METEOROLOGY OF 1854.

By J. A. HINGESTON, Esq.

NO. VII.*

IN saying that the meteorology of the past year was extraordinary, I am only repeating what has already been testified to by the returns of the Registrar-General, the reports of Mr. Glaisher, and the observations of Mr. Lowe of Highfield. I shall bring into one view the remarks of these gentlemen, coupled with some observations of my own.

About the 11th of December, 1853, a severe frost with a fall of snow set in, and continued till the 6th of January, 1854. It began with a fog so dense, that in Manchester and London some loss of life was occasioned by it. The 2nd and 3rd of January were said to be the coldest days on record for the last eighty-five years; it was 6° below zero, Fahrenheit. But the snow was not so deep this year as in 1814, when the degree of cold was less. The most remarkable phenomenon was, that the frost was ushered in and dismissed by a bright aurora borealis, which was observed at Pembroke, Dec. 7th, and at Tonbridge Wells, Jan. 3rd. The temperature of the whole year was about 1° below the average, although certain parts of the year were unseasonably warm. Thus, immediately after the cessation of the severe frost just mentioned, the temperature rose 7° or 8° above the average, and continued in excess for the rest of that month. It was more or less in excess up to the middle of April. In the month of May, icebergs were met with by vessels in their passage between Liverpool and Boston. The summer was cool; June and July were mostly below the average. For a few days in the middle of June, the temperature increased greatly, and the 24th of that month was said to be the hottest day that had ever occurred since 1818, and the 25th the hottest since 1814; the temperature being 84°, 89°, Fahrenheit, whereas in the two former years it was not higher than 79°. From August to the end of October, the temperature was almost always in excess. But November was cold, and so was the beginning of December, which, however became warmer than usual, and remained so till the end of the year. Nevertheless the temperature of the entire year was 1° below the average.

Three earthquakes were reported during this year. The first was felt as a smart shock at Kingston, in Jamaica, on the 1st of April. The second was a more terrible one at San Salvador, on the night of the 16th of the same month. The city was shaken and damaged, causing some loss of life and great alarm. The preceding day had been hot and tranquil. It was on the 15th, the day preceding this earthquake, that the ship *Powhatan* was wrecked and lost with all her crew and passengers in a violent tempest that broke upon the coast of North America, near Barnegat. The storm and the earthquake were separated from each other by the opposite hemispheres, but their parallels of longitude almost correspond. The third earthquake took place at Nice, on the 29th of December, and was felt as far as Marseilles, Cannes, Brignolles, and along the shores of the Mediterranean. It was preceded by a calm, copper-coloured clouds, and a peculiarly dark appearance of the sea.

A hazy atmosphere was frequent, occasionally interrupted with a singularly translucent state of sky, most remarkable for the nearness it produced in the sight of distant objects, and their distortion by the mirage, which was very discernible in looking at ships at sea, or the Isle of Wight, as

* My meteorological observations have been objected to on account of my barometer not being a standard one. To meet these objections, I purchased one the same as those used at the Royal Observatory, and by Mr. Glaisher. I find my old cheap one at 10s. 6d. tallies exactly with my new and more expensive one, at several guineas cost. In future, I will quote its elevation and depression in *numerals*. The cistern is 200 feet above the sea level, according to the last Ordnance Survey, which was taken both in the rear and front of my house. My private records have hitherto very nearly corresponded with the quotations of the astronomer royal's at the Greenwich Observatory; but his elevation is only forty feet lower than mine, which is about the twelfth of an inch, and is therefore scarcely appreciable. I thought it proper to make this statement, as it seemed to me to be nothing more than what is due to the credit of the *JOURNAL* and my own veracity. In future, I shall also record the amount of rain falling, which has not hitherto been quoted in this town; at least, as far as I know of.—J. A. H.

seen from hence. Many nights in the autumn were beautifully clear and starlight; there were forty-two cloudless nights in March, April, and September; and the fine days must have amounted to more than one-third of the year. But the chief characteristic was fog, particularly in the forenoons of July, August, and September, which were the gloomy months of sickness and death.

Among other phenomena was that of a comet on the border of Pisces, near the star α Andromedæ, March 29th. Its course was north-west by west.

Most of the year was a solemn calm. The sun rose and set in a pale amber-coloured light, or in the midst of gilded strati. The graceful white cirri of summer were seldom visible; the grey strati of the morning dispersed reluctantly as the sun ascended, and reformed themselves as soon as he declined. A transparent net-work of clouds collected at noon. The prevailing winds were from the north, north-west, east, and south-east; but the force of the wind was small. There was no hail;* thunder storms and the sheet lightning of summer were rare; rain fell sparingly; the vegetation suffered in proportion. The deficiency in the amount of rain falling is said to be about twelve inches, the average being somewhere about twenty-four. The 14th September was a very wet night, which was the night of the allied forces landing in the Crimea; and the 14th of November was stormy, which was the fatal day of the tremendous gale in which so many of our transports were lost in the Black Sea. These two circumstances show the universality of the operations of nature. Gales of wind from the north-west and north-east occurred in the course of the autumn, of which, however, the equinox was calm.

With very few exceptions the mortality was in excess throughout the year. Upwards of 26,000 persons perished from the cholera in the space of less than three months, within the bills of mortality alone; while other diseases of a fatal character contributed to swell the number of deaths above the ordinary ratio. The year was a sickly one all over the world. Animal and vegetable life suffered severely; and the horrors of war have been added to those of pestilence and deteriorated food. An abundant harvest scarcely compensated for the deficiencies of the previous season and the unusual exigencies of the times. Many trees, shrubs, and evergreens were killed by the frost in January, while others were unable to survive the dry weather that followed.

The history of the barometer is soon told. It was obstinately stationary at 30 inches. Mr. Lowe says, "it was very high in February, March, and April, reaching in March 30.928 inches, when reduced to the sea level. In January it descended to 29.982 inches at the sea level, giving a range of pressure in two months of nearly two inches."

Brighton, February 1855.

NOTES AND OBSERVATIONS ON SOME OF THE MORE REMEDIABLE CASES OF DEAFNESS.

By C. HOLTHOUSE, F.R.C.S.E., Assistant-Surgeon to the Westminster Hospital, and Lecturer on Surgical Anatomy in its Medical School.

NO. IV.

THE case which follows resembles in many respects the one last reported. Though long, it is given *in extenso*, because it illustrates many points of practical importance, to which allusion will be made in the comments which follow the case.

CASE VIII. *Fætid Purulent Discharge from both Ears, of ten years' duration; Deafness; Occasional Tinnitus, but no Earache; Frequent attacks of Catarrh, with increase of Deafness; Entire loss of both Tympanic Membranes, and all the Ossicula in the Left Ear, with probable Necrosis of*

* Hail fell at Brighton on the 15th and 20th November, but it was slight. There were no thunderstorms throughout the year, which is unusual in this locality. Ozone is said to have been abundant in December.

part of the Bony Meatus of the latter; Treatment entirely Local, by Blisters, Nitrate of Silver, Sulphate of Zinc, and Acetate of Lead Lotions and Zinc Ointment; Hearing much improved. George Tatton, aged 19, came under my care on February 14th. He had been more or less deaf, and troubled with tinnitus and a foetid creamy discharge from both ears, since he was nine years old. He occasionally heard well for a week or two, and then became deaf again; the hearing often came suddenly, with a report or crack, and frequently when blowing the nose. Both meatus were besmeared with a foetid pus. The hearing distance of the right ear was on contact; that of the left, eight inches: notwithstanding this, he always listened with the (at present) worst ear. He had made use of various remedies with temporary benefit; but an open blister, which he had had on since the 8th, had not diminished the discharge, or improved the hearing. The tinnitus was only occasional; but the discharge was constant, whether he heard well or badly. His general health was good. The zinc lotion, mixed with an equal quantity of warm water, was ordered to be injected into the ears, night and morning; and a tent, besmeared with zinc ointment, to be introduced into each meatus every night.

Feb. 18th. The discharge had considerably diminished, and the meatus were clean, and free from discharge. The existence of the membrana tympani was doubtful. The hearing distance of the right ear was two inches; of the left, four inches.

Feb. 25th. He was greatly improved. There was no perceptible discharge, and no tinnitus, except after syringing. The hearing distance of the right ear was twelve inches; of the left, ten inches.

Feb. 28th. The hearing had diminished to eight inches with the right ear, and five inches with the left; in other respects he was the same. The sun shining brightly, a good examination was made. The first thing which struck me, was the depth at which the membrana tympani appeared to be situated; but, on passing down the probe, it was found that none existed in either ear, which presented very nearly the same appearance. The cavity of each tympanum was covered with fine tender looking granulations, slightly moistened with a whitish secretion. Some sensibility was evinced on touching certain parts, particularly one more prominent than the rest, in the centre of the tympanum, which somewhat resembled the malleus. The lining of the meatus was red and tender, especially in the neighbourhood of the tympanum, and covered here and there with moist flakes resembling fine cuticle.

March 3rd. There was no material alteration in the appearance of the left tympanum, which contained a drop of healthy looking pus, which perhaps would account for the diminution of hearing in this ear. The lining membrane of the right tympanum was paler and less granular than before. The hearing distance of the right ear was nine inches; of the left, three inches. I dropped liquor plumbi into each ear.

March 11th. Not the slightest alteration had taken place, either in the hearing distance, or in the condition of the tympana. The projection from the centre of the right tympanic cavity had very much the shape and appearance of the malleus; in the left there was no such appearance. The blisters, which had been kept open till now, were allowed to heal.

March 14th. He did not hear with the right ear, even on immediate contact: after syringing, the hearing distance improved to one inch: that of the left ear was four feet. The hearing, he said, came the evening before last, while sitting quietly by the fire, with a report. The blisters were healing. The mixtures were continued; and he was ordered to take five grains of compound colocynth pill at night.

March 18th. The hearing distance had again diminished; in the right ear it was five inches; in the left, four inches. Some discharge made its appearance this morning from the left meatus. The blisters had quite healed.

March 21st. The hearing distance of the right ear was eighteen inches; of the left, three inches.

March 25th. The hearing distance of each ear was six inches.

March 28th. The hearing distance of the right ear was two inches; of the left, twelve inches. Two days previously he had a crack in the left ear, with immediate increase in the hearing distance. It, however, again diminished yesterday afternoon. This ear looked much better than the other; the meatus and tympanum appeared free from discharge, and the latter had a healthy granular appearance. The right ear presented the converse of this; a considerable quantity of caseous foetid matter besmearing the lower end of the meatus and the tympanum, and the hearing being correspondingly impaired.

April 1st. The hearing distance of the right ear was thirty-three inches; of the left, twelve inches. The appearance of both ears, as far as the light would admit of their being seen, was not altered since the last note; consequently there was no correspondence between the present condition of these organs and the hearing.

April 4th. The hearing distance of the right ear was fourteen inches; of the left, thirty-six inches. Both ears were cleaner than before; and the secretion lining the meatus was very small in quantity, drier, and less foetid than before. The wind was north-east, and the day very cold.

April 8th. The hearing distance of the right ear was thirty-six inches; of the left, fifty-four inches. He said he "heard almost quite well", and had no tinnitus. He had not syringed out the ears this morning; and both meatus were pretty thickly coated with a white inodorous matter, which proved to be the ointment. The wind and weather were as in the last note.

April 11th. He was as before; the hearing had slightly increased. He stated that he had had frequent crackings in the left ear of late, and always heard better afterwards.

April 15th. There was no material alteration. The hearing distance of each ear was thirty-six inches. The wind was north-west; the temperature was milder, and day dull.

April 22nd. The hearing distance continued the same. Each tympanic cavity was dry, and healthy looking. He had continued to inject the zinc lotion into each ear daily, and to apply the ointment; nitrate of silver lotion had also been dropped into the left ear at each visit. As both ears were so much improved, nothing was applied to them this day; and the patient was directed to discontinue the further use of the ointment, but to continue the lotion, diluted with three parts of water, once a day, till next visit.

April 29th. By mistake, he had continued to use the lotion to the right ear undiluted, but to the left as ordered. The latter was free from discharge, and "felt more open than the other", which contained a drop of pus on the floor of the tympanum. The hearing distance was not tested. He was ordered to discontinue all remedies to the left ear, and to inject the lotion diluted with three parts of water into the right.

May 13th. He had used the diluted lotion regularly to the right ear, and none to the left. The hearing continued less perfect in the former than in the latter; and at the bottom of the tympanum there was a drop of deep yellow highly foetid pus. The left continued quite well, and perfectly dry. Neither meatus secreted wax; but a white inodorous secretion thinly covered them. The hearing distance of the right ear was twenty-four inches; of the left, fifty-four inches. The right ear was syringed with warm water; and a solution of nitrate of silver (twenty grains to the ounce) was applied to the tympanum. The patient was directed to syringe that ear night and morning with warm water.

May 20th. The hearing distance of the right ear was twenty-two inches; of the left, twenty-six inches. He had suffered during the last two days from a stuffing sensation of both ears, attended with tinnitus; which he thought might have arisen from having had his hair cut, or from the cold north-easterly winds, which prevailed a few days previously. The secretion from the right ear was still very

fœtid; and a slightly fœtid secretion was beginning to show itself in the left ear, and lined the meatus rather thickly. The nitrate of silver lotion was applied to each; and the syringing with warm water was directed to be continued.

May 27th. The hearing distance of the right ear was eighteen inches; of the left, three inches. He said he lost his hearing three days previously, and had since suffered considerably from tinnitus, and a sensation of stopping-up of the ears. A small quantity of fœtid pus, more abundant in the left than the right ear, occupied the bottom of each meatus. The weather had been very cold the last week, with a prevalence of north-easterly winds: this day it was fine and mild.

May 30th. The hearing distance of the right ear was twelve inches; of the left, only on contact. The tinnitus and a sensation of stopping-up of the ears continued. The secretion was trifling, and slightly fœtid. The day was cold and dull; the wind north-east.

June 3rd. The hearing distance of the right ear was twenty-four inches; of the left, four inches. There was less tinnitus; and the ears felt more open. The wind was south-east; the thermometer 61°; the day was dull, hazy, and damp.

June 6th. The hearing distance of the right ear was fifty-four inches; of the left, three and a half inches. Some discharge from both ears still continued, and of the same character. The wind was south-west: the day was warm and fine.

June 10th. The hearing distance of the right ear was twenty-four inches; of the left, eleven inches. He had not syringed the ears since yesterday morning; and they both contained a quantity of the usual fœtid secretion, that in the right ear being the more fœtid. The wind was north-west; the day was fine.

June 17th. The hearing distance of the right ear was sixty-six inches; of the left, twelve inches. He had no tinnitus, and had lost all sensation of "stuffing". There had been no discharge from either ear for the last five days; but the right meatus was covered with a dirty looking fœtid secretion. The left meatus and tympanum were free from all discharge and moisture. During the last fortnight, he had been using diluted zinc lotion to each ear daily. A solution of nitrate of silver (ten grains to the ounce) was applied to the right meatus; and the zinc ointment was directed to be applied to the same part every night. The wind was north-east; the day was very fine.

June 24th. The hearing distance of the right ear was sixty-four inches; of the left, eight inches. He remarked that his hearing had continued steadily good since his last visit; and that he had had no sensation of stuffing, or noise in his ears. Both meatus and tympana were clean and dry; but no healthy wax was secreted. The bottom of the right tympanum was of an ash colour. No application was made to either ear; the syringing was ordered to be discontinued; and the zinc ointment only to be applied to the right meatus every night. The wind was north-west; the day was cloudy and cold.

July 1st. The hearing distance of the right ear was forty-eight inches; of the left, fifteen inches. By mistake he had omitted using the ointment to the right ear; consequently, nothing had been done to either since the last visit. The secretions from both had again become fœtid. Yellow fœtid pus quite covered the bottom of the right tympanum; and the walls of the meatus were lined with the fœtid scab-like secretion before mentioned. A small quantity of wax-like secretion lined the left meatus; but this, too, was fœtid. From a point near the extremity of this meatus at its upper surface, there was seen a drop of thick yellow pus oozing, which, on being washed away with the syringe, brought into view some red and ragged fleshy looking granulations, projecting into the meatus; and among them was seen a small prominence, which was very sensible to the probe, and was, in fact, a portion of dead bone. The tympanum itself was dry. The zinc lotion, diluted with three parts of warm water, was directed to be injected into the ears night

and morning. The wind was north-east; thermometer 58°; the day was dull.

July 8th. The hearing distance of the right ear was fifty-two inches; of the left, doubtful. He appeared excited at this visit, and answered quickly at first, saying "Yes" when the watch was held at sixty-six inches from the right ear; but on frequent trials, fifty-two inches appeared the correct distance. In like manner, in testing the hearing of the left ear, he first declared that he heard it at a distance of eighteen inches; and afterwards that he did not hear it when held only at four inches. He said that the evening after leaving here this day week, he became very deaf, and continued so for several days; this he attributed to a cold from getting wet. He had used the ointment to the right ear only, the lotion to both. The right meatus was free from the scab-like secretion; and a drop of pus occupied the bottom of the left. The wind was west; thermometer 69°; the day was fine.

July 22nd. He had not been here since the last date. Some tinnitus had been present lately in the right ear, but he had heard better with the left. The meatus and tympanum of the right ear were tolerably dry; but a drop of pus was seen at the bottom of the left. Having exhausted his supply of zinc lotion, he had lately used only warm water and the ointment. This was ordered to be continued. The wind was west; thermometer 60°; showery weather.

July 25th. The hearing distance of the right ear was forty-eight inches; of the left, fifty inches. He recovered his hearing after his last visit to me; and he had now no tinnitus, and thought he heard better than he ever did. A drop of pus was still seen at the bottom of the left meatus.

Aug. 1st. The hearing distance was good, and the ears felt comfortable.

Aug. 5th. Two days ago he again lost his hearing, which he attributed to having a bad cold. He said that the syringing sometimes produced deafness for a longer or shorter period; sometimes it had a contrary effect. The hearing distance of the right ear was eleven inches; of the left, thirteen inches.

Aug. 16th. His catarrh had got better, and his ears felt quite well. The hearing distance of the right ear was twenty inches; of the left twenty-four inches. The wind was north-west; weather showery.

Aug. 26th. He continued well. Both ears were quite free from discharge, although no application had been made to them since the last note. A very small quantity of cotton was recommended to be worn constantly in each ear.

Sept. 9th. He still continued well, and had done nothing to the ears but apply the ointment; he had not even worn the cotton, from not understanding what was told him. There was no discharge, and both ears felt quite open; neither had he any tinnitus. He declared that nobody perceived that he was deaf. The hearing distance with both ears was twenty-four inches. He was directed to use the ointment every other night only.

Sept. 30th. His hearing had continued good since the last date, and nothing had been done to the ears except anointing them with the zinc ointment, and syringing them once a week with warm water. On examination, pus was found at the bottom of each, and as fœtid as ever. A lotion containing half a drachm of acetate of lead to sixteen ounces of water, was directed to be injected warm into each ear daily.

I did not see this patient again till the 5th of December, when he called on me and complained of feeling unwell, and of having lately expectorated blood. His tongue was white and foul, and he was otherwise dyspeptic. The hearing distance had diminished to five inches in each ear, and he still had a slight discharge from both.

REMARKS. The case just related bears a strong resemblance to that of Tranch, reported in the number of this JOURNAL for February 2. Both may be looked upon as typical of a class of cases of very frequent occurrence, and to a certain extent amenable to treatment.

There are some particular points to which I would direct the attention of my readers.

1. The general coincidence of a diminished discharge with increase of hearing. This will appear by the notes taken March the 3rd and 28th, April the 29th, May the 13th and 27th, affording evidence of the influence of mechanical impediments in the production of deafness. Too much stress, however, must not be laid on this explanation; as in the notes of the 1st of April, and the 1st and 25th of July, the visible condition of the ears and hearing did not correspond; that is to say, the ear which apparently was the worst, and contained the largest quantity of discharge, possessed the greatest amount of hearing. Still, as a general rule, the reverse is the case; so that on removing the discharge the hearing is improved. Thus, in the note made March 14th, it will be seen that the hearing distance before the syringing was nothing, but on removing the matter it was immediately increased to one inch. There is, therefore, a mechanical relation between the discharge and the hearing, though probably both the one and the other are dependent on the structural condition of the organ of hearing itself; this last condition regulating both the discharge and the hearing. These remarks apply not to this case only, but to all those in which a diminution of discharge is attended with improvement of hearing. It is not to be supposed from the cases hitherto reported, that such an improvement is the necessary consequence of stopping a discharge from the ear. I shall adduce examples in a future number, in which the opposite result ensued; and I would refer to the notes made of the condition of this patient on the 24th June, as evidence of the obscurity which surrounds the diagnosis of many of these cases; there being on this occasion an entire absence of discharge in both ears, which visibly resembled each other, yet the hearing distance of the one was sixty-four inches, of the other only eight. I would not, however, attach much importance to this patient's statement, who was prone, like most deaf persons, to deceive himself on the subject of his hearing.

2. The next point to which I would direct attention, is the frequent and sudden loss and recovery of hearing, occurring sometimes in one ear, sometimes in the other. The sudden paroxysms of hearing, if I may make use of the term, coming on with a report or crack, on blowing the nose, or otherwise, are a very frequent phenomenon in diseases of the ear, and are met with more commonly in those cases in which the membrana tympani is present, than where it is absent. The analogue of this is observed in ordinary catarrh, in which the functions of one nostril, both as a breathing and as an olfactory organ, are frequently suspended or transferred from one side to the other, and as suddenly recovered, either spontaneously, or on change of posture, or on sneezing. In bronchitis, too, it is not unusual to have one of the smaller bronchial tubes temporarily closed; and thus the function of that part of the lung to which its ramifications extend, becomes for a time suspended. The sudden access and disappearance of asthma or of colic, are likewise examples having some bearing on the phenomenon in question. It is pretty evident too, that the cause of these sudden changes is mechanical, dependent either on the greater or less vascular turgescence of the lining membrane of these tubes, the presence or absence of viscid mucus, muscular spasm, or, as in colic, air becoming impacted, and then suddenly freed from its imprisonment. I have already, when commenting on Tranch's case, mooted the question of, how far the opening or closure of the Eustachian tubes may conduce to these results? and I have there hazarded an opinion, that the improvement which is observed to be coincident with a patent condition of these tubes, is due less to a restoration of their function than to the altered and improved condition of the mucous membrane lining them and the tympanic cavities; and I have hitherto met with no fact which invalidates this opinion, which, it must be understood, has reference only to those cases in which the membrana tympani is partially or wholly destroyed.

3. The third point suggested by a perusal of this and analogous cases, is the great proneness of the sufferers to attacks of catarrh, and the liability of the ear to partici-

pate, more particularly when the membrana tympani is imperfect or wanting. I have before remarked on the influence of temperature in this class of diseases; and the present affords a still more striking illustration of the same fact: thus we find a gradual increase in the hearing power as the temperature rises, till in June and July both had attained their maximum. A gradual yet perceptible diminution in the hearing then follows, corresponding with the decline of temperature, till in the month of December, the hearing was in much the same condition as it was in February, when the patient first came under my care. It is true, the treatment may not have been persevered in after the patient ceased his attendance in September; yet, during that time, the fact alluded to was sufficiently remarkable, and accords entirely with my experience of other similar cases. The diminution of hearing in the winter months, I believe to be mainly due to the prevalence of a less healthy condition of the mucous membrane lining the respiratory passages generally, and their diverticula the tympanic cavities in particular; while the increase of hearing in the summer months arises from an opposite condition of the same membrane. This, it will be perceived, is merely the application of a generally recognised fact to the explanation of the phenomenon in question—an explanation, I think, equally applicable to those variations of the hearing power which are observed to occur at the same season of the year, under different states of the atmosphere or wind; it is, at all events, more consonant with our knowledge of the diseases of the mucous membranes, than the theory which attributes these variations of hearing under different atmospheric conditions to the hygrometric properties of the membrana tympani.

4. Lastly, must be mentioned the existence of tinnitus, both in this and the preceding case; proving, in opposition to the opinion of Mr. Wilde, that this symptom may be present not only with an open tympanal membrane, but where this structure has been entirely removed.

[To be continued.]

9, New Burlington Street.

ON THE ORIGIN AND TREATMENT OF CHRONIC DISEASES OF THE SKIN.

By THOMAS HUNT, F.R.C.S., Surgeon to the Western Dispensary for Diseases of the Skin.

NO. V.

ORDER III. RASHES (EXANTHEMATA).

AN impression prevails that the order exanthemata of Willan comprehends all the eruptive fevers, and no other diseases; hence the author of a paper which appeared a few years since, on the Epidemic of Boils and Carbuncles, calls this epidemic "a new exanthem"; and it is common for authors to speak of all eruptive fevers as "the true exanthemata". But the exanthemata of Willan consist simply of "superficial red patches, variously figured, and diffused irregularly over the body, leaving interstices of a natural colour, and terminating in cuticular exfoliations". This order, therefore, excludes variola, varicella, and vaccinia, as consisting of pustular or vesicular eruptions, and includes not only those eruptive fevers which come under the above definition, namely, rubella, scarlatina, roseola, and erythema, but also urticaria and purpura. Of the true exanthemata, therefore, there are but two strictly chronic diseases, namely, urticaria and purpura, though both of them have an acute form. These two diseases have no pathological character common to each; I shall therefore treat of them separately.

Chronic Urticaria. The appearance of this disease is similar to that of the acute form, except that the eruption is less obvious and distinct; but it differs chiefly in this, that it originates in a vitiation of the blood, whereas acute nettle rash arises from the presence of indigestible matter in the stomach, and is therefore easily cured by an emetic, if properly administered.

Diagnosis. Chronic urticaria, consisting of white ele-