## LIGHTNING SHOCK WITH RECOVERY. 15

extent of cord thus nervously connected, etc.—the apparent mystery clears up in part, at least.

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The paralysis of the muscles of the larynx, pharynx, etc., is to be traced to the effect of the current on the nerves themselves or their centres in great part, rather than to its direct action on the muscular tissue, though the latter need not be wholly excluded. This view is borne out by the pain which followed the paralysis, and which is best referred to the molecular changes in the nerve-tissue causing increased resistance to the passage of impulses which emerge in consciousness as pain. Since there was complete and rapid recovery of all the mental powers, the injury was probably chiefly to the nerves or the nerve-endings. Was the difficulty in respiration in this case owing to the secretion of an excess of saliva, or to the normal quantity not being swallowed at all, or to both? Experiment has shown that in the lower mammals an increase of secretion may be induced in two ways: either by stimulation of the nerves of the salivary glands, or by section of the nerves, which is, of course, equivalent to paral-Usually, however, in the cat, etc., the secrevsis. tion following section of the nerves ("paralytic secretion") does not set in for some hours. One powerful electrical stimulation of the chorda tympani nerve will cause, in the lower animals, a considerable flow of saliva, which lasts for some time after the current is withdrawn. It may be that there was an excessive secretion in our case, due to paralysis of the nerves presiding over the secretions of the glands; but, upon the whole, it seems safest to