seizures always commenced in the first two fingers of the left hand, the wound however was on the left side of the head. Was this then a case where the pyramidal tracts did not cross, or had there been a lesion on the right side owing to bursting as a result of the blow on the left side? The left rolandic area was first trephied and electrodes applied in the hand area, causing immediate movement of the fingers of the right hand. This proved that the pyramical tracts did cross. An opening was immediately made on the right side which revealed a thickened dura mater, and but little other change. Some of this was removed, tension relieved, and the wounds closed up. The patient had two or three fits the night after the operation, but since then (some six months now) has been free from them. second case was the result of a depressed fracture involving only the inner table of the skull, the result of a pitchfork wound. The operation revealed an abcess, which was opened and drained. The patient has since been free from seizures.

## Diagnosis of Functional Heart Murmurs.—Dr. R. D. RUDOLF, Toronto.

Functional murmurs as first described by Laennec, are soft and blowing in character, occurring most commonly in the position of the pulmonary area, opposite the second left costal cartilage, and are in no way connected with valvular diseases. They are due not to the anæmia as so often taught, but to a condition of hypotonus of the muscles of the circulatory system. That is there is a relaxation of the sphincter muscles guarding the mitral and tricuspid orifices, and permitting of a leakage. In the pulmonary area, the fibrous band around the orifice permits of no dilatation, but the muscular construction of the pulmonary artery permits it to dilate, and consequently we have a condition in which the blood stream flows from one chamber, that is the right ventricle, through a relatively constricted orifice, into the dilated pulmonray artery. This is the most favorable arrangement for the production of a murmur. Dr. Rudolf laid down the following rules to aid in the diagnosis of functional from organic murmurs:—

They occur in adolescence and young adults.
They are more common in males than females.

3. They all occur during ventricular systole.

4. While the pulmonic area is the most common situation for functional murmurs, it is a rare site for organic murmurs (congenital stenosis being the only one found).

5. Functional murmurs are heard in the neck, e. g. Brutix de

Diable.

6. As the general health improves, functional murmurs tend