

scopes, with such apertures and magnifying powers, under limited lengths, as, in the opinion of the best and undeniable judges, who have experienced them, far exceed any thing that has been hitherto produced, as representing objects with great distinctness, and in their true colours.

John Dollond.

XCIX. An Account of some extraordinary Effects arising from Convulsions; being Part of a Letter to John Huxham, M. D. and F. R. S. from William Watson, M. D. F. R. S.

6 June, 1758.

Read June 15. ^{1758.} **I**N the month of January 1757, I was concerned for a young gentleman, who, if the number, continuance, and frequency of their returns, be considered, suffered the most violent and severe convulsions I ever knew. At some times the muscular spasms were general; at other times single muscles only, or a number of them, subservient to some particular purpose in the animal oeconomy, were affected. And such was the peculiarity of this case, that after and in proportion as any single muscle, or any determined number of muscles, had been in a state of spasm, a paralytic inability succeeded to those muscles, which very much disordered and impaired, and several times even for no small continuance prevented the patient

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from

from performing, several of her necessary functions. When the muscles, for instance, subservient to deglutition had been convulsed, for many hours after the fits had left her, she has not been able to swallow a single drop of liquid : so that when attempts have been made to cause her to drink, unless the liquor was immediately thrown back, there was imminent danger of her being strangled. When her eyes have been affected, several times a compleat *gutta serena*, and total blindness, has ensued ; the patient being able to bear the strong day-light with open eyes, without being sensible of its influence, or in the least contracting her widely dilated pupils. After one of these fits the blindness continued full five days ; and I began to be in fear for the return of her sight.

You, Sir, who are so excellently well versed in the animal oeconomy, are not to be informed, that vocification is performed in the *aspera arteria* ; but that the articulation of sounds into syllables and words is modulated principally by the tongue, and muscles about the larynx. In the case before you, very early in the disease, the spasms seized the muscles about the larynx : the consequence of which was, that after they were over, the patient was unable to utter a word. This faculty however she again once recovered ; but it continued a very short time, as the fits returned, which again left her deprived of the power of speech. After having lost her voice a second time, her power of speech did not return, even after she was freed from her convulsions, and her general health restored. Fourteen months passed, whilst this patient continued absolutely speechless ;
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when, after having violently heated herself by four hours dancing, on a sudden her power of speech returned, and it has continued perfectly free ever since.

What is still further remarkable in this case is, that during the whole time of this patient's continuing speechless, her life was rendered yet more uncomfortable by her having, from the injury to her brain by the spasms, forgot how to write, so as to express her meaning that way: but upon the recovery of her speech, this faculty likewise returned, which she has retained ever since. During the severity of this disease, which continued several weeks, almost every day of which, from the number and violence of the convulsions, I feared would be the patient's last, nothing was left unattempted, which I imagined could tend to prevent the return of the spasms, or lessen their effects. My endeavours so far happily succeeded, that her fits did not return; but the consequences of them continued, more particularly her inability to speak. After some months however, when she was recruited in her strength, I was desirous of trying the effects of electricity, more particularly applied about her throat. This was accordingly attempted; but such was the state of her nerves, and their sensibility to its effects, that electrizing brought back the fits, which again affected her sight: so that I was compelled to desist, lest, in endeavouring to restore her speech, I might not only fail in this attempt, but might bring possibly on a permanent blindness. I determined therefore to trust the whole to time, which has happily removed all her complaints.