PART III.

MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

The Epidemic Disease in the Richmond District Lunatic Asylum in Dublin. Report to his Excellency the Minister of Marine by Dr. A. F. VERSCHUUR, Dirig. Off. v. Gez.; and Dr. G. VAN IJSSELSTEYN, Off. v. Gez. 1e kl. Translated by DANIEL F. RAMBAUT, M.D., Assistant Physician and Pathologist, Richmond Asylum, Dublin.

TRANSLATOR'S PREFACE.

IN the summer of 1894, a strange epidemic broke out in the Richmond Lunatic Asylum (see the published writings of Dr. Conolly Norman on the subject). A second epidemic began about the middle of August, 1896, and a third early in July, 1897.

At the invitation of Dr. C. Norman, Rear-Admiral Hodenpyl, Inspector of the Marine Medical Service, sent a commission, consisting of Dr. A. F. Verschuur and Dr. van Ijsselsteyn, to Dublin, to investigate the cause or causes of the epidemic, and, if possible, to determine the conditions that favoured its propagation. Their stay lasted from the 16th to the 21st of August, 1897. On their return to Holland they issued a joint report, of which the following is a translation.

Consistent with clearness, I have tried to be as literal as possible; but, to render the meaning the more distinct, I have, here and there, inserted an unimportant word or phrase for which no corresponding word exists in the original. Such words or phrases it has seemed to me advisable to place within brackets.

D. R.

In 1814, the Richmond District Asylum was founded for the treatment of the insane of the whole of Ireland. Since 1831 it has, however, been set apart, exclusively, for the counties of Dublin, Louth, and Wicklow, and also for the Cities of Dublin and Drogheda.

At first the institution consisted of a stone building capable of

accommodating 240 patients. Since 1833 the place has been more and more extended, in order to meet the ever-increasing number of those for whom admission was requested. On account of the overcrowding of the institution several wooden buildings were erected in 1893, 1894, and 1895, as a temporary provision.

At present the Asylum contains over 1,700 patients, together with 200 nurses, male and female. The area of its grounds is 54 acres. They are situated on the north side of the city, at an altitude of from 20-30 metres above the level of the sea, and are bounded by the female prison, the workhouse, with about 3,000 inmates, and the House of Industry Hospitals, holding about 200 beds. The grounds are also surrounded by private residences and labourers' cottages.

The various stone and wooden buildings look very clean, and are partly painted, partly whitewashed. Never has arsenic or other substances injurious to health formed an ingredient of the paint. The ventilation is fairly good; our observations were made in the summer, when doors and windows could be opened without producing any troublesome draught. The buildings are warmed by means of hot-water pipes.

In rainy weather the ground-floor rooms of some of the stone and wooden buildings seem damp, by reason of being situated too low. The wooden floors, also, leave something to be desired. Lately, those in charge have begun to wax the wooden floors and fill up the chinks in order to exclude the damp. It is only in a few large rooms this has not yet been done, the floors being cleaned with water in the old way.

For sleeping accommodation, there are in use iron bedsteads with wire woven mattresses that are filled with hair. The bed-clothes leave nothing to be desired. As regards the personal clothes of the patients confined to bed, they appeared to us to be rather light. Indeed, they are sufficient for persons who will remain quietly under the sheets, but not so for restless patients inclined to toss about or to jump out of bed.

In many of the dormitories the beds were placed too close to one another, and this was especially the case in the Female Department. Corridors and passages are, here and there, used for sleeping purposes; so that, in proportion to the space, by far more patients are lodged than can be justified on hygienic grounds. During the day, however, the greater part of the patients spend their time in the gardens and dayrooms.

The stone floors of the kitchens, and of a few of the bath-rooms in the men's department, leave much to be desired; for grease and

dirty water can easily accumulate in the wide fissures between the flags, thereby providing an excellent medium for the development of micro-organisms.

Since 1887, excreta are removed by means of a new sewerage system falling into the Liffey, a river which flows through the City of Dublin. Prior to 1887, the drainage was very bad, and the soil must have been infected with sewerage. It was to this the many cases of dysentery, which formerly occurred in the institution, were chiefly attributed. After 1887 the number of patients suffering from this disease decreased considerably. However, during the last few years several cases have again occurred, and for these the Medical Superintendent of the Asylum, Dr. Conolly Norman, could not assign a cause. The present drainage is eminently satisfactory, and the drinking water is of a very good quality, as has appeared from repeated chemical examinations. Dr. Norman considers it impossible that the milk supply could have been the vehicle of the infectious germs, for the contractor supplies the same quality of milk to other institutions where dysentery has not occurred.

The water supply of the Richmond Asylum is from the same source as the water supply of the city; that is to say, a mountain stream in the Co. Wicklow. There the water is filtered and thence conveyed through iron tubes to the city, where, before it is used, it is again filtered. In the Asylum the water is carried through the various buildings and apartments in tubes such as are used in Holland. Factories which could possibly contaminate the water, are not to be found in the vicinity of the water source.

A few litres of water which had remained over-night in the tubes, were taken away by us to Holland, where it was examined by the Chemist of the Royal Dutch Marine, Dr. Simon Thomas, who declared it to be excellent drinking water.

The different articles of food for the use of the institution are purchased in the city from contractors, who, also, supply the work-house and other institutions. In none of the latter [all of which are] in the immediate vicinity of the Asylum, have cases occurred of the peculiar disease treated of in this report. The store-rooms for the provisions that we visited gave no ground for criticism; and so far as could be ascertained the quality of the bread, butter, sugar, tea, fresh meat, and vegetables was very good.

Rice (peeled) is given only in small quantities—373 stones per annum; that is to say, about 2,400 kilos. It is consumed chiefly by epileptics in their soup. A far greater quantity of potatoes boiled in their skins in accordance with the Irish custom, is supplied.

Mainly, the food is cooked by steam. The kettles and other utensils are made of iron or tin. We saw only a few kettles made of copper; but these were well tinned on the inside. A dinner at which we were present gave the impression that, both in quantity and quality, the patients' food was excellent. Different classes of patients are not under different systems of dietary, and sufficient care has been taken to ensure variety in food.

The disinfecting apparatus (Washington Lyons' Patent) consists of an oven and boiler placed in a detached stone building, divided by a stone wall into two compartments. In one is the boiler and the greater part of the oven; in the other, the remaining part of the oven. Articles about to be disinfected are brought in at one side and placed in the oven, and after being sufficiently disinfected are removed from the other side. Disinfection takes place according to the nature of the articles, by either hot air, or steam, or both. As the highest temperature attainable is 135°C ., it is, consequently, fully sufficient for disinfecting purposes. It is customary to disinfect all articles of new patients. When mattresses are disinfected the contents are entirely taken out; the hair is disinfected in the oven, and the covers are burned.

The laundry is a building made up of several divisions. In the first the clothes are boiled in large boilers. In the second they are washed clean with soap. In the third they are dried in the drying apparatus, and in the remaining divisions they are prepared for renewed use. Finally, they are removed by a separate exit.

This Asylum was, during the summer and autumn of 1894, attacked by an epidemic, the chief characteristic of which seemed to be an inflammation of the peripheral nerves. Not unfrequently the attack began with vomiting and diarrhœa, sometimes with vomiting alone, and during the first day, or first two days, the temperature was slightly raised. In very many cases, however, these appearances were not noted; while complaints were made of lassitude, palpitations, dyspnœa, and heaviness of the legs, accompanied by shooting pains, especially at night. On investigation œdema was found to exist. It was most distinctly visible on the lower parts of the legs, on the tibia and ankles. Over the tibia the soft parts were very sensitive. There were anæsthetic spots, most constant on the lower part of the legs. Frequently the edges of such spots were markedly hyperæsthetic and sharply defined. The œdema sometimes greatly increased, and was not merely confined to the lower parts of the legs, but became general. It spread over the sacrum and sternum; also the face, which was more or less swollen and assumed a peculiar expression. This œdema could

not be ascribed to disease of the kidneys, because albumen was not once discovered in the urine.

The muscles of the lower limbs, especially the calves, were, in the beginning of the disease, hard to the touch, and on pressure very painful. Subsequently they atrophied, often in a high degree. Also the muscles of the upper extremities were not unfrequently attacked.

The changes in the heart were generally confined to enlargements towards the right. Occasionally there was accentuation of the second sound [the second heard in the pulmonary area] ; but in other respects nothing existed to indicate a lesion of the valves. The action of the heart was in all cases frequent and weak ; and its frequency was greatly increased by the slightest exertion—for instance, by an effort to get out of bed. Often it was irregular, sometimes intermittent. In a number of cases, after a few pulsations of about equal force a weaker stroke followed.

The disappearance of the œdema did not always take place slowly : on the contrary, sometimes very rapidly, in a few days, or within twenty-four hours. Not till then did the atrophy of the muscles become clearly visible, most commonly on the lower, but sometimes also on the upper extremities. The muscles were thin and relaxed. The skin covering them was moderately œdematous, showing, occasionally, a slight pigmentation not ascribable to a previous lesion.

At this stage the knee reflexes, which at the beginning of the disease were generally raised, had invariably disappeared.

So relaxed had the joints become that if the patient lay on his belly the heel could easily be pressed against the gluteal region.

Dropped feet, accompanied by claw-like deformity, the result of paralytic contractions, occurred as a consequence of paresis or paralysis. Standing alone was, in some cases, just possible ; but on the slightest deviation from the perpendicular position the patient fell. Some could move forward only in a sitting attitude and with the assistance of their hands. The paresis of the muscles of the arm, never so pronounced as that of the lower extremities, and far less frequently in evidence, caused dropped wrists.

Sometimes a fatal issue followed in consequence of paralysis of the heart and œdema of the lungs, conditions which were generally associated with hydrops pericardii and hydrops pleuræ. But, in the great majority of cases, the disease did not take such an alarming course. In most cases the symptoms were limited to complaints of lassitude, pains in the legs, general feeling of debility, palpitations, and dyspnoea on going up stairs. Enlargement

of the right side of the heart was discovered; also œdema, especially of the lower part of the legs. Frequently anæsthetic areas existed on the lower parts of the legs, back, breast, &c., and were generally accompanied by hyperæsthetic zones. These anæsthetic and hyperæsthetic spots were inconstant: some were observed which remained visible only for a day, others even not longer than an hour. Hyperæsthesia about the crista tibiæ, on being touched [in that region], was a very constant symptom. If the patient remained in bed and received good food these slighter forms got generally cured within a few months. Treatment with the continuous current seemed to exert a beneficial influence on the slightly atrophic muscles.

As to the diagnosis of the disease just briefly described, and which may be regarded as having occurred in an epidemic form, for it attacked 127 male and 47 female patients (of whom 18 male and 7 female sufferers died), Dr. Conolly Norman, the Superintendent of the Asylum, was induced to believe it was beri-beri. In this diagnosis he was supported by the opinion of other specialists in tropical diseases (Dr. Walter Smith and Sir T. Stoker); also, by the unreserved decision given on the spot, after careful investigation, by Dr. Patrick Manson. Dr. Manson, who at one time practised in China, now lives in England, and is recognised as a specialist in tropical diseases in general, and, in particular, on beri-beri, a disease on which he has written a valuable monograph. The epidemic began in June, 1894—at least it was then for the first time as such recognised. Dr. Norman, however, directed our attention to the fact, that it was quite possible cases might have occurred prior to that date; and this seems highly probable if one takes into consideration the great number of deaths from paralysis of the heart which immediately preceded the epidemic. Possibly, in many cases, the paralysis of the heart was only a symptom of the as yet unrecognised beri-beri. The epidemic increased in violence until October, and then rapidly decreased; so that after the first half of that month no new cases presented themselves. So much for the epidemic of 1894.

The cause or causes of the disease were sought after with the greatest zeal, and every effort was made to discover the conditions that favoured its propagation. Neither in the water, which was repeatedly examined, nor in the food, which might be described as very good, could anything suspicious be found. Moreover, the water was exactly of the same kind as that which is drunk by the whole City of Dublin. Again, the food was not different from that consumed by a number of private individuals and in public

institutions, and yet no similar disease presented itself elsewhere. Already, in the beginning of this report, we treated of this subject in full detail. [Then], assuming that the disease was beri-beri, nothing else was left but to pre-suppose the causes to which in tropical countries beri-beri is generally referred—such as over-population, insufficient ventilation, infected or damp soil, infected wood work (to this last factor especially Dr. Patrick Manson attached great importance).

In the middle of August, 1896, again an epidemic broke out, which increased during the autumn and beginning of winter, reaching its maximum in the early days of December, when, altogether, there were then 113 patients suffering from the disease. Soon it rapidly decreased, though a few isolated cases occurred during the months of January, February, and March, 1897, and even up to the summer. The number of deaths amounted to 7 male and 2 female sufferers. And, whereas in the former epidemic, doctors and attendants had remained free, in the second epidemic 7 female nurses were attacked.

In this epidemic, also, *post-mortem* examination revealed degeneration of the heart muscle, œdema of the lungs, hydrops pericardii et pleuræ and anasarca.

The third epidemic may be considered as having begun on June 1st, 1897. On that date there were still 4 male and 6 female patients suffering from the symptoms of the last epidemic. On June 3rd a patient was attacked who had suffered from this disease in 1894. From that date until the end of June, 9 female patients were attacked. In the month of July, 81 female patients and three nurses, and 30 male sufferers, amongst them one attendant, were attacked; so that within two months the total number of patients amounted to 124.

Now, although the epidemic appeared the most serious as regards numbers, yet in form it was mild, most cases being of a rudimentary type. One female patient died. Many of the patients (27 female and 11 male, together with one female attendant) had had a previous attack.

Such was the state of affairs at the end of July, 1897, when the Rear-Admiral, L. P. Gysberti Hodenpyl, Inspector of the Marine Medical Service, who takes a special interest in these epidemics, entered into a correspondence with Dr. Conolly Norman, Superintendent of the Richmond District Lunatic Asylum, with the result that we were sent to Dublin to investigate the causes and symptoms of this epidemic, and, if possible, to ascertain if the

disease was identical with the beri-beri which occurs so frequently in our colonies.

In order to give a clearer insight into the question, we have already spoken of the diet and general state of the Institution; we have also given a succinct review of the principal symptoms and the course of the disease in the three epidemics. At the time of our visit to the Asylum, from the 16th to the 21st of August, there were suffering of the patients 42 males and 143 females, and of the attendants 2 males and 4 females. It is by no means an easy matter, within the brief period of a few days, to acquire a correct idea of the nature of an epidemic such as is here spoken of. To us it seemed best to study accurately a few cases which might be regarded as types of the three epidemics, and, in addition, to examine as many patients as possible, with a view to discover to what extent their symptoms differed from these types. The remainder of our time we profitably employed in investigating whether the most striking features of beri-beri, as it appears in our colonies, were also prominent symptoms in the disease which appeared in the Asylum.

It will not be thought out of place to here return a word of thanks to the Superintendent, Dr. Conolly Norman, for his great kindness and clear information; also to his medical staff, especially to Dr. Rambaut, who showed such readiness to afford us every assistance.

Of some of the most typical cases we give short histories. These records are from detailed notes made by the attendant physicians. The latter have also, at our request, made notes of some other cases that greatly interested us. From these histories we have been able to form an idea of the manner in which the disease manifested itself in the three different periods.

In the first epidemic the symptoms were most serious, in the third it spread by far more rapidly, but the patients were less dangerously attacked. In all other respects there was no difference, except one of degree, between the three epidemics. It is a remarkable fact that those who had been already attacked ran a great risk of a second attack.

In the preceding brief description of the symptoms of the disease, we have emphasised the circumstance, that a considerable number of the cases began with vomiting and diarrhœa, or with vomiting alone, and a slight rise of temperature. Our attention was attracted to this circumstance while we were studying the typical cases already referred to. We are aware that, in cases of intoxication proceeding from the intestinal canal with rise of tem-

perature, violent pains are felt in the calves, while the muscles of these parts are as hard as a plank and painful on pressure. In the investigation of the ætiology of the disease this symptom appeared to us of the greatest importance. Dr. Norman and his staff assured us that this symptom was very frequent, but that it did not occur constantly is certain.

Generally, those attacked came under treatment after having complained of lassitude, pains in the legs, oppression of the chest, and certain subjective symptoms. The latter were:—Sensation of walking as if on felt, feeling as if ants were creeping over the body, painful formication (the *pirri-pirri* of the Japanese *beri-beri*), pricking of pins and needles, *anæsthesia dolorosa*, shooting pains through the calves (described by the patients as though they were caused by the blow of a whip), burning pains, and cold and hot shiverings, without fever. These symptoms require no further explanation.

In the great majority of the cases, by reason of the circumstance of the patients being insane, it was not possible for us to obtain satisfactory information. The clearest and most detailed histories are those of the male and female attendants affected. The *anæsthesia* and *hyperæsthesia* were of a very variable nature as may be perceived from the following histories of cases:—

Th. M. O. (male attendant), entered the Asylum on January 11th, 1897. Was always in good health, and discharged his duties with intelligence. On August 2nd he had a slight fever which lasted for two days, also a feeling of numbness and tingling in the left leg. Occasionally, both legs were “asleep,” with a feeling of pricking of pins. *Œdema* over the *tibiæ*, more marked over the left than the right. On the left the *œdema* extends from the knee to the ankles, but not on the *dorsum* of the foot. The skin, especially that over the lower half of the calf of the leg, felt thick. No *anæsthesia*. Pulse, 124, when at rest, but it reaches 140 after movement of the arms. Pulse regular, weak, not intermittent, but, now and again, one stroke was weaker than the preceding ones. Heart sounds pure. Urine acid, free from albumen. At night the patient was much troubled with pain in the calf of the right leg.

August 3rd. A feeling of heat on the inner side of the lower part of the left leg. Pulse 80, and regular. Appetite good. Discharges regular. *Prætibial œdema*. No *anæsthesia*.

August 4th. He felt a little better in the morning. He soon becomes tired after walking. A feeling of numbness of the legs as though they were asleep, accompanied by a sensation as if caused

by pricking of pins and needles. He feels no pain on pressure of the lower parts of the leg; but, subsequently, a feeling as of pricking of pins and needles (retarded sensation) is experienced in those parts. Pulse markedly increased in frequency after the slightest exertion.

August 5th. The heart, now and then, intermittent; sometimes a feebler beat; stinging pains in the soles of the feet, and a pricking sensation in the toes.

August 7th. Pains in both forearms; pains over the tibiæ and over both inner surfaces of ankles. Sense of touch normal.

August 8th. During the whole night he felt pain on the inner surface of the left leg; two or three times he felt violent pains along the left arm, but they rapidly disappeared; still feels burning pains on the inner surface of the left tibia.

August 9th. In both legs there is a feeling of pricking with pins and needles, and a slight feeling of numbness along the inner surface of the right leg. Sense of touch normal.

August 11th. Pains in both legs from knees to feet, accompanied by a feeling of heat and stinging. Hyperæsthesia in the same regions and pains in the muscles on pressure.

August 19th. The patient declares he now feels no pain; but, that if he stands for a quarter of an hour his legs become very hot, and that he feels tired. Then the soles of his feet begin to tingle, and he has a feeling of formication; he feels the ground under him very well as he moves. No heart murmurs. Pulse 120, increasing to 155 during examination, by which apparently he was excited. Well marked *tache meningitique*. Pharyngeal reflex could not be excited. Galvanic excitability over the m.m. peronei and tibiales antici normal. Syphilis, it would appear, can be excluded.

R. O'B. (a female nurse), was always strong and enjoyed good health.

July 1st, 1897. Diarrhœa and vomiting.

July 2nd, 1897. In the same condition as day before. In the evening, as she attempted to assume the sitting posture, she had an attack of syncope; pulse very frequent; slight prætibial œdema; no albumen in urine.

From July 2nd to 13th œdema variable, disappearing and re-appearing; no disturbances of sensibility.

July 13th. Anæsthesia extending downwards from the popliteal region; a feeling of numbness in left calf, and pain in both legs.

July 14th. An anæsthetic zone from knee to calf on the left side; a smaller anæsthetic spot on the upper part of the calf of the

right leg. Heart's action regular; second sound heard in pulmonary area accentuated; pains in the knees and around the ankles; no anæsthesia of the face.

July 15th. Anæsthesia over the whole thighs and legs, and, in addition, tender spots, especially over the lower part of the tibia. Great pain in thighs and knees, and cramps in the calves. Hyperæsthesia over sacrum (perhaps attributable to constantly lying in bed). A feeling of pricking of needles in the legs. Anæsthesia in the lumbo-gluteal region.

July 17th. Dropped feet; anæsthesia of thighs and lower parts of legs; both forearms are œdematous; the pulse is small and of variable volume: its frequency increases on slight exertion; the heart sounds are pure and regular.

July 30th. Sensation in the supra-mammillary region has altogether disappeared. After three days it returned and great hyperæsthesia and pain in that place.

July 31st—August 3rd. Neuritic pains of a violent nature in the back of the neck, and formications over the painful spots. Burning pains all over the back (painful formications, the *pirri-pirri* of the Japanese *beri-beri*).

August 3rd–5th. All feeling on the left side of the back has gone; still dropped feet.

August 5th. Feeling on left side of back has returned.

August 10th. All pains are gone and sensation is fully restored. There exists only hyperæsthesia over the inferior third of tibia, together with slight œdema. Pulse, 70, with body at rest; rises to 100 on moderate exercise.

August 19th. On our examination patient seemed to have fairly recovered; there were no cardiac irregularities, save that the pulse rose considerably after any movement.

Excitability of the *m.m. tibiales antici* and *peronei* were found to be normal. There existed in this patient a moderate degree of anæmia, which, according to the unanimous opinion of the attendant physicians, could not have been developed until recently. An investigation as to hysteria yielded negative results.

The œdemas generally began on the legs over *tibiæ* and ankles. Frequently the dorsum of the foot remained free, the outline of the swelling forming above it a kind of *manchette*. Some œdema, even in slight cases, could be pointed out over the sacrum and sternum. If the œdema increased, then, general dropsy supervened—*hydrops facialis*, *scroti*, *præputii*, &c. This *hydrops facialis* can be easily recognised in the photograph of Th. G. The œdema at times almost entirely disappeared, but again returned

with renewed severity. On the disappearance of the œdema, the atrophy of the muscles became more manifest. It is certainly a remarkable fact that the disappearance of the œdema occurred, in some cases, within so brief a period as twenty-four hours. Most frequently the atrophy occurred in the muscles of the lower extremities, particularly in the lower part of the legs. How far it advanced, and what functional disturbances it produced may be imagined from the photograph of Th. G.

Th. G. entered Asylum, in 1884, with acute mania, which passed gradually into dementia. He did, and does still, some work on the farm. He was, until August 10th, 1894, in good bodily health and very vigorous.

August 10th, 1894. Œdema (general); no albumen in urine; heart sounds normal; pulse, 90 per minute when at rest. Further, no symptoms dependent on his mental state can be discovered.

August 25th, 1894. The œdema had gradually disappeared, but it is returning now more markedly, especially over the ankles and the tibiæ. Urine sp. gr. 1030; no albumen; no sugar. The patient is accustomed to sit on the floor by the side of his bed, supporting himself on his hand in the manner indicated in the first photograph.

August 26th, 1894. Pain on pressure of the shins, and on pressure of the muscles of the calves. The face is greatly swollen, especially under the eyelids (see photograph). He cannot stand unaided. Suffers from constipation.

August 29th. Very marked œdema of the legs; he cannot stand.

September 9th. Œdema has wholly disappeared. Now the atrophic form of the disease is most marked. Knee reflex has disappeared. The feet are dropped and inverted.

October 20th. The condition, speaking generally, is unchanged. Plantar reflex increased.

October 27th. Patient can stand. From this date he improved and can again perform some slight work.

August 19th, 1897. To-day we find the man recovered from the disease as above described, which he went through in 1894. No irregularities of heart; pulse, 80; knee reflexes weak but clearly observable. The gait is not abnormal, and the muscles are not atrophied.

(To be continued.)

Stricture of the Trachea. Translated by GEORGE FOX, M.D.,
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THE following case occurred in the practice of Dr. Roussel (*La Loire Médicale*):—On the 4th of September, 1899, a housewife, thirty-six years of age, entered the Hospital de Saint Etienne. Her antecedents were uninteresting—her father died at sixty-four years of age, of hernia; her mother of a catarrh. She had ten brothers and sisters, of whom four died young; one brother, an alcoholic, died at thirty-six. There was no history of tuberculosis in the family. The patient, before the present illness, had enjoyed good health. She escaped all the diseases of childhood, did not show the least trace of scrofula, had no cough, and was free of rheumatism. She was twice married.

By the first husband she had two children, who are both healthy; by the second she contracted syphilis nine years ago, for which she went to hospital, where she remained for two years under specific treatment. Her first child by her second husband was dead-born, the second child died when three years old, and the third died at the eleventh month.

During the suckling of the third child the mother was very delicate; during the day she found it difficult to do the ordinary house-work, and at night her sleep was short and restless. She got cold, and was troubled with a constantly-recurring tickling cough, attended with a painful stitch.

Six months later she was much worse. She consulted many physicians, who one and all recognised the specific character of the disease. She, whilst taking the physicians' prescriptions, took large quantities of creosote, tola, quinine, and so forth.

After three months the sputum became very abundant, and symptoms of tuberculosis became more and more marked. Intense dyspnoea now supervened; the patient lost her appetite, became weak and very thin. She had all the appearance of a cachectic patient in the last stage of consumption; her skin was very pale, her lips were bright red, but she had not the swollen finger-tips.

The dyspnoea increased, and an examination of the lungs revealed tubular breathing and wheezing. The respirations were not more than sixteen in the minute in spite of these phenomena. The muscles of the neck stand out well defined, revealing the loss of fatty tissue. Cough is frequent and painful; from time to time the spittle is so abundant as to equal a vomit. There is no pain

on percussion; she complains of shifting pain points. Auscultation detects a notably prolonged expiration, more marked in the right side of the chest. Her voice is clear, but she sometimes loses it altogether. The larynx is immobile during phonation, deglutition, and respiration. On examination the rima glottidis is abnormally small, and has some cicatrices on the left side. The heart and circulation are normal. The teeth are well-preserved, though neglected; the tongue is moist and red. She suffers from anorexia, and is slightly constipated. There is no increase in volume of the liver; over the region of the spleen there was a slight enlargement of the area of dulness. Her menses are normal, but latterly they are followed by leucorrhœa. The urine is full of albumen, of an unpleasant smell, and of a heavy colour.

The thorax had a hard, gummatous nodule on the third right costal cartilage; it was larger than a hazel nut, and under the application of suitable ointment it disappeared. The inguinal glands were normal in appearance and size. She suffered from profuse sweats at night. Her temperature varied from 100° F. in the morning to 103·5° F. in the evening.

A mixed treatment was ordered for the patient, to wit—syrup of Gibert,^a and iodide of potassium. Three days after admission the respiration became more laboured, and the supra-sternal and sub-clavicular depressions more marked, and the sputum became muco-purulent. For the first five days she eat almost nothing, then she took a little food.

On the 9th of the month the pupils were noticed as being unequal, and that the right eye was myopic; the right pupil, however, reacted better than the left, both to light and accommodation.

On the 12th the sputum had lost its muco-purulent character; was more pellet-like, followed by a soft aerated sputum.

On the 21st the sputum was less in amount, and wholly mucous in character. The respiration is unaltered in character. After four days time the patient had a fit of suffocation. These fits occur during the night as a rule; during the fit the face becomes pale, not purple coloured. Movement produces paroxysms of dyspnœa. The cough is so frequent that auscultation is very difficult. Clear sounds are obtained all over the pulmonary region by percussion; if there is any difference in the clearness of sound it is more marked on the left side.

^a Sirop de Gibert, according to M. Gautier and F. Renault, consists of one part of biniodide of mercury and fifty parts of iodide of potassium in syrup, in such proportions that children from two to five years take half a teaspoonful for a dose, and adults take a tablespoonful.

On auscultation the inspiration is found to be short, and is to expiration as one to four. The myopic state of the right eye continues. She now eats a little better, but after eating complains of a sense of choking. The dose of her medicine is increased to 30 grammes of the sirop de Gibert, and 4 grammes of the iodide of potassium.

20th Nov.—The mixed treatment was continued for a long time with occasional intervals of cessation, and the improvement is considerable. There has been no menstrual flow for the past six weeks.

20th Dec.—There has been a rise of temperature, the cough is better, and the expectoration more healthy. She contracted influenza whilst in hospital.

23rd. Dec.—The gummatous tumour has almost disappeared—it is scarcely discernible. The laboured breathing and wheezing are no longer present; the dyspnoea has, however, returned since she contracted the influenza. The sputum is abundant, purely mucous and aerated; not viscid and without trace of pus. The inequality of the pupils remains—the right is contracted and the left dilated. Over the whole left side of the thorax the percussion note is normal; and with the exception of a small region of the right side, extending from the clavicle to the second intercostal space, the same condition exists. The vesicular murmur is normal on both sides; but on both it is notably prolonged.

2nd Jan., 1900.—The patient asked permission to leave hospital. Her condition was good; she had no pulmonary trouble, though she still had a slight influenza cough, and she had markedly increased in weight.

In this case the ulcers and their subsequent cicatrices were few and small, and the interest of the case is principally due to the marked beneficial effects of the mixed treatment in such cases of tertiary syphilis. To quote Dieulafoy—the modern treatment of pulmonary syphilis is a veritable triumph of therapeutics.