

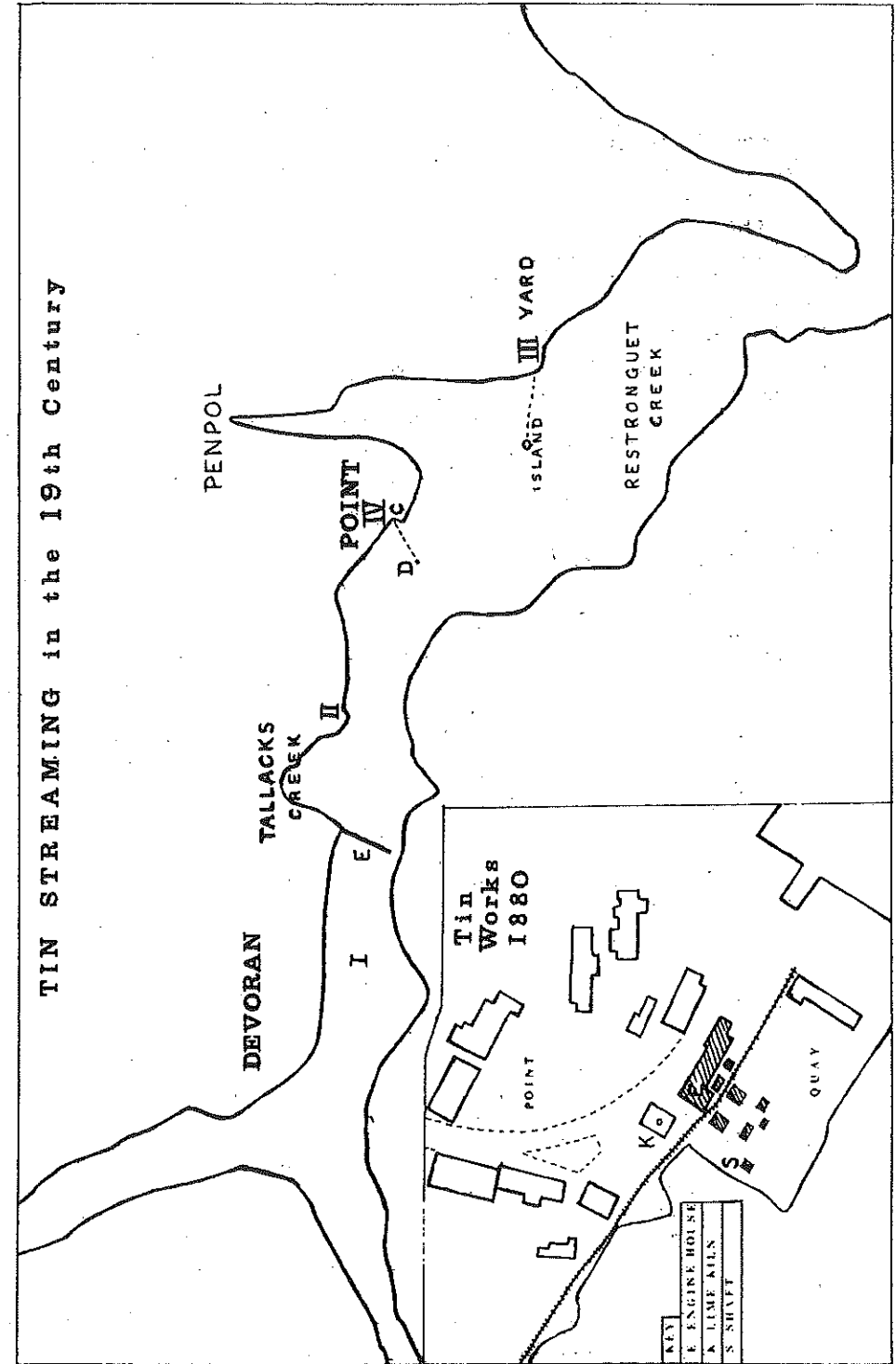
### MINING UNDER RESTRONGUET CREEK IN 1871

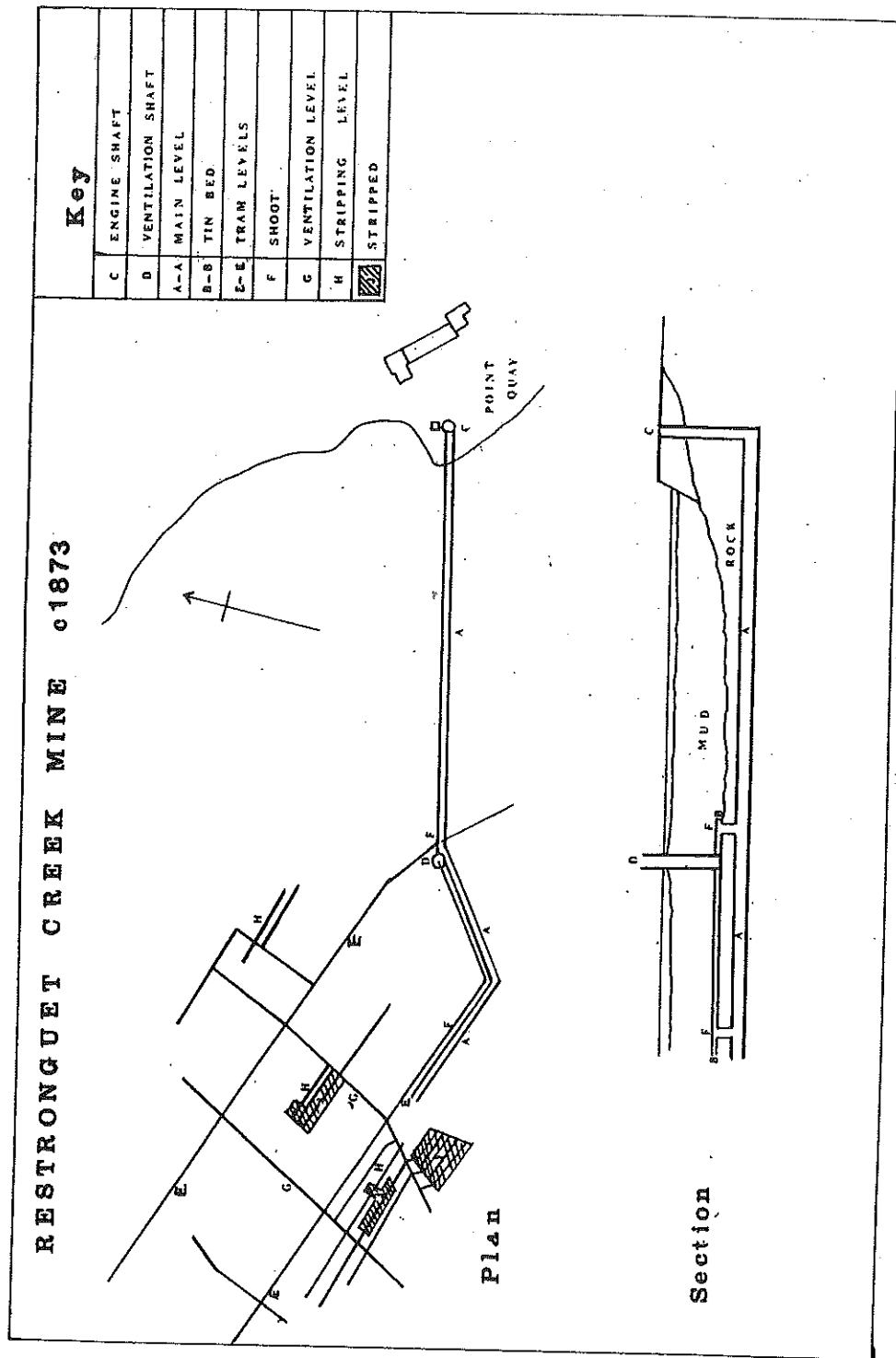
Geologists suggest that the tin deposits on the rock bed of the river were brought down by severe flooding in the periods between the Ice Ages. Although there are no signs of glaciation here, the glaciers reached the south coast of Wales. For long periods the whole of Cornwall must have been frozen to a considerable depth and covered with ice and snow. During the warmer periods as the ice melted the land surface broke up and severe floods brought the debris down the valley. As the tin-bearing sand and stones were heavy they settled at the bottom on the natural rock, with the lighter mud, shells etc. on top. After other cold periods the light material was washed off and more tin stuff deposited. Finally, when the Ice Ages ended, natural erosion gradually covered this with mud, silt and vegetable remains to a depth of up to 60 feet.

In the upper part of the Carnon Valley the tin was recovered by a form of open cast mining, and in the eighteenth century this was one of the greatest tin-producing areas in Cornwall. Work was abandoned at the beginning of the last century when it had reached so far down the valley that it was no longer possible to keep the tide out of the workings (E on map)

The first attempt at mining under the water was made in 1822 and lasted for five years, the ruins of the engine house are still visible on the beach west (I think east, editor) of Tallack's Creek (II). Some years later the lower part of the creek was worked, until 1843, from Yard (Carnon Old Mine). Evidence of this can be seen at low tide; there are the remains of the island in the middle of the mouth of the creek which was built to take the iron shaft (III)

In 1871 new operations were commenced in the untouched ground between the two previous workings. First a shaft (C) - see plan and elevation - was sunk on the beach below high tide level, the tide being kept out by solid 9" square timbering surrounded by a wall of oak faggots with a 3' puddle of mud between; this shaft was 18 fathoms (90feet) deep. An iron ventilation shaft (D) was sunk in the middle of the river by





driving piles into the soft mud to a depth of 12'; these were supported by cross timbers just below the surface of the mud. The shaft was made of cast iron cylinders 6' in diameter, 6' long and 1¼" thick with internal flanges. Each section weighed 2½ tons, they were lowered through an opening in the staging and as each section went through the mud the core was cleaned out and more sections added and fastened together. To obtain the weight needed to force the shaft through the mud, barges loaded with stone were fastened at high tide to a girder across the top of the shaft; as the shaft reached down into the tin ground a weight of 250 tons was needed to sink it. The shaft was driven as far as the top of the tin bed (B), a depth of 76'.

The main level (A-A) was driven through the solid rock 4½ fathoms below the level of the tin bed; it was 9' high and 5' wide. The tram road was laid 2½' above the bottom, so that if necessary water from the workings could collect there and be pumped out without interfering with the tram.

Parallel levels (E-E) were next driven north-west, up the creek for about 90' with a tram road in each; these had openings at F through which tin gravel and waste could be dropped into trams in A-A and removed.

Ventilation levels joined the tramways E-E at 20 fathom intervals and from these the stripping levels H-H were driven 14' apart. All levels were strongly secured by frames of 8" timber every 2½', the legs of the frames were 4½' apart at the foot, sloping inwards to 2' at the top. The roof and sides between frames were covered by planks which were removed one section at a time for stripping the tin; this started at the frame furthest from G and was taken to 7' on either side. As each section was stripped the rock under the legs of the frame was cut away, the frame removed and the whole allowed to subside gradually and close the inner end of the level. This was repeated working back to within 9' of the air level (G) where the end was securely boarded up. As the main levels (E) had to be kept open, a width of 30' was left unworked on either side. As the mud fell it absorbed oxygen so the miners had to be prepared to change from one stripping level to another as their candle flames gave warning

of danger. There was also some danger of fire from the gases given off by the mud. The top of the bed was level but the bottom followed the contours of the underlying rock; in some places the tin was 6 or 7 feet thick, in others the men had to work lying down and sometimes had to cut away the rock in order to reach into the depth of 7'. The workings remained dry although at high tide there was 12 to 14 feet of water above them.

The tin stuff and waste was wheeled to the tram waggons in E-E, taken to the passes, F-F, and shot into waggons in A-A, which were taken to C where the entire waggon was hauled up the shaft. This was the first mine in Cornwall where the whole waggon was raised; previously the load had been transferred to kibbles before it was lifted to the surface. These works were directed by Mr Charles D. Taylor and his method was a great improvement on the previous attempts.

The Royal Institution of Cornwall has recently purchased an oil painting by T. May showing the artist's impression of the mine in 1874. This picture will be hung in the Mineral Gallery at the Museum, Truro. It shows the engine house on the shore below Point, other surface buildings and a tram hauled to the surface in the cage. There are now no visible remains of this mine and it is uncertain how long the operation lasted.

We are most grateful to Mr J. Trounson and Mr Justin Brook for their help in suggesting sources of reference and for the loan of material.

Main sources used in the above account:

- 1 Transactions of the Royal Geological Society of Cornwall, vol. IV, 1838
- 2 Report on the Geology of Cornwall, Devon and West Somerset. H.T. de la Beche, 1839
- 3 Four lectures on Geology and Mining. George Henwood, Mining Journal 1855
- 4 Tin Stream Works at Restrouquet Creek. Charles D. Taylor 1873
- 5 British Mining, Robert Hunt F.R.S. 1884

The two widely read weekly papers in the 19th century in this area were the 'Royal Cornwall Gazette' and the 'West Briton and Cornwall Advertiser'. Each paper, price 4½d, contained eight large pages of close print, six columns to a page. The aim was the maximum amount of information on national, international and West of England matters. No space was allowed for illustrations, except perhaps a tiny diagrammatic ship above the shipping news, and there were no photographs. Occasionally Devoran, Point and other small places are mentioned to report local events of church, chapel, school, sales or lettings of properties etc., or quaint or tragic happenings.

One incident found in the West Briton of 31st March 1843 gives an account from the Lent Assizes of a robbery at Quenchwell. The smart action of the Police constable of Kenwyn (William Row) and the severity of the sentence viz. transportation for ten years, makes one think that committing a crime in those days was more hazardous when a quick getaway was impossible. The facts as reported are these: Thomas C. aged 25 was charged with having feloniously assaulted and put in bodily fear Margaret Nicholls, and robbed her of nine sovereigns, eleven shillings and a fourpenny piece, and other articles.

When examined, Margaret Nicholls said 'I live at Quenchwell in Feock and on Wednesday, 8th February, I was going to Devoran to wash, about 25 minutes past five in the morning. It was dark and wet and I had my umbrella up before me. I was going along and the prisoner came and touched me. He put one hand on my eyes and one over my mouth and put his leg in front and tipped me over, and I fell with my head in the umbrella on the ground. The prisoner was a next door neighbour. When I was down I cried 'Lord have mercy upon me, don't kill me. Murder, Murder.'

'While I screamed murder he put his hand in all round my flesh feeling for my pocket. He could not find my pocket the side he was feeling and he put his hand round the other side and found it, and he broke my pocket. When he got it - my