differences because they show that it is not permissible to compare orthodiagrams taken in the different positions with each other. It is necessary always to adhere to one and the same position in working, and either to take *all* orthodiagrams in the erect or *all* in the recumbent position, at least all relating to the same patient. The following are the differences found in orthodiagrams of the same person in standing and lying.

1. In standing:

1. Frequently the longitudinal axis of the heart is more upright, the angle of inclination therefore greater.
2. Generally one or both median distances, and thus the transverse dimension, are shorter than in lying, the difference being from 0.4 to 2.5 cm.
3. In the majority of cases the latitudinal dimension is shorter too.
4. The longitudinal diameter is sometimes shorter and sometimes longer.
5. The heart is constantly found at a lower level of the thorax than in the horizontal posture.

Thus the cardiac diagram is narrower in the erect position.

2. In lying the conditions are the reverse of those mentioned. The causes for a diminution of the cardiac shadow in the upright position could be the following:

1. The more vertical position of the heart itself in standing causes a diminution of the transverse diameter.
2. The heart may rotate around a perpendicular axis defined by the aorta above, the vena cava inferior below, in such a manner as to present a smaller section in the frontal plane of the body.
3. The actual volume of the heart may decrease in standing.

Further, the phase of respiration makes differences which are analogous to those of posture. During deep inspiration an orthodiagram is obtained which is narrower and at a deeper level of the thorax than during expiration; the latter shows the figure broader and higher up. Thus inspiration is analogous to the standing and expiration to the lying position.

The last question to be answered is whether it is better to trace the cardiac outlines on the skin of the chest or upon a special drawing-board which is covered with a sheet of paper. The first is very satisfactory for clinical use, as one realizes at a glance the anatomical relations of the heart to the body; but in transferring the figure to paper inaccuracies always must occur in some degree or other, therefore it is the most exact method to draw on an independent drawing-board.

These are, very shortly stated, the theory and the technique of orthodiagraphy, and I only wish to emphasize once more the fact that orthodiagraphy itself is a method of absolute mathematical exactness. It is based upon exact mathematical and physical laws, and there is nothing inaccurate at all in the method itself. But in using orthodiagraphy practically certain sources of error may make themselves felt, and probably always do in a certain measure. These sources of error are due to the anatomical relations of the heart in the body, and further to the greater or less skill of the operator; for in all technical fields of work the best workman is the one who makes the fewest inaccuracies—the one who makes none, we may say, does not exist.

A CASE OF DEPRESSION OF PARIETAL BONE IN A NEWLY-BORN INFANT:

TREPHINING ON THE TWELFTH DAY: RECOVERY.

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OWING to the softness of the bones of the skull of a newly-born infant, depressions caused by injury during parturition usually recover spontaneously or with the aid of gentle manipulation.

The following case seems worthy of record on account of the unusual persistence of this condition, and also because of the very early age at which trephining was undertaken.

I was summoned to attend Mrs. B., and on my arrival I found that the child, a female, was already born. The nurse informed me that it had been a breech presentation, and that both arms were extended over the head. She had managed to extract the right arm, but before she could bring down the left a strong pain suddenly expelled the arm and head together.

Upon making an examination of the child I found a large saucer-like depression over the left parietal bone, extending $1\frac{1}{2}$ in. from the coronal suture towards the occipital bone, $2\frac{1}{2}$ in. upwards from the squamous portion of the temporal bone, which was slightly involved in the hollow, and $\frac{3}{4}$ in. deep. The anterior fontanelle was nearly obliterated, entirely so in the left half, and the frontal bone at the coronal suture was almost overlapping the left parietal bone, the deepest portion of the depression being near that suture. No reduction could be effected by the gentle manipulations that were tried, but pain seemed to be caused by them.

During the next ten days no change took place in the shape of the head, so I decided to operate while the bones were still soft, in spite of the fact that the infant, though rather fretful, showed no sign of paralysis and was in other respects quite well.

On the twelfth day the child was admitted into the Tonbridge Cottage Hospital. Chloroform having been administered, I made a horseshoe-shaped incision round the depression (with the base towards the temporal bone) through the skin down to the periosteum, turning the flap downwards—then, at a point well behind the line of the anterior branch of the middle meningeal artery, a crucial incision through the periosteum, and reflected the four flaps thus made. With a $\frac{3}{4}$ -in. trephine I cut completely through the bone, leaving a small bridge at the upper part, where the inner table was left. The disc of bone was then reflected as a flap, and the dura mater with a blood clot lying upon it was exposed. The clot was adherent to the dura mater, and as much of it as possible was removed. I then tried to elevate the depressed bone with a blunt, flat hook. This, however, was not altogether successful, as the bone sprang back into the depressed position. Judging that prolonged effort might do more harm than good, and that in all probability the continuous intracranial pressure would now be able itself to raise the bone, I turned back the disc of bone into position, drew the periosteal flaps together over the bone, with a purse-string suture, as well as their very thin condition would allow, and stitched up the skin flap.

As the infant was very collapsed, a warm saline injection was administered per rectum, and one hundredth of a grain of strychnine given hypodermically. In a few minutes she rallied. As the mother was suckling her, she was sent home after a lapse of a few hours.

On the fourth day, as the dressings had become displaced, I took them off and found the wound healed. The depression in the parietal bone had completely disappeared, and the anterior fontanelle was of normal size and shape.

On the eighth day, when the stitches were removed, callus had been thrown out over the disc, which felt quite firm. Since then the baby has made an uninterrupted recovery.

The mother during the latter part of the pregnancy had a fall, but in view of the fact that the left arm and head came somewhat forcibly into the world together, and that the position of the injury was just where the arm would probably press most against the head, the probabilities point strongly to the damage having been done during parturition, and not previous to that event.

The depression, which reminded one strongly of that so often seen in a punctured india-rubber ball, considering its size, shape and depth, and that no change had taken place in ten days, seemed unlikely to be reduced spontaneously. With the bones rapidly hardening, trephining as soon as possible appeared to be the only course to adopt, unless the parents were content that the condition should be permanent and risk of defective brain-growth or Jacksonian epilepsy be ignored.

The interest of the operation, in addition to the age of the patient, consists in the reflection of the bony disc as a flap, instead of its complete removal, this being rendered possible by its softness.

The risk of hernia cerebri is diminished by this procedure, the more so as the bone and skin-flaps are reflected in opposite directions.

THE eleventh French Congress of Urology will be held in Paris on October 10th, 11th, and 12th, under the presidency of Professor Guyon. The chief question proposed for discussion is non-tuberculous suppuration of the prostate; this will be introduced by a report by Dr. Oraison of Bordeaux. The General Secretary is Dr. E. Deanos, 59, Rue La Boétie, Paris.

UNDER the will of the late Mr. Charles Robert Fletcher Lutwidge, of Holm Rook Hall, Cumberland, and Tunbridge Wells, Whitehaven Infirmary receives a legacy of £100, and the General Infirmary at Tunbridge Wells £200.