garded it as the highest honor that could be conferred upon him to be thus publicly enrolled in the order of the country's defenders.

I leave it to others to make mention of Dr. Bowditch's many contributions to the science of medicine, which will render his name immortal; his public services to the State and to the Nation in the boards of health which were established largely by his own personal endeavors, the fruitage of which laid the foundations of modern sanitary science. His interest in the advancement of his chosen profession, in which he was such a distinguished worker, knew no narrow limits. He early interested himself in the American Medical Association, of which he was elected President in 1876; and few will ever forget the splendid service which he rendered in that capacity, or the generous, loving words with which, as a patriot, he expressed his desire for harmony and union between all sections of our vast country.

Through the American Medical Association, the medical profession of the North and South were early brought into a fraternal state of union which has done much toward the re-establishment of harmony between the States. To the very end this thought was uppermost in the mind of Dr. Bowditch. Perhaps the last letter he wrote, only a few days before his death, was to me upon this very subject, the best means of uniting and fraternizing the medical profession of another State.

Such a life ends not at death. Its noble influences and power will continue to be felt; the name of Henry I. Bowditch will be referred to with pride, so long as medicine is taught as a science, as one of the great leaders of his profession in America.

DR. E. W. CUSHING.

I do not feel like letting this occasion pass without having a word to say in regard to one who has been kind to me personally, as he has been to many others. After what has already been said, it is not necessary for me to mention his distinguished medical services, but I may be allowed to recall the magnificent individuality and the moral courage of the man. The majority of the members present here can hardly conceive of the fortitude which was required to take the position he did in the times before the war, when it meant little less than the repulsion of his friends, the ostracism of society and possibly the violence of the mob. I lived opposite Wendell Phillips, when a boy; I have repeatedly seen the crowds jostling him through the street, as he tried to get home; and such treatment was encouraged and justified by those who stood high in the community. It was no light thing then for a man to sever himself from respectable people, owing to his convictions: disregarding the wrath of the vulgar, the vengeance of the powerful and the fear of ultimate consequences. Dr. Bowditch has tonight been compared to Cato; permit me to remind you how well he fulfilled the ideal of Horace:

"Justum ac tenacem propositi virum
Non civium ardor prava jubentium
Non vultus instantis tyranni
Mente quati solida. . . ."

Si fractus illabatur orbis
Impavidum ferient ruinae."

I never had the honor of being in Dr. Bowditch's office, nor was I his student. I first knew him at the

time when I had been investigating something of the relations of epidemics and sun-spots, when he asked me into his office, and, instead of discouraging me, he urged me to go on. He brought out a book, and showed me what he had done in reference to a non-medical subject, a description and drawings of some animalculæ, which he had presented to the American Academy of Sciences. I was surprised at the deep interest he took in various scientific matters not immediately related to medicine. His influence has always been felt against Philistinism. Afterwards there was an attempt to introduce a medical-practice law in Massachusetts. I, with others, was interested in that. I went to Dr. Bowditch, and he received it with enthusiasm. The first meeting was in his house, and he aided the undertaking with his advice and suggestion. I was deeply impressed with the utter unselfishness of the man, and remember well his anger at the way in which the bill was finally killed by those who should have supported it. Again, at a time when I was in a position where it was difficult to determine what I ought to do, to decide as to the relative importance of various claims which might be considered as conflicting, and between different views of the highest duties of a physician's life, I turned to Dr. Bowditch as to a man whose advice I knew would be right; and his encouragement, his kindness, his appreciation of all the various conditions, made a deep impression on me, for I had no claim on him except that which every human being had on him. I therefore desire to render my tribute to the memory of a great man whom we have had among us. We cannot see him yet in the perspective in which he will be seen fifty years from now. I wish, personally, to render thanks for his assistance, sympathy and sound advice at a time when I needed to know who my friends were; for at such a crisis, in the words of Ennius, "*Amicus certus in re incerta cernitur.*"

Original Articles.

THE RELATION OF BACTERIA TO INFLUENZA.

BY HENRY JACKSON, M.D., OF BOSTON.

As during the last year there have been many cases of influenza, grippe, which have led to further investigations and speculations as to the cause of this interesting disease, it seems desirable to again give a brief account of the work done and the results obtained. The mere fact that in certain cases of influenza a bacillus has been isolated is not a factor of great importance, even though that bacillus differs in some of its characteristics from any germs previously described.

It is much more instructive to study the general course of the disease and observe the phenomena presented in its course, to determine if possible to what category of diseases we may relegate influenza. By comparing the symptoms of influenza with those of other diseases which we have good or fair reasons to believe to be dependent upon the invasion of micro-organisms, we obtain data sufficient to warrant us in classing influenza among the infectious diseases.

In the last hundred years several world-wide epidemics have occurred, in each instance the disease hav-

¹ Read before the Medical Section of the Massachusetts Medical Society, June 7, 1892, and recommended for publication by the Society.

ing started in the east and travelled westward by gradual steps. In the epidemic of 1889-90, such was the geographical distribution of the disease; careful investigation showed that the disease spread gradually from east to west independently of atmospheric conditions, whether of wind or weather. Furthermore, the disease spread along the lines and channels of human intercourse with the rapidity of human travel. In proof of the extension of the disease through the direct agency of infection from man to man, several factors of importance have been elicited. First, isolated cases always appeared in a town or city before the disease became epidemic; this is demonstrated by the history of the epidemic as it appeared in small and isolated places, and by the universal testimony of physicians in large cities as gathered from their individual practice. At the beginning of the epidemic of 1889-90, we all of us saw a few cases which we did not recognize as essentially different from severe catarrhal colds, if I may use this expression, and only later did we recognize the fact that we had to do with a specific and wide-spread disease. Again, this last year I saw on December 6th, in consultation, a case where the only permissible diagnosis was a "febricula," though the subsequent prostration showed that the patient had what in previous years we had recognized as a specific disease, influenza; not until the latter part of December were cases entered upon my books as influenza.

It has been demonstrated by investigation that it is possible that the disease is directly communicated from individual to individual, and, on the other hand, there is no proof that there is any causal relation between influenza and any atmospheric conditions. Perhaps the strongest practical proof of the infectious nature of influenza is to be found in the outbreaks of the disease on ship-board; I give one instance in detail. (Proust: *La Semaine Médicale*, 1890, No. 6.) The ship *St. Germain* sailed on December 2d from Saint Nazaire, and on the following day took on board at Santander a passenger from Madrid; this passenger had influenza the day after he came on board the ship. Four days later the surgeon had the disease, and in a few days it had spread widely through the ship's company. One hundred and fifty-four out of 436 passengers had influenza, also 47 sailors. As the whole ship's company was well before the passenger was taken on board at Santander it seems reasonable to agree with Proust that he was the cause of the outbreak.

On the other hand, Trudeau, recognizing the danger which influenza brought to persons with pulmonary tuberculosis, took great care to absolutely isolate his sanitarium from all possible sources of infection during the prevalence of influenza; the result was that all of his patients escaped, whereas the disease was very prevalent in the immediate neighborhood. Tuberculosis offers no immunity to the disease, but rather in these cases the disease proved itself exceptionally severe.

Influenza has in different epidemics manifested itself by attacking different organs; in epidemics previous to those of the last few years, the chief local manifestations of the disease have been those of naso-pharyngeal catarrh and bronchitis. In the last two epidemics the local manifestations of the disease have not been so sharply defined; especially in the epidemic of 1889-90 the disease was divided into three essential types, the catarrhal, the gastro-intestinal and the nervous form. In spite of the varied seat of the local

lesions in influenza, all forms have certain essential symptoms in common; at the height of the disease the general constitutional effects are in severity out of proportion to the local disease, prostration of greater or less degree follows the disease, and convalescence is often protracted to a considerable period.

The matter has often been discussed as to whether influenza is to be considered as a contagious or miasmatic disease. Investigations of recent years tend to show that all acute epidemic diseases, whether classified as contagious, infectious or miasmatic, are dependent upon the growth in the body of some micro-organisms, whether they are bacteria, protozoa or some more highly organized species. It seems desirable, and is certainly more simple, to classify all such diseases, whose essential etiological factor is found in a contagium vivum, as infectious. Certainly, Flint's definition of an infectious disease as one caused "by an agent which under certain conditions is capable of unlimited increase or multiplication" covers every question that can be raised as to the cause of the disease under consideration.

As in other infectious diseases, so in influenza, we find that certain diseases are often associated with influenza, either intercurrently or as sequela; a predisposition to infection from other diseases appears to be produced. In the epidemic of 1889-90, but more frequently in 1890-91, many cases of tonsillitis of the follicular type were observed in connection with influenza, cases whose clinical history left no reasonable doubt but that influenza was the essential disease, and acute follicular tonsillitis but a complication.

Acute catarrhal nephritis, as evidenced by albuminuria and casts, is not infrequent; chronic nephritis is an occasional sequela, as I have seen in a case that I have followed with care since the epidemic of 1889-90. I saw several cases in which the duration of albuminuria and casts and the occurrence of slight œdema made the assumption probable that the kidney lesion had passed beyond the stage which may be justly described as catarrhal nephritis. The most important complication met with in influenza is pneumonia; its frequency in influenza cannot be denied. Dr. F. C. Shattuck's paper on "The Relation of Pneumonia to Influenza in Boston," in the epidemic of 1889-90, demonstrates the association of the two diseases in Boston. I desire to quote from Dr. Shattuck's paper a few remarks.

Table I.—Deaths from Pneumonia reported at the Boston City Hall for the months of December and January, 1884-5, 1889-90, inclusive:

	1884-5	1885-6	1886-7	1887-8	1888-9	1889-90
December,	141	74	113	95	68	105
January,	103	83	91	183	92	332
Total,	244	157	204	278	160	437

This table shows us that almost twice as many deaths occurred in Boston during December and January, 1889-90, as in any previous five years during these months. Taking the month of January alone the average number of deaths is 110, while in January, 1890, there were 332 deaths due to pneumonia. Dr. Abbott's report on the epidemic of influenza of 1889-90 shows the same general ratio throughout the State; from almost every town the report is made that pneumonia was much more frequent than in previous years. Similar statistics may be found in the English collective report and in the French and German articles.

Careful clinical observation of the cases of pneu-

monia as seen in connection with influenza has led all observers to express the opinion that the pneumonia was not to be considered as the direct result of the influenza, but as an intercurrent disease; the influenza is the predisposing, not the primary cause of the pneumonia. Numerous bacteriological examinations have been made as to the etiology of pneumonia as associated with influenza, and the results bear out the opinion expressed by the clinical observer that the pneumonia is not due to the influenza *per se*, as the same micro-organisms are found in pneumonia following influenza as in acute fibrinous pneumonia of the ordinary type.

All text-books of general medicine with which I am familiar, in speaking of the etiology of pneumonia, mention the bacterium described by Friedlander as an encapsulated coccus, but which is more properly a bacillus, as the organism which is generally formed in acute fibrinous pneumonia. This is a mistake. Friedlander, in 1883, described the organism known by his name and claimed that it was the cause of acute fibrinous pneumonia. In 1884 Fränkel described an organism morphologically very similar to the bacterium described by Friedlander, but entirely distinct in its biological characteristics. This is the organism known to science as the pneumococcus, and all subsequent observation has corroborated the statement of Fränkel that it is found almost invariably alone or associated with other micro-organisms in acute lobar pneumonia. This is not the place to discuss the question whether this organism is the chief etiological factor in the creation of pneumonia, but there is no scientific evidence in favor of the bacterium described by Friedlander. The pneumococcus of Fränkel bears various names, "diplococcus of pneumonia," "The pneumococcus," "lancet-shaped coccus of Talamon," etc. In 1886 Weichselbaum published the results of two years of very careful work on the etiology of pneumonia; in 129 cases he found the pneumococcus 94 times. I give a table of the organisms found in acute pneumonia as collected from the works of Weichselbaum, Wolf, Netter, Welsh, Banti and others:

Number of cases	391
Fränkel	288
Fränkel, with other pathogenic germs	7
Friedlander	62
Streptococci and staphylococci	26

Fifty of the sixty-two cases in which the Friedlander bacilli were found are described by Friedlander himself; so far as I know he has not written any article in support of his theory advanced.

We may consider that it is proved that the pneumococcus is almost always found in primary acute fibrinous pneumonia, whether or not we allow that this organism is the primary and sole etiological factor in the causation of this disease. Many examinations have been made as to the organism found in pneumonia accompanying or following influenza, and I wish to draw the attention of the Society to some of the most important contributions to this subject. Jaccoud (*La Semaine Medicale*, 1890, No. 7).

Twelve cases of pneumonia complicating influenza. In all the pneumococcus of Fränkel was found in the sputum, also several streptococci and the staphylococcus aureus were isolated.

G. Sée (*Comptes Rendus*. Tome CX, 1890, p. 197).

The results may be tabulated as follows:

(1) In all cases of pneumonia following influenza the pneumococcus found but not in pure culture.

(2) In these pneumococcus found in pure culture in blood taken from the spleen by puncture.

(3) The identity of the organism obtained from the spleen was demonstrated by the inoculation of animals.

(4) G. Sée draws attention to the fact that the occurrence of the pneumococcus in the spleen demonstrates that pneumonia is a general infectious disease and not a local pulmonary disease.

Weichselbaum (*Wien. Klin. Wochenschrift*, 1890, Nos. 6-10).

In ten autopsies on patients who died of influenza he found acute suppurative processes in the sinuses connected with the nose; in seven of the cases there was pneumonia. In all these acute processes Weichselbaum found pneumococci, and in some of them streptococci or staphylococcus pyogenes aureus. He does not consider these organisms as the cause of the influenza, but simply as the cause of the acute processes associated with the influenza.

Prudden (*New York Medical Record*, 1890, p. 169).

In six cases of pneumonia following influenza the result was as follows:

(1) Pneumococcus in pure culture.

(4) Pneumococcus with streptococci and staphylococcus.

(1) Streptococci and staphylococcus.

I might give many more similar cases. The evidence is conclusive that in cases of croupous pneumonia associated with influenza, the same germ, the pneumococcus, is found as in cases of pneumonia occurring independently of influenza. The investigations of bacteriology lead us to the same conclusions which have been reached by the clinical observation of cases, namely, that the pneumonia found in cases of influenza is not the direct result of the disease *per se*, but that the influenza is the predisposing cause of the subsequent pneumonia.

Influenza is clinically and socially a disease of much importance and interest because of the severe and often prolonged disturbances of the system produced by it. The general symptoms are in severity out of all proportion to the local lesions demonstrated by physical examination. At the outset of the disease we have high fever, severe headache or backache, sleeplessness, or vomiting and diarrhoea; one or all of these symptoms may be present in an individual who on physical examination presents only the evidence of a pharyngeal catarrh or a bronchitis of moderate severity. As sequelae of the disease we find as a rule protracted convalescence, often marked prostration, in some cases inability for physical or mental work, and occasionally neuritis or some systemic nervous disease. Investigation in other infectious diseases has demonstrated that these symptoms are dependent upon ptomaines, toxic bodies produced by the activity of the bacteria which are the cause of the disease. To my mind the strongest evidence in favor of the infectious character of influenza is to be found in the clinical evidence of the presence of some severe general toxic agent. Reasoning by analogy offers the only proof of the existence of such a ptomaine, as no work has been published as to the presence of any poisonous alkaloid in influenza cases.

Bacteria probably produce their injurious effects in infectious diseases in two distinct ways, first mechanically, and secondly by the ptomaines produced by their growth in the body. The bacilli of anthrax and tetanus may be chosen as representing the two extremes of

these methods of action. If a susceptible animal is inoculated with the bacilli of anthrax it dies in twenty-four to forty-eight hours, and the minute blood-vessels are found to be absolutely filled with the large bacilli, often to such an extent that many of the capillaries are ruptured. The very number of the bacilli present are sufficient to mechanically interfere with the circulation, and produce a dearth of oxygen on account of the strong affinity of the bacilli for oxygen. On the other hand if an animal is inoculated with tetanus it dies just as soon, but no bacilli are found except at the seat of the inoculation. In the one instance the bacilli have caused death by mechanical interference with the oxygenation of the blood, in the other by the formation of a virulent poison. In man the anthrax bacilli do not always multiply with the rapidity that they do in more susceptible animals, and as the process is a slower one we often have symptoms of a general septic disease dependent upon the ptomaines produced by the bacilli.

Reasoning by analogy from the facts as established in other infectious diseases, we have good reason to suppose that the general symptoms of influenza, so varied in character, are all dependent upon some as yet unknown poison produced by the growth of micro-organisms.

As influenza presented many symptoms suggestive of an infectious disease on the first wide-spread appearance in 1889-90, numerous and careful bacteriological examinations were made to isolate if possible some specific germ. Many germs were isolated, but no one germ was found in a sufficient number of cases to warrant the conclusion that it might be considered as the cause of the disease. Such confusion existed that Koch expressed the opinion at the Tenth International Congress, that we must probably look for the etiological factor of the disease among the protozoa rather than among bacteria. In the light of the subsequent studies of Pfeiffer (January, 1892), it is probable that several observers found the germ which is now suggested as the possible etiological factor in the causation of influenza. Babes of Bucharest made the most careful experiments which are published at length in the *Centralblatt für Bacteriologie* for 1890, Vol. 7; he isolated seventeen germs, several of which in their morphological and biological characteristics resemble very closely the germ recently described. As a result of their investigations Weichsellaum, Prior, Strümpell, Prudden and others, all expressed the opinion that acute intercurrent diseases in influenza were to be considered as complications, and not as direct manifestations of influenza *per se*. Subsequent investigation has only strengthened this opinion. Ribbert alone (*Deutsche Medical Wochenschrift*, 1890, No. 15) expressed the opinion that the streptococcus pyogenes probably stood in an important etiological relation to influenza; his only reason offered in substantiation was that the streptococcus pyogenes was almost always found in cases of influenza. I should say that this reasoning was about as fallacious as that of the author who observed that cats were invariably found in families where cases of scarlet fever appeared.

In the *Deutsche Med. Wochenschrift*, 1892, No. 2, Pfeiffer published a preliminary report on "The Bacillus of Influenza," based upon work done at the Berlin Institute for Infectious Diseases. He published only his results, and reserves for a subsequent date the publication of the details of his work. I here in-

sert practically a translation of the notes published by Pfeiffer, and a review of work described by his collaborators, Canon and Kitisato.

Pfeiffer.

(1) In the purulent bronchial secretion of all cases of influenza a definite bacillus was found. In uncomplicated cases these rods are the only bacteria present and are found in enormous numbers; often found in the protoplasm of pus cells, and may extend into the peribronchial tissue; in two cases found in the purulent secretion of the pleura.

(2) These bacilli are found only in influenza, as shown by numerous analyses in cases of bronchitis, pneumonia and phthisis.

(3) They disappear as the influenza passes off.

(4) Pfeiffer saw the same bacilli in the epidemic of 1889-90, in the sputum in large masses.

(5) They are very fine rods, similar to the bacilli of mouse septicæmia, but not as long; often arranged in threads. They are difficult to stain; they may be stained by a hot Ziehl solution or a hot Loeffler solution; they are more stained at the ends than in the central portion, so Pfeiffer thinks they have been seen by other observers who have taken them for cocci. [This describes an organism often called a "Belted organism."]

(6) They grow in one and one-half per cent. sugar agar as very fine colonies; they cannot be carried on beyond the second generation.

(7) Positive results on monkeys and rabbits. (What the results are remains a blank.)

(8) "From these results I consider myself justified as looking upon these bacilli as the cause of the influenza."

(9) Infection in influenza is probably through the medium of the sputum.

Kitisato. (Same journal as above.)

The colonies are so small and transparent that they may have been overlooked by previous observers. He says he has obtained pure culture of the organism directly from the sputum by a method employed to cultivate the bacilli of tuberculosis from sputum.

The colonies show no tendency to run together, but remain separate, offering a strong point in differential diagnosis. Kitisato has never seen this organism in other cases, though his experience has been large in analyzing the sputum in many cases of bronchitis, tuberculosis and pneumonia.

Canon. (Same journal as above.)

Canon has found the bacillus in the blood, and, in No. 3 of the *Deutsche Med. Wochenschrift*, reports that he has cultivated the bacillus from the blood. He employs a special stain:

Cone, aqueous meth. blue	40
Eosin .5,70% alc. 100 parts	20
Aquum	40

The specimens remain in this solution three to six hours at 36° Cent., and are then washed in water. Canon reports that the bacillus may be carried on for several generations if the cultures are renewed every seven days.

Babes (*Deutsche Med. Wochenschrift*, Feb. 11, 1892) draws attention to the fact that in the epidemic of 1889-90 he found in several cases of uncomplicated influenza very fine rods in large numbers: their growth on glycerine agar was poor. Babes considers that these organisms are the same as the organisms described by Pfeiffer. Also, Klein (*British Medical Journal* of

January 23, 1892) reports that in 1889-90 he found in the blood of influenza cases fine bacilli, morphologically and biologically identical with the organisms described by Pfeiffer.

We have the following facts which strongly suggest that influenza is an infectious disease:

(1) Its appearance in epidemics; the manner in which it spreads from individual to individual.

(2) The symptoms suggestive of some toxic influence.

(3) Reduction of the general system and thereby induced susceptibility to disease.

(4) A germ has been discovered which may be the cause of the disease.

With all due respect to the exhaustive and exhausting investigations of the scientific observers, I cannot but close my paper with a quotation from Mrs. Thrale's Journal. In allusion to the rage for scientific experimentation in 1811, she writes: "Never was Nature so put to the rack, and never, of course, was she made to tell so many lies."

May not this be as true now as it was eighty years ago?

A CASE OF SACCULATED BLADDER, WITH AUTOPSY.

BY A. T. CABOT, A.M., M.D.

THE following case of sacculated bladder presented certain points of practical interest. I will first report the clinical part of the case, and then will describe the pathological condition.

William H., consulted me first in November, 1889. He was then fifty-seven years of age, and had suffered with symptoms of stone for three or four years. As far as could be determined, this stone originated in the bladder, as he had never suffered from renal colic. In the middle of November I removed, by litholapaxy, a stone weighing 116 grains, and composed of uric acid and urates. He made a good recovery from this operation. The bladder was washed out with a litholapaxy pump on two subsequent occasions, the first time a small quantity of sand and gravel coming away, and the last time the washing being perfectly clear. He was not seen again until March, 1891.

At that time he again applied to me, and reported that, though very much more comfortable after the last operation, he was not entirely relieved of his symptoms, some frequency of passing water and slight pain, referred to the penis, continuing. He had used a catheter during this time every night, drawing each time from two to three ounces of residual urine. He had occasionally passed a little gravel. I sounded him without detecting a stone, and advised an other examination.

This was made on the 18th of March, 1891. The bladder felt roughened to the sound, but no stone could be touched. For further exploration, I made a perineal incision, and the finger, introduced into the bladder, touched a little rough surface of stone rather high up on the posterior wall, where it could be barely reached with the aid of the hand above the pubes, pressing the bladder downward. It was made out that this bit of stone was a projecting portion of a calculus which was enclosed in a pocket, and it being impossible to dislodge it from this pocket by any manipulation of the finger, a suprapubic incision was made

over the point of a sound, introduced through the perineal wound. Through this opening above, the stone could readily be reached. It was found to be about the size of an English walnut, and to be contained in a pocket, the neck of which was not larger than a small pencil, and attached to this was a little, roughened bit of bone, projecting into the bladder cavity. The neck of the sac was gradually enlarged so as to admit a pair of forceps, and after many attempts to withdraw the stone, it was finally broken by the forceps and removed piecemeal. It was difficult to remove the last fragments, but with a scoop and irrigation this was apparently accomplished. The bladder cavity now seemed to be free.

He had a slight chill the following day, with a temperature up to 102°. From this time on he did pretty well until the 6th of April; but at that time the urine still contained an abundance of pus, and it being necessary to readjust the tubes, an examination was made under ether, and the bladder was searched without anything being found. The opening into the sac had, at this time, contracted so that it could with difficulty be found. The temperature again rose to 102° after this operation, but two days later came back to the normal point. The urine, which had hitherto been abundant, began soon after this to diminish in quantity. It contained a little albumen, but no more than the pus would account for. No casts were ever detected.

This represents the bladder laid open by a cut through its anterior wall and through the roof of the prostatic urethra. The ureters are then laid open by cuts at right angles to the first cut. On each side a diverticulum was cut through by the incision that opened the ureter. α, α represent the two halves of the large diverticulum on the left side, from which the stone had been removed; and s, s show the two halves of the other pocket, with a stone still in it. The little openings into other diverticula may be seen on the posterior bladder wall. The whole specimen is much shrunken by alcohol. The granular, ulcerated condition of the right ureter is indicated. The left ureter is smooth, but also somewhat dilated. At c is seen the prostatic urethra.

From this time on, in spite of all efforts to assist and supplement the action of the kidneys, he gradually failed, with a progressively diminishing amount of urine; and about six weeks after the last examination he died.

At the autopsy nothing of especial importance was found, except in the urinary organs. The bladder