

closely allied senses, this rolling causes pleasurable sensations from association with the glorious feasts enjoyed on battle-fields and on putrid carcasses of animals," and from this the author hints that possibly, and even probably, when grouse or venison come to our tables in a state of actual decomposition, this represents a taste acquired years ago by the conditions of a primitive life, and is not to be distinguished from a habit which brings upon our domestic dogs the severest reprobation and prompt chastisement. It seems a subject, however unsavoury, well worthy of being investigated, and doubtless many facts bearing on it in reference to uncivilised people are yet to be narrated. Once we call to mind a small knot of semi-civilised Africans captured in a slave dhow off Mosambique that we interrupted at a midnight feast; they were partly eating and partly smelling a mass of half-putrid fish, which seemed, to say the least, to make them uproarious. They had been under civilisation of a sort since their infant days, but seemed full of hereditary instincts. Mr. Nicols's work is full of his own careful observations, and forms a most pleasant addition to our knowledge of the habits and mental faculties of the Carnivora.

Entwickelung der Ortschaften im Thüringerwald. Von Dr. F. Regel. *Petermann's Mittheilungen*, Ergänzungsheft No. 76. (Gotha: Perthes, 1885.)

THIS is a very complete account of the origin and development of the towns and villages in the region known as "the Thuringian Forest," with a special chapter on the geology, topography, and climatology of the district, and a valuable map. The "Thuringian Forest" extends from Eisenach, on the north-west, to Schleusingen, on the south-east, and covers an area of about 1200 kilometres, with a population of 143,986. The mountains of this region are mainly composed of granite, gneiss, palæozoic strata, and porphyry. About a third of the district is still covered with wood. Formerly there was a great variety of trees, comprising the pine, oak, beech, birch, elder, maple, aspen, and willow; but now the forests consist almost entirely of pines, with a few beech woods between Friederichroda and the mediæval walled town of Schmalkalden. The average temperature is somewhat lower than that of the whole of Germany. In the higher villages neither wheat nor the finer kinds of fruit will thrive, and there is frost during from ten to eleven months in the year. The climate, however, is very healthy, and the beauty of the scenery and purity of the mountain streams attract many visitors during the summer months. The highest, and one of the most popular, of these summer resorts is Oberhof, a village at the top of the pass over the Schützenberg, of which the earliest record is in the year 1267. Only oats and potatoes can be grown here (2541 feet above the sea-level), and even the house-sparrow cannot be acclimatised. Eisenach, the capital of the district, is chiefly known on account of the confinement of Luther in the neighbouring castle of Wartburg, which was erected to guard the Thuringian frontier on the west in the years 1067 to 1070. This fortress was close to the junction of two important roads from Erfurt and Mühlhausen, and, as usual in such cases, a town rapidly grew up at the foot of the hill on which the fortress was built. Eisenach now has 13,000 inhabitants, with three churches and several factories. Other towns and villages not so favourably situated owed their development to the neighbourhood of mines, healing waters, &c. Ruhla, a flourishing town of 4500 inhabitants, was celebrated in the first half of the sixteenth century for its steel manufactures, but foreign competition and heavy taxes nearly ruined the place, and in 1748 the population had considerably diminished. The enterprising spirit of the inhabitants, however, was soon drawn into a new channel by the discovery of mineral waters and the introduction of the manufacture of carved amber and pipe-bowls of imitation meerschaum, an industry which has attained con-

siderable proportions. A somewhat similar history is that of the manufacturing town of Ilmenau, which is first mentioned in the chronicles of the fourteenth century. It flourished as an important centre of the copper-mining district of the Ilm up to the year 1739, when the mines were flooded by an inundation. In 1752 the town was burnt to the ground, and, though partly rebuilt, it shared in the general distress caused by the seven years' war, and did not revive until the beginning of the present century, when the manufacture of glass, porcelain, and toys was introduced. In 1838 the establishment of a hydropathic institution afforded a further stimulus to the trade of Ilmenau, and the population has increased from 1972 in 1809 to 4593 in 1880. On these and other places of less note in the Thuringian Forest Dr. Regel's work affords abundant information, though it is somewhat overcharged with notes and references which serve rather to display the extent of the author's reading than to illustrate his text.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

River Thames—Abnormal High Tides

REVERTING to my letter of December 19, 1883, inserted in NATURE for January 10, 1884, I append an abstract of salient exceptional tides of last year similar to that accompanying my former letter, from which it will be seen that the maximum elevation of tide is eleven inches less than in 1883, and the excess over the computed rise is also less by seventeen inches than in 1883—in each year resultant on north-north-west gales. Both year's results may be said to be analogous, and each showing how sensitive is the high-water level and how easily it is affected and raised by a change from south and west to northerly winds.

High Waters referred to "Trinity"

1884	Computed	Observed	Difference	Wind
Jan. 12 p.m.	0 3 above	1 6 above	1 3	W.N.W. ¹
" 24 a.m.	0 3 below	0 6 below	2 6	W.N.W. ¹
" 31 p.m.	0 10 above	2 0 above	1 2	W.S.W.
Feb. 1	0 10 "	2 0 "	1 2	W.S.W.
" 15 "	0 8 "	2 0 "	1 4	W.N.W. ²
" 24 "	0 10 below	0 3 "	1 4	W.N.W. ²
Mar. 11 "	0 2 above	1 9 "	1 7	N. ²
" 12 "	0 6 "	2 5 "	1 11	W.S.W. ³
" 26 "	0 2 "	1 3 "	1 1	E.N.E.
April 22 "	2 1 below	0 6 "	1 7	E.N.E. ⁴
June 7 "	1 0 "	0 3 "	1 3	N.N.E.
" 25 "	1 1 above	2 3 "	1 2	N.N.W.
July 8 "	0 10 below	0 3 "	1 1	S.S.E.
" 9 "	0 6 "	0 6 "	1 0	S.S.E.
" 25 "	1 0 above	2 0 "	1 0	N.N.W. ⁵
Aug. 16 a.m.	2 3 below	1 0 below	1 3	S.
" 25 p.m.	0 3 above	1 4 above	1 1	N.
Sept. 2 "	2 7 below	1 6 below	1 1	W.S.W.
" 5 "	"Trinity"	1 6 above	1 6	W.N.W. ⁶
" 22 "	0 7 above	1 9 "	1 2	W.
Nov. 6 "	1 4 "	2 9 "	1 5	E.N.E. ⁷
Dec. 20 "	0 5 below	1 9 "	2 2	N.N.W. ⁸
" 22 "	0 9 "	0 6 "	1 3	N.

J. B. REDMAN

6, Queen Anne's Gate, Westminster, S.W., January 5

Our Future Clocks and Watches

IT is to be hoped that the absurd dial of which you give a drawing will not come into general use. Why not adopt the convenient shape which for more than a century has been in use

¹ Wind Influence. ² Northerly Influence.
³ Still felt. ⁴ Wind blowing right up the estuary.
⁵ Scwage up to Westminster with this tide. ⁶ N.N.W. day before.
⁷ Maximum tide of year; W.N.W. gale day before.
⁸ Gale and remarkable fall of barometer = 29' 10'.