Scott, F.R.S., for saying that the amount of rainfall is well determined in scarcely a large town in England; and in Plymouth the gauges are peculiarly misplaced, being either on the tops of houses where the draught through the streets interferes considerably with correct results, or in sheltered spots. In my own case, the gauge is situated on the edge of a vertical wall twenty-six feet six inches from the ground, and is sheltered from S.S.W. to W. by N. by another house. Experiments conducted by Mr. Chrimmes of Rotherham, and published by Mr. J. G. Symons in his *British Rainfall*, show that the amount decreases with elevation; and for the height of my gauge about 16 per cent. should be allowed. From the Rotherham experiments, extending over fifty-six months, Mr. Strachan, F.M.S., has calculated that the mean inclination of rain is 42 deg. from the vertical (*Brit. Rainfall*, 1870, p. 53); and, as the highest part of the chimneys of the adjacent house makes an angle of 45 deg. with the vertical, there can be but little effect from its position, although with a strong wind some rain must be lost to my gauge. Then, again, I have observed that, when the rain accompanies a south-east wind, the latter strikes against the wall, is forced over it, and carries the rain away from the gauge. From these causes it would be manifestly unfair to draw comparisons between the amount as measured by me and the rainfall at other places. For example, at Tavistock, about fourteen miles due north, and nearer the moor, the measurement is many inches more than at Plymouth, whilst at Dartmoor prisons nearly double the amount is registered. Although so near the sea, and in the path of the counter trades, yet we sometimes, but rarely, experience a want of rain; for example, from March 18th to July 2nd, 1870, during which time, if we omit a thunder-shower on the 12th May, only 1.3 inches of rain fell in 106 days: in fact, the whole year was very dry, there being but $\frac{1}{3}$ of the average rainfall. We go many days in the year without a sight of the sun, the sky being completely overcast; and it is but seldom our atmosphere is free from cloud.

I have said nothing about the ozone at Plymouth, because I have kept no record of the amount; and until some method be adopted for measuring the amount of nitric and other acids in the atmosphere, with the quantity of air which passes over the test-papers, no reliance can be put in the amount of ozone measured by the colour given to these papers. When I speak of ozone, I mean that peculiar condition of oxygen which renders it more readily able to combine with other elements, and thus it neutralises what obnoxious gases the atmosphere may contain. From its powerful oxidising properties, it is generally considered an allotropic condition of oxygen; and Professor Tyndall

says it may be an aggregation of atoms of oxygen into molecules. Seeing that electricity is generated in such large quantities on the sea-shore, and more especially where the sea breaks in large rollers on the beach, and as it is known that ozone is produced simultaneously with electricity, no doubt we have a large amount in the south-west district. Then, again, it is known that sea-water holds from $\frac{1}{50}$ to $\frac{1}{10}$ its volume of air in solution; but the air in the sea contains 32 per cent. of oxygen, instead of 21 per cent. as the atmosphere over land does. By agitation, we may reasonably suppose a portion of this air surcharged with oxygen is given off, and during storms the quantity is most likely much increased and the effects on health are highly beneficial. This I take to be one of the chief reasons why a seaside residence is so conducive to improved health among invalids. Now in Plymouth and in the whole south-western district, we have the broad stormy Atlantic whence we draw our supply of this element; whilst on the east coast the storehouse is narrowed into the comparatively narrow North Sea or German Ocean.

The months of January and November seem to bring more severe atmospheric storms than any other months; but Plymouth appears to enjoy an immunity from electrical storms, thunder and lightning being but seldom known; thus whilst electricity may be generated on our coasts, and the sky often bears tokens of the existence of electricity in large quantities, yet it is generally carried inland before a violent discharge takes place. I have no doubt that a large quantity is silently discharged through our damp atmosphere, and is unperceived by us.

Our average barometrical pressure being 29.953, our temperature of the air 52.31, and difference in the wet and dry bulb thermometer 2.6, we have an average dew-point of 47 deg. Fahr., relative humidity, 82.4, and 3.7 grains of aqueous vapour per cubic foot in the atmosphere. Hence I conclude that our town is warm and moist, arising from the large proportion of westerly winds (the return trades) which blow over us; we have few extremes of temperatures, few electrical or atmospheric storms; a cloudy sky, but not a large rainfall.

The records and diagrams from which I have drawn my conclusions now lie on the table for the inspection of anyone who feels an interest in the subject; and I would particularly draw the attention of such to the illustration of the fact that, with a low barometer, we get a high temperature, and *vice versa*. One more illustration is worth noticing; that, when we have a fall of the barometer, and the dry and wet bulbs are far apart, wind is foretold; but if the readings of the bulbs approach with a falling barometer, then rain may be expected.

Averages of Meteorological Register, extending over Six Years, from 1865 to 1870 (both inclusive).

MONTHS.	BAROMETER Reduced to mean sea level at 32° F.			TEMPERATURE.			HYGROMETER.							NO. OF DAYS ON WHICH WIND BLEW.					RAINFALL.	
	Average Barometer.	Maximum Barometer.	Minimum Barometer.	Average Maximum.	Average Minimum.	Average Temperature.	Average Dry Bulb.	Average Wet Bulb.	Average Dew Point.	Elastic Force of Vapour.	Vapour in a Cubic Foot of Air.	Vapour more required to saturate a Cubic Foot of Air.	Degree of humidity. Saturation = 100.	From N. to E.	From E. to S.	From S. to W.	From W. to N.	Calm.	Rainfall in Inches.	Equivalent Percentage.
January ..	29.844	30.660	28.500	46.92	37.50	42.21	41.38	40.09	38.48	.233	2.7	0.3	89	4.33	6.67	12.33	5.83	1.33	5.32	13.7
February ..	29.972	30.679	28.602	49.30	39.49	44.39	42.96	41.65	40.08	.248	2.8	0.4	90	3.00	3.50	12.83	7.67	1.17	3.65	9.4
March	29.887	30.676	29.005	49.99	36.71	43.35	42.39	40.14	37.39	.224	2.6	0.5	83	9.50	4.67	6.33	9.83	0.67	3.48	8.9
April	30.000	30.494	29.164	60.95	42.76	51.85	51.88	48.73	45.52	.305	3.4	1.0	79	6.67	7.00	7.67	6.50	2.00	2.17	5.6
May	29.928	30.410	29.113	64.26	45.37	54.81	56.01	52.35	48.91	.346	3.9	1.1	77	4.83	10.83	9.33	4.83	1.17	3.15	8.1
June	30.120	30.574	29.280	71.56	50.46	61.01	63.34	58.36	54.15	.420	4.6	1.8	72	5.83	5.83	7.83	9.00	1.50	0.77	2.0
July	30.001	30.438	29.270	74.46	54.54	64.50	65.54	60.81	56.96	.465	5.1	1.8	74	5.00	5.17	9.67	9.50	1.67	1.89	4.9
August	29.968	30.320	29.396	72.39	53.19	62.79	62.88	59.44	56.46	.457	5.0	1.4	80	4.17	6.67	9.17	10.00	1.00	2.50	6.4
September ..	29.895	30.534	28.877	68.70	51.56	60.13	60.20	57.74	55.58	.443	5.0	0.8	85	4.83	7.00	11.00	4.67	2.50	4.92	12.6
October	29.903	30.516	29.057	60.38	45.76	53.07	52.80	51.31	49.81	.358	4.0	0.5	89	5.83	5.33	7.50	10.67	1.67	3.51	9.0
November ..	29.993	30.640	28.840	52.55	39.46	46.01	45.15	43.95	42.56	.273	3.1	0.3	91	7.00	5.17	9.00	8.17	0.67	3.01	7.7
December ..	29.924	30.822	29.034	48.63	38.50	43.57	42.93	41.70	40.22	.249	2.8	0.4	90	6.83	6.17	9.17	7.33	0.83	4.58	11.7
Totals ..	29.953	30.822	28.500	60.01	44.61	52.31	52.29	49.69	47.1	.324	3.8	.86	83	67.82	74.01	111.83	94.00	16.18	38.95	100.0

AN ANALYSIS OF STATISTICS OF LATERAL LITHOTOMY.*

By the late WILLIAM KEITH, M.D., M.R.C.S.E.,

Senior Surgeon to the Royal Infirmary, Aberdeen;
Lecturer on Clinical Surgery; etc.

CASE CVIL.—W. Thompson, aged 74, a mason, was admitted on the 28th, 1852, and was operated on August 14th. He was at the time, and had been for some time before, suffering from diabetes

mellitus. The stone weighed 4 drachms 1 scruple, and measured 1½ inches by ¾ inch by 1½ inches. Suppression of urine came on, and he died comatose on the 25th. At the *post mortem* examination, a considerable amount of effusion was found between the membranes of the brain and in the lateral ventricles. The lungs were healthy, except that they were somewhat emphysematous at the apices. The intestines and bladder were natural. The wound in the latter was nearly closed. The kidneys were both diminished in size and much diseased.

CASE CXVI.—W. Nicol, aged 79, miller, was admitted on November 11th, 1853, and was operated on February 11th, 1854, when four

* Concluded from page 322 of last number.

stones, weighing $4\frac{1}{2}$ drachms, and measuring each 1 inch by $\frac{1}{2}$ inch by $\frac{3}{4}$ inch, were removed. He gradually sank, and died from age and exhaustion of nature's powers by a small pelvic abscess, on March 11th, four weeks after the operation. The whole of the contents of the abdomen were natural, the only thing to account for his exhaustion being a small deposit of pus around the lower end of the rectum.

CASE CXXIV.—George Sanderson, aged 68, a farmer, was admitted on August 13th, 1855, and was operated on August 25th. Seven calculi were removed, weighing 1 ounce 3 drachms, and the largest measuring $1\frac{1}{8}$ inches by $\frac{5}{8}$ inch by 1 inch. He went on well till the morning of the third day, when suppression of urine supervened, and he died comatose at half-past seven on the evening of the 28th. The third lobe of the prostate had come away in the forceps at the operation. The kidneys were not much altered in structure; the bladder was thick and diseased; and the prostate enormous.

CVSE CXXV.—John Connor, aged 64, a seaman, came under treatment on September 24th, 1855, and was operated on October 16th. The stone weighed 7 drachms, and measured $1\frac{1}{8}$ inches by $1\frac{1}{8}$ inches by $1\frac{1}{8}$ inches. He died of pyæmia, on October 27th, 1855, eleven days after the operation.

CASE CXXVI.—James Sangster, aged 74, farmer, came under treatment on October 20th, 1855, and was operated on December 4th. Two stones were removed, weighing 3 ounces 3 drachms, and the larger measuring 2 inches by 1 inch by $1\frac{1}{8}$ inches. He died on December 8th, exhausted by previous suffering.

CASE CXXVIII.—John Cockburn, aged 58, crofter, was admitted on June 18th, 1857, and was operated on July 4th. The stone weighed $4\frac{1}{2}$ drachms, and measured $1\frac{1}{4}$ inches by $\frac{3}{4}$ inch by 1 inch. He went on well till the evening of July 8th, when he complained of pain in the right knee, which persisted, spite of treatment. The whole leg became swollen; he gradually became weaker and weaker, and died on the morning of July 14th. At the *post mortem* examination, the only marked disease discovered was in the right knee-joint, which contained about two ounces of thick yellow pus, but showed no signs of previous organic disease.

CASE CXXIX.—James Moor, aged 62, sawyer, was admitted on June 22nd, 1857, and was operated on July 4th. The stone weighed $7\frac{1}{2}$ drachms, and measured 2 inches by $\frac{3}{4}$ inch by $1\frac{1}{8}$ inches. The day after the operation, he complained of a pain in the right iliac region, which persisted. He gradually grew weaker, and died on July 7th. At the *post mortem* examination, the intestines were found congested, especially in the right iliac region, where they adhered to the wall of the abdomen. Both kidneys were fatty. Pus was infiltrated into the cellular tissue around the entrance of both ureters into the bladder.

CASE CXLVI.—John Collie, aged 65, ropemaker, was admitted on December 15th, 1857, and was operated on December 24th. The stone weighed 1 ounce, and measured $1\frac{1}{8}$ inches by $\frac{3}{8}$ inch by $1\frac{1}{8}$ inches. He went on well till January 5th, when diarrhoea came on, followed by hiccough; and these, persisting, so weakened him that he died exhausted after a rigor on the evening of January 10th, seventeen days after the operation. No *post mortem* examination was allowed.

CASE CXLVII.—W. Mackie, aged 72, blacksmith, came under treatment on February 3rd, 1858, and was cut on February 10th. The stone weighed 7 ounces $5\frac{1}{2}$ drachms, and measured $3\frac{1}{2}$ inches by $1\frac{1}{2}$ inches by $2\frac{1}{2}$ inches. The case went on favourably for six days, when the urine became scanty; and he died on the eighth day (Feb. 18th) with symptoms of uræmia. No inspection was allowed.

CASE CXLIX.—Robert Garioch, aged 75, farmer, came under treatment on May 22nd, 1858, and was operated on May 29th. The stone weighed 1 ounce 5 drachms 1 scruple, and measured 2 inches by 1 inch by $1\frac{1}{2}$ inches. The internal incision was thought to be too small, and, though he was under chloroform, a remora was noticed before he could be put to bed. Yet he continued to go on favourably for a few days; but, in consequence of his using great freedom in getting up and going about, disease supervened in the pelvis, from the effects of which he died on the tenth day (June 8th). No inspection was had, as he was fifty miles from town.

CASE CLV.—John Pyper, aged 30, blacksmith, was admitted on December 13th, 1858, and was operated on January 8th, 1859. The stone weighed 1 ounce, and measured 2 inches by $\frac{3}{4}$ inch by $1\frac{1}{8}$ inches. Symptoms of inflammation of the bowels came on, though not very acutely; and he gradually sank, and died on January 16th, eight days after the operation. At the *post mortem* examination, a large quantity of pus, mixed with flakes of lymph, was found in the peritoneal cavity. The surface of the intestines was not congested, but had lost its usual glistening look. The kidneys were both much diseased; there were several small abscesses in each, and a calculus in the pelvis of the left kidney.

CASE CLVII.—George Gordon, aged 70, plasterer, came under treatment on June 22nd, 1859, and was operated on July 19th. Six calculi were removed, weighing $3\frac{1}{2}$ drachms, and the largest measuring $\frac{3}{4}$ inch by $\frac{3}{8}$ inch by $\frac{1}{2}$ inch. The artery of the bulb was cut at the operation, and was the cause of secondary hæmorrhage to a limited extent, though not seen in any marked manner at the time of the operation. Suppression of urine came on, and he died on July 21st, three days after the operation. At the *post mortem* examination, three calculi were found in the right kidney. Both kidneys were much diseased.

CASE CLIX.—Alexander Angus, aged 31, a farm-servant, was admitted on November 14th, 1859. His urine was albuminous, and he had pain in the lumbar region, present for months; but long rest in the hospital so improved his looks, so abated the pain and the presence of albumen, that the operation was ventured on May 12th, 1860. The stone weighed 1 ounce 5 drachms, and measured $2\frac{1}{8}$ inches by 1 inch by $1\frac{1}{8}$ inches. Neither pain nor pulse gave evidence of action being present in any unusual degree; yet he died on May 18th, six days after the operation, with symptoms of uræmia. There was exudation of pus and lymph on the left side of the pelvis, in no apparent way connected with the wound, yet in contact with the peritoneal coat of the bladder. One large and two small calculi were found in the right kidney, that organ being wasted almost to a cyst.

CASE CLXIV.—Alexander Davidson, aged 66, crofter, was admitted on January 28th, 1861, and was operated on February 2nd. The stone weighed 1 ounce, and measured $1\frac{1}{8}$ inches by 1 inch by $\frac{1}{2}$ inch. Previously to the operation, the urine was of specific gravity 1020, and there was no trace of albumen in it. Though the urine was at first scanty after the operation, yet it had become copious; and at 9 P.M. on the evening of February 7th he felt well and cheerful. At midnight he had a rigor, followed by convulsions, which ended in death at half-past four on the morning of February 8th. The right kidney weighed 9 ounces, the left 18 ounces; and both were filled with cysts, and disorganised. A renal calculus obstructed one of the ureters close to the kidney.

CASE CLXX.—Alexander Henderson, aged 47, crofter, was admitted on October 7th, 1861, and was operated on on the 23rd. The stone weighed 4 ounces 3 drachms, and measured $2\frac{1}{2}$ inches by $1\frac{1}{2}$ inches by $2\frac{1}{2}$ inches. He went on favourably till November 1st, when the tongue became somewhat dry. His pulse was quiet, and his belly natural; but he gradually grew weaker, and died at 11.50 P.M. on November 1st. The *post mortem* examination revealed purulent deposits behind the peritoneum, all over the left side of the pelvis.

CASE CLXXII.—W. Gordon, aged 76, crofter, was admitted on March 26th, 1862, and was operated on March 29th. Three stones were removed, weighing $7\frac{1}{2}$ drachms, the largest measuring 1 inch by $\frac{1}{2}$ inch by $\frac{3}{4}$ inch. The prostate was enormous. He went on favourably for a fortnight, the urine coming almost entirely *per urethram*; but, on attempting to get out of bed without help on the fourteenth day, he fell violently on the floor, and was much injured by the shock. His appetite failed, which, in his wasted frame and feeble constitution, coupled with seventy-six years of age, sufficed to kill him. On *post mortem* examination, the kidneys were found of small size, but perfectly healthy in structure. The calculi removed were each shaped like a right-angled triangle.

CASE CLXXV.—James Fraser, aged 66, a mason, was admitted on July 17th, 1862, and operated on July 23rd. The stone weighed 1 ounce, and measured $1\frac{1}{2}$ inches by 1 inch by $1\frac{1}{2}$ inches. He died on August 2nd, from cellulitis in the pelvis and pyæmia. No inspection was had, in consequence of my absence from home.

CASE CXCII.—George Gauld, aged 73, farmer, came under treatment on July 15th, 1864, and was operated on August 16th. Twelve calculi, of the size of French beans, weighing 9 drachms, were removed. Diarrhoea, accompanied by hiccough, set in severely on the third day, without another unfavourable symptom; the urine being clear and copious; the belly soft and easy; the pulse 96, compressible, full, and soft; the tongue moist, though partly furred; and the appetite tolerable. Yet, in spite of treatment, the looseness continued; and he sank comatose at 6 P.M. on the 4th day (August 20th.) No *post mortem* examination was had, his residence being forty miles distant from Aberdeen.

CASE CXCIH.—Robert Cran, aged 70, farmer, came under treatment on October 12th, and was operated on October 12th, 1864. The stone weighed 7 drachms, and measured $1\frac{1}{8}$ inches by $\frac{3}{4}$ inch by $1\frac{1}{8}$ inch. It being believed that there was one hour and twenty minutes' secretion in the bladder, and that more was flowing or entering, it was feared at the moment that the inner incision would prove too free, from cutting into an empty bladder; and so it turned out, the patient dying on the evening of the third day, from the effects of urinary

infiltration. No *post mortem* examination was had, in consequence of his residence being fifty miles distant from Aberdeen.

CASE CXCVIII.—James Clarke, aged 55, mason, came under treatment on March 6th, 1865, and was operated on April 1st. The stone weighed 2 ounces $1\frac{1}{2}$ drachms, and measured $2\frac{1}{2}$ inches by 2 inches by 1 inch. With a quiet pulse, and urine both clear and copious, he went on favourably for eight days, the tongue only being dry; yet his desire for food was natural. On the ninth day, the pulse quickened a little; but there was no tenderness or local symptom anywhere, and he still took his food. On the twelfth day, he became faint, after sitting up in bed; and, continuing feeble, he expired on the evening of the thirteenth day (April 13th). Inspection revealed a collection of thick pus in the cellular tissue around the wound and neck of the bladder. The viscera of the abdomen were quite healthy. The coats of the bladder were thick and chronically inflamed.

CASE CXCIII.—David Stewart, aged 79, farmer, was admitted on July 7th, 1866, and was operated on July 14th. The stone weighed $7\frac{1}{2}$ drachms, and measured $1\frac{1}{2}$ inches by $1\frac{1}{2}$ inches by $1\frac{1}{2}$ inches. The patient was a large-built man, with a deep perinæum and a large cartilaginous prostate gland; yet the blunt gorget and chloroform made the operation easy. He went on well till the evening of the fifth day, when, after some freedom used in getting out of bed, he had a rigor, quickly followed by tenderness in the right pubic region, where a reducible hernia existed. The secretion of urine at the same time became nearly suspended. Leeches to the groin abated the pain and tenderness; but, although the general symptoms seemed at times cheering, the urine never came in natural quantity, and he gradually sank on the eighth day. Inspection revealed pus in the hernial sac, and a pinkish blush on the adjoining peritoneum. The liver was nutmeggy and friable; the kidneys were much diseased; the bladder sacculated and greatly hypertrophied.

CASE CCV.—James Sim, aged 75, farm-servant, was admitted on February 13th, 1867, and was operated on February 28th. The stone weighed 5 ounces 7 drachms, and measured 3 inches by $1\frac{1}{2}$ inches by $2\frac{1}{2}$ inches. He went on most favourably till the sixth day, when, the bowels not having moved, a moderate dose of castor-oil was given. It operated twice comfortably; but, from the moment it did so, he felt weak, the urine began to flow less copiously, and he became drowsy. Sinapisms were applied to the nape of the neck, and turpentine stupes to the loins. Brandy and spirits of nitre were given freely; but the secretion of urine never returned in quantity; the pulse, never before above 60, now quickened; his strength failed; and he quietly expired at 3 A.M. on March 7th. Inspection revealed no very unusual appearances in the wound or its surroundings. The walls of the bladder were thickened and rugous, and congested on its inner surface. The fundus of the bladder outside the cellular tissue looked as if exudation of lymph had taken place, and was undergoing the process of softening and becoming purulent; but no adherent or reddened spot could be detected on the intestinal or pelvic peritoneum. The kidneys were small and diseased; the ureters were as large as a man's thumb; and the pelves of both kidneys widely distended.

CASE CCXVI.—John Fraser, aged 67, crofter, was admitted on June 5th, 1869, and was operated on on June 16th, when a calculus weighing 1 ounce, and measuring $1\frac{1}{2}$ inches by $1\frac{1}{2}$ inches by $\frac{3}{4}$ inch, was removed. He died on the eleventh day after the operation, without one untoward symptom connected with the kidneys or bladder. Pain at the pit of the stomach, and latterly coffee-ground vomiting, preceded his death. *Post mortem* examination revealed cancer of the pylorus and ulceration of the mucous membrane of the stomach. It turned out, on inquiry, that he had laboured many months under that disease, but had studiously concealed it.

CASE CCXIX proved fatal two days after the operation. No details are given in Dr. Keith's tables, further than the weight of the stone and the date of death.

EMBOLISM OF THE CENTRAL ARTERY OF THE RETINA.

By C. S. JEAFFRESON, Assistant-Surgeon, Newcastle-on-Tyne Infirmary.

ALTHOUGH most ophthalmic surgeons must have seen cases of embolism of the central artery of the retina, they are still of sufficient rarity to be worth putting upon record.

R. M., aged 28, whilst following his usual occupation as a bricklayer, became suddenly conscious of the rapid approach of blindness in his right eye. He described the blindness as having commenced in the centre of the field of vision, and gradually spread towards the periphery

with such an amount of rapidity that, in a few moments, total darkness was produced. He left his work in great alarm, and the following day presented himself to me.

On examining the state of vision I found the left eye normal. In the right eye the whole field of vision was obscured, with the exception of a small portion in which it was highly amblyopic, recognising only obscurely the presence of the finger when held up. After his pupils had been thoroughly dilated with atropine, I examined him with the ophthalmoscope. The size, colour, and shape of the optic disc, the reflection from the fundus, and the condition of the vessels on the left side, were normal. On the right side, the optic disc was unaltered in colour, but the retinal arteries were reduced to the most minute threads, the veins congested, and for some distance surrounding the macula lutea there was a paleness of the fundus which made the redness of that spot stand out in prominent contrast. On searching for signs of cardiac disease, I found that, although there was no murmur of any kind, there was distinct evidence of hypertrophy, and that the heart's action was irregular and intermittent.

The chief peculiarities in this case are, the manner in which the blindness supervened, and the retention of a certain amount of vision in a very small portion of the field. The former I believe never before to have been noticed; and the latter, though noticed, not satisfactorily explained.

The only explanation I can offer of a portion of the field of vision still retaining sensibility is, that some spot in the retina must derive its blood-supply, partially, at least, from some other source than the retinal artery; and if vision improve, we must expect to find it increasing the area of this spot, where if any collateral circulation is established, we may most reasonably look for it.

WASP-STINGS.

By C. D. H. DRURY, Pulham St. Mary.

DURING the last fortnight or three weeks, I have been called upon to treat no less than seven cases of illness arising from the stings of wasps.

On August 21st, my cook, while making pastry, was stung in the forefinger of the right hand by a wasp. In less than half an hour she felt exceedingly depressed and weak, and complained of severe headache; and her hand was so swollen that she could not bend her fingers. The eyes were red and bathed in tears; the face puffy, swollen, and dusky; and she was completely covered with an urticarious eruption. I could not find any remnant of the sting in the finger, and only with difficulty the place where the sting had entered. I ordered her at once to bed, and gave her fifteen minims of aromatic spirits of ammonia every half hour. She dipped her hand in a strong solution of carbonate of soda, but this only increased the pain; poultices, however, gave immediate relief. The ammonia, too, seemed to do much good; for after two doses the headache abated, the rash began to decline, and she felt much better, although the local pain remained. She scarcely closed her eyes all night, and in the morning I found the arm much swollen as far as the axilla—where she now complained of most pain, although I could not detect that the glands there were increased in size. The lymphatics of the forearm were enlarged and hard. Poultices were continued, the hand was kept in a sling, and an aperient mixture with ammonia given during the next day. By this time the swelling of the arm had subsided, and on the morning of the following day she was sufficiently well to resume her ordinary duties.

Three days afterwards, she was again stung—this time at the back of the neck. In a very few minutes she felt so depressed, weak, and faint, that she had to be supported upstairs to bed. In half an hour her face was of a dusky, red colour, and swollen, and her body covered with an eruption, and she suffered from violent headache. I gave her a glass of brandy and hot water, and soon she felt much better. I saw her again in four hours. She then complained of urgent thirst, and was very restless—felt inclined to, but could not, sleep. Her throat felt hot and painful; and on examination, I found her tonsils red and swollen. Her pulse was quick and full. I ordered the neck to be bathed frequently and her throat to be gargled with hot water, and barley-water to be given to drink. I again saw her about five o'clock in the morning. Her throat-symptoms were somewhat relieved, but she was still very restless, and the eruption which remained was of a dusky hue, very like the rash of measles. There was well-marked coryza. In the course of the day she went home; and I heard from her frequently. The eruption lasted for three days and then began to fade; and now—six days from the date of the sting—she reports herself well, but weak.

On August 25th, my page and housemaid were both stung in the hand. The page had a swollen hand and arm, and much local pain for