given: no chest symptoms, and profuse perspirations. In the former case, the pulse was 110, and the respiration 40. On the following day, the pulse was 100, and the respiration 32. In three days, the pulse had fallen to 76, while the respiration was still 32. During convalescence, the pulse remained steady, while the respiration gradually subsided to 17. In the last case, where lemon-juice was given, the pulse was at first 120, and the respiration 36. The pulse in three days lowered to 70, while the respiration had only reached 32. After three days more, the pulse was still 70, while the respiration had got down to 24. The pulse was thus seen rapidly to fall under the use of a drug which influenced the heart, while the respiration took its own course slowly to descend.

I have mentioned sufficient cases to draw more particular attention to the fact, that the respiratory act is exalted in febrile disease, and in proportion to the fever, and is not dependent upon, or proportional to, the action of the heart. As I before said, I do not allude to those cases where any pneumonia, pleuritis, or bronchitis exists, or even that hypostatic congestion in fever, which approaches so nearly to inflammation. In all such inflammatory affections of the chest, the rapid increase of the respiration is well marked, and draws attention to the condition of the lungs, and is a sign, indeed, not to be overlooked, particularly in the course of chronic disease, and where the patient is not likely to make any complaint. The state of breathing, however, to which I have particularly drawn attention, is not so rapid that the medical attendant observes it at all,—it is only by watching the movements of the chest that he becomes aware of their increased frequency.

I will just mention one or two other cases of disease to shew the independent action of the heart and lungs, the nervous influence conveyed to one being different from that conveyed to the other, and the two little affecting each other. During the last year, I have constantly seen a man the subject of some obscure cerebral affection, and who occasionally has fits of an epileptiform kind. His pulse is never more than 32, (and the heart's action corresponding); on one occasion it was 26, but the number of his respirations is normal. A young man died of disease of the brain, and his pulse was sometimes as low as 56, though on excitement, it soon rose to 80, and yet his respiration during this time was 28-30. A young child I lately saw with hydrocephalic disease, had its respiration never more than 20, while the pulse was 120.

The condition of the heart and lungs must then in disease be considered to a great extent separately; for although the two organs are intimately connected, each has its own independent function and action. In a case of extreme bronchitis, with great pulmonary congestion, and a general venous stagnation, the state of the radial artery is taken as a test of the condition of the circulatory system and of the powers of the patient. Although the veins may be full to bursting, bloodletting is not considered, because the arterial system denotes emptiness and weakness, and the heart feebleness. A stimulant is often given in such cases when the pulse is small, but which only increases the evil. I believe, in such cases, a small bloodletting would often be useful in relieving the circulation, merely by its mechanical effects, and which, I apprehend, to be the principal use of this remedy. The following is a good example of this treatment:—A stout boy, seven years old, who had a chronic cough after pertussis, and who was in a condition commonly called asthmatic, was one winter's day seized with increased difficulty of breathing. The symptoms rapidly became so severe that death was expected. The head was thrown back, the face and body were blue, the eyes protruding, the dyspnoea excessive, the pulse quick and hardly to be felt, and a fatal issue evidently near at hand. The prominent jugular vein stood out temptingly. It was opened, some few ounces of dark blood escaped, the congestion was very soon relieved, the breathing became tranquillized, the boy lay back and was soon in a sound sleep, and the next day was comparatively well. I mention this as an instance exemplifying how useful and often neces-

sary it is to regard the pulmonic circulation more distinctly, and more apart from that of the general circulation.

A very rapid respiration is generally indicative of an inflammatory affection of the lungs, unless it arise from a nervous cause, which is usually evident; and a difficult respiration accompanies affections of the air passages, and all causes which hinder a free ingress of air to the lungs. The purport of the present paper is to shew more distinctly the increased rapidity of respiration in all febrile disease, and which I take as an evidence of a temporarily increased function. Without, however, laying too much stress upon any of the theoretical statements I may have mentioned, I would at present only draw more particular attention to the fact, that in all febrile diseases, the number of respirations is much increased, and has a certain relation to the fever, and that this symptom is as constant as any alteration in the character of the pulse, skin, urine, etc. A more detailed account of the state of respiration in disease, I shall reserve for another communication.

St. Thomas Street, Southwark, Jan. 30th, 1853.

PASSAGE OF NINETY-ONE GALL-STONES THROUGH A SUPPOSED ULCERATED OPENING OF THE GALL-BLADDER INTO THE INTESTINE.

By F. W. P. JAGO, M.B. Lond.

DR. W., of Plymouth, was taken ill on the 28th Nov. 1853. He is about 37 years old, of a spare habit, and marked bilious temperament. He was formerly in large practice in Leicestershire; but, in consequence of ill-health, was about three years ago obliged to give it up. At the age of sixteen, he suffered a severe and protracted attack of jaundice, attended with considerable enlargement of the liver. At the age of twenty, while a student, he had an attack of "spasms", with jaundice, acute pain over the gall-bladder, incessant vomiting, and obstruction of the bowels; so that his life was in great danger. These symptoms ceased on the passage of a gall-stone, of about the size of a filbert. The treatment consisted of repeated bleeding, the application of thirty leeches over the right hypochondriac region, saline aperients, calomel, colocynth, and opiate injections. Restoration to health was protracted.

Since then, he has had an attack every other year, generally about the latter end of autumn or of spring, each illness lasting from seven to ten days; but no gall-stones had been passed or found. The treatment had been just as in the former case. In the intervals, Dr. W. had suffered much from indigestion, irritable bowels, and bilious diarrhoea, especially during the winter.

On the 28th of November last, he was seized with pain in the region of the gall-bladder, distension of the stomach, and total loss of appetite. On the 30th, there were severe spasms and much vomiting, with an increase of pain.

Dr. H. and myself attended at Dr. W.'s request. We found him labouring under the above symptoms. The left lobe of the liver was apparently enlarged, with great tenderness in the epigastrium. After sleeplessness for forty-eight hours, a gall-stone of the size of a pea passed, followed by evident relief. The remedies were saline aperients, occasional doses of blue pill, hyoscyamus, hydrocyanic acid, and morphia suppositories.

The jaundice and enlargement in the region of the gall-bladder continued to lessen for two or three days, and recovery appeared to go on favourably; but, on the 9th of December, all the old symptoms returned with intense violence, and continued without intermission for several days. The spasms were insupportable; and the vomiting was incessant, with discharge of mucous and gaseous matter. Salines only could be retained for a minute or two. On December 12th, there was a severe rigor, the tenderness and tumour over the gall-bladder being very great. These

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, 1864.

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, 1861, to July 1st, 1863.

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 -	3	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
Blind 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