My Inaugural Dissertation

"The record of microscopic observations of one hundred tumors"

Submitted to the Faculty of Jefferson Medical College.

For the degree of "Doctor of Medicine"

by

[Signature]

of Phila.

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It is only since a comparatively recent period, that the microscope has been made applicable to the study of minute growths; and although many observations have been made, and a number of excellent works, published on this subject upon the Continent of Europe, still it cannot yet be said, that the morphological arrangement of tumours, more especially of those which are shaped under the general term malignant, have been sufficiently elucidated. The diagnosis of such growths has ever been an object of much study and interest to the surgeon, and any means which can assist his diagnosis, or verify it, subsequent to operation, deserves his most careful consideration.
If not the microscope subservient to this most important end? Rashly as this is acceded to be assuming, I am making no apology for adding the records of the comparability few cases I have had the opportunity of examining to the general stock of information; in the certain expectation that at no distant day, the careful and continued investigation of this subject, will be attended with results highly important not only to pathologists generally, but more especially to the practical surgeon. The pathology of tumors and of fine growths is at present but in its infancy; the only basis of classification must be adopted.
has been that afforded by the peculiarities of external appearances, and of the appear. -ances of sections as discernible by the unassisted eye; but there are not sufficient; the transition into each of those general mechanical differences, which the exterior and interior surface of morbid growths present are so numerous, that the observation of these alone is not sufficient either for diagnosis, or for after-certificate; we must go further and call in the aid of the microscope.

During the last two years, my attention has been turned to the study of the microscopic elements of tumours, and it had seemed to me, that I could not choose any subject more fit for
An inaugural dissertation, then the record of these observations, a faithful one, I can at least promise it to be.

I am aware that such observations are by many considered fruitless, and unprofitable, but for my own part, I do most sincerely believe, that so useful, nay, necessary an instrument has the microscope become, that ere long, it will occupy a post of honor in every learned study.

From time immemorial tumors have been divided into two grand divisions: Malignant or Heterologous tumors, and Non-Malignant, or Homologous tumors. Under these heads, divisions, and subdivisions, without number, could occur.
mean by the term malignant? The term in all science, has been so much used, and I may say so much abused, it is in the mouth of every one, and how few are there that can define it? The word "malignant" has generally been attached to any disease or growth, which continued to make progress in spite of all the efforts of the physician or surgeon; perhaps it would be more correct to adopt the definition of Dr. Bennett, and say that the most accurate meaning of the term malignant is "that which assumes it to a growth, having the power in itself of self-development, that is, once existing, it may spread to
other tissues, or organs, causing in them a disease or growth similar to itself, and analogous to that possessed by animalcules, or vegetable fungi.”

It has always seemed to me that too many divisions are made, that a subject is rendered difficult of comprehension by too great attempts to simplify; no two cases are exactly alike.

And if we attempt to bring every case strictly under division rule, we might continue our subdivisions ad infinitum. It is, as Meehle says, “It is important to see much, in order not to lay too great stress on accidental varieties, certain peculiarities continually occur and I have arrived at the”
conclusion, that in all these instances, there are constant differences which may be recognized with certainty.

If we bear this last sentence in mind, we shall be able, safely to steer through the sea of contending opinions. It is needless for us to think, believe in the existence or the non-existence of a cancer cell of such determinate shape, and size, let us look for ourselves, and if we do so, I am sure that no faithful observer, of many specimens will rise from his task, without verifying the truth of the sentence that there "are constant differences which may be recognized with certainty.

Vogel's division of tumors, founded on their microscopical characters.
לא ניתן לקרוא את המילים המופיעות在这页.
It seems to me to be the best of any of the divisions that I have yet seen. Strange to say, he has however omitted the class of Epithelial tumors.

His division stands thus:

- **Non-malignant**
  1. Vascular Tumor
  2. Fatty
  3. Fibrous
  4. Cartilaginous
  5. Orbital
  6. Melanotic
  7. Gelatinous
  8. Encysted

- **Malignant**
  1. First Group (Deposits in T. Typhus)
    1. Aerophilous
    2. Tuberculoid
  2. Second Group (Cancer)
    1. Fibrous cancer
    2. Oncophilous
    3. Gelatinoid
    4. Melanotic

Let us consider each of these groups separately, and first those of the Vascular Tumors.
Amputation by Anastomosis. Name, Excise, tumours, Hæmatomata &c. These tumours are usually in their character, and easily understood; offering but little to conceal our microscopic observation; they are merely dilated capillaries. The fine vessels may be distinctly made out, if examined by a strong power of the microscope. Care should however be taken, not to confound these tumours, with malignant growths which may be well supplied with blood vessels. M. Robin has described a case (Robert’s Philos. Transact. T. 45, p. 99) of extensive tumour in which little cuts desacristed along the whole course of the artery; capable of being filled, and then emptied of their sanguine contents.
kept in the arrangement: I should fatty tumours. These by the older writers are
divided into lipoma, cholesteatoma, and adipose cysts. Purely fat tumours are
generally easily discernible by the naked eye, but not so in the more compli-
cated forms; here, accidental causes
prepare, and the presence of fibrous tissue, renders a resort to the micro-
scope indispensable. The common external characters of the ordinary fatty
tumours are so well known, as to need
no description: Under the lens, we find
the fat rendered in a normal state
that it in most cases, e.g. in the
lipoma and cholesteatoma above
alluded to, these fat vessels vary in size from the \( \frac{1}{2} \) to the \( \frac{1}{20} \) part
of an inch in diameter, and
The compound of a cell wall, although in its character, which resembles the free fluid fat, the St. Heid. By many writers, and among others, Vögel and Bennett, these fat cells, or globules, are said to represent a nucleus; this is not however a proper term, that fattened, fatty, and fatulated, so-called nucleus, consisting of any real body, but chemically of manganic acid; the formating which I attribute to chemical, and often I believe to cadaveric changes.

The nuclei, forming as their character, they certainly are not. Fatty tumours always represent an inner connective cellular capsule, well filled with blood vessels; that capsule is composed of the fibre, and are tissues.
bience of the part in which the tumor is developed, and serves as there as a bond of union to that part. In this capsule the vessels supply the tumor ramify, and are then carried to their ultimate distribution. Fatty tumors do not occur alone, there is always more or less proportion of fibrous tissue present, when this proportion is large, it is often difficult for us to say to which class exactly the tumor belongs, indeed we cannot say that it belongs wholly either to the fatty or fibrous class, one or to the other, for while externally presenting all the characteristic marks of a hard fibrous mass, it may yet prove on microscopic investigation
to be composed nearly of fat vesicles pressed down in layers resting one upon another. For my own part I believe that fatty tumors, after due degeneration into those of a fibrous character, for we know that if fat vesicles be placed under the compression of a microscope, the wall of the vesicle will be ruptured, and the free fat escaping as oil globules, the vesicle will, which I suppose to tend amorphous but fibrous will remain. If therefore we have prepare excited by the tension of integuments, such partial bad formation of a fatty tumor can easily be conceived of as taking place, and more than
This, it seems to me, that the occurrence of adipose cyst may be explained on the theory. I have been several instances in which the female breast has been removed and on ocular examination, pronounced to be a benign cystic tumor. And yet, neither were the apparent cysts, true cysts, nor were their contents benign; the walls of the cyst under the microscopic proving of a coarsely fibrous character, and destitute of any epithelial membrane. Having these cysts to be not secreting, in their character, but acting as reservoirs, their content, varying in color from yellow to dark purple and black, were nothing but oil, and granules.
crystals of manganic acid and then being dispersed throughout the whole mists, no vestiges of a resting membrane, which had in its channels being visible. I have such specimens in my possession now,

Jennett mentions the presence of fatty fumes, and crystals of cholestane in alternate deposits on the arch of the aorta, and have seen the same thing, not only in the aorta, but also in the semilunar and auriculo-ventricular valves. With regard to the two divisions of rhoma and cholestane, I believe that their difference is the result of a more accidental nig.

pressure. Middles in his work "The di febri, bone, and the formed..."
On the Ten Rochester, Paul
a line of distinction between these
two classes, 'Annexation to Anat.'
Path. It is. Tab. It does, so also.
Müller says: "The cellular
tissues have no resemblance to
the adipose cellular tissue in
the healthy state. . . . The fat
is no more killed.

The fat is more killed

I have examined
several cases of what I presumed
it to have been cholesteroma, and
I must confess that I have
not been able to notice the
precipitants described by the
above authors, or at least.
To the same extent, certainly, none that I have been deemed to be classified in a separate group, it seems to me (and I say this with all deference to high authority) to be a complicated simplification to do.

Next come to consider the general class of fibrous tumors, which I would define to be tumors composed of fibrous tissue (yellow or white) in any stage of development.

Including in this general division the fibro-mucoid of the fibro-cellular of Paget, and the fibro-plastic of Leriche, in the most perfect form of fibrous tumors, I mean those
In which the fibers are fully formed.

In which we have an absence of the fusiform cells, we find

Above measurement that the fibers vary greatly in size, from

the 1400's to the 48000 or 60,000

foot of an inch in diameter.

The yellow fibers are rather larger than the white. The

White fleshy tissue in some

instances it collects into bands,

but more generally it forms a

more net work, somewhat

like the ordinary network

before, the network however being

very much smaller. Some-

times these bands take a

semi-circular or even a

completely circular form:
The yellow fibrous tissue on the contrary is collected into many bands, or else the fins end in every direction, very much like the bare hair stuffing of cushions. In most humans, these two fibrous tissues are combined, perhaps, should we say, that we always meet the white tissue occurring with the fibers, although we have diminutive, composed of white fibrous tissue occurring alone. Still I have never seen the yellow fibers occurring independently of the white, speaking generally I would say that these two forms of fiber, mostly occur together.
لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.
It is very easy to distinguish them by a glance at the microscope. Now what do he mean by the film-plastic growth just described by Albert? As I understand his description, it would seem that he would convey the idea that the term film-plastic should be applied to those cells, unselected of course, and to those free nuclei which go to the formation of fibre, either white or yellow, so that a film-plastic growth would be a fibrous tunic in proof of advancement; the French film-plastic cell being the same as the fasciform capsule.
The English micro-embolus may be of various forms. Some are long oval, undulated, or at least slightly convoluted. In their appearance they may be oval, shaped, or even angular and oval in their form. These tumors present most generally a hard resisting feel, although sometimes they may be so elastic and soft as to lead to considerable errors in the diagnosis. When cut with the knife, they appear pearly white, and under pressure or less pressure may often be seen coming through them - vast quantities.
of oil and fat are always found in connection with fibrous tumours. Very often we have a proper cyst, which I have described when speaking of fatty tumours, of which I give several instances. Fibrinous tumours are always hopeless. A sheath of capsule of another tissue attaches itself to that part of the body which it may be located. Sometimes from the very position of the growth, it may seem to acquire peculiar characters, as for example in those hypertrophies of the sheaths of nerves, which we have
A tumor of neuronea developed. The whole subject of neuronomatous tumors tends to be very much confounded, no two writers agreeing. Now I would define neuromea to be any growth within the neurilemma of a nerve, this growth occurring in two different ways, either by the hypertrophy of the inner layer of the neurilemma, or else by the deposit of peculiar cells between the fibers of a nerve. Subcutaneous painful tumors is nearly a fibrous growth, a hypertrophy of the skin, which produces its characteristic pain by pressure upon a filament of nerve. To tabular form

Neuronea
1. By hypertrophy of neurilemma
2. By deposit of new cells between the nerve fibers

Subcutaneous, painful tumors (fibrous growth pressure the filament of nerve)
We now come to consider a new class of tumors, say, the Carcinomata, these are comparatively rare, rare than would appear from a cursory glance at the subject. Their growths are often confounded with those of fibrous growths, but also with old epithelial formations, so that indeed I believe it to be absolutely necessary to use the microscope before coming to any positive conclusion. In this class of tumors, Müllers, the first who really, and satisfactorily, proved and that he has given the name of Echinococcus to a name which has since been almost universally adopted by botanists in all countries. What must
We understand by this term, simply that the growth is formed mainly of a tissue like cartilage. Generally we find such tumors are connected with the joints, often through they are met with in the soft parts, &c. (for a full history of this subject see Papez' lectures p. 61. 1st ed.) It is only with the miscellaneous characters that I have now to deal, and there are found to agree pretty much with those of fatal cartilages. A variety of cartilage cells of every variety and the second type, arranged in various manners. Henry H. however had an opportunity of examining very many of these cases; whence I do not feel competent to discuss the general histology of these growths, these accounts of studying the
of which we refered to Müller in W. O. Caenan p. 149. § 3. Jac. Hertz, de Emchomome. p. 483. Pekhansky, Pathol. Anat. 2nd. ed. p. 261. Leten, Bennett and others. Obvious tumors I shall also attempt in a few words masmich as I know but little about them. A description will be given of each case that I have seen, and I will not therefore generalize. Melanotic tumors I believe to be a false division. I have never seen any, excepting exclusively that hand. Melanotic fatty, fibrous, and cancerous tumors I certainly have not met, but I am inclined to hold upon this whole field of segmented cells as merely a complication of the original growth. I would surely
Next let us consider
Chapter 1 (Tum. Cystic) and
the compound cystic tumors. Under this
Chapter we have two subdivisions:
1. Simple cysts containing serous, or aqueous
fluids.
2. Compound cysts containing, e.g.
Epithelial scales, fatty matter of all kinds,
Cholesterol, cholesterol, mucin, and acid.
Hair, teeth, and many other abnormal
products are often found.

The Cystic 7. The Compound Cystic
Tumors in which we find a cyst.
Cysts developed within the sac, or the wall of the lining, containing cyst.

Page (p. 13) divided cystic from cystic into 1. Simple or true cyst containing fluid or unorganized matter 2. Complex or tuberculous cyst forming variously organized matter. Cysts may be supposed to have three modes of growth, or better still of origin 1. By fluids accumulating in the cleft, in films & other tissus.

2. By the dilatation of ducts, cysts, subcutaneous cysts (in bone cases), lactiferous cysts, and to a certain degree ovarian cysts, are those of essentially made growth from new formed Elementary Structure. The investigation of these 2. Cysts of cysts is full of interest, and I may also say of
difficulty - I will now outline Pag 5

Division of cysts.

1. Simple or Harren cyst. (Containing fluid or mucopurulent)
   1. Serous cysts. (See Hunter's works Vol. IV. P. 38. & IV. 59)
   2. Vesical cysts.
   3. Spongy cysts.
   4. Hydatid cysts.
   5. Angiomas.
   6. Cystic fibroids, containing fluid and epithelial cells & chyle, etc.
   7. Collar of the peritoneum - doubtful as non-malignant.
   8. Gt formed by dilat. of duct, ciliated, etc.

2. Compound or Membrane cysts.
   1. Gt with other C. growing in & upon their walls
   2. Mucous growth from walls of uterine fibrip.
   3. Cystic fibroids cysts. (decentered cysts)
   4. Cystic fibroids peritoneal C. (Keravitz)

In describing cases I shall attend

11. Third division

New Cyst, division

Of non-malignant tumors. Endo, he makes no mention of epithelial growth,
after a most careful search I am not aware that either any English or Continental writer has alluded to this subject—apart from those who alone notices them in his Handbook of the algebrasis pathologica Anatomic p. 155. he says “that although the forms of these local tumors are in some cases hard to classify, they incline to those more that ‘tumor x. etc. etc.’’ The subject of epithelial tumors, having been chosen by myself and Dr. Sir. de Costa, as an interesting discussion as it or one that he had given much attention, I shall not enter into any of the particulars as to the origin, mode of growth &c. of epithelial tumors.
We have now arrived at the great class of malignant tumors. Without paying attention to the degrees included in the first group I will pass at once to the consideration of Cancer or Carcinoma.

The innocent tumors, the non-malignant tumors, present but comparatively few difficulties to the investigation of the microscopist, not so however with Carcinoma, where all is darkness and uncertainty, little has yet been done towards lifting the veil of obscurity which has for ages obscured this dark and most terrible disease. Its diagnosis is still uncertain, its treatment yet more so, and the great question of the present day which forces itself, namely the mind of the reason, and otherwise, is "What is Cancer? How shall we treat it?"
Cancer is to be met with in almost every portion of the human frame; we find it involving all the skin, mucous membrane, muscles, sinews, tissue, and bone, and even deposited in the medullary cavities of the bones.  If then the question be put, what are the elements of a cancerous tumor?

The answer must be a general one; 'the cells of cancer infiltrated into the minute structure of any tissue. In examining therefore any suspected growth, it becomes necessary for us to bear in mind constantly, the appearances presented by the heart, not only when in a state of health, but also when affected by any other disease, which may yet be foreign to cancer.'
How common is it to hear such remarks in the following from the lips of those who, to use a common phrase, believe in the microscope, so you say this is cancer, and what is your standard of cancer? whence is it derived? What are (your) data? Have you any, or has it been arbitrarily assumed, that this is cancer, and that is not? Now there are natural questions, and should be answered. The only true and practical standard is that deduced (or that deduced) from the careful and continued investigation, and examination of such cases, while malignancy is indubitable, these cases which destroy life either directly or by returning after repeated
Examination. How it will be found that all those who have made this subject practically their study, will at the result of their own investigations, establish for themselves a standard of their own, and moreover of the results of all experienced modern observers, be compared together, it will be evident that although they may differ in minute, they still agree on the main, important, and practical points.

What is the progress of Cancer? and fast of its origin?

The majority of facts, with which we are acquainted, lead to (suppose) the belief that the Elements of a Cancerous Growth I mean there
cells, filaments, and granules) originate in a congealed exudation.proved that as all other exudations are by means of capillaries. This is the common belief. But it seems to me of opinion that cancer may exist primarily in the blood, and thence solely arise (and his authority can scarcely be questioned) that he has seen cancer cells in large iliac veins, and he is therefore convinced that it may arise locally in the blood. - Cline & M. Nodak discovered cancer cells in the right subclavian vein, these cells being similar to those found in the diseased tissue, and the walls of the vein being thickened. But this evidence may be erroneous in some respects.
And even if correct, I do not think it to be sufficient to establish the doctrine that cancer arises as separate cells in the blood primarily. Furtherconfirmed by future observation, if so, then we may suppose that under some circumstances the begin-nings may act as a master as well within the vessels and without one. A cancerous eruption, the patient is generally of an adult or advanced age, the part first affected is generally a glandular or fatty organ; the lymphatic glands are attracted secondarily (Mauvois p. 205) and the rapidity of growth is in direct proportion to the number of cells, which are very perfect. Then it
Some tendency to ulceration. When this does take place, we have the formation
of firmest paracancerous - in cutaneous.
Regeneration on the other hand, the patient
are generally young, the part first
affected is most often a lymphatic
granule, afterwards the dependent tissue.
Place in the lungs, and on bosom
surfaces. There is not much
Tendancy to cell formation, the cell
are abortive, but there is a great
determination towards disintegration.
And ulceration. Take (just as at
the product of inflammation on a
standard (say pus) we would
remark that cancer is above
and tincture below that standard.
As Cancer is highest in the scale
then the product of true inflammation
And that the Antecular Resolution is
the lowest in the scale. Now
the Cancer cells, and nuclei once
produced, the cells propagate
themselves, by the breaking down
of the cell walls, and the liberation
of the nuclei, which form new
cells. As a general rule the more
cells in a tissue, the faster it grows, the
rule applies also to cancer. Cancer is
a growth, and vascular, tufted, or a deposit (one would almost think
examination) of vessels, no vessel
My own injections of two other
articles show this relative sign
of vascular; most distinctly.
Cancer is said to be incombable,
but there is only the successful, different
(stimulants) upon a try, the producer.
Walter. I should say, the disease followed
the injection of cancer cells into a vein.
All other experiments of a similar
nature have since failed in the hands
of all experimenters, and it is well
worthy of remark here, that naturalists
now state that cancer is as common
in the dog, as in the man, so that
such experiment can not be relied
upon. Perhaps it would be
well for me here to say a word with
regard to experiment of the lady of this
city some few months ago. She took a
piece of sugar balsamated, etc., and
planting it into the back of a dog, it
invited, and after the lapse of some
months, the animal was found to be
complete: from this fact, many have
refused a confirmation of the result.
Announced by Langstaff, from their own
observation I would beg to differ, the mere
fact of union having taken place, no
nothing in to the decrease; for indeed,
did not find the character tic
Celt in any organ, or tissue of the body,
more union alone betters. Shewing
From, he had found, these cancer cells,
is not the story of the low an order of
The animal kingdom, to draw any
deduction, then are respecting this
impression of the disease in man?
- I think so. - If cancer is
meanwhile, by this form, either I
myself or some of my friends would
have most probably been suspected,
for my own heart, being cut
surface on my hands have
been exposed to the fluid of cancer
for
show, and yet no irritation has followed. The generally received opinion now is that Cancer is not incurable, and the simple experiment of Sampson Kirk goes for naught. "Cancer may degenerate. The cells receiving a check in their development, and becoming abortive, in other words, a healing process takes place, the result being a fatty mass, a fibrous cicatrix, or a calcified connubium."

This has been expressly deter-

enced by Professor Blochdalst

of Prague in 1845. His

Observations have I believe confines

principally to the liver. Hence

we need not always say, that

"Cancer must be fatal."
Cancerous tumors may be arranged for the convenience of study into three classes: first, the keratinous, or hard cancer; second, the mucous or soft cancer, and third, the cellular or gelatinous cancer; the first two forms seeming to differ from each other only in the presence of a greater or less proportion of fibrous tissue, and also of cells. Many fibers and few cells constituting keratin; few fibers and many cells forming mucin; the keratinous cannot be distinguished from fibrous tumors by the unassisted eye; in reality it is only a fibrous tumor with the element keratin added, and that element is the cells of cancer; the arrangement of these cells is peculiar.
The queer Hermit of the murk a
Hunting, a self-owning Enthusiast.
They are infiltrated between the fibers of tissue, so that the term of "infiltrating growth" as applied to cancer by Dr. Walsh, is a strictly correct and extremely terrible term. The acephaloid cells are in great abundance, and the consequence, I fear, is a fortunate absence of fibrous tissue, which makes the whole tumor much softer, approaching to that of its name, a brain-like consistency. Schroma and acephaloid may exist together, or the Schroma has a natural tendency to pass into acephaloid, by the more rapid development of cells; or that we shall find, both of these different forms of cancer (if different they be) united in one and the same tumor. The name Ahmed cancer is applied to these collections.
of jelly, or glue-like matter, which occurs within or upon, or between the fibers of the tumor; in this colloidal matter, acting as a species of matters, the cancer cells are developed in the same manner as in Schirm's or encephaloid tumors. But little firm tissue occurs in colloidal cancer.

The synonyms of Schirm's are carcinomatous, sarcoma, Schirm's, fibrous cance, stone cancer; those of face phthisis, are medullary sarcoma, fibroid sarcoma, centra form cance, soft cance, thep country carcinoma, and many others. To enumerate, the colloidal cancer is described by writers as gelatinous and atable, or gum cancer.
I have now arrived at that
very interesting, and puzzling question.
Is there or is there not a cancer
cell? The existence and non exis-
tence of such a cell, has been an
Ank of discord to all microscopists.
Observers; it may have answered
positively in the affirmative, and
other, equally as positive in the
negative; to the question, it then
a true characteristic, and always
characteristic cell of cancer? for
my own part I believe that there
is a true cancer cell, but
whether it is possible always
to distinguish such cell, under all
circumstances, with knowing
certainty, seems to me to be
another consideration. This
Subject has however been so well treated by Leber in his "Tracts pratiques de\nMaladies Cancreuses, et des affections\nCurables, contenant aux se cancer"\nthat I may well be excused for\ntranslating immediately — "If the question\nbe put in the following terms, "An isolated\ncell being given, is it possible to determine\nby microscopic observation? Whether\nor not that cell belongs to cancer?\nwe would not hesitate to answer\nthe negative: But the question we\nhave always sought to resolve, is\nthat of an isolated cell, but a cell\nbeing given, is it possible to determine\nby microscopic inspection, if that\ntissue is cancerous, or not? To this\nquery, we would not hesitate to answer\nin the affirmative; always however
لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.
making the reservation, that there are exceptional circumstances, which we will discuss hereafter in which medical and examination alone (may be) insufficient.

In another portion of the same work, I may add: We have already insisted at length on our present path on the specificity of the cancer cell, and again: The type of the cancer cell is a small regular, spherical, with an elliptical nucleus eccentrically placed, occupying about one half of the interior of the cell, and containing one or more nucleoli; but this type is not oftenpure, the cellular envelope takes the form, triangular, heart and cylindrical shape...
be useless to recount here all the shapes assumed by the cancer, it is sufficient to remark that no other cell do we observe this multiformity of the cell wall to the same degree.

The nucleus, as we have already seen, the constant element of the cancer cell.

Now it appears to me that this little extract from Debey (published only some three or four months since) contains (the whole of the essential points, relative to this much discussed, and much abused subject the cancer cell).

— I have endeavoured in the foregoing pages to give a short account
Of the present state of our knowledge of microbe anatomy, as derived by the means of the microscope. There...tence of the subject, I have been obliged to quote largely; but I prefer adding this, to increasing the blame of one, who speaks without either recent thought or observation.

In the remainder of this little paper, I subjoin the records of my own observations. There at least I can promise to be both original and faithful.
First Clinic - Fem. male. Tumor
1st Group - Fatty Goutte

Case - Mr. Calahan, at about 40.

He had a large, hard, oval tumor on arm for some months, immediately over the deltoid muscle.

The tumor was about as large as an egg. Removed by Dr. Winter at the Clinic of Jefferson College Oct 19th 1870.

Masud. Exam. - The tumor was in every respect a normal fatty tumor (if I may use such expression).

The fat became visible about the go or more part of an inch in diameter. A great deal of many free fat globules were floating about.

Fibrous tissue was also present to some extent. The tumor was surrounded by the usual capsule of "fibrin cellular tissue."

See Plate I. fig. 1
I am indebted to the kindness of Mr. J. A. Horns for an opportunity of examining this specimen.
Care, 1837 Oct 52. E. Butterworth, at Upton.

It removed from near a fully hewed. And until on microscope examined, showed the usual fat bodies, but many of them possessed this peculiar form, varying in size, some occupying the white interiors of the cell, while some existed as men. Some of these crystals were in some instances also deposited on the external surface of the cell walls. Fibrous tissue, and the oil globules were also present to a great extent, the latter resulting from the breaking of the walls of some of the vesicles, and the consequent escape of the oily contents.

See plate 1 Fig. 2.
Case — O. G. M., 1848, unmarried,

had experienced for several months prior
to last June, occasional pain in the right
breast, about the commencement of that
month, a hard lump could be felt at
examination, which gradually enlarged
until the early part of July, when it
was removed by Dr. Parkhurst. The wound
healed readily, and the patient is now
entirely recovered. — The breast when
removed was of a medium size, and
seemed to consist of a hard fibrous
tissue, enveloped in a thick layer of
fat, presenting to the view internally,
numerous dense, nodulated bodies, of
the almost cartilaginous consistency,
crunching under the knife when cut. These
several cysts were also seen filled
with a thick, oily, fluid, varying
In color, from a dark brown to a sepia. With these, there were cysts of different sizes, some being only as large as a pea, and others minute and not of that size. A section made comp.

letely through the tumor from without revealed the following structures: Next to the skin a layer of fat; then a hard stunted fibrous mass; then the dense nodulated bodies above alluded to; and lastly a layer of tissue, somewhat hard in its character, and apparently fibrous; containing the cysts. The layer of hard

end bone immediately subjacent to the superficial fascia, proved when examined by the microscope, to be fibrous; the fibers interlacing closely one

with another. By the addition of alte
acid, the whole mass was rendered trans-
parent, and scattered throughout might
be seen numerous, elongated oval nuclei
about the 1/1000 part of an inch in length
and about the 8000 part of an inch in
breadth (see Plate I. fig. 2. a). The
modulated masses presented the same
fibrous appearance; no nuclei could
however, be detected even after the addi-
tion of acetic acid. The mass in which
the cyst occurred, and which was
situated directly above the great rectal
muscle, proved, upon examination, to be
composed of many, condensed adipose
tissue, the fat vessels being flattened &
arranged in lamellae, one upon another,
giving the whole a somewhat fibrous
appearance. Many of the fat vessels
contained Chylos fat, phlettated nuclei b)
of manganous acid. The term manganous acid or the sense defined but not in some instances, the crystals seemed to be deposited on the external surface of the vessels. The cysts, which were filled with the oily fluid, were surrounded by firm walls, and I was not able to detect, even after the most careful examination, any vestige of a thin lining, epithelial membrane.

The contents of the cysts consisted chiefly of oil globules, but there was also a considerable quantity of granular matter. (C) - The substance of the mammary gland seems to have been almost entirely absorbed, no sign of the glandular cells could be detected, and there were situated only in the anterior portion of the breast in this.
region the gallbladder has later remained in a healthy condition. An analogy has been pointed out by some of the modern German writers, between cirrhosis of the liver and that condition of the Mammillary gland, here described, in which we have great and hypertrophy development of the fibrous sheath of the gland, this sheath encroaching not only the external surface of the gland but also sending its thorned fibrous substance into invaginations of thick membranous fascia, permeating that substance in the same manner as the capsule of the liver does that of the liver. This latter causes acting upon analogous tissues with similar results: the development of a fibrous scar, causing atrophy and abscess of the gland. The occurrence of this
Henry C. I would explain as the principal, laid down in the introduction to these Records.

This late case is reported at length in the Medical Examiner for 1891.

Case. Plate 1, fig. 4. Shows the appearance presented by a fatty tumor, about the size of a large pea, removed from the face of a student of medicine by Dr. Mütte, May 16th, 1891. The tumor, at all of large size, about the 1/50th to 1/100th part of an inch in diameter.

Case. J. E., 50th year, has had a congenital tumor on the back of the thumb of the left hand. The case was brought to the clinic by Dr. Moig. This tumor was operated upon by Dr.
HIV at the clinic of the Medical Coll.
The tumor was found to be adherent to the
underlay of the metaea, part bone of the
tumor - upon microscopic exam.
I found the tumor to be composed of
fibrous tissue, interspersed with numerous
masses of fat vesicles, the fibrous tissue
was, for the most part, of the yellow
variety. (See plate 1, fig. 5)

Upon the addition of acetic acid I
thought I was able to distinguish some
fibromatous capsules, going to the fomentat
of the fibrous tissue but if this I shall
not be certain.

Examine
Externally; this tumor presented a
soft, deep, elastic feel, so as
almost to convey to the examiner
the idea of a cyst. The wound
healed kindly.
Case. — M. Y. Z., Oct. 27.

Dr. Miller at Clin. of Hospital of the City.

This tumor was situated upon the left posterior scapular space, and was no larger than an orange, and elevated in its character with the usual investing sheath of fibrocellular tissue. The fat cells presented only the head of a cherry of mucoid acid, both internally and externally (see plate 1. fig. 6).

Case. — Mrs. W. lady aged about 50.

She had a tumor in breast (the left) for some ten or twelve months, with itching pain &c. — The tumor was removed by Dr. Miller and Vancouver May 12. 1897. The Axillary
... the same side being hard and enlarged, they were also removed. Upon an examination of the breast removed, the appearance presented was so exactly similar to that of the breast removed on July 6th by Dr. Van court, and reported at page ... that I have not endeavored it worth while to make the drawings ... see plate 1, fig. 7 ... for both ... The patient recovered, the wound healing in 10 days, and is now quite well. Perhaps, had I known I had better ... insert the proper plate as taken from the case. See plate 2, fig. 3.
26th Group. Tuber tumour.

Case. A. M. at 60. Had had a tumour
bulging on the planum sphenoidale, as a hard button,
like body for many years, but it was only
a few months prior to its removal that
it occasioned any inconvenience. It then
began to enlarge rapidly, and attained
nearly the size of a walnut. The tumour was
closely adherent to the skin, which was felt
difficult to dissect off, and appeared
to be of unusual thickness. Upon putting
a section of the growth under the field
the meniscus, or base, observed to consist
of a firm tissue, a rather thick layer of tissue,
The bands in some instances running side by
side in a many manner, and the other, like
the battle another. The fibres when separated by
the use of the needle, besides to penetrate
of the character of yellow fibres, or elastic
There might have been the faniform capsule, described by Leck, and Bennett, which was composed of a simple nucleus, with two rounded extremities, the nucleus being about the 1/500 part of each in diameter. These faniform capsules by their juxtaposition evidently went to the formation of placenta. Fat vessels, a free fat network were to be found in abundance throughout the white tumour. (See Plate 2, Fig. 182)

Case: Harriett Williamson & 18 years

Her head for several months a hard lump forming on the pendulous lobe of the left ear, producing some little pain. This was removed by Dr. Tomlin at Chanei of left M. Colepe Apr. 9, 1838. Microscopic exam showed the mass to be mainly flesh-like tissue. This case has been reported.
Dr. Stellar in the "Transactions," Monument.


This tumor of the ear, is somewhat

very, occurring only I believe in the

And Bumm's, near to the White.

Case - A. Y. Z. A sailor, at the

main hospital, the dull and fest the symp.

toms of cancer of the stomach. This

tumor was removed at a Post mort.

held by Dr. McClennan M.D. N., and to

whom I was introduced for an opinion

of examining the specimen. The stomach

was about four inches long, and

about two and a half wide. The

intestine of the stomach was about

entirely white colored; the walls of

the stomach strangest varied from

a quarter to a half an inch

for the size of the cavity (of the) was
diminished to a space less little larger than an egg, the mucous membrane was opaque and corrugated —

When I examined the walls of the stomach microscopically, I found them to be composed almost entirely of fibrin tissue, and granular matter (see plate E fig 5). The proper structure appearing to have been entirely displaced. This was a case of extreme interest.

CASE I. P. R. a man of about 45 years of age. He had a swelling on the buttock for 15 years, left, & Drastic in its seat. Removed by Dr. W. At Dr. Clinec 1851 Oct. 15. Removed microscopically fat removed, and yellow fibre tissue of a very beautiful charac.

— Plate E fig 6.

Case. Eliza Fenn, 24 yrs. small, had fibrous tumor removed by Dr. M. at Jefferson Med. Coll. White fibrous tissue. Nov. 27, 1870. No Plate. This tumor was not congenital.

Case. Tumor of neck, removed by Dr. Neet, Nov. 30th, 1870, yellow fibrous tissue, similar to that represented at Plate 7, figs. 182. Tumor brought to me by Mr. Ch. Neet.
Case.—E. J. W., a student of medicine, has had for several years a little tumor on the left side of the cheek. Dr. Mutter removed it 1851 Nov. 9. Found to be a lipo-plastic mass, I should say it was beginning to enlarge and to be a little painful. (This tumor was 5-24 dr. m. & 1 dr. a. c.) I found in it (plate 3 fig. 1) fluid tissue, a small non-nucleated oval, joint cells about the yolk of an inch in diameter, also fat nuclei, epithelium sealer, and some filament of nerves. These small oval joint cells, almost granules, will be found to be present in most growths involving the skin.

Case.—A. Y. Z. An &pound;ele tumor of the face.

Was bited for some months. Removed at the Jeff. Med. Coll. Clinic on Nov. 12th 1851. By Dr. Mutter (also 5-24 dr. m. & 1 dr. a. c.)

The microscopic examination I found the following...
cell as described by Retzius in his works (See plate 3, fig 3 4 5) at (a) we have the long spindle shape plastic cell, with a distinct nucleus about the middle part of the back of them. Numerous shapes of these cells are to be seen in fig. 2. At (b) I have represented the oval, granular cell, non-nucleated described in the preceding cases. At fig. 3 I have drawn the fibro-plasmodial oval cells, more highly magnified, showing however the same peculiar thick edges of the fibro-plasmodial cell, even their nuclei.

Case. 1877 Nov 19. Mr. J. M. Morris presented me with a section of human, hanging pendulous from the female breast, removed by Dr. Fox at the Royal Hospital. The history of the case was imperfect. The tumour was not productive of much pain. On examination I found the appearance
Exscribed at Plate 3, fig. 1. Epithel. cells, few plasma cells, connective tissue cells, and yellow fibrous tissue. The growth was about as large as a walnut.

Case. S.N. presented herself at the clinic of Left Mell, with a tumor of the breast, giving considerable pain. The tumor had existed for one year. The breast was removed by Dr. Mather Nov. 19th, 1877. Microscopically examined I found fat cells, fibrous tissue, adenoma in some quantity (see Plate 3, fig. c), and a considerable proportion of glandular matter. These cells are seen at (L), also oily globules free. The section did not seem to that case to have grown on to nearly the extent as I have often seen it. This is shown by the presence of such a proportion of gland cells. The woman healed well.
Call of J. Z. came presented himself at the clinic of Jeff. Med. College complaining of a hard lump, immediately at the apex of the left. The tumor had been some months in forming. The growth was removed by Dr. J. D. Miller, Nov. 22, 1831. Microscopically examined. It presented the appearance, from at Plate 4 fig. 192 - Beautiful cyst of yellow spherical tissue (a) with apparently empty others enclosing oval cells, not nucleated but clefted, such as are bile-ducts described, at (a) are then the phagocytes (c). I have shown epithelial cells, four style and double nuclei — at fig. 2. It is then a large epithelial bag, about ¾ of an inch in diameter, with the fibers

epithelial cells (b). These epithelial cells are about the 1/3000 of an inch in diameter, and are very long, comparatively. It is worthy of remark, that this patient had had a tumor of the (not examined) removed by Dr. J. D. Miller.
Case. 1860: 10 cc. 10 cc. 10 cc. through the lumbar region. Mr. T. C. Morris, a section of mamma, tumor removed at hospital. Of the history I know nothing. The character of the growth was fibro-plastic. (See plate IV, fig. 2.)

At (a) I have shown a mother cell, with seven daughter cell in the interior. This cell was about the size of a pin's head. At (b) we have plus plastic cell. (b) films taken. At (c) in Photometric Scale, at (d) one of the compound granular cells described by Mitchell, &c. which we find in all tumors, seeming to be a determinant (of these in such a thing) of other cells. — at (f) free at globule.

Case. 1870: 10 cc. 10 cc. 10 cc. from the pancreas through Mr. C. Neff, a ladder. — Diameters of the nasal cavity nerve. — At (g), it with Dr. Kelly of this city (see plate IV, fig. 2.) This plate is better from a drawing of Dr. Rea.) At (a) we see the nerve fiber with the white cylinder of Schwann, at (b), we are to be the round fibro-cell, partially...
لا يمكنني قراءة النص العربي في الصورة.
coated and coated, a rather elongated cell, with uncleaved but dotted. These cells were faint and indistinct, but still with care they could be discerned. This is one form of neuronoma by a deposit of cells at the interface of the nerve fibre. There cannot be better than to grop and another.

Case 13. Oct. 8, 1871. A girl of 20 presented herself at clinic with a hand painful. Palsy on the right median scapula space. This lesion had existed for a year, but only during the last 4 months had it occasioned much pain. It was removed by T. D. Anson, the microscopic. Examination proved to be many an specimen of the true. Tiny myelomma (the plate IV. fig. 4, 17) many forms tipue could be seen. I have now given the two forms of true neurinoma: tumor. The
painful tumor, is a belief only a painful tumor pressing upon the filament of a nerve, I have not however had an opportunity of examining such a specimen.

Case of Cicatrix. At Plate IV fig. 586.
I have shown the appearance of a cicatrix removed by Dr. Milton from the hand on Nov. 8, 1838 at clinic of Jeff. Med. College. At fig. 5 (a), (b) shown the yellow fibrous tissue of which the cicatrix was principally composed, at (b) cordlike globules, and at (c) a very acute epithelial bulb. At fig. 5 (a), (b) fibrous tissue, (c) a capillary vessel, with a capillary den of trabeculae. What there are 158 not know. (a) we have the nerve tissue with the white and the yellow tissue of Schwann. This cicatrix was quite a large one, and was taken from the hand, the result of a burn. All cicatrices present similar appearance.
...
Case I. At Plate 5 is represented the appearance presented by a cancer of the cheek in Daniel Allen, aged 55, who presented himself at the clinic of Jefferson Medical College. The early history I do not know, but at the time of operation (Oct. 27, 1838), the tumor was a red, fungous, mass extending backward from the angle of the mouth. The mass was removed by Dr. Paracord. When I examined it, I found the appearance presented at ST. T. Jop. 1. 4. 5&. (a) being cancer cells of every size from 1/1000 to 1/200&; part of them as large as a diameter. (b) Re-present the ordinary epithelial cells; and it has always seemed to me that these cells, prepared much larger magnify, when occurring, he observed that them, than otherwise. At (c) we have lens tissue, at (d) the compound granular cells, spotted of blood. At (e) or 6, we have the mother cells, among among cells, some very full, others as we see here only 5 a 6. — This tumor.
Returned subsequent to operation, and was again removed on Dec. 11, 1870, less than two months after the first operation. I again examined the mass, and found it presenting the same appearance as previously, to which I have referred at figs. 2, 3, 4 & 5. The wound healed of the patient returned home, but in 6 months died. No permanent damage.

This was a very marked case of true Cancer.

Case 1870 Dec 21. Received from Mr. Camac a breast removed by Dr. Pencroft to private practice from a lady near MS. Holly, N. Y. Upon examining it in connection with Dr. Keller, we found such cells as are represented at plate VI. (fig. 6) true cancer cells, and (A) peculiary cells, half formed, without nuclei, but dotted. Dr. Keller considered these as free nuclei, in a stage of development. By the addition
Acetic acid, the granules disappeared, & a nucleus was brought into view, which was always about to the wall of the cell, but not in the form of a nucleus, I should say - included. These cells, a few minutes even about the middle part of an inch in diam. - They present - the substance of the whole tumor, was found small blind cysts filled with oily contents - cysts of fibrous tissue were also to be seen filled with amniocytes from the yolk sac. The yolk sac itself was a good deal of fibrous structure was present (see fig 3) another cell, compound granular cells, and also colostrom (or small quantities), could be found. - Refer to Plate 6 figs 1-6. For full drawings.

Case, J. M. Hindnecot, at 36. Thought to be the Oct 12th 1830.
Clinic of M. C., with a tumor on the scalp, as big as an orange. He had this tumor for some months removd 4 1/2
Case - At Plate VII, figs. 1 and 4.

I have drawn, from a cancer on the breast gland. The specimen was obtained from a post mortem made by Dr. Keller at Brownsville & Paroch.

Fig. 1. Cancer cell, & Epiderma-

Fig. 4. Same, also shows

I do not know the

Lavinia Hambury, 5th Dr. new rebel
At 8, presented herself at clinc of J.M.E.
with an Epulis of left side inferior maxilla. On
the 20th Nov 1858. The tumour had been some months
in growth (I think 6 or 8), at first of a white appearance.

On the 7th Nov. none to removal it
because of a purple hue. Removed 8th with a large portion of the inferior maxillary bone.

After removing the tissue with the microscope, I
found the arrangement as shown in Plate VII.

Fig. 5. The middle cells, with doubtful cells (by
epithelial cells, and a) probably cancerous.

I am doubtful whether this tumour is really
a cancer: not, its history is not cancerous.

It may be fibromatous, I think it is, although
the fact of its having returned during the
last 3 months (Nov 1852) with the same mor-

In opposition, such opinion - which I am
not able to pronounced, without further

Observation.
Carcinoma of breast. A mass of a peculiar character in contact with the muscular or connective tissue, on the under surface of the breast, which I have removed. The mass consists of a spongy, porcellaneous, structure, filled with cells of cancer, and is in the form of a cone,基底寬,頂端細。
Cancer cell. At fig. 5 we have the same acted upon by acetic acid as seen before—fig. 6 same
acicular cell. (C) sinuous duct, surrounded by cells. A. same cells more highly magnified

Case. Specimen presented to me by Dr. Phillips. Mr. P. Nov. 1846, a male of sixty years.
Child had been ill for several years, complaining of vague attacks, pain, feelings of hollowness, and all the
symptoms characteristic of insanity disease. A few
weeks previous to death the pair took place. Mr. Phillips, being present, demanded becoming of a lancinating
character; general decompisition of the person was noticeable. The illness progressed to a very high degree
with the patient constant vomiting occurred, and the patient

Although at irregular intervals. Upon p.m. death
The thoracic organs were found buried in the body. The ribs, being a little off both sides, the brain was
retracted. The fallopian tube of the right side had
been cut off from the uterus, which in consequence
reflected had taken place in that of the left side. The
ovaries of the uterus were much enlarged, and
its posterior portion lifted up in a bullet-like with
a thick, viscid fluid, of a dirty brown color.
Which could only be squeezed out by making
pressure with the fingers. The left uterus was
also stretched, its margins ragged and ulcerated, the
cavity of the uterus was also enlarged. It was filled with
a thick fluid, let out from the bullet portion of
the vagina was much ulcerated. Upon
squeezing out from the cut portion
uterine, a portion of the blood it con
ained, & submitting it to the microscope,
found it to present the appearance shown
at PI. Fig. IX. fig. 1. Membrane.
All the to be treated varying greatly in their development,
some being round, some oval, and others broad and
flat with a smaller felled extremity: these also
are larger than those occurring in most cases of
Cancer, except in those of rapid development
in an advanced stage. They measure from the
smooth to the 4000 - part of an inch in diameter, and are provided
with a central nucleus and the 1/150 - part of an inch in length.
(See plate 18 fig. 1 & 2.) The nucleus varies however
in proportion to the size of the cell: a number of the
cells preserved however in addition a nucleus, appearing
merely as a granule in the interior of the nucleus.
These cells all floated as it were in a sea of
granular matter. I observed also several peculiar cells, see fig. 19. - Upon examining the macerated
part of the fundus uteri, cells filled with cancer
cells were to be seen, occurring in the fibrous stroma
of the uterus, fig. 19. These cells were about the 1/300th
part of the size of the fibres and about the same depth.
And was formed by the intimatement of the fibers of the ordinary white fibrous tissue. The cells filling these caps ends when carefully examined be found to contain nuclei, compared with the other cells, however thin some keeping only about the 350th of such in diameter.

This case is reported at length in Med. Examin. for Dec., 1851.

Case 1871. April 5th: E/

A polypus of the nose, which has returned after 4 months. Found, fibers, and fibro-elastic cells, also some cells, resembling cancer, but yet I could not make up my mind as to its being positively cancer. I am inclined hence to call it so. See plate IX, fig. 566.
Case. 1851. Made 25. 1st year. Found at clinic 1 left side. Cylindrical tumor situated deeply over the left pectoral gland of a man about 40. Upon examination I found the tumor to be such as is represented at Plate X. (fig. 1-2). At fig. 1, the surface of the tumor filled with the cancer cells, these cells being about 10 or 12 in number. At fig. 2, the appearance of the third emerged from the tumor. Of the history of this case I have nothing more to say.

Case. 1857. May 15. Received from Dr. B. of Phil. 2nd year. A specimen of cancer of esophagus. The cardiac orifice of the esophagus was almost entirely stenotic, the walls of the cardiac end of the esophagus being thickened, and the esophagus itself, for the space of 3 or 4 inches above the orifice, was very much thickened, all the esophagus participating alike in the lesion. I examined this.
The specimen must carefully follow the plate, fig, 384, 401, for we have from this, and from our own, this chapter of enlarged sections, at fig. 4. Epithel cells, canals, and filament, highly magnified. The history of this case was the same as that of all these cases of Hunter's Canes. The patient had thought otherwise.

Case 1837 Angle. I read in Dr. 

A portion of the pancreas removed at an operation, came in the path of Dr. N. The latter has given retinalcic symptoms in some months. The mass was very much decomposed owing to the heat of the heart, but yet I feel satisfied that the I was able to make out distinctly, what had been done. See plate X. 1, 540. The mass was nearly atrophied. There is an advanced stage of decomposition. Once of the pancreas can comprise.
Case. 23 June 1871. In a man of this city, a specimen taken from an arm amputated at the shoulder joint, there was a large cavity—caused apparently by a bullet. The history of the case was that the patient had once been pricked on the arm from a fall, and that gradually a tumour developed itself about the middle of the arm. On examining it, it was found that a large deposit of a white matter which it contained was not only extensive to the bone, but also in the tissues. Actually, it seemed to be a mummified body of a deposit that might have been caused by the tissues, but not hard. Examine it thoroughly. Upon examining it, there was a very distinct feature on the examination. The appearance depicted at fig. XI, figs. 132-134. Look at cell, about 1 mm. of blood is there, and yet distinct. Not too, and must be cleaned, but not all. At fig. 2, we have the disintegrated Mammalian pith, also. The same cells—fig. 3, we have shown cells here. Not cleaned, I think.
This cane would consist one of the celluloid swaps.
To Np, about the 400' of Porta vains. The water was found in the bottom of the milk cells, my attention was drawn to this point by a sudden fracture. The upper them to be the nucleus of the milk cells, developed in the clot that the frequent tearing, exact as a conduct in the clot... as a Masterman. I am inclined to accept this opinion, although I have never detected color in the clot in any other case than this. The wound was the backed hell, but the patient took the longest following the operation. Upon further examination of the spleen of the body, the fund enlarged, particularly those in the lower abdomen in cases. The doctors (although I had met an opposite to removing it) was of precisely the same character as that described above. This case is one of great interest. In respect, when with regard to the purpose of operations for removal of certain elements...
Case 1870 Nov 12. Ex.&M Will & Rella a cancer, removed with 2. Forceps from left jaw, by Dr. Pancoast. From a (case) in private practice of the former. I know not.

At 9 XI, 1870, I have drawn in (case), gland cells, at 12 cancer cells of the jaw. at 12. By fat tissue. (case) pain. Glandular here right cavity C. Other only.

Case 1870 Dr. Vanderwater at 60. On Feb 1871.

Pancoast removed at Clinic a portion of his lip. To have been removed, will pronounced it true cancer. On Feb 1871, he again presented himself at the Clinic. The (case), of left side having become involated. This was removed by Dr. Pancoast. I found on exam. glandular State XI. 16. I found cancer cells, etc. complete invasion. Tho. cancer it will be seen. I lost sight of the case till Dec. 1871. I then found he had died in Nov 1871. The (case) became involved in the mouth. The patient died under the care of Dr. Vanderwater. In a full account of this case, see Dr. Vanderwater.
Case. Henry Clifton, aged 12. Had had for a year
a severe itching all the scalp of head, before I
saw him. Thickenings of that nature. They did take
place. I made the first examination. Nov. 27, 1850.
I found that the right upper and lower maxillary bones,
the frontal, the parietal, the sphenoid, and the
nasal bones were all involved. Upon
microscopic examination, I found such cells as
I have drawn at plate XII. Fig. 2, 2, 51. Fig. 2
large epithelial cells from mouth of C. C. C. C.
at fig. 7. Cancer cells, at globules, &c., at
fig. 4. The same magnify 450 diameters. This
was a most marked case of Cancer.

Case. 1871 June 31. Received from the head, a section
of the tumor removed. I found no tumor at the
base of the brain. I have nodescription. Upon examination
I found what I have referred to. Fig. 1, 1, 66
fig. 1, purulent cells, 61 cancer cells. - Fig. 6, more more more.
magnified, it (B) lymphatic, (C) glandular.

Case 1877 164 g rec'd from F. Penrose a breast for examination, removed by him in private practice. I do not know the history of the case. Upon studying the case it was discovered to be epithelial in its character, a cancer from of breast discharge. (See Plate XIII fig. 1.) A set cells [6] epithelial and [1] Ch. Far. of Ch. America.
June 1871, rec'd from Sir Harman a turnip sprout, what is generally called a turnip sprout or turnip root.
Case. Mr. Elliott had had a short term of listening for many years; within the last year it had begun to increase, and had remained it many times. Day or two, as fig. 7. Plate xiii. We have the appearance of the ends, the most superficial cells, at fig. 1, the fleshy cell, Simple Epithelium.

Case. 1837 Sept. 13, at his seat in the top compartment the plane of a man about 40. The tumor was as large as an egg. I...
Cats, 1877 Aug 16th. A case from S. Thamose through McVeff. An epithelial sac from a tumour. A simple cyst, lined with epithelial cells. Filled up with cells of the same kind, the new stock.

Plate xiii fig. 6. 161, epithelium of cholera.


Muscles.

Case 1870 Nov 6th. S. McVeff received at clinic a portion of epithelial tumor of tongue, precisely similar to that of Mr. Alotta, tumor occed on Page 7.

The same drawing will serve for both tumors. For see Plate xiii figs 704.
Case X. C. T. at 6 o'clock presented himself at the clinic of Jefferson Medical College with a large red, ovoid tumor on the left face. The tumor was means of ceasing the patient (a farmer) stated that he had had a tumor of the lip removed some months since. The tumor on his face was removed by Dr. Parramore. In drawing the plate XIV, figs. 1, 2, 3, we have as in the description, cancer of the face, cells. (Witt fig. 1, &c., represents the fluid of tumor.) At fig. 3 we have the hair, portion of the mass, showing pharynx tissue and the

I believe, indeed, I am sure, that this tumor is cancerous, but by other observation some doubt seems to be entertained as to that view altogether.
Lack | a negro woman, aged 30.
A patient of Dr. Cooper, presented herself at the office, with a tumor of the breast, which had existed for several months, pain sharp and burning. The breast was removed by Dr. Pineilda - the tumor appeared dense and hard. I examined the specimen most carefully, in connection with Dr. Hall and Dr. Hunter. The cells I found I have shown at Plate XIV. Fig. 4. The small cells were unattached but granular, about two to three cells. They were not epithelial, nor glandular, nor were they spongy or fibrous. I have that the tumor has been able to come to any conclusion. I believe it to be a lesion of hyalin cancer. This tumor is entirely free.

As much as there are no positive cases of cancer on record in the negro,
the drawings are very exact.
Russe 1897 Oct 15. Dr. E. Morris brought
Me a section of breast removed by Dr. Elfion
at University of Paris Clinic. The history afforded
Me. The tumor formed cancerous. See
plate XIV. Fig. 6. Shows tissue, cells,
but globally 12. re

Case. Mary C. at 21. Has had for some
Months a small tumor, a soft, a large one
On the left side of face. The tumor grew
A disposition to enlarge and to ulcerate, it;
Was removed by Dr. Eltorn Oct 24. 1897.
Mayy Epidermic. See plate XV, Fig. 15.
The dec. Dec. 4th Epithelial Cancer

Case. Kate D. at 18. Presented body at
Clinic of Dr. E. with what appeared to be
An enchondromatus tumor on the foot. The
tumor was med. at the base. This tumor was
...
Leaves, and the lungs proved to be more...

An unusual tissue reaction of the lungs under the root of the main stem of the tree. The brain... the new gill in an almost entirely new manner. See Plate XV, Fig. 2.

EchinSCelatod, at 5 s. Came to change of 24. C

With an enormous tumour of live lip, apparent Epithelial - measured for 2 years, but never caused much pain till lately. The whole lower lip was involved. To figure, see Plate XV, Fig. 354. At the bif, we have a hair shown, 16.1 inches, E1 Epithelial cells, 16.1 cells, such as a pond is made of.

If Epithelial growth, begin described at bif 4. Me have, if there were cells, 16.1 cells why I believe to be cancer. 16.1 from tissue. My friends in the Cotera consider this tumor to be merely Epithelial, I cannot quite agree with...
Kim: He bonce did not see any cut, such as here shown at (6) fig 4. I will not
pointly state that this tumor is cancerous. Although I think that it probably is.
In history I could say it certainly is not cancerous.

Case X. C. T., at 30, a woman has had for some 6 months a tumor of jaw,
especially epithelial. Removed by Dr. Pendar. Oct. 17th, 1877, at Clinic J. M. C. The tumor
extended for back behind the half arch of teeth.

Shown at 19th. See Plate XV fig. 5. A. M. T. (6) Epithelial cell. C. Scarce small
non-nucleated cells. This tumor of

Case 1877 Nov. 8. At Clinic J. M. C. D.
Mittre ranmed a mole from the
foresk. Nearly epithelial. The Mole
لا يمكنني قراءة النص العربي في الصورة المقدمة.
If a hair is so beautifully drawn that I have copied it, see plate XV fig. 6.

Case. Oct. 17, at hospital. D. H. removed a cancer of the 2 years duration from an man of 60 years. On examining I found the cancer cell. Eschholz's plaques. See plate XVI fig. 4. This case of the patient, named A. W. as follows:

Case. E. V. 60 years presented himself at clinic of Dr. A complaining of hemorrhoids. He stated that he lost large quantities of blood. Was deemed of having the tumor removed. This was accomplished done by Dr. H. on Sept. 19, 1877. At Dr. A's clinic. The tumor was about the size of a small grape, left to the touch, creamy down.
With the stipes, and very vascular. It had
occupied only 4 weeks in attaining its present
size. The mucous membrane of the Peduncle
at the point at which the pedicle of the Tumor
was attached, felt hard, to the surface of the
channel. Judging from external appearance
the Tumor was apparently a muscle, but its probable nature was re-evaluated to the clav.
When I opened it the fluid of the Tumor +
Examine it I found it to contain many
cancer cells. (See Plate XVI Fig. 3.) Af-
In the more solid part of the Tumor some
although not very much fibrous tissue
could be found. This case is reported
in full in Memoirs. No of Medical Society.
Case (I have not laid my notes of this case; I have been unable to quote from memory.)

Mr. J. L. at about 30 years old; he himself at niece of J. W. C. with a tumor, insight the eye and just below - removed 15 Feb. 1831 (at the time). The mass prevented the appearance that I have figured at Plate XVi

Fig. 1. (An illustration of the vitreous humour. I have taken a camera of.)

At Fig. 2 be the component fragments, the hair, the nuclei, the nucleus, etc. The deposit had a tube. I placed in the interior of the eye. I regret that having

Instead my note, I am not able to furnish a full account of this case.
Case. Francis Carpenter. Oct. 20. Had a cyst on the liver for 13 years—removed by J. H. W. G. Nov. 6, 1870. Upon examination found to be a simple epithelial cyst. See plate XVI fig. 566.

Fig. 5. 161. Chapter of chorea. 161. Old cells, the centre of mass. e. episode time c. cell. Fig. 6. Chapter of chorea.

Case 1871 June 21 D. P. P. Pacas at clinic removed from a patient about 70 years a tumor of the liver, measuring 1 1/2 in. of the right side. The tumor had been six months in forming a tumor. Not only the bone but also the cardiac area. Upon examining, the specimen I found the appearance, such as a tubercula. Ill. plate XVII fig. 5. 664. Case: all epithelial cells & showing tissue as we have been before and also some portion that all the tissue is injured.
لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.
Case.- At Plate XVII fig 1-4 we see the cells found in a tumor underlying the floor of the lower jaw. This specimen was left carelessly at my son's; I do not know the history.

At fig 1, we have bone healthy, as it appeared when dried, also some cells floating free.

At fig 2, cancer cells of large size singly or doubly nucleated. Fig 3 & 4 small cells, possibly fibrous tissue. This specimen is one of what might be called true osteo-cancer.

Other cancers, if so called, are interesting ones. This subject of cancer in bone has been at various periods much muddled, but it seems to me to be simple enough considered, as cancer is a change in tissue.
1870. Case 5. T. O. Müller

Amputated a polypus nasi at clinic of M. C.

Mr. had been removed, it had returned several times, a good deal of ulceration had taken place in the nasal cavity. The plate xviii figs. 142, fig. 1 showing fibrous tissue expl. cut cell., fig. 2, showing the same in an highly magnified. I have been led to believe the tumor to have been cancerous, but I will not be positive.

Case 1870 Oct. 3, 78. At Clinic D.

Müller removed from Peter Dunbury at 42.

An Epithelial Tumor of the L. P. See plate xviii fig. 3. Epithelial cells, fat.

Small oval cells, which seem to be peculiar to epithelial tumors. Some say occur.

I think that it is the least of their tumors as extraordinary.
Carr. 1841 Oct 27th. Received from Dr. Ditchard a Pithum & Wollaston albumen form fluid from an ulcer on the sternum. I examined it & found it cancerous. See plate XVIII fig. 4. This was also sent by Mr. da Costa & S. W. Mitchell & both agree with me in pronouncing it human cancerous.

Case 3. Spring of 1841 [April I believe] S. Mitchell removed from the seat of a patient (Mr. D.) a grey tumour, which has been many years in deposit. I examined the tumour microscopically & my friend Mr. da Costa tested it chemically. The result of the examination will be seen at plate XIX.

Sep 1st
Case: Thomas Andrews 30, harnesser.
In July 1878 he received a swelling on right terteicle. In April following he experienced constant pain of an achy character. This continued all summer. At the commencement of that term was soft, but in April & May it became hard. The Oct 26 1880 the right terteicle was removed at Clinic No 5.
The patient left of a hemorrhagic disease, great hemorhage followed. During the spring & summer of 1897 the deposit returned in the left terteicle, which was removed Oct 11 1897 by Dhd. Mutter at No 5 Clinic.
I examined both terteicle. The one removed in 1870 I injected with Ethon & Vermillion.
The homogeneity of both terteicle was well shown, proving it a deposit for a granite. The preparation is in the museum of Dr. Mutter. Al. Plate XX fig 1, 82.
I have drawn the microscopic appearance of the deposit. Fig. 1 is that of the right kidney removed in 1850. At fig. 2, the deposit in the left kidney is shown. It may be observed they are precisely similar. Small cells about 1/2 inch in diameter, for the most part non-mucilaginous, dotted and granular in appearance, floating among an immense number of granules.

Feb. 1852. January 7th. Made a Pot. Bait. 39 lb. Regn. wormes 70. Fished 24 lbs. with all the zeal, but very little success. We were at first covered with military tunic. t., t., t., Upon examining these webs of tunic, I found the appearance shown at the [fe XX] fig. 3. Cell of tunic of granules. Many of these acini were non-mucilaginous, differing in that respect from the preceding case.
1877 Nov 19, I saw a patient of Dr. [name], who had had a tumor of the eye of 6 months duration. It was removed by Dr. Miller. I found it only Epithelium — no evidence of carcinoma. The tumor returned to the old face removed by Dr. M. at office. Examine it again, not able to make up my mind. The Plate 3, fig 6, Epithelium, fibrous tissue, small oval cells. In this case, see the dermoid cyst.

Case 1870 Nov 6, M. Stephen Lee, aged 24, presented himself at the clinic of Dr. M. with a tumor of the right breast. The whole mass was removed by Dr. Miller and on examination found it to be hypertrophied, present the gland, and
cells of a low area of organization. 
See plate \( \text{XX} \), fig. 4.

Case, 1857 October 15th—received from Dr. Heaton with appendix at Penn Hospital. Two specimens of intestines, one of the lungs and one of the intestines. I do not know the history of the case. See plate \( \text{XX} \), fig. 5 & 6.

Case, 1857 November 2nd—received from Dr. Schuch. Kidney. Pneumonia—Miliary Alveolar Hydroema. A portion of a carcinoma at the inferior pole, removed at 1 P.M. Examination. History of case unknown. See Plate \( \text{XX} \), fig. 16, 17. She ran the cancer cells squeezed from the deposit by this to the urea, 8 lbs. at 15 cancer cells to the hand portion of further return. See figure. Fixing cells from cancer.
found near the orifice. No can- 
cell.

of fusions fibres - /A/ candidated cell, +1024.

The patient was a woman 642 - Syphilis
all those of canae - still occurred from
Examination. At the autopsy, all was
found healthy except genital organs.

Add, Plate XXI fig 3, cell from canae
of rectum, given me by Dr. Heaton
1871 his 202. No Heilbr.
On the side of the mastic, what may be called
A singular growth had taken place since last
March, post, 4 centurion. This specimen
is now in the cabinet of the college of phy-
sicians of this city. See plate XXI
figs 4, 5 & 6 — fig 4141 cancer cells
from right part of tumor — 161 fibrous tissue
peculiar cells / perhaps glandular.
A. Cancer cells — figs 506 / cancer cells

Cxt 14. 1881. 580x 6½. Dr. Pancost removed
from a lady aged 2 — a tumour arising
the mamma at gland which had lasted
for 6 months — Parisians lunacy.
The swelling glands much increased, &
been removed by Dr.
The auxiliary strand was also removed. See plate XXII fig. 1 & 2. When digested out some of the fluid of the human & examined it, I found it to present the appearance shown at plate XXII fig. 1

(A) - compound granules cell. (B) - common cell.

In the harder section of the soft matter we have such cells as are shown at -

At fig. 2, the texture of the auxiliary strand is shown - (A) cells, perhaps, epithelial - (B), staminal cells. (C) free al

Globules - (D) is the structure of the

Trunk messages of the

Enlarged cells.
Dear Friend,

I am writing to express my deepest appreciation for your kind words and support. Your encouragement has been a source of strength and comfort to me, and I am grateful for your presence in my life.

Please know that your kindness is not forgotten. I intend to continue to support you in any way I can, just as you have supported me. Your generosity has touched my heart, and I hope to return the favor in the future.

Thank you for being a friend. May our friendship continue to grow and flourish.

Sincerely,

[Signature]

P.S. If you need anything, please do not hesitate to ask. I am always here for you.
Case Mr. Poke - a patient of Dr. Morris, of this city some years ago received a blow on the arm, a few months ago, a tumour began to grow, attended by lancinating pains. On the 15th Dec., 1837, the tumour was removed by Dr. Norris. The cells found, as shown at Plate XXII fig. 3. I believe them to be cancerous, but am not positive. I do not think the tumour will return, that is to say, if any cancer do not return, I should think this was one of them.

Case 1830 Oct. 12. Mr. Potter, aged 71. A fastmate, had removed from near the umbilicus, a hard, ragged, apparently malignant. Under the microscope found it to be epithelial, not cancer. This tumour had existed for many years, came to pressure of a lead on the belly. See Plate XXII fig. 4.
Case. A. E. had a milk of the breast had swelled from his left side about the hand. On going the latter an Exostosis as large as a walnut which had existed for some years.

Arranging itself, the Exostosis was found to contain, externally, a soft mass, although malignant, but found to be very soft and fat vessels; it free at Mr. Pancoast. Acids, chips, etc., etc., also found in

Nutcracker.

Case 2. Q. I. at the breast good. Had this for 2 years a tumor in the breast which lately has continued to cause so much extremely painful. Removed 7-5 Pancoast Dec. 6 - 1851 found to be a multilocular cyst, filled with epithelium the local of the cyst, commencing at Extending up between the tendons.
In this case I refer to the

Draper's case of cancer of the

superior maxillary sinus...
Fig. 1. Fatty tumor of arm. See page 50
   a. fat cells.
   b. fibrous tissue.
   c. free oil globules.

Fig. II. Fatty tumor of neck. See page 51.
   a. fat cells.
   b. fat vesicles with chromatic nuclei of manganic acid.

Fig. 3. Fibro-fatty tumor of breast. See page 52.
   a. fibrous tissue showing oval nuclei after the addition of acetic acid.
   b. fat vesicles with chromatic manganic acid.
   c. free oil globules.

Fig. 4. Fatty tumor from face. See page 57.

Fig. 5. Fibro-fatty tumor of thumb (congenital).
   a. fibrous tissue (yellow). See page 57.
   b. fat vesicles.
   c. free oil globules.

Fig. 6. Fatty tumor showing Chrysolite of manganic acid both on the interior and exterior surfaces of cell wall.
   a. free oil globules. See page 59.
**Fig. 182**

**Fibrous tumor of Stalk.** See page 61

- Fig. 1: a - fibrous structure
- f - one or two, old, epithelial masses
- c - many bands of fibrous tissue

**Fig. 2**

- a. fat cells
- b. fibrous capsule, magnified
- c. fibrous capsule, normal

**Fig. 3**

**Fibro-fatty Tumor of Brain.** See page 59

- a. epithelial masses from brain
- f. fat vesicles
- c. free oil globules
- d. fibrous tissue

**Fig. 4**

**Acrochord of Ear.** Solid fibrous tissue (yellow). This tumor is always described as cancerous, although it is simply a tumor of yellow fibrous tissue and occurs as in that case in the middle of the ear. See page 52.

**Fig. 5**

**Filous thickening of wall of Stomach.** See page 63.

**Fig. 6**

**Filous tumor of Intestine.** See page 64.

- a. fat vesicles
- f. free oil globules
- c. fibrous tissue
Fig. 1

Fibroplastic tumor from face. See page 66

\(a\) - Firm, structure

\(b\) - Peculiar, oval cells, non-nucleated. \(1/30\) inch in size.

\(c\) - More plentiful and larger

\(d\) - One or Epidemic Case.

\(e\) - Fat, vesicular.

\(f\) - Old globules free

Fig. 2

Tumor of face of a fibroplastic character. See page 66.

\(a\) - Fibroplastic cells.

\(b\) - Oval cells, of a peculiar character described in text.

Fig. 3

Fibroplastic Tumor of Breast. See page 67

\(a\) - Epithelial cells

\(b\) - Fibroplastic cells

\(c\) - Peculiar oval cells

\(d\) - Fat, vesicular (yellow)

Fig. 5

Fibrous Tumor of Breast See page 68

\(a\) - Fat, vesicular

\(b\) - Collagenous glands, the size of an inch in diameter, of green

\(c\) - Cases of disease. Mogers connected with ether.

\(d\) - Grand cells about 1/4000 of inch in diameter.

\(e\) - Free oil glands

Fig. 6

Tumor of Chin. See page 107

\(a\) - Epithelial cells.

\(b\) - Fibrous tissue

\(c\) - Small oval cells.
Fig. 1
Fibro-elastic tumour of Chin. See page 69.

a. Fibro-elastic cells
b. Epithelial cells
c. Fibro-elastic a-foam cells & nuclei
d. Fibro-elastic cells

Fig. 2
a. Epithelial cell
b. Fibro-elastic cell

c. Fibro-elastic cells

Fig. 3
Fibro-elastic of Breast. See page 70.
a. Muscle cells
b. Fibro-elastic cells of different shape & size
c. Fibrous tissue

d. Epithelial cell

e. Comp. granular cell

Fig. 4
Two cases of Maligna. See page 70.

1. a. Nerve fibres
b. Peculiar cells between nerve fibres.

2. (a) Nerve fibres
   (b) Fibrous tissue or healthy. The latter forming a hypertrophied sheath to nerve.

Fig. 5
Achieving from hand. See page 72.
a. Yellow fibrous tissue
b. Pec. all globules
c. Pec. capillaries

Fig. 6
a. Fibrous tissue
b. Capillaries full of blood
c. Nerve fibres
Cancer of Cheek see page 73

<table>
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<th>(a.) cancer cells</th>
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<td>(b.) Epithelium of oral muc.</td>
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<td>(after 1st)</td>
<td>(c.) fibres tissue</td>
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<td>(before)</td>
<td>(d.) complete granular cell</td>
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<td>(e.) see at chart</td>
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<td>(md.)</td>
<td>(f.) mother cells, large granular cells</td>
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<td>(h.) crowded cell</td>
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Fig. 2

3 & 5

Annotation: The same as above
Fig. 1. Tumor of Breast. (Cancer) See page 74.

- Fig. 1. a. Peculiar cells. 10× art.
  b. Cancer cells.

Fig. 2. Cells represented at Fig. 1 on an area after the addition of acetic acid and an unsatisfactory field. Shown by its nucleus on the cell wall.

Fig. 3. (a) Compound granular cell.
  (b) Free oil globules.
  (c) Nuclear globules capsular.
  (d) Chromatin.

Fig. 4. Cyst in Breast showing cancer cells.

Fig. 5. Fibrinous structure. (Cancer cells)
  (b) Parent cell.

Fig. 6. (a) Parent cell. 1/600th reduction.
  (b) Simple cancer cell.
Fig 1. Cancer cells
Fig 2. Tissue

Fig 3. Cancer of patient. See page 76
Fig 3a. Cancer cells + epithelial cells

Fig 4. Euphoric. See page 77. Cancer?

Fig 5. Parent cell type
161. Euphoric cell

Fig 6. Action of tissue cells
Fig. 1-6. Cysts from Art. Med. Auris. 
- Pectoral muscles, &c. (See page 76.)

Fig. 1.
- Pectoral muscles. (See Text.)
- Cystic cavities.

Fig. 2.
- Same as in Fig. 1 by acetic acid. A50 X.

Fig. 3.
- Muscles from pectoral muscles.
  a. Muscular fibres.
  b. Pectoral muscle.
  c. Tissue.

Fig. 4.
- Fibrous cysts from midbar.
  a. Cyst.
  b. Muscule.

Fig. 5.
- Same treated with acetic acid.

Fig. 6.
- (a) Cells surrounding (c) a small
  mucous duct. (A) Same more
  highly magnified.
Fig. 1. Cancer cells from tumors of alveus. New page 79

Fig. 2. Cancer cells, granules, fibrous tissue.

Fig. 3. The same (from the harder portion of the

Fig. 4. Cap (a). filled with cancer cells.
   (b). stroma cells.
   (c). comp. granular cell.

Fig. 5. Tumor, the stroma cells, surface of

Cancer cells.

Fig. 6. Tumor, epithelial cells.

plus, plastic cells, perhaps also

Cancer cells.
Fig. 1. Cancer of Pancreas. See page 83.

Fig. 2. Cancer of Bladder. See page 83.

Fig. 3. Same. Same light microscopy.

Fig. 4. Same. Very light microscopy.

Fig. 5. Cancer of Pancreas. See page 84.

Cells distinctly shown, owing to composition being later plan.
Fig. 1-4. Colloid Cancer of Arm. See page 85

Fig. 1. Cells from dermis. From York to York, phlegm seen.

Fig. 2.

Fig. 3. Disintegrates muscle fiber. Non-specific.

Fig. 4. Parathionic found in cell, non-nucleated.

Fig. 5. Cancers of Breast. See page 87

1. Large cells, non-nucleated. Good change.
2. Cancer cells.

Fig. 6.

1a). Fat tissue
2a). Graft. Filled with cells.
1c). Cells.
Fig. 1. Cancer of Submaxillary gland. See page 87.
- Salivary cells.
- Salivary gland cells.
- Cystic cells.
- Epithelial cells.

Fig. 2. Other carcinoma. See page 88.

3 774 2 Fig. 3. a.1. Epithelial cells, with large nuclei.
- Cystic cells.

Fig. 4. a.1. Cancer cells.
- Cystic cells.
- Compressed tumor cells.
- Alkaline cells.
- Cystic cells.

Fig. 5. 5156 Cancer of Breast. See page 88.

Fig. 6. 645 Lymphatic.
- Compressed tumor cells.
- Granules.
- Cancer cells.
Fig 1. Epithelial lining of Treseum. See page 89
(a) flat cells
(b) columnar cells
(c) epithelial cells

Fig 2. Epithelial lining. Epithelial lining of treseum. See page 90 (from treseum)

Fig 3. Epithelial lining. Epithelial lining of tongue

Fig 4. Epithelial lining. See page 91

Fig 5. Epithelial lining of Treseum. See page 91

Fig 6. Epithelial lining of alveolar. See page 92
(a) columnar lining
(b) columnar lining of alveolar
(c) columnar epithelial lining of alveolar
Fig. 1. Cancer cells, 3X granular cells.

Fig. 2. Same magnification as Fig. 1.

The above two figs represent cells found in the fluid squeezed from the tumor.

Fig. 3. Had a portion of same tissue, showing fibrous tissue in addition to the cells.

Fig. 4. Cancer of Breast (?). See page 94.

Fig. 5. A. Granular cells decidual in test b. Comp. 2 granular cells.

Fig. 5. Fat of the tumor.

Fig. 6. Cancer of Breast - see page 95.

Cancer cells at globules & fibrous tissue.
Fig. 1. Epith. of Face. See page 95.

Fig. 2. Epithelium of Toe. Compare with fig. 96. (Cancer?) See page 96.

Fig. 3. (a). No.
   (b) Epithelium. See 97.
   (c) præmæ. See 97.

Fig. 4. (a) do.
   (b) præmæ. (?) See 97.
   (c) Fibres. See 97.

Fig. 5. Epithelium. Tumor of Hand. See 97.
   (a) mesent.- b. epith. cell.- c. hand cell.-

Fig. 6. Stain buff 4 4. (3) whole. See 97.
Fig. 1. Cancer of Eye & lymph. Tissue - see page 100
(A) filament of Otic nerve
(B) fibrous tissue of Retina
(C) cancer cells

Fig. 2. Cancer cells, complicated
Cells, &c. 450 D.

Fig. 3. Multiple growth from retina - see page 98
(A) cancer cells
(B) fibrous tissue

Fig. 4. Cancer of Lip. See page 98.
Cancer cells. Epithelial cells. Fibrous tissue.

Fig. 5. Ph. Cholesterol. See page 101
(A) Crystals of Cholesterol
(B) Solid cells
(C) Ghost cells

Fig. 6. Crystals of Cholesterol
Fig. 3. Med.-Carcinoma. See page 102.
Figs. 1-4. 
1. None within a slow cell (part). 
2. Cells of Carcin of another Kind. 
3. Epithelial cell, fat, carc. cells. 
4. 

Figs. 5-6. From human of jaw. See page 100. 
5. 
6. Epithelial cell, and carc. cells. 

Fig. 6. Carcin. Candidated cells. 
6. Carcin. a nod?
Fig. 1
(b) Cancer cells
(c) Compl. granular cells.
Fibrous tissue + cyst.

Fig. 2
Fibrous tissue cells, + compl.
Granular cells.

Fig. 3
Epithelial Tumors. See page 103
Showing epithelial cells, fat, +
Cyst in fibrous tissue.

Fig. 4
Cancer of Brain - See page 104.
Showing epithelial cells, cancer cells, compl.
Granules, granules. +
Figs 1, 2, 3: Gouty concretion from toe. See page 104.

Fig. 1: Most probably a double salt of urate of soda and magnesium—parts taken on the inner surface of the vessels in the joint.

Fig. 2: (Ax: B) Urate of ammonia.

Fig. 3: (B) crystals, chloride of ammonium, which are common form /A as a rare form of crystals of chloride of sodium.
Fig. 1. Intestine of Fester. See page 105

Fig. 2. Cells of intestine, for most part with nuclei in, but some with granular matter.

Fig. 3. Intestine of Man. See page 106

Fig. 4. Cells of intestine, many nuclei, with much of their deposit here and there, some granular matter.

Fig. 5. Intestine from branch of Neptune. See page 107.

Fig. 6. Intestine from Infant. See page 108.
Fig. 1. Cancer of the Uterus. See page...

Fig. 2. Cancer of the skin.
A. Cancer cells 3 of skin
H. pap.
C. Cancer cells (fibrous tissue) and bone

Fig. 3. Cancer cells (perhaps carcinoma)
A. Cancer cells
C. Fibrous tissue
D. Caudate cells + 50 D.

Fig. 4. Cancer of the breast. See page...

Fig. 5. Cancer of the skin. See page...
A. Cancer cells from 1/2 part of tumor
B. Fibrous tissue
C. peculiar cells under Stomach from
D. Cancer cells

Fig. 6. Cancer cells from 1/2 fungoid
bution of tumor.
Fig. 1. Cancer of Breast—see page.

(a) Compound granule cell fluid of
(b) cancer cells
(c) CELL WEIGHT AND SECTION OF TUMOR

Fig. 2. Rund cell (see left) from gland cells
(f) free oil globules
(j) fat containing yellow of middle
(k) fibrous structure of tumor.

Fig. 3. Cancer of Breast—see page

Fig. 4. Epithelial tumor of ovary—see page
(d) Many epithelial cells and glands in

...