on unscrupulous advocacy—for it invites those who are more eager for notoriety than careful for truth—which practically excludes the tender conscience from giving scientific testimony in many cases, and which subjects medical science to extreme degradation, can the benefit of any change in the present law be reaped. Scandal must occur as heretofore, if no steps are taken to secure impartial scientific evidence.” (p. 46.)

“The remedy,” they say, “is an obvious one; it is to make the medical witnesses in matters of science witnesses not for the prosecution or the defence, but witnesses called by the court itself. Then would their evidence be freed from all suspicion of advocacy, and gain the authority which is now wanting. In France, when a criminal is suspected to be insane, the court appoints a commission of medical men, or selects one man experienced in mental diseases, to examine into the case and to report upon it; the whole life of the prisoner and the present symptoms are investigated, and the questions put and the answers to them are recorded for the information of the court. Such an alteration,” they well observe, “would not be any novelty in England; for in difficult questions of collisions on the sea and of salvage, where special knowledge is required, the Masters of the Trinity Company are called to assist the Admiralty Court. And surely a shipwreck or a collision at sea is a fact much more within the knowledge of ordinary men than the diagnosis of cerebral disease where lunacy exists.”

We must not end our brief notice of this pamphlet without recommending it strongly for careful perusal to men of our profession and to the gentlemen of the bar: both may profit by it.

ART. IX.—*Notes on the Climate of the Swiss Alps, and on some of their Health Resorts and Spas.* By HERMANN WEBER, M.D., F.R.C.P., &c.—*Dublin, 1864.* pp. 30.

WE might find fault with the title of this pamphlet, inasmuch as it is rather a sketch of the climate of the Alps and its influences than notes, if by the latter word is implied, as we would use it, original observations by the author himself. However, if this be a fault, it is a venial one, and no other can we find. The few pages which comprise it are full of valuable information on a very interesting subject drawn from the best authorities, and with this advantage, that Dr. Weber, as it appears, is well acquainted with the Alpine regions of which he treats, and is in other respects highly qualified to criticize and appreciate justly the observations of others.

His sketch is very comprehensive, including the meteorology of the Alps and their physiological, pathological, and therapeutical influences. The following is the author's summary of the principal points discussed, or rather inferences drawn. We trust that the importance of the subject and its increasing interest may warrant the length of the quotation:

- “1. The *temperature* is lower; it decreases in proportion to the increasing elevation at the average rate of 1° Centigrade (1.8° F.) for every 544 feet. The annual monthly variations are less great on elevated places than in plains.
- “2. The *atmospheric pressure* decreases, or the air becomes thinner with the increasing height.

"3. The *absolute amount of humidity* in the air becomes probably less with the increasing elevation, but the *relative amount*, or the degree of saturation, is, in general, greater in the lower mountainous regions—viz., from about 1500 to about 4000 or 5000 feet high—than in the plains; whilst in the highest regions—viz., above 6000 and 7000 feet—the absolute and relative degrees of humidity are diminished.

"4. The *rapidity of evaporation* is increased in the higher mountainous regions.

"5. The *motion in the atmosphere* is considerably greater in the mountains than in the plains. There are, however, great variations depending on local circumstances, in addition to the peculiarities more or less common to the whole district of the Swiss Alps ('mountain' and 'valley currents,' 'Föhn').

"6. There are more thunderstorms in the lower mountainous regions of Switzerland than in the higher regions or in the plains. There is a greater amount of positive electricity in the air on the tops of mountains than in lower regions.

"7. The air of the higher regions of Switzerland is free from marsh malaria; the amount of ozone is probably greater in mountains than in valleys and plains.

"8. The sky is, in the sub-Alpine regions, more frequently dull by mist and clouds than either in the plains or higher Alpine regions.

"9. The degree of insolation or exposure to the rays of the sun is greater on elevated situations.

Concerning the *physiological influence* of the mountainous climates on the visitor, we may assume:—

"10. That the respiratory movements become increased in frequency and depth with increasing elevation, there being no exact experience with regard to the amount of oxygen inhaled and carbonic acid and water exhaled.

"11. The contractions of the heart become more frequent in proportion to the elevation.

"12. The appetite becomes increased; the thirst is likewise, in general, augmented.

"13. The sanguification is improved.

"14. The nervous system becomes invigorated; the sleep, in general, more healthy.

"15. The activity and energy of the muscular system become increased.

"16. The secretion of the skin is most likely augmented.

"17. The urine appears to be not materially altered in quantity, the amount of solids being probably slightly increased.

"18. The metamorphosis of tissues is, we may infer, accelerated.

"With regard to the *pathological character* of the Swiss Alpine climate, it has been shown that—

"19. The prevalent diseases are the inflammatory affections of the respiratory organs, and their results, chronic catarrh, emphysema, and asthma; goitre and cretinism, and scrofulous complaints; rheumatic affections and diseases of the heart; which affections are in some degree due to the unfavourable hygienic conditions in which most of the inhabitants of the Swiss mountains live, while others are dependent upon the meteorological peculiarities of the climate, and especially the unfavourable influences prevalent during the cold season.

"20. It has further been shown that, in the true Alpine regions, tubercular consumption is extremely rare, as also cretinism; and that, on the whole, with the increasing elevation, the following affections become much less frequent—ague, acute diseases of the liver, hæmorrhoids, diarrhœa, and dysentery, yellow fever, and cholera.

"21. The *beneficial influence* of the mountain climate is especially felt in various forms of dyspepsia and dyspeptic hypochondriasis, in the atonic diarrhœa,

anæmia, and want of tone observed in people returning from hot climates; in the cachexia, with or without splenic tumour, caused by marsh malaria; in the various forms of anæmia, chlorosis, and hydræmia, not dependent upon serious organic disease: in scrofulous complaints; in the tendency to tuberculosis, and in its first stage, especially in the higher regions, while in the slightly advanced forms some of the lower and more sheltered situations only ought to be resorted to; in chronic bronchial catarrh, with abundant secretion. Sleeplessness, hysterical and neuralgic affections, as also hypochondriasis, are often removed by a stay on the Alps."

These conclusions we are disposed to consider as approximations rather than as established facts—at least for the most part—to be confirmed or modified by further research, especially those of a physiological and pathological kind. This, however, is certain, that in every part of the world a mountainous region, according to its varied physical circumstances, exercises a peculiar influence on the health and character of man—an influence which varies in degree, and somewhat in kind, according to the altitude. Even in our own country we have proof of this. Who that has passed a summer and autumn in the Highlands of Scotland has not been fully sensible of its invigorating climate? And who—but these are few—who have resided for any time in our Lake District, or in Wales, at elevations reaching to near one thousand feet above the sea-level, that have not benefited in point of health by such a residence? We have little doubt that the time will come when such abodes will be more sought after by the wealthy, whose means may enable them to meet the increased expenses of such a residence.

Incidentally, Dr. Weber makes some remarks which we could wish to transfer to our pages. His account of the different condition of the men and women of the canton of Appenzell, is one of these. He gives it when adverting to the influence which the manner of living exercises on the development of scrofula and consumption. In that canton, he remarks:

"Most of the men are strong and healthy-looking; scrofula and consumption are rare amongst them. Most of the women, on the contrary, are weakly, pale, and ill-developed; amongst them consumption and scrofula are of very frequent occurrence. The occupation of the men consists in tending their flocks, in hay-making, and other outdoor work; their food is milk, cheese, bread, and sometimes meat. The employment of the poor women consists in making the well-known embroidery; their food consists principally of potatoes, cheese, and bread. Most depressing is a visit to the workrooms of these poor creatures; there they sit crowded together, summer and winter, in small, ill-ventilated rooms, in a stooping position, some of them even before reaching the twelfth year of age."

Would that there were no parallel to this in our own land! We have just been reading the admirable biography of a hero-man—the late Sir William Napier. Speaking of what he witnessed in a visit to a great cotton-manufactory in Manchester, he says:

"The noise of the machinery was deafening, the heat intolerable, the smell disgusting, and the haggard faces, distressed forms, and miserable looks of the women and children employed were heart-sickening. None of the children,

and very few of the women, dared to look at us as we passed through the room. Misery of mind and body, pain, and fear, and hopelessness, were in every countenance. It is a hellish system, and cannot lead to ultimate good. And yet one gentleman who was with us, having a wife and a half-dozen children of his own about him, on my remarking on the diseased looks of the children, told me, with the quiet conviction of its truth, that tables had been made out which proved these squalid creatures to be more healthy than any other class of working people! 'No doubt!' as I said to him at the time 'no doubt! the tables prove it—they were made to do so.'"

This was 1838. The language is strong, after the manner of the man, but we fear that at the above date it was without exaggeration. The cotton famine, a visitation hardly got over, is, we cannot but think, a proof in part of the evil in principle of the gigantic manufactory system; and the circumstance of which we are assured, that since so many of the manufactories have been closed, though the workpeople have fared but poorly, dependent on charity, there has been a decrease of mortality, seems strongly corroborative, and a proof that such in-door, monotonous work, is anything but wholesome or for the advantage of either body or mind.

ART. X.—*Anatomy Descriptive and Surgical*. By H. GRAY, F.R.S., F.R.C.P., and Lecturer on Anatomy at St. George's Hospital Medical School. The drawings by H. V. CARTER, M.D., late Demonstrator of Anatomy at St. George's Hospital, &c. Third edition. By T. HOLMES, M.A. Cantab., Assistant-Surgeon and Lecturer on Anatomy at St. George's Hospital.—*London*, 1864. pp. 788.

WHEN the first edition of this work appeared in 1858 we felt bound by its intrinsic excellence to recommend it most highly to the attention of the student. Mr. Gray was most happy in obtaining the co-operation of Mr. Carter (now Dr. Carter and Professor at Bombay) in carrying out the plan of his work; indeed, without the excellent illustrations from the pencil of that gentleman the prospects of its complete success would in our judgment have been at least doubtful. Moreover, Mr. Gray was materially assisted in the dissections carried out for the original drawings, from which the engravings were executed, by Mr. Carter, then Demonstrator of Anatomy at St. George's Hospital. Since the early and lamented death of Mr. Gray, to whose anatomical knowledge and untiring perseverance the school of St. George's willingly owns itself so much indebted, the preparation of a future edition was wisely entrusted to Mr. Holmes, whose duties, as he informs us in his preface, have been "restricted to an attempt to give greater precision to the language, and to supply the necessary references to anatomical works of merit which had been published since the date of the last edition." May this practical and valuable work, which does so much credit to the St. George's Hospital school, run through many more editions under the same auspicious guidance!