

Peat.—The proportion of ash in peat varies very much, ranging from 1.25 per cent. in grass peat to 18.47 per cent. in other varieties, the mean of Irish peat being about 3.5 per cent.

The distillation of peat produces, upon an average : Water, 31 parts ; Tar, 3 ; Charcoal, 29 ; and Gas, 37.

In the distillation of peat, the following products have been obtained :

Charcoal, 41.1 per cent. ; Watery Liquor, 19.3 ; Tar, 0.6 ; and Gaseous matter, 39.

Its evaporative power, in the furnace of a steam-boiler and under pressure, is from $3\frac{1}{2}$ to 5 lbs. of fresh water per lb. of fuel.

Decrease in Dimensions of Timber by Seasoning.

Woods.	Ins.	Ins.	Woods.	Ins.	Ins.
Cedar, Canada.....	14	to 13 $\frac{1}{4}$	Pitch Pine, South....	18 $\frac{3}{8}$	to 18 $\frac{1}{4}$
Elm.....	11	to 10 $\frac{1}{2}$	Spruce.....	8 $\frac{1}{2}$	to 8 $\frac{1}{2}$
Oak, English.....	12	to 11 $\frac{1}{8}$	White Pine, American	12	to 11 $\frac{1}{8}$
Pitch Pine, North....	10x10	to 9 $\frac{1}{4}$ x9 $\frac{1}{4}$	Yellow Pine, North .	18	to 17 $\frac{1}{8}$

The weight of a beam of English oak, when wet, was reduced by seasoning from 972.25 to 630.5 pounds.

Proportion of Water in Various Woods.

Alder.....	41.6	Pine.....	39.7
Ash.....	28.7	Red Beech.....	39.7
Birch.....	30.8	Red Pine.....	45.2
Elm.....	44.5	Sycamore.....	27.0
Horse Chestnut.....	38.2	White Oak.....	36.2
Larch.....	48.6	White Pine.....	37.1
Mountain Ash.....	28.3	White Poplar.....	50.6
Oak.....	34.7	White Willow.....	26.0

Relative Value of Various Woods.

THEIR CRUSHING STRENGTH AND STIFFNESS BEING COMBINED.

Ash.....	3571	Quebec Oak.....	2927
Beech.....	3079	Spruce.....	2522
Cedar.....	700	Sycamore.....	1833
Elm.....	3468	Teak.....	6555
English Oak.....	4074	Walnut.....	2378
Mahogany.....	2571	Yellow Pine.....	2198

NOTE.—The preceding three pages, as also the following one, have been carefully compiled from the latest edition of Haswell's Engineers' and Mechanics' Hand-Book, and may be relied upon as correct in every particular.