are received, preſerved, and diſburſed. In England the treaſury is a part of the exchequer ; by ſome called the *lower exchequer.* The officers of his majeſty’s treaſury, or the lower exchequer, are the lords commiſſioners, one of whom is chancellor, two joint ſecretaries, private ſecretary to the firſt lord, two chamberlains, an auditor, four tellers, a clerk of the pells, uſhers of the receipt, a tally-cutter, &c. See each officer under his proper article, Chancellor, Teller, Tally, &c.

*Lords of the Treasury.* In lieu of one ſingle director and adminiſtrator of his majeſty’s revenues under the title of *lord high treasurer,* it is at preſent thought proper to put that office in commiſſion, *i.e.* to appoint ſeveral perſons to diſcharge it with equal authority, under the title of *lords commissioners of the treaſury.*

TREATISE, a ſet diſcourſe in writing on any ſub­

ject.

TREATY, a covenant between two or more nations ; or the ſeveral articles or conditions ſtipulated and agreed upon between ſovereign powers.

TREBLE, in muſic, the higheſt or moſt acute of the four parts in ſymphony, or that which is heard the cleareſt and ſhrilleſt in a concert.

TREBUCHET, Trebucket, *Tribuch (Terbichetum),* a tumbrel or clicking ſtool. Alſo a great engine to eaſt stones to batter walls.

TREE, a large vegetable rising with one woody item to a conſiderable height.

Trees may be divided into two classes, *timber* and *fruit- trees* ; the first including all thoſe trees which are uſed in machinery, ſhip-building, &c. or, in general, for purpoſes of utility ; and the ſecond comprehending thoſe trees valued only, or chiefly, for their fruit. It is not necessary to form a third claſs to include trees uſed for fuel, as timber is uſed for this purpoſe where it is abundant ; and where it is not abundant the branches of the timber trees, or ſuch of them as are dwarfiſh, unhealthy, or too ſmall for mechanical pur­poſes, are uſed as fuel.

The anatomy and phyſiology of trees have already been given under the generic name Plant and Sap. For an account of their natural hiſtory, ſee Natural History, ſect. iii.

Certain trees, it is well known, are natives of particular diſtricts ; but many of them have been tranſplanted from their native ſoil, and now flouriſh luxuriantly in diſtant countries, ſo that it becomes a matter of very conſiderable difficulty to ascertain their original ſoil. The following rules are given for this purpoſe by the Honourable Daines Barrington.

I. They muſt grow in large maſſes, and cover conſiderable tracts of ground, the woods not ending abruptly, by a change to other trees, except the ſituation and ſtrata become totally different. 2. They muſt grow kindly in copſes, and ſhoot from the ſtool, ſo as to continue for ever, if not very care­fully grubbed up. 3. The seed muſt ripen kindly ; nature never plants, but where a ſucceſſion in the greateſt profuſion will continue. Laſtly, trees that give names to many places are probably indigenous.

The growth of trees is a curious and intereſting ſubject ; yet few experiments have been made to determine what the additions are which a tree receives annually in different pe­riods of its age. The only obſervations which we have ſeen on this ſubject worth repeating were made by the ingenious Mr Barker, to whom the Philoſophical Tranſactions are much indebted for papers containing an accurate regiſter of the weather, which he has kept for many years. He has drawn up a table to point out the growth of three kinds of trees, oaks, aſhes, and elms ; which may be ſeen in the Philoſophical Transactions for 1788. We ſhall give his conclusions.

“ I find (ſays he) the growth of oak and aſh to be nearly the ſame. I have ſome of both sorts planted at the ſame time, and in the ſame hedges, of which the oaks are the largeſt ; but there is no certain rule as to that. The com­mon growth of an oak or an aſh is about an inch in girth in a year ; ſome thriving ones will grow an inch and a half; the unthriving ones not ſo much. Great trees grow more timber in a year than ſmall ones ; for if the annual growth be an inch, a coat of one-ſixth of an inch is laid on all round, and the timber added to the body every year is its length multiplied into the thickness of the coat and into the girth, and therefore the thicker the tree is, the more timber is added.”

We will preſent our readers with a table, ſhowing the growth of 17 kinds of trees for two years. The trees grew at Cavenham in Suffolk.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | July 1785. | | July 1786. | | July 1787. | |
| F. | In. | F. | In. | *F.* | *In.* |
| 1 Oak | 0 | 10 1/2 | 0 | 111/2 | 1 | 01/2 |
| 2 Larch | 1 | 01/2 | 1 | 3 | 1 | 4 |
| 3 Scotch fir | 1 | 31/2 | 1 | 51/2 | 1 | 73/4 |
| 4 Spruce fir | 0 | 53/4 | 0 | 61/2 | 0 | 71/4 |
| 5 Spaniſh cheſnut | 0 | 71/4 | 0 | 71/2 | 0 | 8 |
| 6 Elm | 2 | 71/2 | 2 | 9 | 2 | 11 |
| 7 Pinaſter | 2 | 31/2 | 2 | 41/2 | 2 | 71/2 |
| 8 Larch | 1 | 51/4 | 1 | 6 | 1 | 7 |
| 9 Weymouth pine | **0** | 5 | 0 | 6 | 0 | 73/4 |
| 10 Acacia | 1 | 23/4 | 1 | 53/4 | 1 | 61/2 |
| 11 Beech | 0 | 61/4 | 0 | 61/2 | 0 | 71/4 |
| 12 Plane occidental | 0 | 61/2 | 0 | 73/4 | 0 | 83/4 |
| 13 Lombardy poplar | 1 | 8 | 2 | 0 | 2 | 33/4 |
| 14 Black poplar | **1** | 21/4 | 1 | 41/2 | 1 | 53/4 |
| 15 Willow | 2 | 91/2 | 3 | 2 | 3 | 3 |
| 16 Silver fir | 0 | 73/4 | 0 | 83/4 | 0 | 91/4 |
| 17 Lime | 1 | 81/2 | 1 | 103/4 | 2 | 0 |

See Husbandry, n⁰ 165, where the growth of 11 kinds of trees in 21 years is given.

Trees ſometimes attain a very great ſize : this muſt de­pend in a great meaſure on the frehneſs of ſoil, but no less on the degree of heat. Indeed heat is ſo eſſential to the growth oſ trees, that as we go from the place within the polar circles where vegetation begins, and advance to the equator, we find the trees increaſe in ſize. Greenland, Iceland, and other places in the ſame latitude, yield no trees at all ; and the ſhrubs which they produce are dwarfiſh ; whereas, in warm climates, they often grow to an immense ſize. Mr Marſham ſaw ſpruce and ſilver-firs in the dock­yard in Venice above 40 yards long, and one of 39 yards was 18 inches diameter at the ſmall end. He was informed that they came from Switzerland.

The largeſt tree in Europe, mentioned by travellers, is the cheſnut tree on mount Etna, already deſcribed under the article Etna, n⁰ 18. It is a certain fact that trees acquire a very great ſize in volcanic countries. Beſide the multitude of line groves in the neighbourhood of Albano in Italy, there are many detached oaks 20 feet in circum­ference, and many elms of the same ſize, eſpecially in the romantic way to Eaſtello, called the *Galleria.* In travel­ling by the side of the lake of Bolſena, the road leads us through an immense number of oaks, ſpread upon beautiful hills. Where the lava has been ſufficiently softened, they are clean and ſtraight, and of a conſiderable ſize ; but where the lava has not been converted into a ſoil proper for ſtrong vegetation, they are round-headed, and of leſs bigneſs ; how­ever, taken all together, they make a magnificent appear-