## THE BRIGHTON UNITED TWINS.

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The case of the Brighton twins has excited a good deal of popular interest, and is, I think, of no less interest to the medical profession, as cases of pygopagi who have survived more than a few weeks are extremely rare; as far as I can ascertain, in this country the case is unique.

The twins were born a few minutes before I arrived at the case, about 9 p.m., and the placenta had been expelled. The mother was a young primipara, aged 21, tall and



Fig. 1.—Taken shortly after birth. This photograph shows the relation of the vulvae, the anus, and the post-anal dimple.

labour, as described to me by the nurse, was almost uneventful; it lasted sixteen hours, and the pains were strong. The first child was born by a vertex presentation in the first position, and the birth presented no abnormal features; but as the legs were not delivered, the nurse examined found an obstruction which she very

well built.

The

naturally took for the breech of a second child, but she could not understand the position of affairs, or the cause of obstruction, until a few minutes later the feet of the second child came down, and in ten minutes from the birth of the first the second was delivered.

The process was evidently one of evolution of the second or podalic child, and seems to have been the method of birth in the few similar cases which are

recorded, notably in the cases of the Bohemian twins and the Carolina twins: in each case the second child underwent evolution owing to the traction of the ligament. There was no laceration of the mother or subsequent haemorrhage, and she made a rapid and uneventful recovery. The placenta was expelled during a good pain ten minutes after the birth of the second child; it was very little larger than a normal placenta, somewhat thin and flat; there was a single bag of mem-branes, and the two cords were exactly central.

The children, who are both girls, were well formed and of average size. I judged them to be

average size. I judged them to be fully 6 lb. each, and a few days later they weighed down the scales at 13 lb. The second child showed poor vitality from the first, and even now—two and a half years later—is neither mentally nor physically quite so vigorous as her sister. They were fed from the beginning on diluted cow's milk, as the mother declined to suckle them, and their feeding has not presented any difficulties. Their foster-mother, who took

charge of them at birth, has only had to contend with aphthous stomatitis and a great deal of eczema intertrigo from the constant wetting and the extreme difficulty of keeping them both dry and clean. They had slight bronchitis, attributed by the mother to the pernicious effects of the x rays, but apart from this they have not caused any anxiety.

During the attack of bronchitis one child was distressed

During the attack of bronchitis one child was distressed and fretful, but the other was quite oblivious of her sister's misfortunes. One may be suffering from loose motions and

the other rather The constinated. act of defaecation is instructive; one child will display a desire to go to the stool, but the other is quite in-different until the completion of the act approaches; it is not until the faeces are pressing on the anus that both children unito in the effort of expulsion. This seems to prove that there is no common rectum higher than perhaps an inch or so internal to the anus. Micturition is individual and



<sup>τ</sup>ig. 2.—Present day.

normal. The children lead to some extent independent lives; one may sleep while the other plays. The mother has noticed that the second-born is more prone to colic and intestinal troubles than the first.

From a medico-legal point of view one or two interesting questions have arisen. The vaccination officer decided that each child must be vaccinated; in each case the inoculation took well; one would have imagined that a single

vaccination would have rendered both immune. The children were registered as two separate individuals by the registrar of births. A point was raised as to the legality of the foster-mother keeping the two children without being licensed; however, in face of the impossibility of separating them, the point has, I believe, been waived.

The union is fleshy and cartilaginous; it is very firm, and at birth allowed of little lateral movement; the children were almost back to back. There was a good deal of excoriation, due to the torsion at birth. Now, at the age of 2½ years, there is much freer movement, and the children can turn suffi-

Left-hand twin (as seen from back).

Right-hand twin (as seen from back).

Fig. 3.—It is suggested that the vertebrae are as marked by white figures.

ciently to fight or play with each other. It is interesting to compare them in this respect with the two well-known twins, Rosa-Josepha, the Bohemian twins, and Millie-Christina, the Carolina twins. In each of these cases there was very little movement, even at the ages at which they were first exhibited—namely, 13 and 22 years respectively. In the case of the Bohemian twins the bony union was much more extensive than in the

case of my twins, being a complete union of the sacrum and coccyx of each child. By reference to the excellent skiagram, for which I am indebted to Dr. Bailey, it is at once seen that the lumbar and sacral vertebrae are quite separate and distinct; only the coccygeal vertebrae are joined. The light spaces in the abdomen of the second child show, according to Dr. Bailey, the existence of flatu-lence, and the rectum seems to end in a pouch, with, pre-sumably, a side opening into the rectum of the more perfect child. This reading is borne out clinically, because the second child was much troubled with windy colic. The pulses are not synchronous; at least, I have never been able to demonstrate it.

The interesting question arises, What is the extent of fusion of the spinal cords? I have not been able to elicit any common reflex; the reflexes, both deep and superficial, appear to be quite independent, so one is justified in supposing that, if there is any fusion at all, it must be limited to the caudae equinae, but it is quite probable that there is no fusion at all. In the case of the other two pygopagi, to which I have already referred, the fusion was thought to be limited to the caudae equinae, and the junction was much more intimate and extreme.

The children share a common anus; they have each a separate vulva and vagina; the two labia majora of the one meet those of the other posteriorly. There is an inch of perineum between this junction of the labiae and the anus. Rosa-Josepha have one vulva, but two vaginae. Although the anus is common the rectum is double; I think the act of defaccation establishes that fact, and the evidence of the skiagram is in favour of it. An inchabove the anus is a well-defined dimple, which I take to be a rudimentary anus; and the same distance above that another dimple, which occasionally discharges a minute quantity of matter having an offensive smell. This discharge is only noticed when the children are out of health. A probe can be passed 4 inch upwards and forwards.

Of all the pygopagi observed, the bond of union seems to be slightest in these Brighton twins; they approach most nearly to the normal. In the British Medical Journal of April 30th, 1910, there is an account of a very interesting case seen by Surgeon Riggall, R.N., at Hong Kong. It is a case of male pygopagi; it is not quite clear what the union comprises, whether the vertebrae are involved, but the interesting point is that they also have a common anus and a common rectum. They are otherwise apparently normal and can walk.

In conclusion I may add a short note on the family history of the mother. The grandmother of the children had four separate births of twins, as well as other children, and was herself a twin. The mother of the children was one of these twins. I am told by a member of the staff of the hospital where the father attended that he had wellmarked stigmata of degeneration, but there is no history

of twin births in his family. He is since dead.

At the present time the children, who are 2½ years old, show no signs of being able to walk, or of any desire to attempt it. The utmost they can do is to stand propped up by a wooden framework which practically supports them. They are bright and intelligent, the elder one cspecially, and can talk as much as any child of their age. The shape of the head is rather peculiar, the forehead bulging and the vertex flat; the children have almost a hydrocephalic appearance.

The question of the possibility of separation was raised at a meeting of the Sussex Medico-Chirurgical Society, and the unanimous opinion of all present was that it would be an unjustifiable operation, and would certainly result in the death of one child, and probably of both—an opinion with which, in view of our ignorance of the internal arrangements of the viscera and blood vessels of these children. I certainly agree children, I certainly agree.

THE personal estate of the late Sir George Plunkett O'Farrell, an obituary notice of whom appeared in our issue for July 8th, has been sworn at a value of £20,205.

SURGEON JAMES C. BRINGAN, M.B., has received the King's permission to accept the Insignia of Officer of the Order of the Crown of Italy, conferred upon him by the King of Italy in recognition of valuable services rendered by him on the occasion of the earthquake in Southern Italy in the very 1908. in the year 1908.

## THE TREATMENT OF SYPHILIS BY SALVARSAN.

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During the past fifteen months about 300 cases have been treated with salvarsan. These include almost all the early and late manifestations of syphilis.

Primary Sore.

The number of cases treated, in which the only clinical evidence of infection was the primary sore, is 22. Two of these received one injection of 0.3 gram as clear alkaline solution intramuscularly, four received 0.4 gram as neutral suspension subcutaneously, the rest were treated by intravenous injection with doses varying from 0.3 to 0.6 gram in dilute alkaline solution (0.1 gram salvarsan in 50 c.cm. normal saline solution). In none of the 22 cases has any symptom appeared since the treatment. The 2 cases treated intramuscularly have been quite well for almost a year, and the serum reaction was negative in both eight months after the injection. In 3 contracts of the serum reaction was negative in both eight months after the injection. tive in both six months after the injection. In 3 of the 4 cases treated with neutral suspension the serum reaction was negative six months after injection. In the fourth case the reaction was still positive after six months. An intravenous injection of 0.5 gram was given, and a month later the serum reaction was negative in this case also. All of the 16 patients treated intravenously received a second injection after three or four weeks. The serum reaction in 7 out of 10 was negative a month after the second injection. The other cases have not yet been examined.

Secondary Stage.

The number of cases of early syphilis treated in which, in addition to the chancre, there were other signs of infection—namely, fever, headache, sore throat, and exanthemata—is 80; of these 6 received, in the first instance, intramuscular injections of clear alkaline solution; 17 received neutral suspension in the scapular region; the rest were injected intravenously. The dosage varied from 0.3 to 0.6 gram, the majority receiving 0.4 to 0.5 gram. Of the 17 cases which received neutral suspension, 8 subsequently received intravenous injections. It is impossible to classify these cases according to the method of injection or the dosage, because some patients were treated by several methods, and the doses depended on the weight and sex of the patients. The general result of treatment in these 80 cases was an almost immediate disappearance of all the symptoms after a single injection. In every instance the chancre healed within a fortnight, and in some cases in five days. Macular and roseolar eruptions disappeared within ten days. Ulcers in the mouth healed within ten days. In 3 of the cases treated by subcutaneous injection of 0.3 gram as neutral suspension, relapse occurred before the treatment was repeated. In 1 case this occurred eight weeks after the first injection, and took the form of iridocyclitis of one eye and slight optic neuritis of the other. A second injection of 0.4 gram salvarsan as neutral suspension caused the symptoms to disappear in a week. Eight weeks later iridocyclitis reappeared, now affecting both We did not have the opportunity of seeing the patient at the time of the second recurrence. He was treated with mercury, which caused some improvement, but after six months of such treatment the serum reaction was still positive. It is important to note in connexion with this case that the drug in neutral suspension was imperfectly absorbed on both occasions. Considerable swellings were present at the sites of injection several months after treatment. The other 2 cases which relapsed had also been treated with neutral suspension, and in each case the drug had been imperfectly absorbed. Intravenous injections produced immediate disappearance of symptoms in both cases, and the patients are still well six months later.