CIRCULAR OF INFORMATION

NUMBER 2

HEARTREST SANATORY

CONSUMPTION

TUMOR

BRIGHT'S DISEASE

DISEASES OF THE HEART

CANCER

NEURASTHENIA IN MEN

NEW YORK
MAY, 1891

HEARTREST SANATORY,

MOTT AVENUE AND 165TH STREET.

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FOR a decade the Senior Physician has sought to found a *Sanatory* (place of healing, not hygiene only) to practically demonstrate and carry out the plans of curing chronic disease which he has advocated as he has had opportunity. The **Sanatory** is now open. It is located on high ground, in a square plot bounded on three sides as above and by Sheridan Avenue, and overlooking the Harlem River and Long Island Sound.

The drainage is new, surroundings good, buildings spacious. It is approached by the West Side Elevated Roads to 155th Street, thence by carriage; from Grand Central Depot by Harlem Railroad to Mott Haven Station, thence by carriage; and from Melrose Station, on the same railroad, ten minutes' walk.

The aim is for *healing* those cases of chronic disease commonly called "incurable."

Since the publishing of our prospectus, demands have been made for printed matter pertaining in detail to the results achieved; we therefore hastily issue this Circular of Information, using some of the records of work done in private practice, which show the power of *food* and *medicine* used even against great difficulties. The facilities now offered in **Heartrest Sanatory** have demonstrated, in the five months of our work there, the great advantage obtained by putting the environments of the patient in favor of his cure.

Special circulars of information on "Diet in Cancer," "Asthma and Hay Fever," "Bronchitis," "Diseases of Women," "Rheumatism," "Diseases of the Throat," "Apoplexy and Paralysis," will be issued later.

NEW YORK, June 1st, 1891.

FEEDING IN THE WASTING DISEASES,

BY

EPHRAIM CUTTER, A.M., LL.D.,

M. D. HARVARD, 1856, AND UNIVERSITY OF PENNSYLVANIA, 1857.

PRESIDENT AMERICAN BRANCH SOCIETY OF SCIENCE, LETTERS AND ART, LONDON. AUTHOR BOYLSTON PRIZE ESSAY FOR 1857, ON "UNDER WHAT CIRCUMSTANCES DO THE USUAL SIGNS FURNISHED BY AUSCULTATION AND PERCUSSION PROVE FALLACIOUS?" CORRESPONDING MEMBER BELGIAN AND ITALIAN MICROSCOPICAL SOCIETIES AND GYNECOLOGICAL SOCIETY OF BOSTON, ETC.,

AND

JOHN ASHBURTON CUTTER, M.D., B. Sc., F. S. Sc.,

OF NEW YORK CITY.

Published in *The Journal of the American Medical Association*, July 26th, 1890; *The Medical Bulletin*, June, July and August, 1890; *New England Medical Monthly*, August, 1890; *Pacific Medical Journal*, August, 1890; *Southern Practitioner*, July and August, 1890, and *Virginia Medical Monthly*, June and July, 1890.

FEEDING IN THE WASTING DISEASES.

A Report presented to the Committee of Dietetics of the American Medical Association at its Forty-first Annual Meeting, 1890.

First Section—Tuberculosis Pulmonalis, One Hundred Cases.

Second Section.—The Fatty and Fibroid Degenerations, Fifty cases.

Third Section.—Male Neurasthenia, Fifty Cases.

The following is an abstract:

FIRST SECTION—STATISTICS OF ONE HUNDRED CASES OF CONSUMPTION TREATED BY FOOD PLANS TO BE HEREAFTER DESCRIBED.

Résumé.

Series 1. Non-arrests, twenty-one cases.

a. Cases that were not improved, nine.

b. Cases that were on partial diet, or were too irresolute, or had bad surroundings, financial, climatic, etc., twelve.

Series 2. Partial arrests, thirty-nine cases.

a. Cases that followed the treatment faithfully, nineteen.

b. Cases that did not follow the treatment faithfully, nine.

c. Cases that had bad surroundings, that died of pneumonia, etc., eleven.

Series 3. Permanent arrests, forty cases.

a. Tuberculosis, thirty-two cases.

b. Pretuberculosis, eight cases.

In 1880, the senior writer presented to the American Medical Association, an article entitled, "The Salisbury Plans in Consumption," with the full text of seventy cases. To-day we come before you not to laud or condemn Dr. Salisbury, but to simply give you in the concrete, what has been brought before us in our daily work with consumption of the lungs, as we have attacked the disease believing it to be first and last a food disease, climate and other causes being entirely secondary, and therefore this contribution will be of the more value to this Committee of Dietetics.

SERIES 1.—NON-ARRESTS, TWENTY-ONE CASES.

a. Cases that were not improved, nine.

1. *Illustrative Case.* — (See Transactions American Medical Association, 1880, pp. 333-408, case 7.) August 28, 1877, M. H. S., fisherman, Lanesville (Cape Ann, Mass.), aged 33 years. Father died of phthisis. Mother living; been sick two months. He states that he took cold and went out fishing. Was exposed and took more cold; except two attacks of typhoid fever, was perfectly well before. General appearance bad. Cough is constant and severe. No hæmoptyses. No dyspnœa except on going up stairs. Severe pain in shoulders. Appetite poor. Bowels regular. Has lost flesh and strength. Night sweats copious. Pulse weak. Hands shake badly.

Physical Signs.—Dulness on percussion and crackling over right upper third front and lower third back; feeble inspiration, almost flat on percussion; no crackling, but the respiratory murmur was heard underneath. Inspection of the blood revealed spores and spore collects in abundance. Fibrin filaments thickened. Red corpuscles adhesive, sticky, irregularly massed, pale in color. Mr. S. went upon the treatment with quinine. It was his intention to come up from the Cape again, but he was unable to do so, and despite the means used, he died not long after.

Remarks.—At the time it did not seem to the writer that his case was hopeless. Still, his history teaches that one must not trust too much to first appearance. It is a disadvantage to see a patient only once. It was reported that he faithfully used the diet. It is well, however, to compare the case with some of the very sick ones that were cured as noted in series 3; the lesson taught is simply that the physician should never refuse to take a case, and should never be too free in his promises of recovery.

b. Cases that were on partial diet; were too irresolute; had bad surroundings, financial, climatic, etc., twelve.

Illustrative.—(See case 1, loc. cit.), widow, aged 43 years, small sized, thin, anxious and nervous. Asthmatic complication, old abscesses of the mediastinum, diarrhœa, dyspepsia, sleeplessness, severe cough, dulness on percussion with constant crepitant râles over both upper thirds

front. Great dyspnœa at times. Abnormal valvular sounds of the heart. No albumen in urine. Altogether the most distressed and suffering case of consumption I had seen for some time. The effect of the animal diet, baths of mineral acids, and quinine, was to relieve, in a measure, the night sweats and abdominal pains. But the appetite turned against the animal food and it would often be rejected by vomiting. She was obliged then to carry out the régime only partially, particularly as she laid all her bad feelings, distresses and sickness to her food or medicine, and never to her disease. She suffered also greatly from prolapsus of the uterus, aggravated by the severe coughing. This case was not relieved by the special treatment recommended. The weakness of mind and body, induced by the presence of organic disease in the thoracic and abdominal viscera, was too great to be reached by perhaps any treatment. Indeed, just here it may be stated that no pretention is made toward cure of any but one-third of the cases;[1] but to insure that proportion it is necessary to have the treatment strictly carried out.

The present case was one in which there was really no hope and only adopted as "A drowning man catches at a straw." It is thought best here to give simply the bad and good cases together, and let the reader judge for himself of the value of the data thus derived.

SERIES II.—PARTIAL ARRESTS, THIRTY-NINE CASES.

a. Cases that followed the treatment faithfully, nineteen.

Illustrative Case.—(See No. 21, loc. cit.) Mr. W., aged 60, in 1874 had been consumptive for two years; his occupation was that of an overseer of an umber paint mill. He had with a cough, marks of increasing debility, as loss of flesh, animation and courage. There were marked dulness on percussion, crepitant and sonorous râles over the upper part of both lungs; the blood also presented fibrin filaments and spores. It is some years since he has lived upon animal food diet; his wife has faithfully prepared the choicest meats for him, and what is more has encouraged him in pursuing the uncommon diet. The case was rather unpromising at first, owing to its long standing and extent of tubercle infiltration. He is, however (1876), comparatively well. Cough is hardly perceptable. The physical signs are still to be detected, but with less marked characteristics. He attends to his business as usual. Says he expected to die, in which expectation the community shared. The blood shows great diminution in the foreign admixtures. 1879, still living but very feeble. In October he died.

Temporary Arrests.

b. Cases that did not follow the treatment faithfully, nine.

Illustrative Case.—(See case 23, loc. cit.) Miss C., aged 22, residence Cape Cod. Seen July, 1875; amenorrhœa, cardiac trouble, dulness on percussion in upper part of both lungs, expiratory râles in same location. Blood was full of evidence of disease as shown by the enlarged white corpuscles, the spores and fibrin filaments; she had been under the hypophosphites of lime and soda. She was put upon the strict diet and mineral acid baths, and was removed to New Hampshire. She was thin in flesh and unable to walk an eighth of a mile from prostration under the necessary effort. For the next three months was not herself thoroughly convinced of the utility of the measures now proposed, still her friends were, and by means of their influence she adhered closely to diet and baths. Immediately there was an improvement in the cough, in flesh and strength which continued. She walked two miles readily. Returned home for a visit in November. Here the diet was abandoned, ate everything she liked and took medicines. Remained at home four weeks. She ran rapidly down, lingering till she felt "She could not live two days." Returning to New Hampshire she improved but little. Remained there till April, 1876, when being very much worse, she returned home to die. Died in 1878. This case shows the power of the system to resist the disease, even when not following up the treatment; this resistance ought to be more relied on.

c. Cases that had bad surroundings; that died of pneumonia, etc., eleven cases.

Illustrative Case.—(See case 27, loc. cit.) In October, 1874, Mrs. ——, a woman with a very young child, that especially cried by night and kept its mother awake, was very pale and thin, coughing severely and raising largely. There was diminished resonance on percussion and crackling throughout the upper third of right lung. She adopted the diet and acid baths. In four months the cough was very slight. The physical signs diminished. Her softened lung tissue dried up. The appearance improved so much that a casual observer would have called her well. All the time she suckled her infant. Owing to the hard times she was obliged to relinquish her diet and would not accept it as a gift. Immediately she began to fail and died in the course of six months. The improvement in health kept pace exactly with the imposed diet. When she ate bread the cough returned; the expectoration was copious. The night sweats reappeared. This shows markedly the relation of animal food to consumption. It is well worth knowing, for if these things "are done in the green tree what may be done in the dry?"

SERIES III.—ARRESTS MORE PERMANENT IN CHARACTER AND MIGHT BE TERMED CURES IF OCCURRING IN OTHER DISEASES.

a. Tubercular, thirty-two.

[1] This was 1880, now we think that more can be cured.

b. Pretubercular, eight.

Illustrative Case.—(See case No. 53, loc. cit.) Mrs. Wall, Cleveland, Ohio, June 21, 1877. Present condition: Suckling a four months' child. Active and doing her own housework. Looks like a person in ordinary health. Coughs occasionally. No sputa. A good sized, rather flat-chested woman thirty-five years of age. *Chest:* Dulness on percussion and cavernous respiration over left upper third back. Dulness over the whole left back. Elsewhere normal. *Blood:* Inspection showed normal looking blood. Red corpuscles not massed; are distinct, well defined, rouleauxed, no fibrin or mycelial filaments; white corpuscles not enlarged.

This report is more interesting when taken in connection with the following history: In February 1865, Mrs. Wall had been sick in bed four months with the last stages of consumption. She was emaciated to a skeleton; weight, sixty pounds; usual weight one hundred and thirty pounds. Her physicians, who were regularly educated and skillful men, pronounced her left lung "gone"—that is, riddled with tubercle that had softened and broken down in such a manner that the pulmonary substance was removed; had become useless and of course they gave a decidedly fatal prognosis. There was at this time a great caving in or flattening of the anteroposterior diameter of the chest due to atmospheric pressure conjoined with loss of lung substance. At this time she came under Dr. Salisbury's care. The patient's mother caused the treatment to be faithfully and assiduously followed out. Improvement slowly followed. In four months' time she was able to be out of doors and visit the city. After a time she resumed her profession as school teacher and taught successfully for four years. Five years ago she married and has borne three children, all healthy and vigorous. She likes her meat diet best, lives on it and works hard. The physical signs adduced show the marks of the ruin wrought in her lung and also show the tremendous power of food in managing or in affecting the course of organic pulmonary disease even in its third and hopeless stage. This history reads like fiction. November, 1888, we heard from her that she had continued in good health. A beef eater.

Illustrative Case. — (Unpublished.) — 1882. Young man. Cavities in both lungs. Heart enlarged. Emaciated as badly as preceding case. Profuse hæmoptyses. Elastic and inelastic lung fibers in sputa. Blood, tubercular. Was treated very carefully on these plans. Was cured, *i. e.* his cough ceased; the lungs healed; the heart regained its normal size; he took on flesh and strength; went through Yale college; was graduated with honors. Is well and was seen by us May, 1890.

Pretubercular Cases Treated that May Come Under This Head.

Illustrative Case.—(See case 65, loc. cit.) In April, 1876, a young man eighteen and one-half years, complained of feeling weak and listless. He had nocturnal and morning cough, with slight expectoration. He was pale, thin, and losing flesh. Consumption was hereditary on both sides of the family. There were no physical signs of pulmonic lesion. Inspection of the blood microscopically disclosed abundant signs of mischief, such as: Fibrin filaments were marked in character; spores and spore collections; mycelial filaments; white corpuscles much enlarged and too numerous; corpuscles, thin, flabby, pale, sticky, outlines not cleanly cut, aggregated. These taken together with the history and the rational signs, induced a diagnosis of the pretubercular stage. Under the use of acid baths and strict diet, the sanguineous and other signs began to disappear, so that in a year he was enabled to proceed to Germany and study music. He has been a beef eater, *i. e.* eats more of it than people usually do; alive and well, 1890.

Rationale.

1. Tuberculosis is a systemic and not a local disease primarily.

2. Tuberculosis is a diseased condition or state due to the presence of yeast in the blood with its fermentative products.

3. The yeast is introduced into the blood through the alimentary canal from starch and sugar in excess, and in a state of fermentation.

4. The physical micrographical conditions found in the blood of tubercular cases constitute the peculiar morphology so often alluded to. The main features are as follows:

a. Spores of vinegar yeast.

b. Spore collects.

c. Fibrin filaments unusually large and prominent.

d. Enlarged massal white corpuscles. This enlargement proceeding from the white corpuscles being unusually fertile niduses of the vegetation, called entophytal, similar examples of which abound in algæ.

e. Deprivation of the red discs of their coating of neurine, thus rendering them sticky, adhesive and singularly inclined to aggregate themselves in confused masses. At the same time they lose their color, their clean-cut outlines and are diminished in number relatively and absolutely.

f. Thrombi formed of the fibrin filaments; of the corpuscles; of the spore collects.

g. All of the foregoing have been photographed with Tolles' objectives, from the one-fourth to his one-seventy-fifth.

5. The vegetation may exist in a latent state.

6. It may be transmitted from parent to child

in the milk, but the greater point of interest is in the tuberculous diathesis, produced by the same feeding in families for generations.

7. The morphology of the blood is commonly present some time during one year before organic disease. In other words, there is a new physical sign of the pretubercular state; the senior writer has a monograph on that subject alone, illustrated with many microphotographs.

8. Food, then, is the agent of tremendous power that causes tuberculosis.

9. The treatment is based on the idea of removing the cause by ridding the blood of the presence of the yeast and its fermentative products by a process of starvation.

10. Tubercle is a secondary product—a result from embolism caused by the minute thrombi of fibrin filaments—of the massal corpuscles and of the spore collects, and also from mechanical and chemical effects of the embolism on the nutrition.

11. The breaking down of the tissues comes from a necrosis caused by this overloading of them with the products of fermentation.

12. The yeast is also found in the alimentary canal, on the skin, in the sputum, etc.

13. Flour has been raised into bread by the dejecta of third stage consumptives.

14. The progress of the case is best watched and studied in the morphology of the blood. The spores are diminished, the filaments removed. The enlarged massal white corpuscles are reduced in size to normal proportions; the red discs acquire their normal color, covering, and clean outlines; the fibrin filaments are hardly visible. Thus the red discs dispose themselves in the normal manner, the more perfectly as the cure proceeds. Any deviation in the regimen is indicated by the increase of the abnormal morphological elements in the blood. As the blood improves, usually the general symptoms improve, *pari passu*. We have often witnessed, under treatment, the disappearance of râles of all kinds, night-sweats, emaciation, the reduction of the heart to normal size and frequency of beats, simply because of taking away the load it had to carry, when the blood was filled with emboli and was ropy and sticky.

15. This diagnosis by blood examinations does not exclude ordinary physical explorations; it supplements them; we find that the ordinary idea of this diagnosis in the profession is that hæmology is like urinology, and all that is necessary, is to take specimens of blood, just as we do urine, and base all our diagnosis of tuberculosis on such examinations. The very suggestion of this demonstrates how far the proposer is from having a true idea of the subject; the evidence must be collected with the least possible interval of time between the removal of the blood from its stream to the stage of the microscope; the capillary circulation is to be used, not the venus or the arterial; take blood from the radial or ulnar side of the forearm, by slight puncture with scarificator or scalpel; do not prick the end of the finger; the student must study the morphology of the skin as well as that of the blood.

16. There are other diseases in which the normal blood morphology is changed, to-wit: rheumatism, cystinæmia, syphilis, ague, etc.

17. This rationale explains the cough, where it is not due to local irritation in the air-passages, such as hyperæmiæ, ulcers, infiltrations, reflex irritations, to the presence of carbonic acid gas in excess; sometimes it is wonderful how diminishing the fermentation does away with the cough.

18. This rationale explains hæmorrhages as the result of local action of the vegetation on the glue tissues, the connective tissues being softened, disintegrated and broken down by the products of fermentative changes.

19. It explains the night-sweats as due to the interstitial necrosis of tissues thus throwing more work on the skin; hence the injunction to take good care of the skin, and help the lungs while they are being healed.

20. The emaciation and loss of flesh and strength are only the results of the great tissue destruction going on.

21. The sputum must be studied for lung fibers, for the various crystals that are found in asthmatic conditions and also the gravel, granular and encysted.

22. Old fashioned or fibrous consumption is due to holding of the yeast products in the stomach, to the gradual paralysis of the lungs, with the consequent hyperplasia of the connective tissues, and to the deposit of gravel in this hyperplasia of the fibrous tissues; in this condition the blood morphology is not so much altered; the diagnosis must be made on general grounds; the treatment is practically the same, however.

23. The condition of the liver and kidneys can be determined by watching the urine; it should be tested at least twice a week and kept at a specific gravity of 1015 to 1020, free from bile, odor or deposit.

24. Physiologists say that man cannot live on beef alone; the chemist says that beef contains all of the elements found in the tissues of the human body. We say, that in cases of consumption, Bright's disease, uterine fibroids, etc., where the special case has indicated a rigid diet of beef, such a dietary has been ordered and some of the patients have lived on it alone for four years: thus the dictum of the physiologist is upset.

25. It has been sneeringly said that all that was needed if the ideas here given as to consumption are true, that a man prescribe beef and hot water; yet the senior writer had his son study

the general sciences four years, medicine four more, and special cases three more years, before he was willing to leave his practice in his care; the art of treating chronic disease, even by positive food plans and judicious medication, is an extremely hard one to acquire.

26. Air is food. Yet consumptives have been cured in the rawest and dampest climates, and so many times that we must go behind the old idea that climate was the only cause of consumption; granted that bad climate helps to cause the disease, and so also will worry, trouble, grief, assist toward death; the sending of patients away from home comforts to die elsewhere is not the thing to be advised. If home comforts, good air and the proper food can be combined, by all means do it. This is written with the knowledge that pulmonary disease has been arrested by climate. But our aim is to cure the cases wherever they are, because many cannot afford to change their climate or live the remainder of their lives in the Adirondacks or Colorado.

27. Remove from the atmosphere of the patien. all doubters, sneerers and those that argue, but never cure; agnostics and nihilists, not content with helping no one, they will endeavor to pull down your work. More permanent arrests could have been secured of these one hundred cases if the patient had been left alone.

28. While encouraging the patient at all times and in all emergencies, give him to understand what he is fighting; that he must not waste his nerve forces by needless thought and worry, but to hold on persistently and wait for nature to do the work; each case is a law unto itself; this can be seen by the study of the cases herein recorded; we are finite; death is certain; no man will ever cure 100 per cent. of his cases, may we say of any disease.

29. If all will take hold firmly, at least 50 per cent. of tubercular cases can be cured, judging from our own clinical experience. Now that consumption is called a curable disease, the great load is lifted off and much more will be accomplished.

30. All cases of pretuberculosis ought to be cured, because here is a condition where there has been no destruction of tissue; this is where the exception to section 28 comes in, if, the practitioner will diagnosticate the condition, treat scientifically, and the patient obey orders.

31. All physicians who say these plans are foolishness, and who treat their cases by morphine, maltine and whiskey, we ask for publication of cases and the percentage of cures.

32. The diagnosis of tuberculosis by blood examination, often negatively points out the seat of trouble to be in the heart or uterus, or perhaps some other organ; also, cases of uterine disease complicated with tuberculosis should not be allowed to go untreated, but in making examination, the physician must go over the whole field, and find out all of the disease; some of the cases in this series, years ago, would have been benefited if their uterine disease had been treated; granted the cause is systemic, for bad food is an etiological factor of uterine diseases, while treating systemically, use all of the modern means to attack the local pelvic troubles.

33. If men complain and say this dietary is too rigid, we will only reply that the cases have demanded it, and will be very thankful when consumption can be cured by more pleasant means than we have employed.

34. Lastly, as to Koch: In 1876 all of the morphology of consumptive blood was photographed with Tolles' objectives to the highest power, his one seventy-fifth. These microphotographs have been exhibited here and abroad, and we find none that equal them; this is written advisedly.

Bacteriology is but an extremely small portion of the micrological world. Such algologists and phytologists as Professor Paulus F. Reinsch, of Erlangen, and Dr. Fr. Ecklund, physician of the first class of the Royal Navy, Sweden, endorse this work as covering a much larger field than bacteriology does. If the proof was to be placed entirely on the results, then bacteriology must hold its head in shame, as no cures have been effected by it; but we are willing to controvert Koch on scientific grounds, and maintain the position that he has told but one-half the story; that botanists have been fighting for years as to whether bacteria were simply babies of the fuller fledged vegetations; that the bacillus was photographed in 1876; that the ability to diagnosticate pretuberculosis and tuberculosis by blood examinations, and the means thus afforded of watching the cases, are worth immeasurably more than the diagnosis of consumption when the disease is apparent to all.[2]

SECOND SECTION—THE FATTY AND FIBROID DEGENERATIONS.

1. Bright's disease, twenty cases.
2. Fibroid tumors, eighteen cases.
3. Cancer, twelve cases.

SERIES 1.—BRIGHT'S DISEASE, TWENTY CASES.

We do not consider any case full-fledged Bright's disease unless there are in the urine albumen, casts and fatty epithelia.

We are continually getting cases which may have any one or two of these three signs. Such cases are hovering on the border line of health and well-marked disease, and are very amenable to treatment. Such wavering from health would oftener be detected if physicians would make more thorough examinations of the urine. Tak-

[2] We are ready to demonstrate, by microphotographs, facts as to the relations of the bacteria to alcoholic and acetic acid plants.

ing six specimens from six consecutive days, it is wonderful to see the variance from day to day.

The following is an abstract:

Cases that would have been diagnosticated earlier if they had been more fully examined.

1. 1883, woman, 30. Called tuberculosis; blood normal; urine albuminous, and contained casts and fatty epithelia; sputum copious. Bright's disease lungs and kidneys; not treated. The urine had not been examined before in this case.

2. Man, aged 50, 1885. Bright's and diabetes. Disease had not been detected. Treatment of no avail; too late.

3. March, 1885. Called nervous prostration by a homœopath. When urine was examined later by senior writer, disease found to be Bright's. Treatment by her cousin of no avail, though a Harvard graduate and thoroughly equipped; again too late.

Deaths.

4. The late Dr. Elsberg. Bright's disease of lungs and kidneys. Great improvement. Death on resumption of old modes of life.

5. Bright's disease of kidneys and lungs. Improvement. Death from handling his own case, thus eating wrongly, overworking and allowing himself to be poisoned by sewer gas.

6. March, 1889; woman, 50. Bright's disease lungs and kidneys. Death September from pneumonia. Disease somewhat arrested.

7. Bright's disease of kidneys; 1885, man, 50. Convulsions like that of a puerpera. Chloroform to neck. Urine cleared up by diet. Took cold from riding in open carriage. Death from bronchitis.

8. Man, 50; October, 1885. Bright's disease kidneys; nearly blind. Case improved; very nervous; services discharged; death in a few months.

In Progress.

9. Man, 60; 1886. Bright's disease kidneys. Great amelioration of pains and improvement of urine. April, 1890, disease returning, and will probably die if work is not given up at which he labors constantly.

10. Woman, 40; 1883. Bright's disease kidneys. No improvement till she came into our family. Then followed diet, and urine cleared up. Disease has returned, though alive April, 1890. Not on treatment.

Cases cured; that is, that are well April, 1890, with kidneys acting rightly.

11. Man, aged 46; January, 1886. Bright's disease kidneys, cirrhosis of liver and enlarged heart. Considered absolutely hopeless.[3]

12. 1880. Acute fatty degeneration kidneys, placenta and cerebral blood vessels. Has since borne two more children.

13. Woman, aged 35; October, 1885. Not as serious as some of the cases.

14. Woman, aged 25; 1886. Unusual large number of casts and fatty epithelia in urine.

15. Woman, middle-aged; 1887. Had decided to transfuse blood. Well April, 1886.

16. 1879. Man, aged 60.

17. 1881. Man, aged 60.

18. 1884. Man, aged 24.

19. Girl, 13; 1884. Scarlatina; menses appeared when eruption was at its height. Two years to get well.

20. Woman, 46; 1886. Fibrous consumption, Bright's disease kidneys and small fibroid tumor of womb. Tumor gone, cough gone, urine normal, April, 1890.

SERIES II.—FIBROID TUMORS, EIGHTEEN CASES.

The following is an abstract:

Tumors Held in Statu Quo.

Three cases. The first: Immense abdominal fibroid, woman aged 60. Shall soon apply galvanism by deep abdominal puncture.

Second: Small tumor; would go away, probably, if woman would allow herself to rest.

Third: Large abdominal tumor, which did not diminish till galvanism was applied by abdominal puncture, though diet helped her very much

Tumors Reduced and Patients Made Comfortable.

Five cases, all uterine; four, large tumors; the fifth, smaller and back of uterus. All greatly improved; tumors arrested and reduced. These would be called a cure if done by the Apostoli method of giving galvanism; (which method, by the way, was employed by the senior writer in his first operation in 1871).

Tumors That Disappeared.

Ten cases. Seven, uterine fibroids; four, large abdominal tumors; three cases of smaller abdominal and pelvic tumors.

One case of tumor of the breast; one of fibroid of the stomach; one of tumor of the neck which might be called tuberculous.

SERIES III.—CANCER, TWELVE CASES.

The following is an abstract:

1. Cancer of the face, so called by eminent men in the American Medical Association at the Philadelphia meeting, 1847. Treatment by knife and caustic had only made disease return and sore more ugly. Diet of bread and milk removed tumor and healed sore.

2. Tumor of scapula as large as a pint bowl. In the practice of the late Dr. Amos Twitchell, case 1 of this series. Diet of bread and an infusion of water dock. Disappearance of tumor.

3. Attendant, E. Cutter. Woman, 40; uncle dead of cancer; her case, cancer of womb. Disappearance of growths by rigid diet of beef.

4. E. Cutter, attendant. Woman, aged 50.

[3] The result is understood to be according to the reading of the heading.

Cervix enlarged laterally to sides of pelvis; rough and bleeding; opium eater. Rigid diet; iodoform locally. Great improvement. Death on discontinuance of treatment and resumption of opium.

5. E. Cutter, consultant. Cancer of carpal bones and axillary glands; 1882; said to be hopeless by attending physicians. Amputation at middle third of forearm; animal food diet. Alive 1890. Disease in axilla quiescent.

6. E. Cutter, attendant. Woman, 35. Cancer of womb. Improvement and arrest of disease. Discontinuance of treatment; death.

7. Woman. Attendant, E. Cutter. Sister case 6. Knobbed enlargements of os and cervix uteri. Strict diet; disappearance of tumors; alive eight years later.

8. E. Cutter, attendant. Cancer of womb; discharged from hospital to die of that disease, 1882. Reduction and disappearance of disease by diet. Well April, 1890.

9. Attendant, E. Cutter. Woman, 40. Four tumors back of womb. Valvular disease heart. Tumors disappeared by rigid diet of beef; this in 1876. Woman alive and well April, 1890. Her father had died of cancer of stomach.[4]

10. Attendant, E. Cutter. Disease in both breasts. Tumors diminished in size by diet. Caught cold from exposure; pleurisy; cancer cells found in fluid aspirated from chest; death.

11. Man, aged 60. E. and J. A. Cutter, attendants latter part of illness. Cancer of larynx. Tracheotomy had been done; wore tube; suffered much pain. Wished to try food treatment. Did little good, as he could eat but little, and that finally fed to him through a catheter in fluid form. Literally starved to death. A man of great heroism, the late Dr. Wm. S. Hurlocke, of Philadelphia.

12. E. Cutter, attendant. Woman, 40; 1881; vomitus composed of a black grumous fluid; tumors of womb and stomach. Relieved and in fair health April, 1890.

Rationale.

We would have liked to have presented more of our cases of Bright's disease, tumors and cancer; but space does not permit. A few words must be given as to our ideas in attacking these cases mainly by food.

The word nephritis gives us little light as to the real causes of Bright's disease. We would say as to our belief, that the disease is commonly an expression of a systemic condition; either a fatty or a fibroid degeneration. That the fatty may be acute or chronic; the fibroid most always chronic. Some have thought because they found ganglia fattily degenerated that the renal disease was the sequence. But we ask what was the cause of the ganglionic degeneration?

The answer is: In the food eaten, in the air breathed, in the modes of life, the clothing worn, the amount (too much or too little) taken of exercise; our ways of thought, of carrying on our business; whether we are intemperate, etc. In these long continued and steadily acting causes is to be found the explanation—and until the causes of disease are understood, few men will treat them intelligently and successfully.

The cases that we have treated have been studied as far as we were able, on all sides; we wished to know all that could be found out about the patient's life. This may seem too simple, but gentlemen, concrete things, not abstract, cause disease. But to be more particular, let us consider the food part of the question. Starch and sugar contain but three chemical elements; yet they make up a large part of the diet of many.

The old saying is that "you cannot get blood out of a stone." Certainly phosphorus and nitrogen, to say no more, cannot be made out of carbon, hydrogen or oxygen; so on the side of chemistry alone, if a man or woman will persist in feeding on starch and sugar, they must not expect nature to break her laws and change her elements into others.

But, the excessive feeding of starch and sugar will in time produce the carbonic acid, and later on acetic acid fermentations in the alimentary tract. Carbonic acid gas is a poison, it paralyzes and kills men and animals when breathed; yet how many live with their stomachs bloated with this gas, wonder why they have heartburn, and their families mourn when they drop suddenly in the street from heart paralysis due to this same gas; or they keep on their way, living in spite of their vicious feeding, and the long continued paralysis may result in a fibrous degeneration of the lungs, the stomach, the liver, the kidneys or the spinal cord; or nature, instead of building fibrous tissue under this slow-going paralysis (for it is well to remember that nature does her best always), will lay in fat in these tissues and keep the bulk of them intact as long as she can.

A man on treatment for locomotor ataxy was much improved. Meeting a friend on Fifth Avenue, he said: "I want to go into Delmonico's and eat a big dinner; will it hurt me?" His friend was a physician, but knew nothing about his treatment; he however said "It will not hurt you." The man followed his advice, filled himself up with fermenting and fermentable food, with the result that the ataxia came back immediately—why, because the spinal cord was temporarily paralyzed by the carbonic acid gas. The same thing we have seen within a year in the case of a boy on treatment for the same trouble; his fond mother let him have ice-cream and a big dinner, and his legs were almost immediately paralyzed.

April, 1890, this boy is as bright and lively as most any of his age.

[4] For full account of these nine preceding cases see Albany Medical Annals, July and August, 1887, "Diet in Cancer," E. Cutter.

The various fibroid tumors are also instances of degeneration. Nature is doing her best, but she cannot lay down healthy tissues, so she builds with the poorest, to wit, the fibrous tissue. If this is not so, gentlemen, why did our cases recover? Granted we kept them quiet (when we could) and used every medical means our humble knowledge permitted us to prescribe; yet the main idea, and held to firmly, was that these were diseases of nutrition and must be attacked on that ground.

Cancer.

A woman of fine mind was attacked by two tumors in her 60th year, one just anterior to the right ear, the other below the right breast. By careful attention to diet, so that she lived plainly, by the use of alcohol baths, and by keeping her life in as even a tenor as possible, she lived till she was over 90, and then died of her disease which was called cancer. The tumor on the head had extended to the external angle of the eye; the tumor on the breast killed her.

A boy æt. 10 years, an orphan, picked up a precarious living setting up tenpins in a billiard alley; he was beaten with one and thrown out; the disease (fungus hæmatoides) commenced; when found, he was on the railroad track. The town authorities supported him as a pauper, and the disease before his death took in a great part of his body.

A woman carried for thirteen years a large abdominal multilobular, subperitoneal and pelvic fibroid. One early spring she was compelled to move into a house situated in marshy lands which had not been used during the winter. She took cold, was overworked, and the disease changed into cancer, attacked the bladder and caused death.

A young man of 30, who had lived a riotous life, died in great agony from no known cause. Post-mortem showed at least one hundred tumors in the peritoneal cavity, on the bowels, liver and other organs. The disease had invaded the vertebræ and the lungs. This man had money enough to buy good food but used the wrong.

A woman, æt. 35, was deserted by her husband. She sued for divorce and finally won her suit. In the meantime cancer appeared in the womb; the disease was arrested and held back for two years, but finally caused death.

In 1887 (*Albany Medical Annals*, July and August), the senior writer defined cancer to be "Tissue under Mob Law;" "Tissue Rioting." Tissue that the body systemic cannot govern, and hence the reversion to embryonic types and the frightful results sometimes seen in this overthrow of the law of the body systemic.

The blood, *i. e.* in our work, which extends over many years, does not show morphologically any causes; in the end it is impoverished and corpuscles changed, but we must say with all candor that we do not consider that cancer is a blood disease but a tissue disease. This is confounding perhaps our present ideas, but disease has many phases and we must not look on these matters from one side alone.

You may call if you please the cases that recovered not cancer; but the fact remains, that they were very sick people before the treatment and are not now. Let this committee take this idea, that *cancer is tissue under mob law*, and then attack it under all of the chances offered to promote the nutrition, and the members report in another year, the results. We could give you more cases, those under treatment at the present time. One case where the right breast had been removed; the disease returned, it was burnt out with cautery and finally came under our care last August, with a sore 4 inches long, 4 inches wide and 1 inch deep, pouring out the most filthy and stinking discharge. April, 1890, this woman is still alive; the sore is smaller, the discharge less. The treatment has been a rigid diet of chopped broiled beef, the application of tannic acid and quinine ointment to the sore; these applications agreeing better than anything else. Hæmorrhage is now not frequent. Still, her chances of recovery are very small. May, disease increasing.

We leave this part of our subject till treatment is considered.

THIRD SECTION—NEURASTHENIA IN MALES.

Where often the patients objectively appear like consumptives—occurring amongst business men and students, and is due to improper feeding.

We had intended giving statistics of fifty cases, but our report has grown to too large proportions to give these cases.

A preliminary report on this subject was presented to the Richmond Medical and Surgical Society, January 23, 1890, by the senior writer, and published in the *Virginia Medical Monthly* for February, 1890:

Some thirty years ago the writer was secretary of the Middlesex (Mass.) East District Medical Society, and, on being requested by me to do so, one of the members, Dr. ——, kindly stated his case to the Society, and asked for opinions and treatment. It dealt entirely with neurotic symptoms, which varied from time to time, and showed a lack of nerve force without any organic disease, which could be detected. The case was a poser; no expression of opinion nor of treatment could be drawn from the members. The doctor himself was a bright, careful, intelligent observer; and his relation showed that he had skillfully treated himself up to the then present state of knowledge.

After a series of cases had been worked up for several years, on which this paper is based, Dr. ——'s case occurred to mind, and he gratified me by sending, at my request, seven one-ounce bottles of morning urine voided on seven successive days. These specimens, when subjected to physical exploration, *showed the presence of a protoplasmic or colloid discharge*, which, in other cases, had been to me a sufficient evidence of one cause of male neurasthenia, and which it is proposed to explain.

Morphological Evidence.—This physical sign is found in the morphology of the urine. (See "The Clinical Mor-

phologies," E. Cutter, New York, 1888, p. 45.) It is not that observers have not noticed this discharge; they have, still they have regarded it of no pathological significance. Where we differ from them is that *we do regard it* as a valuable diagnostic sign of male neurasthenia. The way this difference of view came about was as follows: Since 1880 we have made a practice of studying the morphology of the urine of patients, *sometimes daily for weeks and months.* But coming upon neurotic cases, in which this colloid discharge was the only appreciable lesion, and finding that when such cases were treated and the catarrhal condition was removed, they always improved, and so long as the patient would follow out directions, the improvement continued, the senior writer was led to take the position here given, and I feel convinced that this complaint is a very common one, occurring often in old and young business men and students who are apparently well, save that their complaints of irritability, pains, sometimes excruciating, making them express themselves in terms which appear, to those most interested about them, whimsical, nonsensical, or, as we used to say in our boyhood, "hypoey." And I might remark here that I now think that, if these cases I knew in my boyhood, and were known to the whole community in which they dwelt as "hypoey," could have had the benefit of what is now understood, they would have passed from the opprobria which rested upon them by proving that there was a physical foundation for their condition, just as the women who had the same term applied to them in those days would have been relieved by finding some gynecological disease.

What to Look For.—In a case of male neurasthenia, which comes to you with a long story of aches, pains, weakness, and sufferings which appear so momentous that you wonder how the sufferer could be alive, and of having want of confidence in the medical profession to discover the seat of his complaint or to relieve him. Usually there is a degree of self-confidence and positiveness of statement in his own conviction, which reminds us of the same qualities we find in our better-halves. You look the case all over carefully; no lesion is found to explain such a great departure from normal innervation. You examine the urine; it appears clear, amber-colored, of good specific gravity, normal in odor, and all that is seen if you allow it to stand over night, is a light protoplasmic cloud, occupying, sometimes, the whole of the lower half of the vial. Or if in graduate glass measure, the cloud will swing halfway between top and bottom of urine. You cannot tell by the naked eye the characters of this discharge. It is put under the microscope, and the deposit is not made up of triple phosphates or urates; but if you use (as you had better use), a one-inch objective—which must be a good one, and the best are none too good—you will find, if the case is a typical one, collections of gluey (colloid), viscid matter, with no extra amount of mucous corpuscles or mucous epithelial cells, moulded in shapes like Indian clubs, varying in color from white to a brown; then, if you look further, skeins of colloid matter, curled up in fanciful shapes, sometimes separated into single filaments, and sometimes filling the field so full of the Hogarth lines of beauty that you cannot help expressing your surprise, perhaps to the discomfort of your anxious patient. Besides this, the discharge is sometimes diffused through the urine in a light, fleecy, unorganized cloud, which is sometimes difficult to recognize, *unless one is familiar with the protoplasmic studies.* Although these three forms are sometimes found together, still they are often found separate, so that, in enumerating them, we speak, *first*, of the protoplasmic; *second*, of skeins; *third*, of Indian clubs. *Next*, you should examine *seven successive specimens of seven days, i. e.*, one of each day, the first urine voided on rising. It has not seemed justifiable, in chronic cases, to base the diagnosis on one examination. For example, spermatozoa may be normally discharged once or twice a month, and if you happen to get a specimen on the day of that normal discharge, it will be unwise to jump into the conclusion that the case is one of spermatorrhœa.

Spermatorrhœa, according to my experience of thirty-six years, is a rare disease, and the diagnosis of it is not complete unless the forms are found very much oftener than the normal discharge.

I may be wrong, but I do not consider the finding of the colloid secretion in one specimen evidence enough; it must be found in a majority of the discharges for the days of the week. When you study urine daily, you will find that it varies very much. For example, in the cases in question I have been very much surprised to find them alternating on some days with albumen, casts of the kidney tubes and fatty epithelia, which I regard as a diagnostic of Bright's disease.

In both neurasthenia and Bright's disease of the kidneys there is more or less paralysis of the parts involved. Some regard the fatty degeneration as a means of staying the effects of the paralysis. In other words, that the destruction of the tissue would proceed more rapidly were it not for the fatty degeneration. Still the neurotic symptoms differ. In simple Bright's disease of the kidneys there is little pain, and when it occurs it comes from rheumatism, and even the neurasthenia which is found sometimes along with the Bright's. The subject is not fully worked up in this aspect and hence I cannot speak so confidently, but it is a very interesting matter for consideration why the loss of albumen should not cause pain, when the colloid and perhaps albuminoid discharges which are found in the complaint under discussion assuredly does. One thing is certain, that neurasthenics thrive in the open air, and are worse in indoor air. A clergyman with this trouble said he would be all right if he worked on a farm outdoors, but he wanted to use his brains in his work. A diet substantially what is lined out below cured him so that he now works indoors and has recovered from impotency. But air is food. There is as much difference between fresh and foul air, as between fresh meat and old.

As to the Importance of this Form of Neurasthenia.—When first acquainted with this disease, I knew it was hard to bear, but did not think it was dangerous; but I have had patients die with it, and the autopsies showed no sufficient cause of death. The manner of going out was with a sudden failure of the heart as if there was not enough nerve force to run it; so I am led to take a more serious prognosis. The patients may live, like Dr. ——, for thirty years, and though he considers that his life has been prolonged by the disease, because it has made him careful where he would have been careless, I believe there is danger, especially as the urine will alternate with albuminuria, fatty epithelia, and renal casts as before noted. This complaint is not due to sexual abuse, *i. e.*, as a sole cause; it is a food disease. The catarrh is mainly from the ducts of the prostate and spermatic glands.

APPENDIX.

Table of One Hundred Cases of Tuberculosis Pulmonalis.

SERIES I.—NON-ARRESTS—TWENTY-ONE CASES.

A.—*Cases that were not improved—nine in number.*

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
I. See illustrative case, p. 1, col. 1., a.		
II. Man. Middle-aged. Case 2. Loc. cit.	Father of case XLIII. Not so much disease as in son.	Death in a few weeks.
III. Woman, 35. Case 4. Loc. cit.	Advanced disease. Three years' standing.	Digestion improved. Diet relished but of no avail; died in a few weeks.
IV. 1873. Boy 19. Case 8. Loc. cit.	Acute tuberculosis and peritonitis. Blood morphology of tuberculosis.	Treatment of no avail. Diagnosis confirmed by post-mortem.
V. 1873. Woman, 55. Case 15. Loc. cit.	Aphonia. Larynx infiltrated, thickened and inflamed. Vocal cords swollen, ash colored and stiff. Tuberculous blood morphology. Chest emaciated, flattened. Coarse and fine rales and cavernous respiration at apices.	Symptoms relieved. Death in nine months.
VI. 1889. Girl, 22. Unpublished.	Tuberculous blood. Crackling through right lung front and back, and upper third left lung. Asthma. Diarrhœa. Night sweats. Copious expectoration. Lung fibers in sputum.	Slight amelioration of symptoms. Death in two months.
VII. 1887. Man, 22. Unpublished.	Tuberculous blood. Much disease in lungs.	Plans followed out faithfully. Death.
VIII. 1886. Girl. Unpublished.	Tuberculous blood.	Treatment carried out faithfully. Of no avail.
IX. Woman. Unpublished.	Tuberculous blood. Cavity in apex of each lung.	Had uterine disease which she would not have treated; retarded case; death.

SERIES I.—NON-ARRESTS.

Cases that were on partial diet; were too irresolute; had bad surroundings, financial, climatic, &c. Twelve in number.

X. See illustrative case, p. 1., col. 2., b.		

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
XI. 1879. Dr. ———, 72. Case 3. Loc. cit.	Tuberculosis, as diagnosticated by Dr. H. I. Bowditch.	Partial treatment. Was improved. Death in three months.
XII. Man, 40. Case 5. Loc. cit.	Grave general symptoms. Local disease in lungs not so well marked.	Followed up treatment feebly. Death in few months.
XIII. Woman. Case 6. Loc. cit.	Advanced tuberculosis of both lungs; great weakness, prostration and impaired morale. Night sweats.	Followed up treatment faintly. Died in a few weeks.
XIV. 1877. Woman, 34. Case 9. Loc. cit.	Acute tuberculosis in the puerperal state. Hemoptyses before and after labor. Disease in upper third right lung. Blood morphology tuberculous. Patient poor and house dark and damp.	Died in two weeks. Life perhaps might have been saved if there had been a sanitarium to treat her case in.
XV. April, 1877. Irish girl, 17. Case 10. Loc. cit.	Undersized, pale, thin, feeble, downcast. Cough; copious expectoration; loss of flesh and strength. Blood tuberculous. Diet had been mainly flour, potatoes and tea.	Did not follow up treatment closely; was improved but died in October, 1877.
XVI. 1877. Dr. ———, 37. Case 11. Loc. cit.	Tuberculous blood. Disease right upper third front and back. Throat inflamed throughout.	Throat treated with solution liq. per sulphate iron and glycerine, equal parts. Lived on New England rum and cream; some improvement and then gradual increase of disease, and death in three months. The blood was not improved by this dietary.
XVII. 1873. Woman. Case 12. Loc. cit.	Early stages of disease. Throat inflamed.	Had bad surroundings as to finances and did not follow out treatment. Retrograded and died.
XVIII. 1874. Girl; daughter, case XVII. Loc. cit. Case 13.	Tuberculous blood. Disease started in lungs.	Not seen again; ordered on diet which was not followed out. Death in six months.
XIX. 1876. Irishwoman. Case 14. Loc. cit.	Tuberculous blood. Disease in right lung.	Treatment not followed out. Death.
XX. 1875. Man. Case. 16. Loc. cit.	Marble-worker. Vocal cords thickened and ulcerated. Arytenoid cartilages enlarged. Blood tubercular. Disease at apices of both lungs.	On strict diet for a month. Wife sick in bed. Becoming discouraged gave up treatment altogether. Died.
XXI. 1874. Woman. Middle-aged. Case 17. Loc. cit.	Been called consumptive for years. Farmer's wife and a hard worker. Advanced tuberculosis. Blood tubercular.	Partial diet. Great deal of medicine. Perhaps would have been saved if treated earlier.

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
Series II.—Partial Arrests. Thirty-nine Cases.		
A.—Cases that followed the treatment faithfully—nineteen.		
XXII. See illustrative case, p. 2, col. 1, a.		
XXIII. Man. Case 18. Loc. cit.	Severe pulmonary hemorrhage. Dulness on percussion and crackling over left upper third front; emaciation; cough and night sweats.	Would not take cod liver oil, then, as now a standard remedy; ate pound and a half of butter a day; restored to duties and lived twelve years. Death from profuse hemorrage. Post-mortem showed lung healed—three cavities—on right side and some new disease in the left lung.
XXIV. Woman, 24. Case 20. Loc. cit.	Primipara; disease right upper third front; after labor, suffered with prolapsed ovary, which caused much reflex pain. Blood tuberculous.	Treatment of pelvic disease successful. Restored to health. Lost sight of.
XXV. 1876. Man, 27. Case 22, Loc. cit.	Chest flattened; coughs all night. Sweats; debility; dyspepsia, enteralgia and gastralgia. Insomnia. Gone to bed to die.	Strict diet and no medicines stopped cough in three days. Improved and returned to work as plumber; was drenched by water from a burst pipe; contracted pneumonia; was placed again on strict diet, but never recovered from shock. Death.
XXVI. 1878. Man, 65. Case 25. Loc. cit.	Cough; expectoration; loss of flesh and strength; abnormal heart sounds; night sweats; dullness on percussion, expiratory crackling, left upper third front; tuberculous blood.	Strict diet, returned to business in a year: Died in 1878 with cardiac symptoms.
XXVII. 1876. Man, 30. Case 28. Loc. cit.	Tuberculous blood; distorted chest; severe cough; profuse hemoptyses; disease in both lungs; weight, 65 pounds.	Gained 20 pounds in four weeks; followed diet more or less closely for a year; disease arrested for a time; a man of great courage and should have been treated earlier and saved.
XXVIII. 1877. Girl, 17. Case 30. Loc. cit.	Throat inflamed; chest thin; case as to blood and lungs between pretuberculosis and tuberculosis. Splenic enlargement.	Local treatment to throat. Milk diet. Do not know final result. Case was improved.
XXIX. 1877. Man, 33. Case 34. Loc. cit.	Laryngeal inflammation. Cardiac hypertrophy. Tubercular blood; disease left lung; dyspnoea. Prognosis doubtful.	Local treatment for throat. Milk diet. Later some leeway as to food. Case reported well 1879.

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
XXX. 1877. Irishman. Case 35. Loc. cit.	Disease upper part of both lungs. Tuberculous blood. One month later, left upper third, tympanitic percussion, metallic tinkling, splashing on succussion. Lower thirds flat. Respiratory murmer absent.	On strict diet. Did not expect him to recover from pneumothorax, but lung healed over and man died several years later of other trouble.
XXXI. Young lady. 1873. Case 36. Loc. cit.	Disease in both lungs; left lower third almost hepatized. Blood tuberculous. Died in 1875.	Improved while at home and on strict diet; visited, ate wrongly; disease lighted up again.
XXXII. 1874. Brother case XXXI. Case 37. Loc. cit.	Been sick four years. Lived out of doors; depressed in mind, as he was not earning money.	Case improved. Was able to work as a clerk in a harbor steamer. Died, 1880.
XXXIII. 1876. Man. Case 38. Loc. cit.	Violent hemoptyses. Disease in both lungs; not afraid to die.	Took cod liver oil besides the general plan here laid down. Jan. 1877, blood and lungs much better. Living in Tennesee, October, 1879.
XXXIV. Frenchwoman. Middle-aged. Case 39. Loc. cit.	Disease right upper third. Tubercular blood.	Strict diet closely followed. Well at last accounts.
XXXV. 1874. Woman, 24. Case 40. Loc. cit.	Dyspnoea; hypertrophy of heart. Disease apices of both lungs; had given up school teaching to die. Tubercular blood.	Adhered closely to diet. Local treatment for throat. Was able to return to her teaching; overworked; disease returned; profuse hemoptyses; death.
XXXVI. 1874. Man, 21. Case 42. Loc. cit.	Marked diseased apices of both lungs; an unpromising case.	Improved and went to California. Died there.
XXXVII. 1877. Woman, 36. Case 43. Loc. cit.	Blood tuberculous. Laryngitis. Uterus anteverted. Disease left upper third front.	Unlike majority of cases did not treat uterus; case improved but finally retrograded and died.
XXXVIII. 1886. Woman, 24. Case unpublished.	Disease in both lungs.	Arrested for two years Died March, 1889.
XXXIX. 1887. Man, age 24. Unpublished.	Disease in both lungs as diagnosticated by his physicians. Not seen by us.	Improvement and disease arrested for two years.
XL. Man. Unpublished.	Considerable disease.	Arrested temporarily.

SERIES II.—TEMPORARY ARRESTS.—*Continued.*

B.—*Cases that did not follow the treatment faithfully—nine.*

XLI. See illustrative case, p. 2, col. 1 and 2, b.		

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
XLII. Woman, 30. case 19. Loc. cit.	Between pretuberculosis and tuberculosis.	Attention dismissed early, and case died in six months.
XLIII. 1874. Youth, 21. Case 24. Loc. cit.	Advanced tuberculosis; diet had been mainly flour.	Great improvement under strict animal food diet. Returned to work. Resumed former diet; died in 1876.
XLIV. Man, 50. Case 26. Loc. cit.	Left upper third chest, cavernous respirations and amphoric tinkling; elsewhere crackling and diminished respiration.	Rigid diet. Much improved. Appetite returned and ate anything desired; death.
XLV. 1875. Man, 43. Case 31. Loc. cit.	Malaria and abdominal tumor, 1860; cured. 1875, worked too hard, and lung and throat trouble came on.	Improved while on treatment; not encouraged by wife; gave it up and died, 1876.
XLVI. Woman, 29. Case 32. Loc. cit.	Pretuberculosis. Under strain and grief, ran into tuberculosis.	Was improved while under close observation and followed treatment; finally said she would eat what she pleased; did so and died.
XLVII. 1877. Woman, 34. Case 33. Loc. cit.	Asthmatic. Disease in right lung. Arytenoid cartilages inflamed.	Disease arrested. Went from observation and gave up treatment.
XLVIII. 1880. Man, 54. Unpublished.	Heart enlarged. Angina pectoris. 1886, lungs becoming affected with great deal of disease.	1880, heart reduced to normal size by diet. Would not follow diet when lungs became affected and died, 1889.
XLIX. 1887. Woman, 46. Unpublished.	Disease in both lungs. Asthmatic. Heart enlarged.	Improved while following treatment closely. But could not control appetite and would steal food; died 1889.

SERIES II.—TEMPORARY ARRESTS.—*Concluded.*

C.—*Cases that had bad surroundings; that died of pneumonia, &c.—eleven.*

L. See illustrative case, p. 2., col. 2., c.		
LI. 1876. Woman, 33. Case 19. Loc. cit.	Lived in a damp, musty house. Caught severe cold. Disease upper third front. Tubercular blood. Throat much inflamed.	Improved. Passed from under my care. Disease returned. Treated by Homœopathy. Death.
LII. 1876. Woman. Middle-aged. Case 41. Loc. cit.	Disease left lung; Cough. Expectoration. Hemoptyses.	Did well while senior writer supplied her with beef. On his moving away from that town, supply ceased; case died.
LIII. 1882. Man, 24. Unpublished.	Small cavities in both lungs; disease arrested for two years.	Died of pneumonia.

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
LIV. 1883. Man, 26. Unpublished.	Cavity in right lung.	Disease arrested for a year. Cough stopped. Died of pneumonia caused by exposure in a rain storm.
LV. 1887. Man, 64. Unpublished.	Disease upper third left lung.	Improved. Died of pneumonia.
LVI. 1887. Girl, 22. Unpublished.	Cavity left lung.	Arrested for a year. Disgraced socially by a certain crime committed. Disease resumed its sway; death.
LVII. 1887. Man, 50. Unpublished.	Disease in both lungs.	Arrested for a year. Died of pneumonia; family refused the services of a trained nurse.
LVIII. 1887. Man. Unpublished.	Disease in both lungs.	Arrested; death from pneumonia.
LIX. Man. 1887. Unpublished.	Considerable disease.	Arrested for two years. Died of pneumonia.
LX. Man. Unpublished.	Disease right lung.	Arrested for one year. Died of pneumonia.

It may be said that we were not very successful in our treatment of pneumonia complicated with tuberculosis. The complication is a grave one, and is usually the result of carelessness; still, many recover; we have seen cases of tuberculosis under treatment who had gotten the blood in good condition, and on contracting pneumonia, almost always pull through; one difficulty is in not treating the cases early enough, *i. e.*, not arresting the congestion. But if the blood is full of emboli of yeast and fibrin filaments and massed corpuscles, there is a great plenty of quick work to be done to relieve the engorged lung and help the heart; each case needs its own treatment; pneumonitis in those called well is a more fatal disease than it ought to be, as the laity have been educated into such a dread of it, that when pneumonia is pronounced, they are apt to give up all hope; antipyrin and the newspapers killed many of the cases that died during the late epidemic.

SERIES III.—ARRESTS MORE PERMANENT IN CHARACTER, AND MIGHT BE TERMED CURES IF OCCURRING IN OTHER DISEASES.

A.—*Tubercular—thirty-two.* B.—*Pretubercular—eight.*

LXI. See p. 3, col. 1.
Mrs. Wall's case.

LXII. See p. 3, col. 1.
Young Man's case.

LXIII. Woman, 20. 1865. Case 44. Loc. cit.	Cough, expectoration; wasting of flesh; loss of appetite; dullness on percussion and crackling right upper third front. Predisposed to tuberculosis.	Animal food diet repulsive, but she was encouraged by her relatives. Was cured and remains so, 1878; thirteen years.
LXIV. Man, Dec. 1862. Case 45. Loc. cit.	Diagnosis, double pleurisy and tubercle—so made by the late Dr. Benj. Cutter. Medication did little if any good.	Was ordered to have killed a fat hog which he owned and to eat it. This was done; man not seen again till 1878; then alive and well.

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
LXV. Girl, 16. 1878. Case 46. Loc. cit.	Sister dead of tubercle. Blood tubercular; disease right upper third front.	Placed on rigid diet. Was cured and remained so, 1880.
LXVI. Woman. 1872. Case 47. Loc. cit.	Cough, emaciation, copious expectoration; dullness on percussion and expiratory crackling well marked over left upper third.	Followed treatment faithfully and was rewarded by restoration to health.
LXVII. Girl, 24. 1875. Case 48. Loc. cit.	Right upper third front and back dullness on percussion; crepitant rales and tubular respiration. Tuberculous blood. Diagnosis of tubercle given by late Dr. William F. Stevens, of Stoneham, Mass.	Lung healed by diet. Has been troubled by a uterine fibroid, and pelvic abscess but pulmonary disease in abeyance.
LXVIII. Man. 1873. Case 49. Loc. cit.	Copious hemoptyses. Lung breaking down.	Heart's action controlled with veratrum; alcohol to outside of chest. Rest; strict diet. Cure.
LXIX. Woman. 1873. Case 50. Loc. cit.	Hard-working woman. Emaciation; cough; disease upper part right lung. Blood tuberculous.	1877 in quite good condition. 1889, Aug., no cough; dry rales right lung; has to work hard; troubled with uterine disease.
LXX. Woman, 34. 1877. Case 51. Loc. cit.	1866, Dr. Buzzell of N. Y. sent her to Wales to recover from hemoptysis, cough and copious expectoration by diet of mutton, milk and mountain air.	Result desired in 1886 achieved. 1877, blood pretubercular; was run down; placed on diet and cured. Seen 1890, well.
LXXI. German, 32. 1877. Case 52. Loc. cit.	Disease, right lung. Abject feebleness. No appetite. Feared tubercle. Night sweats.	Gallon of milk a day. Case made rapid progress to health.
LXXII. Girl, 18. 1877. Case 54. Loc. cit.	Disease lower part of left lung. Blood tuberculous.	Was dieted faithfully and cured.
LXXIII. Irishman. 1876. Case 55. Loc. cit.	Tubercle diagnosticated by other physicians, upper thirds both lungs. Blood tuberculous.	Was cured.
LXXIV. Girl, 16. 1875. Case 56. Loc. cit.	Sister dead of tubercle. Disease upper portion left lung.	Partial diet on which she recovered.
LXXV. Woman, 38. 1877. Case 51. Loc. cit.	Blood tuberculous. Throat inflamed. Pharynx inflamed. Cough; some expectoration. Lung not much affected.	Was pulled out of her condition and is living, 1890.
LXXVI. Woman. 1873. Case 58. Loc. cit.	Disease upper part left lung.	Restored to health by partial diet. Treated for uterine disease, 1874. 1880, well.
LXXVII. Man, 50. 1874. Case 59. Loc. cit.	Disease left upper third front.	Strict diet. Cured of tubercle and asthma. Remains so, 1880.

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
LXXVIII. Irish boy, 17. Case 60. Loc. cit.	Tuberculous blood. Acute tuberculosis right upper third front.	Diet followed out faithfully, Cure.
LXXIX. Woman, 34. 1871. Case 61. Loc. cit.	Chronic cough; expectoration, disease not well marked as yet in lungs. Blood tuberculous.	Remained well under treatment till 1888, and return of trouble; was again dieted with success.
LXXX. Girl, 20. 1878. Case 62. Loc. cit.	Chronic cough; free expectoration; night sweats; pallor; weakness; chest first stages of disease; blood tuberculous.	Cured and remains so. 1880.
LXXXI. Woman. 1871. Case 63. Loc. cit.	Blood tuberculous. Disease right upper third front; cough; severe hemoptysis. Family consumptive; pharynx inflamed, especially patch on posterior pillar palate.	Health restored, 1877. Copious hemoptysis after excitement; heart laboring too much, 1878; uterine disease, restored blood to its tubercular condition; treated energetically and remains well, 1880.
LXXXII. Girl, 17. 1875. Case 64. Loc. cit.	Severe hemoptysis. Cough; lungs not much diseased; heart enlarged; blood tuberculous and syphilitic.	Cure.
LXXXIII. Woman, 35. 1881. Unpublished.	Cavity upper part of left lung.	Was cured positively and died of pneumonia, 1885.
LXXXIV. Girl, 20. 1886. Unpublished.	Hemoptysis. Lung fibers in sputum; blood tuberculous.	Cured and remains so, 1890.
LXXXV. Woman, 50. 1887. Unpublished	Disease base right lung. Breath fetid. Heart enlarged.	Is called a trophy, but may yet go under in her slavish attention to household duties. 1890.
LXXXVI. Woman. 1881. Unpublished.	Crackling and cavernous respiration upper third right lung; inelastic fiber in sputum. Retroversion uterus.	Cured. Wore Cutter Stem Pessary. Died 1889 of typhoid fever; lung remained healed.
LXXXVII. Woman, 48. 1886. Unpublished.	Lung fibers in sputum. Gravel of lungs. Asthma. Tuberculous blood. Albumen, fatty epithelia and casts in urine. Small fibroid tumor of womb, anteversion and anteflexion.	A tough case. Cured of renal and pulmonary troubles; tumor disappeared under diet. Wore Cutter Stem Pessary to California via Isthmus of Panama. Comparatively well as a valetudinarian. 1890.
LXXXVIII. Woman, 38. 1885. Unpublished.	Disease in both lungs. Uterine disease.	Cured of lung lesion, and fairly well 1890.
LXXXIX. Girl, 20. 1885. Unpublished.	Disease upper third left lung. Lung fibers in sputum. Uterine disease.	Cured; remains so, 1889.
XC. Man, 40. 1882. Unpublished.	Cavities in both lungs. Profuse hemoptyses. Night sweats. Said to be absolutely incurable.	Cured and remained so for two years. Have lost track of him.

No. Date. Sex. Age. Publication.	Condition when Placed on Treatment.	Remarks.
XCI. Man, 60. Jan. 1889. Unpublished.	Disease in both lungs.	Promptly arrested and patient satisfied after three months of treatment.
XCII. Woman, 26. 1887. Va. Med. Monthly, Dec. 1888, and Sep. 1889.	Disease through middle of left lung and at apex. Uterine disease. Hemoptyses. Lung fibers in sputum.	Disease arrested and patient died Aug. 1889, from the results of a meningitis and bowel lesion of fibroid thickening.
B.—*Pretubercular cases treated that may come under this head.*		
XCIII. See p. 3, col. 2.		
XCIV. Physician, 45. 1877. Case 66. Loc. cit.	Takes cold easily. Ulcerated sore throat. Weak and debilitated; loss of flesh; cough and expectoration. Slight diminished resonance on percussion, diminished respiratory murmur, strong expiratory murmur, upper right front. Blood tuberculous.	Dieted but not very faithfully. In 1880, well.
XCV. Man, 24. 1876. Case 67. Loc. cit.	Father dead of tubercle and sister dying. He had lost flesh, strength and voice. Pale and anæmic. No lung lesion. Blood pretubercular.	Treatment resulted in removal of blood morphology of disease. Is well.
XCVI. Woman, 24. 1877. Case 68. Loc. cit.	Phthisis hereditary. Enlarged lymphatic glands. Uterine disease. Diminished respiratory murmur throughout the right lung. Pretubercular blood.	Milk diet. Blood became normal. Glands nearly disappeared.
XCVII. Woman, 30. 1877. Case 69. Loc. cit.	Small fibroid tumor of womb. Menorrhagia; blood pretubercular.	Blood restored to health and tumor disappeared under diet influences.
XCVIII. Girl, 21. 1877. Case 70. Loc. cit.	Feeble respiration right lung. Blood pretubercular. Debility; cough; uterine disease.	Pyrophosphate of iron. Strict diet. Rest. Entire recovery.
XCIX. Woman, 25. June 1888. Va. Med. Monthly, Dec. 1888.	Mother and brother dead of tuberculosis. Weight, 248. Red corpuscles pale in color and sticky. White corpuscles enlarged with spores of vinegar yeast. Spore collects in serum spaces. Also crystals of cystine.	Fatty heart. Dieted for six months. Weight 150 lbs. Calls herself well March, 1890.
C. Man, 60. 1878. Unpublished.	Heavy cough. Brother dead of tuberculosis. Corpuscles massed. Yeast and fibrin filaments present.	Dieted and cured. Lived in Japan several years. Well, March 1890. Diet principally beef and bread. Lives in the South in winter; is a hard worker in his profession.

CAUSES OF HEART DISEASE.

SUDDEN DEATH LIKE THAT OF SECRETARY WINDOM MAY BE PREVENTED BY PROPER CARE AS TO FOOD.

To the Editor of the Tribune.

SIR: The sudden death of Secretary Windom in the midst of the life of a great banquet shocked the whole country more from the greatness of the man and occasion than because of the mode of death, which is alarmingly frequent throughout the land. Almost every *Tribune* reports two or three cases of people falling dead. Within a comparatively short time I can recall among my own family connections several such deaths. The time has come when any one who knows, or thinks he knows, of any new light on the subject should bring it out. In *The Albany Medical Annals*, *The Virginia Medical Monthly*, and at the 1890 Berlin Medical Congress the writer has done so. Secretary Windom's last words were almost descriptive of his own case: "As poison in the blood permeates arteries, veins, and heart, and speedily brings paralysis and death" (mark the word death), "so does a debased or fluctuating currency permeate all the arteries of trade, paralyze all kinds of business, and bring disaster to all classes of people. It is as impossible for commerce to flourish with such an instrument as it is for the human body to grow strong and vigorous with a deadly poison in the blood." The point is, there are things in the blood which cause death suddenly from obstruction of the blood stream, and which come from improper food. Not that they act at once, but when they do act they act quickly. The heart is made big, irritable, weak, and diseased from overwork, which comes from the greater force needed to do its work. To these cases give proper food, and then nature will clear the blood, and the heart will become normal by having its load of work removed. Some of the ways in which improper food acts are:

1. Rendering the blood more viscid, adhesive, and sticky.

2. By filling in physical obstructions in the blood stream by making the normal fibrin filaments massive and large, forming threads, skeins, tresses, clots, and plugs which sometimes enclose gravelly bodies within. This gravel also is formed from improper food. This idea needs a volume to expand it in.

3. Fatty degeneration, from carbohydrates in excess and fermentation in the alimentary canal. This is a common cause of heart trouble, and the fatty degeneration may be found in (besides the heart) (a) the brain, (b) the kidneys, (c) the eyes, (d) the liver, (e) the muscles, etc. The common name of (a) is apoplexy, (b) Bright's disease, (c) amaurosis, (d) fatty liver, (e) fatty muscles, etc.

Now, the American idea of treating the heart when it is diseased from overwork, owing to the above-named causes in the blood, is to stop the bad food

and give good food. Nature will then remove from the blood stream the physical causes of obstruction, and the heart will come down in size and be restored, simply because it has no more than its normal work to do. This is a principle of surgery—to wit, to remove a foreign body from the eye, and the eye gets well of itself; nature will always cure if she has a chance. This is repetition, but there is need of it.

Few have any idea of the distance the blood has to travel in the human body. If the capillaries, which are 1-3000th of an inch in diameter, of the human body could be removed and put into one straight line, it is estimated that this line would reach round the globe; call it 1,000 miles, it is clear that it will take force to project water through such a tube, and that it would take more force to project molasses. Now, if the heart projects normal blood through this tube, it is also clear that it would have to work harder to project abnormally thick blood, and so doing would grow bigger. The nerves of the heart are automatic, and do their work in their way as the nerves of the head do theirs. They appear to know when there is obstruction to the circulation, and they make the heart beat harder. Death would result if the heart did not beat harder. Sometimes the contractions of the heart are so severe as to "break the heart." Time has proved the wisdom of lessening the size of the heart by proper food.

In fatty degeneration fat is deposited in the place of the muscle tissue of the heart. Fat deposited outside the heart is not so bad as when fat takes the place of the ultimate muscular fibrillæ. Now, what is to be done for this fatty degeneration? Take advantage of the law whereby all our body tissues, except hair, teeth, and nails, change once in seven months (not years), to wit: Lay down healthy muscular tissues in place of fat. Can this be done? It can. It has been done so often that to some it has ceased to be the grand and wonderful phenomenon that it really is. This is attested:

1. By a return of the heart sounds to their normal loudness and distinctness of pronunciation. A fatty heart sounds weak and faint, as if covered with a woollen blanket.

2. By a return to normal size.

3. By the disappearance of the short breath, palpitation, pain, etc.

4. By ability to bear exertion.

When I was a medical student a snake was brought to be killed. It was in a deep empty glass jar, and a stream of carbonic acid gas was turned on. In a few minutes it was dead. All the gas was not used, but was turned on to the back of my hand; soon the skin was a livid lead color, was devoid of feeling and paralyzed. Now, this gas, largely formed in the stomach, becomes absorbed through the heart sac and paralyzes the heart. Probably this was so with Secretary Windom. He had eaten, and then he spoke. The force used in speaking was taken from the work of digestion, so that the food fermented; or he may have been drinking carbonic acid water, and the stomach was full of carbonic acid gas. Thence it exosmosed into the heart sac, and death followed. I knew a doctor (who knew better) to die from eating food which he knew would ferment, simply because he preferred the taste of his viands to their pathological effects. He is

not alone. So long as mankind lives to eat, and does not eat to live, just so long will sudden deaths from weak hearts occur. If such physiological sins could be cured by injecting lymph underneath the skin, such treatment would be immensely popular. But such treatment deals with results. The best treatment deals with causes. In the present case stop the causes —improper food and its results—and give proper food, and then nature cures. It is not a wonder that Secretary Windom died; it is a marvel that he lived as long as he did. If his previous history is correctly given, he had symptoms of heart disease for some time He was liable to die any moment, as Dr. Sims died in bed, the Rev. Dr. Dexter on a lounge, Dr. Cowden at the bedside of a patient, Almon W. Griswold, Esq., on the Elevated road, and many others We should be thankful that Secretary Windom was permitted to read his address, and thus splendidly close his life; for, so long as he lived on the conventional diet of starch and sugar in excess, no one could tell how long he could survive.

Again, Secretary Windom had treatment, but it was neutralized by a too close attention to business, and possibly by the late financial world-wide panic in which people looked to Government for relief for the evils brought on by speculation. People forget it is work to live—that each person has a limited amount of dynamic energy to expend in doing life work. Ten hours of brain-work a day are enough. Longer work than this steals from some other organ. If it is the heart, it will give out. If it is the stomach, it will not digest the food. If one has a broken bone and works too hard, the bone will not unite. So, when people overeat, or eat food that is hard to digest, they put a like strain on their system. The love of the beautiful in eating kills many by making poison, or things that act like poison, in the blood. I have seen fatty degeneration of heart caused by phosphorus, which kills in twenty minutes. Again, it is said that snake's venom coagulates the blood more or less. Now, improper food coagulates the blood more or less. This invests the above quotation from Secretary Windom's last words with intense interest. It seems as if they were inspired. May we take warning! May our great men, whose lives are so precious to our land, eat to live, not live to eat, and may the time come when our public banquets shall have menus based on advanced physiological ideas as to food, and not on the conventional idea of nameless French cooks who exalt the æsthetics of the palate, eye, nose, and ear above the weal of the stomach, the heart, the brain, and the kidneys!

EPHRAIM CUTTER, M.D.

[The New York *Tribune*, March 1st, 1891.]

EPHRAIM CUTTER, M.D., LL.D., Hon. F.S.Sc. (Lond.).

Use of Clinical Microscope, 1-10 inch objective, with direct light of candle.

Fig. 1.

Fig. 2.

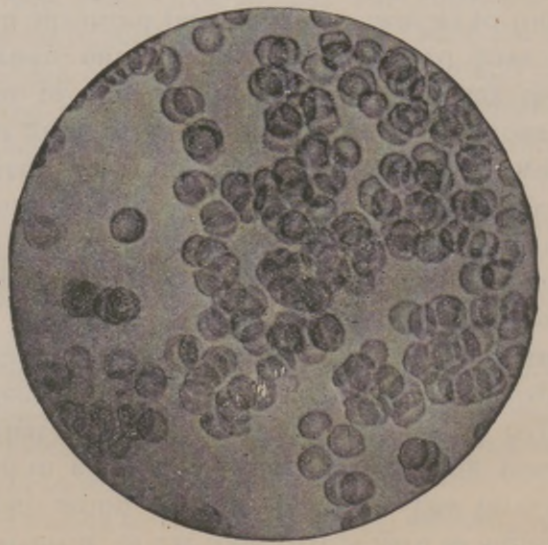

FIG. 1.—Microphotograph, one-fiftieth in. objective, Tolles. Taken in 1876, by E. Cutter. Healthy blood. Special object focussed for was the white corpuscle. Compare it with Fig. 1, Plate III.
FIG. 2.—Healthy blood, one-sixteenth inch objective, Tolles. E. Cutter, 1883.

Plate II.

Fig. 1.

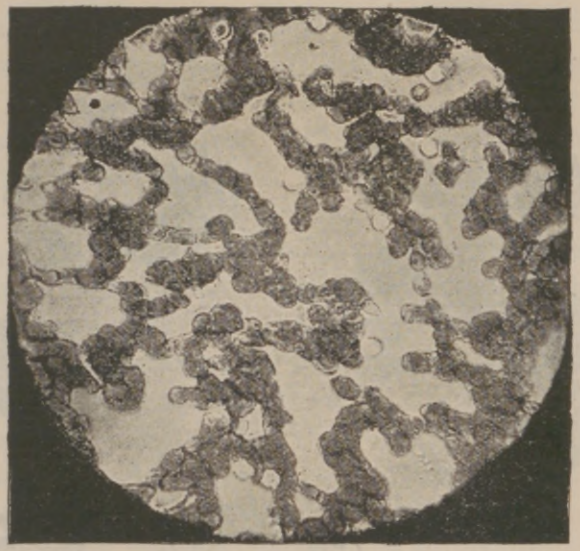

Fig. 2.

FIG. 1.—Ropy, sticky and adhesive blood as found in cases of Tubercle and Rheumatism. Here it is from Tubercle and contains vinegar yeast. Microphotograph, one-sixteenth inch objective. E. Cutter, 1876.

FIG. 2.—Microphotograph, one-sixteenth inch objective of Tolles. Tuberculous blood; case under treatment and shows improvement. There is an endeavor to rouleaux rightly. The vinegar yeast is not so plenty. E. Cutter, 1876.

Plate III.

Fig. 1.

Fig. 2.

FIG. 1.—Microphotograph, Tolles, one-seventy-fifth inch objective. The first taken; by E. Cutter and G. B. Harriman, D.D.S., of Boston, 1876. Tuberculous blood. Three white corpuscles distended and the fourth ruptured by spores of vinegar yeast.

FIG. 2.—Microphotograph, 1876. E. Cutter. Taken with Tolles' one-fiftieth inch objective. Fibrin filaments in excess as found in tuberculous, embolic and rheumatic blood.

Fig. 1.

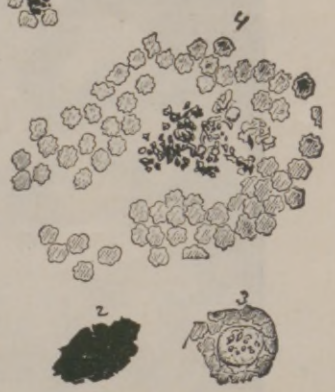

Fig. 2.

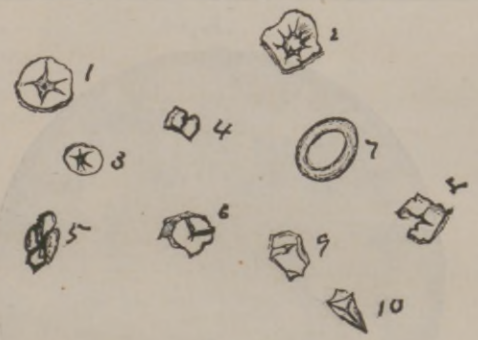

Fig. 3.

FIGURES 1 & 2.—Crystals and crystalline bodies found in the blood of cases of Rheumatism.

FIG. 3.—Crystals of cystine found in the blood of a case of Sciatica.

See also Food and Tubercle. E. Cutter. Plate II, Fig 1, and Plate III, Fig. 2.

Crystals, crystalline bodies, and gravel found in asthmatic expectoration and in hay-fever; also Spirilina splendens (Salisbury), in obstinate cases of Asthma. (E. Cutter, 1883.)

EPHRAIM CUTTER, M.D., LL.D.

The recent election of this distinguished practitioner of medicine and scientist (whose professional writings number over 350) to the presidency of the American branch of the Society of Science, Letters, and Art of London, and the presentation of five papers and addresses by him to the great Medical Congress held in Berlin in August,* prompt me to give a brief account of his life and work.

Dr. Cutter was born at Woburn, Massachusetts, September 1st, 1832; was educated at Warren Academy, and was graduated from Yale University in the Collegiate Department in 1852. The following year was spent in teaching in Warren Academy, the next four at the Medical Departments of Harvard and the University of Pennsylvania, and was graduated from them in 1856 and 1857 respectively. His preceptors in medicine were his father, Benjamin Cutter (M.D. Harvard and University of Pennsylvania, and M.A. H. U.), Profs. Oliver Wendell Holmes, Henry I. Bowditch, and Josiah P. Cooke. From his great-grandfather, Amos Whittemore, the inventor of the card machine, he inherited not only inventive genius, but the most valuable attribute of an inventor—not to know what an obstacle is and next the ability of telling mechanics just what is wanted. His father, Dr.

* "Food and Tubercle," "Physical Causes of Heart Diseases and Treatment," "Food in Fibroids," "Electrolysis of Tumors," and "Cutter's Stem Pessary."

Benjamin Cutter, honored his profession for forty years. The subject of this sketch did not wish to practice, but to study causes of disease. This he was encouraged in, and the result is not only most valuable facts gained as to causation of diseases, but a thoroughly trained practitioner, whose greatest delight is in attacking disease by stopping its causes. He practiced in Woburn and Boston till 1875, then in Cambridge and Boston till 1881. And at that time, at the advice of his friends, Drs. J. Marion Sims, L. A. Sayre, G. M. Beard, and E. S. Gaillard, he removed to New York, where he has since resided. Two of his sons are professional musicians in Boston. The third practices with his father in New York.

The following is condensed from a statement made by petitioners to the faculty of Iowa College for the degree of Doctor of Laws, which was conferred on him in 1887:

INVENTOR OF

atomizer for dental anæsthesia, 1868; pessaries of Cutter, especially the stem, 1864–1871—English students of medicine are examined upon them before receiving degree; vaginal sound; electrodes and batteries, Nos. 1, 2, and 3, for electrolysis of uterine fibroids, 1872; vaginometer, 1866; new metallic suture, 1869; scarificator for laryngeal growths, 1868; scarificator for blood examination, 1868; écraseur for removal of growths from deep cavities, 1870; Eustachian catheter, 1871; new invalid bed for anchylosis of both hip joints, 1874, mentioned in Gross' "Centenary of American Medicine," 1876.

New vaccine virus cell, 1872; new retractors for thyrotomy, 1866; apparatus for rarefied and com-

pressed air inhalers, three kinds, 1875; ditto 10r resuscitation of drowning persons, 1875; œsophageal forceps, 1875.

Three forms of the clinical microscope, one of which is seen in photograph, invented between 1869 and 1875. These simplify microscopy, making clinical work at bedside, in cars, on the sea, in hospitals, etc., possible, and allow of the use of the highest power objectives, as, to wit, the one-fiftieth and one-seventy-fifth inch in microphotography, thus doing away with many details with which this art was bound up.

Cam fine adjustment with the late Dr. Elsberg for microscope stage, 1885.

Galvano-caustic holders, 1875; resting chair with fracture apparatus, 1873, now made in London; active and passive inhaler for nascent chloride of ammonium in acute diseases, 1874, now made in London; generation of steam with atomized fluids (in this country), 1870; new ear speculum, 1870; laryngoscope, and made by Alvan Clarke in 1859; new sponge attachment to bougies, 1868; treatment of sore nipples by cork shields, 1874; new hypodermic syringe, 1873; a stem pessary with movable disc, 1871, and improved 1889; digital thoracentesis, 1873; platina plated sound, 1886, now made in London.

FIRST TO OPERATE

For removal of laryngeal growths by external incision without tracheotomy, 1866.

By digital thoracentesis, 1873; to remove post-pharyngeal growths from the basilar process of the occipital bone with modified écraseur, 1870; with galvanism profoundly applied to uterine fibroids, 1871.

FIRST

In America to photograph the living human larynx, 1865.

To experiment with kerosoline as an anæsthetic by inhalation, 1860; to make microscopical examinations of ice, 1882, *Scientific American;* to use morphine snuff for hemicrania, 1870; to announce the philosophical principles of treating versions and flexions of the unimpregnated uterus, 1871; to use dry Indian meal as a vehicle for heat in medical practice, 1872; to use quinine ointment for sores, 1872; to treat Bright's disease of the kidneys with tripe, 1876; to demonstrate the erectile turgescence of the turbinated bones in inhaling pleasant or unpleasant odors, 1866; to use massive doses of iodoform in uterine disease, 1864.

To show that stem pessaries are a success, 1871; to penetrate the Eustachian tubes with slippery elm tents, 1869; to show that kine can be successfully vaccinated as a source of virus in times of stress, 1862, inspected by U. S. Army official, and method adopted by German government, called retro-vaccination.

To show that some cases of uterine disease are called consumption, 1883; to photograph alcoholic yeast with the one-fiftieth and the one-seventy-fifth inch objectives of Tolles, 1877.

With Geo. B. Harriman, D.D.S., of Boston, to photograph consumptive blood morphology, using the one-seventy-fifth inch objective for the first time in history of the world, 1876, in photography.

To photograph ague vegetations, 1884; to photograph starch, dust, cotton, lard, butter, and soap, with

the highest-power objectives, 1877; to discover the cause of pollution of Cochituate water to be due to decaying sponges, 1880 (see Liverpool, Eng., Sponge Museum).

To show that the surface water of fresh ponds is full of animal and vegetable life, though distant from the habitations of man, 1881; to demonstrate the cause of syphilis in the blood with the solar microscope, 1876; to use microphotography with the one-seventy-fifth inch objective, 1876, in connection with Dr. Harriman.

To point out that urinary protoplasmic catarrh was a cause of neurasthenia in men, and to treat and cure cases, 1882; to insist on passive inhalation of nascent chloride of ammonium in acute diseases of the air passages, in babyhood especially, 1874; to apply the principles of endosmosis to the living plant *in situ naturali* by chemical solutions, 1856; to write an essay on the pretubercular state, illustrated by many microphotographs, 1877; to record a remarkable instance of obstetrical operations occurring in flies and their newly born larvæ, which defy explanation, 1865; to write on the physics of cantation and phonation, 1872; to use glycerined sponge padding in surgery, 1873; to show the vegetable nature of croup, 1882; to apply the term morphology to the blood, sputum, urine, etc.

FIRST TO PUBLISH

Large number of cases of cure of consumption, 1880 and 1890; cures of Bright's disease by food treatment, 1889, 1890; on "diet in cancer," defining cancer to be "tissue under mob law," 1887, 1890; that enlarged hearts can be cured by food, 1887, 1890;

on the presence of lactic acid vegetations in mouth and bladder, 1884; on the morphological difficulty of baked beans as a food, 1887; that cooking may be tested by polarized light, 1887; that life insurance examinations can be made almost positive as to consumption by microscopical examination of blood, 1886; how beautifully alcohol dissects out the multipolar nerve cells of the brain of a calf, 1879; on "nervousness, food, and divorce," 1880; on "food as a pathologic, æsthetic, chemic, and physiologic," 1879; on "is flour our proper food?" 1875 and 1890; on "cereal foods under the microscope," 1882; on "suspicious organisms in the Croton," 1882; on "tubercle parasite," 1882; on "feeding in the wasting diseases," embracing consumption, Bright's disease, tumor, cancer, and male neurasthenia, 1890; first to found a school for the instruction in the morphologies of the blood, sputum, skin, etc., 1879.

Member Massachusetts Medical Society, American Medical Association, Committee of One Hundred Massachusetts Soldiers' Fund, 1862, American Society of Microscopists, Belgian and Italian Microscopical Societies, Philosophical Society of Great Britain, life member Delta Kappa Epsilon Club of New York, Gold Medalist, Boylston, 1857, Soc. Science Letters and Art, London, 1889, etc., etc., etc.

WM. LUDDEN.

From The University Magazine, October, 1890.

PARTIAL LIST OF WORKS

OF

Dr. EPHRAIM CUTTER.

A. TROPHOLOGY.

65.

Does the use of flour promote the decay of teeth? Boston Journal of Chemistry, December, 1874.

68.

Does the use of flour promote affections of the nervous system? Boston Journal of Chemistry, February, 1875.

70.

Asthenic disease and flour. Boston Journal of Chemistry, April, 1873.

74.

Arlington wheat meal. Circular. 1875.

77.

Report of lecture on food. Report of invalid chair. Vineyard Gazette, 1875.

78.

Treatment of consumption by animal food. Boston Journal of Chemistry, January, 1876.

81.

Why is wheat preferable to oat as man's food? Cold-Air Attrition Flour Co., Chicago, Ill., January, 1876.

82.

Appeal to use cold-air attrition wheat flour. C. A. A. W. Co., January, 1876.

83.

Why the medical profession is so apathetic in relation to flour of the entire wheat. Letter to Mr. Warren, manager, January, 1876.

85.

Candy. Boston Journal of Chemistry, April, 1876.

96.

Food as a medicine in uterine fibroids. American Journal of Obstetrics, October, 1877.

97.

Is flour our proper food? Trans. New Hampshire State Med. Society, 1875; The Doctor, New York, January and February, 1890.

103.

Salisbury plan in consumption. Boston Journal of Chemistry, November, 1879.

106.

Food in agalaxia. American Journal of Obstetrics, New York, April, 1878.

114.

Teeth and flour. American ournal of Dental Science, November, 1878.

147.

Feeding of nursing children. Virginia Med. Monthly, August, 1880.

The references to publications are not guaranteed to be correct in all the works here listed.

148.

The Salisbury plans in consumption. Michigan Medical News, second paper, August 10th, 1880.

149.

Food, nervousness, and divorce. Therapeutic Gazette, August, 1880.

152.

Diet list for lactation. Michigan Med. News, August, 1880.

157.

Examination of flour. Boston Sunday Herald, December 5th, 1880.

159.

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JOHN ASHBURTON CUTTER, M.D., B.Sc., F.S.Sc.

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