firmly closed, the chin extended, the head extended back upon the neck, the neck straight, the upper part of the chest in a position of inspiration, the shoulders slightly raised, the arms raised outwards almost to a right angle, more backward than forward, the elbow flexed, the forearm in a position of supination, the spine straight and extended, the pelvis very slightly tilted upwards, the thigh extended, abducted and rotated outwards, and the knee flexed.

In a body in which *rigor mortis* is fully established in its second stage, or has passed off, the muscles are dead and will not react to heat; so such a body would occupy the same position as it did when heat reached it. Would it not be possible, then, to say, from the position of such a body, whether *rigor mortis* had occurred or not, so as to reach some data as to the time such a body had been dead? The factors of *rigor mortis* being destroyed by heat, *rigor mortis* would not occur in contracted and heat-stiffened muscles, as it would not have had time to declare itself.

The accompanying drawing—made from a rough sketch I took of the remains of the late Mr. Welch, the victim of the recent case at Colchester—is a fair representation. It is seen that the head inclines to the left shoulder; there was no skin on the right side of the anterior part of the neck; what was part of the sterno-mastoid was retracted high up in the neck;

below there was no trace of that muscle because the superior and anterior surfaces of the clavicle at its sternal end had been charred off; the carotid sheath was exposed, and on the antero-external side of the right internal jugular vein were found two small transverse apertures, whose edges were adjacent and regular; on the left side, in front of the neck, the skin, although discoloured and burnt, was intact.

I am of opinion that the sterno-mastoid muscle was cut through, the position of the head to my mind showing that the action of the right sterno-mastoid was wanting.

Some rough experiments I made on the bodies of fresh and kept animals led me to believe that it is possible in a fresh cadaver to modify the position of equilibrium by dividing one or more of the superficial muscles.

In passing I may state that the identity was mainly confirmed by the spinal curvature, which was clearly shown in the remains; and this is worthy of note because I think it shows that if any defect existed before death it would be made apparent after.

Would it be unreasonable to formulate the following?—

1. For bodies burnt before *rigor mortis*: (A) The position of superficial muscular equilibrium described. (B) If a superficial muscle has been divided before the fire reached it position (A) would be altered to an equivalent extent.

2. For bodies burnt after *rigor mortis*: (A) No definite position. (B) If a muscle be divided there is no equivalent alteration of position.

REMOVAL OF UTERUS, OVARIES, AND FALLOPIAN TUBES: RECOVERY.

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At a meeting of the Obstetrical Society, held on December 5th, 1892, I showed a specimen of left hæmatosalpinx, weighing 4½ ozs., removed from a girl, aged 19, on May 5th. Through the kind interest of Mr. J. H. Targett, the specimen was reported upon, and placed in the museum of the Royal College of Surgeons. It is represented in Fig. 1.

Fig. 1.—Left Fallopian tube and ovary, Royal College of Surgeons Museum.

The after-history of the case is interesting. In the complete form it may be described as a case of vaginal atresia, left hæmatosalpinx, removal, subsequent hæmatometra; and right hæmatosalpinx, removal. After the first operation the patient apparently did well for a time. She was readmitted into the General Hospital on January 11th, 1893. She stated that up to three months previously her health had been very good. There had been no sign of any menstruation. About this time she noticed a lump on the right side of the abdomen; this became painful and tender to the touch. The uterus could be felt above the pubes, and to the right of it a mobile, elongated tumour, some 3½ inches in length, occupying the iliac fossa. The vagina was occluded at its upper end, and no cervix could be felt through it. It was evident that the two swellings were the uterus and the right Fallopian tube filled with blood.

On January 16th the abdomen was again opened. There were some adhesions to the anterior wall, omentum, and between the two masses, which embraced the uterus, Fallopian tube, and ovary; these were separated, and the whole manipulated free. The tube was transfixed, and tied up with the accompanying ovary; the uterus was drawn up to the opening, transfixed with a knitting needle about the level of the cervix, a *serre-nœud* placed above it, and the distal part cut off. The peritoneal edges of the wound were carefully sewn round the pedicle, the stump smeared with perchloride of iron, and double cyanide gauze dressings applied. The

clamp was removed on January 29th. The highest temperature recorded was a little over 100° F., and the recovery was uneventful. In cutting away the uterus some thick, dark blood escaped; when emptied from the uterus there was 4 ounces; the tube with its ovary weighed 6 ounces (Fig. 2).

Fig. 2.—Right Fallopian tube and ovary, uterus cut away.

In the record of the first operation it was noted that the patient first menstruated three years previously, not again for eighteen months and then only slightly, never since. There was an indistinct recollection of some injury at the age of 11, but about four months before her first admission she was knocked down and sustained some injury to the abdomen, which confined her to bed for several days. When admitted the vagina was examined; there was a small aperture in a transverse septum at the upper part, which no doubt became quite occluded, for it could not be found afterwards, nor could the cervix be defined through the obstruction; the occlusion was, therefore, practically complete. The patient has remained in good health since the time of the operation.

REMARKS ON A CASE OF CONGENITAL RICKETS.

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CASES of rickets in the full tide of evolution at the time of birth are rare, though the milder forms of development are not very infrequent. I have seen well-marked beads upon the ribs of infants two months old, which served to show, I think, that the disease had originated during foetation. But of actually advanced rickets at birth, published cases are few in number, at all events so far as my knowledge extends. Amongst other observers, Jules Guérin, writing in 1837, mentioned having met with three cases of congenital rickets out of a total of 346 cases of rickets at all ages. Léon Tripier, in his article in the *Dictionnaire Encyclopédique*, written in 1874, stated his belief that the disease could commence as early as the third month of intrauterine life. Bode in 1884 showed an infant stillborn at seven months with symptoms said to be confirmed by a microscopical examination of the bones. Dr. Thomas Barlow exhibited a case at the Clinical Society of London in 1838, the features of which bore a striking resemblance to the case I am about to describe.

A. W., aged 7 months, was brought to the Clinical Hospital on April 21st, 1893, on account of certain deformities of the limbs, which are shown in the accompanying photograph.

Personal History.—Her mother stated that these deformities were in existence at the time of her birth and that the peculiar softness of the back of the head, to be presently mentioned, was remarked about the same time. The child had always sweated a great deal, and her limbs had been noticed to be tender when they were handled, especially the left arm. These points were, of course, carefully inquired into, and, apart from the evidence of the bones themselves, which one could hardly imagine to have become so completely and universally deformed had the rickets commenced after birth, there remained no reasonable doubt that

the child had come into the world with the disease fully developed. She had been brought up at the breast until she was 2 months old, and subsequently she had been fed upon condensed milk. She had not cut any teeth.

Family History.—There was no family history pointing to syphilis; the mother certainly had miscarried once (after the birth of her second living child), but none of her children had shown any symptoms either of snuffles or rash. She herself had suffered from rickets in childhood, and as a consequence had bow legs and a somewhat contracted pelvis. Of the four other children of the family, I had the opportunity of examining one, aged 2½ years, and found beading of the ribs, enlarged epiphyses of the radii, slightly bowed tibiae, but no signs of syphilis. The mother had not been in ill-health during the time she was carrying the patient.

Condition on Admission.—On her admission the following notes of the child's condition were taken. She has an intelligent face, with good though very thin features, the sucking pads showing distinctly. Her height is 18 inches instead of 24, her weight 6 lbs. instead of 19 lbs. Her limbs and body, except the abdomen, are emaciated. There are no blood extravasations and no indications of cachexia. The forehead is rather bossy, but the vertex of the skull is not flattened. The anterior and posterior fontanelles and the sagittal suture are widely open, and there are small lateral fontanelles at the inferior angles of the parietal bones. The membranous part of the occipital bone is quite unossified, so that it feels soft and yielding wherever pressure is applied. The neck is thin but not short, and there are no fatty swellings. The thyroid gland can be felt. The chest has the sternum thrown forwards, and there are well-marked beads at the junction of the ribs with their cartilages, and also smaller beads behind in the region of the angles. In front a deep transverse groove passes outwards and downwards from the ensiform cartilage. The abdomen is globular, and shows no enlargement of either liver or spleen. The patient moves both upper and lower extremities perfectly well. The arms are shortened by the extreme distortion of

the humeri, so that the tips of the fingers barely reach the junction of the upper and middle third of the thighs. At the upper end of each humerus there is an abrupt bend, with the convexity turned towards the axilla, and the corresponding receding angle is visible on the outer side of the arm below the acromion process. There is no thickening of the shafts of the humeri or of any other bone. In each forearm there is a curvature of the radius and ulna, with the concavity forwards, especially marked on the left side. There is little or no enlargement of any epiphysis in the upper extremities. The hands are small, and have long, delicate, tapering fingers. The lower extremities are greatly shortened by their various curvatures, and are habitually folded in tailor fashion, much the same, I imagine, as they were in the womb. The lower epiphyses of the femora are enlarged. The femora themselves are much curved, with the convexity outwards. In the middle of the left femur there is a green-stick fracture, bending the lower half forwards and causing a projection behind and externally. The tibiae are the most deformed bones in the body, the upper two-thirds in each leg being much curved, with the convexity forwards, while at the junction of the lower with the middle third, there is an abrupt bend backwards, leaving a strongly projecting angle in front. The lower third on each side has two curves, so that there is a convexity both forwards and outwards. On the left side this double curvature is exceedingly abrupt. The feet are small and well formed.

After-history and Treatment.—After admission it was observed that the child perspired profusely during sleep, so that the sweat stood in beads upon her forehead. She showed great tenderness in the