MEDICINE.

A., July 10), reviews the literature and a number of the theories of the pituitary function, and calls attention to the apparent dependence of genital growth and function on the pituitary, which, he says, furnishes us an important diagnostic set of signs and symptoms in cases unattended with acromegaly. While the symptoms in this condition may embrace all those of ordinary brain tumor, they are commonly and probably always at first, restricted to a few definite indications which, with the aid of the x-ray, makes diagnosis a certainty. Hypophysis tumor when occurring in children and not producing acromegaly, stunts the growth and especially the sexual development. The mental qualities may not be specially affected. Owing to the pressure of the tumor on the chiasm, vision is affected sooner or later and optic atrophy sooner or later is developed. In the early period the atrophy is limited to the nasal half of the disc and this is attended, and even preceded, by loss of vision in the corresponding half of the field. Bitemporal hemianopia is practically always due to involvement of the posterior portion of the chiasm and its detection leaves hardly any doubt of pituitary disease. The rudimentary condition of the genitals or the loss of genital function in older persons has a definite significance. To these may be added the occasional development of painful adiposity and acromegaly. By the x-ray we can clearly outline the sella turcica and detect any enlargement. The question whether a diagnosis of pituitary growth justifies attempt at surgical removal, here arises. If, as Paulesco and Cushing insist, life is impossible in dogs without the pituitary, and it had not been shown that it is not thus indispensable in man, surgery would be out of the question. Horsley has operated on a number of cases by opening the right side of the skull, the steps of the operation being similar to those for extirpation of the trigonal ganglion. Then the temporal sphenoidal lobe is lifted with spatula-like retractors and the tumor exposed. This operation presents serious difficulties. A second method has been developed by Schloffer, by way of the nose and sphenoidal sinus, and this has been done in a few cases with some success. According to Church's opinion, the nasal route is the best, as the pituitary tumor is practically extracranial, at least in many cases, the X-ray in his own cases showing it to have actually descended into the sphenoidal sinus. By this route it can be reached without the severe handling of the brain involved in the lateral operation. The fact that the nasal operation causes a deformity, a deep depression being left at the root of the nose, is an objection, but cosmetic considerations are secondary in a life-saving operation. Improved technic may also largely obviate this objection. Six cases were reported in three of which operation was performed. Two of these were performed in Europe by Horsley and Eiselsberg respectively. The other was performed in this country by McArthur by the lateral route, which was also followed by Horsley. Two of the patients have survived, at least for a while after the operation. Horsley's patient returning to this country where he died, and Eiselsberg's doing well at last report. McArthur's patient rallied well after the operation, but relapsed later. To these six cases a number could be added, says Church, as coming under his observation, accompanied with acromegaly. Of course there was in such no question or difficulty in the diagnosis. It is much more important that the surgeon, the ophthalmologist, and the neurologist should recognize that a pituitary tumor may be present without association with acromegaly and can be diagnosed. Experience shows that removal of the pituitary gland is indicated since, in the first place, its removal furnishes blindness, and in the second place, seems to hold out some hope for the cure of other inconvenient symptoms. The article is illustrated.

MEDICAL EDUCATION—STATISTICS FOR 1909.

The Journal A. M. A. of August 14, 1909, the annual Educational Number, contains sta-
tistics of medical colleges. students and graduates for the year ending June 30, 1909. There were 22,145 students studying medicine last year, the lowest number in sixteen years. These are divided into 20,554 in the regular colleges, 899 in the homeopathic colleges, 413 in the eclectic, 52 in the physiomedical, and 227 in the unclassifiable colleges. There were 4,442 medical graduates last year, likewise the lowest number in sixteen years. The regular colleges had 4,000; the homeopathic 209; the eclectic, 84; the physiomedical, 15, and the unclassifiable colleges, 44. The homeopathic colleges have the lowest number since 1880 and the eclectic colleges the lowest since 1900. There are 8 less colleges than in 1908, the total now being 144, consisting of 117 regular, 14 homeopathic, 8 eclectic, 2 physiomedical, and 3 unclassifiable colleges. Women students constituted 4.2 per cent of all students, as compared with 3.7 per cent last year. Statistics show that college terms are being gradually lengthened. Tabulated statistics of college fees, including matriculation, tuition and laboratory fees, show that 73 colleges charge from $75 to $125 per year, 18 charge less than $75 per year, 36 charge between $125 and $175 per year, and 13 charge $175 or more. Some high grade colleges charge very small fees, and some low grade colleges high fees. There is no excuse, therefore, from the monetary standpoint why a student of limited finances should attend a low grade medical college. Among the colleges charging low fees are several strong state university medical colleges. Of the 144 existing colleges, 25 now require one or more years of work in a college of liberal arts for admission, and 23 others have voted to establish this requirement in 1910 or before. Six state examining boards have established the requirement for preliminary education of one or two years work in a college of liberal arts, thereby supporting the better class of colleges which have adopted that standard.

CALCIUM SALTS IN EPILEPSY

A. P. Ohlmacher, Detroit (Journal A. M. A., August 14), has hitherto refrained from publishing his remarkable success following his first trial of the calcium salts in epilepsy, but now since Littlejohn (Lancet, May 15, 1909, p. 1382) has reported results with the same agent, he wishes to supplement it with his case. It was a child four years and four months old, with no heredity of epilepsy, in whom the disease had begun and continued from a month after his third birthday. When first seen he was having from 34 to 73 attacks a month and his mental growth had apparently stopped. The grand mal attacks as seen by Ohlmacher were very severe but never became the typical full status epilepticus. The child had frequent nosebleed following these attacks, and its nurse asserted that she could detect the odor of blood on the breath during convulsions and prior to the appearance of actual hemorrhage. At the time Ohlmacher had been working on therapeutic immunization where the problem of blood coagulability presented itself, and he had employed Wright's method of measuring the time of blood coagulation and of using calcium salts to fortify a defective coagulability. Accordingly, when his attention was called to the hemorrhages, he made a blood clotting test and finding that it was slow in clotting, he began giving calcium lactate in doses of seven to ten grains dissolved in hot water and added to the milk three times a day. This medication has been continued from this first beginning, on June 2, 1907, with no change, except occasionally reducing to one or two doses daily, to the present time. The coagulation time was soon reduced to normal and since the cessation of the epilepsy, three months after commencing the calcium lactate, the child has had occasionally nasal hemorrhages apparently related to periods of lowered coagulability. At the time he began the medicine McCallum's observation on calcium metabolism as related to parathyroid intoxication and to tetany had not been published nor had Carle's paper on calcium chlorid in therapeutics appeared. Incomplete observations on several additional
cases similarly treated tend to confirm the favorable results with the first case.

THE ORIGIN OF Tabes.

J. J. Putnam, Boston (Journal A. M. A., September 25), says that, while the opinion that syphilis is the usual cause of tabes is now almost universally accepted, there still remains a certain percentage of cases for which definite proof of this etiology is lacking and other causes are sometimes suggested. The most prominent of these is fatigue, not that which is felt but in Edinger's sense—i.e., the physiologic overstrain of certain portions of the nervous system carried to the point of damaging its power of nutritive repair. The questions therefore as to the part played by fatigue and whether or not syphilis is the sole cause are still debatable and Putnam attempts to throw some light on them by contrasting the tabetic group of cases with another group, bearing clinically and also as regards the location of lesions, a certain resemblance to tabes and which, like tabes, owe their characteristics to certain toxic influences, yet which, when intimately studied, are seen to differ widely from tabes. The cases to which he refers are those presenting anatomically that form of degeneration of the nervous system which sometimes accompanies pernicious anemia and which occur in conditions of nutritive debility not easily classifiable in one category. The nervous symptoms characteristic of these cases resemble those of tabes, in affecting primarily and mainly the sensory or afferent functions of the nervous system and leading to well marked incoordination and paresthesias, usually with loss or sometimes increase of the knee jerks. While he has seen nearly or quite a hundred instances of this disorder, he has never yet encountered a single case of undoubted syphilis among them, thus differing widely from tabes and strengthening the evidence that syphilis in the latter disease cannot be merely a coincidence. The two disorders run true and maintain their special differences without overlapping or even approaching each other, and, in view of these considerations, he thinks that the argument for a special toxin or antitoxin as the essential cause of tabes, while not proved or asserted to be positive in every case, is nevertheless very strong and deserves special recognition as a guide to treatment.

SURGERY.

UTERINE MYOMAS.

E. E. Montgomery, Philadelphia (Journal A. M. A., October 16), briefly reviews the history of the medical treatment of fibroid and the gradual acceptance of the opinion that surgical methods are better. He considers the radical operation and its disadvantages in producing absolute sterility and the possible disadvantages of the premature menopause and limits the enucleation method by the vaginal route to the growths encroaching on the uterine cavity or confined to the lower portion of the uterus and readily accessible. In any case of operation the aim should be to do as little injury to the organ as possible, consequently the number of incisions into the uterus should be limited. He reviews his own work in this line, consisting in about 37 cases of abdominal and 5 of vaginal operation. From an analysis of these and a study of the literature, he concludes that the removal of fibroid growths by operation is indicated in the following conditions: 1. When the growths are few in number and the structure of the uterus but little involved. Of course the growths may be in large number but situated so near the surface as to be removed without much mutilation, but the large number indicates a tendency to fibroid degeneration which imperils the prognosis of permanent relief. When a number of growths of considerable size are present an attempt to save the uterus may be attended with danger during subsequent convalescence and in case of future pregnancy. 2. When the growths are readily accessible through the vagina or cervical canal. A growth within the uterus, either sessile,