

edly consumed in the tissues; but the blood in a tissue was itself undergoing change at all parts of its course. Oxygen must be consumed, and carbonic acid produced in the lungs, as well as in the liver or skin. Urine in the capillaries of the kidney was not the urine of bladder; the saliva of the acini was not the saliva of the duct; and the bile of the gall-bladder was not the bile of the hepatic capillary ducts. Chemistry alone could teach the accurate constitution of tissues, and to that science we must look for progress.

Dr. CHARLES said, in reference to Dr. McVail's remarks, that he was afraid the method of estimating the gases in liquids pursued at present was of too complicated a nature to be made use of in clinical investigations. As to the statement that the results of the analyses of the gases of secretions were not reliable, owing to decomposition occurring in the secretions after death, he held that this objection would not apply to his experiments, as they had all been made on bile flowing directly from the liver. Indeed, results of this kind were, in his opinion, as trustworthy as those derived from an investigation of the gases of the blood.

THE CURE OF WRITER'S CRAMP.

By A. DE WATTEVILLE, M.A., M.D., B.Sc.,

Physician in Charge of the Electro-Therapeutical Department, St. Mary's Hospital.

THE group of symptoms—neuralgic, paralytic, and spasmodic—the varying combinations of which, in individual cases, constitute the ailment known as writer's cramp or scrivener's palsy, has hitherto defied the most strenuous efforts of therapeutics. At least, the instances in which improvement has taken place are so few and far between, as to illustrate the saying that "exceptions confirm the rule."

I need not, in this paper, give a full account of the different theories propounded at various times in explanation of this singular neurosis. The fact of its clinical versatility, sometimes with a sensory, oftener with a motor predominance of symptoms (tonic, clonic, or parietic), certainly points to a strictly peripheral origin. Several observers have adopted this view, and Dr. Vivian Poore, who has devoted much attention to the etiology of writer's cramp, has advocated it with much ability, describing this ailment as an instance of what he calls "chronic muscular fatigue diseases." In this category, and intimately connected with the complaint now under consideration, naturally fall all those cases where groups of muscles brought into play in the performance of acquired co-ordinated actions, become the seat of nervous troubles. These "professional neuroses," as they have also been called by German writers, have received a considerable amount of attention during the last few years. Cases have been described among violinists, pianists, telegraphists, as well as among lawyers, tailors, machinists, and even ballet-dancers.

The pathognomonic symptom of the muscular disturbances in this class of cases is that the spasm or paralysis, as the case may be, becomes apparent only during the action which brings the particular co-ordination into play. With reference to the pain, when it does exist, it may be spontaneous; but if it be called forth or exacerbated by movements, it is only these co-ordinated actions which have the property of doing so.

Now with reference to the treatment of these "professional" neuroses, it may fairly be said that, not only has the *Pharmacopœia* been ransacked in the search of a suitable drug wherewith to combat the symptoms, but every known external means of treatment has in vain been tried. Successes in individual cases have occasionally been reported, but no method has proved regularly successful. Various shaped pens and supports for the hand and arm are but very poor substitutes for the healthy action of these parts in writing. Electrical and hydropathic applications have failed, even when combined with protracted rest and hygienic measures. Massage, if we are to believe sundry reports, has proved of service in certain cases; but, until five or six years ago, no one claimed to have discovered a method by which a large percentage of the sufferers from writer's cramp and other "professional" neuroses were speedily and permanently cured.

In 1881 Professor Charcot, on reliable reports published by some of the leading physicians and surgeons in Germany, called to Paris a gentleman, Mr. Julius Wolff by name, whose successful application of massage and gymnastics combined, had earned for him a great reputation in his native country. Two inveterate cases of writer's cramp

were placed under his care, with the result that, in both, the patients were able to resume their pens after two or three weeks' treatment (see *Progrès Médical*, January 21st, 1882). Since then the new method became known, by name at least, in this country; and we find it described, for instance, in the second edition of Dr. Ross's classical treatise on the *Diseases of the Nervous System*, vol. i, p. 606. (See also *The Year-Book of Treatment*, page 38.)

During the latter part of last year Mr. Wolff came over to this country for the purpose of demonstrating his method. The discouraging failures which had hitherto attended all my efforts for the relief of the comparatively numerous cases of writer's cramp and allied neuroses it had been my fate to meet, as contrasted with encouraging results obtained by the new system, made me anxious to obtain personal evidence as to its efficacy. I followed with keen interest the cases of two patients, treated under my eyes by Mr. Wolff, and of which I give a condensed account.

CASE I.—Mr. H. S., representative of a house of business, aged 38, was sent to me by Mr. Ernest Hart, with a view to deciding whether his case was a suitable one for the application of Wolff's method. The patient is tall and muscular, and though formerly rather delicate, has had no serious disease. There are some neurotic antecedents in his family. His present complaint began very gradually many years ago. He lost the power of writing quickly; his handwriting, which used to be good, became indifferent, from the uncertainty of his movements. Pains appeared in the forearm, upper arm, and shoulder. The thumb, index, and middle finger became the seat of cramps, accompanied with much pain. The spasm of the thumb made it slip off the pen. Then the hand began to turn. It took him fourteen minutes to write two lines in a very shaky manner. The patient had to give up his employment, and apparently improved by protracted rest; but not sufficiently to resume his writing. He was in this condition when I saw him; and as the case was one of typical writer's cramp, I immediately sent him to Mr. Wolff, under whose treatment he remained for four weeks. The operations of stretching, massage and local gymnastics, were repeated twice a day for from twenty-five to forty minutes each time. He has since called upon me to report himself cured.

Case I.

*I am suffering from
Writers Cramp and
I am now cured
of the Cramp.*

CASE II.—Mr. F. B., merchant, a strong and healthy man, aged 35, without any antecedents worth noting, has, for over ten years, been unable to write properly. He began, without known cause, to experience a sense of fatigue in the hand and arm, but no pain. The thumb and little finger became more especially the seat of the feeling, which, however, did not preclude the possibility of writing. Actual weakness, however, set into these parts; later still, tremors and violent spasms made their appearance in the whole hand, in the thumb more especially. The power of guiding the hand was lost. On trying to write, the patient experienced such violent shaking, that his whole strength of will was unable to overcome it sufficiently to shape the letters. He could freely use his hand for every other purpose. He then gave up every attempt at writing. For the last three years he has been able to trace a few words. I saw this patient early in December, when he began Mr. Wolff's course of treatment. After five weeks, he was able to write for hours without pain, spasm, or tremor, and has now resumed an active share in all the duties of his profession. I may add that, as is usual in such cases, all the ordinary methods (electricity, hydrotherapy, etc.) had been tried previously, and failed.

I have appended facsimiles of the handwritings of these two patients before and after treatment. In addition to the tremulous, distorted character of the letters before treatment, the reader must bear in mind the time and efforts required, in both cases, to trace these few words, as well as the pain involved in the performance.

Case II.

London
19. November 1884

The doctor

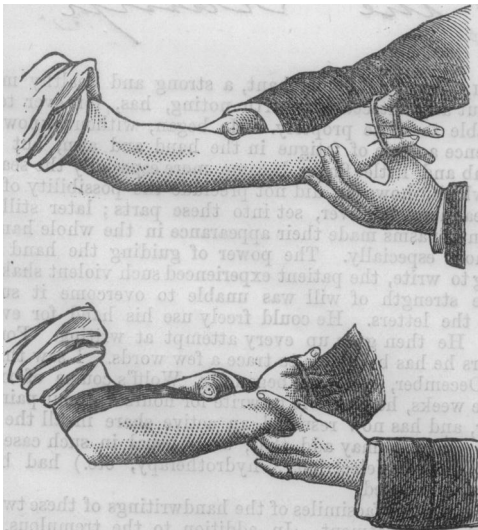
London January 6th
1885

Dear Sir

I beg to inform you

The result obtained in these two unselected cases, as well as authentic reports obtained by myself of other cases treated at the same time in this country by Mr. Wolff, convinced me that his previous reputation rested upon a solid basis. In London his success has been the same as that witnessed by Professors Bamberger and Billroth in Vienna, by Professor Esmarch in Kiel, by Professor Bardeleben in Berlin, by Professor Nussbaum in Munich, by Professors Wagner and Schmidt in Leipzig, and equally eminent authorities in several other continental towns. I therefore thought it my duty to call the attention of the medical profession in this country to the fact that the hitherto intractable forms of neurotic disturbances, which we, for brevity's sake, may call "writer's cramp," can no longer be said to defy therapeutic measures. I have never practised myself the manipulations required to bring about the desired result, but have witnessed Mr. Wolff—who makes no secret of them—at work on some of the patients entrusted to him. These manipulations, besides being fatiguing to the operator, require a considerable amount of "tactus cruditus," or, more plainly, of "knack."

The massage consists of rubbing, kneading, stretching, and beating of the fingers, and the several muscles of the hand and arm, with or without the simultaneous assistance of elastic bands, as shown in the figures.



The gymnastic exercises are active and passive. The latter consist of flexions and extensions of all the joints of the fingers, hand, and arm. Active exercises include systematic voluntary movements of

the parts affected; and if the general condition of the patient requires it, of all the limbs and trunk. As a rule, at least two sittings daily are required, extending from twenty to forty minutes each on an average; and, in addition to this, the patient may be required to practise the gymnastic exercises at home. Later on, graduated exercises in writing are prescribed. It is impossible to enter into minute details concerning these operations, which must vary with the idiosyncrasies and peculiarities in the case of individual patients.

The extremely rapid results obtained by this method of purely peripheral treatment in some authentic and inveterate cases of writer's cramp appear to me to speak against the central origin of the disturbance.

[Since this article was written, I have had the opportunity of testing the daily progress made by a gentleman sent by me to Mr. Wolff. The case, one of the worst I ever saw, was of seventeen years' duration; and yet, before a fortnight had elapsed, the use of the pen had returned to such a degree as to allow the patient to write for several hours a day, and with almost normal rapidity and firmness.]

Mr. Wolff having been but a short time in this country, I have had no personal evidence of the durability of the cures effected by him. But I have before me a letter written by a gentleman six months after his recovery from a writer's cramp of seven years' duration.

In the *Deutsche Medicinal-Zeitung* for January 25th, 1883, we also read of a case presented to the Medical Society of Berlin, in which no relapse had occurred four years after the treatment.

Mr. Julius Wolf, who is not a medical man, has from the beginning very wisely refused to act independently of the profession, and makes it a condition that in every case the treatment shall be undertaken under the responsibility of some qualified physician or surgeon. I have much pleasure, therefore, in inviting practitioners who have under their care patients suffering from writer's cramp, or some allied form of neurotic disturbance, to address themselves to Mr. Wolff, who is at present residing in London (28, Duke Street, Grosvenor Square, W.). I feel sure, from my personal knowledge of this gentleman, and from experience I have had of his method, that they will have every reason to congratulate themselves on the result.

ABSTRACT OF A PAPER

ON A REMEDIAL OPERATION SUGGESTED FOR CASES OF OBSTRUCTION OF THE GALL-DUCT.

By J. McF. GASTON, M.D., Atlanta, Georgia, U.S.A.

GAILLARD's *Medical Journal* for October 1884 contains an interesting paper, on a suggested operation for the relief of the bad effects which arise from obstruction of the common bile-duct. By the operation of cholecystotomy, Dr. Marion Sims and others have endeavoured to correct the evils and remove the danger of a closure of the duodenal end of the common duct; but, out of thirty-four cholecystotomies, death occurred in nine soon after the operation, and, should the patient survive for a short time, the outward discharge of bile would represent a complete waste of one of the most important of the digestive fluids, and involve an impairment of nutrition that must ultimately prove fatal. Dr. Gaston, of Atlanta, proposes to establish for the bile a fistulous opening through the walls of the sac and the neighbouring intestine, the bile being thus discharged into the intestine, and not externally.

After discussing the clinical aspects of a case of obstruction of the common bile-duct, and the physiological results of this pathological accident, Dr. Gaston describes two necropsies made by himself in cases of complete occlusion of the duct. The first of these two cases was a middle-aged man, who came under Dr. Gaston's treatment for severe symptoms of impacted biliary calculus, including absence of bile in the evacuations, jaundice, itching, and tenderness over a fixed point a little to the right and below the ensiform cartilage. There was, also, a peculiar and very persistent pain in his right arm. There was a sudden improvement in the patient's condition, with a change in the character of the evacuations, which contained a number of gall-stones. Some of these were of a size that caused Dr. Gaston to suspect an ulcerated communication of the gall-bladder with the upper part of the small intestine. The patient gradually became convalescent, and returned from the United States to Brazil, where he superintended a plantation. He had, however, to come home again in a few weeks, expectorating offensive bile-stained sputum, and died in a few days.

The necropsy revealed ulcerations connecting the gall-bladder with that part of the intestines adjacent to the duodenum, and an opening through the diaphragm into the lungs, with which firm adhesions