We have no need for warriors or their methods in this Arcadian realm where we hope the white-winged messengers of peace and forbearance will insure a long and honorable prosperity. Rather let us emulate the busy bee, whose quiet but indefatigable industry slowly but surely achieves results that furnish the text for the grandest ambition. Nothing is accomplished in scientific circles by the lash or the sword. Patient delving, silent study, harmonious communion and comparisons with fellow-laborers are the omnipotent factors that build and ornament the fabric whose foundations are built on stony facts and gilded with empyrean truths. The real architects of the world are brain-workers. In the little gray cells are evolved the masterful conceptions before which the brawny mason and the iron-monger stand in awe while realizing the insignificance of their own rude works. Franklin harnessing the lightning, Morton evolving an anesthetic, Jenner elucidating vaccinia, these are only a few of many instances I might cite to show the tremendous value and glory of mental achievements before which the brutal deeds of giants, the bloody triumphs of armies and the huge works of ponderous machinery pale their fitful luster as ignominiously as a flickering taper in the glare of day. Mind dominates matter, and the wise physician, figuratively speaking, controls the dynasty of every kingdom.

How few, even of our own number, realize the stupendous power of an alchemy or a knife that may blast a nation's hopes or break a mother's heart. Only after a lifetime of ineffectual labor is drawing to its close, does the sluggard comprehend the loss in his wasted moments or even the jaded savant, while realizing his incompetence give utterance to his impotent regrets. A song of praise or a meed of opulence may beguile us with their tuneful lullabies and may seduce the loitering dreamer while time and opportunity are running riotously away. So life, like the brook, flows on and on, and the dalliance of the year that has passed becomes the anathema of the one that is born, without relief from the curse that has blackened them all. Toward the end, prizes and power alike have exhausted their potency; and still the sluggish mill pond contains the sediment of a myriad aspirations that sparkled like iridescent diamonds in the crystal waters at their source. Only to those patient few who show untiring fidelity to their work and a lifelong devotion to duty, will come the real meed of glory. By many unostentatious sacrifices they may reach a pinnacle for others' wonder, may build an immortal monument for themselves, while giving health and happiness to untold millions. The lesson of a self-sacrificing life is not lost. Even moderate intellectual powers, rightly applied, may bring us greater rewards than riches or rank, though they also can be won. To many of us belong such intellectual attributes and powers. What tocsin shall wake them from their slumberous lethargy?

"Lives of great men all remind us,
We can make our lives sublime."

But how or when? That is the burning question which glows in the morning of intention, but the night shades of delay enshroud them in their pall. The enigma finds solution in the gathering of this evening, the clash of intellect in seemingly debate encompasses the defeat of error, and as the sword in battle leaves only the imperishable to valor. Out of the destruc-

tion comes conquest, and truth and fame are the rewards of the struggle. Let us cultivate these discussions then, in the spirit in which they are instituted, for self-improvement and the advancement of medical research, always keeping in mind the axiom, that in "unity there is strength" and that the end to be attained is the common good of all. Let us not imagine for an instant that any individual member of this society is essential to its future welfare. Egotism and contention are a baleful menace to our prosperous continuance. Our association must be harmonious to be stable. Let the suave chivalry and the courtly demeanor of the drawing-room add lustre to the learning and skill of the polished doctor and let the wounds of debate be forgotten at their close. Recriminations inadmissible in convivial society should find even less tolerance in the efforts of scientific explorers. Let the torrid Hotspur bathe his reeking flanks in patience and accord forgiveness to petulant zeal, always remembering the object of our meeting is to promote medical study for the enlightenment of our guild. This is our professional home. Beneath its shelter we can all find a warm welcome and a pleasing habitation. Let the discordant sounds that shock men in the busier marts of trade find no echo in its precincts, hallowed by so many associations and sacred to such lofty themes. Within the walls of a symposium so alluring, let the traveler of science find fitting respite and a sweet hospitality in the bosom of his friends. Surrounded as I am, in this charmed circle by men I know so well, it seems superfluous to mellow the lute to ears properly attuned by study and breeding; but I feel we have set in motion a beautiful engine, capable of doing great good for us and afflicted humanity, and I would be derelict in duty to hush these notes of warning.

On the other hand, if we realize the advantages as well as the dangers that confront us, we shall succeed in the fullest measure. This society will be a beacon to all. Let its shining light not only illuminate our own lives, but guide others who are in darker lines to its fostering influences. Thus educated and equipped it may be our boast, as it has been our predecessors, that our great brotherhood has been ennobled by every generation that wore its livery.

ORIGINAL ARTICLES.

ON A NEW TYPE OF NEURASTHENIC DISORDER—ANGIO-PARALYTIC OR "PULSATING" NEURASTHENIA.

BY CHARLES L. DANA, M.D.

PROFESSOR OF NERVOUS AND MENTAL DISEASES, NEW YORK POST-GRADUATE MEDICAL SCHOOL; VISITING PHYSICIAN TO BELLEVUE HOSPITAL.
NEW YORK.

The present tendency to analysis and differentiation of clinical types is a helpful one. It may at first sight seem to encumber our nosology needlessly, but the final result is to secure a better comprehension of disease, its cause and its treatment, as well as to lead eventually to simpler classifications. This fact has been well illustrated in the history of neurology. I feel sure that the differentiation of a good many types of neurasthenic disorder will eventually be made and that this, if carefully done, will help to remove the indefiniteness at present suggested to our minds by the word.

Such is my apology for attempting to describe a new type of neurasthenic disorder now.

I have had six patients who all presented very distinct and peculiar symptoms. Coming to me at varying intervals I have been struck with the similarity of their symptoms. It justifies me in claiming for them a distinct type of functional disorder.

The clinical portion is best shown by telling the story of one of my patients:

Case 1.—He was a furrier by trade, an Englishman by birth, married, and 29 years of age; his mother had heart disease; the rest of the family were healthy. He was always a strong and active, though nervous, young man. Since a boy he had used tobacco excessively and drank much beer. He had never had syphilis or bad sexual habits. When he was 18 years old he was attacked with a sudden fainting spell, and a few days later he had something like a convulsive tremor. The seizures were evidently due to excessive smoking. Since these attacks, which did not recur, he has had a general feeling of pulsation through the whole body. It is not his heart alone but his chest, trunk and head that throb in unison with the heart beat. This pulsation stays with him day and night, and in every position of the body. Neither rest or activity modifies it very much. Abstinence from tobacco and alcohol does not relieve it. It is accompanied with some nervousness, and he occasionally has a sense of propulsion as though he were going to run forward. He has very rarely vertigo but no tinnitus aurium. He sleeps well. His symptoms have continued, with varying intensity, up to the present time. He is now, however, rather worse. An examination of him reveals a healthy, nervous looking man; the hands show a fine tremor. The skin is dermatographic, to such an extent that one can distinctly write a name on it which comes out bright and red and remains for thirty or forty minutes. The skin is moist and ruddy, the pulse very soft, compressible, the rate being 80 per minute.

There is no goitre or exophthalmos. He sometimes has a little vertigo; but no pain, or headaches. His special and general sensations are normal. He has no atrophy or paralysis. There is some exaggeration of the knee-jerks and a considerable degree of the static ataxia which I find common in neurasthenics. His urine is normal. His heart is normal, beating strongly, yet it is not hypertrophied. There are no murmurs. Pulse, 75. He has a decided epigastric pulsation and a systolic murmur is heard here. Pressing on the carotids lessens quickly the throbbing feeling in his head.

The trouble makes him nervous and distressed, and he is barely able to attend to his business. A long rest, including a sea voyage, and abstention from tobacco and alcohol did him no good.

Under treatment he improved slowly. Two years later I saw him again. His health was much improved but the pulsation still annoyed him.

Case 2.—The second case was more remarkable by reason of the successful therapeutic procedure employed. The patient was a man 27 years old, single, an oyster opener and dealer by trade. He had worked very hard and been exposed to wet and cold. He denied, absolutely, sexual excess and venereal disease. He used alcohol and tobacco in moderation. It is to be remembered, however, that assertions of temperance in these things are not always trustworthy; and in this patient I thoroughly suspected masturbation. His parents had no nervous trouble. He had had most of the diseases of childhood, but was always fairly well aside from these. In 1884 he had typhoid fever. In May, 1889, he suddenly and without known cause, began to have attacks of palpitation of the heart. This gradually passed into a condition in which he felt a sensation of pulsation all over the body; a general throbbing, synchronous with the heart beat. This beating was much more marked in the head and was here accompanied with a feeling of pressure in the occipital region. He suffered a great deal from cold hands and feet. He had no dyspnea and no pain. His appetite and digestion continued fairly good but he became very nervous and mentally depressed; and his sleep was disturbed. In fact he denied that he slept at all. I first saw him in March, 1890, a year after his trouble began. Examination at this time was largely negative, so far as objective symptoms are concerned. He was fairly nourished but rather thin. The lungs and abdominal viscera were normal. The heart action was not strong, but there was no dilation or murmur. The rhythm was normal, and the pulse rate never high, ranging from 70 to 80. The pulse was very soft and of low tension, the hands and feet cold and easily congested. The skin

was very dermatographic, a mark upon it lasting five hours. He had an epigastric pulsation. Pressure on the carotid stopped the beating on the side of the head on which pressure was made. There was a slight enlargement of the thyroid, but no exophthalmos, no tremor, no sweatings, no heat sensations. The reflexes and the special senses were normal. The urine also was normal in amount and reaction: specific gravity 1026. It showed great excess of phosphates. His intelligence was good; he was not hysterical. No form of treatment, mental or medical did him any good. He had given up work because he said he could not attend to it.

I finally sent him to the hospital and had him put to bed and carefully watched for possible masturbation element. Rest, carotid compression, tonics, sedatives, ergot, digitalis and other drugs failed to relieve him except that his sleep was improved by sulphonal.

He became willing to undertake any treatment for his relief, and I finally sent him to Dr. Seneca D. Powell who kindly undertook to tie the common carotid. This was successfully done at the Post-Graduate Hospital in the fall of 1890. After the operation the patient expressed himself as quite rid of the distressing beating so far as the right side of the head and body was concerned. He felt so much relief that he was able to endure the left-sided beating. He left the hospital and went to work. Dr. Powell and myself have seen him at intervals since. He continues better; the beating has not returned on the right side but continues on the left. He has gained some in flesh and strength and is comparatively comfortable, it being now over three years since the operation.

Case 3.—The patient was a young man of 25, of healthy antecedents. He denied venereal infection. He was always of a nervous temperament. For the past three years he had drank excessive amounts of beer, had sometimes taken a small keg in a day. He smoked moderately and there was no sexual excess. In the spring of 1891, while in apparent health, he awoke one morning with a feeling of dizziness and nervousness; sensations of beating and throbbing appeared; he became very nervous and depressed and was unable to concentrate his mind on his work. A beating sensation was felt in his head and chest continually and caused him great distress. He had also headache and insomnia, and ringing in the ears. He placed himself under the treatment of a local physician who found a sensitive urethra and treated him a long time for this with slight benefit. When examined by me, I found a rather rapid pulse, 85 per minute, of low tension. The heart was normal in size and sounds, the peripheral circulation was sluggish, the extremities cold and easily congested; the skin was dermatographic; there was an epigastric pulsation, though not so marked as in other cases. An examination of the eyes by Dr. Wm. F. Mittendorf showed astigmatism and a slight venous pulsation of the retinal vessels. The tongue was coated and the bowels constipated. His most annoying symptoms were the beating, the nervous depression and that indescribable feeling of incapacity to work and enjoy life which the neurasthenic dwells upon so much. I should add that he had repeatedly tried to master his sensations and go to work, but they never left him, and he returned to his invalid habits in despair. He has improved considerably, but is still far from well.

I have not met with exactly similar cases in women.

Case 4.—A married woman, aged 55, and several years past the menopause, has frequently complained of the same pulsating sensation. She is rather large and plethoric, and is of a nervous temperament. For several years she has suffered from nervousness, insomnia and the vasomotor symptoms of the climacteric. She now complains chiefly of the constant "beating, beating, beating" in the head and chest, and is quite sure a vessel will burst unless it is stopped. The pulse is quite regular, constantly at 100, but there is absolutely no exophthalmos, goitre or even tremor. Basedow's disease does not appear at this age. Her heart is slightly enlarged, and there is a systolic murmur at the base, which, however, disappears when she gets relieved by treatment of the tachycardia and pulsation. The urine is normal. She improves rapidly under aconitia and rest. The pulse got down to normal, the murmur disappeared and she was comparatively well for six months. The symptoms returned for a few months under stress of some domestic affliction and have been again relieved.

It is evident that cases of this kind are more closely related to Basedow's disease than those before

described. They are not due to any heart lesion, for people with heart disease do not have such pulsating phenomena except during attacks of palpitation.

The other cases which I have seen have not all been so severe and obstinate as the above four, but the patients have shown the low tension pulse, vasomotor weakness of extremities, subjective sense of beating felt most in the head, epigastric pulse, dermatographic skin, insomnia, nervousness and mental depression.

Etiology.—So far as my experience goes, the cases occur in young men or adults under 40. I have not seen this form of disorder in women except in the modified type described. The abuse of tobacco and alcohol, particularly the former, was the conspicuous exciting cause in two cases, while tobacco and alcohol and sexual excesses were factors in the others.

Pathology.—The instability of the vasomotor system in neurasthenics is well known and has been particularly shown by Wolf (*Allg. Zeitsch. f. Psych.* xxiv.) and Anjel (*Arch. f. Psych.* viii., 2). The special symptoms of palpitation, of epigastric pulse and of tinnitus, fullness of the head, head pressure and throbbing are also familiar. But the patients I describe have more than this. There is a general pulsation of the body felt most annoyingly in the head but also in the trunk. One patient (Case 2), when suspended in a Sayre's apparatus, could be distinctly seen to move with each beat of the heart.

It appears to me that in this condition there is an abnormal relaxation of the arterioles and capillaries, the blood is thrown into tubes that have lost their resiliency and thus the pulse waves are not fused together. It is as though a liquid were thrown through a series of tubes with flabby non-elastic walls. Hence the heart-beat is strongly felt all along their course as far as the capillaries. Besides this there is after a time a hypochondriacal element in their cases. The patient's attention becomes fixed unalterably on his sensations.

Van Hósslein (*Miller's Handbuch der Neurasthenie*, p. 127) describes the case of a neurasthenic who suffered from epigastric pulsation. This tormented him so that he went to a surgeon who opened the abdomen thinking he had an aneurysm. The abdominal aorta was found to be perfectly normal; the wound healed and the patient was cured.

I doubt if Dr. Powell's success can be accounted for in this way, because he only cured one side of the man. Yet it seemed to help him generally and permanently more than one would expect from the nature of the operation.

Symptoms and Diagnosis.—I have already referred to the characteristic symptoms of the malady. The patient is neurasthenic and presents the general symptoms of this condition. But his special symptom is the sense of beating of which he never loses the consciousness. He has a low tension pulse of normal or but slightly accelerated rhythm; he does not have palpitations occurring in paroxysms as in Basedow's disease. He may or may not have tremor; there is a striking degree of dermatography, and an epigastric pulsation. Pressure on the carotid stops the beating on the corresponding side of the head. There is no evidence of exophthalmic goitre. There is, usually, insomnia, nervousness and mental depression.

Treatment.—The striking success of surgical treatment in one case leads me to believe that ligation of

an artery is the surest cure for the disorder. Still in the milder and less typical forms, cure is obtained by the use of general and vasomotor tonics, in other words by the ordinary treatment for neurasthenia. I have found no benefit from ergot. Restrictions must be promptly placed upon the use of tobacco, alcohol and sexual indulgence. Potassium iodid, hyocine, hydriodic acid and arsenic sometimes act well in this as in other forms of vasomotor neuroses. Aconitia in doses of gr. 1-200 may be of service. I strongly advise against the use of the bicycle in these cases.

A prescription containing bromid of iron gr. $\frac{1}{4}$, bromid of potassium grs. x, hydrobromic acid $\mathcal{M}$ viii and spartein sulphate gr. $\frac{1}{2}$, gives relief in many cases. Bromid of camphor and strychnia are often useful. I insist, when possible, upon the patient taking hydrotherapy in the form of a Charcot or Scottish douche.

50 West Forty-sixth Street.

A FURTHER DISCUSSION ON MALARIA A WATERBORNE DISEASE.

Read before the Mississippi Valley Medical Association at its twentieth annual meeting, at Hot Springs, Ark., Nov. 20, to 23, 1894.

BY W. H. DALY, M.D.

PITTSBURG, PA.

Ex-President of the Section of Laryngology of the Ninth International Medical Congress; Member of the American Climatological Association; Member of the American Laryngological Association; Senior Physician to the Western Pennsylvania Hospital, Pittsburg, Pa.; Consulting Physician, Throat Department Pittsburg Free Dispensary; Member of the British Medical Association.

A paper which I read before the American Climatological Association, in Washington, May 29, 1894, entitled, "Some Practical Observations on so-called Malaria being a Waterborne Disease," and published in the *Medical Record* of Sept. 15, 1894, has called forth in the *Medical Record*, and other medical journals, much correspondence pro and con; it has also brought to me many private letters from prominent medical men, who have read my paper, many, in fact most of them, not only indorsing my observations and views, but giving as a result of their own independent observations, data which strengthen the position I have been brought to contend for. I am pleased to learn of the widespread attention the paper has received, and only ask that the same unprejudiced observations will be resorted to that my paper comprehended, that every factor in the question shall be taken account of, and that causes and consequences shall be followed up, in considering both the evidence of the water, being the sole or chief vehicle of the Laveran corpuscle passing into the human organism, or the air we breathe, or whether both the air and water are the efficient vehicles of the germ finding its way into the blood, where we know it exists in the pathology of malaria; producing its manifestations, known to us as paludal fever, malarial fever, or chills and fever in its multiforms.

In summing up the evidence in a given case of so-called malaria, it is important to remember, that the water vehicles of malaria may include contaminated land water, taken into the stomach on the stalks of celery, or on the leaves of lettuce, or it may find its vehicle in the rinsing of milk cans with malarial water, or in the adulteration of milk with contaminated water containing the Laveran germ; the cistern water stored under the earth may easily be contaminated by the earth water containing the germ, if the