signs occurred every day until December 15; and, during the last three days, the vomiting was if possible more frequent, with severe colicky pains and tenesmus, together with distressing hiccough, dry brown tongue, and anxious countenance. Altogether, he seemed nearly exhausted; having also had no sleep for nearly a week.

On the evening of the 17th, on laying the hand and gradually increasing the pressure over the transverse colon, a sensation was experienced similar to pressing very lightly on a small bag of nuts. On the following morning, there was a copious and thin bilious evacuation, at the bottom of which were found twenty-seven gall-stones, the largest of which was nearly round, with numerous facettes, and measured two and a quarter inches in circumference, weighing when dried ninety grains, the specific gravity being then about .750. The remaining twenty-six gall-stones varied in size from that of a large almond to a small pea, each with facettes like the largest. On the evening of the same day, sixty-four more gall-stones were passed in one thin bilious evacuation: they varied in size from a horse-bean to a hempseed, and some were firmly adherent by their facettes. This was followed by four hours of refreshing sleep—the first he had had for seven days. One of the gall-stones presented on section various concentric layers, apparently of inspissated bile; there was no discoverable nucleus or cavity; the outside layer was dark brown, but crystalline; the general colour of the stones was dark brown, the odour being peculiarly bilious and rancid.

There was for some time over the gall-bladder considerable tenderness and swelling, which, together with the bilious tinge, gradually subsided. The stomach continued irritable for several days; but the restoration, in eight or ten days after the passage of the gall-stones, rapidly progressed as digestion improved.

The treatment consisted externally of hot poppy fomentations, poultices of linseed meal and mustard, and turpentine sprinkled on hot flannel. Internally, opiates appeared to increase the distress; and the chief reliance was placed on small but repeated doses of aperient salines, conjoined with tincture of hyoscyamus and prussic acid, as before. Taking all these symptoms into consideration, viz. the gradual increase of the tumour in the region of the gall-bladder, together with pain, tenderness, and frequent rigors; the size of the accumulation of gall-stones, which could be felt *en masse* in the abdomen the night before they were evacuated; the occurrence of symptoms of intestinal obstruction, evidently in consequence of a bulky mass slowly passing along the bowels, and the fact that many of the stones were firmly adherent to each other, held by very tough bilious looking mucus (altogether equal in bulk to a billiard ball), it seems fair to infer that an opening was formed by ulceration somewhere from the gall-bladder into the intestines, allowing the whole to pass through at once, instead of through the gall-duct; for it is inconceivable that ninety-one gall-stones, many of them so large, could have been voided in the natural course.

Plymouth, January 30, 1854.

NOTES ON OPHTHALMIC DISEASES.

By JAMES VOSE SOLOMON, Esq., Surgeon to the Birmingham and Midland Counties Eye Infirmary.

THE following cases were admitted under my care into the Birmingham Eye Infirmary, from June 30th, 1851, to July 1st, 1853.

TABLE OF OPHTHALMIC DISEASES.

	Males.	Fem.
Phlegmonous inflammation of the cellular tissue of the orbit -	2	0
Eyes.		
Contusions -	2	0
Tumours -	2	0
	4	0

	Males.	Females.
Eyelids.		
Edema -	2	1
Erysipelas -	3	7
Inflammation -	4	7
Ulceration -	2	1
Abscess -	9	10
Burns and scalds -	4	1
Epithelial cancer -	1	0
Impetigo, etc. -	3	7
Contusions -	1	0
Moles -	0	1
Foreign bodies under -	4	1
Tumours of, and of tarsal border -	8	20
	41	62
Tarsal Borders.		
Inflammation -	23	14
Ulceration -	48	81
Abscess -	7	8
Chronic thickening -	0	3
Blair eye -	6	4
Wounds -	0	1
Inversion -	1	1
Eversion -	5	5
Vesicular tumours -	1	3
Inversion of eyelashes against the globe -	5	7
Morbid union of eyelids to the globe -	4	0
Morbid union of eyelids to one another -	1	0
	101	127
Lachrymal Sac.		
Obstruction -	1	9
Inflammation and abscess -	6	19
Fistula -	0	4
Relaxation -	1	7
	8	39
Epiphora -	2	6
Congenital Deficiency of Tears -	1	0
Conjunctiva.		
Echymosis -	6	4
Edema -	1	0
Muguet -	0	2
Acute inflammation -	46	66
Chronic inflammation -	33	40
Pterygium -	2	0
Hypertrophy -	1	0
Tumours -	0	1
Catarrhal inflammation -	104	127
Pustular inflammation -	81	89
Puro-mucous inflammation -	2	17
Recent and chronic strumous inflammat. -	10	8
Burns -	15	0
Foreign bodies attached to ocular conjunctiva -	2	0
Purulent ophthalmia of newly born infants -	23	18
Gonorrhoeal ophthalmia of newly born infants -	5	0
Gonorrhoeal ophthalmia of adults -	3	2
Granular conjunctiva -	6	10
	340	384
Conjunctiva and Sclerotica.		
Acute inflammation -	21	9
Chronic inflammation -	9	24
Burns -	3	0
	33	33
Sclerotica.		
Acute inflammation -	0	1
Acute rheumatic inflammation -	4	3
Chronic inflammation -	1	2
Staphyloma -	2	1
Rupture -	0	1
	7	8
Sclerotic union with Cornea.		
Rupture -	1	0
Varioloid ulcer upon -	0	1
Foreign body upon -	1	0
	2	1

	Males.	Fem.
Iris.		
Staphylophthalmia	8	0
Traumatic inflammation	0	1
Rheumatic inflammation	12	0
Syphilitic inflammation	5	6
Strumous inflammation	1	2
Chronic inflammation	3	0
Palsy	1	0
Complete closure of the pupil	1	1
Incomplete closure of the pupil	4	4
Chronic adhesion to the lens	1	0
Mydriasis	1	2
Apparent absence of the entire iris (the result of violence)	2	1
	39	17
Cornea.		
Conical	1	6
Recent and chronic inflammation	53	47
Varioloid inflammation	0	1
Traumatic inflammation	9	1
Strumous inflammation	12	15
Strumous ophthalmia	2	12
Sloughing	3	1
Tumour upon	1	0
Phlyctena, pustules of	6	3
Pannus	0	2
Ulceration	55	63
Ulceration (a consequence of variola)	9	3
Hernia	1	0
Abscess	7	1
Abscess (a consequence of variola)	1	1
Prolapse of iris through the cornea	4	0
Chronic adhesion of iris to cornea	10	6
Inflammation of the aqueous membrane	2	5
Blood in the aqueous chamber	0	1
Inflammatory exudation; pus in the aqueous chamber	6	3
Staphyloma	9	6
Abrasion of the epithelium	3	0
Penetrating wounds	11	0
Laceration	3	0
Rupture	1	1
Burns	1	0
Foreign bodies attached	77	5
Opacities	44	76
	331	259
Choroid.		
Congestion	4	5
Acute inflammation	1	0
Chronic inflammation	11	12
Acute inflammation, and of iris	0	1
	16	18
Retina.		
Concussion	2	1
Laceration and detachment	1	0
Congestion	4	2
Inflammation	9	1
Irritability	0	1
Acute inflammation, and of choroid	1	0
Chronic inflammation, and of choroid	7	0
Fixed musca	1	2
[Flying musca	2	4]
Amaurosis of various degrees	36	28
Night blindness	1	1
	62	36
Textures of the Eyeball.		
General inflammation—acute	2	0
General inflammation—chronic	1	0
General inflammation—acute (traumatic)	10	0
General inflammation—chronic (ditto)	4	0
Burn	2	0
Eyeball.		
Suppuration	1	0
Sloughing (traumatic)	1	0
Contusion	5	1
Rupture	1	0
Collapse	7	1
Collapse of anterior chamber (only)	2	3

Atrophy	-	-	1	....	1
Protrusion	-	-	1	....	2
Melanosis	-	-	0	....	1
Encephaloid cancer	-	-	1	....	0
			39		6
Lens.					
Cataract of various kinds	-	-	34	....	40
Posterior capsular	-	-	0	....	1
Shining (synchysis étincelant)	-	-	1	....	0
Traumatic	-	-	12	....	18
Glaucoma	-	-	6	....	1
Lens, dislocation of, subconjunctival	-	-	1	....	0
" " forwards	-	-	12	....	1
" " backwards	-	-	4	....	0
" " downwards	-	-	1	....	0
Osseous in anterior chamber	-	-	1	....	0
			72		56
Myopia	-	-	4	....	4
Presbyopia	-	-	3	....	0
Double vision	-	-	1	....	4
Asthenopia, fatigued vision, etc.	-	-	23	....	37
Photophobia	-	-	3	....	8
Neuralgia of the eyeball	-	-	5	....	7
" frontal nerve	-	-	1	....	1
" osseous orbit	-	-	1	....	0
Non-inflammatory irritability of eyeball	-	-	0	....	3
			41		64
Palsy.					
Superior eyelid	-	-	1	....	0
" (congenital)	-	-	1	....	0
Squint.					
Convergent	-	-	24	....	20
(Single, 28; double, 16)					
Divergent	-	-	2	....	4
Oscillatory eyeball	-	-	1	....	1
Oscillatory eyeball and myopia	-	-	0	....	1
Escaped registration	-	-	12	....	10
			41		36

Total males, 1184; females, 1152.

My object in drawing out a report so much in detail as the preceding, has been to ascertain, if possible, the comparative frequency of disease in the various structures of the eye, presented, at the time of their admission, by patients who come under my care at the Eye Infirmary of this town; also the relative disposition of the two sexes to any given disease, or to ophthalmic disorders in general.

The applicants consisted principally of artisans, miners from the neighbouring colliery districts, labourers, and their families.

The greater proportion—say three-fourths—were in the enjoyment of all the necessaries of life. A reference to the Table will shew comparatively few of the cases that are most common amongst an ill-fed and ill-domiciled population, such as scrofulous, ophthalmic, granular conjunctiva, mal-direction of the cilia, ("trichiasis"), pannus of the cornea, closure of the pupil, etc., etc.

The mining districts have afforded examples of serious and occasionally irreparable injury to sight: 1. From burns of hot fluid metal; 2. Blows inflicted upon the globe by pieces of coal, or lime-stone, producing in some, particularly those who have passed the meridian of life, general inflammation of the textures and inflammatory exudation into the aqueous chamber (hypopion); in others, subacute retinitis, terminating in amaurosis; 3. From wounds of branches of the nerve supplying the forehead and face; 4, and lastly, From injury sustained by the eye, or brain, or by each of them, from explosion of mines.

The table presents 2336 instances of ophthalmic disease observed in patients who came under treatment betwixt Midsummer 1851, and July 1, 1853. Of these 1,184 occurred in males, and 1,152 in females, giving a majority of 32 males.

But it will be obvious that, in order to form a just esti-

mate of the comparative frequency of ophthalmic disease in the two sexes, it will be necessary, in a town and neighbourhood such as Birmingham, in which machinery abounds, and mining operations are carried on upon an extensive scale, to deduct cases of traumatic injury, burns, contusions, and extraneous bodies lodged upon the eye and its appendages, from those diseases which have their origin in constitutional disorder, or a peculiar atmospheric condition, etc.

Now, the instances of the former amongst the males amount (exclusive of cases of amaurosis) to 194, whilst with the females they are not more than 36; and when deducted from the gross numbers given above, will reduce them as follows:—

Males...	990
Females ...	1116

Majority of females over males, 126.

The females appear to have been more particularly obnoxious to diseases of the eye-lids, lachrymal sac, conjunctiva, and functional disorders of the retina and adjusting apparatus of the eye (asthenopia,) whilst the males have been most prone to organic disease of the iris, and of the retina.

Birmingham, Feb. 1854.

[To be continued.]

AN ACCOUNT OF A MALARIOUS ENDEMIC.

By T. P. J. GRANTHAM, Esq.

THE interesting papers now in course of publication in this JOURNAL, by Dr. W. Addison, and a reperusal of the leader for Jan. 6th, 1854, have reminded me that one of the objects for which the Association has been established is, "Investigations regarding endemic and epidemic diseases, so as to trace and to illustrate their connexion with the peculiarities of soil, of climate, of locality, and of the habits and occupations of the population."

The following notes of an endemic may therefore be acceptable to the readers of this JOURNAL, as they confirm the facts and opinions so ably developed by Dr. Wm. Ferguson, and quoted by Dr. Watson in his *Lectures on the Principles and Practice of Physic*. Dr. Watson, in reasoning thereon, states, *inter alia*,* "For producing malaria, it appears to be requisite that there should be a surface capable of absorbing moisture; and that this surface should be flooded and soaked with water, and then dried: and the higher the temperature and the quicker the drying process, the more plentiful and the more virulent (more virulent probably because more plentiful) is the poison that is evolved."

Stretching along between the Lincolnshire Wolds and the eastern coast of the German Ocean, from the Humber to Wainfleet Haven, is a narrow belt of alluvial land, designated the Marshes. This belt is very flat, and averages about six or seven miles in width, from the foot of the wolds to the sea-bank. It is very fertile, and comprises much rich pasture land, principally devoted to the fattening of cattle and sheep, for which purpose it is justly celebrated. Of late years, however, no inconsiderable portion has been broken up by the plough.

The distant reader must not suppose that the word *marsh*, in its ordinary acceptation, is at all applicable to the present state of the district. The land has been reclaimed for centuries, is in a high state of cultivation, and is intersected with excellent roads. A thorough drainage has been effected within the last twenty or thirty years, with the result of greatly improving its salubrity. More houses are now to be seen roofed with slates and tiles than with thatch;† and an *ignis fatuus* is a rare spectacle to the benighted traveller. However, its level surface, its drains

and ditches, and the scarcity of trees and hedges, still give to it a bleak and cheerless aspect, especially during winter.

It is with reference to a small portion of this belt of marsh, embracing a part of the parishes of Burgh-le-Marsh, Croft, Skegness, Winthorpe, and Orby, that I wish to record an account of an outburst of endemic malarious disease, which happened in the year 1853.

To the perfect understanding thereof, it is necessary to state, that agues and other forms of marsh fevers prevailed, until new works for drainage were constructed in the year 1832. Shortly after their completion, ague disappeared so entirely, that, for a period of fourteen years, no cases occurred in my practice. During the last five years, isolated cases have from time to time come under my notice—the scattered drops which heralded a storm. Those cases were attributed to the less efficient condition of the drains, in which a considerable deposit of mud and organic *débris* had accumulated.

It will be remembered that the latter months of the year 1852 were very wet; rain having fallen almost daily from the middle of September to the end of December. The waters had therefore been allowed to run very low in the drains, when the snow storm of February and March ensued, and so completely choked the drains with snow, which had drifted into them and frozen into a compact mass, that, when the thaw took place, they could not carry off the waters, and the lower levels were consequently flooded.

The soil, thus saturated with moisture, was then acted upon by the sun, which subsequently shone with great power, and by the drying east and north-east winds, which prevailed with unusual severity, with few exceptional days, even up to the month of June. The subsoil in the affected district was generally either clay or stiff silt.

The water used for drinking and other domestic purposes was stagnant, obtained either from pits or the drains.* Thus the conditions stated to be peculiarly favourable to the development of poisonous miasmata were all present.

That the prevalence of diseases which immediately followed the drying of the flooded lands, and which are usually attributed to malarious agency, was wholly caused by the conditions above narrated, I believe admitted of little doubt, and further confirmation was afforded by the circumstance that several of my medical friends and neighbours informed me that no similar outburst had occurred in the better drained, but contiguous portions of the same belt of marsh; although the soil, levels, and exposure were similar, and were formerly equally obnoxious to like forms of disease.†

The following list shews the more common forms which the diseases assumed during the prevalence of the endemic, in the order of their relative frequency:—

1. Simple tertian ague.
2. Tertian ague, complicated with visceral enlargements. The liver having been most frequently, the spleen less frequently, involved.
3. General *malaise*.
4. General *malaise*, complicated with hepatic and splenic enlargement.
5. Continued fever, usually of the typhoid character.
6. Neuralgia, principally facial or sciatic; also, rheumatism.

The treatment adopted was very successful.

In simple tertian ague, a dose of calomel and cathartic extract, and followed by sulphate of quinine, in doses of one or two grains, three times a-day, usually sufficed to effect a cure.

In tertian, complicated with visceral enlargement, quinine had to be administered in larger doses, and continued a longer time, alternative doses of calomel, or of blue pill were of signal service, as was also vesication over the en-

* Attempts have been frequently made to obtain a supply of purer water by boring, but hitherto without much success; the results being, waters more or less impregnated with chloride of sodium.

† A widely diffused epidemic influence has likewise evidently prevailed, as isolated cases of malarious disease have come under my notice from other low levels, and as the almost universally prevalent asthenic type of disease confirms.

* Page 785, vol. i. Third edition.

† Thatch—the dried stems of the *arundo phragmites*—with which most of the buildings were formerly covered. It is an excellent covering, warmer in winter and cooler in summer than slates or tiles.