in the eighteenth century oto-laryngology was chiefly concerned with diphtheria, which was very prevalent and fatal then. The first hospital in the world to be devoted to diseases of the ear, the Royal Ear Hospital, was founded in 1816 by J. H. Curtis, an unqualified man who had a large practice in London. The subsequent history of oto-laryngology brings us to Joseph Toynbee (1815-60), the father of Arnold Toynbee, James Hinton (1822-75), also remembered as a philosopher, and Sir William Wilde, of Dublin (1815-76), the father of Oscar Wilde. Toynbee's beautiful dissections were preserved in the Museum of the Royal College of Surgeons until they were destroyed by enemy action in 1941.

Laryngology became a special branch of medicine in the middle of the nineteenth century and Sir Morell Mackenzie was the founder of modern laryngology. Another great laryngologist was Sir Felix Semon, a German pupil of Mackenzie's who settled in London. Semon was one of the last to practise laryngology before it became merged with otology. Nowadays developments in bronchoscopy and oesophagoscopy are extending the boundaries of the science of oto-laryngology; and speech and voice disorders offer a further field.

Dr. C. S. Hallpike, in another article in this issue of the *British Medical Bulletin*, discusses research in otology and Dr. E. H. Broome discusses the scope of speech therapy. Dr. Guthrie provides a second article, on "Pioneers in the Teaching of the Deaf". A discussion on the audibility of the radio voice at a meeting of the Royal Society of Medicine will interest lay readers who are habitual radio listeners. It is evident that the radio speaker has to deal with a complex problem. Mr. John Snagge said in this discussion that it is impossible to tell from gramophone records whether a speaker will be a success at the microphone, and also that the construction or lining of the walls of a room in which a broadcaster speaks has little effect on the reception of his voice by the distant listener. The quality of the voice is often more important than the speed of the speech.

Peripheral vascular disorders are the subject of a valuable article by Prof. J. R. Learmonth (*Brit. Med. Bull.*, 2, No. 7; 1944). This issue is devoted to the peripheral blood vessels and deals with arterial spasm, arterial injuries and injuries due to low temperature, such as frostbite. Fifteen photographs illustrate the article on the pathology of immersion foot. The study of these conditions is always an important one, but it is perhaps even more important in these times of war and air-raid casualties. G. LAPAGE.

DECIDUOUS CYPRESS (*Taxodium distichum*)

By ALEXANDER L. HOWARD

THIS beautiful tree, the only cypress which sheds its leaves in the winter, is far too little known and appreciated by those who possess it. In spring its light-coloured feathery leaves fall gracefully from the pyramidal shape of the tree; in summer the full effect of the foliage is different from anything else in the landscape; in autumn it reaches perfection, when the sprays turn a golden hue, almost reminiscent of a set piece in a firework display; and in winter its curious habit of growth attracts the eye, because of its weird, almost ghostly appearance.

It is known in the United States by the names of bald cypress, swamp cypress and Louisiana cypress, and according to Sargent "rarely 12 feet and generally 4-5 feet in diameter above the abruptly enlarged strongly buttressed usually hollow base", occasionally 150 ft. high, but in Great Britain the maximum height and girth recorded is 110 ft. by more than 12 ft.

It is to be found sparsely distributed over a wide area, generally by the banks of streams, rivers or lakes. While it can be reared apart from such positions, it is essentially a tree dependent upon water-ways. Introduced from other countries, it has both suffered and benefited by the fashion of the day. For the last half-century it has been almost forgotten, while in the beginning of the nineteenth century it was extensively planted, and a number of these trees are still flourishing to-day, but inquiries I have made seem to show that few, or perhaps scarcely any, have been planted during the last half-century. Interesting accounts of many fine examples are catalogued by Elwes. He mentions:

"The trees at Syon [have been frequently described and figured. They are planted in damp soil by the side of a sheet of water, and one of them has produced knees of 1 to 2 feet high. This tree . . . measured in 1903 90 feet by 12, but there is a much taller one on the other side of the water, which when we saw it last, in 1905, was 110 ft. high, and is the tallest we know of in Europe. Another, in the Duke's Walk, is 85 feet by 10 feet 3 inches."

In October 1944 I visited Syon and the trees were in perfect health. I was doubtful which one Elwes found to be 90 ft. by 12 ft., but I measured the largest, which exactly answered his description of site, and found it to be 21 ft. around the base. The knees rising to 2 ft. and a little more range around the tree on three sides—on the south side to 52 ft., on the west side to 46 ft., and on the north side to more than 40 ft. There is also on the other side of the walk a very handsome young tree about 80-90 ft. high and 12 ft. girth at the base.

Elwes also reports:

"At White Knights, Reading, there are several trees, but none of large size, the biggest measuring, in 1904, 67 feet by 7 ft. 10 inches. They are remarkable, however, for variety of habit. One is a tall narrow tree with upright branches, almost fastigiate. In another tree the stem is twisted, as often occurs in the chestnut, and most of the branches are twisted also in the direction against the sun. Loudon mentions these as young trees of peculiar habits."

Mr. F. G. Franklin, at White Knights, writes to me under date of October 7, 1944, as follows: "the trees you mention are still alive but I could not say they are very much larger than you say."

And further:

"At Strathfieldsaye there is a tree, mentioned by Loudon as being 46 feet in height by 3 ft. 4 in. in diameter, which I found in 1903 to be 63 ft. high by 9 ft. in girth (I have a letter from the Duke of Wellington in October 1944, in which he informs me this is now 69 ft. and the girth 11 ft. 6 in. at 5 ft.) It is growing in stiff clay soil and has no knees: the stem is deeply furrowed.

"At Coombe Abbey, Warwickshire, Mr. W. Miller reports that a tree, mentioned by Loudon as 47 ft. by 2 ft. 3 in. (diameter e.d.) in 1843, had attained, in 1887, 75 ft. by 11 ft. 6 in. at 3 ft. from the ground. [In answer to an inquiry I am told by Mr. J. G. Gray there has been no such tree there for the past 22 years.]

"At Brockett's Park, near Hatfield, there are many trees planted along a walk on the banks of the Lee, and

forming an irregular line in which the trees vary very much in size. In the sheltered part of the valley, where the soil and situation are very favourable, they average 70–80 ft. high, the best I measured being 80 ft. by 10 ft. and 86 ft. by 9 ft. But lower down the stream, where the valley is more exposed to the wind, they are stunted, and not more than half the height of those above. There are knees on some of the trees overgrown with moss and meadowsweet, but not so large as those at Syon."

I saw these trees in the autumn of 1943 and found them generally in good health, but some damaged by tempest.

In the courtyard of Dartington Hall, near Totnes, a very fine tree flourishes, and this was shown to me by Mr. Elmhurst a few years before the War. When I expressed surprise that this great tree stood alone in good health in an exposed position on the hill, he explained that its roots were in a large disused well. A similar tree is in good health to-day at the Grand Hotel, Lyndhurst, perhaps 70–80 ft. high, where it also is said to have its roots in a disused well. A fine tree about 70–80 ft. high and more than 2 ft. 6 in. in diameter grew by the side of the stream a little north of Hunton Bridge, near Watford, Herts. This may have been the tree which Elwes figures as being, when he measured it, 85 ft. by 14 ft. in 1884. At the request of the owner, about twenty years ago, I had it cut down: reference to the wood will be made later, but I heard a few years after that my brother had known the tree and had landed many good trout under its branches. The two dates of fashionable planting appear to be during 1720–62 and in 1843, and choosing between these without further information, I think this tree must have belonged to the earlier date. Inquiries over twenty years gave disappointing results, as few trees could be found of later planting. Some good specimens can be seen at the Pinetum at Bedgebury. Mr. W. Dallimore writes me under date of October 11, 1944, as follows:

"The *Taxodiums* at Kew are, I imagine, from 75 to 80 years old, although I cannot be certain on the point. The *Taxodiums* at Bedgebury are all quite young. Some were planted in 1926, others in 1927, and they were 3 to 4 years old when planted."

The varying habit of growth is characteristic of the tree in the United States, and it is the same in Great Britain. This feature is noticeable when the limbs are bare, and this ghostly appearance, previously referred to, stands out against the winter sky.

The wood is of great value, and so far much too little appreciated in Britain. Quoting from "Timbers of the World":

"It is imported in the form of planks and boards of various qualities, but only of late years in any considerable quantity. It is yellowish-red, often nearly salmon coloured. In the United States it is used so extensively that Gibson writes 'the uses are so nearly universal that a list is impossible'. Another American authority, Hough, says: 'Its great durability, immunity from the attack of parasites, and non-liability to great shrinking or warping makes it one of our most valuable woods for all woodwork exposed to weather, for tank construction, cooperage, etc.'. These qualities combined with a sharp segregation of the hard and soft grain, and with a scantiness of resin, should bring this wood into more general use. It is especially satisfactory for out-houses and green-houses, and where so used will probably outlast any other kind of softwood, even when unpainted. One such unpainted building in this country has survived for six years (1920), and the wood, though subject to continual heat and moisture, is quite sound throughout. [Inquiry to-day (1944) shows

that the woodwork in the orchid-houses referred to is in perfect condition, without showing any sign of decay.] The English grown wood appears to possess equally good qualities, and where available should be used for exposed woodwork. It differs from the American grown timber that reaches this country in colour, which is light yellow, and in appearance it recalls Lebanon cedar. . . ."

Gibson has made a statement which suggests that the remarkable durability of this wood is somewhat doubtful, but there is reason to question his opinion. Prof. C. S. Sargent, in a private letter (March 3, 1915) on this subject, says:

"The wood (*Taxodium distichum*) is considered to be exceedingly durable, and I do not know on what authority Gibson has made his statement. It is not impossible, of course, that the wood of a diseased tree, or one that had grown under abnormal conditions, might be of poor quality."

A very large quantity was purchased by the British Government during the War for aeronautical construction, but it was found to be unsuitable, and led to deplorable results.

Its great durability renders it most valuable, but the foregoing is an illustration of the undesirability of accepting a timber based upon mechanical experiments, and lends a strong argument in favour of following the advice of the unprejudiced craftsman.

This tree, not indigenous to Great Britain, should be planted wherever possible, for its great beauty and utility: it must be borne in mind, however, that in its native habitat it grows in close proximity to streams or abundant water supply.

NORTH AMERICAN ARCHÆOLOGY AND CULTURES

BULLETIN 133 of the Bureau of American Ethnology (Washington, D.C.: Gov. Printing Office. 1 dollar) includes seven Anthropological Papers (Nos. 19–26) of varying importance, dealing with the American Indians and their cultures.

Dr. P. Drucker contributes a useful survey of northern North-West Coast archæology, which, in contrast to the ethnology of the region, has been much neglected. The paper is based on his own field-work on a number of middens in the country occupied by the coast Tsimshian and Kwakiutl in historic times, supplemented by a summary of previous publications and museum collections. No marked difference is apparent between the cultures excavated and those of the recent tribes, but Dr. Drucker believes that some kind of culture sequence will yet be found, on the analogy of neighbouring areas. Finally, it is suggested that both archæological and recent cultures of the northern North-West Coast fall into three main geographical divisions, described as the northern (Tlingit-Haida-Tsimshian), the Milbanke-Queen Charlotte Sound (Kwakiutl), and the Straits of Georgia-Puget Sound aspects.

A large part of the volume is occupied by a study of the Eastern Cherokees of North Carolina by W. H. Gilbert, jun., based on two years of research which included a four-months sojourn among them. A survey of the culture of this remnant is followed by a description of the state of the tribe in former times, culled very largely from MS. data collected by J. H. Payne in the first half of the nineteenth century. Comparison between the two periods shows not only