There are over four and a half thousand miles of roads in Cornwall, so there are roughly 9,000 miles of hedges alongside them. Highways and hedges are inextricably wedded, physically and historically. As the land was enclosed, hedges were built beside the existing tracks, and as new lanes and roads evolved, new hedges were built alongside them. Again, as the traffic using them changed, many of the roads and their hedges were altered to meet the new demand. Roadside hedges make up roughly one third of the total of hedges in the county. Of these, nearly 1,000 miles of hedge are along main roads, nearly 4,000 miles along second class and minor roads, many of them narrow lanes, and over 4,000 miles along unclassified ways.

This abundance in Cornwall of ancient roads, lanes and tracks contradicts old exaggerations about the self-sufficiency and isolation of hamlets within a country parish. Typically Pelynt parish, with a circumference of twelve miles, has some forty miles of road, lane and footpath. Its number of farms and tenements, only a handful today, numbered 31 in 1957 and over 100 in 1812. Transporting goods and animals was time-consuming, and it was an advantage for a parish to have an intricate system of highways so that distances to be travelled were as short as possible. Apart from the convenience of tar-macadam and the elimination of wildlife and flora by ill-conceived hedge management with modern machinery, little has changed in our country lanes and their hedges alongside. Many ancient links in the network still remain today unsurfaced as ‘green lanes’, kept open with occasional use by livestock, farm vehicles, walkers and riders.
HISTORY OF ROADSIDE HEDGES

Hedges alongside paths and roads have to be looked at differently from field hedges. Sometimes they are neolithic, over 5,000 years old, originating as field boundaries bordering a track leading from a prehistoric hamlet, which later became a road. Or they were built at the same time as the road, as in turnpike roads or modern bypasses. Or they replaced earlier hedges destroyed when the track was widened on one or more occasions in its life of perhaps more than four thousand years. Clues as to the age of the road itself may date its roadside hedges, but often sections of a roadside hedge are repositioned, leaving the rest untouched from previous times.

The first hedges alongside highways appeared during the prehistoric settlements when a track was left between fields so that the farmer could get to the surrounding common with his animals and go to visit his neighbours. Rackham observes that 'In Cornwall a lane from each homestead often funnels out between fields to the moorland'. The tracks across the uncultivated common were not hedged, and were quite often a widening series of ruts where travellers tried to pick their way and avoid the mud. Where there was a lot of traffic across a large common, the ruts would sometimes be a mile abreast of each other in search of the best track. A modern equivalent still is where ridden horses, or latterly bikes and off-road vehicles, make several tracks across heathland which gradually deepen with usage and water run-off until the users find another route. Hedges alongside tracks prevented this despoliation of land, but conversely could mean the track became very bad underfoot.

The neolithic age was the period of movement of huge stones over distances, and the best all-weather routes over the countryside were used. This is the time when the ancient tracks along the drier and rockier tops of the hills were established instead of using shorter routes along the damp valleys. The Romans did not settle in Cornwall, but the effects of their control of the economy pervaded throughout Europe. The earliest written record of Cornish roads is on the Romano-British milestones which have been found at Tintagel, St Day, Breage and St Hilary. These were customarily erected only on roads which were important during the Romano-British period; and, because of their location, there must have been many more which have been removed, got lost or are still buried in adjoining hedges. We know that the main north-coast road through Stratton was used at this time as well as many others.

In the thirteenth century, main roads were expected to be wide enough that two loaded carts could pass each other. Other evidence suggests that they would be so wide that a horseman could find a good grass surface to ride on at speed in safety, and so that flocks of sheep could be driven. Obviously the road would be wider when it was used a lot in winter wet weather. During the mediæval period, encroachment on to roads by enclosing land-owners was reported to the king's itinerant justices who got the land restored to the road.

Among the parish officers in Constantine in the 17th century were two way-wardens, whose...
business was to see that the roads were kept in what then passed for a decent condition. This was clearly a hard task. In the Civil War in August 1644, thirty horses were not enough to pull a single cannon along the road from Lostwithiel to Fowey, and there were problems in getting King Charles's carriage along the Cornish roads, although the record does not say whether the carriage, without its wheels, was carried on a slide; this is possible as, at that time in the hilly parts of Britain this was the usual vehicle to transport single loads too heavy or awkward for a pack-horse.

Ogilvy in 1675 wrote of Cornwall that 'nineteen percent of the length of the road marked in the county is shown as through unenclosed land'. Celia Fiennes, an early tourist on horseback in 1698, observed that 'you have the pleasure of rideing as if in a grove in most places, the regular rows of trees on each side the roade ... the cut hedges and trees -’ This track with coppiced hedges would look familiar to her as one of the better ‘roades’ of the time.

Gradually as the common land was enclosed, the tracks were hedged and only a few were still open when the road surfaces were stoned by the parish. Where the hedged track was worn down by traffic and eroded by running storm-water, lanes developed that are deeper than the surrounding land. The historians call these 'hollow ways'. The hedge on the road side can be a near-vertical slope of up to 10 feet (3m) or more high, while on the field side perhaps nothing more than a thorn hedgerow. The classic hollow way in Cornwall is where a lane, almost invariably on a hill, becomes sunk in a deep ravine where the sides are lined with hart's-tongue and other ferns and the tree-branches meet in the middle overhead. A few of these lanes may have been deliberately excavated to ease the slope, but the majority have been carved out by centuries of rainwater flushing away the subsoil loosened by the feet of man and his animals. A clue to the cause lies in the surface of the trackway. If it is solid granite or similar, on which water would have little effect, then either the soil has worn away down to bedrock, or the gradient has been eased by man.
Although Rackham says that a hollow way takes at least 300 years to erode, much depends on the type of subsoil and the amount of traffic, while Cornwall's climate of heavy rainfall speeds the process. Modern road improvements often create hollow ways in the form of wide cuttings. Another way of making a hollow way was by each landowner digging out a ditch and throwing up the earth into a continuous bank on his own side. The double ditch forms a track several feet wide and sunk several feet below the level of the fields on each side. The expression "two-fold ditch" was used in a charter of c.1174 setting out the boundaries between the abbot of Tavistock's estate at Abbotsham in north Devon and that of a neighbouring squire, Richard Coffin, at Alwington and Cockington. So although a hollow way is likely to be some centuries old, other clues may be useful in age determination.

The traffic passing back and forth on these roads subtly altered the nature of many of the adjoining hedges. The churning up of the road surface encouraged plant species which liked those conditions, and these were spread by the animals and vehicles using the roads. The fertility of the road soils was higher; farmers used to put straw on the roads to take up the animal dung and urine, and then use the resulting manure on their fields. Where the road was narrow, hedges were trimmed annually and much tighter than field hedges, removing by hand all woody growth from the hedge side, which encouraged a wide diversity of herbaceous wild flower species. The shelter given by the two hedges being parallel and close to each other provided a micro-climate not present for field hedges. Because of these conditions, the roads gathered a rich and different mixture of wildlife, and one can expect this to be sometimes reflected in what is found in track and roadside hedges today where the flail type of trimmer has not been used in keeping them open for access to fields. Ancient track-ways and their associated hedges may still harbour some interesting plant species, especially in crossing wet ground near moorland.

OLD ROADS AND ENCLOSURES

Generally the older roads are distinguished by the hamlets strung along their length. The newer roads tend to avoid these older villages. A good example is the existing B3306 road from St Ives to Zennor which replaced the prehistoric pack-horse track running between the farms on the coastal plain below. The old track is known today as the Church Path; its stiles were built when the new road was made, in about 1764. The new road was single-track and surfaced with rab until it was tarred in 1925, and widened in 1935. The rab pits are still evident alongside the road.
West of Zennor, parts of the road follow the ancient pack-horse route, eg between Treen and Porthmeor Farm, and some of the stone hedges bordering these portions are very old, possibly 4,000 - 6,000 years.

These older roads, including many of the prehistoric pack-horse tracks, often link villages with churches, the road being much older than the church. They usually run between hamlets, now perhaps a single farm or a group of barn-conversions, often having names starting with tre, indicating a prehistoric origin. Many of the main roads have had their route altered over the centuries, leaving behind a clearly identifiable ancient roadside hedge, as for example the hedge running alongside the public footpath in St Clement’s wood which marks the old Truro-Crantock road, diverted in Norman times to make a deer-park. The old road from Lostwithiel, which used to run from Milltown through Lanherriott Farm, is now completely divorced from the new road. Most of its length is now part of the Saint’s Way, and gives an opportunity of examining the roadside hedges of this ancient highway.

The enclosure commissioners’ awards often included details of the roads serving the land. Some of these were the old roads and paths accessing the land, others were new ones needed for the new field layouts. The old ones tend to be twisting and turning round what were sometimes old furlong ends, while the new ones would run more straight from point to point. In the 1894 enclosure of Viverdon Down, by the A388 road a mile south of Callington, the new road (2 miles) was specified to be not less than 22 feet wide with drainage ditches each side, and bounded with hedges not less than 6ft high, base 4ft 6in wide and top width 2ft 9in planted with a mixture of beech and thorn. This is not the road through the hamlet of Bealbury which shows a much older pattern of stitch-work hedges to the north and a possible Bronze Age boundary running around the south side. The roads referred to would be the straight modern-looking roads running north-east from Amy Tree to Mossland Green and northwards from Dunston Quoit to Kiln Lane End, giving a known age for those roadside hedges. The enclosure of Viverdon Down probably dealt a death-blow to Bealbury by depriving the village of the bulk of its common land.

The Inclosure Award for Redmoor & Golberdon Commons closed ancient rights of way and created a ‘public carriage road or highway of the width of thirty feet’ from Larks cottage, north-east to meet the Launceston/Callington road turnpike, together with private roads, serving some of the new fields, which were to be 15, 16, and 20 feet wide. One of the claimants of commonable rights over 23 hectares was awarded less than 2 hectares which he had to fence; it was marked by tees on the map. In another Inclosure Award for Callington, hedge ownerships are shown by asterisks, not tees. Here, again, a new public road was to be 30 ft wide, and the same width for a ‘private carriage occupational road’ for access to three fields. These specified widths included the base widths of the bounding hedges and the ditches or perhaps a narrow verge, leaving the carriageway about 9ft wide. Thus the subsequent hedges were built on road, not farm land. Four acres were awarded for an ‘allotment for the labouring poor’ of the parish of Callington, together with the hedges ‘against the road’.
Many of the deep track-ways through riverside woods were made by pack-horse trains bringing materials from the coast up to inland farms, mines and other works. Farmers took their pack-horses directly down to the beaches to collect sand and seaweed, which is why most accessible coves along the Cornish coast have a track or lane going down to them. The inwardly-curved batter, integral to their sound structure, in the side of the Cornish hedges bounding these lanes incidentally meant that the track need only be very narrow and still allowed room for the packs on either side of the pony to pass through. Some authorities infer that lane traffic was limited to riding and pack-horses but they ignore the widespread use of slides (either a flat or a box-shaped sledge), for moving heavy loads. A slide made out of an iron plate from the hull of the steam collier 'City of Cardiff', wrecked at Nanjizel in 1912, was used on a farm in West Penwith until the 1970s and is now preserved at Geevor Mine Museum.

Marshall said that in Devon in 1750 everything was carried in sledges or on pack-horses. Probably this was an exaggeration, as 400 years previously Bishop Grandisson had written that 'all transporting that we do here [in Cornwall] we do on pack-horses or in bullock carts because of the mountains and valleys and the bad ways which are here.' It is likely however that in Marshall's time the bullock carts were still restricted to the better of the main roads, and often used without their wheels, while the advantage of a slide in rough hilly country was that it would go almost anywhere a horse could go. The word 'cart' is sometimes loosely applied, even heard referring to pony crooks in West Cornwall.

Along the many narrow lanes two to three yards wide, most goods had to be conveyed on horseback. Furze, hay, straw, faggots of wood, even stone and slate, were carried in bundles on crooks, while corn, sand and tin ore in sacks, and oar-weed and dung in basket panniers, were also slung over pack-saddles. At Hayle in 1758 there were oft-times a thousand pack-animals at work during a single day, in carrying coal to the mines, with about 70 head in each mule-train.
Celia Fiennes in 1698 gives a lively picture of the use of crooks in West Cornwall when, she says: 'I had the advantage of seeing their harvest bringing in, which is on a horse's backe with sort of crookes of wood like yokes on either side, two or three on a side stands up in which they stow the corne and so tie it with cords, but they cannot so equally poise it but the going of the horse is like to cast it down sometimes on the one side and sometimes on the other, for they load them from the neck to the taile and pretty high and are forced to support it with their hands; so to a horse they have two people and the women leads and supports them as well as the men, and goe through thick and thinn; sometimes I have met with half a score horses thus loaded, they are indeed but little horses, their Cavelles as they call them, and soe may not be able to draw a cart, otherwise I am sure 3 or 4 horses might draw 3 tymes as much as 4 horses does carry, and where it is open ground and roads broad, which in some places here it was, I wondered at their labour in this kind, for the men and women themselves toiled like their horses - but the common observation of custom being as a second nature people are very hardly convinc'd or brought off from, tho' never so inconvenient.'

As well as the pack-saddle and the crooks, the other necessary item was the pannier, called the pott or dorsle. These were used to carry all types of goods, small animals and even young children. They were closely woven of wickerwork and hung on each side of the horse. Some were used for sand, seaweed and manure, and had a falling bottom, so that they emptied themselves on to the field. Large baskets, called mawns, were carried on a man's back and were of various shapes and sizes to suit what had to be carried. Only within the past thirty years has the broccoli mawn been finally ousted by mechanisation. There often survives a small plantation of willows on farms sited so far away from the coast that the only reason for its existence was their use in making dorsles, mawns and other basket-ware for the farm (those nearer the coast were primarily for crab and lobster pots). By 1900, mules had mostly disappeared as the roads had been improved enough for wheeled vehicles. The last big professional mulester was probably Neddie Bennets, born in 1805, who kept 200 mules at Trink, Lelant, and employed four men and a boy.

Traditional crooks, hand-made of naturally-curved branches of apple-wood and bound with twine to allow them to fit to the pony's shape and movement, were still being used by Sarah Carter in West Penwith to carry hay and kindling during the 1970s and 80s, while the same pony also saddle-packed bags of animal feed, potatoes, shopping, etc. There is no reason why this useful practice should not be kept alive today; native ponies have an inherited aptitude as pack animals and represent a big source of energy going to waste. As long as they are not overloaded or chafed, packing does them no harm and improves their manners. Even spoiled ponies that refuse to carry a rider will carry a pack - a source of cheaply-acquired pack animals in the past, and a vocation for the tough but not always amenable-to-rider mule.
The chief turnpike roads were those from Torpoint through Liskeard and Lostwithiel to St. Austell; from Launceston through Camelford, Wadebridge and St Columb to Truro; from Launceston to Bodmin and from Truro through Redruth, Camborne and Hayle to St Ives. The first Turnpike Trust was established in 1663, but many turnpike roads were not constructed until some years after the setting up of the trust and they were not common until a hundred years later.

Some progress had been made by the time Hinton's map was published in 1748. Roads entering Cornwall were by Horsebridge to Bodmin via St Neot, by New Bridge (at Gunnislake) to Lostwithiel via Callington, and by the Saltash ferry to Looe. The roads from Lostwithiel and Looe joined at Tywardreath, thence to Truro via Grampound, and via Tregony to Kea and Feock with ferries across the Fal. A sketch by Schellinks, a Dutch traveller, in 1664 shows a coach being transported across the river at Fowey by the ferry.

The only road west from Launceston was shown running on the north side of the river Kensey via Egloskerry to join the now A395 at Hallworthy, thence through Camelford to Padstow, either via St Teath (B3267) or Delabole (B3314) and St Endellion; Hinton mistakes Helstone for Delabole but the map shows the two routes clearly. The northern mail from Exeter to Falmouth passed along this road by night through St Teath churchtown. The road between Launceston and Falmouth was opened as a post road in 1704, and its condition was commented on by Arthur Young riding through Cornwall in 1770: 'The road from Exeter to Falmouth may be easily effected after one general expense of pickaxe and spade work: widening (and by the by, there is generally a reasonable width) and levelling, are the chief points; for the bottom is solid; and experience proves how long it has lasted good, since 'tis pretty much now as it stood in the days of Julius Caesar.' It was the great line of communication to the west of Cornwall. There was no road shown across Bodmin Moor until the new road (now A30) was made through Bodmin, over the Temple and Goss moors. Until 1769, the western road from Bodmin passed by St Lawrence and St Wenn to St Columb, avoiding the boggy Goss Moor.
The roads west from Padstow via St Columb, and Bodmin via Withiel, met at Mitchell and then branched to Truro and Redruth. The main road west from Truro appears to have gone via Bissoe and Crowan, then by the B3280 through Praze-an-Beeble and Leedstown to Marazion. Penaluna, referring to this route, wrote in 1843 that 'Goldsithney lies on the great road leading from Penzance to Redruth and Truro'. A road ran from Marazion to Helston and Penryn along much of the existing A394, some of the stone for it being reported in 1899 as having come from the ancient fortress on top of Tregonning Hill. This joined a road from Gulval at Rame, and the Helston - Truro road went from Rame via Tretheague and Stithians.

The other main road from Mitchell followed the present A30 route to Redruth, then went via Barrripper, Fraddam and St Erth to Gulval. West of Penzance, Hinton mistakenly showed the St Just road running north of Madron; the carriage road from Penzance through Madron to Morvah and St Just was not made until 1763. The road to Sennen and Land's End was shown as going through St Buryan. There is a notion that the prehistoric road west from Penzance used to go via Tremethick Cross, Grumbla, Carn Uny and Chapel Carn Brea to Sennen. Much of the length of these roads seemed to have been already hedged around earlier enclosures, so hedges adjoining these roads are likely to pre-date 1758 excepting for the occasions where the road has been subsequently widened or diverted.

A local Act of Parliament was passed in 1760 enabling the roads around Launceston to be 'widened, enlarged and amended' which makes the dating of roadside hedges in that locality more difficult, especially as the time for this to be done was extended by further amending Acts in 1780, 1801 and 1815.

Celia Fiennes described the road from Wadebridge to Camelford in 1698 as being 'over Commons of black moorish ground full of sloughs, the lanes are defended with bancks wherein are stones, some great rocks others slaty stones such as they use for tiling'. No wonder the making of the Camelford turnpike road in 1759 was taken up as a matter of public interest. To assist the undertaking, the Rev. William Phillips, Rector of Lanteglos, in 1759 cut with his own hands the figures on the granite milestones now standing on the Camelford road between Watergate and Fivelanes. The stones were erected by the minister, who used the road every Sunday. They are intended to serve as guides in misty weather; a longer stone occurs at intervals of \( \frac{1}{2} \) mile, and is marked on the Watergate side with the letter W, and on that towards Fivelanes

Milepost on the old Helston-Penzance pre-turnpike road. Naming suggests it was erected by the Penrose estate in the 18th Century.

Hedge-top cast-iron signpost looks picturesque and is easily visible. Unlike the ugly modern sign already broken and gone from here, the old signs will last for centuries with only a coat of paint now and again - which this one near Black Rock urgently needs. Many of these fine historic signs are today suffering this kind of disgraceful neglect.
with the letter F. By an Act of Parliament in 1744, it was made compulsory to erect milestones on main roads, which work was completed by 1773.

Hawkey wrote in 1871 that, 'more than a century' earlier, some roads were impracticable for wheeled carriages; inferring that other roads were suitable for, and were used by carriages. These were not the light modern carriages. They were built more like farm carts, heavy and cumbersome, and drawn by five horses driven in single file because of the narrow lanes. In about 1770, it was said that there was only one cart in the parish of Lansallos. Undoubtedly pack-horses, which would each carry 400lbs (180kg) in weight, and horse-drawn slides for heavier items, were still the principle ways of moving loads. Allen writing in 1856 noted that in 1790, the first four-wheeled wagon was built in Liskeard but was 'so heavy that it was seldom used.' Marshall, in his ride through Cornwall in 1791, met two-wheeled carts each with two oxen at the pole and two horses before them. He said that the toll (turnpike) roads were already between most of the market towns and 'are of stone and in some parts extremely well kept, the gates few and the tolls moderate'. Major road improvements began around the end of the 18th century, involving good stone surfacing and miles of new hedge-building comparable to the expansion of the modern dual-carriageways, so that wheeled vehicles were able to travel freely along the main roads. Coaches were numerous in Cornwall by 1805.

Following the 19th Century expansion, the familiar and attractive white-painted iron signposts, many cast in Cornish foundries, were erected by the hundred, providing a sterling direction service for the increasing public use of roads and lanes by the individual traveller. It is a pity that the modernising mania pulled down so many of these, still in excellent condition, to be replaced with urban aluminium signs. This is unjustified on visibility grounds as in the narrow twisting lanes the tall white finger-posts, often set up in the top of the hedgebank, can be seen above the intervening hedges and give better warning of a junction ahead. They look picturesque in association with the Cornish hedges beside the lane, a strong consideration in a tourist county. In recent years cast aluminium reproductions of the old cast-iron signposts at least have the look of the originals and are a welcome innovation.

Borlase wrote that a new road into Fowey was made in
1840 'to avoid the steep hill leading to that place from the West.' Wallis, writing in 1847, tells us of some of the newly-made turnpike roads, so giving a date for their hedges: 'The new road has been made into Boscastle ... A new turnpike road has of later years been made from Five Lanes, by Two Bridges, to Holloway-cross gate, avoiding the dangerous hills by Hick's mill. There is a turnpike route from Mount Edgcumbe to Liskeard. The great road from Plymouth to Falmouth passes through St Antony churchtown, and through Sheviock by an improvement made not many years since, leaving the old road to the left through Crafthole.

'The turnpike road from Callington to Tavistock passes through Calstock. There is now a beautiful road from Plymouth through Liskeard and Bodmin to Falmouth. From Bodmin to St Neot there is now an almost entirely new road. The old road from Looe to Liskeard passes over Bindon hill, but a new road has of late years been formed, by which the steep ascent is avoided. A new turnpike road, branching off to St Austell and Truro now passes through Lanivet churchtown, leaving the old monastery of St Bennet's on the right. The old turnpike road, from Bodmin to Truro, passes through ... Mitchell: the new road descending the valley, through Ladock, leaves St Enoder and Mitchell on the right.'

Until the opening of the South Devon Railway in 1849, there was a four-horse coach passing each way through Launceston during the daytime and another each way at night. Then the railways took so much business from the toll roads that the turnpike trusts could no longer afford to do the repairs. These were the main roads and so drastic action was needed. In 1864 roads started to be dis-turnpiked, in Britain, at a rate of 1,500 miles a year, with their heavy burden of repair being thrown on to the local inhabitants.

All the turnpike roads were finally taken up by the local authority under the Highways and Locomotives Act 1878. Rackham says that highways set out by Enclosure Act or Turnpike Act are usually vested in the highway authority. This included the hedges built by the turnpike trust and, barring evidence to the contrary, they may still belong to the highway authority, together with the duty to trim and repair.

**ROAD VERGES - THE “LONG MEADOW”**

Between the road and its hedge alongside there is often a verge which may have its own history and wildlife, associated neither with the road nor with the adjoining land. A hedge may predate the road alongside, or it may have been built as a boundary against it. Wide-set hedges and verges to a narrow metalled lane may indicate that in the past it served as a drove road for moving big livestock herds on the hoof from place to place.

Sometimes there are two hedges, the original boundary against the field, and another added later to enclose some of the land between the original boundary and the road. Where this
arrangement encloses a small cottage and garden, it can be easily recognised by the long narrow shape of the garden running parallel with the road, often finishing in a point at one end. Formerly there were many more of these dwellings than are to be seen today, as they were often victims of modern road widening. This is understandable because they were occupying what used to be part of the road, and may have obstructed the natural line of sight for traffic.

Before the mass invasion of the motor vehicle on to our country roads, it was commonplace for smallholders to use wide verges for grazing their cattle or ponies. Sometimes the animal was tethered, sometimes it grazed free. Often the grazier was a local character with little or no land of his own, who used his strength of personality to outwit anybody who complained. This use of the verges for loose or tethered but unsupervised animals has only died out in the last few decades, due to the increase in speed and number of motor vehicles using the roads. It is still practised by travellers though few now maintain the traditional way of life. Many people will remember seeing the late Alec Draper with his piebald pony and bow-top waggon parked on the A30 verges during the latter years of the last century.

WALKING ON TOP OF HEDGES

In the moorland parts of Cornwall, where snow is not uncommon although usually short-lived, the hedges have long been used for walking on during the worst winters. Clive Carter described in The Blizzard of '91 how in the great blizzard on 9th March 1891 Mark Olde, the village postman, 'made the journey from Boscastle to Camelford station and back walking on the hedges all the time, apart from the crossroads where he rolled himself across'. A Mr Hayne who died at Camelford at the time of the blizzard was carried in his coffin to Davidstow, 'the bearers walking on the top of the hedges with telegraph poles for their guide.' Not only in snowy conditions were hedges used as paths. Daniell in 1854 described how 'the parish roads lie over wild moors or creep between high hedges of earth, on which the traveller can step along when the lane below is converted into the bed of a stream, also on which the wary smuggler could stride whilst his laden mules and asses stumbled forward in the concealment of the deepset land.'
The Rev C.A. Johns writing *A Week at the Lizard* in 1848 found that the paths running along the tops of the hedges were preferable for walkers to the roads, because they were drier. The author of *An Unsentimental Journey through Cornwall* (1884) observed that: ‘These hedges were startling to any one not Cornish born. In the Lizard district the divisions of land are made not by fences, but by walls, built in a peculiar fashion, half stones, half earth, varying from six to ten feet high, and about two feet broad. On the top of this giddy path, fringed on either side by deceitful grass, you are expected to walk! - in fact, are obliged to walk, for there is often no other road. There was none here. I looked round in despair. Once upon a time I could have walked upon walls as well as anybody, but now - ! “I'll help you, ma'am; and I'm sure you can manage it,” said Charles consolingly. “It's only three-quarters of a mile.” Three-quarters of a mile along a two-foot path on the top of a wall and in this deceitful light, when one false step would entail a certain fall.’

There were many of these hedge-top paths, of which only some remain, and fewer are known of outside the immediate locality. One such survives only because it is part of a registered public footpath running from the Penzance-Pendeen road at Springs Farm in a westerly direction towards Pendeen Church. Its origin is interesting as it was formerly part of a hedge-top tramway from Springs Mine. An informal path existed between Constantine churchtown and the school at PonJeravah at the bottom of the hill. Remembered by the author who used the road daily going by bus to Falmouth Grammar School, it ran along the top of the hedge on the north side of the road between the trees all the way from the top gate down to the school at the bottom of the hill. It was much safer for the school-children to use than going along the road.

**HEDGE AND HIGHWAY RESPONSIBILITIES**

The land under the road belongs to the adjoining land owners, with their mutual boundary along the middle of the road, unless there is evidence otherwise, and there often is. This evidence might be found in old sale particulars where a landowner was selling only the fields and keeping the road and the verges. Ordinarily a landed estate developing land for an expanding town a century ago kept the roads, verges and other common areas so that the fields could be built on in a logical fashion by different builders without coming to blows about who is responsible for the roads and verges. The verge was also known as a ransom strip, where it was retained by the estate so that any future development, involving access across the verge, could be controlled by the estate or must be paid for, even where the verge was only quite narrow.

Where there is a ditch draining the adjoining land, it is possible that the land occupied by the ditch, and the hedge alongside it, may not be part of the highway. There is a little-known complication concerning land, formerly described as manorial waste, that was unregistered under the
Commons Registration Act 1965 and thereby ceased to be manorial waste, and perhaps has ceased to be in the ownership of the lord of the manor. Where there has been no evidence of land ownership, the courts have sometimes declared that it is owned by the government via the Crown, or, in Cornwall, by the Duke of Cornwall.

Historically, the surface of roads was the responsibility of the inhabitants of the local parish. Adjoining landowners were compelled by statute during the reign of Edward I to clear all roads between market towns from trees and underwood to a space of 200 feet on either side. The object was not only the preservation of the roads by the admission of light and air, but the destruction of the lurking places of robbers. If any crime of violence were committed on a highway not properly cleared, the adjoining owner was held responsible. The decline of the manorial system often resulted in the failure of landowners to maintain their roads. Highways fell deeper into decay. Some highways continued to be maintained by landowners as a promise to the church; these were often not kept up after the Dissolution.

A big change was the Highways Act 1555 which transferred the duty of road maintenance from the landowner to the villagers in the parish. Each parish had a Surveyor of Highways who had been given power under the 1555 Act to demand six days a year free labour and the use of carts and horses from parishioners, but often without success. Celia Fiennes in 1698 fell foul of a pothole when she rode from Looe to Fowey, giving a graphic description of the state of many lanes at this time, especially those that were narrow and closely hedged: 'Here indeed I met with more enclosed ground and soe had more lanes and a deeper clay road, which by the raine the night before had made it very dirty and full of water; in many places in the road there are many holes and sloughs where ever there is clay ground, and when by raines they are filled with water its difficult to shun danger; here my horse was quite down in one of these holes full of water but ... for giving him a good strap he flounced up againe, tho' he had gotten quite down his head and all, yet did retrieve his feete and gott cleer off the place with me on his back.'

The Barbed Wire Act 1893 had a direct bearing on the fencing alongside a highway. The principle is set out in section 3(1) 'Where there is on any land adjoining a highway within the county or district of a local authority a fence made with barbed wire ... and such barbed wire is a nuisance to such highway, it shall be lawful for such a local authority to serve notice ... in writing upon the occupier of such land requiring him within a time therein stated (not to be less than one month nor more than six months after the date of the notice) to abate such nuisance.' Section 4: 'Where the local authority are the occupiers of the land, proceedings under this Act may be taken by any ratepayer within the district of the local authority ... [and] served on the clerk.' Section 3(2) 'If on the expiration of the time stated in the notice the occupier shall have failed to comply therewith, it shall be lawful for the local authority to apply to a court of summary jurisdiction, and such a court, if satisfied that the said barbed wire is a nuisance to such a highway, may by summary order direct the occupier to comply with such an order.
within a reasonable time. The local authority may do whatever may be necessary in execution of the order, and recover in a summary manner the expenses incurred in connection therewith.' This nuisance would perhaps seldom have been encountered in Cornwall as long as there remained the traditional pride in maintaining sound Cornish hedges without the use of wire.

The Local Government Act 1888 transferred the care of main roads to County Councils, and the minor roads to local councils six years later. Cornwall Highways maintains a map of all their adopted roads which is open to public inspection.

HEDGES ALONGSIDE PRIVATE ROADS AND RAMPS

The owner of a boundary hedge abutting on to a highway may, without evidence to the contrary, be assumed also to own half the road. Where this road is unadopted, the owner of the hedge is often approached by road users asking him to carry out works to the road surface. In Saint v. Jenner, the hedge-owner put down ramps in order to slow the use of the right of way. This in itself was not an obstruction but, as time went on, potholes formed beside the ramps caused by vehicles as they went over them. The Court of Appeal agreed that the hedge-owner was entitled to put and keep the ramps there on his undertaking to keep them in repair. If he had not given the undertaking he would have had to remove them.

The liability of the road user is comparable. In laying down a private road it is up to him to make a way for himself in the first place and thereafter he is under an obligation not to do anything which amounts to trespass. For instance, if he installs a pipe under the hedge, he must not let it spring a leak. If the road deteriorates by natural decay, the position seems clear. It is up to whoever wants it repaired to repair it. The number of neglected and potholed tracks leading to luxury houses is testimony to the fact that legislation on this matter is not entirely satisfactory. In such situations the law appears to be that whoever is responsible for the deterioration of the way cannot necessarily be forced to carry out repairs unless his use of the road can be held to be excessive.

HEDGE TRIMMING AND ROAD REPAIRS

The Cornish historian Tonkin (1739), who lost the sight of one eye struck by a bramble overhanging a lane along which he rode, wrote bitterly: 'I wish I could say that any statute at all could prevail with the people to keep their roads in good repair; for what with their suffering their hedges to grow over them unpared by which I have suffered in my own person an irreparable damage, and have therefore reason to complain...'

When the summer Assize Court was moved from Launceston to Bodmin in 1716, the civil authorities were called upon to level the roads and verges between the two towns and to cut the trees and hedges to make the roads fit for travelling with coaches. In 1742 there is a note in Morwenstowe parish records of payment in repairing the parish roads: 'For holding the survey and mending ye hedges and gats 2s.' Clearly the maintenance of the roadside hedges was then seen as the responsibility of the highway authority.

In October 1758, Borlase prepared a memorandum Of the Usefulness of, and Objections to, Turnpikes in general, and particularly in Cornwall, with a revised version in 1760. This was evidently sent to St. Aubyn and other Members of Parliament, but its authorship was disguised, as it
purported to be written by a visitor to Cornwall from Bath. In this alias, Borlase was frank as to the defects of Cornish roads: 'A great part of their roads is on the hills and open downs, and these have either no path, or consist of what is worse, a great many deep paths but no formed road. Their ways are egregiously miry in the east, in the west stony and unsafe for treading, narrow and impassable for wheels in most places, ill directed throughout the County, and from some of their Boroughs towards Plymouth and Exeter, no road at all formed for two horses to go abreast ... This is the condition of the great roads, and these are intersected by an infinite number of bye or cross roads, seldom more than one path, and usually circumscribed by low stone hedges, which being poorly built are continually tumbling into the lanes, and making them still narrower than they were intended to be.'

The Highways Acts of 1773 and 1835 authorised highway repairs, for the first time, to be paid for by parish rates. Even so, maintenance was usually limited to the filling-in of potholes.

Maintenance costs in the Callington area in 1867 included: 'the need to pare and trim the hedges and to clear the ditches. Usually the silt and leaves which had accumulated under the hedges and in the runnels were piled on the tops of the hedges, which added to the fertility as well as to the height.'

Historically this work was done by the roadman or the farm-worker with his sharp-edged hand tools, the shovel, sickle (hook), bill-hook and slasher. The only trimming carried out in summer was by the roadman's hand-hook on blind corners and in the ditches where necessary to keep culverts open. He would also knock off long bramble whips or broken vegetation sticking out in the roadway. He took a craftsman's pleasure in his work and was responsible to the local community, many being his family relatives. Like the farm worker of his day he did his job with the care of one who understood local conditions and the cycle of natural life. Often he would be seen carefully avoiding resident wildlife, a fine fern specimen or some pretty flowers, while discouraging coarser weeds from growing out into the road. When he did his main hedge trimming in winter, his method was to cut out the woody scrub growth from the hedgebank's face, leaving the herbaceous and grassy growth unharmed. Here and there he would prune the hedgetop bushes if necessary to prevent wind-rock or to rejuvenate growth, keeping their natural-looking outline. These methods, while making the roads safe, preserved the diversity and enhanced the quality of the hedgeside flora and its animal life.

The old practice of casting up - every few years returning the soil and plant debris that had gradually washed down to the foot of the hedge, by digging it out with a Cornish shovel and throwing it up on to the top of the hedgebank - not only helped to hold the stones in place, but returned fallen seed to the hedgetop to renew the cycle of growth. Casting up was one of the roadman's duties done after the winter hedge trimming, along with cleaning out the ditches. In
modern mechanised removal of earth from the foot of the roadside hedges, it is usually scooped up in a tractor bucket and taken for dumping elsewhere. The fallen seed and the replacement soil for the hedge's structure are no longer returned to the hedge-top.

In the mid-20th century, the tractor-mounted reciprocating scythe (finger-bar cutter) took over, and although less discriminating it still did an excellent job. It could not pass too near the hedge stones for fear of damaging the blade, so safely left much of the invertebrate life in the herbaceous growth. Like the old tools, it severed the stems cleanly with a single cut, allowing living things to escape, and minimising damage from subsequent die-back or disease. High hedgetop trees were lopped or selectively coppiced by hand in winter, the Council's workmen using a converted open-topped double-decker bus as a combined work platform and brushwood cart - a brilliant concept, which also ensured precise clearance for the buses which were the highest vehicles using the roads.

The rotary flail mower was introduced and first used on Cornish roadside hedges in the early 1970s. This proved to be a catastrophe for the structure of the hedges and for the wildlife they contained, especially as much of the work was now improperly done in summer. The cyclonic, battering action of the flail dislodges stones from the hedgeside, causing collapse, and destroys every living creature in the greenery it removes. It causes a mat of tough gorse and ivy to develop on the hedgebank sides, while the green mulch it leaves behind over-enriches the soil, so rampant weeds flourish along the foot of the hedge. Now that the mis-use of the flail has resulted in loss of normal seeding from the hedge-face, and has brought this invasion of rampant species along the foot of so many hedges, casting up could be a problem; whether returned to the hedgetop or carted away, the hedgefoot soil is now too often a source of re-infestation rather than regeneration.

MODERN ROAD TRAFFIC AND HEDGES

Roadside hedges, usually reaching above the eye-level of the car driver, can be a visual obstruction. Without them, some newcomers to Cornwall might say, the views would be superb and the roads might be safer; but then the landscape would lose its character, shelter and variety, and much of its visible history and wildlife. Removing hedges 'in the interests of road safety' is known to result in drivers going much faster, making accidents more likely to happen and to be fatal. In the country lanes, the effect of reckless traffic is the knocking out of stones in the hedges, leading eventually to collapse of part of the hedge. Closely trimmed hedges give a false impression of width, encouraging drivers inappropriately to go faster than when the hedges are allowed to keep their summer growth on until the new year - a safeguard for people and animals using the lane. Removing field hedges in Cornwall causes flooding of mud and debris on to the roads. In almost every instance of hedge removal there are detrimental effects, often unforeseen.
Most visitors to Cornwall love our picturesque flowery lanes, but for some, their first acquaintance with the stone cladding hidden in the Cornish hedges may result in a dented wing or scraped side of their car. This is usually due to summer trimming of the hedgesides which can give the misleading impression that the lane is wide enough for two meeting cars to pass each other. Close-trimming also causes a dense mat of vegetation to cover and disguise the stone structure, so the hedgebank may be regarded with less respect by those accustomed to the forgiving English hedgerow. On the county highways authority's advice, for single-lane roads only the passing places, road junctions and blind corners need to be trimmed during the summer, thus making obvious the places where drivers must use caution. Most of the 9,000 miles of roadside hedges should be trimmed only during the winter when there is less traffic on the road, and the trimming is easier as the growth has died down.

The luxuriant summer growth on the hedges in our narrow lanes is sometimes thought to be a nuisance to the horse-rider, cyclist and walker. In fact, where the hedges are close trimmed in the summer, motorists are prone to crowd other road users into the hedge, thinking they can pass easily. When there is summer growth, the motorist is discouraged from trying to pass, and if he does, then there is a safety margin and refuge for the foot-passenger provided by the width of the growth itself.

The passing motorist has little time to see single items of wildlife. Travelling at 20mph, a typical safe speed for many of our country lanes, an item occupying one metre of hedge flashes past the traveller in a tenth of a second. Seeing something 10m away gives him one second to see it properly. Thus only the larger and stationary items of natural life are appreciated. For a main road, the A30 for example, the traffic is often travelling at 60mph, so something has to be first seen at least 30m distant to allow it one second of attention. In visual terms, while a butterfly may be briefly seen and appreciated when driving along a lane, it requires a bird the size of a thrush to have the same visual significance on the A30. In botanical terms, the typical mosaic of plants seen and enjoyed along lanes does not give the same delight when fronting a main road. Here is where large patches of scrub and trees are best appreciated. Where the width of the road verge allows, the hedges along the main roads should be trimmed to leave not less than one metre of growth, so as to encourage the scrubby species. In those parts of Cornwall more exposed to the salt winds, these main roads need to be trimmed only in alternate years, or less; with a saving of cost and an increase in the flowers and other wildlife.

On main roads, the demands of traffic may result in the demolition and setting-back of roadside hedges. This is usually in the name of road improvement, enabling the traffic to move more freely. Unfortunately more effort is put into the improvement of the road itself and less into recreating the hedge, which may have been there for several thousand years. Careful removal and rebuilding as it had been must surely be the preferred (and cheapest) option. In recent times it has been more usual to bulldoze and cart the existing materials away and build a new roadside hedge, using one type of freshly-quarried stone from mid-Cornwall that is often inappropriate and inferior to the different geological types of the county, and building the new hedge to a poor specification.
TRAFFIC POLLUTION

On main roads, the smothering of dust and introduction of other air-borne pollutants results in a loss of biodiversity in the hedges. Investigating this, Dr C. Page uniquely surveyed 107 miles of Class A, B and unclassified roads, bridleways and footpaths in the countryside south of Truro. He counted the number of ferns per 10 linear metres of hedge, with the criterion that 10 or more fern plants per 10 metres indicated 'High pteridological [fern] value'. His results are shown in this table (reproduced by his permission) :-

<table>
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<tr>
<th>Class of road</th>
<th>Length surveyed</th>
<th>Length of high fern value (m)</th>
<th>Percentage with high fern value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>21 miles</td>
<td>0.6 miles</td>
<td>3%</td>
</tr>
<tr>
<td>B</td>
<td>13 miles</td>
<td>2.6 miles</td>
<td>20%</td>
</tr>
<tr>
<td>Other roads,tracks &amp;c.</td>
<td>73 miles</td>
<td>41 miles</td>
<td>56%</td>
</tr>
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Page also found that the width of verge was important. Where the verge was 3m wide, there were typically more ferns on the hedgebank, and where the hedge was 5-6m distant, the number of ferns sometimes approached that of an unclassified road.

CURRENT ROADSIDE HEDGE MANAGEMENT

All roads that are looked after today by the local highways authority are shown on the 1/25000 map, including public footpaths and bridleways. The total mileage adds up to 4,650 miles, of which nearly half are unclassified ways. This means that there are about 9,000 miles of associated hedges, most of which require differing degrees of management. Under the Highways Act 1980, the Highway Authority has the legal duty to prevent, as far as possible, the obstruction of roads. This includes ensuring that land owners and occupiers manage hedge growth on their roadside hedges. The stone and turf structure of Cornish hedges fosters an especially rich biodiversity and supports wildlife indefinitely, so long as man's interference keeps to the minimum of disturbance. They are very susceptible to damage by over-zealous trimming, but, when correctly managed, their plant and animal populations are balanced and persistent.

A finger-bar trimmer is much less damaging to wildlife than is a flail-mower. Overall, trimming should be left until late winter. Summer trimming is confined to removal of hedge growth only where it constitutes an actual traffic hazard. The Highway Authority is aware that summer trimming disrupts nature's seeding and breeding cycles, but has to reconcile, as far as possible, the requirements of road safety and wildlife.
Owners and occupiers of land with roadside hedges are responsible for maintaining them so that growth does not impair the safety of highway users. This duty is likely to include any hedge that directly abuts any public right of way, and includes:-

- trimming roadside hedges to maintain visibility, particularly at junctions, on the inside of bends and at passing-places.
- removing dead or decaying trees and other growth likely to fall across the highway.
- removing branches and other growth that may prevent the passage of high-sided vehicles.
- keeping road signs and the light from a public street light free of obstruction.

The following programme meets Cornwall Council's requirements for maintaining traffic visibility, while reducing the danger to wildlife. The damage to wildlife by the flail at any time of year is unacceptable, so a finger-bar scythe trimmer should be used.

**When to trim road hedge sides**

**Summer trimming**

*Single-lane road with no verge:*  
Trim the hedge-side only at passing-places, junctions and blind corners once in June or July, leaving 200 - 300mm of growth.

*Two-lane road less than 8ft wide (no white line) with no verge:*  
Trim road hedge-side once in July or August, leaving 200 - 300mm of growth.

*Other road types, and single-lane roads as a whole:*  
Do not trim in the months from March to October inclusive.

**Winter trimming**

*Road hedges not trimmed in summer:*  
Trim road hedges once in November, December, January or February leaving 300 - 500mm of growth.

Trimming during March to August is likely to damage or destroy birds' nests. Except as recommended above for road safety (passing places and blind junctions), this is an offence under the Wildlife & Countryside Act 1981 as it could reasonably have been avoided.

Some hedges in windswept localities grow very slowly and need trimming less often, or not at all.

Where there is a verge, usually hedge trimming is only needed at junctions and blind corners to maintain visibility.

Hedges along bridleways and footpaths should be trimmed in winter and only as necessary for keeping the right of way open.
Maintenance of trees and bushes in roadside hedges.

Bushes growing along the centre line of the hedge top should be left to grow naturally. These will provide shelter, and greatly improve the wider landscape.

Trees and bushes growing from the hedge itself or the farmer's field (but not from the verge) which canopy over the highway must be trimmed to a suitable height for pedestrian and vehicle usage on the road. This is done in October, November, December, or January, when the sap is not flowing. Broad-leaved trees in less sheltered areas should be selectively coppiced and allowed to regrow. Individual trunks should be cut down to 0.5m (20") before growing tall and heavy enough to be in danger of rocking or blowing down in a gale. Smaller trunks are left to grow on, then cut out individually in their turn.

When felling, coppicing or pruning trees, consent may be required from the District Council if the trees are protected by a tree preservation order or are in a conservation area. Additionally, a tree-felling licence may be needed from the Forestry Commission.

Roadside verges

The verge between the road and the hedge includes trees and bushes growing on it. Trimming growth on the verge for visibility purposes, and maintenance of road drainage ditches are the responsibility of the Highway Authority. When cutting verges the Highway Authority may also trim part of roadside hedges; this does not relieve the owner/occupier of his responsibility for trimming the hedge.

Responsibility when trimming

Trimming should be timed to avoid peak daytime traffic flows, and not done at night. The trimmer should be mounted on the left hand side of the tractor so that the tractor can work with the flow of traffic.

Warning signs should be displayed at the ends of the section being cut, and at road junctions. Signs may be purchased via the Highway Authority. Do not trim closer than 200mm (8") as this causes stones to fall out and endangers safety on the highway.

All trimmings should be cleared from the highway, including from foot-ways and drainage features. Herbicides should not be used on hedges except for certain invasive alien species. Advice on the best procedure for these, such as Japanese knotweed (now subject to regulations) can be obtained from Cornwall Council.

Those responsible for trimming, or their sub-contractor, should have public liability insurance cover suitable for working in the highway. Many private householders have a short length of roadside hedge to look after, and they have the same legal responsibilities as other owners and occupiers under the Highways Act 1980. At locations where roadside hedge growth has become a problem, the Highway Authority is likely to serve notice on the owner/occupier requiring the necessary work to be completed within a stated period. Failure to comply with the conditions of this notice may result in the Highway Authority undertaking the works and recovering the expenses from the owner/occupier. Cornwall Council is the relevant Highway Authority for County Roads, and works closely with the Parish Councils and other organisations. It encourages roadside hedge owners and land occupiers to act in a responsible way towards users.
of highways, and is happy to give advice. The A30 and A38 are Trunk Roads and are the responsibility of the Highways Agency.

You are welcome to download these papers and photographs for your private use and study. If you use any of this material in any other way, the copyright holder and the Cornish Hedges Library must be acknowledged as the source - thank you.

Titles of papers available on www.cornishhedges.co.uk

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