

The heat remaining the same, the pulse and respiration which had been as 98:20, in half an hour after became as 92:44.

The LOSS OF normal RATIO between the PULSE and RESPIRATIONS was detected, also in other cases under my charge.

For example: in one of Phthisis where there was extensive softening and excavation, before Chloral, pulse 110, respirations 40; an hour afterwards, pulse 116, respirations 54. Mr. Webb, who watched the effect, was so much struck with the anomaly, that to assure himself he says: "I took particular notice of this increase in the number of respirations; counted them three times."

A remarkable lowering in their rate was also observed in a case of tertiary syphilis where  $\mathfrak{D}$ ii chloral hydrate were given, from 26, before its administration, they were reduced to 16 in the minute; to the pulse their ratio had been as 1:3, it was changed to 1:5, and nearly 1:6. Another time  $\mathfrak{C}$ ss was given to the same patient, and the same reduction in the respirations followed, but as they fell the pulse rose. Before chloral the pulse was 66, respirations 28; one hour and 15 minutes after, they were 76 and 17 respectively. During this time he had been awake, but afterward he began to sleep, and they gradually returned to what they were at first.

I may here observe that the ACTION of chloral UPON THE PULSE (as ascertained by the Sphygmograph) is to diminish arterial tension, rendering its quality softer and more regular.

After large single doses BAD EFFECTS are not uncommon. Dr. Reynolds narrates a case where very serious symptoms were induced by "45 to 50 grains" in a middle-aged lady who had previously taken  $\mathfrak{D}$ ss, and 15 grains with benefit. The symptoms came on in an hour, and were mainly those of extreme prostration, an intolerable sense of sinking, gasping, confusion of thought, and weak, irregular, intermitting pulse. Relief ensued after the exhibition of albumen, stimulants, and exposure to fresh air, but the symptoms came back with increased severity in about an hour, while the mind wandered. In a notice in the *British Medical Journal*, April 30 1870, it is said 7 out of 50 to whom chloral was given, were greatly excited, four wildly, delirious, and 12 had more or less headache. These occurrences seldom take place after less than a  $\mathfrak{C}$ ss or  $\mathfrak{C}$ j, dose. When delirium supervenes it lasts about two hours. I met with one striking example of this accident where the dose was moderate.

W. G. W., in advanced Phthisis, just getting over a copious hæmoptysis, had slept hardly any for three nights. At 3 p.m., Mr. Webb, by my direction, gave him  $\mathfrak{D}$ j of chloral hydrate, thirty minutes afterwards he felt drowsy, in fifteen more he went to sleep. He slept thirty-five minutes restlessly, "seemed like one in a nightmare." When he woke, he was (to