with the latter, and the cerebro-spinal system, acting under the influence of the great sympathetic,—the character of action of the former is stamped by the influence of the latter.

(2) Grief is expressed by tears, pallor, loss of appetite, functions controlled by the sympathetic, by sobbing, wringing of hands, swaying to and fro of head and body, cerebro-spinal motions which are rythmical. Excessive grief kills. I have known of one death from this cause. The fatal result of grief is due to interference with nutrition or with the heart's action, the event in either case being brought about through the sympathetic.

(3) Hate or rage if intense is marked by pallor and partial arrest of the heart's action; if moderate by flushing; if considerable but still not intense the flushing is extreme, the face becomes purple, the veins of the neck and forehead swell. Monkeys as well as men are said to redden with passion. Some authors say the pupils always contract in rage, and this we can easily understand for if the muscular coat of the arteries is relaxed as it is shown to be by the distention of the vessels, then the radiating fibres of the iris which are also supplied by the sympathetic, would be equally in a semi-paralyzed state, and the circular fibres which are supplied by the third nerve would have less than usual to antagonize their ordinary tonicity and the pupil would contract. In great rage there is often trembling; this phenomenon I shall consider further under the head of fear. The above mentioned are the primary signs of rage and they are all brought about through the sympathetic. Other signs of rage as snarling, setting the teeth, clenching the fists, etc., are manifestly secondary; they result from intention in ourselves or our ancestors of doing something in consequence of rage and are not the direct effect of the passion itself.

(4) The disturbances of function which accompany fear are frequent and feeble action of the heart, pallor, dilitation of the pupils. (I wish you particularly to remark that whereas in rage there is flushing of the face and contraction of the pupils, as I have shown above, in fear there is pallor of the face and dilitation of the pupils—the muscular coats of the arteries and the radiating fibres of the iris both being supplied by the sympathetic, and both being stimulated to contract under the influence of terror, and both being relaxed in rage.) In fear there is also suppression of the salivary and gastric secretions—extreme dryness of the mouth, and absolute abeyance of the appetite—there is frequently increase, sometimes very marked of the urinary and intestinal secretions. Trembling is one of the most characteristic signs of fear. This is a movement of the voluntary muscles, but it is not a voluntary movement, the will having no control whatever over it. Trembling occurs in other emotional conditions besides fear, as in joy and rage—the shaking of ague though not associated with any emotional state is, I have no doubt, closely connected with emotional trembling. No author with whose works I am acquainted gives any explanation of this phenomenon. Were I to attempt one myself it would be that trembling is the peculiar movement of the voluntary muscular tissue when thrown into action not by its own proper nervous system, the cerebro-spinal, but by the sympathetic; and I would argue that this was the correct view of the case—first, because it is certain that trembling occurs when the sympathetic is highly excited; secondly, because the cerebro-spinal system cannot as far as we know cause such a movement, and cannot control it when caused; and thirdly, because of its peculiar rythmical character which allies it to other movements originating in the sympathetic. If I had time, which I have not at present, I could support these arguments by showing, I think conclusively, that ague, of which a peculiar trembling is one of the most prominent symptoms, is certainly a functional disorder of the great sympathetic; and it is upon this fact that its peculiar periodicity depends. With regard to the sweating of great fear I have no explanation to offer, I will simply remark that when by division of sympathetic trunks a part of the surface of the body is deprived of its connection with the sympathetic centres that part of the surface is bathed in sweat. I have quoted very few