Food: Potassium and Tonic
Cataracts may depend on a local or general cause. Results from penile edema, penile necrosis, edema, and obstruction of great veins.
In selecting a subject for a thesis, I have thought it best to fix on one which is really practical; and this especially as my attention has, during the latter period of my curriculum, been directed to the more immediately useful parts of my studies. Any divergence from such a train of occupation — to investigate any anatomical, physiological or therapeutic topic, — is of course attended with expenditure of much time and trouble and brings the disadvantage of interfering with more important duties. Thinking an further apology necessary, I present as an essay, the digest of my reading on some of the more interesting points connected with Dropsey, — a subject which this day in some respects, still presents a great variety of phases and forms important to the distinguished and understood in practice.
Dropsy.

The term dropsy is applied to a collection of serous fluid of a non-inflammatory nature, accumulated in the cavities of the body, or infiltrated through the tissues. It is as a general rule more a symptom of another disease, than a malady of itself; and as such it would scarcely merit separate discussion, but that the inconveniences and deformity occasioned by it are great and that in certain
situations it actually threatens life by interfering with vital functions. Thus asphyxia of the ventricles of the brain and of the muscles of the pia mater may produce death by coma; of the pulmonary substance and of the submucous tissue of the larynx may cause death by asphyxia; of the pericardium may occasion death by syncope. Such being the relations of the disease, its nature ought to be intimately understood by every practitioner, not only as a means of avoiding conditions directly fatal to his patient, but also that his attention may be directed to the organic diseases, or the conditions of the blood on which the remedy depends.

Composition of tropical fluids—A sufficient amount for examination could not be obtained from the umbilicus of cellular tissue and therefore the portions for analysis have always been taken from vesicular cavities. The tropical fluids are generally clear, like serum of blood or a limpid, but have mixed with them occasionally epithelial cells or blood corpuscles. The fluid is occasionally thick, and gelatinous. Its reaction is for the most part alkaline; seldom neutral and still more seldom acid; this is not infrequently tinged with...
like, and the presence of urine may be occasionally detected. The serum of Hydrocephalus is said to be lower in its composition than any other - i.e. contains a smaller amount of salts and other soluble than the fluid collections of ascites &c. in proportion to its volume. The fluid of this cell is often loaded with flakes of cholesters. The alkaline reaction is probably owing to alkaline carbonates or basic phosphates when an acid reaction, which is rare but sometimes occurs after similar fever or acute rheumatism, it is probably owing to the presence of lactic acid. Analysis shows its constituents to be almost identical with those of blood. It is readily coagulated by heat, showing the presence of albumen. But there are certain forms of the affection, where urine is mixed in large quantity with the albumin, which have been designated fibrous dropsies. As an example we may take Phlegmatic Adena, where the quantity of effused lymph is such as to prevent the exuding tissues under pressure. The aspirated collections of the pleura often contain a large quantity of lymph, but it is a question whether this latter is not the result of inflammatory action. In most, if not in all instances, I believe it is.
I shall next proceed to mention some of the principal forms of the disease. An anasarca is the infiltration of the cellular tissue with sanguineous fluid and may affect the whole body or one limb only. In the latter case, it generally recognizes some local cause as the obstruction of a principal vein. The cellular structure of certain localities is peculiarly liable to this form of atrophy. The eye-lids and peristium on account of the peculiar laxity of these structures are so circumstances. The lower portions of the body generally suffer most for there is a great tendency in the fluid to gravitate and this is further favoured by the free communication of the aescular structure. Edema of the ankles and legs is a very common result of long standing, even in persons who are moderately strong. Dr. Watson mentions the case of a man, who had an anasarca of one anxiety of the body only; and the side affected was right or left just according as he lay in bed, the anasarca was always gravitating to the side that was lowest. Edema of the ankles is very common during couvaencesce from chronic chilaeus; and is due partly to the imperfect condition of the blood and partly to the recent resuming of the erect postures. That is always sufficiently
to remove it. Ascites is a collection of serous fluid in
the peritoneum depending on either a local or a general
cause... There is often present a considerable admixture
of flocculi of lymph denoting the close connection of the
serous effusion with the inflammatory process. The local
causes are principally disease of the liver, of the pancreas
of the pylorus and enlargement of the mesentric glands.
The position of the ascitic fluid is much influenced by
the posture of the patient: when in the erect posture occu-
pying the pelvis and iliac regions, and gravitating to
the side on which the patient reclines.

Hydrothorax is the accumulation of serous fluid in the pleura
one or both sides being affected. The amount of accumulation
is seldom great, unless complicated with a dependent on
pleurisy. The fluid occupies the lower parts of the chest
and in this region obliterated the natural sound of respiration
and other pulmonary signs; but is rarely of sufficient amount
to disturb the entire pleura. But a small accumulation

may cause some difficulty in breathing; the the amount
of effusion
Hydropericardium is not usually great except in organic diseases - as of the heart
and the
Hydropericardium is the collection of a non-inflamatory
fluid in the pericardium. Usually accompanies certain
conditions of the pleura and peritoneum and is usually
dependent on a constitutional cause. It is present in the
Latter stages of many hypertrophic and malignant diseases in which the fluids are deeply contaminated and the capillaries relaxed; as in cases of cancer. For example, the worst forms of pulmonary and bronchial cancer, when accompanied by symptoms of purifying. If a healthy pericardium be opened it will be found to contain a certain amount of clear watery fluid. Authors are not agreed as to what the amount of the natural secretion is, or what quantity may be present without the condition being marked. It can not be considered unnatural unless more than a few ounces are present. Boulanger thinks that anything exceeding two ounces is abnormal even in lingering deaths in which cases the amount of effusion is invariably great. Two or three pints is no unusual quantity and Conenrot relates an instance where it even amounted to eight pounds.

The symptoms of pericardial effusion are—A prominent dullness in the precordial region is an unusual extent of dulness over the region and this indeed is the sign of the most depended on; feebleness of the hearts action as to the ateal, tachycardia and car. At the diagnosis of hydro-pericardia is often very in distinct. An at Mary adhered closely
On surmise from the presence of droopy in other parts of the body.

Droopy of the ventricles of the brain is usually associated with similar accumulations in the sac of the arachnoid and other structures about the cerebral organ. So these I shall advert afterwards.

Hydrops articularis, as its name denotes, the collection of a serous fluid in joints. All articulations are liable to this to some degree but the knee-joint in particular. Such a condition often results from local congestion or weakness, but is often a more symptom of debility of the constitution. The swelling of hydrops assumes the natural form of the synovial membrane.

Pathology — The proximate causes of droopy and the portions of the synovial cavity from which the serous effusion takes place, and in the modes in which they take place are probably understood as well as any points in intimate pathology. When we come to inquire into the modes in which the contents of the bloodvessels pass into the tissues either for the purposes of nutrition, as to form anomalous structures, we are involved in difficulty and such as science is not yet able to resolve the subject of droopy valves in this; but still it is useful to glance at the general causes, and associating them
with what we know of the more minute processes of
the body, to draw such conclusions as may afford
a reasonable and tangible explanation of the principal
phenomena of the disease. And firstly, it should be
remembered that common obstruction operates in a
most decided and constant manner in producing
dropserent effusions; not as a permanent effusion
however, for after the collateral circulation be-
comes firmly established, the sooner accumulation
becomes re-absorbed and the parts return to their
normal condition. But it is not the obliteration
of every vein that can cause death; the vessel
affected must be the main vein of a limb. If an
ordinary vein, such as the saphenous, and stoppage
of the current of blood at once occurs, but a vein
for the accumulated blood, is at once opposed
by the branches from communicating with other
veins. But such cannot take place when a large
vein is tied—such as the saphenous. Further, in order
that effusion may occur, the obliteration must be
complete and sudden. Suppose a tumor to press on
a large vein and to increase in size gradually till
the channel is quite obliterated, effusion certainly will
occur here, because the collateral circulation becomes
established coincidently with the obliteration of the ori-
ginal vein. The general vein has occasionally been torn
purposely or accidentally during operations for popliteal
aneurism. The immediate effect was an aneuroneous
condition of the limb below the ligatured point; hence no
time had been gained for the opening up of the collateral
circulation. Dr. Lowen was one of the earliest physicians
to notice this; he tied the internal jugular vein expecting
by such an experiment to produce apoplexy. In inspecting
the animal (a dog) on which he operated to this purpose,
he found only areas of the head and face and
vascular effusions within the cranium. Dr. Watson mentions
a case, where the upper half of the body alone was amusculos
—the legs, and greater part of the thighs being quite free
in this respect, the vena cara superior was found com-
pletely obliterated by the pressure of a thrombosed aneurism.
The ataractation or obstruction of the nervous current
is propagated from the main nervous trunks backwards
to its branches in succession and finally to the minute
veins and capillaries. Hence, there is established ataractation
of their walls and obstruction of their contents. A natural
epression is continually taking place into the serous
cavities and acellular tissues for the purpose of keeping
their surfaces moist; and in order that the conditi
If these parts may continue natural an exact balance
impossible kept up between exhalation and absorption.
Most authors agree that the removal of watery fluids
depends principally on the small veins. The abstraction
of their contents, therefore, necessitates 1. a non-absorption
of the already exhaled fluids. 2. An escape of the
thinner portions of the fluids with which they are
intended. Is that, these small vessels are not only
incapable of furnishing means to remove the serous
fluids, but themselves become the channels for pro-
viding fresh effusions.

An increased flow of arterial blood to a part is too
capable of producing death. Thus ligature of the
alimentary canal below its venal branches, in some
lower animals is followed rapidly by effusion
in the neighborhood of the distribution of these
vessels. A local plethoric takes place—the vessels
are distended by an increased amount of blood and
effusion takes place from the capillaries and
small veins.

Oparantius considers that the effusion of fluid
from the veins under some circumstances, and
the absorption of fluids into their cavities in op-
posite conditions are sufficiently explained by the
phenomena of endosmosis and extravasation. But on examining
the composition of the fluids we find, that they differ
from those of the veins in having no fibrin, much less
albumen, and also a smaller proportion of cells, and
just as that different effusions do not correspond in
composition. Thus, the fluid of nephritis cephalus is much
more watery in its constitution than the liminal pro-
duction of other serous cases. For these reasons, it seems
probable that something more than mere extravasation
is required to furnish a satisfactory explanation
of the nature of the fluid. It would indicate
a power of selective reaction either in the tissues, or
dependent on the condition of the circulatory in the
parts affected.

Eosophageal effusions may, in the next place, be referred to
an impoverished condition of the blood; that condition
being caused by excessive anæmics, or by the absence
of a sufficient supply of nourishing food. The blood becomes
watery in composition; i.e., the proportion of solide to the
water is much smaller than in health. Hence trans-
duction takes place with increased facility from
the capillaries and capillareas. A similar condition is pro-
duced experimentally by injecting water into the veins
and the results are the same—ves. effusions.
have been abundantly proved by the enquiries of Magendie

Vogel 20. The feebleness of the heart's action in an anæmic
state of the system must favour the tendency to transporta-
tion of the liquor amniïnis by permitting a slow circulation
in the capillary system.

The Zoniutropy called Acute Acropysy has hitherto foiled
call efforts at explanation; notwithstanding that its
history has been carefully recorded by many authors
and every pains has been bestowed on its mordid anat-
omy. It usually acknowledges cold for its exci-
ting cause; and is attended not unfrequently by im-
pression of some habitual secretion as that of the
lining or kidneys. Inflammation of some important in-
ternal organ almost always co-exists, and the organs
most generally affected are the lungs and kidneys.

What connection have these internal inflammations with
the anasarca? Do they stand in the relation of causes?

I believe the answer must be in the negative; for the
anasarca generally takes a more prominent part in the
affection, than the internal inflammations and often
appears to precede it; and, further, internal inflammation
of these viscera often occurs without the production
of anasarca. The most rational conclusion seems to be, that some distinct condition (pelriï or otherwise
If the circulatory system co-exists with the internal inflammation and gives rise to general anesthesia. This condition has been characterized as an acute and general cellulitis; but there are no arguments in support of such a doctrine. Another pathological condition connected with deranged effusion is the defect of nervous energy and influence; this cannot be considered as a cause acting directly. Thus a certain degree of edema is common in paralyzed limbs. The explanation probably is that the veins and capillaries lose their proper turgor and contractility, and the blood becomes impacted and stagnated in them. Consequently, transudation takes place and especially where the cellular tissue is lax. It seems appropriate in this place to mention that kind of edema of the lungs produced experimentally by division of the pneumogastric nerves. It was ascertained by Dr. John Reid that animals dying a few hours after sustaining this injury had their lungs loaded with serum. He explained the phenomena as follows: The diminished and suppression of the necessity for respiratory dependant upon the absence of the pneumogastric nerves, causes a defect in the number of respiratory movements in a given time; and that, therefore, the blood passing through the lungs is insufficiently aerated. Consequently
I shall now give a short account of some of the principal forms of dropsy. Cardiac Dropsy is dependent on more than one morbid condition of the heart, but is chiefly associated with dilatation of the right side of that viscus and obstruction to the various venous currents directed into its right cavities. A very common condition is enlargement and hypertrophy of the right ventricle, dilatation of the right auricle and a similar condition of the great veins resulting from central or pulmonary disease. In such the return of the blood to the superior and inferior vena cavae is interfered with and dropsy of the parts from which they arise results. Its effect on the current of the inferior vena cava is to cause enlargement and congestion of the liver; next the veins of the abdomen are encroached upon and ascites results, sometimes accompanied by venous effusion under the peritoneum membrane of the alimentary canal, rarely by an analogous condition of the gall-bladder. Sometimes, the over-distension of the veins is so great as to produce copious watery fluid from the intestines and occasionally hematemesis or melena, and in such cases, the dropsy is much diminished or entirely absent. The morbid influence being propagated to the
In the arterial system, anausence takes place in the lower extremities, genitai, etc. Cardiac aausence affects the vena cava superior so as to cause anausence of the head, neck and upper extremities, and venous effusion into the ventricles and membranes of the brain and into the spinal canal.

The aausence thus occasioned stands to the original cardiac disease as the relation of a symptom; and further, indicates that the veins which empty themselves into the right cani-
tic of the heart are more or less affected. The amount of
obstruction of the vena cava need not be such as to cause
in them decided dilatation; but it is quite sufficient if
the passage of the blood thru’ them is rendered slow.

The return of blood from the smaller veins is prevented
and transudation of the serum into the surrounding
structures takes place. The obstruction thus caused by
Cardiac aausence, is propagated in a direction contrary to
the current of the blood. Thus suppressing a rehausen to
aortic incompetency, depending on depositions of lymph
or atheroma on the valves of that vessel, a certain amount
of repulsion into the left ventricle must necessarily
take place immediately after the contraction of its
muscular walls. Hence, the ventricle is unable to empty
itself; it is kept in a condition more or less disturbed,
and to atone for the deficiency the reparative process of bu-


-terstitial fluid is set up. More or less dilatation will also occur. Here the mischief may stop for a time, but sooner or later, the distressing effects of the ventral apparatus will supervene: the orifice becomes dilated, or its valves become incompetent and the proper flux of blood from the left auricle to the ventricle is interfered with. Dilatation and sometimes hypertrophy result. Next the pulmonary veins which open into the left auricle become distended and dilated, more or less stagnation of blood takes place in the vessels of the lungs and consequent serious effusions there. The obstruction being still propagated backwards, dilatation and hypertrophy of the right ventricle are induced and the condition of the right heart above it being established with all its outward consequences. The symptoms which usually accompany cardiac dyspnoea and by which one judges of its cardiac origin are, irregularity of the pulse, protuberance in the pulse of the heart, hypotension, constant or occasional cough and expectoration, large epistaxis, hemoptysis. An important symptom as attenuating obstruction of the right side of the heart is interference of the superficial veins especially of the neck; also blueness of the skin and lips. The dyspnoea attending disease of the heart is not at first constant. It first
becomes manifest about the ankles — is brought only standing or exercise but disappears on keeping the recumbent posture for a few hours. Hence it is abundant at night. Blisters appear by the morning. From the ankles the edema gradually extends upwards and involves the entire lower limbs; next the sartorius, sphen, and water collects in the peritoneal and pericardial cavity. In the more advanced stages, the arms, head and neck also become drouspical. What kinds of affection of the heart lead to such results? They are: 1. fibrinous deposits connected with inflammation of the pericardium of the heart and that principally of a rheumatic nature. The endocardium and pericardium are often both affected, but the former only in the majority of cases; and this is one reason why the ultimate results should be disastrous, for it is evident, that the deposit of lymph will interfere much more with the due performance of the heart's action when taking place on the endocardium than on the pericardium. The presence of lymph on the surfaces often implies will prevent the accurate apposition of these surfaces with that to which they are opposed and deglutition must inevitably take place, and the heart consequently actions alone sometimes be established, inevitably tending to produce drouspical accumulation. When th
Pericardium is inflamed; its contiguous surfaces become sooner or later adherent; such a departure from the natural condition may be followed by any evil consequences; the heart may be enabled to continue its action still unimpeached. But often it is not so.

The movements of the organ are embarrassed and hypostatically, if its muscular structure takes place; and this sooner or later leads to incompetence of the valvular apparatus and various derangement of the circulatory results. Pericarditis, however, acts much less strongly in producing dropsy than endocarditis. Deposits of lymph are most common on the aortic; next on the ventral valve; then of the right side are but rarely affected.

Similar profound derangements of the heart are produced by non-inflammatory deposits on the lining membrane and valves—air, the atheromatous and the calcareous. Both occur in elderly people and are but rarely observed before a certain period of life. They lead to typical accumulations in exactly the same way as the inflammatory deposits do.

Dropsy connected with derangements of the respiratory apparatus. Emphysema is the only condition of the pulmonary organs, which contributes in a uniform
and deadell manner to the production of effusion and
even in its the progress of accumulation is often slow in
progress and slight in amount. Empysema consists in a
broken down and dilated condition of the cellular structure
of the lungs; hence the extent of mucous surface is
much lessened, and the means of action of the venous
blood are materially diminished. The blood is as usual
forced into the lungs by the right ventricle but meets
with serious impediment. 1st. Because a large amount
of fluid has to pass through a small number of vessels. 2nd.
Because the blood forced into the capillaries is not
effectually aerated. In Phthisis, the number of vessels
thus formed the circulating blood has to pass in much
diminished; but at the same time, that amount of
blood under goes decrease, so that no obstruction takes
place in the lungs. In Empysema, the total amount
of blood is little or not at all diminished. Hence the
reason why dropsy occurs in the latter but not in the for-
mer disease. Occasionally exceptions to this rule do oc-
cur; Phthisical patients sometimes aline of the
amles and Dr. Darwall relates a case in which the
patient became universally anaemicous. One might
expect anaemia to occur in all cases of bullein
consolidation of the lung and in lapsus effusion into
the pleural cavity; but such a result is rare and must be regarded as quite exceptional. The most probable explanation is that antiphlogistic means—bloodletting, for example, are resorted to early in the diseases, and that in sufficient time to anticipate the obstruction in the lungs. Drispy is occasionally brought on by Bronchitis, and the very sudden accumulations of water that later place during the course of cardiac diseases, are often caused by the super-eruption of bronchial inflammations. Obstruction of the circulation in the lungs is speedily followed by dilatation of the right cavities of the heart, and the history of the case becomes that of cardiac Drispy. A acute inflammations of the larynx and other affections of this portion of the respiratory canal are sometimes followed by announce.

The form of Drispy connected with renal disease, is most commonly associated with that condition of the organ, called Bright's disease, or granular degeneration, which consists of a deposit blocking up the tubules uriniferi, and altering more or less the structure of the secretory cells of the urine. The cortical structure of the organ is generally affected first and most severely, but gradually the pyramids of Mulpigii are invaded.
and destroyed. The symptoms of the disease are pain in the back, occasional pain in the course of the weather; chills and fever; dis¬
 ease of the body, and in the latter stages convulsions, dis¬
 seases, and coma. Important indications are derived
from the urine. There is decided diminution of its specific
gravity; and chemical tests will almost invariably
discover albumen. This substance is not invariably present
but may be detected at the greater part of the course
of the disease, and is especially abundant in the
early stages. The quantity of urine varies being some-
times scanty, but at other times natural in amount
or even improving this. The disease of Bright's disease
involves both the general cellular tissue and the renal
cavities of the body. The membranes and cavities of the
brain are affected amongst other parts, and under a
condition of the cerebrum is often found in these cases
fulminating coma. The coma has often been attributed to
the effusion and notwithstanding it has some influence in
the production of this arrangement of the nervous system;
but it is not the principal cause, for many cases of
Bright's disease are putridly coma without the presence
of any accumulation in the cerebral cavity. The lungs
are often infiltrated with serum giving a great tendency
to catarrh and pneumonia. Why should it not occur in Bright's disease? The blood is so altered in its constitution during the progress of the disease as to render the occurrence of effusion very easy. The circulation becomes placed in the same condition as when an excess of water is introduced into the veins artificially—i.e., the proportion of solids becomes deficient. The natural specific gravity of the serum is 1029; in grumular degeneration of the kidney, it is reduced to 1024, 1022, 1020, 1018. This change is due in great measure to the loss of albumen, for when heaters the serum coagulates loosely, and in many cases, it appears to contain only fine or 1,000, cent of solid matter.

The filament is not diminished; but is, on the contrary, often increased in quantity, as in the case of inflammatory diseases. In the earlier stages of the disease, the amount of hemato-
tum contained in the blood is not diminished, but
tolutely becomes very much le. Dr. Clutton remarks, "Whenever the disease has made some progress, whether in the acute or chronic form, the hematoctit is invariably reduced, and the reduction increases quickly, as the degeneration of the kidney advances. Probably as other diseases which hemoglobin occasions so great an im-
permeability of the colouring matter of the blood. The
healthy proportion in a stout male being about 13.40 gms.
In 10,000, it has been found reduced in granular albumen of the kidney, according to its stage to 1110,955,720,564 and even 42. The degree of albuminuria may in a certain degree contribute to the dropical lancing of the blood; but the albuminuria, which is observed very greatly in the earlier stages of the disease, must be regarded as the principal item in the pathological condition. It would be a mistake to suppose that anasarca is an invariable accompaniment of Bright's disease. It is not Dr. Thorpe's case, almost due to occur when the disease is rapid in its progress; but many cases of a more chronic nature will run their whole course without any effusion. The accumulations of Bright's disease are usually liable to vary, but still remain unaffected if causes which might be expected to act upon them. Thus the amount of anasarca is often not at all diminished by increase in the flow of urine, even tho' this be produced by diuretics. Renal atrophy is readily distinguished from cardiac by the peculiar pallor of the skin and mucous membranes and the total absence of lividity of the face and lips.

That anasarca is the most common form of dystrophy in renal disease is proved by statistics. Dr. Wells found it in 84 out of 37 cases. Of 7 cases studied by Dr. Christian, anasarca was the principal form of dystrophy in 24 of the cases, and in the seventh only was the urea a prominent symptom.
Dr. Gregory's cases show much the same result; and in twenty-three cases recorded by Dr. Bright, anasarca was the front of effusion in Anasarca is a state of poverty of the blood is a cause of dropsy, and its pathology is in fact exactly the same as that of the blood in Bright's Disease. This state is one of the chronic maladies produced by excessive bleeding, either accidental or intentional; and this being the case, I think it would be interesting to notice here the effect of bleeding on the composition of the blood. Dr. Christian has on some occasions examined ana-lytically the composition of the blood of some patients both before and after the menses. The alterations produced by the menses were as follows. The density of the serum and the amount of albumen contained in the serum were both diminished; the proportion of red corpuscles was much lessened; fibrine diminished the same or was a little increased; the extractive and salts remained at the same. Therefore, by excessive bleeding the blood is brought into a state condition with that in Bright's Disease—viz. Water in excess! albumen deficient; fibrine undiminished; corpuscles and colouring matter greatly diminished. The poverty of the blood is at once demonstrated to an anemic patient by observing the pulse, of the surface, and more especially, if the mucous
The dropsy of anaemia consists of oedema and small effusions into the several serous cavities. Chlorosis is a condition very closely associated with anaemia and exhibits similar pathological tendencies. Dr. Marshall Hall states that these two affections agree "in their tendency to induce effusion into the cavities of the brain, pleura, pericardium and peritoneum." The same author relates the appearances on the dissection of a Chlorotic subject as follows: "There was some effusion into the ventricles of the brain; the pericardium and the left cavity of the pleura; the lungs werearged with serum; the heart was large; the lungs much enlarged; the heart was of the colour of ivory; there was plenty of adipose substance; the ankles were oedematous!" A long continuance of faulty digestion will produce this condition as efficiency as bleeding.

The following case which occurred in Dr. Combe's practice was one of anaemia resulting from bad digestion or some other lesion of nutrition. "Dr. Combe first visited his patient in July 1821. He looked like a man recovering from bypnopeia. The symptoms were pallor, languor, breathing easily, hurried, pulse 80 and palpable; tongue covered with a dry fur; the bowels relaxed; the stools black and petrified; third, want of appetite, desire of food; no pain, no detectable organic disease. The patient was
By 1827, he had never been bleed. The symptoms had stolen upon him during two months; he said his head troubled him, and his feet were aching. Tonics and astringents were prescribed. He took a sea voyage and spent some time at a sulphur bath. He died in January 1822 with all the symptoms of hydrothorax. On examination, not a drop of blood flowed on dividing the scalp; the chest was moist and displayed few vessels and were empty; the pia mater was pale, its blood-vessels containing a pale serous fluid, and a slight effusion under the medulla. The ventricles of the brain contained two quarts of serum; and about two ounces were found at the base. The lateral sinuses were moderately filled with pale, fluid blood; the arteries at the base were empty. In the thorax, there were three pounds of a lemon-colored serum. The heart was pale; the right ventricle contained a pale clotted serum; the left was empty.

The arteries were universally empty as were the jugular and brachial veins; the lower canals alone contained any blood. This fits fairly in a decided manner the characteristic appearances in such cases of arsenic.

There is a form of dropy common after calculation and which generally presents itself a few days after the completion of the process of accommodation. It most
Commonly occurs after cases of the Verulamia Complex or slighter forms of the disease, and the attack is usually determined by a sudden exposure to cold. The brain at such a period is probably occupied in the elimination of the Verulamia poison. Sudden exposure to cold stops this process, and the great taste of excitation of the morbid humours is thrown on the cerebral organs. The result is a congestive if not an inflammatory condition of these organs, as shown by but little strong hard pulse, hussled tongue be; and the urine much diminished in quantity and albuminous. In all cases terminate either in excitation with absorption of the cephalic fluid, or go on to a fatal be completely come on which cases the cerebral ventricles are often found distended with serum. In congestion the kidneys are found slightly enlarged and congested, but these structures are unaltered. But in such cases going on to a chronic stage would end in granular degeneration. Some authors consider that the circulating system, and not the cerebral organs, are at fault; and regard the presence of albumen in the urine as an indication of the cerebral derangement of that system, rather than of a disease in the kidneys. It used generally to be understood that depoly occurs in cases of Simple Inflammation, but Mr. Harvey has entirely denied this.
Drooply connected with disease of the liver, usually of more limited extent than that dependent on morbid conditions of the heart or lungs; and such might actually be expected for the latter viscera are connected with the main venous trunks of the systemic circulation, while the liver has relation to the portal systems alone. The disease of this organ which most commonly occurs is cirrhosis. This malady consists in the deposition of recent fibre in the structure of the organ, either in the portal canals or in the interlobular cellular substance; and often in such a manner as to present distinct maps of lymph proceeding from the centre towards the circumference of the liver. Such a condition is generally held to be occasioned by the prolonged use of alcoholic spirits and hence is common in those countries where alcoholic drinks constitute common articles of consumption. Spirit taken into the intestinal canal is soon absorbed by the lymphatic vessels of the mesentery, and taken and carried to the liver, where it acts as a direct irritant and causes a peculiar kind of inflammation which leads in turn to the deposition of soft tissue. The effect of such a change in the structure of the liver is at first to enlarge the organ; and Dr. Wright and others state that they
have detected the more rare variety during life. A section of the liver at this period shows the lymph to be soft and disorganised: but in a short period another change that of contraction commences. Recently organised creative con-
times to contract but some time after its perfection. And so it is with the hands of lymph in a cellular layer; the effect of while contraction is to draw certain points of the surface towards the centre of the organ. The conditions of the liver called "hollowed" is established. But these hands of lymph cannot contract without pressing on the various branches of the vena porta, and retarding the current of blood which circulates thru them. Hence ascites results; and the ascites dependent on a cellular layer is usually very persistent in its character. It occasionally happens that the coats of the intestines become adhesions; and even a similar condition of the gall-bladder has been reported (Andrus).

Cancerous Tumours of the liver are sometimes attacked by ascites. Every case of this disease is not so complicated, and the reason is plain: viz. that in some the tumours press on the vena porta and in others they do not.

Other affections of the liver--Simple inflammation, Diffuse inflammation, Obese, Hydatid tumours, fatty degeneration are rarely or never attended with ascites. There is no
cause of obstruction of the vena portae. Trophic atrophy on
abuse of the liver is peculiar in this respect: that the ab-
omen and lower extremities are alone affected. The cavity
of the peritoneum becomes first loaded with serum and
if this accumulation becomes great, pressure is exerted
on the iliac veins, as a consequence of which there is
an area of the lower extremities. This atrope may be
reduced by the occurrence of hemorrhage or hemorrhax,
as such discharges serve to relieve the portal circulation.
Kaposis atrophy unlike ascites does not extend to the
head, neck, arms and upper portion of the trunk.

Cerebral atrophy or Chronic Hydrocephalus consists
in the gradual accumulation of serum in the mem-

brane and ventricle of the brain, and in the cavity
of the arachnoid. While acute hydrocephalus is an
inflammatory, the chronic form may be considered a
true atrophy. The serum is of a remarkable pale color
and seems to contain a larger proportion of water than
any other tropical fluid of the human body. Chronic
Hydrocephalus is truly a disease of Children, and
often affects females in utero; this is certain exception
Cases are on record, in which the patients had even
attained the age of fifty. The enlargement of this
head is generally very gradual in its progress, and has
Sometimes called at enormous dimensions. The bones of the cranium are generally but very partially ossified, and the membranous thinned walls offer little resistance to the pressure of the accumulating fluid. The expansion takes place principally in certain directions: i.e., by the parietal protuberances, the fontanelles, and sutures, which are prominent, the forehead which often projects over the eyes, and the occiput. In the meantime no change takes place in the size of the face, which by contrast adds much to the dimensions of the skull. The intra-cranial form often obstructs labour.

Examination of Hydrocephaic Heads - It occasionally happens that in cases of intra-cranial atrophy, no brain is present at all; the cranium occupies the entire cranial cavity expanding its walls in every direction. Much more frequently, the brain is present and it is interesting to observe what relation exists between it and the cerebral a.

Cerebellum. The effusion has in some cases taken place in the cerebellum first, and increasing has dilated there and expanded the cerebral substance into a kind of Lace for itself. As that on opening the head, the parts in conjunction are 1. The membranes; 2. the cerebral matter; 3. the fluid. In many cases the membranes of the brain become quite broken up, all the ventricles
formed into one large cavity, and the whole brain is expanded into a cyst. In other instances the fluid accumulated is in the sac of the arachnoid; the brain is found pressed down to the base of the skull, and its hemispheres are folded out like the leaves of a book. The latter form is paid to be an advanced stage of the former—the serum having burst from the ventricles to occupy the cavity of the arachnoid. Curious to say, the brain often retains its natural weight. As might be expected such a condition of parts is often attended with serious alterations of the intellectual and emotional faculties. Deafness, numbness, or inability to articulate distinctly, amnestic and lastly complete idiocy, frequently result. But still there are many instances on record where dyscephalic patients have lived for years in the enjoyment of sound mental faculties and entire health. The mere size of the head is usually a source of inconvenience to the child, giving it a great tendency to fall on slight or sudden movements. In many of instances Dr. Bright's graphic report of the case of his dyscephalic patient "Cardinal," but considering blame occupied us much of the society's time shall omit it.

Phlegmatic cholera is a disease of epidemic character occurring in periperal Lombard and generally
Coming on within a few days after delivery. The leg is the
joint affected: and one limb is more common, affected
than both together. Different views have been taken
of the pathology of phlegmatism chloasma. Some authors
consider it to be an obstructed state of the veins; others
believe it is a disease resulting from incapacity of the
lymphatics. Probably the disease depends on an ob-
structed condition of both these classes of vessels: for
they have both exhibited similar changes, but un-
doubtedly the veins are affected most commonly. The
veins liable to become involved are the internal and
external iliac, uterine and marginal, femoral and profunda,
epigastric and inguinal. On dissection they are found
totally plugged with bile or agglutina and lined with
adventitious membranes of lymph. When these changes
take place there are constitutional fever and tenderness
in the course of the lymphatics and femoral vein.
The swelling generally involves the entire limb, groin,
and inguinal region of that side. It is at first com-
posed of swelling only; but later on phleatism is concord
into the cellular tissue in abundance and the limb
ceases to put on pressure. The whole limb is distended
and hugely swollen, and the chest time and existing.
This affection belongs to that Clap of Chloasma called

Fibrous.

Adena Glottitis is a tropical affection of the fibrous tissue of the larynx, epiglottis and surrounding parts. It may result from a low grade of inflammation, and is sometimes dependent on the obstruction or obliteration of neighboring veins by an aneurysm or other tumour. A higher degree of the inflammatory process gives acute laryngitis and there are many insensible gradations between the one and the other. The patient suffers much from dyspncea, and the disease becomes liable to inflammatory exacerbations, when the life of the individual is most imminently endangered. Other symptoms are pain and a sense of constriction about the larynx, sometimes dysphagia in consequence of the bulb of good exerting pressure on the tracheal swelling and a peculiar long wheezing inspiration. Adena Glottitis is further distinguishable by the light of touch. By letting the patient to open his mouth wide and perform the act of deglutition while the tongue is pressed down by a spatula, the stiffened erect glottis may often be brought into view. If not thus discernible, by the light, it will be certainly detected by pressing the point of the finger down to the epiglottis, when its cellular condition will be readily
Toward the latter stages of the disease, whether it be rapid or slow in its progress, intense congestion of the face and head is almost sure to result. The amount of swelling about the larynx differs in cases—sometimes being entirely confined to the epiglottis; at other times extending over the base of the tongue and the neighbouring parts of the pharynx. The exciting causes are often similar to those of inflammatory attacks. The history of edema was not well known till about 1808—indeed, in modern times; but it was well known to some of the ancient physicians. The disease on the whole is remark-
ably insidious in its progress; and this constitutes one of its principal dangers. Notes relates the case of two young men who retired tired apparently well at night, but were found dead of edema glottitis in the morning.

Serous Apoplexy. There is a certain class of apoplectic cases which are associated with serous effusion into the ventricles and membranes of the brain; and it is interesting to inquire what relation the effusion bears to the apoplectic symptoms. Dr. Abercrombie examined a number of such cases and arrived at the conclusion that the effusion into the ventricles, and not cause the cerebral symptoms. But he regarded it as the
result of a condition of disturbance of the cerebral circula-
tion, which was itself the cause of the apoplexy. His reasons for so thinking were: 1. That a similar state of
paralysis occurs without any effusion. 2. That the intensity
of the symptoms was not at all proportioned to the
amount of effusion. 3. That in other conditions of the
body as great or greater effusions are often found
without any apoplectic symptoms.

Hydrocele of the Tunica Vaginalis is a collection
of straw-coloured serum in the serous bag of that mem-
brane. It is sometimes owing to external injury and at
other times associated with enlarged veins; but
more generally acknowledged as such apparent existing
Cancer. The swelling makes much in size and tension,
and is present in shape, its neck being at the external
abdominal aperture. The testicle is generally buried in
it and is usually detached at the back part, at about
a third from the lower end; but in a certain pro-
portion of cases it is placed in front. The tumour may
be translucent or not; if the former a good diagnostic
symptom of Hydrocele is at once affected. The end
Can be felt distinctly above the tumour, which does
not receive any impulse on coughing or sneezing. The
patient experiences a peculiar sensation when the testicle
is pressed upon. Hyrdocele of the cord is rare compared with that of the tunica vaginalis. Richermand has calculated that the average proportion of hydrolecs of the cord to those of the latter description is not more than as one to a hundred. The tumour is usually situated at the middle portion of the cord, between the testicle and groin and is generally of an oblong figure. The cord can be generally distinctly felt both above and below the tumour. This arises to the tense of the cord from hernia. It appears no impediment on coughing or sneezing unless closely associated with the abdominal fascia, which is rarely the case. The hernia are not retarded in their action as they are in hernia. When occurring further down in the cord it may be confounded with the former variety of hydrolec, but is readily distinguished on observing that this testicle is distinct from the tumour, except in very old standing cases. The cyst is described by Lexer as consisting of two layers. Just the sheath of the cremaster and under it the cellular tissue of the cord. More or less thickened. Sometimes the cysts are hydrolec of the cord and that of the tunica vaginalis co-exist.

Diffuse hydrocele of the cord is rare and consists of a collection of serum in the cellular tissue underneath.
the cremaster muscle. The cells of the acoelur tissues are
much distended with the fluid, which generally passes freely
from one to the other. This affection is in the majority of
cases slight, and causes no distress or inconvenience to
the patient; but in some instances attains a great
degree, when surgical interference becomes necessary.
The form of it very closely resembles inguinal hernia,
and the diagnosis is often rendered difficult by the
fact, that the fluid reacts into the abdomen on slight
manipulation, just as a reducible hernia. In such a
case, the patient should lie on his back, and the
swelling be returned into the abdomen. The surgeon is
now to press his fingers gently over the internal abdomi-
nal aperture, while the patient assumes the erect posture.
If hernia be present, the hernia will not return; if fluid
is there, the swelling will return to a greater or less degree.
Anasarca is occasionally produced by the sudden loss
of pressure of cutaneous eruptions. Such cases very closely
resemble the forms of dropsy which follow leucorrhoea.
The diagnosis of hydropic accumulation is usually un-
attended with difficulty. Anasarca is generally dis-
covered by the puffy swelling, which puts on pressure and
which imparts to the finger the sensation of a fluid.
Serum accumulated in the peritoneum is easily,
recognized by its fluctuation. The hand should be laid flat on one side of the abdomen, while two or more fingers of the opposite hand strike the swelling on the opposite side. A sensation of a moving fluid is at once communicated. Occasionally difficulty is experienced in distinguishing ascites from omental or liver dropsy of the ovari; but a cavity in the body is sympathetically on percussion. But in ovarian dropsy, the situation of the swelling is fixed; the tumours rise up in front of the recti and pubes, then back and hence there is often dulness on the epigastric and higher regions of the abdomen. In ascites the swelling is uniform and symmetrical when the patient reclines on her back; in ovarian dropsy it bulges more on one side than on the other. The consistence of an ascitic swelling is uniform; in ovarian dropsy its consistence is more pulpy at some points than at others. In ovarian dropsy the uterus is sometimes contracted; and the enlarged ovary may be felt by a conjoint palpation and vaginal examination. The ovaries and masses are usually not as large as ascites. The mobility and lubrication are much greater.
in cases of the latter are more than of the former. Hydrothorax
causes more or less embarrassment of the lungs. Its
presence may be inferred from drooping accumulations
in other parts of the body; and it is discoverable by
physical examination. The symptoms are dulness,
absence of the respiratory resonance; that peculiar modification
of the vocal resonance called egophony, which how-
ever only occurs when the stratum of fluid is thin;
increase of size in the side affected and diminished
expansibility. In extreme cases, the heart may
be displaced to the opposite side.

Treatment—As a general rule, trophic is not an object
of radical treatment for its causes are most frequently
organic diseases whose outward symptoms cannot be
altered by any treatment. But the palliative remedies
are often productive of great comfort to the patient,
and facilitate the enquiries of the physician by enabling
him better to explore the different organs of the body.

Prophylaxis dependent on an impermeable constitution
of the blood or on sudden inflammatory attacks often
assist in radical cure.

Anemia should be treated by good diet, simple remedies
which contribute to strengthen the digestive powers, gentle
laxatives, the salts of iron and stimulating if necessary.
All asepticative evacuations must be thorough and the
secutions of the body put in order.

The Aepy of Cardiac Diseases may be cured by
diuretics and cathartics. The latter are probably most efficient,
and the purgatives most in use are Croton Oil, Gamboge,
Elaertium, Sulp. Leaveni, Retabrine of Potase.
They may be used in combination or alone. They act
primarily by draining away the serum of the blood.
The Aepy of Bright's Disease may also be treated better
by diuretics or cathartics. The latter are very efficient
and safe if no tendency to diarrhoea exists. The utility of the
former has been much discussed. Some writers as-
sert that they should most be used, because they
add a fresh stimulus to an already diseased organ. The
experience of Edinburgh physicians, at any rate, seems
to warrant their use; and the cases are numerous in
which they have removed the osyphy without any apaka-
rent aggravation of the usual complaint. Digitalis and
Substrate of potase answer well. The Digitalis may
be applied in the form of infusion to the abdomen by
Ired clots. Digitalis, Quell and Rhee bell all given-
together and act efficiently as diuretics. But Mercury,
in all its forms, should be exhibited cautiously — for the
Urines is very susceptible to its mercuric in-

Bright's Disease. Potas. Carbonate of Potas. Acaete of Potas. Potas. Etter and Aconite of Broom-tops have also been used as diuretics. Scaphoidea have occasionally succeeded in removing the dryness, but much more frequently failed. They are however always beneficial as auxiliary in preventing great dryness of the skin.

Anasarca occurring after Peculata is generally best treated by resection or cupping, purgatives, antimonials, low diet, and often by touching the gums with mercury.

Chronic Hydrocephalus is usually very intractable under all forms of treatment. The emetics principally employed are Aconitae and Catharticae and mercurialis. Calomel is given in half-grain doses two or three times a day till the gums are touched. Such treatment is reported to have been more successful than any other. Injections of the leech with mercurial ointment and counter incision to the neck and back are also ordered to. Bandaging of the head by strips of plaster has also been proposed and tried in some cases. It was expected to cause absorption of the fluid, but in this usually failed, and where the strips were made too tight seemed to shorten the patient's end. Still, it appears that in some cases where the cranial particles have quite lost.
their natural rigidity, it is beneficial by restraining the
exhalation of fluid and by giving support to the brain.
The operation of tapping of the head has been tried many
times; and it must be said, in some few instances with
success. But the proportion of cases of failure is not excessively
large, and in these cases it has doubtless contributed
to hasten the patient's end. The rigidity of the cranial
parietes and the frequent non-development of motions of
the brain must also be used as arguments against it.
As cited so efficiently relieved either by pneumatics or cathartics.
Paracentesis should not be performed except in urgent
cases, where the obstruction is great or else it will become
a means of injuring the patient. The same remark will
apply to paracentesis thoracis. It should as the created
to unstop the lung is compressed or dense embarrasment
if the inspiration is threatened. Diuretics and purgatives
will have the desired effect.
Phlegmatisa hollow is treated by leeches in the course
of the general aches, purgatives, low diet, antimonials
of necessary and in the chronic stages bandaging
and fervice to stimulate absorption.
Hydrocele of tunica vaginalis admits of curvature and pub-
larative treatment. The latter consists of the repeated
removal of the fluids by tapping; the former of tapping
with the injection of some stimulating fluid - as port
wine, solution of sulphate of zinc, or turpentine of iodine.
The latter is by far the most effective; and is almost
universally used - in Edinburgh at least. A draught and
a half or two draughts are injected. All acknowledge the
efficacy of this mode of treatment; but opinions differ
as to the mode of action. Some assert that inflammation
is established and that the bees become obliterated and
this has been proved in some cases of obstruction; others
assert that an effusion of serum takes place and that,
on its absorption, the proper equilibrium is once established
between calcination and absorption and a cure results.
The former explanation seems most applicable to injec-
tions of iodine, because the hydrocele seldom occurs
in bees, which would not occur in the case of an obliterated
bees. Injections of port wine and solution of sulphate of zinc
have given the bees immunity from a return of the disease,
and hence in them the latter explanation may be true. It
is not at all certain that these injections give rise
to a certain amount of inflammation as evidenced by
swelling, redness and tenderness of the bees, which
lasts for a few hours and then subsides leaving
the parts in their natural condition. Hypospadias occurring
in children is usually cured by a subcutaneous solution,
such as spirit and sal ammoniac.

Encysted hydrocele of the cord may be treated in exactly the same way as that of the tunica vaginalis.

Diffuse hydrocele of the cord usually disappears under the use of diuretics; and if these fail, puncture or slight incision may be resorted to. Injection is scarcely safe. In all forms of acute hydrocele, bleeding and other antiphlogistics are required; and bleeding is also useful in the inflammatory attacks which often supervene in the course of chronic cases as occurs in renal dropsy. It should, however, never be employed to a greater extent than is absolutely necessary, on account of its tending to impurify the blood. Great tension of the cellular tissue by descent is often successfully and speedily relieved by punctures with a needle or lancet. In such cases nature has been known to point out the correct practice by the death and separation of small pieces of skin, where the tension was great, so as to give a drain for the fluid.

Charles James Davenport.
March 1884.