and had the rash out on the 4th and 5th. A younger sister of the child taken ill on December 13th, was seized on December 22nd, and had the rash very full for three days, with no subsequent ill effect. Two still younger sisters were consecutively affected. These children had not had measles, the two cousins had. The case of the boy first mentioned is interesting, in that he was the only one of his family who had had measles; his two younger sisters who had caught this epidemic roseola, at a day-school some months before, and continued at home, escaped all subsequent illness, though the brother had, of all the cases observed, the attack most resembling measles, with high fever, and that disagreeable odour on entering his room before ventilation had been seen to, which is so often noticed in that disease. A girl who had the rose rash took measles afterwards with the rest of the family; and, on two brothers, a year afterwards, returning from a preparatory school with the epidemic roseola, she escaped, while her sister took it, and had, besides, sore-throat and considerable hoarseness of voice.

The appearance of the rash on the second day, and the accompanying soreness of throat, may give rise to a superficial resemblance to scarlet fever; but the skin, though sometimes a little red, and somewhat swelled between the characteristic rose spots, has not the diffused redness indicative of scarlet fever. The appearance of the throat and tongue, especially in the second and third days, is also distinctive; and there is more fear of scarlet fever in its slighter form passing unrecognised altogether, than of being mistaken for this disease.

The question of a mixed disease, intermediate between measles and scarlet fever, is easily disposed of. Supposing an individual to be exposed simultaneously to the two influences, the period of incubation of scarlet fever being shorter, that must necessarily appear first; and the rarity with which it is known to be followed by measles looks as if there were some antagonism between these two diseases. Moreover, even in two diseases of nearly the same incubative period, such as measles or mumps, when a lad is exposed, as is frequently the case in large schools, to both influences at once, he takes the measles, with its somewhat shorter incubative period, first, and the mumps has to wait till that is over, even appearing as late as three weeks after exposure to its cause.

It will be evident from cases given above, that the exanthem in question is a specific disease, having its own natural history and laws, protective against a recurrence of itself, but in no way modifying an attack of measles, nor giving an immunity from it. It would also seem probable that the röteln or rubeola of Vogel and the Germans is identical with this, and that we have not two, but one, exanthem only under our notice.

THE ADMINISTRATION OF CHLOROFORM AND OF OTHER ANÆSTHETICS.*

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IN reference to remarks on this subject made on page 617 of this JOURNAL, December 4th, 1869, I may be permitted to state that, from my case-books at Guy's Hospital, the following statistical results have been obtained.

1. From February 2nd, 1862, to December 10th, 1869, chloroform was administered at the operating theatre of the Eye-Department of Guy's Hospital to 3,224 patients (to 275 in 1862, to 297 in 1863, to 245 in 1864, to 385 in 1865, to 437 in 1866, to 639 in 1867, to 503 in 1868, to 443 in 1869).

2. Nitrous oxide gas was given (for the first time on November 30th, 1868) to 26 patients.

3. Sulphuric ether (with Keith inhaler) to 3 patients.

4. Bichloride of methylene (given like chloroform) to 16 patients.

5. Bichloride of methylene (given as shown to me by Mr. Wood) to 204 patients.

6. Bichloride of methylene first, followed by chloroform, to 10 patients.

Total number (up to December 10th, 1869) of anæsthesised patients, 3,483. This number only includes the patients operated on in the operating theatre of the Eye-Department. Though not one death has occurred among the number, it should be stated that a feeling of unsafety was experienced at the administration of the anæsthetic in every case.

Preliminaries.—Only those given under 4 (page 617) were attended to. Every patient was operated on in the recumbent position, on his back, the neck and chest being free and well exposed. The chloroform, in all cases, was administered with an inhaler, which originally was Snow's, but which, in course of use, had undergone many simplifica-

tions; it is made by Weiss and Son, of 62, Strand, London. Besides watching the patient's cheeks, lips, etc., attention should be paid to the colour of the blood which flows; if this turn black suddenly, the chloroform or methylene should be removed. The patient, when struggling, should *never be resisted*; he should be allowed to do so while continuing to give the anæsthetics.

Signs of Danger.—Among the 3,224 chloroform cases, 45 are reported as having become blue in the face and stertorous suddenly, with the breathing and pulse irregular; 7 are stated to have become pale suddenly, with respiration and pulse stopping (to several is affixed the remark "apparently dead"). In all these cases the chloroform was removed at once, and the patient *slowly and gently turned on his left side*, to cause the region of the heart and the left side of the face to rest upon the couch. Experience has shown that this turning the patient should be done *slowly and gently*. Whether the support given to the heart or a change of position of the tongue, or some other change, be the cause of the cessation of the dangerous symptoms, I can not say. During the many struggles with patients in danger, the fact of rapid recovery of patients when placed on the left side was observed accidentally. For the last six years it has been the sole means adopted in cases in danger; the administration of chloroform, the patient resting on the left side, was resumed as soon as the respiration had become strong and regular.

REMARKS.—No accidents of any kind have yet occurred with the nitrous oxide gas or the bichloride of methylene. The latter is of late used almost exclusively; it causes sickness, perhaps, in one out of thirty cases, turgidity of the face rarely, and anæsthesia, if properly given, in from twenty to forty seconds. Mr. Rendle was the first to administer the bichloride of methylene at the Eye-Department of Guy's. He gave it like chloroform; no sickness was expected to follow. The sixteen patients upon whom it was tried were very troublesome, difficult to get under its influence; many were sick. Its use was therefore discontinued.

In January 1869, my attention was drawn to a new mode of giving the bichloride of methylene by Mr. Couling of Brighton, who informed me that Mr. Wood of Carlisle House, Brighton, had been the first in his town to give it in this manner. Mr. Wood, with his usual kindness and liberal spirit, showed me, on patients of his, this new mode of administration. Within a few seconds after the administration (the patients in the sitting posture), I saw him extract teeth, etc., without the patients showing any signs of pain. Watching their eyes during the operation, I saw them moving continually; but, on touching them, found them in a state of anæsthesia. This fact of the anæsthesia appearing sooner than the loss of the power of motion, had been overlooked in our former experiments with bichloride of methylene. The same day I administered the bichloride of methylene, as shown to me by Mr. Wood, in London, and have continued to do so ever since. It seems, in eye-surgery, to fulfil the objects of an anæsthetic most thoroughly. I have to thank Messrs. Rendle, Villiers, and Saunders, assistants at the eye-department, for their ingenious suggestions towards the improvement of the inhaler. At present it consists of a cylinder of thin card-board, about ten inches long, about four inches in diameter, with a round opening, about one inch in diameter, in each side. The cylinder is lined with flannel, and open at each end. It should fit accurately over the mouth and nose of the patient. Two sizes (one for children and one for grown people) are in use. A flannel bag, about six inches long, is fixed with an elastic round that end of the cylinder which comes to lie next the face. For a child, half a drachm, for a grown person one drachm, of good bichloride of methylene, is poured into the flannel-bag which hangs within the cylinder. The patient being told to breathe quickly and deeply, and not to mind a feeling of suffocation, the inhaler, charged with the bichloride of methylene, is tightly applied over the mouth and nose, and the palm of the hand over the opposite end of the cylinder. Thus all air is excluded, except what may pass through the round openings in the sides of the cylinder, and what is in the cylinder at the time when the bichloride of methylene is poured in. At the moment when the inhaler is applied, I commence counting; having counted slowly up to thirty or forty (equal to about thirty or forty seconds), I find, as a rule, on touching the eyeballs, that they are insensible. The operation should then be commenced at once.

The anæsthetic effect of one drachm of good bichloride of methylene, as a rule, lasts from two to five minutes—sometimes longer. Another half drachm is given if its effect cease before the operation is completed. The patient, as soon as consciousness returns, is generally able to walk out of the operating-room.

It must be borne in mind that the above remarks apply to operations on the eye, which are naturally of short duration, mostly from one to three minutes.

* The above remarks, being supplementary to those published by others at page 617 of last volume, to avoid incoherence, should be read together with the latter.