Effects allied in nature to this action have also been traced to tobacco and to mercury.

In my lectures, to prevent the student confounding these effects with cumulation, I found it needful to distinguish them by the name of *sequel* action. At present the study of the sequel action of medicines does not offer much interest in the way of practical application; but it might at a future time acquire more importance. For example, one of the patients who exhibited the sequel action of aconite had been long a confirmed intermittent drunkard. From the time that he presented these symptoms the craving for spirit, previously so irresistible, never returned, and he continued to lead a sober life for at least four years while I knew him. Meantime it is well not to confound together things essentially distinct. The sequel action is due to the continued exhibition, and is a direct operation of the medicine, and must not itself be confounded with the symptoms which arise from the sudden suspension of a drug, such, for example, as opium, to which the body has become habituated. The extreme nervous prostration and excessive perspiration, urination and diarrhoea, which supervene on the sudden withdrawal of the habitual supply of this narcotic, are a good example of one of the forms of medicinal *reaction*. The cumulative and sequel actions are both phenomena of the forward, the reaction of the backward, swing of the physiological pendulum.

In relation to strychnia, I have already referred to the error of confounding true cumulative action with the accumulation of medicine in the bowels. This evil happens with solid medicines, as caustic magnesia, strychnia, and calomel, which require the intervention of the gastro-intestinal secretions for their solution and absorption. If the dose exceed the solvent power of the fluids, or these are deficient in quantity, then a portion of all the medicine remains undissolved, and is either expelled quickly by stool or lodges for a time in the bowels. If, while there, the visceral fluids become more abundant, it may be suddenly dissolved and by its absorption give rise to severe effects. I could cite many examples of this, but I have said enough to make evident the distinction between cumulation and the effects produced by the sudden solution and activity of a solid drug which has accumulated in the bowels.

ON NON-INTERFERENCE IN NATURAL LABOR.

BY JOHN PATERSON, M.R.C.S.E., ABERDEEN.

For a period of more than thirty years no obstetric fact has made a deeper impression on my mind than the effort which nature makes, under the most adverse circumstances, gradually and successfully to complete her work, so as to ensure the safety of the mother and infant. In no branch of the profession is this more to be observed than in midwifery. It is Nature's greatest work—*life*; and she is

perhaps more jealous here than in any of her other operations, that it should be done well; and it always is so, unless when there is an error on the part of the mother, or when, as more frequently happens, it is impeded by the ignorance or dishonesty of an unprincipled and unskilful midwife or other medical practitioner.

In medical work generally, but particularly in midwifery, I have not always found that strict adherence to truth which might be expected in members of so learned and scientific a body as ours. In no profession ought this virtue to be more valued, especially where the life of a fellow-creature and the happiness of a family are so frequently involved. The young and inexperienced practitioner, naturally disposed to place implicit confidence in those possessed of more practical knowledge than himself, is not seldom deceived by the ignorant, who act and write but to serve selfish purposes; by the illiterate and presuming midwife, who knows no better; but oftener by the grasping and selfish practitioner, whose object is to hasten his case, save time, and thus add to the number of his fees and patients. I believe that the profession has yet to learn how frequently *art* is resorted to, wantonly and unnecessarily, by members high in practice, adding greatly to the mortality of mothers and children. Nature's plain, simple and safe laws are disregarded, and her lessons to wait, watch, and learn how far she can, unassisted by art, in almost every case, successfully accomplish her work, are often wilfully, nay, almost criminally, neglected.

There is no precept more deeply engraven on our obstetric literature by every writer of authority than this, that *prolonged labor, unaccompanied by dangers arising from other causes, is not a matter of almost any consequence, so far as the safety and permanent recovery of the mother is concerned*; and it has been an apophthegm from the days of Hippocrates till now, that meddling midwifery is bad.

Dr. Osborne—than whom we have no greater authority—states, while speaking of difficult and instrumental delivery, that he believes it is confirmed by general observation, that women recover at least as well after long, lingering and laborious labor—the duration of which may have been extended to some days—as after the easiest, quickest, and most natural delivery, and my experience leads me to the same conclusion.

In these remarks it is my object to show how far the mortality of mothers and children may be lessened by the course which I have been pursuing during a practice of nearly thirty-five years. It is short, plain, and simple; indeed, no great or useful work has ever been accomplished but by the simplest means, and never without much time, patience, and self-sacrifice.

I think it is the duty of every accoucheur to visit his patient more frequently before and after her confinement than is generally done, to make himself intimate with her condition, former habits, and character, and even to become familiar with her peculiarities, for females are never without these, particularly during pregnancy

and labor, and to lay down at every stage of pregnancy a clear and distinct course of hygiene, which he should take care to have strictly adhered to, not only up to the time of confinement, but for at least six weeks after it. He should examine personally the *bladder* and *rectum*, and see that they contain nothing that can be obstacles to the labor before its commencement. He should never permit the patient to think that her labor has really commenced till the *os uteri* is nearly the size of a crown-piece. He should have her as seldom in bed as possible, till the child's head is about to escape from the *uterus*. With his own hands he should place the infant at the breast the moment it is dressed, or, if possible, should not leave the apartment till he has seen this done. This is the only safeguard, nothing else will prevent danger from flooding. He must insist on the mother throwing off the afterbirth herself in the same way and by the same means that she bore her child; and if she tells him that she has no pains, he should ask her, at least within twenty minutes after the birth of the infant, to make them, and press down as in labor. I seldom or never put a finger on the *placenta* till it tumbles into my hands. All this must be done by the efforts of the mother alone. The contraction which naturally follows throws off the *placenta*, and if the child is applied immediately thereafter to the breast, the contractile powers of the *uterus*—another name for after-pains—are so much increased, that the *os uteri*, by these means, is effectively closed very soon after the birth of the infant. The *lochia*, from following this treatment, generally disappear in forty-eight hours, and no bad symptoms ever follow. Why should they? Is delivery not purely and simply a work of nature, the farthest possible from disease? It is the work of *life*, not of *death*. By disregarding these rules, and other apparently trifling precautions, the lying-in chamber has been made not only the abode of disease and death, but has, at the least, cut off every tenth married female by countless maladies, malignant and otherwise, within five years after the end of menstruation. In bringing off abortions I almost always do so successfully by the same means. I never poke for hours at the *os uteri*, producing often inflammation and ending in disease, from which the patient seldom or never thoroughly recovers. Impacted fecal matter in the *rectum*, and a distended *bladder*, are, I believe, in ninety-nine cases out of the hundred, the causes of the loss of the child, and of resorting to instrumental labor, which but too often terminates in the death of the mother, or renders her miserable for life. If the duties I have indicated were properly attended to by the accoucheur himself, and the necessary time and patience were bestowed, what is called protracted labor would seldom be heard of, and most cases would end favorably, unless where there is deformity of the *pelvis*, or some other natural obstacle, which it is impossible to remove.

The following statistical data, derived from nearly three thou-

sand cases, which I have arranged in a tabular form, will present to the reader, in the readiest and shortest way, some points well worthy of his serious attention:—

Presentations and Complications.	Number.	Children stillborn.	No. of mothers recovered.
Arm, - - - - -	7	5	All.
Feet, - - - - -	31	6	All.
Breech, - - - - -	42	10	All.
Retained placenta { with hæmorrhage, 7 } { without do. 9 }	16	0	All.
Twin births, - - - - -	26	0	All.
Face to pubes, - - - - -	21	2	All.
Face presented, - - - - -	4	2	All.
Prolapsus funis, - - - - -	4	2	All.
Convulsions, - - - - -	1	1	All.
Protracted labor, - - - - -	14	0	All.
Out of which were, with forceps, 9; } lever, 0, }	9	5	All.

Deaths from independent causes—from phthisis, 5; from dysentery, 3; and other diseases, 9; total, 17.

Only 3 of these happened before the end of the first month, and 6 of the instrumental cases occurred during the first seven years of my practice. By strict attention to the bowels I have had no case of laceration of the perinæum for more than fifteen years.

In the foregoing table it will be seen that there is not recorded the death of a single mother in nearly 3000 cases of labor, unless where it arose from independent causes. Many of the parties were in the middle ranks of life, the wives of respectable workmen, and subject for years past, from the social condition of the country, arising from expensive living, and the difficulty of finding employment, and preserving their status in society, to perhaps more moral, emotional and physical causes injurious to health than at any former period in the history of the country. Considerably above a hundred may have been illegitimate cases, most of them connected with decent families, and such are always dangerous, tedious, and difficult to recover. Between three and four hundred were brought up in factories, and many of their parents before them. Among this class there is probably the largest amount of mortality, not excepting the highest circles, and much more than among the very lowest society, who have at least the open air and out-of-door exercise, and, for the most part, less care and anxiety than the class immediately above them. With such an amount of success as this table shows in an artificial state of society, and where nature's laws are so frequently broken, we can the more readily conceive how far nature will make her way under the most disadvantageous circumstances, and also with what ease the females of savage tribes perform this part of the work of nature, in almost as short a period, and with as little pain, as any of the other evacuations. These facts will, I trust, lead other members of the profession to record the results of their practice, if in any way favorable, or else cause them to pause and think whether this branch of our profession has received that attention, or had that justice done it, which, above all others, it so well deserves.

There is room for improvement at home, but more so on the Continent, where instruments are used in every fifth, tenth, fifteenth,

or twentieth labor, under the charge of the medical men there, in order to expedite delivery. This is also done by many in this country, whose dangerous doctrines, inculcating the most unjustifiable and uncalled for interference, are injurious alike to mother and child, and are too often followed from the worst and most selfish purposes.

The late Dr. Joseph Clarke, of Dublin, who was one of the most amiable and upright members of the profession, moving in the highest circles, eminent in his position, who was characterized by a professional friend as a physician without guile, and whose useful life was closed by a Christian death, had, besides the charge of a large in-lying institution, 3862 private cases of midwifery, out of which he never lost a mother, and he had only one forceps case, which he failed in completing. If such was the practice of this great and good man, what must we think of those who are seldom weeks without instruments in their hands, and never go a distance from home without having them on their person. Surely there must be something radically, if not criminally wrong, in all this, which even demands some movement on the part of the legislature. The want of practical knowledge in the medical student is another source of the extensive evils from which mothers and children suffer so much during pregnancy and labor. He has never had the opportunity of obtaining anything but a small portion of knowledge in this department before entering into practice. The knowledge which students acquire at most of our schools is not of the kind suited to impart confidence, when, at the outset of their professional career, they are left entirely to their own resources. Not from any want of perseverance in their teachers, who are most indefatigable in their endeavors to procure cases, but partly from the want of a properly organized system, partly from the state of society in this country, the result is that the student is left almost entirely to himself in his search after practical knowledge in this branch of his profession. To pass an examination for M.D., or surgeon, attendance on a few cases of midwifery is all that is required. Hundreds of cases are not sufficient to enable the young practitioner to know when and how to hold his hand from doing mischief, or to give him the confidence sufficient to ensure the safety of his patient, even in a simple and natural labor. In the outset of his professional career, he is not therefore altogether to blame, if thrown on his own resources, with little or no practical knowledge, clinging to the theoretical opinions instilled into him by his teachers, without a guide, and with no clear practical data to fall back upon, wavering between what he has read in books, his class-room prelections, and his after-experience, he flounders on unsatisfactorily, and is never comfortable in his mind through a long professional life, and never learns to have a decided opinion of his own. A writer alluding to Dr. Clarke's practice, says, how seldom would practitioners be found to use instruments, if the successful

course pursued by this eminent accoucheur were universally aimed at. Is it not worthy of our best consideration, with the invaluable statement before us, that in an extent of practice in the upper ranks of life, perhaps unexampled, there is not a single instance of death resulting from laborious or protracted labor.

In the course of a long professional life, of which the above remarks give a brief and imperfect retrospect, I have learned that neither talent however dazzling, nor genius though of the rarest kind, will alone lead to success in this branch of the profession. Extreme care and attention are necessary; patience unlimited; an almost perfect negation of time, of every selfish feeling and personal comfort, even health itself, must be conceded, before the greatest amount of success can be obtained. And thankful ought the humblest member of the profession to be that every upright and faithful practitioner has all these virtues in his own power, however slender his acquirements may otherwise be.

As for myself, after a long and rather laborious professional life, I am well content to admit that I am but a sorry instrumental operator. This, in my opinion, is the highest compliment that an accoucheur can receive; and I trust the time is not far distant when every member of the profession will deem it an honor to avow, not how often, but how seldom, through a long professional life, he has resorted to instrumental means.—*Ibid.*

Army Medical Intelligence.

DR. A. B. HALL'S REPORT ON THE INSPECTION OF RECRUITS.

Surgeon-General Dale.

BOSTON, DECEMBER 24, 1862.

DEAR SIR,—On the 7th of August last, I was detailed by you to examine, at the Meionaon, under the auspices of the War Committee of Ward 4, such volunteer recruits as might enlist to fill up the quotas of Massachusetts for the Army of the United States. Drs. J. A. Lamson and M. C. Greene were associated with me, by your authority, in the discharge of the official duties imposed on me. I have the honor now to report the results of our labors, together with such medical facts as seem to me of interest.

The period of our duties extended to within three or four days of three months. During this time there were examined 2,286 recruits who had enlisted for three years' service, and 1,672 for nine months' service; 384 of the three years' men were rejected, for some physical or mental inability, being a little less than 17 per cent., and 1,902 were accepted; 196 of the volunteers for nine months were rejected, or a little more than 11 per cent., and 1,472 were approved; making a total examined of 3,958, rejected 580. The responsibility of the examining surgeon is very great, as upon his decision rests the question whether the soldier entering the service of his country is a person of sound health, free from any abnormal condition; or one who will be soon the inmate of a hospital, from some local or constitutional infirmity, thereby becoming a positive expense and burden to the Gov-