SOUTH WALES CAVING CLUB

NEWSLETTER

NUMBER 49 MARCH 1965

CONTENTS

1. THE IRON, LEAD AND COPPER MINES OF THE SOUTH WALES CARBONIFEROUS LIMESTONE OUTCROP

This article deals with 1th disused mines in our carboniferous limestone outcrop and includes that part of the Forest of Dean outcrop that lies in Monmouthshire. It is the culmination of several years of speradic work by unspecialised cavers from the British Nylon Spinners Speleological Section and South Wales Caving Club in searching for old mines and exploring them. The list

is not exhaustive and it is hoped that other cavers will be able to add to it and help in the preservation of old mines. Many have been lost, some have been deliberately filled in, others have been quarried away and a few have become flooded Much information as to location was gained from Sebly (Ref.1), and some from Dr.North's "Mining for Metals in Wales".

For ease of reference South Wales has been divided into 7 areas and the mines in each described separately.

1. Iron Mines on the Blackcliff and Wyndcliff Forest Nature Reserve.

The Mines concist of shafts and open workings in the Crease Limestone of the Reserve and also extend for a distance of ¼ mile from the Reserve into Minepit Wood. There is a brief reference to them in the Regional Handbook on the "Geology of the Country around Monmouth and Chepstow". All the workings were explored by members of the B.N.S.S.S., Pontypool on the 13th. October 1963 with the following results :-

In Minepit Wood itself (N.G.R. ST/530.978), lying astride the 700ft. contour line, there are only open workings. Further East down the hillside a series of 6 shafts occur, all within the Reserve boundry. Shafts 1 and 2 lie on each side of a North/South footpath; entry was secured via shaft 1 which formed a 45ft. deep pitch. Recent bones of horses, cow and rabbit were plentiful at the bottom. The top of the shaft is only 10ft. long by 3ft. wide but the width increases to 8ft. at the bottom. Eastwards there is a passage, partly filled with debris, which leads to the bottom of Shaft 2, 20ft. away. Westwards the passage continues for some 50ft. to a calcited blockage. At this end a calcite vein, lying vertically a few inches thick, can be seen in the ceiling. The slight fluctuating draught detected in this shaft was evedently a circulatory current at a temperature of 9.5 degrees Centigrade between Shafts 1 and 2. The outside temperature at this time was 11.4 degrees Centigrade and the weather overcast.

Shaft 2 connects with 1 as described previously; Eastwards its floor slopes steeply upwards and meets the mouth of Shaft 3.

Shaft 3 was found to have a depth of 28ft., an aperture measuring 3ft x 10ft. but no working at the bottom.

Shaft 4, which was 35ft. deep, was not decended but its bottom was reached via a passage leading from the bottom of Shaft 5.

Shaft 5 was an easy rope decent of 20ft. Eastwards from the bottom there was a clay choke within 15ft., but the passage ran Westwards for about 100ft. with Shaft 4 admitting daylight on the way. Some 5" long stalactites were noted at the end of this passage, very red in colour as might be expected in an Iron mine.

Also the workings here were on a level about 10ft. higher than the rest of the passage.

Shaft 6 is the Easternmost and requires 30ft. of ladder, followed by a 20ft. clamber over boulders into a narrow rift. At the bottom of the 30ft. shaft lay the most roomy single chamber in the whole series. This was almost 20ft. in height, 10ft. wide and 30ft. long. A curious feature was a dry stone wall at the end with a 10ft. deep hole on the other side. The purpose of the wall was obscure and on the far side of the hole the walls of the passage closed in completely. One bat was seen in hibernation in this chamber, an unidentified furry variety. A mouse-like animal was also seen which rapidly disappeared under some boulders. There was no way in which this specimen could leave the shaft apart from climbing up the sheer walls.

There are drill-marks visible on all the shaft walls but the series had not been worked within living memory of local inhabitants. In general the workings are very limited and do not compare with the better-known mines on the other side of the Wye.

2. Machen Areas.

Information about this area and about areas 3 to 5, was gleaned from 6" Geological Survey maps in the National Museum of Wales. The numbers of sheets examined were A122, A123, A134, A136, A144, A145, A146, A150.

When the Machen Dolomite Quarry (ST/233.898) was working in Autumn 1958, it was stated that an old lead mine in the face had been destroyed by blasting. Lower down the hillside several shallow lead mines were explored in April 1962, the deepest being only 30ft. Traversing the outcrop Westwards into Glamorganshire one reaches Cefn-Rwll-Du, a hillside littered with old lead workings, as its name suggests. The main one, from a caving point if view, is the Draethen Lead Mine, described in "Caves in Wales and the Marches". Some features of this mine are of interest to the industrial archaeologist, e.g. the method of timbering shafts and inclines. Many old shoes were retrived from the galleries in November 1961 and taken to Newport Museum for examination and two members of the staff of the National Museum have been conducted on a photographic tour. Some ½ mile of galleries are now known, including one natural chamber and a nest of perfectly spherical cave pearls. There may be also a second entrance because a strong air current is detectable in the entrance shaft.

At the head of Cwm Leyshon (ST/211.871), is situated a vertical rectangular Shaft some 120ft. deep. It has been decended by S.W.C.C., Wessex C.C. and B.N.S. members at various times, without reaching any workings. On 22nd. November 1964 the awkwardly placed adit 39ft. down was entered for the first time (by T. PINCKHEAD), but was found to be blocked after 30ft. The main gallery is evidently behind a neat stone wall which has been let into the wall of the shaft

opposite the adit. The removal of this wall is difficult because of its position.

A Roman coin is said to have been found in one of the Lead workings near Draethen and a smelting hearth was uncovered in a farm, appropriately called Ffwrnes Blwm.

3. Rudry Area.

Situated at ST/203.864 are the 'Rudry Iron Mines', 200yds. SE. of the Maenllwyd Inn but only a hollow near the middle of a field can now be found. An elderly local inhabitant reported that the shaft was open in the nineteen thirties and running water could be heard at the bottom but was filled in for reasons of safty.

Near the ruined farm of Coedcaegarw (ST/192.862), lies the blocked shaft of what is presumed to be a Lead mine from an examination of spoil heaps nearby. A dig has been started here because the fill is only rubbish and rotten timber from the surrounding Forestry Commission plantation.

Finally at Cefn-Onn (ST/182.858), there is another blocked shaft with an open adit, as yet unexplored, near its mouth.

4. Tongwynlais Area.

The hill called Fforest Fawr, West of the Taff Valley is another area rich in old mines and it is here that the Lead workings seem to merge into Iron. At the top end of a field near Bwlch-y-Cwm (ST/145.842), lies an 'Old Air Shaft'. Three times during the last 3 years it has been visited and each time water was found at a depth of 20ft. At this level a gallery runs Eastwards but the water is so heavily contaminated with dead animals that the crossing deters visitors. There is no air movement now so the workings are probibly waterlogged. A similar deterrent has been found in another shaft hidden in a wood near by (ST/146.840), only this one is dry and 30ft deep. It is reputed to be connected with a level lower down the hillside. The level, which, unlike the shaft, is marked on map A136, could not be found.

The destruction of a doomed mine was followed with interest in the face of Blaengwynlais Quarry (ST/144.839). The mine was a steeply decending trial level ending within 50ft., discovered in September 1962 and situated several yards behind the face. A year later the mine was neatly sectioned by the face and by October 1964 it had disappeared into the voracious maw of the quarry.

At ST/132.832 lies the 'Slide Pit', well known locally as the Blue Pool. It is now a water-filled adit with a picturesque rock bridge above it. Some 100yds. away is a bricked-up resurgence which could have some connection with the Pool.

Only stony hollows remain of the 2 shafts at ST/133.838 and 134.839. The 'Ty

Isaf Old Level' at ST/136.827 has been bricked up and the 'Rhubina Old Level' at ST/146.831 cannot now be found. There is however a 20ft. trial level in a disused quarry near the latter site which has been driven following a calcite vein.

Crossing the river Taff one comes to Garth Wood containing the most famous Iron mine in South Wales. The Garth Mine was worked almost continuously from the beginning of the 19th. century up to the date of closing in 1884. The main adit, 505yds. long, was driven about 1840 but it has recently been blocked up by a local quarry concern. The mine is well known to cavers and it has been described by Sebly and in other publications.

5. Llantrisant Area.

The Llanh rry Iron Mine is still thriving and it is possible to visit it by prior arrangement with the management. An older mine has been connected to it by means of a 'slope'. Sibly gives details of the Trecastle Mine which had 3 pits the deepest being 372ft., all are now obliterated. He also describes the Bute Mwyndy mines. The former has not yet been found but the Mwyndy Mine is marked by the old winding house which stands alone in a field at ST/054.818. Infront of the building there is a large depression- probibly the site of the pit which may have been 280ft. deep. A 100yds. South of the pit, the local swimming club has put to good use the flooded remnant of opencast workings which predate the Mwyndy Mine. The old Hendy Mine near Llantrisant Station has not yet been properly investigated.

6. The St. Hilary Lead Mines. (ST/014.733)

These have been adequately described by Ford in Newsletter No. 24, 1958 following a series of visits by Ford, S.C.L.Phillips and myself in which 16 shafts, adits or surface workings were explored.

7. Kidwelly Area.

The Copper mines in this corner of Carmarthenshire were investigated in December 1964 and January 1965. Two mined caves were found at SN/428.088. One is 50ft. long and the other 30ft. long. No trace of ore now remains so it is difficult to prove what metal they might have provided. An impressive adit was seen at SN/438.093 which was entered via a steep slope. Initally 20ft. high, it becomes waterlogged within sight of daylight. There is ploanty of air space and plans are afoot to cross the water by dinghy during Easter 1965. Further down the hillside from the adit is a smaller one serving as a drainage level. It is about 100ft. long and the end is blocked by a fall. A few yards from its entrance is a shaft 20ft. deep, which was probibly only a trial shaft as it does not lead to any workings.

Ref. 1. SIBLY T.F., Special Reports on the Mineral Resources of Great Britain, Vol X, Iron Ores - The Haematites of the Forest of Dean and South Wales, 1927, second edition, H.M.S.O.

Melvyn Davies.

DEVELOPMENT OF SWALLOW HOLES IN THE MILLSTONE GRIT OF SOUTH WALES.

In the region immediately West of the Taff Valley there is exposed a considerable amount of millstone grit. A puzzeling feature of these rocks is the development in the surface of swallow holes, features normally associated only with limestone.

Attempting to explain these, the geological history of the grit and the underlying limestone needs to be examined.

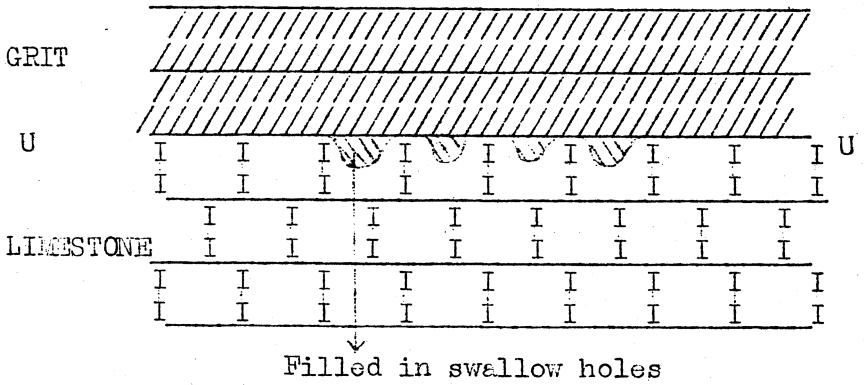
Starting with the formation of the beds of carboniferous limestone under marine conditions, these we know to have been laid down and then due to the land rising or the sea falling they were exposed to erosion by agents such as water and wind.

Erosion of a limestone surface often leads to the formation of swallow holes and is reasonable to suppose that these developed in the surface we are considering.

Due to a late alteration in sea level the rocks were submerged and millstone grit laid down on top. This deposition of beds on top of older eroded beds is known as unconformity. This unconformity between the limestone and grit in South Wales is supported by other geological evidence. (Ref. Stamp. L.D., Introduction to Stratigraphy, p. 154.

So far the argument is based on well substantiated ideas, what follows is theorised to fit in with known facts. It is possible that before the grit was deposited, some of the swallow holes in the limestone became filled in, maybe, with mud, sand or peat. Wander over to Waen Fignen Felin or Pant Mawr. On the way you will see many peat-filled swallow holes.

When the grit was deposited a situation as in the diagram obtains.



U U represents the unconformity.

Later, uplift of the whole mass took place forming the lower half of the

Brecon Beacons. A factor often ignored by cavers. is the circulstion of ground water in rocks other than limestone. Such water in the millstone grit or even water finding its way under the grit could wash out the material filling in the swallow holes and at teh edge of the grit where it is then say 50 or at the most 100ft. the formation of large cacities could cause collapse resulting in corresponding surface depressions.

This theory has only been put forward as an attempt to explain these swallow holes, but it will have served some purpose only if it stimulates others to discuss and theorise on the same topic.

Neil Anderson

AN EARLY RECORD OF CAVE EXPLORATION

During 1964 a letter was received from Mr.D.C.Jenkins of St.Austell,Cornwall. He thaught that the Club might be interested in extracts from his grandfathers diary, written between the years 1826 - 1870 in which the exploration of some caves and surveys of the Llandeilo area were mentioned.

Thomas Jenkins of Llandeilo, Carmarthenshire was borne in 1813. A cabinet maker and carpenter by profession, was a man of wide interests including bridge building, ship construction and matters appertaining to electricity.

4th. April 1841 — Peter and self went to see Kilrychen cave which was discovered 13th Dec. 1823.

24th. April 1841 — Went at 6pm. together with J.Davies, Peter Jenkins and John the Mason to Kilrychen cave. I took a pistol and Peter brought his clarinet. Spent 3½ hours inside. The whole length including all the branches is 301yds. We returned at 12 at night.

1st. May 1841 — Went at 6pm. together with John Davies, Peter Jenkins, Philip Griffiths and William Williams. 'Rose and Crown' to see Llygad Llwchwr Cave. The entrence is about 10ft above where the river leaves the rock. We entered at about 8pm. The entrance is narrow and rather dangerous. After proceeding 51ft. I tied the end of a ball of twine to a stalactite pillar, there being so many windings and passages. We then proceeded onwards to a stalactite pillar 5 (?yds) long from the floor to the roof and 3ft. in circumference. Each having a candle we passed through several narrow passages 'til' we came to the river. The cave here is almost 30ft from the water to

the roof, the river is about 15ft. wide. Not being able to proceed further we returned after having gone through all the different passages that I could find. We came out at 1am. The distance from the entrance to the water is 567ft. Arrived home at 3am.

19 Aug. 1843 — Went to Carreg Ceunen cave. From there to the cave at Palebryna on the hillside about ½ mile higher up than Llygad Llwchwr. Went in about 300ft. together with B.Morgan and E.J.Griffiths. Found it very low and dirty excepting one place where it is very spacious. From there to Llygad Llwchwr cave. Borrowed a kettle and cups from Cwrt-bryn-y-beirdd Made a fire and took tea before going in. Spent about 4 hours inside. Having takne a pistol with me, the report it made rivalled the loudest thunder. Got home by dark.

29 Aug. 1843 — Went together with B.Morgan, E.J.Griffiths, Wm, Griffiths, John Davies and Philip Griffiths to Kilrychen cave. From there to the cave at Pant-y-Llyn where 30 years ago, from 14 to 20 human skeletons were found in quarring for limestone. It now only extends only 30ft., having been quarried off.

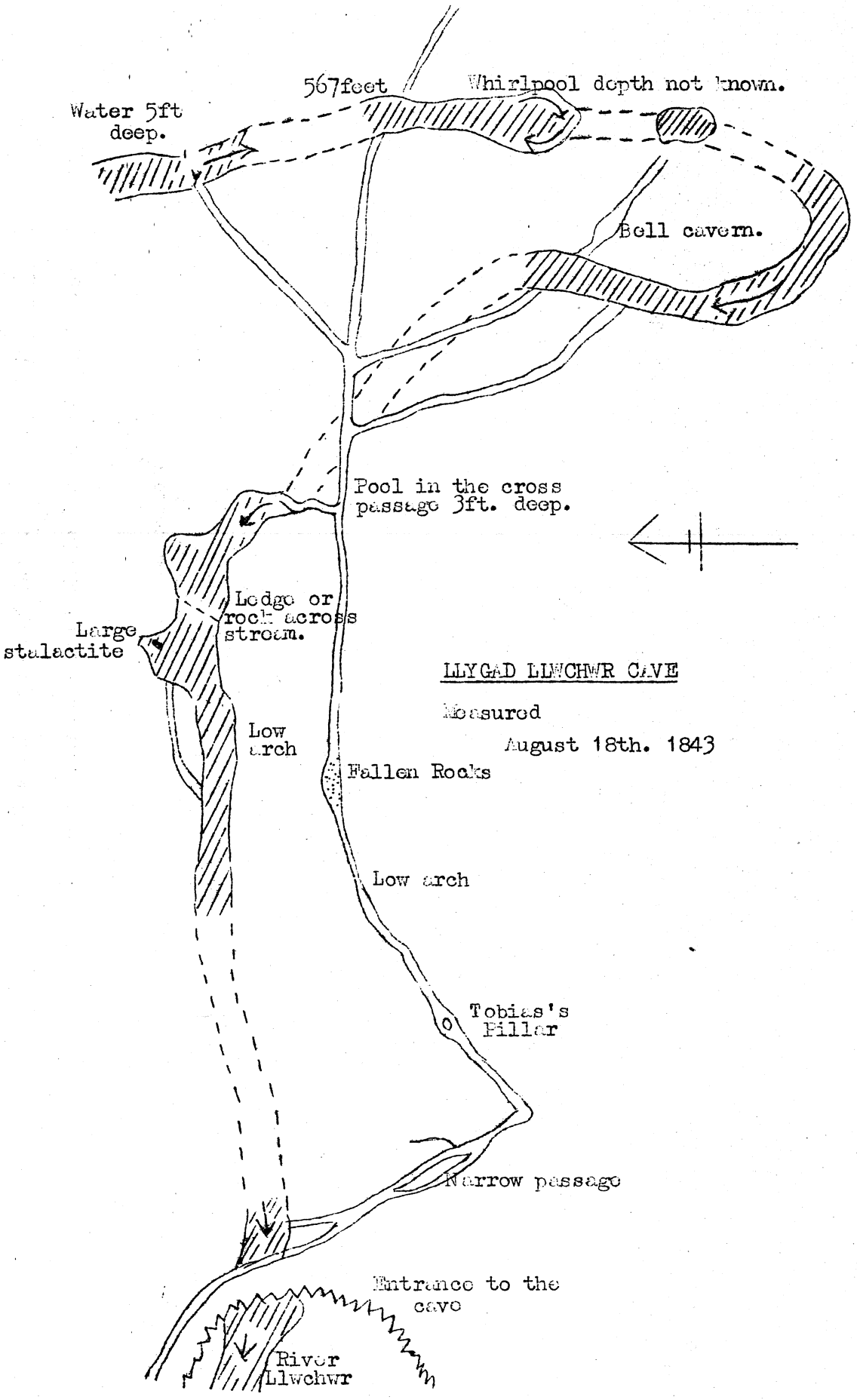
12 Sept. 1843 — Went to Llygad Llwchwr cave together with B.Morgan, E.J. and Wm.Griffiths Wm.Jones and Wm.Davies. Having taken a rope ladder with us we entered at 9am. and having crossed the river inside by the aid of the rope ladder, we discovered 2 branches where no human being had been before. In one of these is a plank of stalactite extending from the roof to the floor which when struck with a hammer emits as fine and loud a sound as one of the largest bells in Llandeilo steeple, from which we christened it the Bell Cavern. Came out at 3pm. and took tea near the entrance. Arrived home at 7pm., highly gratified with our days discovery.

9 Sept. 1844 — Made a coracle that may be atken to pieces and made up again, for Llygad Llwchwr cave.

10 Sept. 1844 — Went together with B.Morgan, Dd.Lewis, John Thomas, Walter Jones, Buddy Combe and Owen Jones to Llygad Llwchwr. Entered the cavern at 8½am. and after turning to the left at right angles to the main branch and getting down over the rock by the rope ladder over the stream, we made up the coracle and proceeded down the stream, over very deep pools. Through several magnificent caverns where man had never dared to before. Came out to daylight at 1½pm.

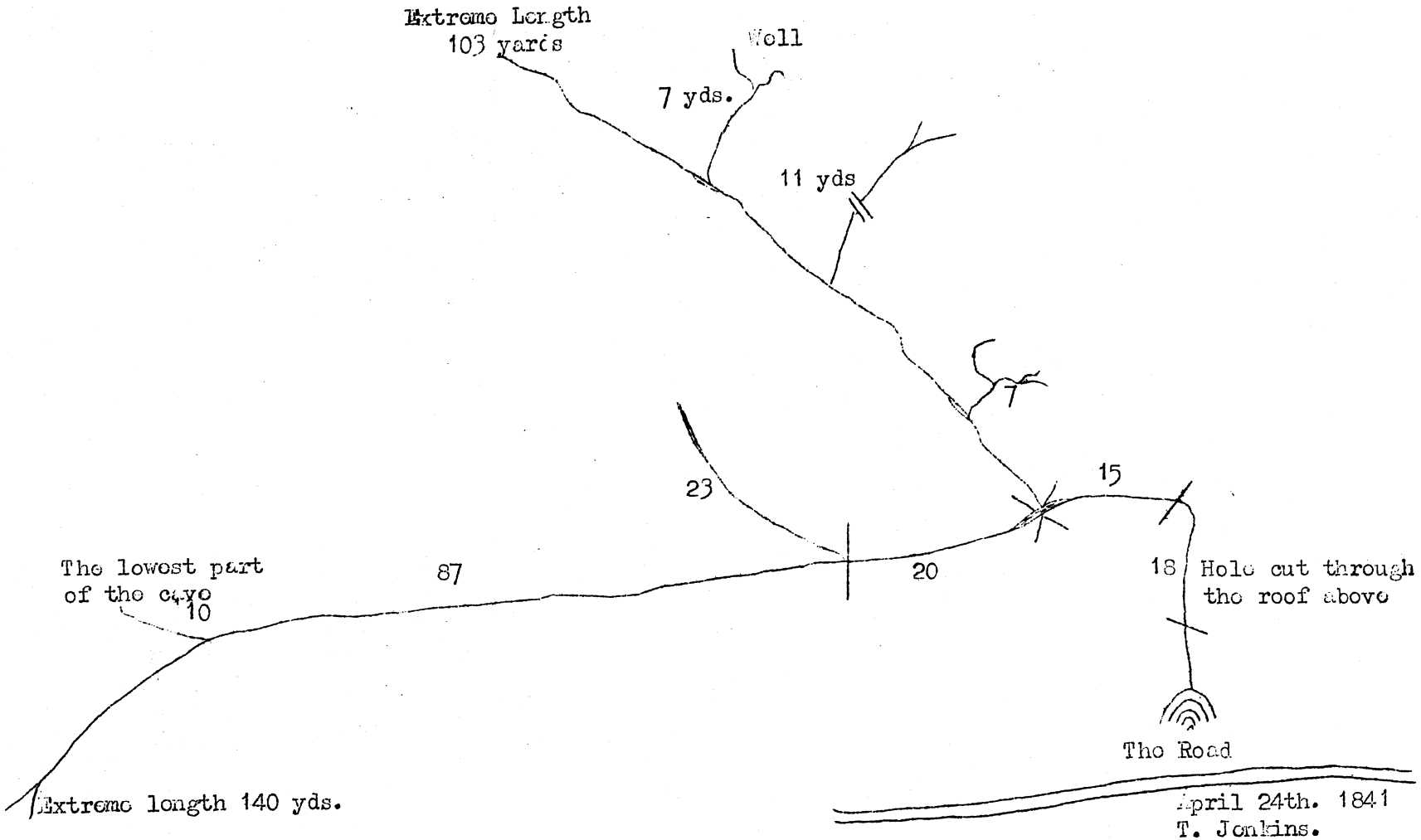
2 Sept. 1845 — Left, together with T.T.Williams and B.Morgan to Rhiw-wen, to see a newly discovered cavern at the lime quarries. Found it to be of small extent and containing 5½ft. of water.

14 July 1848 — Went to Llygad Llwchwr cave together with Rev.John Lewis, Messes D.Lewis


567feet
Whirlpool depth not known.
Water 5ft deep.
Bell cavern.
Pool in the cross passage 3ft. deep.
Ledge or rock across stream.
Large stalactite
LLYGAD LLWCHWR CAVE
Measured
August 18th. 1843
Low arch
Fallen Rocks
Low arch
Tobias's Pillar
Narrow passage
Entrance to the cave
River Llwchwr

KILRYCHEN CAVE Discovered December 13th. 1823

Whole length of cave including all the windings - 301 yards



April 24th. 1841
T. Jenkins.

R.W.Lewis, H.Bundy and J.Roberts. Left coracle inside. Entered at 10am. out 4pm. Thermometer in the shade outside 68 degrees, water 49 degrees. Quantity of water discharged per minute 450ft = 28,325lbs = 12tons 11cwt 12 lbs = 2812½ galls = 45 hogsheads. Holywell discharges 84 hogsheads per minute.

23 Aug 1855 — Ed. Price, Thos Jones and self went to Llygad Llwchwr at 6pm. to see if the coracle left there by me some years ago was in a fit state to make use of. Found it completely decayed. Returned home at 1am. 24th.

15 Oct. 1867 — With Mr. Tizer to Llygad Llwchwr at 6pm. Temperature of water at the Source 59 degrees F. Direction Compass of stream N.W.

.....

In his 'Guide to Llandilo and its Neighbourhood' 1883, the author the Rev. Lewis Price, says of Llygad Llwchwr cave....'In the interior of this wanderful cave there is a large pool, which, some years ago afforded much amusement to gentlemen residing in the neighbourhood, who undertook the difficult task of constructing a coracle suitable for wading it, and which was left there for the amusement of others until it got unfit for any longer use.....'

DIVING OPERATIONS IN DAN - YR - OGOF AND TUNNEL CAVE.

13 June 1964
Site: Dan-yr-Ogof and Tunnel Cave.
Divers: W.Clarke.
C.George.
Equipment: Wet suits and compressed air. Nife Cells for lights.

The cave manager wanted the divers to locate and survey the waters normal and flood exits. Although there had been previous dives made for this purpose, the results were not conclusive. Unfortunately this dive was attempted during a period of drought. At times of low water the river running through the cave is very murky. The visibility proved to be virtually nil. The dive was abandoned until a time when there was clear water.

The divers adjurned to 'Tunnel Cave' to examine the flood resurgence in David Prices Hall.

Briefly: This is a finely scalloped passage which dips steeply away from the main passage and sumps at the floor level of the main passage. This sump had been pumped dry shortly after the cave had been discovered it is normally sealed

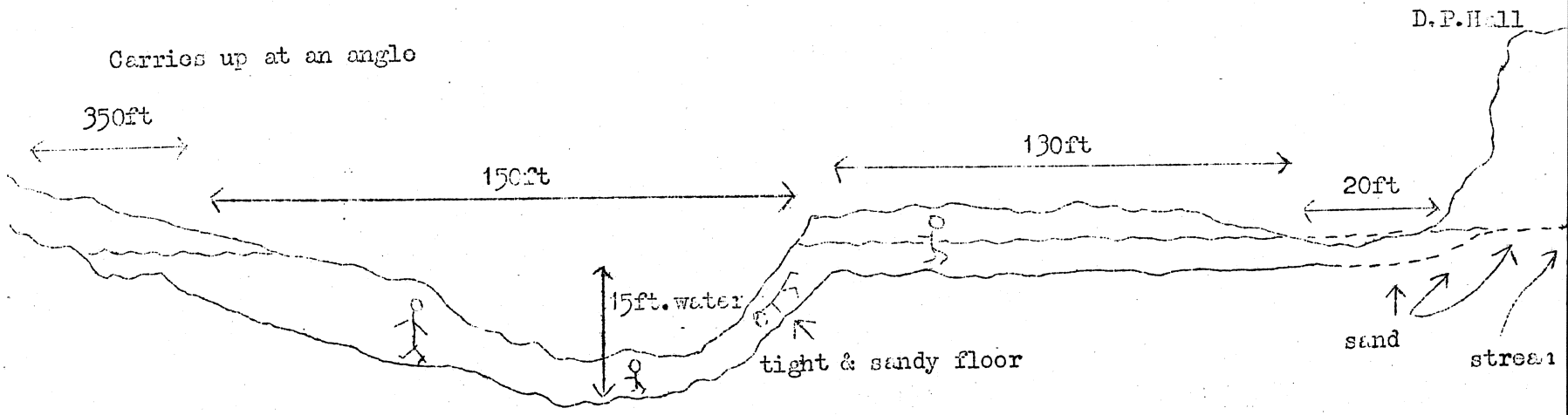
by approximately 1 foot of water and in low water conditions is sumped for about 20 feet. The length of the sump is tight for a kitted diver and has a sandy bottom easily disturbed. Aqualungs have to be pushed in front of a diver who lies prone and wriggles through. The sump breaks and leads to 130 feet of low narrow passage with knee deep water. The pumping expedition attempted to pump a second sump but gave up after lowering the water some 5 or so feet. On this occasion both divers passed the first sump using single 50 cubic foot cylinder with Mistral valves and no harness. One diver belayed the other who decended head first into the second sump. A very tight tube, sandy bottom decending at about 30° leads down to 15 feet. The tube became a rift passage, narrow and about 6 feet high. This widened to about 5ft x 8ft high. At about 80 feet of rope the diver considered it prudent to return as he only had a single cylinder . It was becoming increasingly hard to hold a cylinder and to stay on the bottom where it almost negatively weighed. The passage appeared to be ascending and visibility was excellent. The diver had to return blind in heavily silted water being pulled up the tube like a cork from a bottle. Part of his face mask was lost when in collision with an unseen flake.

4th July 1964
Site: [illegible] Tunnel Cave.
Divers: W.Clarke
C.George
Equipment: Wet Suits, Nife Cells and Helmet, Flippers, Twin 50 cubic feet air, Mistral valves.

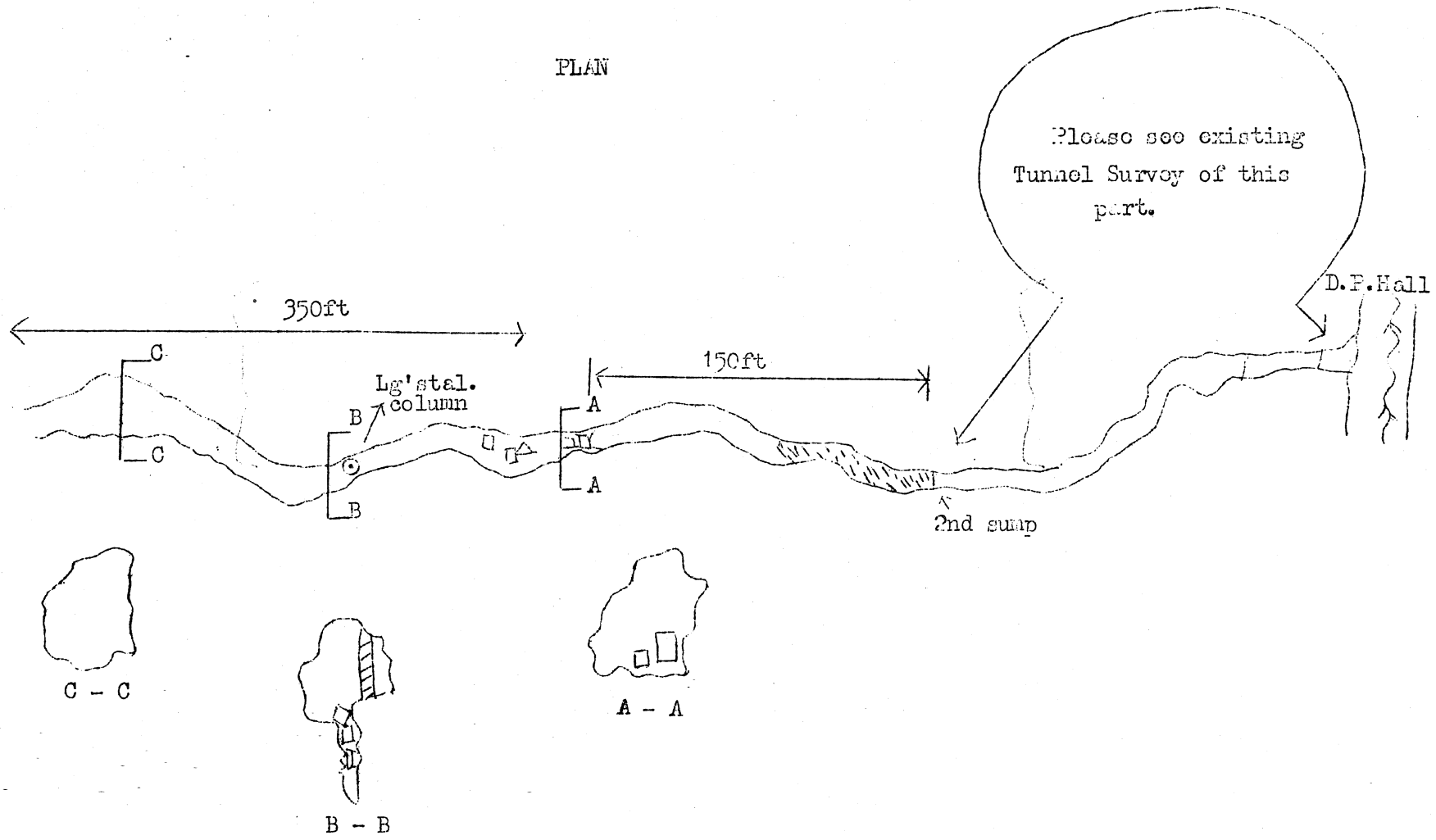
The water was low. The divers passed sump one with a telephone link to the waiting Bernard John. This was a one porter expedition!! Sump two [illegible] was entered and the diver soon found the bit of face mask lost previously. The sump proved to be larger than 120 feet of rope. An air surface was in sight. There followed a tug of war between the diver attempting to pull out further line and the stand by diver trying to keep his head above water!! All had to return to the Club for more line and a return next week. But the lure of the air surface was too strong.

The party returned to the attack. This time an air space was reached after 150 feet. To the divers surprise 'it went'. Discarding his set and flippers the job of securing the safty line assumed vast importance. The fear of losing the end caused some terriffic knots to be made and many dark fears. What if etc! The new passage climbed steadily from sump level, a small trickle followed down to replenish the sump. The passage was on the average 6ft. wide by 8ft. high with section of keyhole shape, the lower section being filled with shattered boulders. Going was slow with only wet suit socks to protect the feet. The passage was well decorated with straws, light coloured stalactites and a few large columns of stal and some flowstone. No draught could be detected and the air seemed fresh. At about 350ft. from the sump an insecure block occupied part of the passage. Being alone and cut off, it was considered unwise to go further. The standby did not even know of the divers exit from the water. The passage , however, appeared to go on if somewhat reduced in size. There were no obvious side passages and without a

SECTION


D.P.Hill
Carries up at an angle
350ft
150ft
130ft
20ft
15ft. water
tight & sandy floor
sand
stream

PLAN


Please see existing Tunnel Survey of this part.
D.P.Hall
350ft
150ft
C
C
B
B
Lg'stal. column
A
A
2nd sump
C - C
B - B
A - A

compass the passage appeared to run in a Northerly direction. Over 350ft. the passage had probably ascended some 60 or so feet. The return was made completely blind, the safty rope being quite invaluable.

The conclusion must be that a further attempt at pumping should be commenced. The second sump would drop quite fast once the first 6ft. had been overcome and 10ft. should break the sump. Whilst the stream entering could easily be kept in check at times of low water.

Charles George

STREAM UPPING

Water, often mans ally, is also his enemy. Like the jungle it is neutral, depending on him perhaps more than the weather.

Considerable time and effort in Ogof Fynnon Ddu has been spent in travelling up, over and round the stream under all conditions.

When the stream was high in 1951 everyone who knew Ogof Fynnon Ddu best, including Lewis Railton and myself could not avoid using the stream. In order to leave the cave the major part of the flow had to be diverted at Pwll Byffro. A new lake formed causing disturbance to Penwyllt water supply. This dam had to be destroyed soon after. An escape route had to be found even if it ment engineering an artificial one. We had a vague idea that some passage might be joined by blasting or putting suspension wires above flood level in stream passage. At that time the traverse wires were unknown. Success was sooner than expected; by climbing we found the ledge now known as Bolt Travers and this passage was soon to be connected with the Rawl Series. Today, as one ambles along with a hand wire it seems very remote from the first thrill of traversing along the narrow shelf with a sense of exposure accentuated by the noise of the stream roaring in the darkness below.

Even following this discovery it was still only considered to be a rescue route rather than a means of escape. We did not think we could climb up to the Eagle's Nest without a ladder or plunge through the water in Column Pool. To convert this into an escape route the Dugout in Swiss Cottage was blasted to join Meander Passage in the Maypole Series.

As our knowlege of the cave increased so has our technique improved. There remains a considerable gap between leaders who know all the climbs and 'off beat' routes and those who have experience in Stream Passage only. The latter is not enough to inspire the confidence of an average party visiting this cave for the first time. To overcome this all cavers should pay more attention to technique,

physical fittness, style, poise and rhythm of movement. As in rock climbing much would be done to encorage care, agility and concervation of energy. Here there is more concern regarding condition of foot wear and clothing. There is more ambition to lead or follow and not to take unnecessary risks considered dangerous or impossible. There is a new case for cavers to consider more underground climbing, providing they do not push the novice or the incompetent beyond his limits. Climbing exercises these abilities and practice improves them. Experience in climbing also helps when fighting for foot holds in a raging torrent or moving to a position at the top of a pitch.

There are many books dealing with rock climbing technique which should be studied and practiced then reread. If you have done no rock climbing, find someone experienced and practice out of doors in daylight.

Lamp failure whilst climbing underground may cause loss of balance as well as loss of sight. This is difficult to remedy in some situations if not prepared. A spare light is as important as a good rope.

Practice climbing down to avoid climbing up to places from which you cannot control your decent. Pick easy traverses and climb well within your ability until skilled in handling a rope as leader or second.

There are climbs in many caves but without going further than Ogof Fynnon Ddu here are some verticals.

1. Little Traverse and Eagles Nest - starting from the Maypole Series or the Stream.
2. Alpha Ledge to Coral Pool Window.
3. Bat Avon from Thunder Passage - Railton Wyld Series.
4. The Waterfall - straight up and under the water.
5. The Canyon Pitch - as a descent, ladder should be used. This reduces the risk to a minimum. The Canyon can be reached via Little - Moore Crawl. If ascending, beware of undesirable holds on the bottom 15ft. A 100ft rope is advisable as this makes retreat easier.

Airey Fairy (The Knitting) has perminant steel hand rope but is not recommended for poor climbers unless hold as a middle man on a rope.

Maypole Traverse is also fitted with a steel rope and considered safe for the nervous as it is only necessary to cling tight for a short way.

Bolt Traverse is also fitted with a steel rope and although longer is much easier. This still offers a route quite sensational to many experienced speleologists who are unaccustomed to 'exposure'.

The safe wire on the Waterfall traverse has removed the original difficulty but for sheer sport the old wet climb under the waterfall comes into its own again.

The Rawl Series offers Alta Vista traverse which is close to the roof on the East wall of Bridge Passage. Access to this is by the obvious shale band. There is a 12ft. scramble from the flat floor half way along the passage to here. There are many loose blocks and slippy places before entering the chamber called Alta Vista. 'High View' is appreciated when Bridge Passage is illuminated by another party.

A traverse recently enjoyed by me with N.Dilly and M.Deurden was the completion of Continuation Traverse. This was from the iron ladder at the end of Bolt Traverse to the Railton Wyld Series. The route involves roped climbs and should not be attempted by inexperienced cavers and climbers. The rock climbing standard is 'V.D.' but under cave conditions the stream flooding would class the route as severe. It is a high level traverse above the stream from the regular Escape Route to the Window of the Railton Wyld Series, above 4th. pot and gradually increasing in difficulty.

Length 200ft. Rope 50 - 60ft. between each man.

1st. pitch. Belay at foot of iron ladder. Climb astride the passage a few feet. and then crawl along ledge on South (R.W.) side until standing room. Thread belay in corner.

2nd. pitch. Cross passage onto sloppery ledge and traverse to HL. side of rock fall. Belay round calcite block at back of ledge.

3rd. pitch. Descend to jamed blocks and climb onto boulder bridge. A squeeze above the blocks leads to a spacious stance.

4th. pitch. Belay around block. Astride passage, traverse 6ft. Lower with pressure holds on curving walls until stalagmite belay. (Good belay, poor stance).

5th. pitch. Continue to ascend 6ft. until level with the passage which bends. This is the Window and has a small stream. Beware of brittle calcite flakes. Belay around calcite block. The short length of these pitches were deliberately kept to a minimize the risk of hitting the stream bed if we fell.

At times Upper Flood Passage is impassable, can we adapt our knowlege to beat this?

Under flood conditions, 15ins, or more above the 'step', Stream Passage is not safe. The Escape Route should be ised instead. As an experiment and if competent try going up stream but take adequate precautions because progress gradually becomes more difficult and strenuous, the danger being swept off ones feet. So powerful is the water pressure in some places that there is a danger of being swept away. Recovering ones balance in an eddy pool is not always easy and should never be done in the dark. A robust electric headlamp is essential so to is a chin strap. My helmet has been washed off inspite of the usual cord. Agility is the key to success for the flood stream is no place for the clumsy. Nail boots are unsuitable Commando 'Vibrams' rubber soles being best with boot laces doubly knotted.

Joint flexibility and muscel control depends on warmth. This demands adequate clothing; to be warm in running water. A 'Goon' suit or neophrene wet suit is recommended. The latter having less bulk in the legs thus reducing the water force against you. With practice your ability to move against water increases.

If the water is more than 6ins. above the 'step' try moving up stream roped together. Cavers are not generally skilled in the ate of moving 'together' on a rope which is commonly practiced by mountaineers on snow and ice.

In a stream passage snow and ice techniques need modifying for these reasons.

1. Lack of communication when voices are drowned by stream noise.

2. First and last man are often out of sight of each other.

3. No ice axe (or ice) for breaking with or belaying to.

4. Natural belays appear to be even scarcer in active streams than dry ones underground, this leads to the use of stances without belays in many places.

5. Slack rope is swept down stream if coils are draped or payed out to 'climbers' and 'belay'man'.

The best stances are often out of water, are not always at hand. Use must be made of shallow stances without a fierce current and eddy pool, advisably at more than waist deep. Boyance reduces adhesion at this depth withstanding a horizontal pull on the rope then is possible. Stradling sometimes makes a good stance but if held for too long is tiring and cramp is often encountered.

In some places a staff is helpful, it can be used for probing depths or pressed against a pressure hold other wise out of reach. A wrist loop is necessary to enable hands to be free There is no ideal length for a staff but over 6ft. and under 4ft. is not recommended. A 'gaff' could be developed but I don't think sufficient use would warrent this.

If special equipment is to be made to meet a particular problem it would be

advisable to examine the problem in advance under low water conditions by making artificial belays or fixed ropes etc. at exceptional severity in flood.

Apart from the sheer sport, rescue operations might require an assault against an unprepared situation. We must all therefore bear these thaughts in mind.

1. The security of the whole party on a rope may depend on any one member.

2. The leader should not move faster than the slowest man when dealing with a problem unless the rope is paid out.

3. The person dealing with a problem should not have to deal with the rope as well.

4. At least one, preferably two members should be on a good stance unless the party is belayed. This is particularly important whilst a third member is engaged in a problem where a loss of footing is probible.

5. It is necessary from signals and experience to anticipate the movements of others when to move ones self.

6. Deepening may meen a slow current. When acting on a large area of your legs and body this causes boyancy and the inability to stand firmly on footholds.

7. 40ft.- 50ft. of rope should be allowed between each person unless experience in any place indecates otherwise. 3000lbs (breaking strain) nylon rope is adequate. Smaller than this makes gripping with wet cold hands hard. It is impossible to haul on a thin line even though it may be possible to hold him in a stream. Corded nylon ropes are favoured by many French cavers although there are the synthetics 'Coirlene', which floats, may prove to be best.

8. Waist loops, karabinas, belay loops and pegs etc. all have their uses much as in outdoor climbing.

9. Loads carried must not be bulky. Weight assists when walking in deep water but could prove desasterous when out of your depth.

10. Moving down stream can be simplified with sufficient fixed ropes. These trips are great fun and in all ernestness should be tried by more cavers. Don't forget that to be careless and being swept away means certain drowning no matter how good a swimmer.

W. Little

CORRESTONDINCE

I have read with great interest Hartwell and Jones' article on 'Solution holes on the carboniferous limestone and millstone grit of the North crop of the South Wales coalfield and their relation to the known caves'. Although I am criticising one aspect of their paper, I think that it is extremely worthwhile and the authors a are to be commended for tackling such a laborious production.

I am generally in agreement with their conclusions. For me, the whole thing is admerably summed up by Glennie who considers the association of sinkholes with large caves beneath to be wrong, even when the sinkholes form regular lines. "Sinkholes are mostly due to the erosion of the upper beds of the limestone and the leaching down of surface soil through minute channels. It would be optimistic to suppose that one in ten leads down to a passage which can be entered and often exacvation will show no detectable passage at all".

For the larger swallets, I would take Glennie's argument a step further and say that, as well as leaching down of a surface soil, a collaps of the overlaying grit occures early on in the history of the swallet. More of the upper beds of the limestone are then eroded, to be followed by further grit collaps. And so on until the continuous erosion and discrete collapses have resulted in a large swallet. If, instead of collaps, we envisage a settling of the grit, without much disruption of the beds, we arrive at the massave displacement noted by Thomas, (600ft. in one case). Mr. Thomas once pointed out a typical example to me in the field and it was remarkable how the grit beds had maintained their lateral configuration. It will be seen that at no stage does this argument allow for, or require, the existance of a large cavern. This explains why caverns of the size of Gaping Ghyll as postulated by Thomas, have never been found in South Wales and this absence of large caverns is the crux of the argument.

It is a pity that the authors have relied on the C.R.G. (Ref. 1) survey of Agen Allwedd for the attempt correlation of the cave with swallets on the overlaying Mynydd Llangattog. The B.S.A. (Ref.2) survey has been available to the public since August 1963 and it would have substantiated their claims much more forcibily. As it is, only the Main Chamber and North Wing area, as marked on Figure 4, can be relied upon and 2 miles of the cave (in a critical region), have ,perforce, been omitted altogether.

Incidentally, there is no evidence that the Stream Passage of Agen Allwedd may continue along one of the faults on its way to Clydach Gorge.

One rare type of swallet seems to have escaped the notice of the authors - the purely rectangular swallet in Millstone Grit. Two examples are known to me, both just outside the areas examined, but worth describing here for the sake of completeness. The first is on Mynydd Llangynidr at N.G.R. SO104.139 and is known locally as Pwll Pyrs. A rectangle of grit has colapsed leaving a vertical - walled chasm measuring 25ft. x 15ft. and 30ft. deep. No limestone is exposed at the bottom.

The second lies ½ mile N.W. of Cefn-Coed-y-Cymmer at N.G.R. SO/027.089 and is roughly similar in shape but somewhat smaller. Obviously only a collaps mechanism could explain the immediate origin of both swallet. The reason for the collaps is obscure.

The authors have performed a useful service to diggers by heighlighting the scarcity of caves on Mynydd Llangynidr. Swallets there are plentiful and active ones to boot. It is my opinion that the water drains southeastwards to the Clydach Valley, ie. roughly parallel to Agen Allwedd water. The latter rises near the Devel's Bridge at N.G.R.SO/215.125 and I will venture to suggest that the Mynydd Llangynidr water rises in one or more of the Ffynnon Gisfaen springs near the Brynmawr Pumphouse at N.G.R. SO/207.124. In all probibility the western boundry of the underground watershead which focusses on the Clydach Valley is the Trefil fault, but this can only be proved by a series of dye tests.

Ref.1 LEITCH,D., 1960. Ogof Agen Allwedd. C.R.G. Pub. No.10.

Ref.2 LORD,Dr.H., 1963. Proceedings of the British Speleological Association No.1.

Melvyn Davies.

CLUB NEWS.

Congratulations

Congratulations are offered to the following :-

Les and Jan Hawes on the birth of their daughter.

David and Kathleen Hunt on the birth of their daughter.

Mr.& Mrs. Michael Deurden on their recent marrage.

Mr.& Mrs. Arnold Jones on their recent marrage.

Changes of address.

Mr.& Mrs.W.A.Birchenough, 'Felinganol', Verwig, Cardigan, Cardiganshire.

Keith Ball, Building Research Station, Mineralogy Seation, Gaston, Watford, Herts.

Changes of address cont.

Douglas Baguley, 25, Heathfield Avenue, Glyn Neath, Glam.

Bernard Woods, Riverside Caravan Site, Great Somerford, Chippenham, Wilts.

Rhidian Roberts, 55, Conway Road, Llandaff Fields. Cardiff, Glam.

Mr.& Mrs.J.Harvey, The Riding School, Upper Haneslade, Caswell Bay Road, Bishopston, Nr. Swansea.

New Members

We welcome the following new members to the club :-

Dennis & Regina Clarke, 87, Caterham Drive, Old Coulsdon, Surrey

Stewart McCreadie, The School House, Harlton, Cambridge.

Charles Jay, 13, Beaufort Gardens, Ilford, Essex.

Colin Graham, Blue Barn, St.Brevels, Lydney, Glos.

LONDON CAVE RESCUE ORGANISATION

Practice Rescue from Agen Allwedd (Llangattock) - 17.10.64

Although previous promises had indicated an expected turnout of 50 to 60 people, only 30 attended. In this connection our commiserations must go to the Mendip Caving Group who were only able to send 2 members due to a most unfortunate motor accident. One club (Herefordshire Caving Club) failed to appear although 12 people were promised. The clubs actually taking part were:-

Chelsea Speleological Society
Mendip Caving Group
South West Essex Technical College Caving Club.
Westminster Speleological Group

The Agen Allwedd Cave Management Committee kindly agreed to the cave being reserved for the rescue practice for the two days - 17/18th October.

The first party was scheduled to enter the cave at 10.00 hours, the body by that time being in position in the Avon Series, approximately one mile from the entrance. In fact, the first party entered the cave at 10.25 and reached the body at 11.45. The body with a multiplicity of people from various parties emerged from

the cave at 19.50. What transpired in between is, I think, best told by the patient, George Fletcher (C.S.S.), in the following report.

- - - - - -

"My vital statistics are 5'10" in boots, slight build and ten stones in socks. This must have gone up to over 11 stones in my ample clothes, goon suit and stretcher.

"The rescue took place from the Aven Series. Party 1 moved from there to Cliffs of Dover, party 2 from there along Main Passage to the junction with Main stream Passage and party 3 from there to First Boulder Choke at Barons Chamber. From here a mixture of parties 1 and 3 manovered me through the choke to quite near Queer Street , where party 4 took over. After a while, however, it seemed that everyone was helping with party 4 roughly in charge, even Colin Holdsworth (the surface organiser) found himself lending a hand.

"Now for the hard facts, and those who worked so hard sweating and toiling to get me out will, I hope, forgive me for my harsh criticism, for serious criticism of efforts is the only real way to learn anything from our practice rescue. I will go through the rescue stage by stage as I saw it and sum up generally at the end.

"I had two broken legs when party 1 arrived and I was put into a Neil Robinson stretcher and carried to the first squeeze (horizontally under a low roof for 3 feet to a constriction between projecting boulders, followed by a tight near vertical descent of 6/7 feet and a tight slot exit horizontally into the passage at the bottom) out of the chamber. After trying head first, then feet first, it was found that it was quite impossible to get a rigid body through. First, there was a considerable pressure on the thighs, then an excess of pressure on my chest just as my feet touched another obstacle. After more close inspection it was thought the passage of a body through the squeeze would be possible if the mud was dug away.

"The second squeeze was quite impossible on a Neil Robinson stretcher and perhaps, if it was dug, just possible on a drag sheet. I was put back into the N.R. stretcher and taken through the third squeeze with great discomfort from pressure on the top of my thighs. This squeeze too could be dug out. (The second squeeze is a very tight tube about 5 feet long with a downward sloping entrance, this is followed by about 10 to 12 ft. of widish flat out crawl to the third squeeze, a hollow dug under a downward projecting roof.)

"I was taken out into the main passage with a bit of discomfort from rolling on my side and scraping my helmet and arms on the walls, through the meandering crawls. Here also began the smell of scorched wool from the balaclava which was covering most of my face, in a vain attempt to stop the dust from filling my eyes, nose, mouth and ears. Both of these really were a great discomfort throughout the rescue. I was taken quite comfortably to the Cliffs of Dover where a welcome hot cup of

coffee was given to me by the relieving party 2.

"As the roof is mostly low from there at Main Passage, via the Music Chamber, I was mainly dragged, feet first. This too, was to prove a great discomfort throughout most of the journey; the feet being so light, compared with the body, were always more easily maintained at a good height, whereas the body was uncomfortably low and tilted to one side or the other. This tilting resulted in the side ropes on the stretcher cutting into my unprotected shoulders. The journey along Main Passage was not too bad, but I must agree with the leader of party 3 who suggested that short but frequent rests were the answer. Party 2 did a fine carry with few rests, but this resulted in the body being lower than the feet after a short while and the steps seemed a little longer than they ought, probably unfair comment but as an injured patient I felt that movement was positive progress.

"On reaching the emergency kitchen (near Main Stream Passage entrance), I was given soup and then party 3 took over. A very comfortable journey ensued, head first, with frequent short rests and a change around of stretcher bearers across the boulder floor to Barons Chamber.

"At the first boulder choke parties 1 and 3 manovered me carefully to the top of the chain-drop and into the choke. Somehow people managed by strange contortions to station themselves at various points down the drop and by a terrific bit of handling I was landed fairly safely at the bottom. There were however, a few moments when the weight of my body was taken on my feet, which would not be too good for broken legs. I do think I could have got away with it with broken legs on that move, but not I think if the injuries had been a fractured spine or a bad injury around the hips, where a limited amount of movement took place to negotiate boulder projections. From then on only room to pull or push with difficulty.

"The first serious difficulty here was the squeeze through a triangular shaped gap in the boulders. Everything was tight and had chest or upper limb injuries as well, this constriction would have stopped me, but I think it could be cleared a bit with some hard work with a lump hammer and chisel. There was a little uncomfortable pressure on my legs at this point also but not too serious if, as mentioned, the constriction was cleared a bit. The next two squeezes in this part of the choke were not too bad, just a great difficulty in handling and, at one point, I took most of my weight on my head and feet only and just after that rolled onto my right side and became jamed sideways in the rift. After this the going should have been better, I think, but the rescuers must have been quite exhausted for the moment for I took some rough handling and my injured limbs would not have fared well.

"I think the formula for the choke is to have a team of the smallest, toughest cavers available just for this problem, with a knowlege of the choke.

"The manovers around by Draught Passage seemed to go a little uneasily and I was

showered unpleasantly with a lot of sand and muck. At the seven foot climb up out of the choke, things really seemed difficult, perhaps a fresh party would have helped., I do not know, for by this time I was quite weary myself. After being placed on the stepping-up boulder I was hauled and pushed into tje small exit hole on my right side and hauled out without a great deal of pain in my legs and feet. Here certainly, an injured patient could not have been moved as I was. This problem needs looking at again, properly. Shortly after this party 4 arrived, short of manpower,to take over. I was given some scorching hot coffee, which burnt my mouth and my chin when I spilt it. From here I was treated pretty badly for a patient with broken legs. It seemed that, more often than not, I was being held only by the head and feet ropes like a hammock. Whether this was through lack of handlers or lack of experience or just bad terrain around the area I could not judge very well for I was about exhausted and found it impossible to open my eyes or mouth without them being filled with dust and dirt again. There were a few bad slips where I turned side ways and hit the side of the passage, then without knowing exactly when it started, I was being passed quite rapidly and efficiently across endless columns of rescuers who just seemed to appear ahead of me all the time.

"How I got through the tight entrance rifts I just do not know because I could not see. I suppose I was passed over bodies jambed in across the passage. On reaching the old Ogof Gam sumps I was simply laid down and with no trouble at all pulled cumfortably through all three.

"The very final entrance passage proved a problem to my rescuers. I was put onto a strong back and, while the back crawled, my head and feet were guided along the passage. This sounds easy but, in fact, I kept rolling onto, pne side or other and scraping my head and front. But, at last, I was thankfully pulled out under a starlit sky, stiff, tired and bruised but not cold, as was the case throughout the practice rescue. Perhaps it would have been a different story had I got at all wet.

"I was retrieved in the short time of about nine hours, but not surprisingly the practice was treated rather lighthearted ly for most of the time. As a result I took quite a lot of rough handling that a patient would just not have survived. In a rela rescue I think it would have lasted almost twice as long. Each obstacle would have to be more carefully scouted and progress would have to be much slower if the comfort of the patient is to be taken into account; especially patients with long limb fractures. I am quite a fit caver, or was when I started, but I ended up quite weary and badly bruised about the hips and shoulders.

"The main points as I see them, that come out of this really worthwhile practice rescue are, in some general order of importance, as follows:-

1. Rescuers should be experienced, particularly with a knowlege of the cave or pothole.

2. Something should be done about the serious problem of dust and muck in the patients face. The ears are easily plugged with cotton wool, but the solution is for the eyes, nose and mouth I do not know.

3. The feet higher than the head is a real problem which ought to be realised by rescuers.

4. The head too is a problem. First I got aching neck due to controlling my head and it seemed to help to have some support under the neck and to have the helmet held by the head strap which is fixed to the stretcher (This needs to be lengthened for it was found to be too short.

5. All rescuers should be asked to wear electric lamps for quite obviously carbide lamps with a naked flame are quite dangerous to the patient.

6. The bamboo chest supports on the stretcher cut into my abdomen and under my arms when I was bent at the hips, so some kind of padding should be provided here.

7. The carring ropes would seem to need much modification as the foot ropes bruised my ankles a little and the top carring ropes cut into my shoulders.

8. There seems little protection for the hips for I was quite badly bruised about this point; perhaps some padding is the answer.

9. I think it is better not to change the carring party completely each time but to replace say half at a time more frequently, for a completely new team has to find out for itself, each time, the problems of managing a particular patient underground. This, I think, would greatly improve the patients comfort.

10. The problem of rolling from side to side is probably just solved by careful handling but it was quite disconcerting to me. A normal rigid stretcher would prove very useful along Main Passage or indeed along any long passage with an easy carry.

11. As for the serious problems in the first boulder choke, I think the small tough cavers should be kept back for this part of any rescue from Aggy. It is undoubtedly the most difficult part of rescue work, particularly for tall cavers.

"I think that without any real major clearance jobs, my length is just on the limit for the rescue of a fairly rigid body on a stretcher.

— — — —

You will have read George's most comprehensive report on his epic journey and I hope, taken some notes of his criticism. Each person entered the cave was checked and the equipment carried is listed below:-

Out of 30 people 21 carried carbide as main lighting
and 9 used some form of electric set.

21 of the 30 carried waistlengths of which 14 had one or more karabiners.

Of the 30, 17 carried second forms of lighting subdivided into

10 electric
5 carbide lights
2 candles

Of other people there, 15 carried matches of which 12 were waterproofed.

George has already made the point of the convenience of electric lighting to avoid burning the patient. This, I thing, is important.

Lack of communications caused many difficulties, not the least of which is that up to 15.30 hours I, from the outside, knew nothing of progress. Parties did not leave the cave having done their stint. This was largely the lack of encouragement from party leaders. At times too much emphasis was placed on speed of completing the operation and too little on the comfort of the patient. The carrying sheet was never used; why, I shall never understand. An unadapted Neil Robinson stretcher is not in all ways suitable.

Having an underground canteen was a useful asset and well worth while doing. To rescue an injured person from the Aven Series would be possible with small modification of the cave and a different attack on the rocking boulder. All communications should be written down be responsible people and not passed orally, except by telephone. It seems that eight people are the optimum sized party for rescue - six for the carry, one for spare gear and one for observation and leadership.

A patient suffering from injured lower limbs should be carried head first. This prevents to a large extent the injured parts coming into collision with obstructions On the whole I think the operation was a successful venture and enjoyed by those who participated.

Colin Holdsworth
(Organisor)

BOOK REVIEW

POTHOLING: BENEATH THE NORTHERN PENNINES by D. Heap, Routledge and K. Paul
Price 35s

This is an account of the author's exploration of caves and potholes in the Craven area. The book is useful from the point of view of the instructions given for locating the caves and nearby camp sites and also for the addresses from which permission to visit may be obtained. Routes through several caves are described in detail and sketch maps are appended. Caves delt with in this manner are Calf Holes and Pool Sink, Easegill, Marble Steps Pot, Ireby Cavern, Magnetometer Pot, Lost John's System, Grange Rigg Pot, Providence Pot, Dow Cave, Swinsto Hole, Simpson's Pot and Penyghont Pot. The book looses somewhat owing to the fact that none of the routes discribed are first explorations. Some of the better chapters are those dealing with why a caver caves and with the future of caving. The text is well illustrated with photographs and line drawings. On the whole a very welcome addition to the cavers library, especially to someone contemplating a trip to the Northern Pennines.

THE STRENGTH OF KARABINERS by L.T.Griffin, National Engineering Laboratory, East Kilbridge, Report number 162

This article reports on static tests carried out on a representative range of karabiners. None of the karabiners tested came up to the B.M.C. recommendation that the failure load should not be less than 3,000 lbs., with gate open or closed. Some recommendations are made with regard to improving dosign and manufacturing methods.

Keith Ball

OGOF FFYNNON DDU LEADERS LIST 1965

Dr. E. Aslett, Castle Hotel, Brecon.
N.G. Anderson, 15, The Parade, Whitchurch, Cardiff, Glam.
T. Andrews, 135, Danson Road, Bexley, Kent.
A.W. Ashwell, 'Cuilcagn', Stanyold Road, Trevor Hill Church Stretton, Salop.
C.J. Baglin, 8, Archer Road, Penarth, Glam.
F. Baugley, 15, Elm Grove, Aberdare, Glam.
H. Ball, 'Bronderi', Peniel Gardens, Llansamlet, Swansea.
T.K. Ball, Building Research Station, Mineralogy Section, Gaston, Watford, Herts.
R. Baynton, 25, Weig Gardens, Condros, Swansea.
J. Bevan, 62, The Greenway, Sutton Coldfield, Warwickshire.
W.A. Birchenough, 'Felinganol', Verwig, Cardigan, Cardiganshire.
W.E. Clarke, 6, Glynderwen Crescent, Derwen-Fawr, Sketty, Swansea.
P.M. Cleary, 26, Heol Esgyn, Park End, Cardiff, Glam.
G.L. Clissold, 'Sillouette', Staunton, Coleford, Glos.

cont.

A.C. Coase, 53, Broughton Road, Croft, Leicestershire.
D. Cons, 'Haffes', 16, Great Elms, Hadlow, Nr. Tonbridge, Kent.
D. Coomes, 'Brynawelon', Banwen Road, Glyn Neath, Glam.
M. Dourdon, 65, Pimlico Road, London, S.W.8.
N. Dilly, 3, Balaclava Road, Bermondsey, London, S.E.1.
J.K. Drydon 1, Beaufort East, London Road, Bath, Somerset.
Mr. & Mrs. L. Galpin, 6, Trinity Rise, Tillington, Stafford.
C.O. George, 'Leys Cottage', Llanblethian, Nr. Cowbridge, Glam.
B. deGraaf, 'Neuadd', Llangorse, Breconshire.
W.G. Harris, 'Glen View', 17, Ford Road, Velindre, Port Talbot., Glam.
J.M. Hartwell, 7, Park Cottages, Nutfield, Nr. Redhill, Surrey.
J. Harvey, The Riding School, Upper Hanoslade, Caswell Bay Rd., Bishopston, Nr. Swansc
E. Harwood, 33, Worcester Road, Droitwich, Worcs.
L.A. Hawes, 'Cribarth', 26, Court Moor Avenue, Fleet, Hants.
M. Hiron, 60, Neville Road, Erdington, Birmingham.
I, Homes, 'Upleadon', Trumpet, Nr. Ledbury, Herefordshire.
W. Hughes, 16, Greansome Close, Doxey, Staffs.
D. Hunt, 19, Daniel Street, Cadoxton, Barry, Glam.
E.G. Inson, 19, White Barn Road, Llanishen, Cardiff, Glam.
D.W. Jenkins, 'Dinmore', Dyffryn Road, Llandrindod Wells, Radnorshire.
B.A. John, 12 River View, Gabalfor, Cardiff, Glam.
A. Jones, 'Victoria House', Glyn Neath, Glam.
C. Jones, 27, South Road, Sully, Nr. Penarth, Glam.
N. Jones, 4, Heol-y-Felin, Rhwbina, Cardiff, Glam.
G.T. Jefferson, 6, Rhwbina Hill Rhwbina, Cardiff, Glam.
D. Kemp, 5, Church Lane, Southwick, Brighton, Sussex.
W.H. Little, 29, Wrekin Road, Sutton Coldfield, Warwickasire.
D.H. Lloyd, 62, Brondestyn Terrace, Trecynon, Aberdare, Glam.
N.B. Lloyd, 'Barnlands Cottage', Bishopston, Swansea, Glam.
Dr. O.C. Lloyd, 'Withey House', Withey Close West, Bristol 9.
P. Millet, 39, Rochdale Road, Middleton, Manchester.
J.V. Osborne, 39, Haygate Road, Wellington, Shropshore.
C.L. Railton, 12, Chester Road North, Sutton Coldfield, Warwickshire.
R. Roberts, 55, Conway Road, Llandaff Fields, Cardiff, Glam.
T.N. Round, 25, Henwood Road, Tettenhall, Wolverhampton.
G. Saunders, 40, Twyn-y-Bedr, Clydach, Swansea, Glam.
R. Smith, 58, Woolaston Avenue, Lakeside, Cardiff, Glam.
A. Stephens, 65, Dan-y-Graig, Pantmawr, Cardiff, Glam.
J. Squires, 3, Swanborough Corner, Highworth, Wilts.
G. Thomas, 'Greenfield House', Heol Sarn, Llantrisant, Glam.
D.I. Webley, 39, Heol Isaf, Radyr, Glam.
Dr. & Mrs. R. Williams, 107, Plymouth Road, Penarth, Glam.
T.A. Woodford, 6, Hurst Park Avenue, Cambridge.
B.J. Woods, Riverside Caravan Site, Great Somerford, Chippenham, Wilts.