many flagrant nuisances since someone's particular friend would thereby be, in his own estimation financially injured. Now had the complexion of the Board been composed of a fair share of medical practitioners the many questions demanding prompt action would have been considered on their merits. This however does not seem to be what the Council wish, since I see that by the Local Board's action, in their advertising for applicants for the vacant position, they have ignored wholly the sub-committee of medical men who were asked to co-operate with them, although it was stated at a recent meeting of the Council that the Board would fix a time for consultation with such committee.

I can assure the medical profession that unless they take strong action in this matter their views will continue to be ignored. Some Aldermen do not want an independent Board nor perhaps an independent Medical Health Officer.

WM. CANNIFF, M.D., M.R.C.S., Eng.

15 Peter St., Oct. 1890.

Selected Articles.

ANÆSTHESIA.

An Address delivered before the International Medical Congress, Berlin, August 6, 1890.

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(*Continued from Oct. No.*)

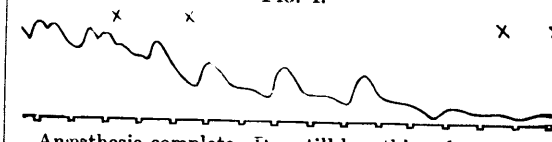
The experiments have all been made upon dogs, by one plan. The carotid artery and also the trachea having been connected with a recording drum, so that the movements of the circulation and the respiration could be consecutively recorded, the animal was anæsthetized, and when the blood-pressure had fallen almost to zero, and the respiration had ceased, or nearly ceased, as the case might be, the remedy to be tried was injected into the jugular vein, through a canula which had been previously inserted.

The more important remedies which have been used by clinicians for the averting of threatened death during anæsthesia, are ether, alcohol, ammonia, nitrite of amyl, digitalis, atropine, and caffeine, alterations of position, and artificial respiration.

Although, at least in America, hypodermic injections of ether have been frequently employed even in ether accidents, such use is so absolutely absurd that it does not seem to me to require any experimental evidence of its futility. Ether in the blood acts as ether, whether it finds entrance through the lungs, through the rectum, or through the cellular tissue ; and the man who would inject ether hypodermically into a patient who is dying from ether, should, to be logical, also saturate a sponge with the ether and crowd it upon his unfortunate victim.

Instead of simply stating the results obtained in my experiments, I have thought it would be more interesting to show reproductions from some of my tracings. The first drug that I shall report upon is caffeine. I have injected it during the cardiac failure produced by choloroform, in doses, varying from 3 to 7½ grains, and have never been able to perceive any distinct alteration in the arterial pressure, and no consistent distinct change of the pulse either in number or force. So far as the experiments go, they certainly indicate that the drug has no influence upon the heart that is being overpowered by chloroform. I may also state here, that it is not possible in any of my tracings to make out any influence exerted by caffeine upon the respiration.

FIG. 4.



Anæsthesia complete. Dog still breathing, ½ gramme of caffeine injected at X X, each.

With atropine, I have made a few experiments, the results being almost as negative as with caffeine. Ten c. c. of a 2-per-cent. solution of atropine injected into the jugular vein of a chloroformed animal, altered the rate of the pulse-beat, but had no apparent effect or influence upon the arterial pressure, or upon the respiration, and in no wise prevented final cardiac arrest.

Of all drugs, that which I think is usually most relied upon by clinicians as a cardiac stimulant in anæsthesia, as in other cases of heart-failure, is alcohol. The chemical and physiological relations of alcohol to ether and chloroform are, however, so close, that many years ago I became very doubtful of the value of this drug as a stimulant to a heart depressed by anæsthesia.

These doubts continually grew stronger from what I saw and read as to the effects of the administration of alcohol during anæsthesia, and were finally changed into conviction by the experiments of R. Dubois (*Progrès Médical*, 1883, xi. 951), who found that in the animal to which alcohol has been freely given, much less chloroform is required than in the normal animal, to anæsthetize or to kill ; or in other words, that alcohol intensifies the influence of chloroform and lessens the fatal dose.