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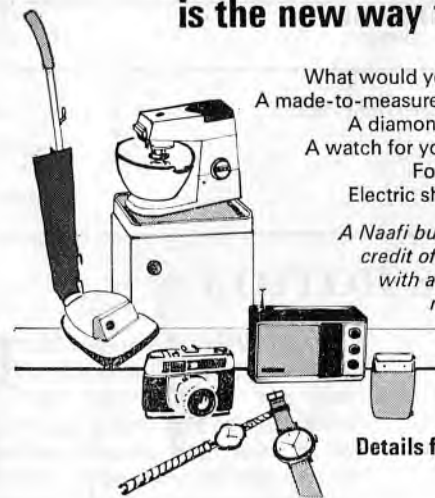
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# R.N. Diving Magazine

VOL. 15

SPRING, 1968

No. 1

## EDITORIAL STAFF

*Editor* .. .. . P.O. R. CHORLTON  
*Treasurer* .. .. . LT. E. W. J. SMITH, Q.D.D.

## EDITOR'S NOTES

THE response by YOU the reader to the plea for more material in my last Editorial has been alarming. I now have enough photographs to cover both sides of my lighter! Elsewhere in this edition, you will find details of a competition which I hope will spur on those still in contemplation, and add a financial flavour to the efforts of our regular contributors.

In the past, we have relied upon a combination of cajolery and pestering to get sufficient interesting and informative articles to suit most readers. I think that we have succeeded but would appreciate any ideas which you the reader may have. May I say constructive? I have heard most of the others anyway. I might add, just for the record and to dispel any rumours which you may have heard, we have no intention of taking over any of the National Daily's—we can't afford the reporters!

In this our 50th Edition, a word of thanks to those who have sent in material in the past, and to all those people who have helped in diverse ways to produce the magazine. A special word of thanks to the Divers Schoolie, who has to suffer the result of my mechanised fountain pen, and without whose help, we would never go to press.

With your help and 'sales' we should be good for another 50 editions (if you send the money that is) so can we make 1968, the year when the magazine has enough material to plan for the future? A few weeks future is enough! ED.



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## H.M.S. *Hermes*

UPON commissioning at Plymouth in May 1966 we found we had as diverse a team of divers as would be possible to assemble anywhere. Almost every branch was represented in the 44 divers borne. The M.E.'s were preponderant closely followed by the Air Branch, with a leavening of Seamen, Electricians, Stewards, etc. Our oldest was a P.O. (M.E.) of 39. Our youngest, J. (M.E.) Hudspeth, 16½. Some eight Juniors owed their place in the team to the fact that their Training Establishment Diving Officer was appointed to *Hermes* at the same time as they finished diving training. The conclusion was inevitable and there is no truth in the rumour that they have spent the whole commission sticking pins into his effigy. If the divers themselves were diverse, this was no less true of the Diving Officers. The Meteorological Officer was the Diving Officer assisted by the Hanger Control Officer and the Assistant Secretary. Later additions included the Commanding Officer of the Wessex Squadron and a *Buccaneer* pilot. Throughout the commission, the numbers have varied slightly though we have now aquired three genuine upper deck types as assistant Diving Officers. All in all big teams are a mixed blessing; it is difficult to keep everybody's time up; it is nice, when ship's bottom searches are carried out before 0630, to be in two watches.

A short period in Plymouth followed the commissioning, and opportunity was taken to practice ship's bottom searches in Cawsand Bay before sailing for the Isle of Arran where an excellent weekend's diving ensued. Visibility was good and the sea-bed abounded with marine life, though little of this was edible. One good lobster was caught by Naval Airman Goldby but as you can imagine, split 44 ways there wasn't

much. Diving-wise though, the Isle of Arran was good fun.

A further period in Plymouth followed and then to Portland where we were inspected by F.O.S.T. and carried out an 'Awkward'. All went well except for the fact that, due to a breakdown in communications, we managed to search the bottom before the C.D. team had placed the limpets.

A hurried re-charge and another search produced three out of four limpets, before completing at 0130. No problems were encountered though the Diving Officer still complains about his buttocks being struck by the Gemini propellor. Opportunity was taken at Portland to carry out Sea-bed searches outside the breakwater and several crabs were caught. Portland has been one of the best dives we have had.

Next port of call was Portsmouth where advantage was taken of the Horsea Island facilities; excellent they were, too, when one is primarily concerned with aquiring time under water for large numbers. The quick re-charge of sets, virtually at the water's edge cuts out all the humping which is so much a part and parcel of the diver's life. Then on to Gibraltar where conditions were poor, and disappointing, particularly the visibility which is normally reckoned to be good. Then back to U.K. for our aircraft complement and from then on in opportunities for diving got progressively less.

Two months later found us at Rosyth, where with the aid of the C.D. Team some of our divers were able to carry out their 120 feet dips in Mortimer Creek and a few ship's Husbandry tasks were undertaken. Portsmouth next, where shortly after arrival we found ourselves confronted with our first

salvage task. One of the de-ammunit-ioning party managed to drive a Dock-yard Crane over the side and the salvage fell to us. This proved quite quick; some 30 minutes diving time only being required which everyone thought was marvellous. Fortunately for us, the crane settled right way up and they have permanent lifting eyes at the top anyway, but we didn't tell everybody.

The New Year found us off Gibraltar when tragedy struck the ship. A Sea Vixen crashed on take off and during the rescue operation the S.A.R. helicopter was struck by the ship and then ditched. The diving team mustered in seconds, some were flown out to the wreck of the Wessex, more followed by seaboat, but there was little to be done other than recover the body of the helicopter pilot. Subsequently, the helicopter was sunk by puncturing it's inflation bags.

Opportunities for diving came fairly

frequently during the three months in the Mediterranean. Gibraltar, where visibility was poor yet again and the bottom uninteresting, Naples, where despite it's reputation the harbour is filthy. Malta where as always diving was sheer pleasure (where unexpectedly we found a 250lb. bomb) and two week-ends off Cyprus where conditions were ideal. Athens, before the troubles, provided a pleasant interlude where, with lorries provided by the Royal Hellenic Navy, we were able to get out along the coast and ran dives from the beach. More time in Greece would have been most welcome as opportunity and sites for expedition dives are innumerable.

Aden was next in our travels and here the diving team became operational, in fact the only time in the Commission. With its reputation for sharks, the initial approach to the 0630 bottom search was to say the least guarded.



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However, we soon got used to the idea and towards the end of the period we even mounted an expedition dive in addition to the bottom seaches. Some more advantages (?) of a big team became apparent in Aden; not only did we search our bottom, but the Olna's and Retainers as well and still had effort left to scrub the underneath of mine-sweepers. Getting time in Aden was no problem. All divers had in excess of 300 minutes by the time we left.

Then onto the Maldive Islands for a short spell in Gan. If you haven't dived in Gan you have missed a real experience. With its Coral Reef abounding with fish and glorious visibility it surely must represent the ultimate in recreational diving. I am told that the R.A.F. Sub-Aqua fly to Gan just to dive there and this I can well believe. To our regret, our stay was only short for within 48 hours we were on our way yet again.

In Singapore, with all divers well in date, bottom searches well and truly exercised, and some 2½ months since all-night leave had been granted, emphasis was well and truly on rest and recreation. Apart from the odd dive in the Diving School almost no diving was achieved.

Exped diving too entailed a long trip to find good visibility and none was undertaken.

In Hong Kong, diving was a daily occurrence, usually a Ship's Husbandry task though tide was a problem and on one occasion caused us to stop diving. It was here that the Diving Officer, talking to a diver who had failed to fit a bung, said,

'What's up. Is the hole too big?'

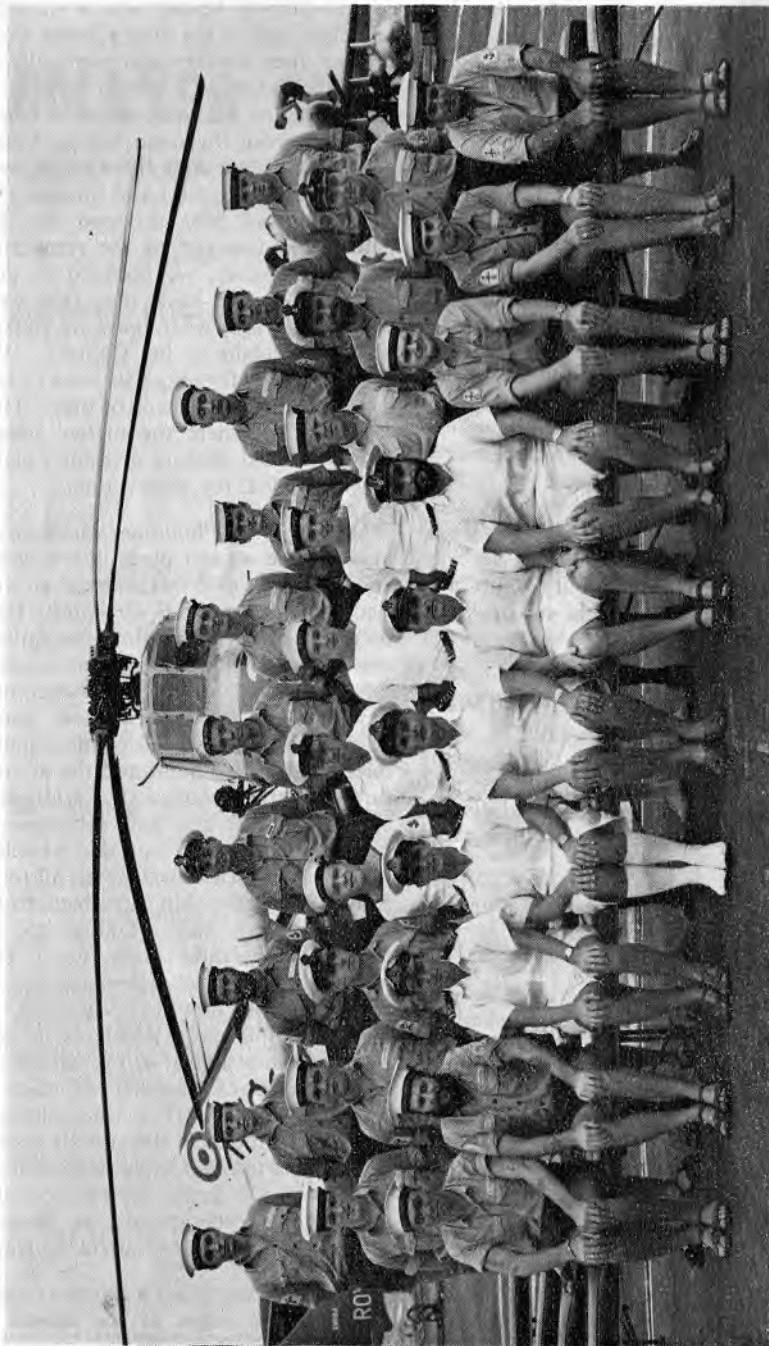
'No sir', came the reply 'The bung is too small'.

Diving on the Tamar Wall produced its own amusing interlude. Alongside a

certain Survey Vessel, which shall be nameless, one of the divers found a can of beer, then another and eventually 48 cans were retrieved. Within minutes of this intriguing discovery the N.A.A.F.I. Manager from the same Survey Vessel arrived (the bush telegraph worked overtime on this occasion) and informed us that they had been dropped the day before and thanked us for recovering them. However, we declined to give them up on the basis they that were genuine salvage, whereupon he stalked off to complain to his Captain. We heard no more for about six weeks when a bill arrived for 48 cans of beer. That seems to be where the matter ended, though we did prepare a counter claim on N.A.A.F.I. for diver's time.

On now to the Phillipines which surely must be the wettest place in the world and where one dive was undertaken with a team from the U.S.S. *Oriskany*. Then on to Fremantle, when just after sailing, we were confronted with yet another salvage task. A Wessex helicopter, having taken off with a shore party, ditched by the bows and within minutes one inflation bag burst and the aircraft turned over. *Galatea's* divers attached two ship's lifecrafts and subsequently our own team flew out and attached lifting strops. However, it was all to no avail. Before the ship came back to lift the aircraft it sank, taking one of *Galatea's* lifecrafts with it. This incident, of course, provoked lots of discussion on how to deal with an incident of this nature which was as well, for before our arrival in Fremantle, yet another Wessex decided to test its flotation gear. This time nothing untoward happened, the aircraft floated upright and lifting it was almost routine. Thanks to 826 Squadron we are probably more experienced on floating Wessex than any other team in the Navy.

Fremantle next, and a start was made on filing the edges of the screws to



H.M.S. Hermes Diving Team

improve performance on the long passage home. However, this was abandoned when the starboard screw was found to be foul, having picked up a wire as the ship berthed. This was cleared after many hours of diving to the applause of a large Australian audience on the jetty.

The closing stages of the Commission have been spent on the Aden patrol and opportunities for diving have been infrequent. Masirah Island, at the entrance to the Gulf deserves a special mention. There is a wreck, the S.S. *Electric*, aground on the reef, which is well worth a look at if only for the vast numbers of fish to be seen, including a 8 foot Grouper which caused two of our divers to establish a new record for the 100 yards free style.

Mombasa, on passage home, provided yet another salvage task. A harbour launch, on charter to the ship, struck our submerged mooring buoy, staggered as far as the forward gangway, and then sank. Some 2 hours of diving time saw the launch raised and back to its owners. Replacing the submerged marker buoy on to the mooring buoy could have been nasty. With the

pinnacle secured to the mooring cable and a diver on air, there was a sudden uprush of water, the mooring buoy re-appeared from the depths, the anchor cable sank and the pinnacle broke adrift. What we discovered very quickly, was that the ship astern had started to drag its mooring and our stern mooring wires had been slackened to avoid a collision. Had our diver actually been in the water at the time, we could well have lost him.

All in all, the commission has proved fairly eventful as far as the diving goes. Horsea Island and Vernon Creek will never be quite the same again.

Capetown provided a warm welcome in the form of an invitation from the Atlantic Underwater Club to spend a day with them which was most enjoyable. Anybody passing through will be sure of a warm welcome if they contact the Secretary at P.O. Box 3144 before arrival.

However, if you plan a dive in Capetown—be careful, the whole of the harbour is designated a Crayfish Protected Area and that 'attractive' looking island about five miles off is in fact a penitentiary, where no boats are allowed.

## Divers' Dinner 1968

The Divers Reunion Dinner will again be held this year at the Rock Gardens Pavilion, Southsea on Thursday 17th October at 8 p.m. Owing to a general rise in prices, the cost this year will be 32/6 per head. Seats cannot be booked without names and money. Please print the names and addresses on the application. Tickets will be issued at the time of booking and will constitute a receipt. No money can be refunded after 1st October for seats not taken up.

It would be appreciated if applications could be received as early as possible and in any case **not later than September 16th.**

Please make cheques/postal orders payable to The Divers Dinner Fund.

### Further to the Editorial in Volume 14, No. 3:

All readers who may be interested in the arrangements for the above and who do not receive their Magazine by post, are requested to send their current addresses to the Editor. This will ensure that full details will be sent closer to the day, and avoid disappointment.

Ed.

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TWO Sydney frogmen have received awards for their service in Vietnam. Leading Seaman Clearance Diver Phillip Charles Kember, 26 of Pagewood has been awarded the Distinguished Service Medal, and Petty Officer Clearance Diver Brian Vincent Clark, 29 of East Hills, has been mentioned in despatches.

Both were members of the R.A.N. Clearance Diving Team which spent six months in Vietnam before returning to Australia last August. Leading Seaman Kember's citation said he had performed all emergency tasks assigned to him with alacrity and complete disregard for his own safety. He showed outstanding courage in assisting in the recovery of a downed U.S. helicopter in the vicinity of Phu Loi. He had to dive

in extremely hazardous conditions, in enemy territory, to locate and help recover the helicopter. During this operation, he helped recover two bodies and to disarm all weapons still in the helicopter.

Petty Officer Clark's citation said he had answered 14 emergency calls to search for and investigate enemy ordnance and booby traps suspected of having been placed by the Viet-Cong. 'On each occasion, he has shown complete disregard for his own safety in completing these tasks so as to ensure the safety of friendly installations and personnel', it said. 'On one occasion, he was forced to carry an extremely dangerous mortar round to a safe area half a mile away, where it was subsequently destroyed'.

## Centrally Heated Divers

THE problem of keeping divers warm when operating in cold waters is one of long standing, since there is no doubt that the diver's underwater efficiency falls rapidly when he is cold. String vests, nylon and fleecy lined underwear have gone a long way to solving the problem, but if the weather is really cold, something else is required, and a heated undersuit is probably the answer. Electrically heated suits working on the same principle as an electric blanket have been suggested, but the dangers resulting from a wet dip appear to be too great. In any case, 'wet suits' are now the fashion so electricians are out.

piping hot water through the suit while the diver was working. This is not an original idea, but the trouble would appear to be how best to overcome the heat loss, if a surface hot water source is used.

In the press recently, there were pictures of fully dressed divers taking a hot bath, before and after their dive. This it was stated increased their efficiency. Mention was also made of

An individual central heating system for each diver is the answer and the U.S. Atomic Energy Commission has developed just this for the U.S. Navy. Water heated by an isotopic source is pumped through tiny plastic tubes interwoven into the net garment worn under a 'wet suit'. The heater, housing a plutonium source, is worn outside the suit and the radiation is sufficiently low to be of no hazard to the diver. This heated undersuit is, at the moment undergoing trials and if satisfactory, will be used by the Divers participating in Sea Lab III.

## Dip Chick in California

**F**ACED with two years exchange service in the United States, one problem that concerned me was to keep in diving practice. I had done my S.W.D. course, Long T.A.S. diving course, F.D. course and S.D.O. course. I knew that if I got out of date I would never have the determination, or even the time, to re-qualify. There was the added incentive that all the water within a thousand miles was appreciably warmer than Horsea Lake.

When I had settled in to my new job I telephoned the local diving school, reeled off all my minor qualifications and asked if they could help. The answer was immediate and unqualified. The reputation of R.N. divers with their trans-Atlantic counterparts stands second to none. I had only to choose a day and I would get underwater.

The diving school at San Diego is water-borne. It occupied then what was virtually a large barge, moored alongside in the centre of the enormous Naval Base. In the one vessel were classroom, large de-compression chamber, compressors, changing rooms, showers, office and a watchkeepers' mess. A Lieutenant was in charge, responsible direct to the base commander. His second-in-command was a Chief of great seniority. The team was about a dozen. They trained in both standard and self-contained gear. For salvage divers this was a major part of their course. For Explosive Disposal experts or the Marines it was just the beginning. I did not ask for anything difficult or dangerous and they didn't press me. My first couple of dives were in gas-mask type gear. I was given every assistance and left to do much as I pleased. Being far from the open sea I met few fish or other active creatures. I kept myself amused with the usual

occupations: scraping weed off the hull of their tender or collecting Coca Cola bottles. They told me one day that they had recently lost a pair of standard boots about thirty yards out. Evidently some trainee, too big for his boots, had left them stuck in the mud. I found one at the full extent of my pipe-line and spent an hour lugging it to and fro in a fruitless search for its twin. On another occasion, I brought up a lot of abalone shells. The diving team had eaten the meat long before but I acquired many original ash trays like large, deep saucers. Hydrochloric acid later brought out the bright colours of these attractive shells.

The wet suits the team used were civilian, made to measure, ordered on contract. This was not a standard issue but was paid for by some sort of C.O.'s fund for all who qualified. They usually wore only the jackets unless they were going to be down a long time. Instructors wore red swimming trunks. Trainees wore blue. Democracy was conspicuous by its absence in the water. To try the self-contained equipment I joined a course on their second day in the gear at the Naval Base pool. This was a vast place with ten foot at the deep end. Students were paired off and sent on circuits of the pool until they ran out of air. The concept of working with a buddy was strongly enforced. There were no buddy lines, but to get separated from one's buddy probably resulted in removal from course. Masks were separate from breathing tubes and after a few circuits one was invited to practice removing and replacing the mask. Since nose clips are not used I had to learn to refrain from breathing through my open nose. This proved easier than I had feared. Long after I had had enough the trainees were still churning up and down, on the surface

now with empty bottles strapped to their backs.

A few courses later I joined in the fourth day of self-contained diving. This was still in the pool. In the forenoon we practised ditching our gear and coming to the surface with the correct free ascent drill. We then replaced the gear underwater. This was first done in very shallow water, then at the deep end. After lunch we had the most impressive afternoon of training that I have ever seen. They aptly called it 'Harrassment'. In our pairs we swam to and fro in the deep end. The instructions were to stay together, and stay down. After about a quarter of an hour a figure in red trunks appeared beside me and indicated that he wanted my breathing tubes. While I held my breath he took a few gulps and surveyed his class. Soon after, the visits from the surface became more frequent. First one of a pair, then the other, would have his mask removed. Working together it was easy to recover these from where they were dropped—at first. Then both would go at once, leaving the blind leading the blind. With all masks out on the side of the pool we groped on the bottom in vain. This was not all. Bottles were turned off. Mouthpieces were pulled out. Harnesses were undone. The end result was pairs of men sitting forlornly around the bottom of the pool, without masks, holding a set between them and passing the mouthpiece from one to the other. Naturally, some were better than others. The self-control of the last few couples was outstanding.

When I had shown that I had a little idea about what I was doing, I was invited to try their standard gear. Although I dislike the positive way in which this type of gear keeps me underwater, I was keen to try something new. With misplaced enthusiasm I nearly became the subject of a cautionary tale. The usual boots, belt, front weight and

back weight were tied on to me. They felt even heavier than those used in Britain. Instead of forcing soapy wrists through tight cuffs I found my hands in integral gloves. Finally, the helmet came close past my nose and was twisted tight. My back and shoulders ached under the weight and waves of claustrophobia almost overcame national and personal pride.

Then all was ready. The front glass went in and I was on my own. I felt better as I got in the water and a great weight was literally lifted from me. As I went down the shot rope all started well. After a while it seemed that the air-pressure was not being increased as I went down. There was not enough to keep the suit away from my body. Breathing became difficult and I was about to climb up again when I arrived in the mud. At rest I explored my equipment some more and tried to remember what I had been shown of it. The brain worked again and I discovered that the diver controls his own air, with his left hand by a valve at waist level. With this vital information I was able to move around freely and confidently. It was as well that I sorted this out when I did. A few minutes later I tumbled into a fifteen foot channel cut by dredgers. That day I was lucky to return to the Californian sunshine at the surface.

In due course it was time for my annual medical. Again the organisation was most helpful, when I overcame the language barrier. Over there it is a 'Physical'. The average U.S. Navy man participates in very little violent sport, and eats extremely well. The M.O. did his normal checks and was astounded to find that my pulse remained slower than any he had met. Another small portion of the vast resources available was tapped. In less time than it takes to fill in an F. Med. 4 I was on a table with wires taped on to me at strategic points. A long series of readings were



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taken on a device exactly like our  
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service to prove me fit. The next facility  
offered was an oxygen tolerance test.  
Although I did not require this by the  
rules, I was again curious. In the old  
days I had cleared my bag and waited  
for a black-out which never came. Now  
I could find out if I was at all susceptible.  
I drove out to the submarine base and  
took a boat out to the submarine tender  
*Nereus*, one of the two large depot ships  
there. There were only ten submarines  
alongside that day. For the test an  
instructor took eight of us into a large  
re-compression chamber. Inevitably we  
lost one with 'ears' before we were able  
to go down to 112 feet. After one  
minute we returned to 60 feet. Then we  
fitted ourselves with small triangular  
masks, like those used in hospitals, and  
we were on O<sub>2</sub>. The masks severely  
handicapped conversation. We sat  
silently in a row for half an hour, each  
waiting for one of the others to pass out  
and listening to the instructor and his  
helper, who remained on air. Naturally  
it was much safer to keep the chamber  
itself free from oxygen concentrations.  
The test was disappointingly uneventful.  
I understand they only get about 4%  
failures.

My final dive was to have been out at  
sea on the abalone beds off La Jolla

(now well known to divers). I was very  
disappointed when rough weather kept  
us in the harbour. Instead we moored  
alongside some barges in the entrance.  
The tide at the surface was moving at  
average swimming speed. As the  
trainees left the surface their lifelines  
curved away down tide with their  
bubbles surfacing even further away.  
An instructor and I went in after  
lobsters. He had gloves and I carried a  
large sack. We were using aqua-lungs,  
again no buddy lines or lifelines, one  
just stayed with one's buddy. We had a  
hard swim for the few yards up tide to  
the buoy. A few feet down the mooring  
chain the current was enough to push  
off a face mask, unless one faced it or  
backed into it, but near the bottom it  
was almost nil. The lobsters must have  
moved to shelter from the rough  
weather. Certainly we found none  
around the moorings. Even so, I  
thoroughly enjoyed this final dive with  
the U.S.N.

Each time I went to the San Diego  
Diving School I was made more than  
welcome. Wet suits, cups of coffee and  
unlimited time underwater were  
arranged with equal facility. It may not  
have been anything like Plymouth  
Sound in January but it was a great  
experience. LT.-CDR. L. T. HICKSON.

### PERSONALITIES

C.P.O. 'Slim' Burgess known to many  
in the diving world as the 'Flying  
Dipchick' has finally come to the end of  
his strayline, and leaves the service  
in May.

His last job was here in *Vernon* in the  
'Hot seat'—or Regulating Chief to the  
uninitiated! His many years as Chief  
Flying Instructor at the Lee Gliding  
club have made him one of the more  
well known divers and helped to dispel  
the theory that all divers are 'Bone'.  
Only some of us are!

ED.

### WANTED.

DIVERS—Please send details to:  
International Underwater  
Contractors (England),  
60 Hunts Pond Road, Park Gate,  
Southampton, S.O.3. 6QW, Hants.  
Tel: Locks Heath 3138.  
Area Code 04895.

## Transfer Under Pressure

**O**F interest to many of our readers the picture below shows one of the most advanced deep diving aids in the world—a transfer-under pressure system. The submersible Decompression Chamber (left) has a depth capability of 450 feet and can be used by divers as a fast, safe means of transport to the sea-bed. It can be used also in surface weather so bad that without its protection the divers could not get through.

It can be suspended at depth while divers carry out their work and be used to bring them speedily back to the surface whilst they continue to breathe compressed air, oxy-helium or other gas mixtures at the appropriate pressures.

On its return to the surface, it can be

locked on to a Deck Recompression Chamber (right) and the divers transferred, still under pressure, to complete their decompression time with at least some of the comforts of home. The S.D.C. then can be used again with other divers to enable continuity to be maintained on the job.

The particular one shown is in use by North Sea Diving Services Ltd, who have taken on an underwater job in South Africa that has already killed two divers. The contract, worth £40-50,000 is for a sewage outfall, which will run for more than two miles out from shore, and into depths as great as 270 feet. It is expected that the divers will be using oxygen and helium instead of compressed air.



## Historic Wrecks in the Solent Area

by ALEXANDER MCKEE

*Continued from Volume 14, No. 3.*

### THE REGENT AND THE CORDELIERE

**T**HESE are not 'Solent Ships', they sank, locked together and burning, off Brest in 1512. I put them in because they are the only examples I know of wrecks illustrating the next development in warship-building. When built, in about 1488, the *Regent* was a four-masted Carrack carrying many guns, some of them heavy. The development from 1418 to 1488 was therefore from two-master to four-master and, almost certainly, from clinker-building to carvel—that is, heavy planks joined edge-to-edge, and a much stronger framework of ribs, beams and 'knees'. The main armament was still the infantry battalion, but provided now with much increased fire-power, particularly in gun-powder weapons.

### MARY ROSE

The *Mary Rose* was laid down at Portsmouth in 1509 as a 500-ton experimental warship, ordered by Henry VIII. For twenty years, under previous Kings, the Navy has been 'streamlined', and no major English warship has been built or rebuilt. Those twenty years had seen considerable developments in the technology and science of artillery, which dated only from about 1360, and these developments were incorporated in her design, or rather she was built around them. Instead of a space being found for a few heavy guns to back up the multitude of small swivel-guns the *Mary Rose* was designed to mount complete port and starboard batteries of heavy artillery of mixed design: new muzzle-loading brass cannon on the one hand and old breech-loading wrought-iron cannon firing stone-shot

on the other. Probably they were complementary and probably also they were supported by smaller swivel-guns and covered by infantry armed with missile-weapons—bows and arrows—as well as pikes. In short, basically a military conception, or so I think.

In 1536, the *Mary Rose* was rebuilt at Portsmouth and up-graded to about 700 tons. We know what the ship looked like above the waterline, from a 1546 version of 'Jane's Fighting Ships' called the 'Anthony Roll', which lists also her armament and stores. The brass guns consisted of: 2 cannons, 2 demi-cannons, 2 culverins, 6 demi-culverins, 2 sakers and 1 falcon. The iron guns consisted of: 12 port-pieces, 2 slings, 3 demi-slings, 1 quarter-sling, 6 fowlers, 30 bases and 2 top-pieces. Small arms for the infantry included: 250 Yew bows (with arrows), 150 pikes and 40 dozen darts for use from the fighting tops. Her normal complement consisted of 185 soldiers, 200 mariners, and 30 gunners. And that, really, is about all we do know of this revolutionary ship, a 'key' vessel in the evolution of the battleship and incomparably more important than the *Vasa*.

She was sunk in action, by accident, during the Battle of Portsmouth in 1545. Sir George Carew, the Vice-Admiral, went down with her and his wife, Lady Mary Carew, was a witness; she was standing beside the King, Henry VIII, at Southsea Castle, his battle headquarters. Two other relatives who were in the fleet were witnesses also; his uncle, Sir Gawen Carew, and his young brother, Sir Peter Carew, who described the event to his biographer, 'Hooker'. As the Government was then gathered in Southsea and

the foreign ambassadors also, we do not lack witnesses of the sinking and of the battle, but it is a long and involved story. Basically, an English fleet of 60 ships was facing a French fleet of 235 ships, and so Henry VIII ordered Lord Lisle, commanding in the *Great Harry* to sit firmly on the Hamilton Bank and Monkton Patch under the guns of Southsea, Portsmouth and Gosport. The French attempted to lure them out of their good defensive position by sending forward a small galley force to harass the English, and it was during a limited counter-attack on this force that the *Mary Rose* went down.

Many of the mariners were so experienced that they were too proud to take orders from each other, and the result was an awful muck-up of a turn to port, plus a failure to secure the heavy guns properly. The unfortunate battle-ship eventually heeled so much that the gun-ports on the larboard side went under water. And that was that. Reports are unanimous that no more than 40 men survived and the losses are given as high as 700. It may be that for such a short-range operation her infantry complement of bowmen and pikemen had been reinforced by companies from the main field army, then encamped on Southsea Common.

Attempts to raise the wreck were unsuccessful but salvage work continued for some years, being undertaken by an Italian company, and guns to the value of a little over £100 were recovered. I discovered in 1966, in the Public Record Office, the official file dealing with her re-discovery many centuries later and what happened subsequently; so what follows now is, for once, authentic.

A group of Gosport fishermen from the families of Burnett, Redman and Richard knew her well, but when they got hung up again on 16th June 1836, the pioneer inventor of helmet diving gear, John Deane, with one of his

partners, William Edwards, was working on the *Royal George* at Spithead. They asked the two divers to come over and look at the obstruction, striking a bargain as to the division of the spoils. Deane and Edwards found that the fishermen's lines were entangled in the almost completely buried remains of a big wooden ship, and on searching further discovered a 32-pounder brass demi-cannon bearing the name of Henry VIII and that of an Italian gun foundry, plus a date—1542. Their subsequent operations in that year and in 1840 proved the wreck to be that of the *Mary Rose*. One of the recovered guns was an enormous 68-pounder cannon royal and among the smaller artifacts were yew bows and a unique jug made in Cologne. Because of their obvious historic importance, Deane had scaled drawings and water-colour paintings made of these items. For the time—it was before land archaeology had even begun—this was a good show; although today the haphazard lifting of guns and artifacts from an important wreck cannot be justified.

Indeed, if a substantial part of the *Mary Rose* should still remain deep in the soft mud and clay, she would invite an effort on the scale of the *Vasa*, which so far is estimated to cost three million pounds. For that much money one would expect a meticulous job of excavation resulting in the reconstruction of the hull (perhaps for display in the grounds of Southsea Castle), plus all remaining armament, in its original sitings, and the wealth of other information which must exist. I obtained an accurate chart position early in 1966 and have dived on the site with Peter Throckmorton, among others. He thought the preservative qualities of that particular piece of sea-bed to be so good that even documents might still remain intact inside the wreck.

No part of the ship shows above the

sea-bed and prodding with a handspear is nearly useless. The next stage is an electric survey of the site from the surface, which should provide most of the required information without damaging the ship further. At the same time, the Committee for the Nautical Archaeology are taking the necessary legal steps to put the site 'out of bounds' and so prevent anything resembling the shambles around the Scillies.

As a footnote, one of the French ships, the Flagship *La Maistrisse* sank by accident at Le Havre before the fleet set out for Portsmouth, and one of the galleys is believed to have been run ashore at Brading in a sinking condition.

#### SAN SALVADOR

The great carrack *San Salvador* was the Flagship of Admiral Oquendo,

leading the Armada of Guipuzcoa, part of the Great Armada of 1588. She blew up off Portland, caught fire, and was taken by the English (but not before the treasure had been removed). The English sea-captain gutted her, then the landmen had a hand in the loot, and in November 1588, the captive hulk was to be sailed to Portsmouth. For lack of sails and other equipment, she was lost off Studland in deep water with 23 men, six of them from the original crew, the others, Englishmen of the prize crew. As showing the development of the carrack up to the time of the Spanish Armada, her wreck would be of historical importance and, happily, there was/is no treasure to tempt the many unscrupulous blasters in the underwater business.

*To be Continued in the Future.* ED.

## Seals as Divers

**I**F you have been fortunate enough to actually see seals underwater then you already know that seals are excellent divers; they have certainly been seen at depths of 170 feet and it appears that some of these cuddlesome creatures may be capable of diving to depths as great as 500 to 600 feet . . . and on just one lungful of air! There can, therefore, be very little doubt, that seals are good divers, but let us look at these unique animals in more detail.

Just like the dolphins and whales, the seals are mammals and are therefore warm-blooded, air breathing animals which give birth to live, well developed, hairy young. They are not, however, directly related to the dolphin types of mammals (cetaceans), but have evolved independently from a different stock of four-legged land-bound mammals. In fact, the dolphins and whales had been around for millions of years before the first ancestral seal ever launched him or

herself into the sea. The cetaceans thus had a head start and have become far more specialised to life in open sea, so-much-so that they are now incapable of surviving on land. The seals and their relatives (sea lions and walrus; collectively called 'pinnipeds') on the other hand, generally lead part of their life on land and part in the sea, being completely adapted to neither.

We can therefore expect to find when we examine a seal closely that although well developed for diving, it lacks many of the sophistications apparent in cetaceans. For example, the seals have retained the two hind legs, while the cetaceans have lost these and developed a very efficient horizontal tail fluke for faster swimming; also the nostrils of a seal are in the usual place for land living mammals whereas the cetaceans have moved their nostrils to the tops of their heads which is far more practical. So far I have been comparing the seal 'family'

with that of the dolphin, but now let us have a look around our wind swept shores and find out what the good, old, British seals are like.

Of the 32 species of pinnipeds around these days, only two species fully appreciate what our coasts have to offer. They are obviously connoisseurs. Let me introduce them: the 'common seal' affectionately known as *Phoca vitulina vitulina* and the 'grey seal' alias *Hali-cheorus grypus*. Incidentally, it was none other than a British 'common' seal who having been volunteered for a compression Chamber 'dive', successfully executed a 300 feet simulated dive therein.

How long can they remain underwater? I'm glad you asked that question. Normally they may stay down about 5 minutes but in cases of extreme necessity durations of up to 20—30 minutes may be possible.

How can they stay below so long with just one lungful of air? Another good question. They have acquired specially developed physiological tricks to enable them to perform such terrific feats of endurance. One of these is to slow down the heart rate and simultaneously change the distribution of blood giving priority to the brain. The muscles thus receive less blood but this isn't so bad since the muscles themselves are capable of building up a store of oxygen prior to a dive.

Unlike a cetacean, before a seal dives he usually exhales. The residual air in his lungs does not therefore constitute a significant store of oxygen. As if to make up for this apparent deficiency, seals have vast quantities of blood—almost double the amount when compared with a man of similar body weight; this is obviously a large storage depot for oxygen. But why *do* they breathe out? Probably to try and achieve neutral buoyancy, thus minimising the effort required to maintain a

particular depth. Their cunning does not end here as it is common practice amongst seals to *swallow* stones and pebbles presumably amongst other things to adjust buoyancy.

Several aspects of reproduction in seals have attracted the attention of many zoologists over the past few years as an air of mystery still surrounds them. What we do know is that each year the seals come from far and wide and establish a colony on a suitable part of the coast. First of all the older males (bulls) come ashore, each one laying claim to a piece of land. The bigger and more experienced bulls usually get the best territories with easiest access into and out of the water and well positioned for first choice of females (cows) when they come ashore. Any infringement of boundaries by a neighbouring bull seal is greeted by rude noises and gestures by the occupying seal. The bull with the most impressive combination of gestures and noises usually wins the dispute. They are very much like humans in that respect.

Once all the bulls have settled their territorial limits, pregnant cows begin coming ashore. The bulls gracefully herd as many of them as possible onto their particular territory and thus establish a 'harem'. The pups are born at this juncture in the proceedings and two or three days after giving birth, the cows are once again ready to receive the bull. The bulls sole duty for the next four to six weeks is to copulate with his entire harem as frequently as he is able and to defend his harem from less fortunate bulls with similar designs. Such is his lot that he never receives an opportunity to feed during this period.

As this phase in our story draws to a close, the seals yield once more to the call of the sea and make their separate ways to the water and may swim tremendous distances from the colony to lead completely solitary lives until

next year when they will again return to that same stretch of coast.

The story of how seals and their close relatives, the sea lions and walruses, have adapted their anatomy, physiology and behaviour to a life spent partly at sea and partly on land is a long,

elaborate but intensely interesting one. I hope that this brief account has at least triggered the curiosity and interest of fellow divers, for after all, as far as nature is concerned, aren't we merely the uninvited (though I hope welcome) guests to the sea. J. BEVAN.

## Going Outside

WHEN my time was drawing nigh to depart from the Navy, I was not unduly worried. I reckoned I could get a job sufficiently well paid to keep me in the luxury (?) to which I was accustomed. However, I thought it prudent to prepare myself, and one evening, I drew up a list of my qualifications with a view to advertising for a position. I was a ship's diver familiar with barnacles and bottoms, had a fair knowledge of damage control markings, could tie a sheet bend and knew numerous Italian, Maltese and Arabic swearwords! Surely I thought, there must be a job requiring just these qualifications. So with confidence, I posted a notice in the 'War Cry' and the 'Fur and Feather Weekly'. I got three replies; one from an old lady in Bournemouth who wanted a relief 'pusher' for her wheelchair. Her husband who was almost ninety was getting past it; one from a female chemist who listed the duties as bottle filling, pill packing and serving embarrassed young men who required 'packets of aspirins'; and lastly, the post of mate on an Inland Waterways vessel. The latter had an appeal. I could visualise myself standing on the bridge waving an arm of gold braid, or doffing a cap of scrambled

eggs! However, subsequent enquiries elicited the information that the vessel was a sewerage barge, and there were only three in the crew, the horse, the driver and the mate—I won't tell you what his duties were.

Undaunted, I re-wrote the notice, and at enormous expense inserted it in the Cricklewood and Cookham 'Clarion'; the notice read as follows:—

Ex-Naval Diver—vast experience, requires civilian employment, willing to undertake any remunerative task.

I won't bore you with details of the replies, but, suffice to say, that some of the tasks offered were entirely unsuited to my temperament and physical qualifications. It is strange how the layman thinks that all divers are big, husky, virile chaps, who once they have removed their helmets or flippers are either diving into a pint pot or into a double-bed. I am just over nine stone, am a bitter lemon addict, shave once a week, and the sight of a scantily clad female makes me break into a rash!

So, having had two weeks on the dole I decided that civilian life was not for me and I rejoined the Navy as a cook—be seeing you shipmates. ANON.

## Competition — For Magazine Material

IT is intended to run a competition, open to all readers of the Magazine for the next TWO issues for 1968.

There are two Sections to the Competition — one for photographs — the other for articles of serious or humorous nature, submitted to the Editor before the dates given below.

The Prize for the best entry submitted for each section will be £5 and all material will be prepared, and edited before Submitting to the Judging Panel.

The dates for Entry are as follows:—

For the Summer Edition—  
The 15th July.

For the Winter Edition—  
The 18th November.

THE ONLY RULES ARE AS FOLLOWS:—

- 1.—Full Copyright Permission must accompany all material submitted. Photographs must not be less than 4½ x 3½ and are returnable, if requested at the time of submission.
- 2.—All material submitted too late for the first magazine will be automatically entered for the second.
- 3.—The decision of the Judging Panel will be final.

GOLF	FOOTBALL	SQUASH	HOCKEY	FENCING	
CRICKET	Tel. PORTSMOUTH 20611			FISHING	
INDOOR GAMES	<i>Sportsmen shop at</i> <b>THE SOUTHERN SPORTS SHOP</b>			BOXING	
WEIGHT TRAINING	<i>Personal attention</i> <b>48 ELM GROVE</b>			BOWLING	
ATHLETICS	<i>from</i> <b>SOUTHSEA</b>			CAMPING	
JUDO	<i>Peter Anderson</i> <b>HANTS</b>			FIRE ARMS	
BADMINTON	RUGBY	UNDERWATER EQUIPMENT			TENNIS

## ROYAL NAVAL DIVING SCHOOL HORSEA ISLAND

SUB AQUA

# OPEN DAY

PORTSMOUTH

**1300 - 19th MAY, 1968**

PROGRAMME

Admission to the SUB-AQUA DAY will be by Ticket, obtainable from Southsea B.S.A.C.

### Foreword

As many of our Sub-Aqua readers will already know, The Royal Navy has formerly made certain facilities available to clubs for weekend Diving. This had to cease for a variety of reasons.

This year we intend to repeat what has become almost an annual event by holding a Sub-Aqua Day where the Clubs may once again meet the Navy Divers, see and try their equipment.

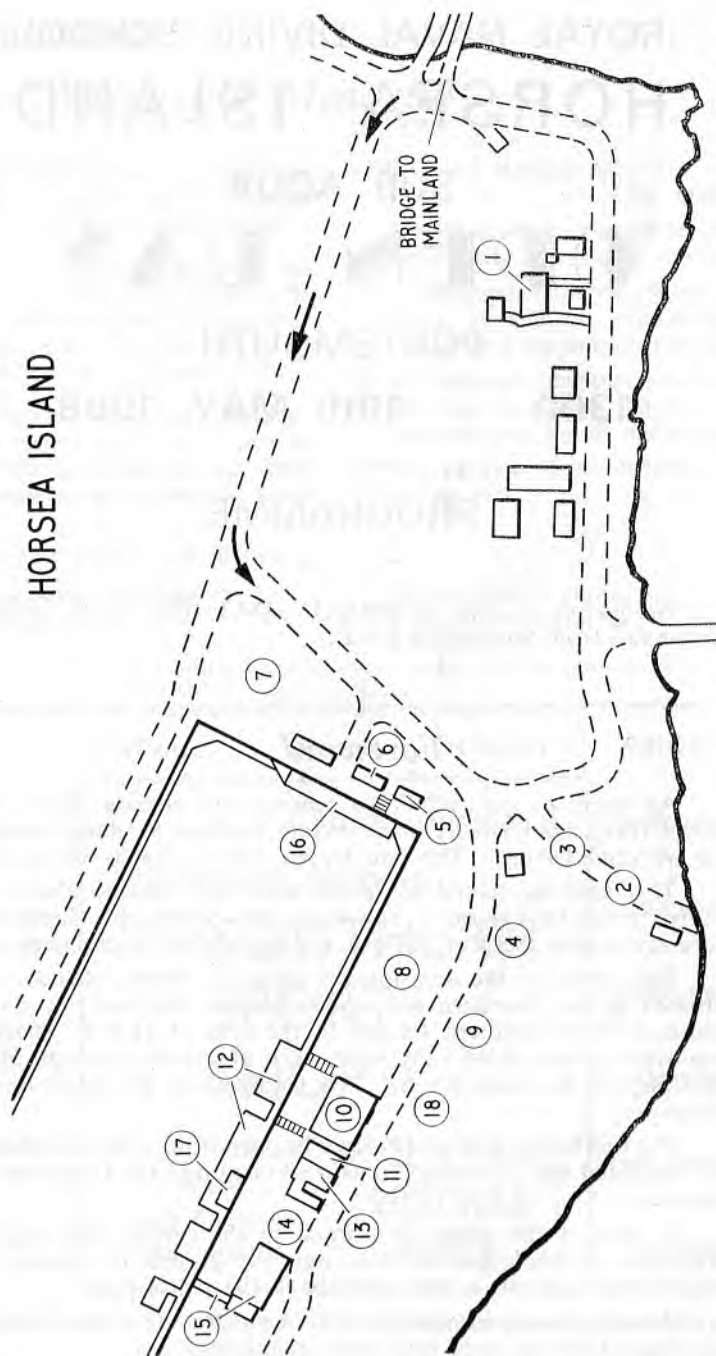
The venue for the occasion will again be Horsea Island. It is situated at the Northern end of Portsmouth Harbour, access to which is from Northern Parade to the rear of H.M.S. *Phoenix*. Admission to the island is by ticket only, obtainable from the Hon. Secretary of Southsea B.S.A.C., 38 Cumberland Road, Southsea, Hants.

The footbridge to the Island will be open from 1230 and Visitors are requested not to attempt to gain admission to the Island before this time.

A map of the Island is printed in the centre pages of the Magazine to enable you to find your way around the island. A programme of events is also included in the centre pages.

We are once again most grateful to our friends in the Southsea Sub-Aqua Club for their help with organisation.

HORSEA ISLAND



## Key to Chart

1. Cinema. Adult Diving Films.
2. Gentlemen's Toilets.
3. Gentlemen's Tent.
4. Children's Swings and Roundabouts.
5. Explosive Ordnance Disposal Section.
6. Children's Films (Cartoons).
7. Buffet Tents.
8. Naval Equipment Static Display.
9. Civilian Firms' Tent.
10. Ladies' Changing Room and Toilets.
11. Creche.
12. Standard Diving.
13. First Aid Post. Main Office.
14. Royal Engineers Tank.
15. Swimmers Air Breathing Apparatus Diving.
16. Demonstration Jetty.
17. Compression Chamber Dives.

## Static Displays

- Underwater Cutting.
- Bomb and Mine Disposal.
- Diving Equipment and Tools.
- Mobile H.S.C.D. Team Lorry.

## Demonstrations

- SEARCH AND RESCUE DIVERS.
- LIFE-SAVING.
- FAST DRESSING.

## Compression Chamber Dives

Practical operation and dives in the chamber will be carried out to a maximum of 10 persons per dive.

VISITORS WILL BE INFORMED BY THE BROADCASTS AS AND WHEN ITEMS ARE TAKING PLACE.

## Cinema

Continuous Film Programme which includes:—

Emergency Resuscitation Parts 1, 2, and 3.

Defence in Depth.

These will take place in the Cinema marked (1) on the Chart.

A continuous Cartoon Programme will be shown in the Cinema marked (6) on the chart.

### GENERAL INFORMATION

The Car Park is at the bottom of Matapan Road and cars can also park in Matapan Road itself. Naval personnel will be available to direct the parking.

Visitors to Horsea Island do so at their own risk. No liability will be accepted by the Secretary of State for Defence, his servants or Agents, for any injury (including fatal injury), damage or loss to person or property whether due to negligence or otherwise.

## Underwater Blasting opens up New Sea Lanes in Fiji

(The following article is reproduced from the Pacific Islands Monthly).

**U**NDERWATER explosions to blast passages into lagoons which have never floated anything larger than an outrigger canoe have been almost commonplace in Fiji lately.

The man behind them all, Captain Stan Brown, is one of the South Pacific's best known inter-island skippers. He has been spending almost as much time underwater as he has on top of it in his well-known ketch *Maroro*.

The blasting away of coral reefs to improve boat passages and make navigation easier has been a 'must' in Fiji for years, but a 'must' which has remained little more than a wishful thought because of lack of funds to buy highly-priced explosives.

Except for a few occasions where explosives were lowered and detonated to remove isolated coral heads, nothing was tried in Fiji until last year.

The underwater demolition business did not really get under way until Stan Brown put some theories he had picked up over the years to T.V. personality Raymond Burr, who bought Naitauba Island in 1965.

Stan had been present during the war when a passage was blown through the reef into Canton Island's lagoon by U.S. Army engineers. Later, he examined the passages blown at Tarawa, where the Americans made a new harbour after the destruction of the old one in the famous Battle of Tarawa.

### Useful Lessons

He also saw a similar man-made passage in Noumea—another product of the war, where cost was of little account; and he saw what explosives

could do in removing coral heads at Christmas Island in 1957 when the Royal Engineers improved the alighting area for the R.N.Z.A.F. Sunderlands associated with the nuclear bomb tests. The destruction in 1963 of Pelope Shoal, a navigational danger for ships using the port of Honiara, provided further useful lessons.

So when Stan put his theories to Raymond Burr, he was anything but an armchair theorist. Mr. Burr listened, and put up the money for an experimental bang at Naitauba.

Several coral heads were removed from the boat passage at Naitauba, which was so improved that it can now be worked at all states of the tide instead of only from half-tide upwards.

Captain Brown then blew a passage into the small lagoon at Toberua Island, off the Rewa estuary, which Sydney company director Joe McHugh is converting into a tourist resort.

Then followed more work at Naitauba where another passage was cleared in the hope that small seagoing craft could use the lagoon. More work is still needed there but the passage has already been used by an overseas yacht which stayed several days.

Stan Brown's next job was for the Shell Company, when he and other divers, working from the *Maroro*, removed large coral heads at Waiyevo on Taveuni so that the company's new tanker, *Sigawale*, could berth there.

When the Government was given information on costs and the amount of coral removed, the new Marine Department employed the *Maroro* team to

carry out underwater demolition elsewhere.

The first job was to improve the entrance to the lagoon at Fulaga Island in the Lau Group. Several coral heads were shattered, including one which has accounted for several local vessels, and now some of the largest inter-island ships can get into the lagoon, where previously they would have needed wings.

Heads have also been removed in several boat passages at Kabara Island (Lau Group) and the anchorage has been improved out of all recognition.

On the islands where blasting has taken place, the Fijians have been rejoicing both for the better shipping facilities and because each big bang takes its toll of fish. Islanders have never had so much fish with so little effort.

Sharks have caught on too. They have learned that a big bang means a meal, and no sooner has the spray settled down after an explosion than they race in for the harvest.

They put on a polished performance at Naitauba and Fulaga where demolition work went on for days, and before the last bang the sharks had worked out the *modus operandi* to a remarkable degree.

At Waiyevo, a large black whaler shark made a practice of working the area early in the morning and taking any fish that were lying on the bottom.

Meanwhile, the *Maroro* divers have become aquatic explosion experts and they'll go anywhere.

The only thing that stops them from doing even more work than they do is the price of explosives—£1,000-worth of commercial explosives is soon used up.

## Miracles take a little longer

Thomas Hardy wrote, although I doubt if he knew any divers—

'Somebody said that it couldn't be done, but he with a chuckle replied, 'Maybe it couldn't' but he would be one who wouldn't say so 'till he'd tried'.

**I**T all started on one sunny morning in the Gulf when a very keen young E.R.A. from H.M. Submarine *Astute*, not being satisfied with a routine check up inside the submarine had to do a sub-aqua survey of the bits that stick out underneath. To his horror, having arrived at Bahrain from U.K. via India, he found much damage to the port after hydroplane and all the signs of the same thing happening to the starboard one.

Not having had his tot and the visibility being reasonable, he rightly reported the damage to his commanding officer. After the tranquilisers, much consultation was had with the base staff and it was decided that, since the damage could not be repaired in situ, the hydroplane must come off. Very logical, but with no dry dock available, that is about all one could say. However it was decided to have a go using the meagre diving potential available.

It is amazing how the 'buzz' gets around when there is the chance of a dip and an interesting one at that; divers appeared from all kinds of retreats, blinking in the strong sunlight and doing the odd press up. All most convincing, but during the following week they were to get more exercise than they had bargained for, in water at Plus 90 F., using S.A.B.A.

For the uninitiated, a submarine's hydroplanes are similar in construction to the wing of an aeroplane, are a taper fit onto a shaft and held in position by a nut and keep-plate. The removal of an inspection plate reveals the nut, but allows very little room for fitting a giant spanner which, when in position, can only be moved through an angle of 60 degrees, i.e. one flat on the nut, before

it must be repositioned for further turning.

Work commenced with the removal of the port hydroplane nut. Just undo it? To start with, a 1½ ton Pull lift shackled between the submarine casing and one side of the spanner and a 28lb. hammer (persuader) on the other side were used—the Pull Lift chain parted. It was replaced by a 3 ton lift but still the nut refused to budge. Leaving the pull lift in situ, the diver and 28lb. hammer on the other side were replaced with a home-made battering ram consisting of a 2cwt. cylinder block, conveniently slung and moved forward towards the spanner at a rate of knots by the crafty method of leading a rope from the cylinder block through a leading block to half a dozen fast moving submariners on the casing. The impact of block on spanner just managed to budge the nut but it took several more performances to slacken it off. Permission to use explosives had not been granted at this stage.

Before breaking the taper between the hydroplane and shaft, the hydroplane was prepared for unshipping. Since there were no safe lifting points left on the hydroplane it was decided to place wires round it (all same tying up a parcel) and securing it with bulldog grips which also served as lifting eyes. To facilitate slinging, an 'I' section R.S.J. was tack welded to the hydroplane guard. Slinging points were from the R.S.J. and the inner edges of the hydroplane guard by means of 'G' clamps. The actual lift and shift was achieved with the aid of Pull lifts and some knowledge of basic mechanics (triangle of forces)!

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In an attempt to remove the hydroplane from its tapered shaft a 6 ton hydraulic jack was used, but without success, even with the aid of the battering ram. Finally, after much communication with the boffins in U.K., a jig was designed in U.K. and produced in the workshop in H.M.S. *Jufair*, which enabled cordtex to be used to jump the hydroplane off the taper. The firing only moved the hydroplane  $\frac{1}{8}$  inch along the shaft but this was sufficient to allow it to be inched off the shaft completely by means of Pull Lifts until it was eased into the vertical position when a crane lifted it clear of the water and onto the jetty.

Replacement was made easier by the provision of 'eyes' tack welded onto the top surface of the repaired hydroplane. It was transported from the jetty to the

after end of the submarine by slinging it below a cutter in the same manner used when taking away a Bower Anchor, for use as a kedge. (Ancient mariners will be with me). From the cutter, the hydroplane was manoeuvred onto the shaft with pull lifts, great care being taken to avoid damage to the shaft thread, key and keyways. Final tightening of the nut was achieved by carrying out the reverse procedure for its removal.

The Starboard hydroplane was removed and replaced in a similar manner but in the light of experience it took considerably less time.

It is interesting to note that H.M.S. *Jufair* boasted of no diving team as such, divers and supervisors were recruited as and when available from *Jufair* and



Diving Team for S/M *Astute's* Hydroplane removal and replacement at Bahrain.

ships at Bahrain but basically, at any one time, the team consisted of:—

- 1 Diving Supervising Officer.
- 1 Artificer Diver (the S./M.E.R.A.)
- 1 Ship's Diver (P.O. from *Jufair*)
- 1 S.W.D. (P.O. from *Jufair*)
- 3 Ships' Divers (others)

What no C.D's !

The complete job was a classic example of ingenuity coupled with divers dogged determination to get the job done—that is what all your training

**T**HE article 'Greatest Living Beings in the Sea' in last edition of the magazine, reminded me that these marine mammals are already usefully employed in underwater work. In 1965 during the 'Sea Lab II' project conducted by the U.S. Navy as part of their 'Man in the Sea' experiments, a porpoise named Tuffy was borne as a diver. Tuffy had been trained to perform small tasks, such as delivering messages and carrying tools and other small objects. In the next stage of the 'Man in the Sea' experiment, Sea Lab III, which is scheduled to take place this year, it is proposed to use other sea mammals in these roles. Two porpoises, two sea lions and a seal are being trained in 'search and rescue' techniques, in the carrying of small objects and as an aid to propulsion.

U.S. Navy scientists have been studying these very intelligent mammals during their training, and progressively planning their programme. The idea is to determine their behaviour, diving endurance and any particular characteristics and to use these for the benefit of the man underwater. The trainees have responded well to their instruction and all can perform one or more of their

was about. Also, reference article by J.W. in *Diving Magazine* Volume 14, No 3, Page 46, good seamanship came to the fore, but also let it be said that the E.R.A. of the submarine was an essential part of the diving team.

In conclusion, Thomas Hardy wrote:

"So he buckled right in with a trace of a grin on his face.

If he worried, he hid it.

He started to sing as he tackled the thing that couldn't be done, and he did it". R.C.

allotted tasks. The seal holds the record for diving endurance with a time of 20 minutes, but the depth of the dive is not known. The results to date indicate that the marine mammals can be an aid to the man in the sea, whether he be a diver, swimmer or a dweller in an underwater house. So the time may not be so far distant when the complement for a C.D. team will include one seal and one porpoise!

#### EJECTOR SEAT TIE

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## Before Your Time ?

**L**OOKING through the archives of the Diving School the other day, we came across this rather interesting photograph of an early Diving Officers Course. The photograph appears to have been taken at Horsea Island and in the background you can see the semaphore towers which were a feature of the time, and the stables which housed the horses of one of the early Royal Naval Beach Clearance teams.

The object on the right is either an early Submersible Compression Chamber or a Submersible, self-heating tea urn, whilst the chair-like object on the left is an early Pussers tubular chair. The accompanying reports are also interesting as most of these officers had very chequered careers.

**H. J. Donohue:** Centre—back row. *Credits:* First self-contained diver by cutting breast rope and air-pipe. Subsequently: Lords of Admiralty took dim view. Court martialled, deported to Botany Bay, Australia.

**G. B. Mullett:** Left—back row. *Credits:* Initiated 4 o'clock tea break for Divers. Subsequently; entered House of Lords. Brilliant speaker but resigned after Liberal speaker accused him of stealing his pipe and tobacco.

**M. J. Harwood:** Bearded—sitting on chair. *Credits:* Often mistaken for Queen Victoria, survived two assassination attempts on her life. Subsequently: Wrote book on Baby Care, acclaimed as world authority on subject.

**D. R. Ramsden:** Middle—no hat. *Credits:* First to allow coloured immigrants to do attendant duties.

Subsequently: Known as 'Sahib' after his dramatic despatch to P.M. Disraeli 'Send me a dozen divers and I will conquer South-East Asia for Britain'.

**N. J. A. Davies:** Middle—with Pipe. *Credits:* Married the Admirals' daughter. Subsequently: Joined the China Fleet and later became Admiral. His house parties were well known by socialites of the time.

**C. J. Niven:** Back row—right. *Credits:* Getting away with it. Subsequently: resigned to teach higher calculus and mathematics at Oxford University. Worked with Einstein's father. Further research indicated that he is still getting away with it.

**P. Fougstedt:** Lying down—left. *Credits:* Use of warm hats to keep head warm whilst diving. Subsequently: Refused diving equipment by British Government for fear it would be used against poor ignorant natives in South Africa.

**P. J. Gale:** Lying down—left. *Credits:* Taking things to pieces. Subsequently: Known as 'Fingers' Gale. Took up safe-cracking and publicly hanged by Royal Proclamation in Exeter. Fireworks supplied by 'Drake'.

**J. Birkett:** Sitting on tea urn. *Credits:* Inventing Submersible Tea Urn. Subsequently: Went to Persian Gulf and became known as 'Birkett of Arabia'. Signed several peace treaties with local sheiks. Relieved by Army Officer called Lawrence.

EDITOR'S NOTE. I have the feeling I have seen some of these faces before.

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## The Parable of 'Brum'

PETEWARREN

AND it came to pass that all was peace in the land of Airey-Fairey and the winged chariots went about their business. It was upon the third day after the festival of TICKLER-COOPON that rumblings from the mountain of the WHITE-HALL were heard and many gathered for the great god spake unto ye tribe of Airey-Fairey.

Now the head scribe of the tribe of Airey-Fairey was known as F.O.N.A.C. the Terrible, and he sent missives to all lower scribes who in turn pass the word to all the serfs.

And such a missive was handed to the lower campment of NASLEE wherein dwelt ROYGRAHAM, he who commanded a cohort of wild men who did spend much of the day beneath the wild and turbid waters. And this ROYGRAHAM gathered unto himself his cohort and spake thus.

'Oh ye of AIRCOMMAND who didst fritter away thy time in the far land of Scilly, upon the rend called 'Association'. Thou art been given a norm by F.O.N.A.C. the Terrible. In two days hence, girdle thy loins and hie thee off to the far land of BRUM, for the multitudes are gathering for the festival of BOATSHOW and wish to see thee making as if to dive, for thy fame hath spread even beyond the dock-yard gate'. ROYGRAHAM spake unto LOF-TY-WARREN and LOF-TY-WARREN spake unto BOM-BER-BROWN, and BOM-BER-BROWN spake unto OZUS-HOLLOMBY who inturn spake with KEEF-WARNER. And there arose much muttering from within this cohort for their voices were heard saying 'Who are we that run with alacrity like the winged insects with blue posteriors to the land of BRUM'? But ROYGRAHAM didst say 'Oh ye

men of little faith, don't thou know that heated pools and scented couches have been prepared for thee for thou art to be feted and made much of'. And with that, the wild men were sated, and gathering up many artifacts applicable to their calling set out upon the road to the land of BRUM.

After one day or maybe two, the wild men gathered unto the temple of BINGLEYHALL IN THE LAND OF BRUM for the great festival of BOAT-SHOW, and there was much rejoicing thereof. Upon the day of commencement, when the multitudes had gathered ROYGRAHAM spake unto the crowd thus. 'NOW HERE YE THIS! Yonder men swathed in rubber vestments will show unto you the art of DI-VING, and at his word of command, BOM-BER-BROWN and OZUS-HOLLOMBY entered the turbid waters, and didst cry GAWDITSCOLD and upon the cessation of their activities didst emerge a strange colour of blue. It was then that LOF-TY-WARREN and KEEF-WARNER didst appear in strange white swaddling clothes, where on ROYGRAHAM didst scream some majic word, whereon both got dressed in rubber vestments with much alacrity an event which pleased the multitudes. And it thus happened, after the first day, that the wild men didst gather unto themselves and spake saying 'Wherein are the heated pools? Wherein are the scented couches? Wherein is the substance? And how many times per diem must we act thus.' Upon hearing this, the wrath of ROYGRAHAM waxed exceedingly strong and he held forth saying, 'Thou didst not need heated pools! Thou dost not need scented couches! Thou must forage the surrounding countryside for thy fare and thou shalt perform four times per diem

in order that the multitudes can be joyous, for that is thy lot'. But the wild men didst call upon their maker saying, 'Oh, Genii, whyfore should I suffer thus', and were oft seen waving at ROYGRAHAM with two fingers of the right hand. Yea! The very gesture of utmost despair.

For fourteen days and fourteen nights, the men of the tribe of Airey-Fairey

didst please the multitudes of the land of Brum. On fifty-six occasions did ROYGRAHAM scream his magic word, - - - - and the wild men didst spend a total of thirty-eight hours capering in front of the crowd who muttered, 'Yea verily'! Who, other than the afflicted would do such a thing?

HERE ENDETH THE PARABLE.

## Contributor

THE appeal by the new editor for magazine material is one that we have all heard from previous occupiers of this 'hot seat'. The editor's task is a thankless one, and much of his time is spent in begging and beseeching those of us who can write, to pen a few lines for the magazine. One does not have to be a Charles Dickens to make a worthwhile contribution—just a little time and effort can produce an article or story which will be read and enjoyed by many.

In the early days of the magazine, way back in 1956-57, when it was even more difficult to get material for printing, almost any bit of diving news was grabbed and published. Thus, those responsible for the magazine at the time, were particularly gratified when a large article on underwater welding arrived in the post. The article, which was written in a bold copper plate handwriting, was a good one and its writer appeared to have full technical knowledge of his subject. Enclosed with the article was a letter requesting a free copy of the next issue of the magazine in return for more articles. This was a little unusual, but then so was the address of the sender—No. - - - - Parkhurst Prison, Isle of Wight, the writer was an inmate of this respected establishment. Divers and those unfortunate enough to get caught,

have some kindred spirit, and there was a general sympathetic feeling for this 'lost soul' even though his crime was not known, a copy of the magazine was sent together with a letter of thanks.

In the following year a number of articles on diving equipment were received from No. - - - -, each written in this fine copper plate handwriting, and each technically correct, in fact they were almost text book standard. Finally a letter was received stating that No. - - - -'s enforced spell on the Isle of Wight was coming to an end, and on release he would be put on the boat for Portsmouth. Since he would be on *Vernon's* doorstep, could he possibly visit the Diving Section before travelling on to London. This seemed a reasonable request to the diving fraternity, who it must be admitted were all interested to meet the chap, but the powers that be were not too sure. However approval was given on the understanding that the visit took place out of working hours and that our 'friend' was to be escorted both to and from the Main Gate.

On the appointed day No. - - - - arrived and proved to be a slightly built fellow in his late thirties or early forties. He was brought to the Diving Section which at that time was accommodated in *Deepwater*, a hulk berthed alongside Whitehead jetty, and intro-

duced to some of the officers and instructors and shown various items of equipment. It was learnt that he was not a diver, and apart from his 'weekly scrub' had never put his head under water; his knowledge had come from reading books in the prison library. In fact his articles were summaries of this reading. He had a particular interest in burning gear and spent a fair time at the tank watching the equipment in operation. On completion of his tour, a couple of instructors took him to their mess where he had a pint and lunch, before he finally departed the establishment. In subsequent discussion in Diving Section, it was generally agreed that although he seemed quite a pleasant chap, no one would have liked him in their team, or as a 'run ashore oppo'. It had been learnt that he had done a two and a half years stint on the Island and there were a number of suggestions as to the crime that took him there. These ranged from accosting and incest to blackmail and forgery, but since he had not volunteered any information on the subject no one knew. This we thought was the end of the episode, and of our contributor from Parkhurst Jail.

Some two days later the Head of the Diving Section received a 'phone call from one of the better known Naval Tailors asking if he was acquainted with an A.B. Blank. It appeared that this A.B. (?) had acquired goods to the value of over £30 without any collateral, but simply by stating that he was a Naval Diver just returned from the Far East and was awaiting settlement of pay before proceeding on leave. He was at present in *Vernon* and the Instructional Diving Officer would corroborate his story. The shop assistant, unfortunately, did not bother to check with *Vernon* and supplied the goods, including a diver's tie and blazer, on a promise that the bill would be settled the following day when the A.B. received his pay. The

diver, when described, was undoubtedly our friend from the Isle of Wight, and the Naval Tailor was very embarrassed when told. The next day yet another Naval Tailor rang and told a similar story, he having supplied goods to the value of almost £40. The Instructional Diving Officer was very sympathetic but disclaimed any responsibility and suggested that it was a matter for the police. However both Naval Tailors felt a bit foolish at being caught out like this and it seemed as though our man from Parkhurst was going to get away with it, but such was not the case. Within a week a firm in London who supplied the Admiralty with underwater cutting gear had supplied an 'Admiralty Diver' with some specialised cutting gear for a so-called emergency job at Dover. The equipment was supplied on credit, but the story was checked and found to be false so the police were informed. Within a short time, our 'friend' was apprehended in South London trying to burn a shop safe and it was understood he ultimately returned to one of Her Majesty's Establishments for more enforced rest. I don't know if there is a moral to this tale, but would suggest—'Don't look a gift horse in the mouth until you have removed his teeth'.

## APOLOGY

IN the Article entitled MONTHLY DIPPERS SECTION -- HORSEA published in the last magazine we gave the official S.A.B.A. endurance records. The times are correct, but the longest endurance of 141 minutes was attained by M.E.(1) BOARER not A.B. BORER as stated. The record holder is at present serving onboard H.M.S. *Devonshire* and I am indebted to his current Diving Officer for informing me of the mistake. Ed.



The Superintendent of Diving (Cdr. P. A. White, M.B.E., R.N.) during his visit to the U.S. Navy Experimental Diving Unit. He is seen during an informal chat to his opposite number in the United States Commander (now Capt. E. B. Mitchell) and Capt. W. F. Searle, Supervisor of Salvage.

## A Soldier in Fins

EDITORS NOTE: Captain Pethybridge who wrote this article is from the York and Lancaster Regiment and has been taking the Ships Divers Course in *Vernon*.

IT is a long established fact that a high proportion of the illustrious members of our Royal Navy are either born with, or redevelop a number of the impedimenta which land based people have long since discarded as unnecessary in their new way of life.

As a firmly entrenched terrestrial creature, the effort involved in making the transition to the aquatic way of life was two-fold. Firstly I had to go through a crash programme of retrograde redevelopment to at least the amphibious era which I calculated would probably be acceptable in a shore establishment. Secondly and no less difficult was a comprehensive language course. Success, I estimated, could only be gauged by the time taken for my brother fish to forget that I had so recently joined them in their marine existence. I felt that this stage was reached when I was in all sincerity queried as to whether I wanted a length of rope 'flaked down' or 'coiled'. Flushed with success, and with a straight face, I reiterated my original request and made a mental note that the time was arriving when I would be able to assert myself, and reply rather differently to any similar question!

Language certainly promised to be a problem—I would be a very lame duck were I not able to converse easily with instructor and course members. Imagine how easily the simplest of operations or lecture could be prolonged by my having to request a translation every few words. I hasten to add that this was not the case.

At this point, I realise that I haven't

really explained my presence within these hallowed pages, so I will repeat my story which has seen the light of day many, many times in the past three weeks. I am at present stationed at an Army Apprentices College, where the cream of the Army's recruits are trained for three years to be soldiers and educated to be electronic tradesmen. In common with all boy/junior units, off-duty hours don't exist, as this is the time when the boys must be occupied with hobbies and activities. On arriving at my new job, I noted that there was a preponderance of 'soft' activities such as photography and stamp collecting, and that the more 'active' activities such as sailing, gliding and canoeing, though very well supported, were numerically inferior.

We have in our new £2½ million barracks, a splendid swimming pool that would be ideal for the basic training of a sub-aqua club and I am told that money is readily available. So the answer was clear—help myself and help the Army, go on a compressed air diving course, and then form a sub-aqua club. And where better to be trained than with the Navy at *Vernon*?

After a good deal of fixing and a good deal of kindness from H.M.S. *Vernon*, I was offered a four weeks Ships Diving Supervisors Course. Accordingly, I jumped in at the deep end and to my utter consternation found myself, on day two of the course, in those very circumstances on Horsea Island in a cold and wintry sea questioning my sanity!

I am afraid that I cannot repeat the exact words I used but I'm sure you can imagine. However, that particular piece of vernacular was but nothing compared with the self-criticism I administered when faced with negotiating on foot what appeared to be several miles of the

most obnoxious sort of mud that God in his wisdom ever saw fit to cover a foreshore with.

We survived—and if I dare say so with just under a week to go, are even enjoying it. Luck I think was on Course 54's side. Our week of deep diving in the Solent was accompanied by calm seas, sunshine, 70° F. which compared with Harrogate's icy blasts, was really rather pleasant.

The chance of expressing mine, and the Army Apprentices College, Harrogate's joint thanks for allowing me to take this particular course must not go unpassed. Having nearly completed the course, I am certain that no where else could I have been so efficiently trained to lead an underwater existence than here at *Vernon*. Nor

could I have been so well endowed with the knowledge which is imperative when teaching others to exist safely underwater even when at play.

From my own personal point of view, I shall leave a fitter and wiser man, to become one of the very few, unpaid Ships Diving Officers in the Army, but having succeeded in yet another of my ambitions. On the business side of our service life—what a good thing it is for officers to learn a little about each others way of life. Inter-service relations, unfortunately, never normally take place till the middle or end of one's career, and with a future in front of us all, which must of necessity lean heavily on inter-service co-operation, it is a shame that greater opportunity is not taken of broadening the young officers outlook.

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## Local Knowledge

I have noticed with interest the recent articles on Marine Biology (Summer and Winter editions 1967) and I'm sure that some interesting correspondence could result if various divers both serving and 'ex.' were to write in about their own experiences with different marine Fauna from various parts of the world.

The maxim, when arriving in a fresh area, is always to consult 'Local Knowledge'. This, of course, is very valuable, but also very incomplete and inconclusive. I have found many books are available on the subject, and other good sources of information are Aquarium Staff and local Medical practitioners.

One can gradually formulate a list of various obnoxious species, along with the symptoms and treatment. I have found it useful to produce a wall chart of all obnoxious life to be found in the operating area, and alongside each one put two code numbers, one referring to symptoms and the other to treatments. I then list numerically all symptoms in one column, then all treatments in another. Thus, you can readily recognise cause, and immediately cross-reference to symptoms to be expected and treatment required. Serious symptoms present much less of a problem if they can be foreseen, and will often determine whether treatment can be carried out locally, a doctor should be called, or the victim should be transported directly to hospital.

While gleaning information and compiling a wall-chart, one can often 'stumble' across vital information of which one has hitherto been ignorant.

Two constant menaces in the Pacific and neighbouring areas are Sea-Snakes

and Stonefish. The latter, especially, can kill a man within three hours and there has often in the past been controversy about treatment. I find now however that special anti-venenes are manufactured to cope with both these potentially fatal creatures.

The Commonwealth Serum Laboratories, 45 Popular Road, Parkville, N.2, Victoria, Australia, manufacture both Stonefish (*Synaceja Trachynis*) and Sea-Snake (*Enhydrina Schistosa*) anti-venenes.

In answer to a letter of enquiry, the Deputy Medical Director at the above address readily supplied full details of the preparation and use of these anti-venenes. The job on which I am currently employed, has one area where we have sighted Stone-fish on many occasions, when we have had visibility. This brings home the fact, that they are still present when there is nil visibility, and under these conditions, of course, one is much more likely to disturb them, thus provoking 'defensive' attack on their behalf.

Now that we have on the site ampules of anti-venene, I think we are confident of the eventual outcome of any encounter that may occur.

I would strongly advise that, when working in various areas, a complete medical kit should be made available, as many of the specialised items are not normally available locally.

Most cases of fish poisoning require concise qualified medical attention urgently, and a kit that can be placed at the doctors disposal is most welcome.

Here, it should be stressed, that no amateur should ever attempt to administer an anti-venene, as serious side-effects can quickly develop, which in

themselves require skilled medical attention.

very venomous, fish (and some plants) which are encountered in various waters.

I should be most interested to hear, if others in the trade know of any specialised treatments for the many,

M. R. Pemberton, Diving Inspector of Works, P.O. Box 7001, Keamari, Karachi 7, West Pakistan.

## Girls and Boys

**T**HERE is a theory that divers tend to have a predominance of girl children in their families. This may equally apply to others who pursue active occupations. It is a question that I have given thought to for some years, since the Mediterranean Fleet Clearance Diving Team—which I commanded at the time—produced almost a 100% female score, 12 Girl children, only one boy.

I need the date of marriage, number and sex of children, date qualified (or commenced diving) and whether you were employed in an active diving billet during the period of conception.

Some say it depends whether you were facing east at the vital moment, perhaps you have other ideas? If so I would like to hear about them.

Those wishing to take part in the survey should send information to:—

Commander P. A. White, M.B.E., R.N.

A.E.D.U., H.M.S. *Vernon*,  
Portsmouth.

The time has come to clear the matter up, for several eminent Doctors are interested in this apparent trend. A simple questionnaire is being sent out to all serving divers but, in addition, I would be grateful for all available facts and figures and ideas from all divers.

## Obituary

### FIVE BELLS FOR LT. E. W. J. (TED) GORDON (Q.D.D.) R.N. (Retd.)

**T**HE Editor is sorry to announce the death of Lt. E. W. J. Gordon, R.N. (Retd.). Ted retired in 1959 after a vivid and varied career. He was associated with many Diving projects, but chiefly with Mine Clearance of the European Coast immediately after the war, the submarine rescue bell trials, and 'Instant Repairs' party for the

bombing of H.M.S. *Hawkins*. He commanded a lifting craft for the Suez episode.

Ted collapsed and died suddenly on November 22nd whilst returning to his office in London.

Our thoughts are with his family in their sorrow. EDITOR.

## Underwater Expedition 1968

### —*Wrecks and Archaeology*

1968 promises much in the realms of underwater Archaeology and Treasure grabbing. Work on the Spanish Armada wreck of the *Santa Maria de la Rosa* is planned by Mr. Syd Wignall off South-West Ireland. Alan Bax has plans for *De Liefde* in the Skerries and the *Mary Rose* in the Solent is again in the news.

The wreck site on the Gilstones, Isles of Scilly, although, almost certainly the remains of *Association*, is not a complete hull, merely a litter of sea-bed finds and, it is therefore, unlikely, that the Ministry of Defence will attempt to prove legal ownership. This produced an interesting situation in that the contracts, issued to the Naval Air Command Sub-Aqua Club, Mr. Morris and the Blue Sea Divers, may be quite ineffective in preventing others working the wreck. The law requires that finds must be handed to the Receiver of Wrecks, and if ownership is not proven within one year, the items are sold by the Board of Trade and salvage money up to 50% of the proceeds may be awarded to the salvor. A frustrating aspect of the present situation is that the salvor is not obliged to exercise restraint in working ancient wreck sites, in order that historically valuable information may be extracted as well as the obviously profitable items.

Last year, one team used explosives on the wreck site, but were restrained by an M.O.D. letter invoking the terms of the contract. This year, with several commercial and many amateur teams threatening to descend, without the necessity of contracts, the almost total destruction of this underwater archaeological site appears inevitable.

A further source of frustration is that

no protection is granted to the original finder. Three years of research and patient probing of the sea-bed by N.A.C.S.A.C. went into the finding of *Association*, but, within weeks, other teams were working the site, making any proper archaeological survey extremely difficult.

For example, the correct way, archaeologically speaking, to raise, say a small bronze cannon, is to first plot its relationship to the rest of the wreck, photograph it and sketch the find and its immediate vicinity, then carefully extract it without damaging any other evidence. Afterwards it is necessary to treat it to ensure preservation from deterioration in the open air. This is a slow painstaking process, and when working in competition with other teams, who are uninhibited by such considerations, results appear less spectacular by comparison.

In 1967, greater quantities of coin were extracted by other teams, and the press publicity made it appear that N.A.C.S.A.C. had 'goofed', but in reality there was a fundamental difference in our aims. It is perhaps unfortunate, that the affair was presented as only a treasure hunt, although treasure hunting sounds more exciting than archaeology to most readers.

Members of the Committee for Nautical Archaeology of the University of London are working towards legal protection of ancient wreck sites, but whether anything can be done in time to save *Association* is doubtful. It may be that *Association* will become the martyr to the cause like *de Vergular Draake* was in Australia.

Another lesson to be drawn is the importance of acquiring an exclusive

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contract when looking for an 'owned' wreck, whose whereabouts is unknown. It is quite a legal 'ploy' to take out a contract to salvage a wreck, wait for somebody else to do the unrewarding work of finding it, and then to step in to reap the harvest. It is not always possible to maintain secrecy, and the required posting of sea-bed finds by the Receiver of Wrecks tends to work against security.

This May, a team of nine N.A.C.S.A.C divers is going to the Lipari Islands to gain experience of work on ancient wrecks, under the direction of an expert archaeologist Gerhard Kapitan. This venture is at the invitation of the

Superintendent of Antiquities in Eastern Sicily, who is anxious to work certain wrecks before they are plundered during the tourist season.

In July, another N.A.C.S.A.C. trip to the Isles of Scilly is planned in conjunction with the R.N.X.S., to dive on *Association* if control of the wreck site then exists, otherwise a search for *Eagle* or *Romney* may be preferred to a 'free for all' on the Gilstones.

LT. R. H. GRAHAM,  
Expenditure Officer,  
N.A.C.S.A.C., H.M.S. *Daedalus*,  
Lee-on-the-Solent.

## Mac's Merry Musings on the Magazine Jubilee



**T**HERE'S a book produced in *Vernon*  
It's our Diving Magazine,  
'Twas born in nineteen fifty-one  
And it's the finest ever seen.

This is our Golden Jubilee,  
With two score books plus ten,  
Throughout these years, with sweat and  
tears,  
To paper we've put pen.

The Editor's of great renown,  
Of the world he's seen a lot,  
For fifteen years he's roamed the seas  
Aboard the Royal Yacht.

So here's to all our diving friends,  
From every nook and corner,  
With perhaps a special mention,  
To that 'veteran' Jackie Warner.

To Frankie Filer and to all  
I raise my silver tassé  
And to 'Shiner's' lovely mermaid,  
With that tantalizing chassis.     MAC.



VG

ONE FOR THE BOOK

THE Winner of the Scottish Open Indoor Archery Championships held in Edinburgh was Chief Petty Officer Chris Jones, C.D.1

He is at present stationed at H.M.S. *Safeguard*. This achievement is all the more commendable, since he only took up Archery in 1962 and last year he won his Hampshire colours when placed 12th in the National Championships. Well done, Chris!

BOOK REVIEW.

FARMING THE SEA

by ALEXANDER MCKEE

Publishers: SOUVENIR PRESS. Price: 35/-

This book has been received by the Editor for review. In view of the technical nature of the book and its very wide scope, a number of people have been asked their professional opinions.

The review will appear in the next edition.

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Letters to the Editor

FOR many years now, I have felt it a very great shame that the Royal Naval Diving Association has never developed beyond a Magazine, a tie, a blazer badge and an annual dinner, which very few of the total can attend.

Everywhere I have been, I have sooner or later crossed paths with other ex-Naval divers and often work in areas where serving divers are to be found.

I feel if the Association were to be developed on business cum-social lines on a regional basis, much benefit could be derived.

Exchange of information can be mutually advantageous to all, and many ex-serving members could help serving members with re-employment, etc. It is not envisaged to extend to a vast world-wide organisation, but rather to initially ask people who are at least semi-static and willing to meet other divers in the area to send their addresses to the Diving Magazine, which in turn might be gracious enough once a year or so to publish same. I feel 'joint' efforts would produce at least more of the material each Editor unfortunately has to plead for and so rarely gets. A common meeting ground can usually be decided upon and in most areas premises can be hired for a monthly or otherwise meeting if it is not convenient to meet on private or business premises.

A question of expense always arises, but I feel, especially in overseas areas, divers are among the more affluent populace and could take care of any expenses involved.

I am sure the serving experts would gladly help by supplying any technical information required by ex-R.N. Divers (in fact R.N.P.L. have recently done this for me through the kindness of Jackie Warner) and in return, information sent to the magazine could return the compliment.

The usual diver being 'above average intelligence and not prone to sea-sickness' usually possesses some latent talent and it would be interesting to see if area 'clubs' could provide a better flow of interesting material than ship's teams are at present. The average laymen would be excused thinking that only about five ships have diving teams on board!

How about it, let's get with it. I'm backing R.N.D.A.!

Yours faithfully,

M. R. PEMBERTON.

P.S.—I am likely to be here until late 1970 at least, so any Gulf ships visiting are assured of a noggin if they drop a line to P.O. Box 7001, Keamari, Karachi 7, West Pakistan.

ROYAL NAVAL DIVING MAGAZINE, H.M.S. 'VERNON', PORTSMOUTH,  
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