The following three original papers were read before the Medical Club March 8th, under the general topic, "Internal Secretions":

**Historical Names Associated With Diseases of the Ductless Glands.**

*Annie E. Freese, '15.*

The use of animal glands—or extracts from them—can be traced to B. C. 1500, but for three centuries they were used blindly on a vague basis of similars. During this period, however, theories of the correlation of the organs were advancing, till, early in the 19th century, a physiologist—Johannes Müller—discriminated between excretions and secretions.

Shortly after this—in 1849—Prof. Berthold, of Gottingen, demonstrated not only the existence of an internal secretion, but its significance, by an experiment upon cocks. He removed the testicles and transplanted them to other parts of the body, with the result that they remained male in respect to voice, reproductive instinct, fighting spirit, and growth of comb.

Meanwhile a French physiologist—Claude Bernard—was making marvellous strides in the knowledge of physiological processes.

Bernard was born at St. Juliens, in 1813, of poor parentage. When obliged to discontinue his studies, for financial reasons, he took a position in a pharmacy. Here he developed a scepticism in regard to the drugs he compounded that led to his studies of the physiological action of remedies, for, in this pharmacy, if a drug spoiled, or an error unfitted it for its original use, it was put aside with all other such, to form a "cure all"—an early edition of the patent medicine!

Bernard first sought fame as a playwright, but, failing signally, turned his attention to medicine. While a student he displayed such skill in dissection that Magendie appointed him "Preparateur of the College of France." His first researches were with digestion—taking the difference in the way meat and plant eaters ate—he concluded the re-chewing of the cud by the cow—e. g.—to be a necessity from the nature of the food.

From the pancreatic juices he turned his attention to the liver—and diabetes. In this connection he made the important discovery that the blood entering the liver contains a minimal amount of sugar, while that leaving it may contain a considerably larger quantity.

The study of sugar naturally led to the question of the production and regulation of heat in the body, in which investigation, in 1855,—he made motor mechanism!

During the same period, in 1869, Brown Sèquard expounded our present theory of internal secretions before the Medical Faculty of Paris. He made his second great discovery—the vaso—said—"All glands, with or without ducts, supply to the blood substances which are either useful or essential, and the lack of which may produce pathological conditions."

Brown Sèquard was the son of a Philadelphia sea-captain named Brown and a French woman of the name of Sèquard. He was born in 1817 and graduated in medicine in Paris in 1846—appointed Professor of Physiology at Harvard in 1864. Returning to Paris five years later, he succeeded Claude Bernard as Professor of Experimental Medicine at the College of France.

It was not until 1889, however, that he, then a man of seventy-two, was able experimentally to demonstrate his theory of secretions. He subcutaneously injected into his own person the testicular juice of lambs, result-
ing, he claimed, in marked access of physical strength and mental vigor. Of course this led to ridiculous abuse of his theory, but his experiment nevertheless proved the existence of a process which is in the nature of a chemical interchange between the secretions of the different organs, so serving as an inspiration to further research.

Our first accurate knowledge of a disease of the ductless glands was given by Karl A. von Basedow, a German physician, in 1840, when he described exophthalmic goitre. He associated strumous hypertrophy of the connective tissue of the orbit and a condition of tachycardia with the thyroid gland.

He was followed by Robert James Graves, an Irish physician, born in 1797. Graves was famous as a clinician, lecturer, and original investigator. He was the son of a minister and made a brilliant record in his college career. He added to his liberal education an intimate acquaintance with the recent discoveries and modes of thinking in every great school of medicine, at home and abroad.

In Dublin, in 1824, he established a private medical school, known as the Park Street School. At that time clinical or bedside treatment was practically unknown. Students obtained their knowledge from private study and formal lectures, and to Graves is due the credit of thoroughly incorporating the clinical method into medical education. In his wide clinical experience he observed the violent, long continued palpitation of the heart in females with enlarged thyroid glands. He noticed especially the protrusion of the eyes, and separated ophthalmic goitre from other affections before anyone else had realized its individuality.

Stellwag added to our knowledge of Graves disease, the widening of the palpebral fissure, with infrequent and incomplete closure in automatic winking.

About the same time, in 1856, Jean Martin Charcot, a French neurologist, Professor of the Nervous System at the College of Medicine in Paris, and a man widely known through his lectures at Salpêtrière Hospital, contributed symptoms of "general tremor of all the larger muscles of the trunk and extremities, with a decrease of bodily electrical resistance."

The ophthalmic phase of Graves disease was first elucidated by Albrecht von Graefe, a German ophthalmologist living between 1828 and 1870, who founded a private hospital for diseases of the eye in Berlin in 1850. Through his researches and marvelous success in different operations he became the leading authority in his branch of medical science, and is regarded as the founder of modern ophthalmology. He observed the absence of synergism between the movements of the eye ball and upper lid and accredited it to irritation of the sympathetic nerve in the neck, transmitted to the protrusor bulbi muscles of the eye.

Schiff, experimenting on dogs in 1859, gave the first description of the complex of symptoms following the removal of the thyroid gland, and later demonstrated grafting it in the peritoneal cavity.

Sir William Gull, in 1873, under the title of "The cretinoid state in adult life in women," described a symptom complex which three years later Ord termed myxedema, and Charcot, in 1879, cachexia pachydermique.

To Curling, at an earlier date, we are indebted for the association of the absence of the thyroid gland with cretinism.

The condition of myxedema post-operatoire in man was described by Reverdin in 1882, and a year later confirmed by Emil Theodor Kocher, a Swiss surgeon, under the name of cachexia strumipriva. Kocher's especial field has been operation on the thyroid gland. His researches have been so extensive and valuable that he is considered the greatest authority upon the parallel conditions in man and animals. Not until the publica-
tions of Reverdin and Kocher, were the clinical conditions following the total extirpation of the gland, either fully known or appreciated.

An old theory of the function of the thyroid gland, based upon its anatomical position, was that it regulated the cerebral circulation by acting as a reservoir, venous or arterial, as needed. This theory has been revived recently by E. von Cyoii, with the suggestion that iodothynin, the active principle of the extract, stimulates the cardiac nerves which regulate pressure, and by this means the blood pressure is lowered and circulation retarded.

Tiedemann was the first to suggest the thyroid to be concerned in the formation of blood, aiding or even replacing the spleen upon occasion. This view is based upon the "analogy of structure between the spleen and thyroid," and the fact that the spleen is found to be enlarged in myxedema, cretinism, and after excision of the thyroid body.

Bettencourt and Serrano experimentally implanted thyroid tissue in a case of cretinism with marked improvement in twenty-four hours. They thought that as no vascularization of the injected tissue could have taken place yet, the improvement could not be due to secretion by the tissue, but must have resulted from the absorption of a juice already there. This then led to the therapeutic use of the juice and the further idea that it was not necessary to compel the animal to do the extracting, therefore the use of extracts.

Almost immediately Vasale made intravenous injections of thyroid extract to prevent tetanic symptoms in dogs whose thyroid had been excised. From this the step to cutaneous injection was taken by George Murray, using a glycerin extract of the gland for myxedema. Murray's success awakened world-wide interest. He was followed by Howitz, who reported in the Scandinavian College of Physicians in 1892 successful administration of thyroid extract by the mouth.

The discovery of the parathyroid glands by Sandstroem in 1880 provided a means of interpreting the difference in effect of the extirpation of the thyroid gland in different species.

Vesale and Generali in 1896 showed that the administration of parathyroid extract after excision of the thyroid gland prevented the usual tetanic symptoms. They formulated the theory that toxic products of metabolism are formed by the thyroid and are neutralized by the activity of the parathyroids.

Foremost in the consideration of the suprarenal capsules stands the name of Thomas Addison, an English physician connected with Gray's Hospital, London. In 1855, having noticed a number of cases of a remarkable form of general anemia, from an obscure cause, which presented the same general characteristics, course, and fatal result, and, associated with it, a peculiar discoloration of the skin, he found these symptoms accompanied a certain tuberculous condition of the suprarenal capsules. His book, published in 1845, in which he described this complex of symptoms, gave a tremendous impetus to research work, for it was the first contribution from clinical experience to the physiology of the capsules and showed them to be essential to life.

Rudolph Virchow, a German pathologist and anthropologist, published in 1858 a valuable work on cellular pathology, which established the biological principle that the "laws working in disease are not different from those in operation in health—though subject to different conditions." In connection with the suprarenals he described the symptom complex of the form of disease which occurs later in life as a result of hemorrhage or suppuration of the organ.

The important discovery by Blum, in 1901, that injection of suprarenal extract induces glycosuria has led to research indicating this to be a manifestation of toxic activity of the extract.

From ancient times the pituitary
body was regarded as an organ possessing a fluid secretion. Vesalius, in the 16th century, believed the mucus found in the brain to be excreted by the pituitary body. The earliest modern investigator was Rathke, in 1838.

Rogowitsch discovered that excision of the thyroid was followed by hypertrophy of the hypophysis. In 1886 Marie brought decisive evidence of a disease of the glands, inducing a condition that he termed acromegaly. Victor Alexander Horsley, an English surgeon and neurologist, was the first to recommend excision of the gland for this disease. The first of these operations was unsuccessful, but Paulesco, in 1906, devised a new method of hyophysectomy—the lateral approach beneath the temporal lobe.

And lastly we come to the pineal body, the structure which Descartes believed to be the seat of the soul. Virchow was the first to call attention to the pathological formation of cysts in this gland.

Thus we see that the mystery of the functions of the ductless glands has been the instigator of the most searching investigations by men in all departments of medicine, and of all nations. The last decade has shown marvelous strides in our knowledge of the internal secretions, through the co-ordination of physiological, clinical, and experimental research; yet, while the vital need of these organs or their extracts has been proven, and, to some extent, the effects of their presence or absence demonstrated, the exact means by which their activity is accomplished and the specific functions of the organs are problems still unsolved.

Proverbs of the Arabs.

True nobility lies in high character and refined manners, not in noble birth or ancient pedigree.

A noble man is he who aims at noble ends—not he who glories in an ancestry moldering in the dust.

The Pathology of Thyroid Disease.

KATHERINE ROTAN DRINKER, '14.

In discussing the pathology of thyroid disease I shall dismiss with a brief account the pathology of simple goitre, of cretinism, and of myxedema, and shall concentrate my attention largely on the pathology of Graves' disease or exophthalmic goitre, a subject which has interested medical men very greatly of late.

Goitre, struma, or bronchocele, as it is variously called, is a chronic enlargement of the thyroid gland of unknown origin, occurring sporadically or endemically. The term goitre has been rather loosely applied clinically to cover various forms of glandular enlargement. One form of goitre, known as hyperemic or vascular goitre, is an enlargement dependent upon dilatation of the blood vessels of the gland. A second form, known as parenchymatous goitre, depends upon enlargement of the gland by accumulation of secretion within its acini, or by hyperplasia of the normal alveoli. Still another form,—fibrous struma or goitre,—depends upon increase of connective tissue. Adenomatous goitre is a form of goitre on the border line between struma and neoplasm. Properly the term adenoma should be applied only to circumscribed growths within the organ, but actually it is used to cover certain rapid hyperplasias of the parenchyma in which there is a combination of general enlargement, rapid growth of the alveolar structure, and an atypical vascular arrangement. Cystic or colloid goitre depends upon an unnatural accumulation of secretion in groups of alveoli, the walls of which atrophy and disappear, permitting the colloid contents to form a cyst.

Malignant strumae depend upon malignant tumors of the thyroid gland.

Cretinism is a congenital condition characterized by absence of the thyroid gland, or by complete fibrous
atrophy of this organ. Myxedema is a condition appearing in adult life characterized by extreme atrophy or by grave lesions of the thyroid. It is interesting, and, at first thought, paradoxical, that in a certain number of cases of both cretinism and myxedema, we find enlarged thyroid, and upon operative interference in these cases, symptoms of exophthalmic goitre are apt to show themselves. We have here, according to Adami, examples of colloid goitre in which the vesicles of the gland are greatly thickened and are filled with a firm, inspissated, gelatinous secretion. Adami suggests that in these cases, as in the expansion of the air sacs in emphysema of the lungs, the distension of the vesicles results in such a flattening and compression of the vessels that circulation in and absorption of the thyroid secretion of these vessels is arrested and symptoms of athyroidism show themselves. Acute congestion of the organ on operation will thus lead to sudden absorption of large amounts of the secretion and symptoms of hyperthyroidism manifest themselves.

The last and the most interesting form of thyroid disease with which I have to deal is Graves', Basedow's, or Parry's disease or exophthalmic goitre, as it is variously called. This disease is regarded by some as a pure neurosis, in favor of which are urged the onset after a profound emotion, the absence of lesions, and the cure which has sometimes followed after operation on the nose. I notice with interest that Adolph Strümpell, Professor of Special Pathology and Therapeutics at the University of Leipzig, in his Text Book of Medicine, classifies exophthalmic goitre among the diseases of the nervous system. At present, however, the chief interest in the pathology of the exophthalmic goitre syndrome hinges about the thyroid gland, as it has done in large measure since 1886 and 1887, when Gauthier and Möbius advanced the hypothesis that the symptom complex is dependent on a hyperactivity of the thyroid gland with resulting intoxication. Although this theory has never been conclusively proved by experiment, at present the opinion prevails widely that exophthalmic goitre is primarily a disease of hyperthyroidism, in contrast to myxedema or athyroidism. As Osler states, "the clinical contrast between these two diseases is most suggestive,—the increased excitability of the nervous system, the flushed moist skin, the vascular erythema in the one (Graves' disease); the dull apathy, the low temperature, the slow pulse, and the dry skin of the other (myxedema)."

This theory of hyperthyroidism as the essential basis of Graves' disease has many strong supporters,—chief among whom in America is perhaps Dr. Louis B. Wilson, the pathologist of the famous Mayo clinic in Rochester, Minnesota. Dr. Wilson believes that exophthalmic goitre is a clinical entity associated with a definite pathological process in the thyroid gland. He has made a careful study of the material obtained from all operations and autopsies performed on cases of Graves' disease during a period of ten years in St. Mary's Hospital, Rochester, Minnesota. The glands in this series were divided into a number of pathological groups, depending on their morbid anatomy and histology. The clinical histories of the cases were unknown to the pathologist. A clinical classification of the same set of cases was then made by a clinician who was not familiar with the pathology of the glands. When the clinical and pathological classifications had been definitely made the two were compared, case by case. As a result, an almost complete parallel was found to exist between the pathological conjectures and the clinical facts in about 80% of the cases. In about 17% of the cases the more apparent disagreements were readily explained on reviewing the clinical and pathological data. In less than 3% of cases was there an unexplained disagreement.

The following cases described by
Dr. Wilson will serve to illustrate not only this parallelism between the clinical and the pathological findings, but will also give a good picture of the morbid anatomy and histology of a case of mild and a case of severe hyperthyroidism.

"Case No. 24,550.—This specimen is a gland, the removed portion of which weighs 30 grains, fresh. Grossly it is hard and nodular. The cut surface is particularly dry and granular throughout. There is considerably increased vascularity, the veins being swollen and thin-walled. Microscopically the stroma bands are found considerably thickened and extensively infiltrated with leucocytes. There are very few papillary projections into the alveoli. The parenchyma cells are increased in number in certain alveoli, both in the single layers and by reduplication of the layers. The parenchyma cells are columnar, have swollen nuclei, granular protoplasm, and show in many areas mytotic figures. There is apparently no exfoliation of the parenchyma cells. The secretion is small in amount and non-eosin staining. (Note the four emphasized points.) From the pathological standpoint the symptoms, if any, in such a case should be those of very early, mild hyperthyroidism. The clinical history shows that the gland is from a female aged 20 years who has had a slight symptomless enlargement of the thyroid for one year and moderate Graves' symptoms for the last two months,—that is, tachycardia, fine tremor, sweating, etc."

The second case, No. 23,099, represents a severe form of the disease. "This is a 120 gram gland, hard and nodular, with a granular, glairy cut surface and swollen tortuous veins. Histologically there are large alveoli with great increase of the intra-alveolar parenchyma, numerous papillary projections, and a large amount of thin non-staining secretion. Clinically the patient is a female, aged 37 years, who has had progressive symptoms of Graves' disease for 3 years. They are now of a very severe type, that is, tremor, palpitation, tachycardia, diarrhea, and vomiting; and exophthalmos for one year and a half."

Dr. Wilson cites a long list of cases in support of his idea that Graves' disease is a clinical entity, associated with a definite pathological process in the thyroid. From his series of cases he feels warranted in making the following tentative statements from the clinical standpoint:—

"1. Very early acute cases of Graves' disease show, pathologically, hyperemia and cellular hyperplasia, if not throughout the gland, at least in much of it.

"2. Later acute, moderate, severe, and very severe cases show greater parenchyma increase, and in many instances, evidence of increased absorbable secretion. Speaking broadly, the parenchyma increase is in direct proportion to the intensity of the symptoms. The relatively few variations from this rule may be accounted for by the varying resistance of different individuals.

"3. Cases which are showing any remission of toxic symptoms show somewhere within the gland more or less evidence of decreased function in the exfoliation or flattening of the parenchyma cells, or of probably decreased absorption by the presence of the thick gelatinous colloid.

"4. The recently developed, very mild, or moderately mild cases of long standing, show pathologically almost always some total parenchyma increase by the multiplication of alveoli, but apparently not greatly increased functioning power of the individual parenchyma cells."

Dr. David Marine, of Cleveland, Ohio, stands forward as leader of a group of investigators whose ideas are directly opposed to those of Dr. Wilson. Dr. Marine, in a paper read in the Symposium on Internal Secretions, at the 63rd annual session of the A. M. A., held at Atlantic City last June, writes as follows:—

"My own experience during the last seven years includes careful anatomic..."
examinations of 137 operative and autopsy specimens of the thyroid from patients with exophthalmic goitre. I found that the symptom complex, as at present diagnosed, was not associated with either constant or characteristic changes in the thyroid, although in about three-fifths of all cases some degree of active hyperplasia was present at the time of removal.

"Thus, as larger series of cases have become available for study, opinion is again returning to the view of Virchow, that the symptom complex may be present with the thyroid in any anatomic state:—normal, actively hyperplastic, colloid, in glands the seat of tumors, benign or malignant, or with high degrees of atrophy. These changes, as has long been known, are those common to goitre in general, irrespective of their clinical association, but with this difference, that the proportion of glands showing active hyperplasia (developing goitre) at the time of operation, is at present higher in a series of exophthalmic goitres than in ordinary goitres."

Dr. Marine has proved experimentally that the thyroid hyperplasia of exophthalmic goitre responds to iodine feeding in exactly the same way that any other thyroid hyperplasia does,—namely, by a rapid storage of iodine in the gland and by an involution of the hyperplasia to the colloid or resting state. In another series of experiments, in which desiccated exophthalmic goitre thyroid was fed to animals and to patients, Dr. Marine has proved that this thyroid of exophthalmic goitre has no different pharmacologic action on animals, or therapeutic action on myxedema, or toxic action on patients with exophthalmic goitre than thyroid preparations of other clinical associations with like iodine content. In brief, Dr. Marine believes "that physiologically as well as anatomically there is as yet no known attribute of the thyroid of exophthalmic goitre that may not be shared by thyroid overgrowth of other clinical associations."

I have presented at some length the views of these two groups of investigators with regard to the pathology of exophthalmic goitre because the controversy between them is still a very real one and their views on the subject of thyroid disease are the most modern and perhaps the most authoritative views which we possess.

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Symptomatology and Treatment of Graves' Disease and Myxedema.

HELEN H. TAYLOR, '14.

Although the view cannot be unreservedly accepted, exophthalmic goitre (otherwise known as Graves' disease) is probably of thyroid origin and is dependent upon an abnormal action, or overaction, of the thyroid gland. While this disease presents to us a great variety of symptoms, its outstanding clinical characteristics are tachycardia, tremors, enlarged thyroid, and exophthalmos, all of which will be discussed in greater detail later.

In order to make more clear the symptoms and treatment of this disease, let us turn aside from the main subject for a moment to briefly consider its etiology.

Graves' disease is found much more commonly in women than in men. Although it has been met with at both extremes of life, it properly belongs
to the reproductive period, being rare before puberty and after the menopause. Heredity, chlorosis, menstrual difficulties and all debilitating conditions may be considered as predisposing causes, while under exciting causes may be mentioned emotional and mental shocks, especially profound and protracted grief, and pregnancy. The development of the characteristic symptoms of this disease is generally gradual, though it may rarely be rapid. For this reason two forms are considered, the acute and usually fatal type, and the chronic type, the one most often met with.

In the chronic form the symptoms are characteristic and unmistakable. They fall into four large groups—First, the cardiovascular and respiratory; second, the ocular; third, the nervous, and, fourth, the digestive disturbances. Of these, the cardiovascular and respiratory symptoms will be first considered.

These are usually the earliest disturbances to appear and are the most alarming to the patient herself. Ordinarily regular, the rhythm of the heart-beat in some cases is greatly disturbed; it acts in a most tumultuous, irregular manner, and its incompetence is shown by vertigo, cyanosis, and pericardial distress. Palpitation and cardiac throbbing are occasioned by the slightest physical or even mental effort. At such times the breast, neck, and face are frequently suffused with hot waves and violent blushes, extending up into the hair. Accompanying these distressing cardiac manifestations is a very rapid pulse, the usual rate of which is 120 a minute, unless the patient is reclining and at perfect rest, when it may drop to 90; but it never reaches normal during the activity of the disease. Of the major symptoms, a rapid pulse may alone exist, and taken with several other and minor symptoms, may suffice for a diagnosis. It is the only really essential feature.

As to the respiratory disturbances, mere mention will suffice, as they are generally secondary to the cardiac disorders. Dyspnoea, asthmatic attacks, pulmonary congestions, bronchitis, and persistent cough are noticed, any one or all of which may be present at the same time.

By far the most interesting and most noticeable external feature of Graves' disease, however, is the appearance of exophthalmos. Both eyes are commonly affected, but at first usually in unequal degree, dependent upon the fact that one lobe of the thyroid gland is larger than the other. The prominent eyeballs with wide-open lids give an expression of excited fierceness and fright strangely mingled, and quite disconcerting to strangers. The ocular protrusion varies in amount in different patients, in extreme cases even causing dislocation of the eyeball. The cornea becomes inflamed from inadequate protection, there is increased lachrymation, while conjunctivitis and keratitis may arise as complications. The eyelids show important and peculiar motor difficulties. Von Graefe noted this peculiarity, that in looking down the upper lid did not correspondingly follow the movements of the ball as in health. This has since been called "Von Graefe's sign," and it has greatly facilitated a positive diagnosis.

In considering the nervous and di-
gestive symptoms, muscular asthenia and early loss of reflexes are among the first manifestations. Diminished reflex action is shown in the sudden giving way of the lower extremities, causing the patient to fall heavily. Of a similar origin are the cramps, contractures, fleeting tetanoid conditions and even epileptiform crises, which are occasionally noted. Associated throughout the disease is a fine muscular tremor of varying intensity, appearing at intervals and limited to the head and upper extremities. This tremor oscillates as often as 8 to 10 times a second.

The skin is marked by abnormal pigmentation, which may be distributed in irregular plaques over the entire body, face, and limbs, in rare instances even producing a zebra-like mottling.

At any time throughout these symptoms the patient may notice a thickening at the base of the neck, commonly known as a "goitre." Its growth is usually insidious and asymmetrical, the right lobe commonly being the most affected. Pressure with the hand will often greatly reduce the tumor in size, while in the later stages of the disease, through interstitial thickening or cystic degeneration, it may give a sclerous or fluctuant feeling to the touch. The goitre sometimes becomes markedly atrophic, and then myxedema gradually develops.

With this long list of definitely noted symptoms, taking in practically all the bodily functions, one would naturally think the treatment of equal length; but such is not the case. Many and varied treatments have been tried, with as many and varied results. However, one and all are agreed upon this—that it is of the utmost importance to secure absolute rest and quiet, a change of climate also being beneficial. With complete rest, as in the Weir Mitchell course, some cases make immediate and substantial progress, while in other cases digitalis, strophanthus, and strychnin have been found to have a favorable action on the heart; strychnin in full doses being occasionally of benefit to the general nervous conditions. Sedatives, such as bromids and belladonna, have not yielded exceptionally good results, but chloral has often been useful for the insomnia. Careful supervision of diet is also an essential.

Hydrotherapy, massage, and electricity have had varying results, and have proved to be neither complete successes nor failures. At one time injections in the enlarged gland of cicatrizing agents, such as tincture of iodine, was much in vogue, but now is generally abandoned because of its doubtful value and its endangering of life.

Successful surgeons have tried removal of the hypertrophied gland; but even this procedure has a considerable mortality, as high as 10%. As a last resort, thyroids have been used, but it is generally conceded that this only intensifies the symptoms; while improvement from thymus feedings is also doubtful.

Briefly, therefore, it is evident from the various methods of treatment in Graves' disease that results have been practically fruitless, the only positive aid at present seeming to be complete rest and quiet.

**Myxedema.**

In exact contrast to Graves' disease which we have just considered, is the disease known as "Myxedema." This is a nutritional disorder consequent upon atrophy and loss of function of the thyroid gland, characterized by a myxedematous infiltration of the subcutaneous tissue and a cretinoid cachexia. Three definite varieties of this disease occur:—(1) cretinism; (2) true myxedema, and (3) operative myxedema.

The first form of myxedema, cretinism, is dependent upon the absence of a functioning thyroid, this absence being either congenital or a loss during early childhood. It is most frequently encountered in the children of degenerate, alcoholic or phthisical parents, and its symptoms are quite unmistakable.
These little cretins, as they are called, seldom attain a stature of more than two feet, while the head, seeming to forget the dwarfish body, grows to be a relatively normal adult size. The flabby thickened features, snubbed nose, thick lips, drooping eyelids, open mouth, lolling hypertrophic tongue and drooling saliva make up a peculiarly repulsive appearance. Add to these a short, often lipomatous neck, a protuberant abdomen, often showing inguinal and umbilical hernia, a deviating spine, rudimentary genitalia and dwarfish limbs—and it is impossible to imagine a less human-looking object with human attributes. Idiots mentally, they can ordinarily exercise a little attention and even show some affection; while in some instances they even assist themselves in eating and dressing. These unfortunate little creatures may live to be 30 or 40 years of age, while death usually results from some pulmonary complication.

True and operative myxedema, the other two forms, differ in no essential way from the form just described, except that in true myxedema the same symptoms occur in adults, while in the operative type the symptoms come as a result of total extirpation of the thyroid. In both, the dermal changes are most striking. The skin is infiltrated with a mucoid substance (myxedema), causing fatty panniculus frequently to be greatly thickened. The swelling offers an elastic resistance to the touch, and does not pit on pressure, while the color is usually pale, yellowish, waxy or cheesy. The whole appearance is one of hebetude and stupidity, while the intellectual state is uniformly marked by apathetic enfeeblement and cerebral torpor.

The treatment of myxedema in all its forms furnishes one of the most brilliant chapters in medicine. After innumerable experiments, in which thyroid glands were implanted either subcutaneously or intraperitoneally in thyroidectomized animals with no appearance of myxedema, the procedure was tried in man, with results far surpassing the expectations of the most optimistic experimenter. At present the sole treatment of myxedema consists in feeding patients with thyroids, raw, partially cooked, or desiccated. The sheep's thyroid is the one habitually used and now is an article of commerce in the form of various powders and tablets. The exhibition of thyroid is followed in a day or two by a return of the temperature to the normal standard, which it may even exceed by a degree or two; the pulse becomes more rapid, pigmentary infiltration diminishes, the fatty deposits melt away, and the patient becomes more animated and cheerful. Four to eight weeks may show a marvelous change. The skin becomes softened and moist, the hair and nails are better nourished, while in a very short time the normal state of the patient is attained. To maintain the cure, however, thyroid feedings must be continued, for if the treatment is interrupted for any length of time the patient promptly relapses.

In spite of the fact that this method of thyroid treatment is attended by considerable danger, namely, the possible development of Graves' disease by excessive administration of the gland, the brilliant results accorded its use quite overshadow any unfavorable effects, and only discretion seems necessary in its administration.

Oh, for a booke and a shadie nooke,  
Either indoors or out;  
With the grene leaves whisp'ring overhead,  
Or the strete cryes all about,  
Where I may read ahI at my ease,  
Both of the new and olde;  
For a jolie good booke whereon to looke,  
Is better to me than golde.  

Old English Song.

A noble man is noble though he come to want, and a base man is base though he walks on pearls.

A lion is a lion though his claws be clipped and a dog is a dog though he wear a collar of gold.
EDITORIAL.

With the last issue of the IATRIAN its readers were asked to help the staff to decide whether or not the paper should be continued next year. The outgoing staff, after a year's experience in the work, feels that it should not. New editor and business managers come to their places with, we must confess, their share of hope and enthusiasm as beginners. We have received words of encouragement and interest from several, though few, of the alumnae so far. On the other hand, the Students' Association finds that it is the opinion of the majority of the students that the value of this paper does not justify the work and time put into its preparation. The new staff wants to keep the paper going. It thinks that we should keep the medium for publication which we now possess, for the use of Alumnae and students. But we must know whether you think so too, and, incidentally, we must have your material to print.

Why?

Why do we hear on all sides, the private opinion publicly expressed, that women lack the ability to grasp the big, the important principles of a subject, but fill their minds with unimportant details?

Why do teachers, who have had experience in the teaching of girls, say that they do not systematize or use the common sense which they occasionally show glimpses of possessing?

Why do so many persons, without giving the woman physician a trial, frankly express their lack of confidence in the “woman doctor”?

That a theory is quite generally believed does not make it true, but such widespread beliefs must have some foundation of truth, and it is to our advantage to discover this, if possible, for as participants in a great race we must throw aside any weight which is hindering us, that we may have an equal chance with our running mates.

In attempting to defend her sex and disprove these statements, a woman is likely to point out women who have proved themselves equal, if not superior, to their colleagues among men, only to receive the reply that these are the exceptions among women, while they are only judging from the average among men.

Men, from time immemorial, have acknowledged themselves baffled by the workings of a woman's mind, and often attribute foresight to intuitiveness and good judgment to good luck. They claim surprise at her power to master details and petty particulars and then deride her for that same ability.

Woman herself has no doubt done much to help along the lack of confidence in her sex, by her tendency to distrust anyone's mentality until proven and by the harboring of petty prejudices. But, thanks to the fact that her field of usefulness is increasing and she is getting a chance to rub elbows with the world, her views are also broadening, and she desires to help instead of criticizing a world of women, many of whom have to support themselves by their intellect.

So while a woman may, in her heart, acknowledge the justice of ad-
verse criticism, she should never submit to it as an unalterable fact, but endeavor to train the mind in that direction in which she is weakest. There are many habits of mind which may be overcome; for example, women are great dreamers, both concerning past and future, and no matter how practical minded they may be, there must at some time be dreams and glimpses backward or forward; but the mind must learn to exclude these when there are opportunities for observation or listening to important facts or experiences. Much may be missed in student life while "the wits are in the wind" and all life is the study of some problem.

I have not attempted to answer any of the "whys," but if anyone who reads this feels that she can point out the difference between the workings of the male and female cerebrum, I am sure the answers would be welcomed in the pages of the IATRIAN.

E. M. T., '13.

Alumnae Notes.

Dr. Helen Paschall Proctor, 1905, died at her home in Philadelphia, January 23d, from rupture of an ovarian cyst complicating labor.

Dr. Eleanor Way-Allen Mellen, 1903, of Boston, was in Philadelphia early in March. She expressed great astonishment and delight at the many advances made by the college in the last ten years. Dr. Mellen is in her element directing the movements of the Progressive party among the women of Massachusetts.

Dr. Rose Rubin underwent a serious operation in the college hospital on March 10th. We hope very sincerely that she will have a speedy recovery.

Around the College.

An interesting lecture on "Medical Ethics" was given on the evening of February 28 by Dr. Gibbon, Professor of Surgery, Jefferson Medical College. We appreciate the successful efforts of Miss Le Maistre, as chairman of the Medical Society Committee of the Students' Association, in arranging this lecture and the previous one by Dr. Norris.

Our "movies" recently gave an additional joy to Dr. MacFarland's lecture and Dr. Rosenberger's quiz.

The collection of lantern slides which Dr. Rupert is preparing for practice quizzes is growing. Perhaps some of the Alumnae have unused slides or photographs which might be of value in this work.

On Friday evening, March 7, a college team played basketball against the Y. W. C. A. girls on their floor, at 18th and Arch streets. Our team was made up of the following: Miss Rea, Miss Cook, Miss Downie, Miss Taylor and Miss Browne. The score ended in favor of our team—47-11.

After the game the Y. W. C. A. entertained our team and visitors and served refreshments.

The basketball games have been managed this year by the Athletic Committee of the Students' Association, Miss Cook, chairman. Small admission fees have been collected, so that we have been able to buy a new basketball.

A return game will be played soon after the Easter vacation between the girls' team at the University Settlement and the Sophomore team, at the Settlement.

Miss Rabinoff, '13, has given up her appointment at the Woman's Hospital to accept one as interne at the Beth Israel Hospital, in New York. Miss Rabinoff received this appointment, which is not regularly open to a woman, as a result of winning first place in a written and oral competitive examination with thirty men.
It has been proposed to hold a suffrage-anti-suffrage debate at college. "If you have words, prepare to say them now."

College Hospital Notes.

The College Hospital was under quarantine for ten days beginning March 11th, on account of a case of scarlet fever which developed in the wards.

Two babies presenting anomalies of development were born, one in the Maternity Hospital and the other on the out-practice, during the month of March. One of the infants had two supernumerary fingers, while the other had a double cleft palate and lip, a supernumerary finger and an umbilical hernia of his spleen and a large part of his intestines. Dr. Deaver operated on this latter baby, but he died the day after the operation.

Dr. Frances Manship, '12, has gone on service at Barton as externe. She began her service strenuously with four abortions during her first thirty-six hours on duty. Dr. Manship has already been remarkably successful as an anaesthetist during her stay at Barton. The following is a sample of her style:

Dr. Manship (etherizing a man of about thirty-five): "Now hop right up on the table, sonny. I don't want you to make any trouble. Now just let me put a little cosmetic vaseline on your face. * * * Now just take a few deep breaths. That's right — breathe deep — breathe deep. * * * There you go, Mr. Man; that'll do for you, you're under."

Another friend has offered to furnish a parlor for the resident physicians of the hospital. The furnishing of all the private rooms on one floor is assured, and a certain amount of furnishing on the second private floor, so we may feel that the equipping of the new building is well begun.

Woman's Hospital Notes.

Dr. Li Bi Cu, class of 1905, is spending a few weeks at the Woman's Hospital. She has just come from Johns Hopkins University, where she has seen many interesting cases.

Among the interesting medical cases now in the wards are two of rheumatoid arthritis, one of diabetic arthritis, one of hystero-epilepsy, several of rheumatism and several with cardiac and pulmonary lesions.

Another ecclampsia case is reported in the obstetrical department, convulsions beginning in the fourth month. Palliative measures were unavailing, so labor was induced by packing.

Dr. Formad and Dr. Fickes have gone to Rochester for a brief stay at the Mayo's clinic.

At the meeting of the Medical Society of the Woman's Hospital, March 17, a case was presented by Dr. Van Gasken and papers read by Dr. Rose Hirschler on "The Use of the X-Ray in Treatment of Cancer," and "Notes and Cases in the Gynecological Service of Dr. Purnell," by Dr. E. F. C. Clark.

The service of internes changes April first, as follows:

Senior Surgery—Dr. Alice Milligan.
Junior Surgery—Dr. D. Emily Bolcom.
Senior Maternity—Dr. Elizabeth Hughes.
Junior Maternity—Dr. Fannie Margolin.
Laboratory—Dr. M. E. Brydon.
Outpractice—Dr. Grace Huse.
Clinic—Dr. F. J. Heath.
Medicine—Dr. Ruth A. Parmelee.
At the last meeting of the Womans’ Hospital Medical Society it was voted to hold an open meeting in May at which some medical topics of general interest should be presented and to which the public should be invited. Various topics were suggested, including typhoid fever, smallpox and vaccination, and the social evil.

Y. W. C. A. Notes.

The Cabinet for the year 1913-14 is as follows:

President, Louise M. Ingersoll.
Vice-President, Julia Faith Skinner.
Recording Secretary, Jennie McKe.
Corresponding Secretary, Lora G. Dyer.
Treasurer, Louise D. Larimore.

The appointments as chairmen of committees:

Prayer Meeting—Miss Dyer.
College Hospital — (temporary) Miss Gibson.
Woman’s Hospital—Miss Kinman.
Welcoming and Membership—Miss Skinner.
House—Miss Lawney.
Social—Miss Rea.
Bible Study—Miss Austin.
Missionary—Miss Hinkhouse.
Finance—Miss Larimore.
Handbook—Miss Otto.
Library—Miss Young.
Apron Sale—Miss Freese.
Intercollegiate—Miss Smith.

On March 1 and 2 a Vocational Conference was held at Swarthmore, at which four delegates from W. M. C. were present, Miss Ingersoll, Miss Slayton, Miss Lawney and Miss Otto. Besides our college and Swarthmore, Dickinson, Bryn Mawr, Goucher and Wilson were represented. Saturday evening Mrs. Porter addressed the meeting. One of the most profitable sessions was held for delegates only on Sunday morning in the Y. W. C. A. room, at which a representative from each college gave a report of the work done in her association. Many good plans were suggested, which will undoubtedly prove a help in the coming year’s work.

“The Time Has Come.”

Boston: Oh, Emerson—a hit! Speed—fly—with winged feet of god Hermes! Safe—ah, Selah!
Pittsburgh: Steal! Steel! Louisville: A middlin’ fine play, yes, suh! Waiter, I held up two fingers. Now, that reminds me—
New York: Out—out—OUT! Yer blind mutt—yer masked sandbagger—yer crooked graftor! Wot yer t’ink dis is—mumble pegs?
St. Louis: Ach, himmel! Poot de balls der blate over, Heinie!
Washington: Mr. Speaker, it being the hour of 3.30, with the visitors’ batting practice just beginning, I move you that we adjourn.

Tuskegee: Golly Moses, look at dat ball! Come ‘long home, y’ know.

Havana: Senor the umpire, it is to rob! Caramba!

Vassar: Gracious goodness, what a dear! Now, do be quick. Safe—ah, isn’t he positively god-like!—Lippincotts’.

Comparisons are odious:
Positive—Sick.
Comparative—Worse.
Superlative—Dead.

Out of the night that covers me,
Black as the pit from pole to pole,
I thank whatever gods may be
For my unconquerable soul.

Beyond this place of wrath and tears
Looms but the horror of the shade,
And yet the menace of the years
Finds, and shall find, me unafraid.

It matters not how strait the gate,
How charged with punishments the scroll,
I am the master of my fate:
I am the captain of my soul.

William Ernest Henley.