

Practically the fissure of Rolando commences one-half-inch back of a point midway between the glabella and inion and runs downward and forward to the extent of 3-8 inches, forming with the median line of the vertex, an angle of sixty-seven degrees. The lower part of this fissure does not follow this line, but becomes perpendicular. If we were absolutely certain that we had this angle, we could readily locate the fissure of Rolando, and could trephine over the center of motion to the legs, arms, and tongue.

There are different cryotometers for the purpose of outlining the fissures of the brain upon the surface of the skull. The most prominent of all is Wilson's. It consists of two strips of flexible metal, forming a letter "T." The horizontal position of the "T" rests upon the glabella. The perpendicular portion rests upon the median line over the longitudinal sinus, and terminates at the inion or occipital protuberance. There is a lateral arm attached to the antero posterior part which forms with it an angle about sixty-seven degrees. This arm is given off one-half inch posterior to a central point upon the horizontal portion.

A means of outlining the fissure and to me a very practical one, is that of Mr. John Chiene, of Edinburgh University. He takes a square piece of paper and folds diagonal corners, making an angle of 45 degrees. He then folds back one layer of the folded square, making with it an angle of 22 1-2 degrees. After which he unfolds the 22 1-2 degrees from the 45, both of which make 67 1-2 degrees, which Mr. Chiene says is near enough to 67 degrees to be of practical utility in locating the fissures of Rolando.

The apex of the angle which forms 67 1-2 degrees now placed one half inch posterior to a point on the median line between glabella and inion, and the line on the same side which forms an angle of 90 degrees lies over the median line of the skull toward the forehead. The edge of the folded paper will then rest over the fissure of Rolando. (Doctor Crowley demonstrates with paper Chiene's method on skull.

The fissure of Sylvius is of some importance in brain surgery, as the middle cerebral artery which it contains is more often ruptured than any other in the brain. It has been termed by Charcot the artery of cerebral hemorrhage. This fissure is outlined in the skull by drawing a line by the shortest route from the external angular process of the frontal bone to the occipital protuberance. The line will pass about one-half an inch above the external auditory meatus. The fissure of Sylvius begins one and one-eighth inch posterior to the external angular process on this line, and from this point passes directly toward the parietal eminence. As this line corresponds to the squamo-sphenoidal suture, the latter land mark may be of importance to the operator when he has cleared the bone. It is well to remember that the fissure of Sylvius is nearly horizontal. It rises but little on leaving the external angular process on its course to the parietal eminence, and only a small portion of brain substance separates it from the lower extremity of the fissure of Rolando. (Demonstrates.)

In different operations the skull where the membranes of the brain or the brain centers are to be uncovered, care should be taken to avoid at least two sinuses, the longitudinal and lateral. Upon opening either, death may follow unless energetic surgery is carried out. The longitudinal sinus is easily outlined upon the skull. It begins opposite the glabella or prominence between the eye-brows and continues on the inner surface of the skull to a point opposite the inion or external occipital protuberance. It is lodged in a groove throughout its course, which passes along the inner table of the frontal bone, the sagittal suture touching both parietals, across the occipital to a point directly inside of the occipital protuberance.

If by any chance it be required to operate on the skull over the longitudinal sinus, first trephine some distance from it, and then with a grooved director, a blunt elevator, and the finger, the dura mater and the wide enclosed sinus can be separated from their bony attachment.