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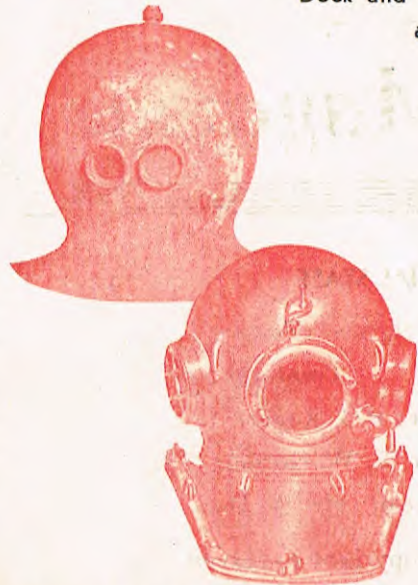
AIR D4 NOTES
SUBMERSIBLE RESCUE BELL
SPYGLASS - 220'
DUNLOP. U/W SWIMMERS

DIVING MAGAZINE

Vol. 1 No. 3.

JANUARY—MARCH, 1952

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Vol. I. No. 3

JANUARY—MARCH, 1952

EDITORIAL

Dear Readers,

Once again I must ask that any material you may have that **you** think is worth considering for publication should be sent to us with a minimum of delay. This, in the best interests of our magazine should be comprised of lots of things that are happening to you or the work on which you are being employed, wherever you may be, providing of course that it's not hush-hush. I would also like to remind lots of Readers that we cannot possibly pay our bills unless we receive subscriptions due for magazines distributed, you no doubt remember the Secretary telling you that 500 copies were sent out to divers, etc., all over the world, and even though lots of replies were sent to us with enclosed and crossed Postal Orders, there were lots who did not, we allowed for the minority who hoped they might get something for nothing, and are still living in the hope that the remaining Readers will come across as soon as they are able.

So long for now, you'll hear from me next quarter.

EDITOR.

SECRETARIAL

Once upon a time there were three sailors, one an Englishman, one an Irishman, the other a Scotsman. All three achieved the distinction of qualifying for Diver 3rd class, but in this respect that was the only thing they had in common, and coming from the three different Home Ports as we know them. Jock was "A" depot and paid his 4/-, only because it was convenient to do so, Paddy was "B" depot and paid his 4/- too, by crossed Postal Order, but Jack who was "X" depot (No, repeat No, disrespect to our "X" Readers is intended here of course), but happened to be in Pompey at the time paid a 1/- for the Magazine that was issued to him, saying that he'd square up before he left. He didn't square up and of course is one of the few who are causing a slight headache to our Treasurer and myself. Whilst he was in Pompey, Jack remarked what a good idea this magazine business was and that it should go down well with the Diving fraternities of the Andrew wherever they might be.

We—all of us here—thought so too, and are still hoping that the "Diving Magazine" will eventually take a forthright place with all our divers eagerly waiting for the next issue. So will anyone who intends to become a regular subscriber please do his or her (Oh! Yes boys, we have quite a few ladies on our books) darnedest to keep books square at this end by sending in the necessary P.O.'s or Cheques, etc., addressed to:—

The Treasurer,
Diving Magazine,
H.M.S. Vernon,
Portsmouth, Hants.

Thanks a lot dear Readers for bearing with me and listening to my tale of woe, I'm really sorry, but the Editor is away and someone has to get on to our ertswile friends.

Begging your pardon,
I am YOUR SECRETARY

EMPLOYMENT BUREAU

This section of the "Diving World" is once again able to offer a contribution to the magazine, having missed the last issue.

The time has come now when the first of the people doing 18 months are about to venture into the civilian world and it is because of this that I would like to know the present addresses of all who are on the books of the Bureau.

We, the Bureau, are now at Chatham, so please note the new address for your replies.

At the moment there is an opening for at least three diving jobs and possibly two more in the near future, one is at Chatham and suitable for a quiet "pensioner." (If any.)

Applications have not been made to assist people for some time now but the last one was again successful, that helps to build our hopes.

We are becoming known as the producers of divers for civilian firms, so, keep at it and keep our name on top in the world outside.

All the best.

W.F.D.

A.E.D.U. NOTES

Looking at the progress board hung in S. of D.'s Office we find that A.E.D.U. has some eighteen projects in hand ranging from the complete rebuild of the M.R.S. to a long term project of finding more efficient CO2 absorbent. For reasons of security, allotted space and the fact that we should have very little to record next time, it is not possible to tell you about the lines along which all these projects are proceeding, but it will doubtless be a service to the diving world if we touch, even lightly, on two of the major projects in this issue.

The extreme right hand column of the progress board is headed "Next Move," not that we are international chess players but we find that the information contained in this column greatly assists in keeping things moving. After three years of design, prototype and trials work we observe with satisfaction that the "Next Move" for the Universal Breathing Apparatus is that of production by the manufacturers. It should be realised by those who have already seen the Universal Breathing Apparatus that what they have seen is probably equipment produced as a trial order and that the production models incorporate several improvements as a result of the acceptance trials. Notable improvements include better securing for the canister, stronger construction of the knuckle joints for the small tubes to the breathing bag and a stouter eyelet for securing the life line. We hope now that the U.B.A. will come off the production line fast enough to give quick relief to the state of extreme discomfort caused by the shortage of Shallow Water and Clearance Equipment.

Redesign of the M.R.S. is well under way, our main objectives being comfort of breathing and wearing, greater mobility, and greater endurance, with the possibility of diving to 180 feet with minimum "stops." Our prototype has been advanced sufficiently for us to have carried out a number of dives all of which have given us confidence that we are on the right lines for a set that is comfortable to wear and that gives good mobility underwater. We are also optimistic about reaching our other objectives. Though we are by no means certain yet what the final model will look like it is perhaps not too premature to mention one or two of the more outstanding features of our design. The corselet is worn outside

the dress in the manner quite popular on the continent. The collar of the dress is then brought over the corselet and sandwiched by the seating of the helmet which is secured by three bolts without any screwing motion. There is a step at the back of the helmet which provides a streamlined access for the breathing pipes and telephone. Whether we shall have three or four cylinders of gas is still to be decided but it is fairly certain that the storage pressure will be considerably higher and that increased endurance will almost certainly be achieved. The canister and injector assembly are smaller than the existing M.R.S. and will probably be a fixture to the helmet. We are hoping to mount the cylinders, reducers and weights on a good solid harness which will be donned in the same way as a waistcoat.

There is much more work to be done both on the test bench and underwater before we order a trial model so it is better not to say more about M.R.S. at this stage.

We have heard odd criticisms of existing diving equipment and many suggestions for improvements, mainly expressed, may we add, over a noggin and due to the noggins that follow, these bright ideas are usually washed away and lost for ever. Some people get their bright ideas in the bath, some in bed: wherever your bright or even not so bright idea is born, we would ask you to note it down and send it to The Editor of the Diving Magazine, who will pass it on to us for investigation and reply.

Any queries you may have should be sent to us by the same route and we will answer them to the best of our ability.

IF

If you can keep your head with pressure round you,
If you can fight off panic and despair,
If you can beat that old narcosis hoodoo
And do your best on oxygen or air,

If you can take advice and profit by it,
When all those little snags have got your goat,
If you can drip and yet mean nothing by it,
When it's cold and wet and windy in the boat,

If you can do your share and still keep going,
To help the other fellow with his too,
If you can feel the seed the School's been sowing,
Is growing now and bearing fruit in you,

If you can improvise when gear is lacking,
And do that job and know that it's well done,
Then you'll have earned your Diving School's whole backing,
But what is more you'll be a DIVER, son.

BY "CHATS"

H.M.S. BELFAST



This photograph was taken recently whilst H.M.S. Belfast was operating "North of the 38th Parallel." Diving operations were quickly and successfully carried out during a very heavy snowstorm and in icy waters.

Editor's remark: *WELL DONE BELFAST—You should have put some snow on the ladder.*

SUBMARINE ESCAPE

By the Technical Adviser

H.M.S. Reclaim has recently been supplied with an American Submarine Rescue Bell and the following article extracted from the "Submarine-Escape-Committee's" report of 1946 will therefore be of interest to all Naval divers. Preliminary trials with the bell have been carried out in a dock at Portsmouth by S. of D.'s Staff and divers of H.M.S. Reclaim. "Reclaim" has been refitted to accommodate and handle the bell and ship handling trials will have been completed by the time that this issue of the magazine is in print. "Reclaim" sails for Inverary on the 28th of February, to carry out another Deep Diving Training cruise but after Easter leave will be continuing trials with the bell at Stoke's Bay (Portsmouth) and then in deeper water, probably once more back at Inveraray. The Submarine Escape Committee's report will give some idea of the capabilities of the Bell, and of what value it can be to a

submarine in distress. The next issue of the Magazine will include an article of the "Reclaim's" trials with the Bell together with the principle on which the bell works and a few technical details.

Cheerio! until then.

E.W.G.

THE RESCUE OF 33 MEN FROM THE U.S. SUBMARINE "SQUALUS"

Place: U.S.A. East Coast (42° 53' N., 70° 37' W.).

Date: May, 1939.

Depth: 220 feet.

Survivors: 33 men by rescue bell.

Cause: Dived with engine induction OPEN.

Water Temperature: 29° Fahrenheit.

At 1040, May 23rd, 1939, it was noted that "Squalus" expected surfacing report" was one hour overdue. Submarine "Sculpin" was ordered to try and contact "Squalus". "Falcon", Submarine Salvage Vessel was also warned at this time to be ready to "stand by".

At 1241 "Sculpin" reported having sighted a red smoke bomb from "Squalus". Later, "Sculpin" reported locating the marker buoy from "Squalus" latitude etc. as above. This position was $4\frac{3}{4}$ miles westward of the reported diving position of "Squalus". This fact is pointed out to emphasise the extreme value of the alert lookout kept by "Sculpin", and undoubtedly saved a tremendous amount of time which would otherwise have been expended in searching for "Squalus". The C.O. of "Sculpin" reported that he had picked up the marker buoy, which was the forward one of the "Squalus's", and that he had held a two minute conversation over the buoy telephone with Lt. J. C. Nichols, and O. F. Naquin, C.O. of "Squalus" which was in substance as follows:—

Wilkin: "What is your trouble?"

Nichols: "High induction open, crews compartment and aft eng. room flooded. Not sure about aft torpedo room, but could not establish communication with that compartment. Hold phone and I will put you on to the Captain."

Wilkin: "How are things?"

Naquin: "Consider best method to employ is to send diver down as soon as possible to close high induction and then hook on salvage lines to flooded compartments and free them of water in attempt to bring her up; for the present, consider that preferable to sending personnel with lung."

At this point the marker buoy cable parted. Later investigation showed that a bight of the buoy cable had been caught on some sharp obstruction over the side of "Squalus." "Sculpin" then located "Squalus" with her supersonic equipment. At 1930 "Penacook" hooked her drag anchors on to "Squalus". At 2145 a U.S. Coastguard vessel arrived bringing experts from the Experimental Diving Unit who had been sent by air from Washington.

No attempt was made to conduct diving operations during the night. It had been ascertained that the personnel in the forward compartment of "Squalus" were in no immediate danger. Satisfactory communication had been established with the "Squalus" since 1345 by tapping in "Morse" on the hull of "Sculpin" and hearing similar messages from "Squalus". Early messages indicated 33 men alive in fwd part of the ship. Conditions were reported satisfactory, but cold.

On the 24th May, at 0415, Commander A. F. McCann, U.S.N., and 12 divers of the Experimental Diving Unit arrived at the scene of operations. At 0425 U.S.S. Falcon arrived. Divers from "Falcon" were sent to familiarise themselves with the lay-out and equipment to be found on "Squalus" which is a sister ship. "Falcon", owing to wind and sea conditions, had some difficulty in getting into position but at 1014 the first diver went down and reached "Squalus" at 1017, the descending line used was the buoy line which had been attached to the drag anchor by "Penacook" and this line was discovered by the diver to be only 6ft. aft of the forward Torpedo Room hatch.

At 1028 the Rescue Chamber downhaul wire was shackled to the descending line and lowered to the diver who shackled it to the hatch at 1039. The extremely skilful work of this first diver resulted in marked expedition of the whole rescue operation and contributed greatly to its ultimate success. In addition to shackling on the downhaul wire it was necessary for him to clear the bight of the marker buoy wire, which lay across the hatch, and was still fouled somewhere over the side. Had this buoy line been allowed to remain it would have endangered Rescue Chamber operations by possibly fouling the downhaul or preventing a tight seal on the hatch. The Rescue Chamber was hoisted over the side for the first trip at 1130, and reported "on the Sub" at 1212. The operator reported the "Squalus" to have a 7 degree list and to be down by the stern.

At 1240 the Chamber had been securely attached to the sub and the upper hatch opened. The lower hatch was then opened and contact was established with the sub's crew at 1247. Provisions and dehydrating material were delivered to the crew, the sub was ventilated through the Chamber for several minutes and seven "passengers" were taken on board. At 1256 the sub's hatch was closed. At 1342 the Rescue Chamber reached the surface and the survivors were evacuated.

The first three trips were made expeditiously, and equipment functioned as designed throughout these trips. This was the first occasion in which the Chamber had been used for other than training purposes, and the results achieved have fully justified the vision, faith and hard work of those involved in the development of the equipment.

The fourth trip of the Chamber proceeded apparently according to schedule up to 2022, when, during the ascent with the last survivors on board the air-motor which drives the downhaul equipment stalled, and could not be re-started. An attempt was made to continue the ascent by controlling with the brake instead of the motor, but at 155 feet, the reel again jammed and no further downhaul wire could be let out, even with the brake released. The downhaul equipment could be moved neither up nor down, therefore the decision was made to lower the Chamber to the *bottom* and send a diver down to unshackle or cut the downhaul wire and so free the Chamber.

At 2122 the downhaul wire was cut by the diver. An attempt was immediately made to hoist the Chamber with the winch, but the strain on the retriever wire was abnormally heavy and at 2125 the retriever wire stranded. The strain was quickly taken off and the Chamber once again lowered to the bottom. After a conference it was decided that the best method of getting the Chamber up would be to adjust the buoyancy of the Chamber as nearly as possible to neutral on the *negative* side and then haul in the frayed retriever wire carefully by hand in order not to part the remaining strands.

In using this method, the danger of acquiring positive buoyancy of the Chamber with resultant swift ascent to the surface, and the possibility of its coming up under "Falcon", had to be accepted. This method was entirely successful and the Chamber surfaced, the last known survivors from the sub were evacuated at 0025, May 25th.

It was now decided to make a trip in the Chamber to the hatch communicating with the Aft Torpedo Room, in order to be absolutely certain that there were no more survivors remaining in "Squalus". "Falcon" therefore changed mooring and after a new downhaul wire had been fitted, the Chamber commenced its last descent, at 1719. It was necessary in this operation to equalise the pressure in the Chamber with that of the sea in order to enable the sub's hatch to be opened without flooding the Rescue Chamber. At 1745 the Chamber reached "Squalus" and sealed to Aft Torpedo Room hatch. When the Aft Torpedo Room hatch was cracked, water commenced to flood into the Chamber, proving that this Torpedo Room was flooded. The hatch was then secured and the Chamber started to ascend, and at 2107 it was landed on the deck of "Falcon." It should be noted that in the final operation the two men in charge of the Rescue Chamber were in some danger, if they

had become incapacitated for any reason there was no way in which they could have been rescued, as the Chamber could not be entered from outside.

With the exception of the last rescue trip of the Chamber, when the downhaul wire jammed, each trip of the Chamber's to the sub and back to the surface took approximately 2 hours 15 minutes. The last survivors reached the surface at 0025 on May 25th. The "Squalus" sank at 0840 on May 23rd, so that these survivors were submerged for a total time of 39 hours and 45 minutes.

All survivors complained bitterly of the cold in the sub whilst waiting to escape. The water temperature was 31°F., and compartment air temperature only 36° F. The air in the compartment was foul with C.O.₂ but this could never have reached a very high level as it was refreshed by each trip of the Chamber. Chlorine was just beginning to make itself felt when the last survivors were taken on board the Rescue Chamber.

SUMMARY

Thirty-three men survived the accident, all of whom were rescued by the "Rescue Bell", after air refreshment, in four trips.

UNDERWATER TELEVISION

By Robbie

At the time of the Affray disaster scientists at the Admiralty Research Laboratory were experimenting with the use of television at low light intensities. It was immediately foreseen that if a television camera could be successfully used underwater it would give tremendous assistance in identifying wrecks where it might be dangerous to try by normal means. Consequently the scientists were given the "go ahead" to produce a working model. This was accomplished in the remarkably short time of three weeks. One of the difficulties to be overcome was mounting the camera in a watertight container capable of withstanding the pressures encountered at 200 to 300 feet. However the working model was soon aboard the Reclaim and immediately came under the critical and somewhat sceptical eyes of all and sundry.

It is worthwhile to point out that we used one of the latest developments in television cameras capable of giving good pictures at very low light intensities indeed. Innovations thought up at very short notice by the scientists included a device for indicating that the watertight compartment was leaking, and a tilt meter to give the angle of the camera whilst in use. The watertight container is mounted on a light protective framework which also carries the means of illumination.

Besides identifying wrecks, the camera may be used for briefing divers, and accurately placing the shot rope prior to diving. Work may be done underwater with mechanical grabs and lifting magnets etc. The necessary orders for their movements being given by an officer viewing the T.V. screen. It will be seen from the foregoing that the introduction of T.V. into underwater work opens up an entirely new field in all types of survey and salvage operations.

H.M.S. UPLIFTER

At present we are the only Coastal Salvage Vessel manned by the R.N., and are therefore doing our best to make a show of it, in spite of loud cries of derision from the uninformed few.

Until June of 1951 the ship had been handicapped by the lack of senior divers, but now the complement has been raised to 1 (one) diver 1 (one) diver 2, and 1 (one) diver 3, although an extra diver L. (P.O. Gates) was lent to us for the last two jobs. Another welcome addition to the ship in June was a "pot" which is of great interest and value to the diving fraternity, as can well be imagined.

On the 11th of June, 1951, we left Chatham and sailed for Harwich to salvage the wreck of the Danish M.T.B. "T.59" which was sunk in collision with one of our own M.T.B.'s last year. This job had several interesting features, not the least of which was the weather. The wreck was lying on an even keel in 90 feet of water with part of the bow section missing. Diving was restricted to comparatively short periods owing to the strength of the tides and the position being a very exposed one—about 8 miles E.S.E. of Orfordness lighthouse.

An attempt was made to tunnel under the wreck but it was found that the divers could not hold the sluicing nozzle steady enough to do any effective work. I would be most obliged if any reader could give me information as to the maximum depth a reaction jet has been used with success.

After seven weeks hard work, during which time the job had to be abandoned four times owing to bad weather, the wreck was eventually lifted. The 20 miles trip into Harwich harbour proved to be not uneventful as the wreck, which was hanging athwartships from the bows, grounded on a shoal off Felixstowe Pier; but at last, 27 hours after the first lift, the wreck was beached on Shotley Spit. Everyone then breathed a sigh of relief! The C. in C. "Nore" sent us the signal, "Manoeuvre well executed" and later a letter of commendation.

After Summer Leave and boiler cleaning we sailed for Rosyth to embark stores and then to the Tyne to clear the entrance of the remains of the wrecks of the s.s. Brabo, and the s.s. British-Officer.

16 minutes, and if only light activity has been done on the bottom probably half that time is safe. This is comparable to the time that a man would probably take swimming fairly leisurely to the surface from that depth.

Once a frogman has started to ascend and therefore desaturate, it must be agreed that the action of swimming probably helps to dissipate the bubbles.

No new theory of de-compression therefore is involved in frogman diving. The conditions are such that one is allowed to play with the safety margins of standard tables evolved for more arduous forms of diving. Those of you at Portsmouth will probably have heard what happened to certain ex-Naval Salvage divers who recently took liberties with the Decompression Tables.

The greatest living exponent of compressed air frogman diving, Commander Jaques Ives Cousteau, whose underwater photographs and films are making diving history says in his handbook, under a safety curve for bends (based on the American Tables):—

"There is no way of extending these times without carrying out decompression and he who pretends that there is one, is nothing but a fake."

INVERARAY INTERLUDE

By "Chads"

The year 1929 will always be remembered by the older divers as the first time the link with Inveraray, Lock Fyne, Argyllshire was established. The site was chosen for the deep diving trials and qualification of deep diving officers and men owing to the ideal conditions prevailing, which combined medium to great depths of tidal salt water, close proximity to reasonable shore amenities, rail-head at Arrochar and within fair steaming distance of fuelling and storing facilities.

Underwater work carried out in this area by Naval divers led directly to the world records established in 1929 and 1948 at the entrance to the loch off Tarbert, the latter feat still remaining unchallenged.

However, after some weeks of unremitting effort in the forty to sixty fathom depths, black with peat water, coupled with a thirst always in excess of one's pocket, the lure of the "George" and "Argyll Arms" would pall and a large majority would browse happily onboard.

One evening in the old "Tedworth", the divers discovered an original diversion.

A platoon (or is it section?) of seafaring swans always paddled serenely around the open diving doors, especially at mealtimes. Small pieces of meat were tied securely to four feet distance lines

of white cotton and to the other end was made fast coloured balloons, relic of an old dance onshore. Each swan was victualled up. On tossing these queer objects through the diving doors the swans would voraciously snap at the meat, looking with perplexity at the balloons. Having gobbled their morsel the cotton and balloon was not so easy! I can remember the roars of laughter at the swans' antics. They would look round and watch the balloon drop astern, then train fore and aft paddle off at two knots. Suddenly, their unwanted appendage would tap them on the quarter badges and they would ring down for full speed. Off they went at fifteen knots and took off, then they would ease down and land until the performance was repeated.

They were last seen that night in single line ahead, in close station, steaming down the loch, but next morning—there they were, hungry as ever! One could swear the senior swan winked at you as he took a slice of bread, closely followed by his companions, and nobody ever found their solution for getting rid of the tow.

And so, with the steady whine of the Weir pump and the roar of the compressors re-charging the air system, off would start another day, with the swirling Scotch mist ensuring the driest spot to be—on the bottom.

Copyright. 31/152.

THE CHAMPION "OGGIE"

By "Chads" (Copyright)

During the Autumn of 1925, the predecessor, four times removed, of H.M.S. "Reclaim" was engaged in deep diving operations searching for the ill-fated submarine M.1., which sank off Start Point, all hands being lost.

Working under the direction of Flag-Officer Submarines in the old H.M.S. "Maidstone" the "Southdown" steamed from obstruction to obstruction, diving to depths of thirty to thirty-five fathoms to identify the fouling of the sweep wires.

When the emergency first arose, H.M.S. "Wolfhound" steamed post-haste for Kiel, and there embarked the "Iron-Man", loaned by "Nuefeldt and Kuhnke", with a team of German divers, who met us at Portland. The apparatus eventually was transferred to S.V. "Moordale" for operations and "Southdown" and "Moordale" worked together, the German personnel all being borne on board "Southdown". The little ship was sadly overcrowded with the reporters and foreign divers, but we all dovetailed in happily and in spite of foul weather, dragging anchors, and the tidal conditions off the Start, carried on with the search for the submarine. The fact that she was never located is now history and report has it that the s.s. Vidar, a Swedish steamer, was in collision with the vessel, which caused the tragedy.

**For a Glass of
Good Beer**

**— and a word of
Good Cheer**

VISIT "SAM"

at

THE EAGLE

St. George's Square



THE DIVING SCHOOL ANNEXE

However, boilers must be fed with coal and divers and crew were hungry men so we duly repaired to Plymouth for coal and provisions. Our senior German guest, Herr Gottmacher, commandeered and paid for the edibles from the canteen boat, so we were in clover, and after coaling ship and washing down, a motley black-eyed Susan throng hastily cleaned for a brief run ashore.

The "Buffer" was a "Westo" and with his services as a guide we soon were thirstily consuming "scrumpie" and "oggies" in the old "Atheneum" and "Chester Cup", alas, now swept away by the holocaust of bombing during the late war.

Time flew and early on, we thought of our dry-mouthed mess-mates onboard and also their ever present hunger. We decided on a giant "oggie", and with the aid of mine host and a nearby baker duly arranged for a gargantuan pastie to be delivered. Surely enough at 9.45 p.m., the doors of the bar swung open, and within two six-foot battens, a steaming "oggie" laid, panting slightly at the change of temperature from oven to November fog! Great cheers greeted the arrival and with loads of refreshment within and without, in bottle, we triumphantly hoisted our Duty-Watch feast on our shoulders, body and escort wending their way back to the "Prince of Wales" steps.

As promised, a harbour launch awaited us and with due reverence we laid the prize on the canopy, under close guard. We cast off and steamed into the murk of Plymouth Sound and Cawsand Bay. The night was black and sea choppy, but in good time we steamed alongside the sea-gangway of "Southdown", the guard-rails being thronged with all and sundry to see what we had brought back. Snakily, the end of a heaving-line was passed to us, and a timber and half-hitch passed around the giant "oggie". Willing hands hauled up . . . and to the utter horror of all beholders, the "oggie" regained life, slipped through the battens and plunged into the sea like a torpedo. Both inboard and outboard the air turned blue!!! Disconsolately we climbed inboard and to our messes, thirst quenched, hungry again, but ready for sailing at dawn for further operations.

It was rumoured that many dead fish were found two days later! Thus ended the episode of the Genuine 12 oared, or was it 14 oared,

"TIDDY-OGGIE".

A DUMMY RUN

By T. Practice

Recently, whilst diving on a certain cruisers' inlets and outlets somewhere up North, one of our fraternity had the following experience.

He was sitting on the bottom-line and digging away at the marine growth around the T.G. Circulator Inlet, almost alongside

the centre-line of the ship, the attendants up top were holding him well in hand, for this type of diving as we all know is considered "hazardous". Suddenly the man in charge in the boat heard over the phone, "*Hey! Up top, what the blankety blank was that?*". On looking around the No. 1 man saw about a mile away from the diving boat and at right angles to it, guess what? Yes! A torpedo surfaced and began blowing, and which had passed within 3 feet of the diver. Imagine his surprise, and imagine also the surprise of our friend the diver who was of course told to come up immediately, which he no doubt did, and not until he had arrived at the surface did he learn the cause of his exclamation and the reason for his sudden ascent. We can all well imagine too his remarks on having this information passed on to him.

On investigation it was found that an M.T.B. wishing to pass the time of day, had decided to use the cruiser for "Torpedo Practice" and a general signal had been made stating that "diving operations were in progress on so and so!, all shipping etc., keep well clear." Needless to say the Officer i/c of the M.T.B. was blasted, and, all due respects to him, he did call round and apologise to the boys whom he used (unbeknown to him of course) for his slight oversight.

EXTRACT FROM "DIVERS IN DEEP SEAS"

By David Masters

About 9 o'clock on the morning of July 8th, 1930, Diver H. Rodgers went down to carry out an inspection and do some clearance work beneath the power station in Portsmouth Dockyard. He was making his way along a culvert with thoughts of trouble far from his mind when an irresistible surge of water picked him up as though he were a match and swept him head foremost up an eighteen-inch pipe which was part of a gigantic pump.

He was driven in with such force that he could not move his body at all. There he remained fixed in an upright position in the pipe, unable to help himself, his arms pinned tightly to his sides.

With intense muscular efforts he sought to jerk himself downwards into the culvert. Not an inch could be gain. He wriggled his head within his helmet and pressed down with his chin. It made no difference. Then he strove to brace his legs against the pipe and pull his body downwards by the toes of his brass bound boots. His toes slipped up and down on the inner surface of the pipe, but he could not gain a proper foothold, so he remained stuck. It was extremely lucky for him that he could move his legs, for directly his struggles to free himself proved futile he began to kick hard

against the pipe; the metal on his boots created such a noise that it reached the ears of those above and so raised the alarm.

By shouting at the top of his voice he was able to guide them to the place where he was trapped.

At once the most skilled men in the dockyard were rushed to the spot to extricate him. Electrical engineers, welders, divers and fitters all concentrated on the task. They fought frantically to ease him out. The edges of his corselet were jammed hard against the pipe; the corselet itself was so shaped that it was easier to drive it forward than to haul it back.

But as the rescuers were placed they found it impossible to shift him an inch up or down. Time and time again they tried, but Rodgers was wedged immovably in the pipe.

Realising his dangerous position his rescuers saw that the only hope of getting him out was to cut right through the pipe. Admiral L. A. B. Donaldson, the superintendent of the dockyard, came on the scene to watch the rescue operations. All the resources of the dockyard were called upon to assist in the work.

As quickly as possible a squad of welders who were used to handling oxy-acetylene cutters concentrated the flame on the pipe just above the diver's head and gradually cut round it until the lower part of the pipe with the diver inside was severed.

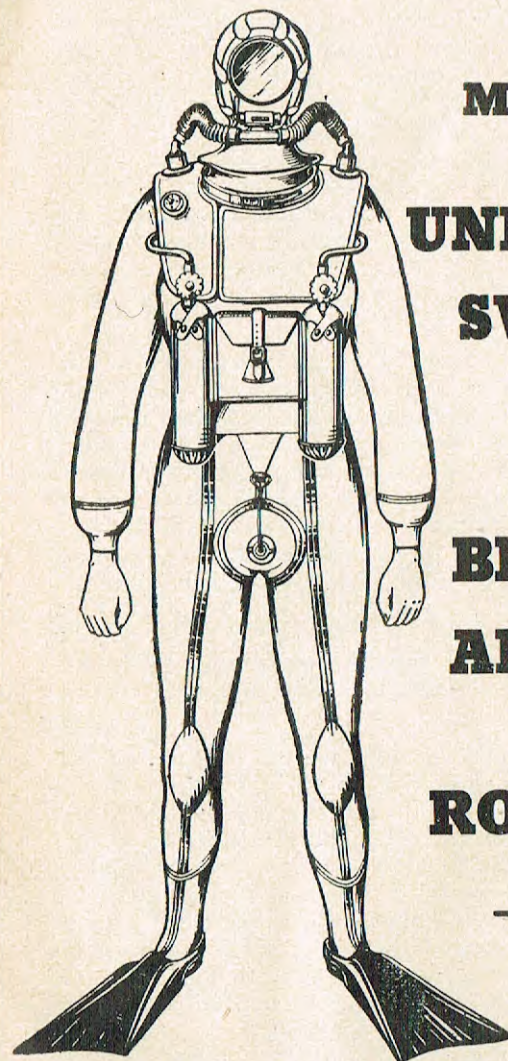
Hauling up the pipe and man to the floor of the generating station, they thrust away at the leaden soles of his boots, thinking they would be able to push him out without much trouble.

They quickly discovered their mistake, for his corselet and diving suit were so wedged that he seemed to be welded to the inside of the pipe.

The medical officers were very concerned. So anxious were they to give him more air to keep him going, that the rescuers cut part of his diving helmet away to enable the doctors to administer ice and restoratives from time to time. Then inch by inch they carefully scraped the inside of the pipe until every trace of deposit was removed from it and the metal quite smooth. Even this was not enough, so they were compelled to apply lashings of grease to make the metal slippery, and only then, with a great effort, were they able to get him out of the pipe, after being trapped in it for seven hours.

That is not the sort of experience any of us would like to meet.

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" I FELL "

By Newse

The depth of "falls" in shallow water recounted by different divers, and their subsequent effects, has as much latitude as the size of the fish that "got away" recounted by anglers. Here then, to take the bottom out of all "falls" is my account of a mishap that occurred in Tripoli in February 1943. The Blockship I was diving on was the old British S.S. "Ingoma", renamed "Pfo.S. Giov Battista" by the Italians who had torpedoed and captured her. For about a week I had been working on a hole in the starboard side of number one hold, cutting off the protruding torn metal with an Italian "Picardi" underwater cutter. My attendant, O/SEA Gamble, was drafted and a volunteer replacement came forward. At that time, a diving attendant received 6d. an hour, and I feared that the volunteer's only qualification for the job was his zealotness for the financial remuneration. However, he solemnly assured me that he had attended a number of divers before coming to me, and by the time I was fully dressed he had convinced me of his ability.

I had made it a routine to jump into the water to save the energy involved in climbing down a six-foot ladder, so I closed the spitcock, placed a finger on the spindle of my outlet valve, and with my left hand holding the front weight, I jumped. My attendant made no effort to help me towards the shot rope, busying himself instead with paying out enough breastrope and airpipe to see me to the bottom. In one horrifying second I realised that I was "falling", I pushed in the spindle of my outlet valve, and prayed. More practically, I blew my nose in an effort to clear my ears and began ringing my telephone bell. I remembered the stories that I had heard and I knew the depth was 38 feet. I heard my right ear pop, and both ears were crackling, but the pain was temporarily forgotten as I felt the pressure on my legs and stomach, shaping me into a parody of a Belsen victim.

My emotions when I touched bottom were a mixture of surprise and thankfulness. I managed to keep upright but could only just breathe. After five minutes I had recovered sufficiently to swear out my fear to the attendant, who had remembered to man the telephone. I had landed on the edge of a bomb crater, another four feet deeper, where my opposite number, Tim Cullen, was working on the lower part of the hole in the ship's side. On the surface were four Basuto boys working a Siebe Gormans double acting pump with the waycock to two divers. With Tim at 42 feet and me at 38 already overloading the pump, my condition after the "fall" leaves little to the imagination. Half an hour later I was feeling fit except for the pain in my right ear, so I surfaced. Doctoring my ears with some olive oil that we had been using for lubricating purposes, I filled in the attendant's diving education with profane eloquence.

A month later I flew to Malta with four other divers. In the course of a medical examination in "St. Angelo", I was asked by the doctor what had happened to my right ear. I related the "fall" and he told me that I had split the ear-drum. He could see an oil-patch on the inner side of the drum, but my emergency treatment had worked the oracle. It had healed. My ears rarely trouble me now, and, in fact, whilst diving I can hear better with my right ear than with my left.

This account has already had its incredulous listeners, so to prove that it was possible to "fall" 25 feet without aid and come to no great harm, I was willing to dive from the Pier at Gillingham. This was in May, 1945, during a first-class divers' course. The person in charge in the diving boat was unwilling to take the risk, but compromised by heaving the pump round once when I was fully rigged. The 25 feet dive, minus air, was accomplished without any ill effect.

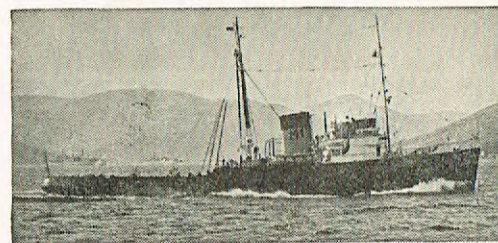
OBITUARY

The death of Lieutenant Henry (Harry) Swales, M.B.E., R.N. (Rtd.), on the 20th January last, reported in the "Portsmouth Evening News" of the 23rd of January, severs another link in the Qualified Diving Officers fraternity. Harry Swales was well known among the divers of the post-1918 era and was one of the fore-runners in forsaking Gunnery for Diving Specialisation, prior to the inception of the Deep Diving Officer.

He was in charge of diving operations on M.2. in 1932 and previously M.1. in 1925, when the "Iron Man" was first used by Royal Navy divers, being loaned from Germany.

The diving world of the last thirty years pays tribute to his memory and extend their deepest sympathy to Mrs. Swales and family.

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