

FOREWORD

The Secretary regrets that in his Report for 1955 - 56 he omitted to mention that Denis Warburton's colour slides were shown to both the Bath and Chew Magna branches of the "Young Farmers Club", and to members of three of our affiliated clubs during the past year. We think the lectures were appreciated by those who attended, and we must thank Denis for his kindness in providing the slides.

Robert Woolley, having refelted the roof of the Hillgrove Hut, is now turning his attention to the drains. These have been blocked for several months, but Robert plans to fit a larger inspection chamber and so prevent a recurrence of the trouble.

We gather that most of the 102 people who were present at the Dinner had a most enjoyable evening. It was disappointing to find that the management had failed to provide a special bar in the dining room, as promised, and that the supply of wines was not sufficient to meet the demands; but members and their friends did not let these little things worry them.

G.B. Guest Days. The U.B.S.S. has informed us that they will be sending us a list of future Guest Days. They request that we remind members, that these Guest Days are arranged to enable members of the five named clubs to visit the cave. Members can take the occasional friend but not parties of members of other clubs and societies.

Hon. Sec., Frank Frost, 22 Wolseley Rd., Bristol 7
Phone, Bristol 44221

Hon. Treas., G. Williams, 1 Redhill Drive, Fishponds, Bristol.

We welcome the following new members:

Mr. and Mrs. N.A.M. GILLARD, 230 Passage Rd., Brentry, Bristol.

E. PICKNETT, 31 Woodside Ave., Esher, Surrey.

R. SAVORY, 61 Lower Redland Rd., Bristol, 6.

N.H. WHEATLEY, 6 The Normans, Bathampton, Bath.

Omitted from the "List of Members" (Jour. No. 57)

Prof. L.S. PALMER, The Museum, Wells, Somerset.

Dr. F.S. WALLIS, The Museum, Queen's Rd., Bristol, 8.

M. DALE, 57 Kingsway Ave., Kingswood, Bristol, 5.

Future Events

U.B.S.S. Lectures. These will be held on Mondays at 8.15 p.m. in the Geography Lecture Theatre of the University, entrance University Rd.

Nov. 26th, 1956 Mr. H. St. George Gray, O.B.E., M.A., F.S.A.
"The Lake Villages of Somerset. "

Dec. 10th, 1956, Mr. A.D. Lacaille, F.S.A.
"Caldy Island"

Jan. 21st, 1957, Dr. R.J.G. Savage, Ph.D.
"Adam's African Ancestors."

Feb. 4th, 1957, Mr. J.C. Coleman,
"Irish Cave Exploration: A Review."

Feb. 18th, 1957, Mr. Nicholas Thomas, M.A.
"Excavations at Snail Down."
March 4th, 1957, Annual General Meeting.
Presidential Address. "Wookey Hole Cave."

Anyone interested is welcome to attend. All the lectures will be illustrated by lantern slides.

G.B. Guest Day: December 8th or 9th.

Club Supper: Date to be announced later.

Subscriptions for 1956-57 were due on October 1st. They should be sent to the Hon. Treasurer. 10s. for single, 12s. 6d. for family membership.

PEN PARK HOLE

Professor L.S. Palmer's Geo-electrical survey was made during August and from his graphs he was able to locate two of the cave's three entrances. Professor Palmer has been asked to direct the work of re-opening the cave, and the Wessex Cave Club, together with the U.B.S.S. and the B.E.C. will excavate a 60 ft., shaft which, it is expected, will lead to the main cavern. The three clubs will work on a weekly rota, and the Wessex began the work on the week-end of November 3rd. The shaft has been cleared to a depth of about 10 ft., and the B.E.C. will continue with the work during the week November 5th to 11th. They will be followed by the U.B.S.S.. The co-ordinating Engineer is Paul Dolphin, and the Hon. Secretary will arrange the Wessex digging parties. No-one can visit or excavate the site without an authorization from the City Engineer of Bristol, and this may be obtained by signing a "blood chit."

The number of these must be limited, as only about four people can usefully be employed at any one time.

Frank Frost.

THE SECRETARY'S REPORT FOR 1955-56

The membership of the Club is now 214. This is an increase of 27 on the figure given last year, and includes 12 "joint memberships". The number of affiliated clubs has increased by two making a total of 11. 38 new members joined the Club during the year.

We have not arranged any official Club trips to Mendip caves, but, as usual, new members have found no difficulty in getting plenty of caving. Most week-ends during the summer one or more parties were active on Mendip and without exception went out of their way to help the beginners. The Easter visit to Yorkshire was an agreed success. We were sorry that not more than two members of the Stoke-on-Trent Pothole Club could manage to join us, but even so, before we left Yorkshire, plans were being made for next year's trip.

The change in the arrangements for visiting G.B. Cave have been appreciated by Members and friends. Previously a high proportion of our Members who visited the cave on the U.B.S.S. Guest Days were in fact members of one or other of our affiliated clubs, but we now observe that far more Ordinary Members are taking advantage of the opportunity to visit the cave. During the winter months we arranged a Club supper at Wells. This was appreciated by Members, but it was not found possible to arrange another at a later date. This

was due to the fact that the hotels could not cater for a single large party during the tourist season. The reasonableness of the charge for the supper we held was due in part to the good offices of Howard Kenney.

Oliver Lloyd with the help of Robert Woolley and others again re-opened Cuckoo Cleaves (is this to be a hardy annual?), and Alan Fincham and Robert Lawder, together with a large number of other Members put in some hard work on Cross Swallet. Dennis Kemp continued his work at Swildon's Hole, and as has been the custom for some time past, newcomers and others joining Oliver Lloyd on a trip to the Sump were expected to drill an eight inch deep hole in the bed of the so-called Priddy Green Stream.

The alloy ladders have been in constant use, and this has resulted in a high rate of depreciation. Three ladders have been withdrawn from use, but their repair or replacement is a major job, so we have been investigating alternative methods of construction. We hope to be soon in a position to give a report on the suitability of a crimping system.

During the summer the roof of the large hut at Hillgrove was completely re-felted, and the Florence stove moved to a more suitable position. We must keep constantly before us the fact that, as the age of the hut increases, so there will be a corresponding increase in the amount of maintainance that will be necessary to keep it in a good condition. We do hope that Members using the hut will give every assistance with this work. Due to the fact that certain Members do not always return keys promptly, there were occasions when it was not possible to let all who booked for a particular weekend have a hut key, but in most cases things

worked out fairly well.

We are sorry to note that Members are omitting to enter in the log details of their caving activities. Other Members have in the past found these notes of considerable interest, particularly "Cheramodytes" who uses the information for compiling "Mendip Notes", which we know are read by the general membership, with considerable interest. We would also appreciate a little more care in the details entered in the book and on the envelopes, in respect of hut and tackle fees.

This year we have given Members six issues of the Journal. The increase in the cost of postage (it now costs about 36s. to send out each issue) has been partly offset by the bulk purchase of covers. By buying at the 5000 rate we have cut the cost by half. Members should be reminded that, we are indebted to Mac (A.J.S. McMillan) for allowing us to use his duplicator and obtaining paper and envelopes for us at cost price. This was brought home to us when we totalled up the cost of the postal ballot circular. Mac was out of England on holiday, and it cost over £9 to have this circular duplicated and sent to Members. There is now no doubt that Members look forward to receiving the Journal, but we do stress the fact that, unless more Members send in articles, we may find difficulty in keeping up the standard, both in quality and quantity.

Apart from Oliver Lloyd, we had the regular assistance on the Journal of Jim Swithenbank and my wife, and Robert Woolley has been an energetic and willing helper. On one memorable occasion we had the assistance of Struan Robertson of the U.B.S.S., but it must be admitted that when he made a social call at Withey House, he was quite unaware that he would be roped into a "collating" party. Trevor Shaw's reviews of caving books are received with a satisfying regularity, and we are very grateful to

him for his help, both in this way and in the preparation of the indices.

During the year we have tried to trace the four Honorary Members, whose names had been removed from the list of Members, but we could only contact Dr. Cooper and H. Savory. The other Honorary Members are F.G. Balcombe and J. Duck. We could not trace Watson or Parry. We have since learnt that Watson is a Dean in the Church of South India and that Parry is dead.

For the first time for many years, and in fact only the second time during the Club's existence, we have had a postal ballot for the election of committee Members. The response was very good indeed, 86 Members returning their papers. The result, which will be given later at this Meeting, would suggest that most Members are reasonably satisfied with the way the Club is run, and could be taken as a minor vote of confidence. Last year a move was suggested that would have resulted in barring both the Secretary and the Chairman-Treasurer from serving again in these offices, but conversations during the year would lead one to believe that this step would not have the support of the Majority of the Members.

I would like to close this report by mentioning the names of those Members who have given assistance to the Club in practical ways. First and foremost we have Oliver Lloyd. Not only by his outstanding work on the Journal, but also by his help in many other ways, he has shown himself a true friend of the Club. Robert Woolley took on the task of re-felting the roof of the Hill Grove hut, and with help from Marjory Sealey, Jim Swithenbank and Michael Hooper recently completed the job. He also repaired the Eastwater Hut, and we hope he will still be available in the future to continue his good work. Michael Hooper, by collecting fees from

the two huts, has enabled the Treasurer to keep his books up to date. We also thank Howard Kenney for auditing the Club Books.

Mention must be made of the kindness of Dennis Kemp in presenting the Club with mattresses, etc., and of Oliver Wells' little gifts for use at the Hill Grove hut. To these and all the others, who have given that "little extra", we say, "Thank you very much."

Frank Frost.

ANNUAL GENERAL MEETING

The A.G.M. of the Wessex Cave Club was held at the Cliff Hotel, Cheddar, on Saturday 20th October, 1956. George Williams took the chair at 3.40 p.m. About 54 members were present. After the usual preliminaries the Secretary read his report for the year, which is printed on page 120 in this Journal. Only one matter for discussion arose out of this. It was a novelty for the Club to have a postal ballot for electing its Committee, and Paul Dolphin' rather questioned the wisdom of not having it secret, since the ballot sheet had to be signed by the member voting. He suggested that 86 voters in a club of 214 members was a low proportion, and that this might have been one factor in preventing the proportion from being higher. Various practices in other societies were quoted by Wyndham Harris, which ensured secrecy and which the Club could copy. Other members, however, thought that the proportion of voters was creditably high. The general feeling of the Meeting was that the practice adopted was not likely to lead to abuse, and on the motion of Brian Collingridge, seconded by Christopher Hawkes, a resolution was

passed that this practice should continue. Mr. Beauchamp of Battersea proposed a vote of thanks to the Secretary for his report, thanking him for his unfailing help, advice and guidance. This was seconded by Harris and carried.

The Treasurer's Statement was presented, and is printed at the end of this Journal. Howard Kenney, the Auditor, said that we couldn't have a better Treasurer than George Williams; his books were beautifully kept. He pointed out that the Balance Sheet did not include all assets, the hut and equipment at Headquarters being excluded. The difficulty was to place a true value on these assets. To the Club they are of considerable value but on a forced sale would realize little. The cost of the Journal appeared abnormally high, as this included a recently purchased stock of covers that would last for three years. The balance of £40 was satisfactory (a fact which had already been noted by Dolphin, in comparison with last year's £9) and would leave room for provision for the Hut Sinking Fund. Dolphin said that the Journal was expensive in proportion to the subscriptions of members, but that this was right. On the other hand the tackle expenditure was too low. The Secretary explained that this was because nobody had had time to work on the ladders that had been withdrawn. It usually cost £5 to make a ladder, but new methods were being considered.

Mrs. Kidd asked how one could get books from the Club Library. The Secretary replied that in the summer of 1955 the Library had been under the care of the Assistant Secretary, but that on his departure for Military Service, Dr. Lloyd had taken care of it and was storing it in his lumber room. It was therefore, unfortunately, not available for the use of Members. There had been much discussion in Committee as to how to make the Library available,

but a decision had not yet been reached. They wished to keep the Library on Mendip, but feared that it might deteriorate if it were to be kept at Headquarters. Hawkes suggested that the books should be kept in the house of a member living on Mendip. Mrs. Kid, who lives at Winscombe, very kindly offered to undertake to do this and to act as an "armchair librarian." A vote of thanks to the Treasurer and Auditor was proposed by Luke Devenish, seconded by Peter Harvey and carried.

Officers and Committee for 1936-7

President, Mr. H.E. Balch; Vice Presidents, M. Norbert Casteret, Mrs. B. Dobson Hinton, Prof. L.S. Palmer, Dr. E.K. Tratman and Dr. F.S. Wallis, Chairman and Treasurer, G.H. Williams; Secretary, F.W. Frost; Gear Curator, J. Swithenbank.

Committee: L.W.E. Devenish, P. Davies, D.C. Ford, Cmdr. P.B. Lawder, D. Warburton, R.R. Kenney, D.A. Willis, Mrs. B. Willis and R. Woolley.

Resolutions

1. The first resolution, standing in the names of L.W.E. Devenish and C.H. Kenney, related to the methods of electing a committee. In view of the opinions already expressed at the Meeting and confirmed by vote, this resolution was by permission withdrawn.

2. "That not less than two calendar months notice shall be given to all members of the date of the Annual General Meeting." Norman Brooks in proposing this said that it was important for members coming long distances to have as much notice as possible so that they could arrange to attend. This year only three weeks notice had been given. In extenuation it was pointed out by the Chairman

that it was often difficult to make definite bookings so long ahead. The date was always fixed for the third or fourth week in October. It couldn't be earlier, as the Club year ended on the 30th September, and the books had to be made up. Howard Kenney, seconded by Dr. Thomson proposed an amendment which the Meeting adopted, so that the notion finally passed read: "That the Committee shall endeavour to give not less than two calendar months notice to all members of the date of the Annual General Meeting."

3. The third resolution was heavily defeated. Moved by Ian Dear and Mrs. Willis it proposed "That Committee Meetings shall be held at the Club Headquarters on Mendip, and as a general rule Club Members shall be admitted as visitors at such meetings, taking no active part. Should it be in the interests of the Club to exclude ordinary members for part of such a meeting then items under discussion and the decisions reached by the Committee must be announced". The feeling of the Meeting was that the Committee had a right to select its own venue for meeting, that its proceedings should be private, and that Club Members had sufficient confidence in the Committee of their own choosing to rely on them to do their job properly without being overheard.

Amendments to rules

Certain rules were amended so as to read as follows:

Rule 4: "That the President, Vice Presidents and Honorary Members shall be entitled to exercise all the privileges of ordinary members, including the rights to stand for office and for the committee, and all voting rights. The President and Vice Presidents shall retire annually and be eligible for re-election."

Rule 5: "That the affairs of the Club shall be conducted by a Committee which shall consist of a Chairman, Honorary Treasurer, Honorary Secretary, Honorary Assistant Secretary, Gear Curator and nine other members who shall retire annually and be eligible for re-election, and that the Honorary Secretary of any group within the Club be eligible to attend a committee meeting in an ex officio capacity, and may nominate a substitute to attend any meeting which he cannot attend personally. All members standing for office or for membership of the Committee must be nominated by two members of the Club. The Committee shall fill any casual vacancies. An Honorary Auditor shall be appointed each year at the A.G.M."

Rule 7: "That any person desiring to join the Club must be nominated by two members and elected by the Committee. A minor must obtain the written consent of his parent or guardian."

Rule 8: As it stands, but for "Circular", read "Journal".

Rule 9: "That a charge of 1s 6d (exclusive of any gate fee) shall be payable by any non-member who takes part in any trip on which Club gear is used. The size of the party shall be at the discretion of the leader."

Rule 11: "That an extraordinary general meeting may be called at any time by the Honorary Secretary when required to do so by the Committee, or in writing by ten members of the Club. Two weeks notice must in all cases be given. Such a meeting may not pass a resolution, but by a simple majority of those present may draw up a resolution to be voted on by postal ballot within one month by the members of the Club."

Rule 13: "That no alteration shall be made to these rules except at the A.G.M. or by special resolution passed at an E.G.M. called at the request of the Committee."

Rule 14: Deleted. Subsequent rules renumbered accordingly.

Rule 19 (new rule): "That at each A.G.M. the Club shall decide on the sum of money that is to be placed for that year in the Hut Sinking fund. This Fund is to be used only for major repairs or replacement of the main hut at the Club's Headquarters. The administration of the fund is in the hands of the Committee."

Comment on these changes

The Club Rules were published at the end of Journal No. 48, December 1954. The alterations to Rules 4, 5, 7, 8 and 9 were made to clarify some matters and to codify certain recognized practices. They were not controversial. Rule 11 was altered so as to give certain powers to an E.G.M. which it did not appear to have. Rule 13 was modified in accordance with the new Rule 11, but the power to recommend alterations to the Club Rules was limited to an E.G.M. called at the request of the Committee. Rule 14 used to exempt Service Members and Members living temporarily abroad from payment of subscriptions. In discussing Rule 19 it was made clear that the A.G.M. would have the advice of the Treasurer and Auditor before deciding how much money to place in the Hut Sinking Fund for that year. It was not possible to obtain the Committee's advice as the Balance Sheet can never be prepared in time for the last Committee Meeting before the A.G.M.

A new Honorary Member

Howard Kenney proposed "That Mr. Frank Frost should be elected an Honorary/Member in recognition of his services to the Club." This, he said, was both a duty and a pleasure, and was long overdue. He had been Honorary Secretary for as long as most Members could remember. He and the Wessex were indivisible. He had put more time and energy into the Club than anyone had ever done. They differed in opinion sometimes, but Members were always conscious that whatever Frank Frost did it was in his own mind in the interests of the Club. He was completely disinterested. The Club had a high membership figure, good Headquarters, an excellent Journal and was successful in all the fields it entered. This was because the character of the Honorary Secretary had been reflected in all the activities of the Club. He was seconded by Vincent Stimpson, and the motion was carried amid prolonged cheering.

Howard Kenney was then proposed Honorary Auditor for the coming year by the Chairman. This was carried with acclamation. It was then agreed to place £20, which was half the Balance for the year, into the Hut Sinking Fund, under the terms of the new Rule 19. It was to be put into the Economic Building Society Deposit Account on deposit at 12 months notice, so that it would accrue interest. As for the £47 already in that account, it was left to the discretion of the Committee what to do with it, but it was not to be considered part of the Hut Sinking Fund. The Meeting ended at 6.10 p.m.

CROSS SWALLET

Cross Swallet lies on the South edge of Mendip between the Deer-leap and the Priddy to Westbury roads. Superficially it is a most impressive site, the swallet taking up the best part of a small field. The name is derived from the cruciform drainage gullies, S, E, W and the shaft in the N. A small pond in the SW corner of the field overflows into the swallet and is probably the principal source of water today. However, the large drainage basin of the swallet suggests a one time much greater flow than is found today. In flood the swallet takes a quite considerable stream, which without doubt makes a good depth before resurging. The probable rising is Rodney-Stoke, as this has been reasonably proved for the swallets near the reservoir.

Cross Swallet had been dug at least twice before our efforts this summer, once pre-war on a large scale and once post-war. From the start it was clear that digging Cross was a major undertaking requiring efficient mechanization and a team to operate the apparatus. It was not a job for the man, rope and bucket system. For ideas, loan and acquisition of much of the tackle we are indebted to Luke Devenish. (A separate account of the tackle follows this article).

At the start we were faced with a hole, as indicated by the dotted line on the sectional drawing on page 134. One could squeeze between rocks at the hole (A) into a very narrow, vertical, fluted rift (B) with a choked floor of mud and stones. To dig out this appeared desirable but well nigh impossible, due to a choke of rocks overhead. So our first efforts were to take the lid off and open the rift to the sky. This job looked formidable, but once the tackle was working and the operators

had mastered it (more or less), the bulk of the work was done in about two working days, an estimated two or three tons being removed.

By this means we entered rift (B) from above and the speed of working drew up with a nasty jolt. We were now reduced from touching on 2 cwt. chunks to scrabbling with a trowel and hand-hauled canvas bucket. Down we went into a nice fluted rift, but not for long; slowly an ominous looking rock appeared out of the sinking floor, and it became evident that the rapid chemical process would be required. With the assistance of Hywell Murrell we had our rock reduced to gravel, which we hopefully removed. When all was finally cleared we gazed dismally at a solid rock floor, with a nice shattered texture, running the whole length of the rift with the exception of a crack on the E. side, opening from an inch at the N end to about five inches at the S end, where one could see through some 18 ins. into a very narrow cross-rift (C). Hope of penetrating here is nil to slight; our rock had proved to be an upthrust fang of solid rock.

Attention was now turned to the only remaining hope (the rift (D) being quite impenetrable), the choke of clay and rocks at the N. end. This involved undercutting the choke ledge down over which we had been climbing. While this was being accomplished, a nasty little N-S crack (E) appeared in the floor and swallowed up our best crow-bar.

At the end of our level we found a much fissured rock wall with a narrow rift descending at the base of it. The floor of this was formed by a large flake of bed rock sticking up obliquely. This was removed by a very effective bang, which also stirred up the none too safe floor of clay and

rocks. It was reluctantly decided to sacrifice hole (AB) by removing the ledge (F) into it. This was accomplished in an afternoon's work and proved to be an entertaining job; the resulting mess looked rather as if a cwt. of gelignite had gone off in the bottom. Slowly the mess was cleared and the whole shape of the hole had been switched round; our new spoil heap rising in the S. side of the shaft.

Our new found N hole (G) has proved to be rather a disappointment. After quarrying away the root of the offending flake we are now faced with a vertical serpentine rift at present quite impenetrable. A possible man-sized space can be seen some 6 ft. in, but shot-hole blasting will be necessary to reach it, and this is now the program. This rift is the largest "way" we have found anywhere in the swallet and offers the best hope of penetrating further.

So far as the digging of Cross Swallet is concerned, we believe that it is completed. All possible holes have been dug out and examined carefully. Let it further be put on record that the following relics were recovered; two crow-bars, one shovel, two trenching tools, numerous buckets, quantities of old iron and timber, and a coach lantern. Unfortunately none of these proved to be of archaeological value. There are now three spoil heaps; the old one at the N end, one at the S and one at the bottom.

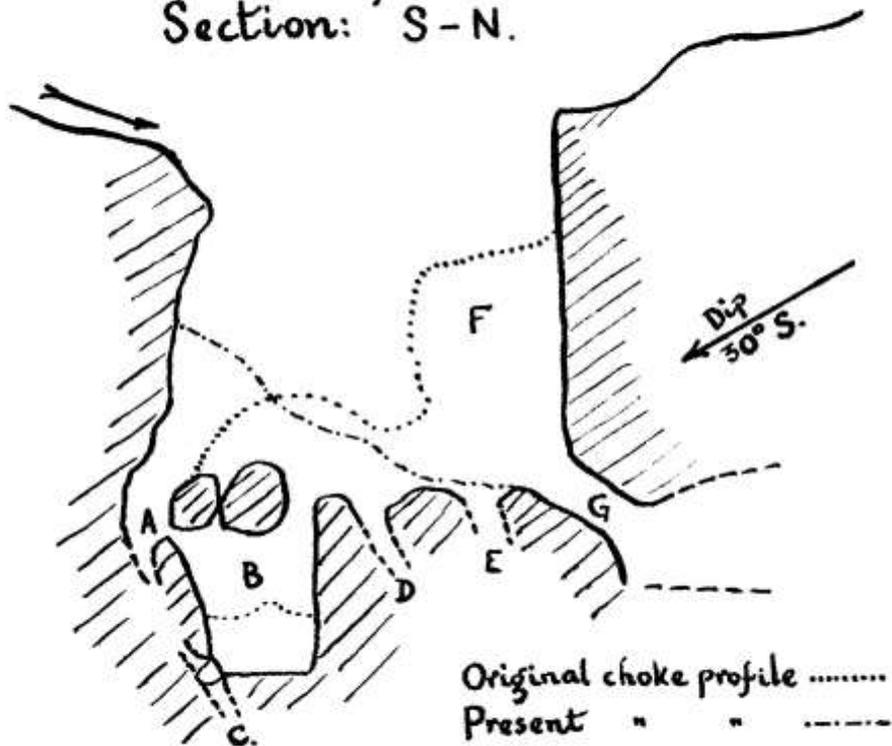
Those who worked at Cross Swallet included Mike Trimmer, Len Dawes, Bob Lawder, Jim Hanwell, Richard Kenny, Mark Lane, Tony Oldham, Phil Davies, Mr. and Mrs. Murrell and Luke Devenish. The instigators offer their thanks to all these and to Mr. F. Stott of Westbury, on whose land Cross Swallet lies.

Alan Finchan
September 1956.

CROSS SWALLET

Mendip N.G.R. 31/515500

Section: S-N.



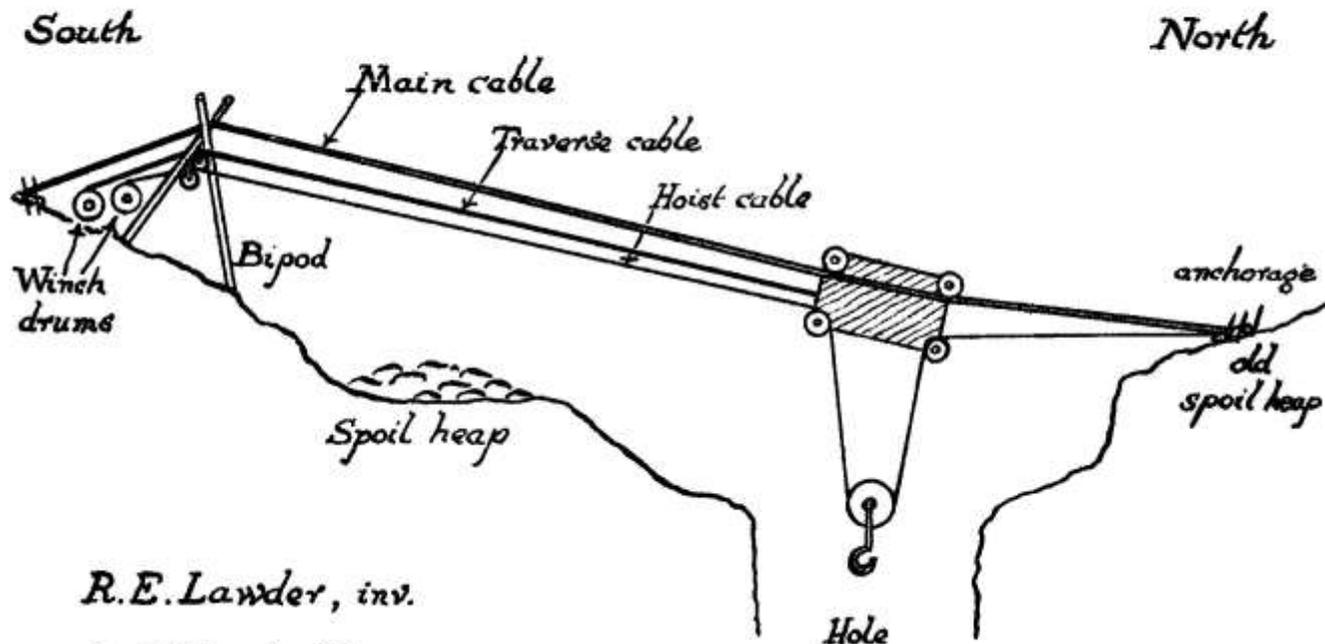
Scale Approx: 0 5 10 feet

C.R.G. Grade one

Alan Fincham.
September 1956.

CROSS SWALLET TACKLE

Not to scale



R.E. Lawder, inv.

O.C. Lloyd, del.

CROSS SWALLET TACKLE.

This dig was first considered by us early this year and a modicum of planning thought out. Surprisingly enough quite a high proportion of this planning materialized in practice, particularly that regarding the tackle to be used.

The problem was to remove an unknown amount of boulders in the 1-2 cwt. bracket from the bottom of a hole 15 x 5 ft. across and 15 ft. deep. The bottom of the shake-hole in the immediate neighbourhood of the sheer hole rose steeply from the lip, thus there was no ledge on which to dump spoil. However, there was a suitable dumping ground in the centre of the cross valleys which gave the place its name, the lateral displacement from the centre of the hole being about 40 ft. The tackle had therefore to be capable of lifting 2 cwt. 30 ft. and of moving the load laterally some 40 ft.

Reconnaissance took place in the spring and the author retired to the grime of Birmingham to work something out. The conventional tripod was soon ruled out on the grounds that, in order to pull a load sideways 40 ft. one would need a tripod at least 100 ft. high; any form of jib crane would also be unsuitable, owing to the length of spars required; the idea of an A-frame with its feet midway between hole and dump was considered but dropped, on the grounds of the enormous shock loads involved, when the tackle flopped over centre.

Thus the original idea of an aerial ropeway remained and the author hastily brushed up his calculus and strength of materials, in order to calculate what stresses would be encountered. The original specification was that the diggers should be able to work on in confidence, while a

load was being hoisted; so tackle of the bits of string, faith, hope and charity variety was ruled out.

In any form of aerial ropeway the most highly stressed member is the supporting wire, which has not only to carry its own weight but also that of the load. The former component is known as the catenary stress. For example, if a 100 ft. span of wire weighing 4 oz. a ft. is stretched so that the sag in the middle of the span is only 6 ins., then the stress in the rope at the ends is of the order of half a ton. In addition to this catenary stress there is the stress due to the imposition of a load on the wire. This stress is more than the dead weight of the load, if the span ends are at the same level, and increases as the additional sag caused by the load decreases. In the case of the Cross Swallet tackle the stress was reduced, because the main wire was not horizontal but inclined at about 10 deg. from the horizontal; thus the traverse wire (see under) carries part of the weight of the load.

So much for theory; now for the tackle that was actually erected. Bearing in mind the essentials which are:

- i. a main cable to span the lateral distance,
- ii. a hoist cable to raise and lower the load,
- iii. a traverse cable to move the load laterally without altering its height relative to the main cable,

the details were as follows, (see diagram on page 135.)

The main cable was anchored at the South end (see under), led over a 6 ft. high bipod to give clearance for the winch, stretched over a 100 ft.

span and anchored at the North end. On this cable ran a bogie made of two rectangular metal plates with a pulley wheel at each corner, the upper pair of wheels running on the main cable. The hoist wire ran from a winch drum between the bipod and the South end anchorage, over a guide pulley, over one of the lower pair of pulleys on the bogie, round a pulley attached to the load, over the other pulley on the bogie and then to the anchorage at the North end of the span. With this arrangement the bogie, and with it the load, can be traversed along the main wire without altering the height of the load relative to the main wire. The traverse cable ran from a second winch drum, over another guide pulley secured to the head of the bipod and thence to the bogie. It had been assumed that the bogie and load would return light down the slope of the main cable under their own weight; however, in practice a light line had to be provided for this purpose.

The main cable anchorages consisted of three 3 ft. angle-iron fence posts driven into the ground in the form of an 'A', one at the apex and one at each end of the bar of the letter. The load was taken from the direction of the feet of the letter. The main cable was turned back over a bar of wood and secured to itself by cable clamps; the bar was placed behind the two "lower" posts and the heads of the three posts lashed together with rope. These anchorages were entirely satisfactory and only yielded slightly. In fact the limiting factor for a heavy load was the tilting of the winch or the strength of the winchman, or both.

The main cable was quarter-inch diameter, multistrand, flexible steel cable, costing £3.3.9d per 180 ft., and having a breaking strain of three tons. The hoist and traverse wires were target towing wire, having a breaking strain of half a ton.

Boulders were lifted in a rope net made by Alan Fincham, and clay, gravel etc. in a young dustbin fitted with wire handles. The gear was very satisfactory in operation (see previous article) and gave no trouble. The main cable is now lying idle and is available at a reasonable price, if anyone wants a piece for fixed wire hand lines, and so on. The disappointing results of this project seem to bear out my theory advanced in "How now old Mole?" (Journal No. 44, p.8), namely that the use of elaborate gear ensures that an impassable rift is encountered in a few feet!

Our thanks are due to Len Dawes, who supervised the erection of the tackle and Luke Devenish, who lent much of the equipment, including the winch.

R.E. Lawder.

MENDIP NOTES.

So it has happened at last! Somebody has been stranded, ladderless in Swildon's, because he didn't let anyone know he was down there. The story Ford tells in his letter on page 142 is one of crass stupidity, not to say bad manners. I have always understood it to be a rule on Mendip that one doesn't use the ladders laid by another party without previous arrangement. If one has brought one's own, one may leave them at the top of the pitches, but then one is under an obligation to seek out the earlier party and make an arrangement that suits them. Usually I so little like the ladders of other parties, that I lay my own and roll up their's. However, the sumping party was right to wait. The 20 ft. pot can be climbed without a ladder; so can the 40, but it is very difficult and should never be attempted

without a life-line. The route is by way of the fissure under the pipe.

Cave Diving.

Wookey Hole has twice been the venue for cave diving, since our last number was published. It is one of the best pieces of cave water in the country for training, and there are six learner divers on the active list, of whom Luke Devenish, Phillip Davies and Alan Fincham are members of the Club. Oliver Wells graduated to "trainer diver" on the 14th September, his last tests being the nitrogen and carbon dioxide excess tests to blackout. For the former one uses a soda-lime absorber, so that no carbon dioxide collects in the bag, while the oxygen is exhausted. He was supposed to turn on the oxygen just before passing out. This he did, and his colour went rapidly from blue-grey to pink. But he was quite unconscious of having taken the necessary remedial measures, and we had to persuade him that the test was over. The test is not distressing, but the carbon dioxide excess test is. For this the cannister of soda-lime is emptied out, so that the oxygen in the bag gets steadily adulterated by carbon dioxide. Though one remains pink, because there is no lack of oxygen, one's breathing becomes more and more laboured, as the respiratory centre is stimulated by the rising level of carbon dioxide in the blood. Wells kept it up until he couldn't move; then we took his mask off, so that he could breathe fresh air. He developed quite a headache.

Training operations at Wookey Hole were held on the following day and also on the 6th October, and on both occasions the edge of the 11th Chamber

was reached. Wells hoped to go further on the latter occasion, but things weren't going too well that day. I think everyone had forgotten to spit on the Witch.

However, Oliver Lloyd had a hit of luck. He found another jackdaw's nest in the Upper Series in perfect condition, with lots of tiny flies all over it. He wrote to the Hope Department of Entomology about it, and as they have someone working on the fauna of nesting material, they asked for (preferably,) the whole nest. Little do they know that it is as big as a double mattress.

I'm sorry to say that the Spelaeos have made up a naughty rhyme about it all:

We never help cave divers,
They are a frightful bore.
We set fire to the bat dung
And sleep outside the door.

And as the smoke rolls outwards
We cough with all our might;
"Ab igne via asbestos,
Blow you, Jack, I'm all right."

Cheramodytes.

Two articles have unavoidably been held over for a future issue. One is an account of the Club's Annual Dinner. The other is about the Stoke Lane dive on the 1st September, when the attempt on the second sump failed, as a result of a technical fault.

LETTER TO THE SECRETARY

Dear Secretary,

Recently two friends and myself visited Paradise Regained in Swildon's Hole, to investigate certain side passages there. On arrival at Hillgrove to collect ladders for the cave, we met two other members of the Club, from Bristol. They told us they were visiting G.B. with two more members, from London, who had not yet arrived.

We told them that we expected to be underground for seven hours, it was then 3.30 pm., and would see them at Hillgrove around midnight. We entered the cave at 4.30 pm. At that time it appears that the two from London reached Hillgrove and, with the others, decided to visit Swildon's II instead of G.B. Without telling Mr. Maine or leaving a note anywhere for us, they descended at 5.30.

Things went well with our Paradise Regained party and we came out at 9.30 pm., bringing the ladders with us. As a result we unwittingly trapped the others. As we had no idea at what time they had finally left Hillgrove, we did not raise the alarm until I chanced to wake at 5 o'clock the following morning. By the time it had been ascertained which cave they were actually in, it was two hours later, and we released four very cold sumpers, who had been in the cave 14 hours: 10 longer than they had anticipated.

On a previous occasion I have unsuspectingly stranded a party, that time from Sandhurst, in this fashion. It is quite a common occurrence for parties intending to visit only the upper series of the cave to go further on finding somebody

else's ladders in situ; so it is surprizing that such accidents do not occur more frequently. Swildon's is the most popular Mendip cave; as many as one hundred people may descent it in one week-end, in perhaps two dozen unco-ordinated parties. There is quite a chance that late comers will be locked down also.

May I suggest, therefore, that the Club act on behalf of all who use the cave, and place a slate and chalk at the entrance, on which every party can make a note of its descent, to be erazed when they leave. It may be suggested that such a precautionary board will sometimes be abused; but any note, however frivolous, will be an indication of other users of the cave, and I think that the experiment would be worth a trial.

Yours faithfully,

Bath, 8th October, 1956.

Derek C. Ford.

BOOK REVIEW.

UNIVERSITY OF BRISTOL: PROCEEDINGS OF THE SPELAEOLOGICAL SOCIETY, Vol. 7, No. 3, 1955-56.

75p., map, plans, illus., with index to Vol. 7. Obtainable from The Spelaeological Society, University of Bristol, at 10s, p.f.

This publication has a high status within the caving world and outside, and the standard is maintained in the latest issue. A number of archaeological papers, mainly on Pleistocene deposits, are outside the scope of this review, but 46 pages (two-thirds of the whole) are devoted to cave work. They deal exclusively with the caves of Co. Clare, where the Society has been active

for the last 8 summers, and contain all the material up to the end of the 1955 season not already published.

There is a paper on the Doolin Cave System, in which the U.B.S.S., has discovered $3\frac{3}{4}$ miles of passage. This cave is in unexpectedly low and flat country close to the sea, and crosses underneath an active surface river, which leaks in through the roof. The most important paper is one by Ollier and Tratman, in which they trace the lines of underground drainage and develop a theory of cave formation applicable to NW. Clare. It remains to be seen whether this theory will be borne out by further discoveries in the area.

A folding map of the area shows the cave passages superimposed on the surface features of the country, together with the proved and probable lines of drainage. Printed on the back are cave surveys, including one of the Doolin Cave. Separate copies of the map with the plans can be bought for 5s.

I have only noticed two printing errors, but both might cause some confusion. In Balister's paper and on his survey the various entrances to Polldubh are referred to as E5, E2, etc., while on the map they are marked as the corresponding B numbers. On p.140, line 6, "Corrosion" should be "corrasion".

T.R.S.
24th September, 1956.

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Wessex Cave ClubIncome & Expenditure Account

For Year Ending 30th September 1956

	<u>1955</u>						<u>1955</u>						
To Subscriptions (arrears 5/-)	76	91	2	6	By Headquarters - Equipment		34	6	13	9			
Affiliation Fees	6	7	13	0	Rent		5	5	0	0			
Entrance Fees	6	9	0	0	Lighting & Heating		14	17	4	8			
Donations	25	4	12	7	Repairs & Renewals		14	<u>9</u>	<u>13</u>	<u>0</u>	38	11	5
Headquarters Fees	43	65	6	0	Eastwater Hut Rent		2				2	10	0
Eastwater Hut Fees	5	4	7	0	Tackle Expenditure		5				2	1	0
Gear Fees	5	6	13	6	Insurances - Third Party		6	6	15	0			
Lamb Leer fees	-		6	0	Huts		3	<u>3</u>	<u>0</u>	<u>0</u>	9	15	0
Sundry Sales	2	1	6	7	Cost of Journal		53				73	11	0
Deposit Account Interest	1	1	5	9	Postage & Telephone - Secretary		7	5	19	1			
Annual Dinner Surplus	1	3	14	0	Treasurer		1	<u>1</u>	<u>11</u>	<u>5</u>	7	10	6
					Stationery		2				11	11	4
					Library Additions		2						
					Cave Research Group		2						
					Bank Charges & Cheque Book		1					10	0
					Lamb Leer Rents		1						
					Carbide		3				2	15	0
					Balch Testimonial Fund -		5						
					Donation - D. Ford		-				5	0	0
					Sundry Expenses		<u>1</u>				<u>1</u>	<u>1</u>	<u>0</u>
					Total Expenses		161				154	16	6
					Balance - being surplus for year		<u>9</u>				<u>40</u>	<u>10</u>	<u>5</u>
Total Receipts	<u>170</u>	<u>195</u>	<u>6</u>	<u>11</u>			<u>170</u>				<u>195</u>	<u>6</u>	<u>11</u>

Balance Sheet - As At 30th September 1956

Accumulated Funds -

as at 1st October 1955	64	15	1	Economic Building Society Deposit Account	47	10	11
Add Surplus for the year	<u>40</u>	<u>10</u>	<u>5</u>	Midland Bank Ltd. Current Account	46	15	2
Subscriptions paid in advance		<u>1</u>	<u>0</u>	Cash In Hand	<u>11</u>	<u>19</u>	<u>4</u>
		<u>106</u>	<u>5</u>		<u>106</u>	<u>5</u>	<u>5</u>

I have examined the above balance sheet and income and expenditure account together with the records and vouchers of the Club, and to the best of my belief the same represents a true and fair view of the Club's affairs.

(Signed) C.H. Kenney

Incorporated Accountant - Wells, 14th October 1956.