

This pass is a cleft right through the Mendips. The sides are 430 feet sheer, and it is said to be the finest pass in the United Kingdom.

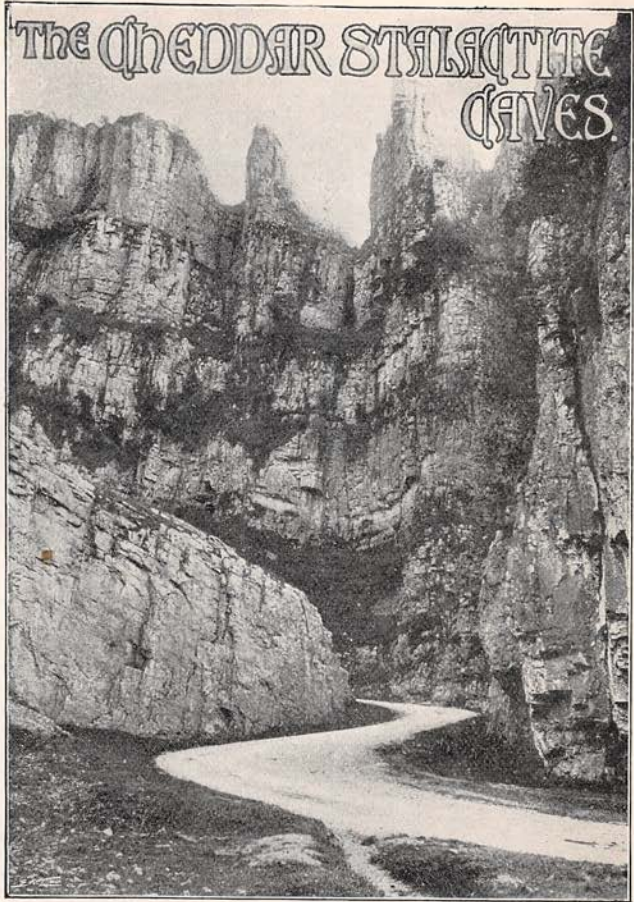
BY ARCHIBALD WILLIAMS.

AMONG the most interesting processes of nature's laboratory should be included that which occurs

when rainwater falls upon a limestone formation. As it penetrates the cracks in the rock the carbonic acid gas, absorbed by the water from the atmosphere, unites with insoluble carbonate of lime to form a soluble bicarbonate, which is carried downward by the water until perhaps it meets with a cavity traversed by a current of air. Then the carbonic acid liberates itself, and the water is obliged to surrender its temporary possession the carbonate of lime. It does so slowly and unwillingly, depositing part on the roof of the cavern, part on the floor, while it carries off the residue to line the bed of some subterranean stream.

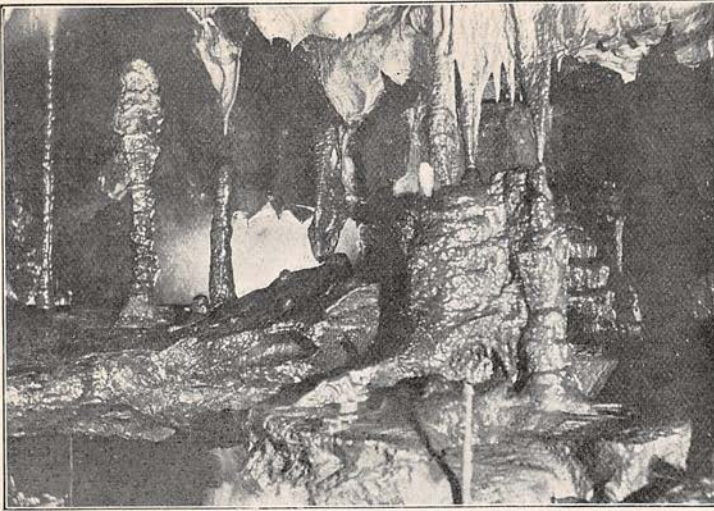
Slowly, very slowly, an accretion of lime forms on the roof. A delicate point projects, and from it pellucid drops fall ceaselessly with their tiny burdens of carbonate, until down below a corresponding pinnacle grows upwards. The upper accretion is termed a stalactite, the lower a stalagmite; and they may be compared, both for shape and growth, with icicles, the difference being that the one class of phenomenon occurs under the influence of evaporation, the other under that of cold. Eventually many stalactites meet their stalagmites, and become pillars of various shapes, sizes, and colours, but all beautiful.

In these islands Nature has made watches rather than clocks. Though we do not possess any stalactite caves as extensive as those of Antiparos and Kentucky, we have, at Cheddar and elsewhere, unsurpassed examples of Nature's delicate and fantastic handiwork. All who have visited North Somerset



shire will remember the purple and brown line of the Mendips which for twelve miles bounds the Huntspill level on the North. These hills, as seen from the Bridgwater side, appear to be unbroken, but a closer acquaintance proves that the convulsion which heaved them up from the ocean bed split them right across at Cheddar. A gradual ascent from the plain brings the traveller to the mouth of a magnificent gorge, flanked on either side by towering cliffs which rise like giant sentinels to a height of over 400 feet. The road, constructed in the very early years of this century, winds in and out through the pass, disclosing a fresh view at every turn. The cliffs, scantily clad here and there by vegetation, and the gentler grassy slopes which supplant them at intervals, afford a spectacle at once impressive and sublime, and we can readily believe those who declare the Cheddar Gorge to be the finest in the British Isles, nay, even in Europe.

It is not unknown to history. A Saxon chronicler relates that King Edmund was one day out hunting deer on the Mendips when



A FLASH-LIGHT PHOTOGRAPH OF SOME OF THE FINEST STALACTITES AND STALAGMITES IN THE WORLD.

On the extreme left is an instance of the stalactite and stalagmite uniting; next to it is the Speaker's Mace, three-and-a-half feet high. These formations are the result of perhaps millions of years of countless droppings.

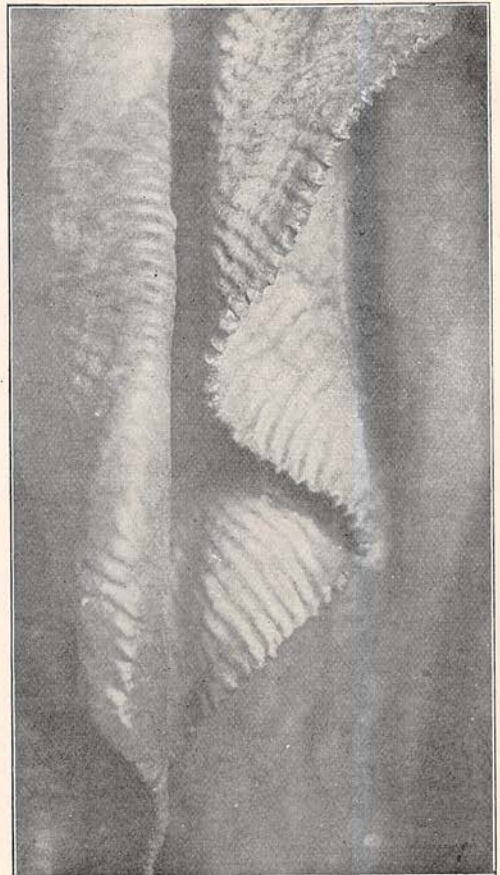
his horse in its eagerness carried him to the very brink of the precipice. The deer was dashed to pieces on the rocks below, but the horse checked himself just in time to prevent a catastrophe. Then the King, recognising in the narrowness of his escape the protecting hand of the Almighty, bethought himself of his sins. Among them he was fain to include his quarrel with the saintly Dunstan, whom he had banished from the Court. A reconciliation took place; Dunstan was recalled and created Abbot of Glastonbury.

Ages before the reign of Edmund, the wonders destined to make Cheddar the pride of Somersetshire were forming in the hidden bosom of the hills. In 1837 a Mr. George Cox, while working on the face of the cliffs by the roadside, found that the apparently solid rock was hollow. Exploration revealed a succession of caves, small, but full of treasures—pillars, draperies, and the hundred other shapes which Nature had invented, hanging down, projecting up, and even jutting horizontally. Thus Mr. Cox was baulked of his new coachhouse, and discovered a prehistoric museum.

The stalactitic formations belong to the most recent chapter of the cave's history. A stratum of rounded pebbles, shells and sand, and the water-polished roof and walls, prove that at some very distant period the sea flowed in and out of the caverns. More recently they were the home of wild animals now extinct in Britain, the hyena and cave-bear,

whose bones have been discovered in the deposits beneath the stalagmite floor. Still later, the action of water washing the face of the cliffs brought down sufficient detritus to cover the entrance and allow the stalactites to grow in secret.

We enter Mr. Cox's gallery of most interesting exhibits through an opening cut at road level, and plunge into a partial obscurity tempered here and there by well-placed gas jets, which throw into relief the more prominent objects, and allow the



THE FINEST STALACTITE IN THE WORLD: "THE BLANKET."
It is folded and edged with a border just like that of a blanket.

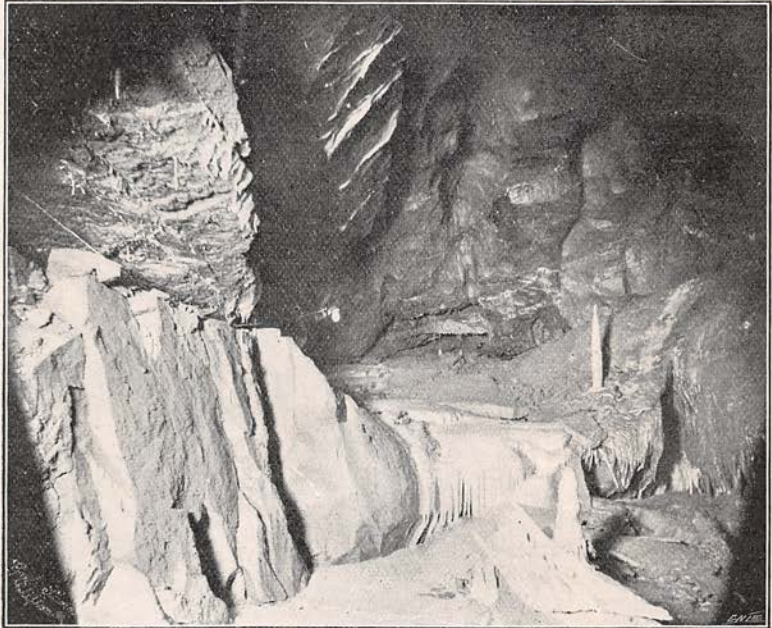
imagination to wander untrammelled into the darkness above. Nature has decorated the cavern walls with many tints, ranging from blood-red, through delicate pinks, to pure white, reminding one of the board on which the painter tries his colours. If we touch the walls we find them moist; they are never very wet perhaps, certainly never dry. Deep in the recesses opening out on both sides can be heard the musical tinkle of water, still engaged on the decoration of the cavern. We are suddenly confronted by a clear limpid pool in the stalagmite floor, breast-high, the deposits underneath having been excavated to make a passage.

Reflected in the pool are many fantastic formations, which show strikingly the caprices of Nature's alchemy.

In the centre stands the "Speaker's Mace," a splendid stalagmite 42 inches high, boasting no valuable metal or jewellery, but glorious in all the hues of lime carbonate. It has been entrusted with the easy task of keeping order among its motionless companions. To the left stands a delicate pillar, a perfect example of the union of stalagmite with stalactite, though where the junction took place it would indeed be hard to say. To the right of the "mace" a tapering "blanket" hangs downwards towards a solid stalagmite, like the poles of a gigantic arc-lamp; and their work looks so nearly completed that the question arises involuntarily, "How long before they meet?" The answer is "Thousands, perhaps millions of years."

There is in the cavern a very Nature's chronometer, a stalactite separated from its stalagmite by but the distance of a drop of water, which constantly passes from the one to the other. During the last fifty years the distance has not visibly decreased, and if the

other formations have been equally leisurely it is not too much to say that when the Mace was an inch shorter Cheop's Pyramid had not yet risen amid the sands of Egypt, and that before the chronometer joins, this generation will have long passed away. Thus slowly can Nature work, making light of mere millions of years, and forcing the beholder of her masterpieces to reflect on the briefness of human life. We should, however, remember that perhaps in the past water percolated more abundantly, or it may have been warmer and deposited the carbonate more rapidly. At Arcy, in France, are

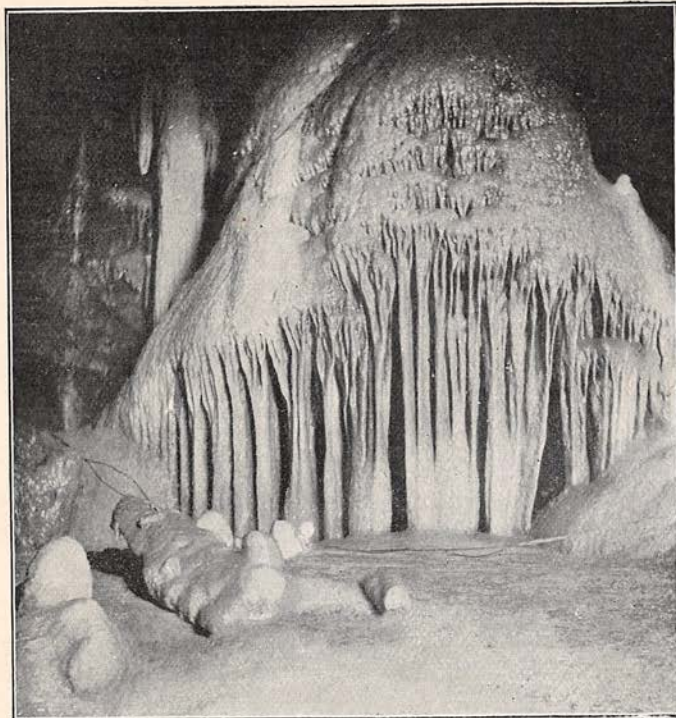


THE DIAMOND STREAM, LITTLE WATERFALL, AND LIGHTHOUSE PILLAR IN GOUGH'S CAVE:
All a most dazzling white, as if a small waterfall had been suddenly petrified. This cave is 400 yards under the cliffs, almost in a straight line.

Photo by Gael, Clifton.

grottoes where a broken stalactite is quickly repaired, and the pink and white terraces of New Zealand were famous as the product of a hot stream that would stiffen a kerchief in a few hours. Yet, as all the savants declare that Mr. Cox's wonders are the work of millions of years, their owner is well justified in protecting them against Goths and Vandals by the threat of heavy fines, since they could no more be replaced than shattered Greek statues.

Among the most curious treasures of the cavern are the marble draperies, translucent, delicately tinted with pink and royal red,



THE ORGAN PIPES IN KING SOLOMON'S TEMPLE,
GOUGH'S CAVE.

Many of the stalactites give out a very melodious sound, varying in tone from the deep note of Big Ben to the top note of a piano.

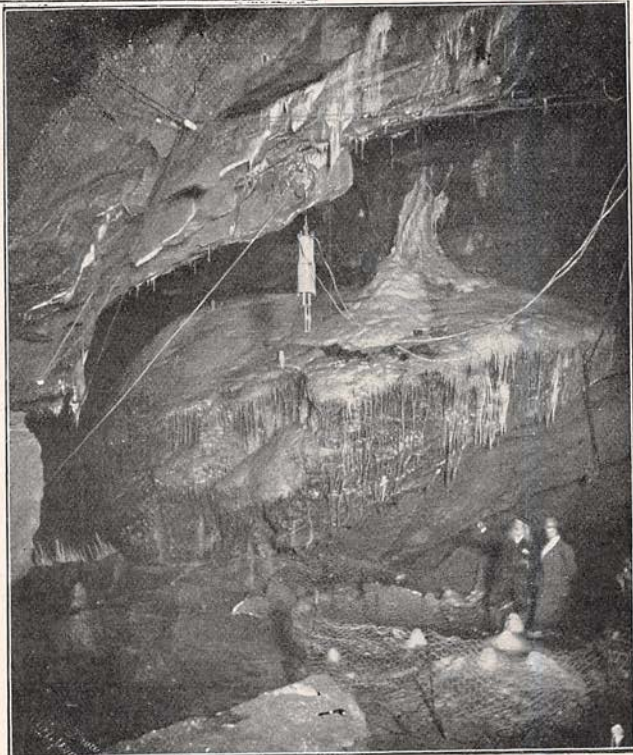
From a photograph.

When struck they emit musical sounds, varying from high treble to the deep boom of Big Ben. Mr. Cox possesses a series of these blankets tuned by Nature to harmonic intervals. We give an illustration of what has been pronounced the finest known example of stalactite drapery, extending its ample, rib-edged folds seven feet from the roof.

We mount the flight of stairs and peep into the Fairies' Grotto, a sequestered little nook where some of the junior stalactites are reflected in a pool of the clearest water. Nature has here worked on a smaller scale than in the large cave outside, but there is the same glorious colouring and variety of shape. It would be a fit place for Oberon and Titania to hold revel after the lights are out and gross mortals have departed.

Then we return to the entrance, our courteous guide now and then flashing a beam of light with his mirror on to some curious shape, whimsically suggesting a loaf of bread, a row of turkeys, a Hindoo Temple, a bunch of carrots, and even a homely candle.

Somewhat higher up the pass is the mouth of Gough's Caves, which have been brought to light at the cost of much determined labour. A natural opening penetrated the cliffs for 100 feet. A tunnel through sixty feet of stalagmite floor and twenty feet of solid rock revealed a second cave; and the boring being continued in following years, the proprietors in November, 1898, broke into the largest of the Cheddar



PART OF SOLOMON'S TEMPLE.

Notice the tiny stalactites hanging from the roof, no thicker than a fine cord.

Photo by Gael, Clifton.

Stalactite Caverns. Here, nearly a quarter of a mile under the cliffs, Nature has been especially lavish with her ornament. The delicate work of Cox's cavern is replaced by broader effects, reaching far up the walls into obscurity.

The great cave is eighty feet high, 100 long, and sixty broad. The guide touches a button, and an arc lamp pours a stream of light on to the walls, which reflect it from a thousand glittering points. Our eyes wander expectantly round, and are at once arrested by what may be described as a many-coloured waterfall, petrified as it pours from a grotto in the rock. Its billowy outlines prompt the illusion that, did we but watch long enough, we might detect movement. Down pours the marble mass to the brink, where it parts into a series of alabaster columns linking it with the floor on which we stand. These columns, the Organ Pipes, are resonant, and supply the music for Solomon's Temple, as the chamber has been named.

The grotto itself, cunningly lighted, affords a fine vista of colour effects, and the stillness and general weirdness of the sight suggest that this is the entrance to some mysterious hall further in, where dwell the Genii of the Caves.

Hard by is the Diamond Cave, where a smaller waterfall of dazzling white tumbles into an equally snowy river, a miniature Niagara in its winter dress. The curious "Lighthouse" stalagmite keeps guard on the brink. It would be interesting to learn what has made Nature decree that the water percolating in this particular spot should be

free from the iron which lends its hues to the rest of the cave.

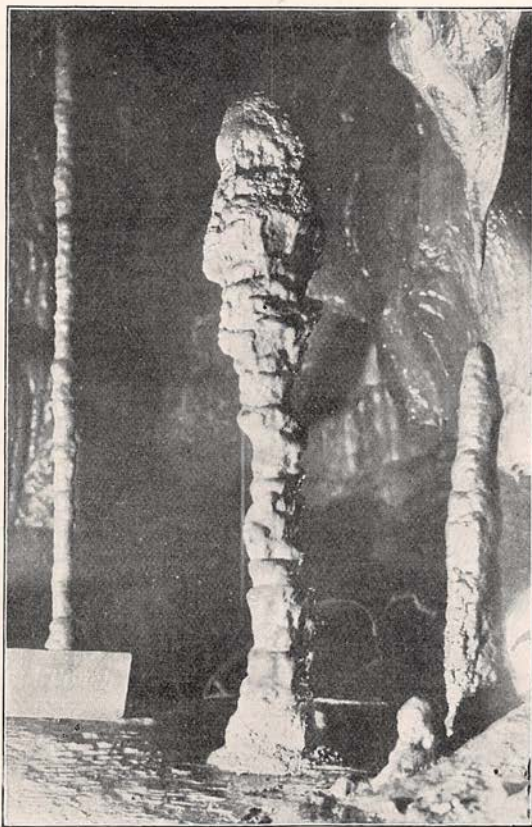
The stalagmites of the Temple chamber are very large, some rising upwards ten feet or more, with a maximum diameter of five feet, in striking contrast with the slender stalactites, no thicker than twine, which hang from the roof in a thousand places.

At last our eyes weary of gazing, and we begin to think somewhat longingly of the sunshine outside. The

thought of the massive rocks overhead becomes oppressive, so we descend a flight of stairs on our way to the outer air, and traverse the dark corridors, treading now on solid rock, now on sea pebbles. We pass a series of marble fountains rising tier above tier, their edges rounded off with mathematical exactness. Somewhere in the darkness the babble of a subterranean stream tells of fresh caves being excavated for future generations to discover and exploit. Sunshine begins to irradiate the fissured walls of the cavern, and even after our short sojourn we welcome the sight with gladness.

On a table at the entrance lies a book invitingly open, in

which visitors may record their opinions while fresh from the land of marvels. Were stalactites and stalagmites sentient creatures, they might well blush beneath the burden of praise lavished on them in some of the phrases. We select a couple:—"Certainly more beautiful, if not so extensive, than the Mammoth Caves of Kentucky," "Infinitely more lovely than those at Han, in the Ardennes." Our photographs are reproduced by kind permission of the proprietors of the Caves.



COX'S CAVE.

A splendid trio of stalagmites. That on the left is a unique instance of a stalactite with its stalagmite without any appreciable thickening at top and bottom; the ordinary shape in such a junction is that of an hour glass.