CASES OF RESUSCITATION.

By FRASER MACKINDER, M.D., F.R.C.S. Edin., Gainsborough.

Of resuscitation by the plan of the late Dr. Marshall Hall, so many cases have now been recorded, that it seems almost necessary to apologise for reporting any more. Yet, on a matter of such importance, it were well that we should not entirely avoid its discussion until the public are fully acquainted with the scientific principles on which the "ready method" is founded, and every man and woman prepared to exercise the physician's function in the revivifying of an unfortunate fellow-creature who, from some inauspicious circumstance, may have fallen into a state of suspended animation.

Though the "ready method" will not always be attended with success, it may fairly be considered the best and simplest of all known means for rekindling the vital spark, and the facility of its application will render its adoption universal, when the public come to understand and appreciate the discovery.

It occurred to me the other day, while attending the third case, to be hereafter mentioned, to give a little clinic to the nurses in attendance; and if the like were done by our associates and medical brethren in general at every available opportunity, there would soon be a large section of the community competent to act in any emergency. Recently, a little child was drowned in a pond in this neighbourhood. Assistance was immediately sought; the body was recovered, and taken home as dead: and who will venture to assert that the pulsation of its heart might not have been re-established, its parents saved the mourning of so untimely and unnatural a death, and the coroner cheated of his fee, had the proper means been taken at the moment of the child's removal to the land?

CASE I. Early in the morning of February 5th last, I was summoned to a Mrs. B., of this town, whom I delivered of seven month twins, male and female, the latter being the elder by ten minutes. The boy presented at the feet, and was pulseless when born; but being by far the finer child of the two, and the sex wished for by its father, I determined to resuscitate it if possible, and at once commenced the three-quarter rotation, as recommended by Dr. Marshall Hall. This I continued for fifteen minutes without the slightest appearance of vitality. Then, fearing more had been said about the "ready method" than was consistent with truth, or that I had misapprehended the directions of Marshall Hall, I proceeded to inflate with a piece of tobacco-pipe, an instrument well adapted by its suction property to keep the tongue from slipping backwards. The child grew deathly cold, and its extremities became quite livid; but after persevering for twenty minutes with the inflation, it gave a sudden double gasp for breath, which it repeated in five minutes more. This double gasping or sobbing continued at diminishing intervals for thirty minutes longer, during which period I occasionally forced in a little air. Breathing then, to the astonishment of the mother and attendants, became natural, and I committed the child to the custody of the nurse. It died twelve hours afterwards, and its sister in a few days, neither of them possessing sufficient physical power to sustain life.

CASE II. In the evening of the same day, my assistant, Mr. E. Capron, attended a woman at the workhouse. On his arrival, at half-past eight, he found a vertex presentation, with a loop of the funis, the pulsation of which had ceased. "I found it impossible," said Mr. Capron, "to replace the funis; and in half an hour the woman was delivered of a child apparently quite dead. The usual means failing to restore it, I at once commenced the 'ready method.' After ten minutes trial, the child gave a feeble gasp, and it continued to do so at every ten or twelve turns. The intervals between these respiratory movements soon became shorter and shorter, and in half an hour it breathed of its own accord. It appeared, however, in a semicomatose state for some time, and was three hours before it became warm and could move its limbs. Even then the heart beat very feebly, and at half its normal frequency at birth, and it did not entirely recover until six o'clock the following morning." The child went on well, much to the annoyance of its affectionate mother, who exclaimed, that "it was dead once, if that stupid doctor had but left it alone!" This case was communicated to Dr. Marshall Hall, who published it in the *Lancet* of April 25th.

CASE III. On September 12th, I was sent for to attend a woman of the name of Davey, in her second accouchement. On my arrival, I was informed that the infant had been born

ten minutes, and that it had only breathed once. Leaving the mother to take care of herself, I immediately divided the funis, and began to resuscitate the cold and pulseless child by the "ready method". To the surprise of the nurse and a friend present, respiration was established in twenty minutes, and the child seems now in the enjoyment of vigorous health.

ON THE COMPARATIVE IMMUNITY FROM SMALL-POX OF THOSE WHO HAVE BEEN UNDER THE INFLUENCE OF COW-POX.

By G. RIGDEN, Esq., Surgeon to the Canterbury Dispensary.

[Read before the East Kent and Canterbury Medical Society, Session 1856-7.]

In the 36th volume of the *Transactions* of the Royal Medical and Chirurgical Society is published a very valuable paper on small-pox and vaccination, as observed by Mr. Marson at the Small-Pox and Vaccination Hospital, between the years 1836 and 1851 inclusive. From this report, it appears that rather more than half of the patients who came under treatment for small-pox during that period had been previously under the influence of vaccination. It shows, however, further that, while small-pox in the unvaccinated remains as violent and fatal as ever, about one-third of the patients dying, vaccination performed in infancy affords almost complete protection from small-pox until the age of puberty; and even in after ages, the mortality, where there are cicatrices of vaccination remaining, was but 5½ per cent.; and where there was no cicatrix remaining—and in many of these the evidence of vaccination must have been doubtful—the mortality was but 21 per cent.

During the present year, a very valuable report on this subject has been published by order of the Board of Health, which proves beyond a doubt the very great advantages of vaccination in infancy; but it moreover proves that small-pox does in all parts of this kingdom, as well as in foreign countries, frequently attack those who from our previous knowledge were considered almost, if not quite, exempt from its influence.

The report I am now about to lay before the members comprises 113 cases of small-pox observed by me in the dwelling-houses of the city of Canterbury and its vicinity, between March 4th, 1855, and the end of February 1856. Of these cases, 4 occurred in March, 26 in April, 17 in May, 10 in June, 10 in July, 10 in August, 5 in September, 10 in October, 7 in November, 9 in December, 4 in January, and 1 in February 1856.

These cases occurred in 51 different houses or families. And there were also resident in the same houses 228 other persons who escaped. Of this number, 76 had gone through the disease previously, and 152 had no other apparent protection but that derived from vaccination; in no instance did a person resident in either of the houses escape, unless he or she had been under the influence of one or other form of the disease previously.

Of the total number of cases, 50 were confluent; 17 semi-confluent; and 46 distinct: 6 patients died.

Of the patients, 72 had never been vaccinated, and 41 had been vaccinated, mostly in infancy.

Of the 41 patients who had been vaccinated, 24 showed the cicatrices of vaccination, and 17 were more or less indistinct or not traceable. Of these 41 patients, 3 had the disease in a confluent form, 9 had it in a confluent form, but the pustules arrived at maturity at an earlier period, with little or no secondary fever, and are therefore termed modified; 2 were semi-confluent and modified; and 27 were distinct and modified.

Of these patients 14 were more than 20 years of age, 1 was 19 years, 2 were 17, 1 was 16 years, 3 were 15 years, 1 was 14 years, 2 were 13 years, 3 were 12 years, 1 was 11, 4 were 10, 1 was 9, 1 was 7, 3 were 6, 1 was 5 years, 1 was 4, 1 was 3, and 1 was 10 months.

Of these cases four, viz., aged respectively 10 months, 3 years, 4 years, and 7 years, were under the influence of cow-pox and small-pox combined; and one female, aged 15 years, was reported to have been vaccinated in infancy when afflicted also with itch.

Two of the vaccinated patients died, viz., the child aged 10 months, and the young woman aged 15 years, last alluded to.

The child aged 10 months had small and cow-pox coexisting, but it certainly had been exposed to the infection of the former several days previously to its vaccination for the latter, and neither of these diseases appeared to be modified by the exist-

once of the other. The young woman aged 15 years had the disease in a very confluent form, and the only evidence of previous vaccination was the statement of the mother, who also reported the existence of another specific contagious disease at the time of vaccination; it is therefore more than probable, that although vaccinated, she had never had the benefit of cow-pock.

The third patient with the confluent form of the disease was a man, aged 47 years, who had evidently been vaccinated in infancy, and had the cicatrices, although imperfect, still existing upon his arm. Upon persuasion, he was revaccinated seven days previous to the appearance of the eruption of variola; it is evident, therefore, that the varioloid poison was maturing in the system previously to the introduction of the vaccine lymph. The pustules of variola in this case were unusually slow in reaching maturity, apparently owing to nervous prostration, and there was but little secondary fever, but the disease did not appear otherwise to be modified by the existence of the cow-pock.

The number of cases here reported upon is too small to render definite the relative frequency which each form of the variolous disease will assume in a great number of cases; but the number of persons exposed to the infection, and who escaped the disease, with the probable reason for their exemption, appears to me to sufficiently prove that without the previous existence of either variola or vaccinia, all persons so exposed would probably have been afflicted. And I am not aware that any previous report upon an epidemic of this disease has noted this circumstance.

INTRACTABLE PREGNANT SICKNESS, NECESSITATING PREMATURE DELIVERY, ON TWO OCCASIONS, IN THE SAME PATIENT: DEATH ON THE TENTH DAY AFTER THE LAST OPERATION.

By EDWARD GARRAWAY, Esq., Faversham.

[Read before the East Kent and Canterbury Medical Society, Session 1856-7.]

Mrs. —, aged 38, a tall, pale, exsanguined, and emaciated woman, had been attended by me in previous confinements. She was the wife of a tradesman, and mother of a large family, and had always suffered exceedingly from sickness during the latter period of pregnancy, so much so as to necessitate confinement to her bed for the last month or two. She consulted me in April 1854, when she was six months advanced, imploring me to do something for her sickness, or she should inevitably die. On former occasions I had exhausted remedies, and was therefore little hopeful of doing her good. It is true, the treatment might have been deemed empirical, but this was of necessity. Doing battle with a symptom in no way advances the removal of its cause; and, indeed, it is difficult to conceive how vomiting, sympathetic with an affection of a remote organ (whether it be an uterus occupied with its ovum, a gall-duct impacted with calculi, or an ureter distended with lithic acid concretions), can be controlled otherwise than by remedies specially directed to the primarily affected organ. Of these, so far as the womb is concerned, we may be said to possess none, save, of course, such as would produce contraction and expulsion of its contents.

The poor woman's state was truly pitiable; not a particle of food nor a drop of fluid would remain on the stomach, even for five minutes. So long as total abstinence was maintained, there was peace; but the smallest quantity of the blandest material was immediately rejected; and, what seemed astonishing to her friends, for every spoonful she swallowed, two were thrown up. I went through the form of administering purgatives by the mouth and rectum; sedatives, as carbonic acid, preparations of opium, hydrocyanic acid, calomel, and morphia; compound tincture of senna, in drachm doses (a remedy in which some old practitioners appear to put faith, but which seems to me of as doubtful efficacy as the rest); blisters over the pit of the stomach, the vesicated surfaces being dressed with morphia ointment; croton liniment over the spine. All was to no purpose; the vomiting persisted; the debility increased; the emaciation became extreme; the pulse remained permanently at 110, and a mere wave; and my poor patient insisted that she must die. The seventh month was now complete; and although, on previous occasions, I had always seen Mrs. — accomplish her full term, notwithstanding the exhaustive drain to which she had been subjected, I now felt it could be so no more. To exist two months, or even two weeks longer, seemed clearly impossible. Death or delivery was the

only alternative. I had been daily expecting that Nature herself, ere the woman's life was really imperilled, would have emptied the uterus of its contents; but Nature not seeming disposed to have anything to do with it, I determined, after consultation with my partner, upon immediately inducing premature labour. There was no reason to doubt that the fetus was alive; but the case was too urgent for the question of its viability to be entertained. Examination *per vaginam* revealed the os uteri low down, patent to the finger, soft and dilatable, and the head presenting. Puncturing the membranes appeared the most facile and expeditious mode of inducing uterine contractions. Sir C. Clarke's trocar and canula were used; the liquor amnii drawn off. No pain immediately followed; but in twelve hours one forcible uterine effort expelled the child, which, small and feeble, survived but an hour or two. From this moment the sickness ceased, but my patient for some weeks appeared to be in a dying state, so great was her debility, and so little of any kind of nutriment was she able to take, on account of the extreme pain which this induced in the stomach. However, by slow degrees she rallied; and, after three or four months, was enabled to be carried down stairs, and I gradually withdrew my attendance.

In the spring of 1855 I was again sent for to Mrs. —. It appeared that she had never gained sufficient strength to walk unaided across the room; yet little more than a year after her last accouchement she was again advanced upwards of six months in the family way. All her old symptoms had returned, if possible, in a more aggravated form; she had incessant sickness night and day, inability to take any kind of food or obtain sleep; great emaciation; pulse 120; and debility so extreme, that the poor creature could not turn in her bed without assistance. Again we punctured the membranes, and again a living child was expelled in about the same time. It breathed an hour or two, and expired. Mrs. T. now gradually ceased to vomit; but eating caused so much pain that she took but little food; the debility and emaciation increased, and ten days after delivery she sank. No *post mortem* examination was permitted.

It is not improbable that an autopsy might have revealed more or less of organic change in the stomach, since it is hardly conceivable that its morbid condition, persisting even unto death, could be solely attributable to the sympathetic irritation of a gravid uterus; still as the sickness invariably commenced with pregnancy, and subsided with delivery, we can but infer that whatever might have been the remote, the immediate cause of death was exhaustion from pregnant sickness.

I have employed Sir C. Clarke's trocar and canula but on three occasions, and have found it admirably adapted to its purpose. It may be used either without the trocar as a blunt tearing instrument; in which mode, having fairly entered the os uteri, it is scarcely possible to do mischief, and may be pushed with a considerable amount of freedom; or if the membranes do not yield under such pressure, the trocar may be projected to ever so minute an extent, rendering it a superficial scratching or lacerating instrument, so entangling and tearing the membranes; or, lastly, which is the least desirable mode of operating, the trocar may be projected with a plunge, in the same way as we tap a hydrocele; but this is a reckless proceeding, not to be adopted if it can be avoided. Both my partner and myself were considerably alarmed some time since when inducing premature labour in a lady with deformed pelvis. We had passed the canula fairly into the os, and felt a degree of yielding and undulation, which satisfied us we were pressing upon the bag of membranes; but as they would not readily give way, we projected the trocar slightly, at the same time giving the instrument a sudden jerk, and so entered the cavity of the uterus. A fluid immediately came rapidly trickling through the canula; but our consternation may be imagined, on placing napkins to absorb this, to find that it was pure blood. What we had done we could hardly conceive; the only conjecture to hazard was that we had gone through a presenting placenta. Happily, whilst debating whether we should plug the vagina, the hemorrhage ceased, and did not recur. Dr. Robert Lee was immediately consulted; he adopted our view of the case, viz., placental presentation; counselled us to be ready to act at a moment's notice, and to meet circumstances as best we could. Labour did not supervene until four days; it was perfectly normal, and the placenta was attached somewhere at the fundus uteri. The source of the hemorrhage it is difficult to explain, unless it might have been from some unusually dilated vessels of the amnion.