Boleh* to do—which usually was a compromise between speed, direction and comfort—it was not so easy to convey the intention to the individual helmsman. We found that the best way to indicate this was not to lay down a course to be steered, but to say, " Full and by, nothing to starboard of . . . " or, in variable winds, " Ideal course, 240°, limits (for going about) 200° and 320°," depending on the limiting factors on either side of the desired course. Even so, one often had to repress the urge to go up and correct the helmsman who, with the best of intentions, seemed to be pinching her unnecessarily or to be romping away well off the desired track.

(iv) Mercatorial plotting diagrams for various latitudes would have been useful. Peter spent some time each trip using charts of a similar

latitude and it was somewhat disconcerting to see *Boleh* fixed in darkest Africa, Malaya or the West Indies.

(v) We always logged the force of the wind by the Beaufort* scale, but as we had no means of measuring the actual wind velocity, opinions sometimes differed slightly as to the figure that should be entered in the log. I am inclined to think that we usually under-logged.

Below is the Beaufort wind-scale in abbreviated form up to force 8, the highest figure we ever entered.

Beaufort number	*Limits of wind velocity in knots*	*Descriptive term*
0	0	Calm
1	1-3	Light air
2	4-6	Light breeze
3	7-10	Gentle breeze
4	11-15	Moderate breeze
5	16-20	Fresh breeze
6	21-26	Strong breeze
7	27-33	Moderate gale
8	34-40	Fresh gale

The complete scale, which is numbered up to 12 (hurricane), includes other means of estimating wind-strength, such as fishing-smacks shortening sail, and " white horses " having a glassy appearance, but there were no smacks where we were, and glassiness was, we found an arguable quality. Next trip I shall take a tested anemometer !

APPENDIX II

Food On Long Voyages

By Lt.-Cmdr. J. J. S. Rusher

MANY SMALL-BOAT SAILORS PAY LIP SERVICE TO THE PRINCIPLE THAT GOOD food is extremely important on long voyages, but there is one basic requirement which often cannot be fulfilled. For the cook to be able to give his work all the attention that is needed to produce a full and really attractive diet, and yet not be overworked as compared with the remainder of the crew, he must be spared from watch-keeping and all other duties, except in emergency, from 0700 to 2000.

In *Boleh* we were most fortunate to have Chang, a good cook and used to the sea ; but the fact that he kept no watches and was very rarely called upon to work on the upper deck was a most important contributory factor to the excellent service he gave.

* Rear Adm. Sir Francis Beaufort (1774-1857).

Diet

The basic principles of a balanced diet are well known, so they will not be discussed in detail here, but the small-boat caterer must undoubtedly study the problem in considerable detail. One point of particular importance is that a deficiency of calories becomes evident at once in a rebellious crew, but any vitamin deficiency is not noticed until its ill effects appear. This may well be one of the reasons why seamen suffered so terribly from scurvy for so long before the cause was found.

In *Boleh* it was found very difficult from the beginning to provide adequate quantities of the B group of vitamins, but especially of B_2 and nicotinic acid, and this may well have contributed to the skin troubles from which all suffered to a greater or less extent in the early part of the voyage. These were probably aggravated by constipation, which in its turn is undoubtedly encouraged by an inadequate liquid intake and a shortage of roughage, both of them inevitable on long voyages in small ships. Eventually various forms of vitamin tablets were obtained, all of the yeast type, and they were believed to do good, but the trouble was never completely cured.

DRY PROVISION REQUIREMENTS*

Item	*Net Weight*	*Details and Remarks*	*Containers and Stowage*
	lbs.		
Tinned Meat	50	Divided 50/50 between corned beef, galantine, ham, etc., which are mainly eaten cold, and steak, chicken, mutton, etc., which are usually cooked. *Boleh* had 39 varieties on board.	Best container size for tropics ; 12 ozs. (1 meal). Remains of large containers will not keep.
Preserved Meat (untinned)	14	9 lbs. bacon whole (sliced bacon does not keep so well. 3 lbs. cooked ham. 2 lbs. salted ox tongue or other salted meat (e.g., brisket).	Hung in the coolest place available, wrapped in greaseproof paper and cloth. Rubbed with salt and stowed in any covered utensil.
Tinned fish	13	Half sardines and herrings. *Boleh* had 14 varieties on board.	No container larger than than 1 lb.
Tinned Vegetables	50	Equally divided between all varieties procurable. *Boleh* had 18 varieties on board. This figure assumes fresh potatoes are available throughout (see remarks on potatoes in "Fresh" section).	Best container size : 20 oz.
	12	Some tinned potatoes—say 6 by 2 lbs.—should be taken as a stand-by.	
Dried Vegetables	9	Potatoes : 4 lbs. reserve in case fresh potatoes fail. Lentils : 4 lbs. reserve. Mushrooms : 1 lb. if available.	Stowed in any sort of lidded tin taped with surgical plaster or insulating tape.
Tinned fruit	28	Equally divided between all varieties procurable. *Boleh* had 6 varieties on board.	Best container size : 1½ lbs.
Dried fruit	4½	½ lb. each raisins, sultanas and currants. 3 lbs. of prunes.	Stowage as for dried vegetables.

* *Note* : (1) The quantities shown are those required to feed five men for six weeks and allow of no margin.

(2) The figures given take no account of fresh provisions embarked (except potatoes and onions) nor of fish caught, whose quantities therefore replace their equivalent of "dry" provisions. (See remarks in "Fresh" section).

Item	*Net Weight*	*Details and Remarks*	*Containers and Stowage*
	lbs.		
Eggs	30	(240). Preserved by rubbing with a good hard margarine ; butter is no good in hot weather as it melts off. Preservative paint is better, but was not available where *Boleh* called.	Stowed in the usual papier mâché trays, cut to fit available lockers or shelves. Approx. space required for 20 doz., 15 in. by 15 in. by 12 in.
	2	Dried—as a reserve.	
Milk	38	Condensed unsweetened (50 tins by 12 ozs.)	Not larger than 1 lb. tins.
	2	Dried—2 by lb. tins—as reserve. Condensed milk, though admittedly less palatable than dried, is far more convenient and saves water.	
Sugar	25	Only one variety of sugar is necessary—preferably white granulated.	Sugar keeps well in biscuit tins well taped up.
	(20)	(An extra 20 lbs. is required if unsweetened lemon powder is taken.)	
Cheese	10	Processed.	Tinned or wrapped in silver paper and boxed.
Bottled and Tinned Fats and Oils	21	Butter	Tinned.
	2	Margarine.	
	2	Lard	
	4	Dripping/Rendered suet	
	8	Cooking oil (peanut type rather than coconut, which smells strongly)	Bottled or tinned.
	2	Olive oil (for French dressings and mayonnaise)	
Sweet Preserves	10	Jam, all varieties procurable. *Boleh* had 12 varieties on board.	Tinned jam is preferable to that in (fragile) jars. Small containers better than large, as they give greater variety.
	7	Marmalade. *Boleh's* crew preferred Cooper's.	

Item	*Net Weight*	*Details and Remarks*	*Containers and Stowage*
	lbs.		
Sweet Preserves (ctd.)	4	Golden syrup. Mainly for porridge.	
	2	Honey.	
Beverages	2	"Bovril"/"Marmite."	
	2½	Cocoa (for night watches)	
	8	Coffee { assumes coffee taken at breakfast, tea at tea time only.	Coffee must be in air-tight tins of not more than 1 lb.
	5	Tea	Tea in any lidded tin.
Soups	14	6 lbs. tomato (most popular and useful in cooking) 8 lbs. all other varieties. *Boleh* had 9 varieties on board.	
Sauces	3	1 lb. tomato, 2 lbs. other. *Boleh* had 8 varieties on board, but of these only tomato, anchovy, soya bean, chilli and Worcester were required.	
Chutney	4	Mango preferred to any other.	
Pickles	2	Onions mixed pickles were also carried in *Boleh* but were not eaten).	
	¼	Capers.	
Cereals	1	Barley (for soups and stews).	Tinned.
	60	Flour—assumed 4 lbs. used for baking every 4 days plus 18 lbs. for pastry and cake making and general cooking purposes.	Taped tins *for early use only*. Flour goes bad in tins in 1-2 months. For longer keeping it must be stored in bags slung overhead.
	6	Oats. Assumes porridge taken every other day.	Tinned.
	25	Rice. Assumes rice eaten every other day.	Taped tins. Rice keeps quite well in tins.
Yeast	1½	Dried yeast preparation. "Dribarm" was used in *Boleh*. Assumes 5 lb. bread baked every 4 days	Must be kept in air-tight container—kitchen type with snap lid recommended.

DRY PROVISION REQUIREMENTS—*continued*

Item	*Net Weight*	*Details and Remarks*	*Containers and Stowage*
	lbs.		
Biscuits	1	Cream crackers	Tinned.
	1	Ginger nuts	
	1	Digestive	
	24	Ship's—as reserve in case bread-making becomes impossible.	Preferably in 6 lb. tins. If supplied in larger containers these should be broken down.
Pasta (noodles)	3	*Dry* of as many varieties as possible.	In air-tight cartons or tins ; the latter are preferable.
Cakes	8	Rich fruit cakes keep best.	Tinned. If home made, should be put in biscuit tins and taped.
Puddings	2	Christmas puddings or similar.	Tinned.
Sweets	4	At least half to be chocolate.	Tinned or bottled when possible.
Condiments	1½	Mustard (powder)	Tinned.
	¼	Pepper	
	4	Table salt (cooking salt not required).	
	2 (1½ pints)	Vinegar	Bottled.
Flavourings, Herbs and Spices	¼	Curry powder	Tinned.
	¼	Herbs (parsley, mint and mixed)	Packet
	¼	Garlic	Any lidded tin.
	¼	Spices (nutmeg and bottled mixed spices)	—
	¼	Dry ginger, in the root if available.	—
Miscellaneous	¼	Baking soda.	Tinned
	(4)	(Unsweetened lemon powder—if this is taken extra sugar is required.)	Tinned
TOTAL	537	This consists of 489 lbs. main stock and 48 lbs. reserve. *Plus* 4 lbs. lemon powder if used and 20 lbs. extra sugar.	

Stowage of Tins

If tins are to be kept in the bilges they must first have their labels removed to avoid choking limber holes and pump suctions. Nearly all tins have numbered or lettered markings (which are not self-evident) stamped on their lids and these must be listed. Unmarked tins must be marked with paint or sticking plaster. It is, however, much preferable to keen tins out of the bilges whenever possible as they deteriorate very rapidly.

Fresh Provisions*

Item	*Remarks*
Meat	
Beef, Veal, Mutton and lamb, Pork, Offals, Poultry	Only pieces suitable for frying or stewing should be taken. None will keep more than 24 hours uncooked in the tropics; frying meat partly fried on receipt will keep 2 days, stewing meat if cooked up each day (*without* vegetables) will keep 4-5 days. Absolute maximum required, therefore, eight meals.
Sausages	If partly fried on receipt, will keep 2 days.
Fish	
Shell fish	Even if freshly caught and cooked, must be eaten within 16 hours.
Other fish	Must be eaten within 24 hours of being caught. Amount of fish taken reduces the amount of fresh meat which can usefully be carried.
Cheese	Ripe cheeses (Roquefort-Stilton, etc.) only keep 4 or 5 days. Plain cheddar will keep longer if kept wrapped in a damp cloth.
Butter	Will keep up to 4 days.

* *Note* : (1) It is assumed that no refrigerator is fitted.
(2) Only those items of which *Boleh* had experience are included in this list.
(3) Remarks apply to hot climates only.
(4) Eggs, bacon and salted meat are included in " Dry " section.
(5) Apart from potatoes, onions, cheese and fruit, the quantities of fresh provisions taken replace equivalent quantities of dry items. Fresh cheese and fruit are best treated as " extras ".
(6) For many reasons fresh provisions must be bought by the caterer himself and *not* through a ship chandler.

FRESH PROVISIONS—*continued*

Item	*Max. keeping time in Tropics (Days)*	*Remarks*
Fruit		
Apples	12	(1) Items marked * must be bought green and hard.
Avocado pears*	5	
Bananas*	7	(2) Avocado pears are best as a salad, cut in half and served with Worcester sauce.
Breadfruit	4	
Coconuts	20+	(3) Breadfruit is best sliced small and fried as chips.
Grapefruit	8	
Lemons	10	(4) Avocado pears, breadfruit, grapefruit, mangoes, papaya, pineapple, pomelo, and soursop are best eaten as part of meals.
Limes*	20	
Mangoes*	6	
Oranges	14	(5) Limes are only useful for their juice and with food.
Papaya*	4	
Pineapple	6	(6) It is desirable to treat all fresh fruit as an extra to the normal diet. The maintenance of a supply of it for as long as possible is important but, in the tropics, a most difficult problem, which is further complicated by the fact that "keeping" fruits (except bananas) are invariably expensive. The best solution seems to be to select two fruits which should keep and buy these to the limit, with only small quantities of the rest.
Pomelo	4	
Soursop	3	
Vegetables		
Potatoes	28-40	Must be kept dry and aired. Consumption about 5 ozs. per man per day.
Onions	35+	Must be kept dry.
Cabbage	8	
Cauliflower	5	
Carrots	14	
French beans	6	
Marrow/Pumpkin/ Squash	10	
Beetroot	6	
Cucumber	10	
Lettuce	3	
Tomatoes	6	
Spring onions	4	
Bread	8-9	Must be kept wrapped up or in tins. After 5 days the crust has to be discarded. The last two days, bread has to be heated up in the oven to make it palatable.

Weight of Food

It will be noticed from the tables that the total net weight of food required by five men for six weeks is about 550 lbs., that is :

Main stock dry provisions (or fresh in lieu) ..	489 lbs.
Potatoes, say	40 „
Onions, say	20 „
	549 lbs.

This works out at 2.61 lbs. per man per day which compares interestingly with the figure of 2½ lbs. which was used for planning during the war.

It must, however, be noticed that this figure does not include reserve stocks (biscuits, dried vegetables and eggs).

The total weight of containers for the quantities shown is about 110 lbs., making a gross weight of about 700 lbs., including fresh fruit and cheese.

Cost of Food

As expected, the cost of food varied greatly, from extreme expense at Singapore to remarkable cheapness at the Cape. *Boleh* was, however, fortunate in being able to buy certain goods from Naval sources and the N.A.A.F.I. at Singapore, Colombo and Simonstown, which compensated for the high prices in the open market at Singapore and Colombo.

The total cost worked out at approxmiately 19s. per " five-man day," or just over £200 for the whole voyage.

Notes on Menus and Dishes

This is no place for detailed recipes, and anyhow they can all be got from the proper books, but some notes on particularly popular dishes, and the variations and methods that were employed in *Boleh* may be of value and are given below.

The Chinese method of eating which involves placing the savoury part of a dish on a bed of rice or noodles in a bowl, and then tackling it with chopsticks, must surely have been originated by a small-boat sailor, as nothing could be more convenient in a seaway. The bowl is held in one hand and the chopsticks (which are surprisingly easy to handle) in the other. The uninitiated can use a spoon. Almost any concoction of meat or fish can be served in this way.

Plain tinned meats, e.g., mutton, veal, steak, chicken, kidneys, are more useful than tinned pies, meat with vegetables and other ready-made dishes, as they are susceptible to a wider variety of treatment.

Tinned poultry and rabbit were popular, but variations in their use are limited by the fact that they are invariably broken into small pieces

in the tinning process. Root ginger cooked with these brings out the flavour well.

Curries were always liked. The number of "sambals" (small etceteras) which can be produced at sea is surprising. Any sort of fruit which is not mushy, onions fried both soft and crisp, peanuts, shredded coconut, raisins, sultanas, currants, fried dried whitebait and chutney are all worth having.

Irish Stew made from tinned mutton, with dumplings, potatoes, onions and carrots, was much appreciated.

Tinned brisket heated up and served with dumplings and carrots tasted just like the real thing and was very popular.

American canned tripe, an unusual item to find, is delicious, but requires a further two hours' cooking before it is ready to serve.

Fish pie, to avoid using the oven, was cooked in two parts, the potato lid being fried in one piece and the fish cooked separately in a saucepan with white sauce.

Tunny, of which a considerable number were caught on passage, has a strong flavour and is liable to pall unless it is cooked in many different ways. All the usual methods were employed, but the most popular was stewing with white wine, garlic and herbs on a bed of onions. Sousing was also successful. An attempt to preserve the fish in dripping failed, though oil might have been effective.

Flying fish were rarely caught in quantity, but were eaten both fried and soused and were delicious.

Turtle was cooked, and tasted like rump steak from very young beef; it was quite delicious. Spare meat was boiled for stock. Real turtle soup is made from the shell and breastplate, and was not attempted.

Tinned vegetables were usually done up with butter or white sauce, or served cold with mayonnaise.

Cole Slaw was useful and popular long after lettuces had wilted away.

Cabbage and carrots (fresh) cooked with fat and a very little water by the "modern" method (which the Chinese have used for some 5,000 years) were more popular than those stewed in the old English style, and are, of course, far more nourishing. The method also has the advantage of saving precious water.

Dehydrated potatoes in powder form were not a success except as straight mashed. Potato balls, fishcakes, etc., fell apart and nothing we tried would bind them.

Foo Yoon Hai, a Chinese dish, which is simply a crab and onion omelette, was much liked. It can be made with tinned crab, lobster, or crayfish and should be served with boiled rice.

Treacle pudding made on board was a great success, but its long cooking

demands calm weather. It should be possible to " pressure-cook " it but this was not tried.

Tinned Christmas puddings were always popular, no doubt partly on account of the brandy butter which accompanied them.

Doughnuts were popular, and have the advantage of fulfilling " cake-interest " without using the oven.

Noodles and Pasta of all sorts were useful. It was found more economical, allowing of greater variation, to buy the dry version rather than that ready cooked in tins. They were particularly popular cooked with meat and tomato soup and served with grated cheese.

Prunes served for breakfast, when it was too hot for porridge, were both popular and effective. . . .

Porridge was always demanded at breakfast in cool weather, and prevented violent inroads on the limited bread available.

Toast, although very good, was never perfect when made over a " Primus." We tried both metal and asbestos mats, but found no really effective type.

Salads of many sorts were tried. The only original one, of Avocado pear and tomatoes with French dressing and a little Worcester sauce, was excellent.

Mayonnaise made with cooked egg yolks or even dried eggs was liked better and was easier to make, than that made with raw yolks and oil added a drop at a time !

French dressing was made from the old recipe " a sage for the salt, a prodigal for the oil, a miser for the vinegar and a madman for the pepper." Perhaps one should add " a Frenchman for the garlic."

Chinese sweet and sour sauce, which is made of sugar, vinegar and soya bean sauce, is excellent with any meat or fish fried in batter. Soya bean sauce can be bought wherever there is a Chinese community.

Garlic was a tremendous help in tarting up tinned meats and fish, and much liked. Our ridiculous insular prejudice against this wonderful herb is to be deplored, and it was indeed fortunate that we had all been educated out of it before joining *Boleh*.

Packet herbs are not to be scorned. As well as being valuable in meat stews they are useful for getting a meat paste for tea from the ends of the luncheon " galantine," and an excellent *omelette aux fines herbes* can be made from them.

Cooking Apparatus and the Management of " Primus " Stoves

The cooking-range fitted in *Boleh*, with its motor-bicycle saddle for the cook, has been described elsewhere ; it proved eminently satisfactory but could have been improved in two ways. The grille which supports the cooking utensils on the top would have been improved by being

made in three sections to facilitate lifting the stoves out for cleaning and lighting. Further, the damping device to control the swing was not fully efficient.

The range has three pockets for stoves, and " Primus " were invariably carried in two of these, the third being occupied by a wick-stove for slow cooking. This arrangement proved very satisfactory, the wick stove being necessary because nothing is so guaranteed to bring out the worst in a " Primus " as burning it with a low flame.

Two complete spare " Primus " were carried, and a spare burner, three extra nipples, two sets of washers and a pump leather were held for each " Primus " on board, as well as several dozen prickers. Chang, with typical Chinese patience, used to spend a lot of his cooking sessions inducing refractory " Primus " to work, but the only solution for anyone with less patience is to change to a spare, and change burners in the discarded stove at another time.

Lighting " Primus " in a yacht would be facilitated if methylated spirit bowls somewhat deeper than usual could be fitted, as the standard bowl holds only enough for its work when filled to the brim—impossible in a seaway ; unfortunately, we were not able to try this in *Boleh*. A trick which is a great help in getting them to start is to give a few strokes of the pump, just enough to start the paraffin flame well before the petrol is burnt.

" Roarer " burners were found generally preferable to the silent type, especially with the oven.

The oven carried was of the usual type employed with oil stoves—16 in. by 16 in. by 20 in. high. Although it was intrinsically satisfactory its removal from storage to working position was a nuisance, and it took a long time to heat up ; for these reasons we did virtually no roasting, and little baking apart from bread which (as described elesewhere) we made every four days.

Paraffin expenditure worked out at almost exactly a gallon a week, while half a pint of methylated spirit was used in the same time.

A pressure cooker was carried on board but did not really earn its passage. The great value of these is to save time and fuel when cooking fresh meat, but this was rarely available. No doubt on short sea passages in cooler climates one would be invaluable.

GLOSSARY

Backstays	Ropes or stays from the mast-head to the sides of the vessel aft, assisting in supporting the mast.
Baggy-wrinkle	Teased out rope-yarns wound round or otherwise fastened to wires, ropes or spars, to assist in preventing chafe.
Beat	To make progress to windward by sailing in a series of boards (*q.v.*).
Beaufort scale	See Appendix I, Navigation (v).
Bilge	The lower part of a vessel's hull, from the keel to about midway between the keel and the water-line.
Board	A tack ; the distance covered by a vessel in one tack or course in beating to windward.
Bonnet	An additional section of canvas laced to the foot of a sail. See diagram, page 000.
Brail	A rope fastened to the edge or corner of a sail. Leading through a block, it enables the sail to be hauled up or in. To brail or brail up is to make use of the brails.
B.U.	Brought up.
Counter	The part of a vessel's stern projecting beyond the sternpost above the water-line.
C.P.O.	Chief Petty Officer.
Cringle	An eyelet in the edge or corner of a sail.
Cross-trees	Horizontal piece of timber, usually half or two-thirds of the way up the mast, over which topmast stays pass.
Dead-eye	A flat, rounded block pierced with a hole or holes and with a groove round its circumference. Used chiefly to extend stays by forming a link between two lengths of rope.
Dead reckoning	The method of finding a vessel's position from the courses sailed and the distance run on each course, without the help of sun or stars.
Deadwood	The vertical flat part at the ends of a vessel, built up from the keel to support the frames at stem and stern.
Dog-watches	Two two-hour watches on deck, from 4 to 6 p.m. and 6 to 8 p.m., respectively.
D.R.	See : Dead reckoning.
Drabbler	An additional section of canvas laced to the foot of the bonnet (*q.v.*).
E.T.A.	Estimated time of arrival.
Eye	Painted on the bows of a vessel, it is standard practice in China and the East generally. It is purely superstitious in origin—the vessel must be able to see where she is going. See illustration, page 54.
Eye-splice	A splice formed by bending back the end of a rope and splicing it into the rope, thus making a loop. See : Thimble.
Fairlead	Wood or metal guide to prevent ropes from chafing or fouling.
Flare	A spreading outward above the water-line.
Foot	The lower edge of a sail.

Forepeak	The foremost part of the vessel below decks, in the angle made by the bows.
Foresails	See : Jib.
Forestays	Ropes or stays from the mast-head to the stem.
Frames	The ribs of a vessel's hull.
Gaff	1. The spar on which the upper edge of a fore-and-aft sail is extended. 2. Stick with iron hook for landing large fish.
Genoa	A large jib overlapping the mainsail. See : Jib.
Gozo	A small British island 4 miles north-west of Malta. For Gozo boat, see illustration, page 3.
Grummet	A ring of twisted rope used as a fastening.
Gunter rig	A rig in which the yard or topmast slides up and down on the lower mast, the yard or topmast being fitted with rings through which the lower mast passes. Though essentially a sliding gunter, *Boleh's* rig was not exactly so, but more a combination of sliding gunter, standing lug, and housing topmast. The rig derives its name from its similarity to the scale invented by the Rev. Edmund Gunter (1581-1626).
Gybe (jibe)	To change course so that the sail fills on the opposite side, and sail and boom swing over with a rush.
" Hakes's mouth "	A V-shaped cut in the end of a boom, etc. See diagram, page 158.
Hand	To furl or take in and stow ; to wrap or roll the sail close to the yard.
Head	The upper edge of a sail.
Horse	A bar across the counter on which slides the metal ring known as the traveller (*q.v.*).
Jackstay	A rope or wire set up taut with tackle or rigging screw. In the case of *Boleh*, a wire running from cross-trees to the deck, on which the lower end of the yard travels.
Jib	A triangular sail set on a stay extending from the mast-head to the bowsprit. *Boleh* has no bowsprit and her forward sails should really be referred to as foresails or staysails ; we called them jibs for convenience and brevity.
K.H.M.	King's harbour-master.
Leech	The after edge of a fore-and-aft sail. (Cf. luff.).
Lop	A choppy condition of the sea.
Luff	The foreward edge of a fore-and-aft sail. (Cf. Leech.)
Lugsail	A four-sided sail bent on a yard slung at a third or quarter of its length from the forward end.
Mainsheet	The rope by which the mainsail is trimmed or secured.
M.F.V.	Motor Fleet Vessel.
Nautical mile	2,026$\frac{2}{3}$ yards.
Outboard	Outside the hull of a vessel, or situated nearer the side than the centre.
Peak	The upper aftermost corner of a sail.
Pilots, The	Guides for the assistance of seafarers. Those consulted were *North Indian Ocean Pilot*, *South Indian Ocean Pilot* and *Africa Pilot*.

Piston-hanks	Spring-operated brass rings or clasps, attached to the luff of a jib and running on a stay.
Quant	To punt with a quant, which is a pole having a flanged disc near the end, to prevent it sinking in the mud.
Raffee	A triangular sail hoisted above a square sail on the fore-topmast.
R.N.S.A.	Royal Navail Sailing Association.
Roach	A convex shape induced in the leech of a sail.
Roller-reefing	The reefing of a sail by rotating the boom, thus rolling the sail up on it.
Scantling	Cross-sectional dimensions of timber in shipbuilding.
Scarf	To join two lengths of timber by cutting them away at the ends so that they overlap and can be joined by bolts or rivets.
Scend	The vertical movement or displacement of a vessel due to swell.
Scissor crutch	Two pices of timber, joined so as to support a boom, spar, etc. When not in use, they fold together for easy stowage.
Scrive board	A large platform on which are drawn the shapes of a vessel's frames, etc., by which the shipwrights can work.
Set	The direction of a current.
Sharpie	A type of small sailing-dinghy, hard-chined and flat or V-bottomed, carrying one or two triangular sails.
Sheathing	The metal casing of a vessel's bottom and sides below the water-line, to prevent attacks by wood worms.
Sheave	A grooved wheel to take rope.
Sheer	The upward slope of a vessel's sides towards stem and stern.
Sheet	A rope to regulate the angle at which a sail is set in relation to the wind.
Shelf	Pieces of timber running the whole length of the vessel under the deck beams.
Sisal	Fibre used for cordage. From Sisal, a port of Yucatan.
Sliding gunter	See : Gunter.
Spectacles	Iron clews fastened to the corners of sails to take double sheets.
Spinnaker	A large triangular sail set on the side opposite the mainsail when running before the wind. For a description of *Boleh's* use of genoas as twin spinnakers, see page 157.
Star boat	An international class of partially decked, fixed-keel racing yacht, suitable for sheltered waters.
Stem	Curved piece of timber to which the sides of a vessel are united at the fore end.
Strake	One breadth of planks forming a continuous strip from stem to stern. They rise from the keel in this order : garboard strakes, bilge strakes, wale strakes, and sheer strakes.
Strop (strap)	A piece of rope or metal passing around a block or dead-eye for the purpose of fastening it.
Thimble	A grooved ring of thin metal to fit within an eye-splice (*q.v.*).

Traveller	A metal ring at the end of the sheet of a fore-and-aft sail, sliding on the horse (*q.v.*).
T.R.V.	Torpedo Recovery Vessel.
Trysail	A fore-and-aft sail used in place of the mainsail as a storm sail.
Upper, The	The upper deck ; all those parts of a vessel that are above the deck and hatches.
u/s	unserviceable.
Vector	Line used to represent a force (or movement) acting in a fixed direction.
Wale	See : Strake.
Water-wag (tail)	A 14-ft. sailing-dinghy.
Wind force	See Appendix I, Navigation (v).
Yard	A long spar, tapering towards the ends, used to support a sail.
Yuloh	To propel a vessel with a single oar over the stern or side, the blade being approximately in the fore-and-aft line. The oar is not removed from the water ; it is thrust from side to side with a twisting movement at each end of the stroke. In China, the method has been brought to a high degree of development and is used in ships of all sizes. The oar, which may be manned by as many as six men and be thirty feet or more in length, pivots on a steel stud and socket, and the inboard end is hooked to a rope secured to the deck. One man, pulling on this rope at the end of each stroke, automatically twists the blade in readiness for the next.