disappear, granulations will spring up and the gauze will loosen and come away of its own accord. If some of the discharge should flow over the granulations it can do no harm, because a granulating surface will not absorb. Now this may not seem a very scientific way of doing these operations, but the patient will recover, and recovery is the measure of success."

It was now four o'clock. Our team had been watered and was at the gate. I could but admire the perfect training of the doctor's team. Although in a perfect tremor of delight at the prospect of starting they stood perfectly quiet until we were both fixed in the seat and the doctor gave the word. Then we glided away at a 2:40 gait.

"I trained them myself," said the doctor. "I recognize the fact that I am one of the lords of creation and have dominion by divine appointment. You observe how perfectly obedient they are. I could drive them under the falls of Niagara if there was a wagon track there. The man I bought them from has no other business than raising road horses; he breeds for soundness, form, speed, disposition and intelligence. If the same care was exercised in the selection of those who were to be fathers and mothers of children, what a vast improvement might be made in the human family in the course of a few generations.

"We will go home by another route; the distance is the same but the scenery is more varied. I know every landscape for twenty-five miles in every direction. Each scene reminds me of a stanza or a poem from one of my favorites—Robert Burns, Eugene Field or James Whitcomb Riley. The village behind us is 'Ayr'; that old church on the hill to the right is 'Alloway's Auld Haunted Kirk'; the bridge just ahead is where Tam O'Shanter's luckless Meg lost her caudo-equinus. 'Ayr gurgling kiss'd his pebbly shore.' This is the stream; a quarter of a mile ahead, where the road sweeps around that point of timber to the left is a grove of hawthorn, where Burns took his last farewell of Highland Mary. It is the only spot in all this country where the wild violets have a perfume'. Half a mile below this bridge is Riley's 'Old Swimmin' Hole.'

"What delicacy of touch and fineness of feeling we find in Burns, Field and Riley," said my friend, growing enthusiastic. What common-place folk, and what trifling incidents are woven into the warp and woof of their poetry, yet what intense interest we feel in them. Is it true that the way to the heart is through common-place and every-day affairs? Is that the secret of their power? While it may be true that the 'rarest fruit grows upon the topmost boughs,' it is no less true that,

The sweetest flowers that are found
Grow rather close upon the ground.

"We wonder at the art by which so much is made of so little. We seek, as if we tear open a flower to find from whence the perfume comes, for the secret by which in the midst of a smile the throat is made to fill and the eyes to swim.

¹ About a mile north of the village of Coloma in Carroll County, Mo., is a bridge over a stream called "Tater Hill Creek." On the south side of this stream, to the left of the road just before crossing the bridge is where the wild violets have a perfume. I have examined every bed of violets in all that country, but could find no others with the faintest odor. I took a bunch home with me and transplanted them to my garden, but when they bloomed the next spring there was no perfume. I then went to the banks of Tater Hill Creek and the perfume was the same as a year ago. The particular bunch I transplanted may not have been of the odoriferous variety, or there may be something in the soil of that particular spot which invests them with the perfume. Who knows? I shall transplant some more next spring and try again.

A tear-drop stands in either eye,
And yet I can not tell thee why
I'm pleased and yet I'm sad.

"Their poetry sweeps us along in a tide of simplicity, sweetness, humor and pathos, yet we feel the absolute fidelity of the picture."

But my story grows too long. I can not tell more. I will only add that if I ever saw a man who was perfectly content with his lot and in perfect harmony with his environments, my friend was one. Our team sped on and we reached home amid the glories of a gorgeous sunset. The doctor's wife had a good dinner—roast pork and apple sauce and the necessary concomitants. We had our appetites with us. After dinner we smoked and talked some more. Then a young lady neighbor came in and we finished the day with a rubber at whist.

I am aware that this is out of the usual style for a medical or surgical paper, but if I have been able to entertain you for one moment, or suggest one idea that will be of practical benefit to any one I am satisfied.

CHRONIC PHTHISIS.

A CASE TREATED WITH KOCH'S IMPROVED TUBERCULIN, ETC.

Read before the Eastern Medical Society, at New York City.

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The tuberculin used in the case here reported came in a vial of about 15 drops—one gram. The pharmacist who dispensed it, told me that this bottle was the first which arrived in this country, and was obtained only with the greatest difficulty, as a personal favor. The first trouble experienced was in preparing it for administration, since a complicated process was necessary in order to dilute the liquid sufficiently and properly. Fortunately, I am a chemist, and therefore succeeded in making a pint of solution, but would not advise anyone else to attempt it, as it requires a sterilized laboratory and apparatus to work with. I had several mishaps before finishing, principally on account of not having a suitable counter to work on. It is now furnished prepared, so that no further trouble ought to be experienced in that direction.

Although this patient had had no hemorrhages at any time, I have called it chronic phthisis, and not miliary tuberculosis, because the signs and symptoms were localized in the lungs. When first seen, he was unable to leave his bed, being in a very emaciated and weakened condition. Under the use of creosote he improved so far as to be able to get out of bed, to go around the room, and later to go down stairs and into the street. The subsequent history of the case is as follows:

A. G. Italian, aged 17 years, apparently had hip disease when a child. The right lower limb is so much shortened that he walks on the ball of the toes and he has to wear a specially made shoe on that foot. He lives in the front of and over a junk shop. April 9, 1897, he was found somewhat improved, having been treated up to this time, as before intimated, with 5-minim creosote pills, as well as with expectorants, etc. On this visit I told him to continue the pills, and also prescribed a one-grain calomel powder to be taken three times a day. His temperature was 98, his pulse 84. Previous to this his temperature had reached 101. On April 14, his temperature was 100.5, and he complained of rectal pain. I found on examination one intero external hemorrhoid, and ordered a 5-grain capsule of quinin sulphate t. i. d.

April 21, I asked him when he had had a bath last. He said "I have not had a bath since I went in swimming last summer"—about eight months previous. His temperature on this occasion was 101.75. I ordered creosote to be continued, and a sponge bath of alcohol and water, equal parts, for ten minutes daily, also ten grains of quinin in 15-grain suppositories three times a day, and enemata when necessary. I told him to see that he had an evacuation every twenty-four hours. On May 5, I found his temperature to be 101, and ordered four creosote pills a day. He complained of the cough being severe and of having a chill every evening and morning. I ordered a mixture of codein, chlorid of ammonium and syrup of wild cherry, also two 5-grain quinin pills on arising and two at 4 P.M.

May 12, his temperature was 100.5; he had a hectic flush, and showed evidences of a perineal abscess just on the ischio-rectal line. The skin was not reddened or swollen, but the part was very tender and boggy to the touch. I ordered poultices, and gave them the prescription for the tuberculosis antitoxin.

May 13. Roughly stated, two drops of the tuberculin were diluted to one pint with glycerinated salt water, and fifteen minims were injected on this occasion. The temperature before the injection was 99.5; after the injection 99.75. He had complained of pain all night from the anal abscess. One-twelfth grain of morphin sulphate was prescribed, to be repeated if necessary.

May 15, he gave these details about himself. He had slept on a fire-escape one night about eight months ago; later on, he was selling papers during a light snow-storm. He came home and began to cough; was treated for a bronchitis by a physician, in January; went twice, but had taken cough medicines previously without relief; used to cough without stopping for half an hour when he went to bed. For a couple of months, his previous physician had given him something which smelled like the creosote pills, ten drops three times a day, in a glass of milk. (This was probably guaiacol, in which I have no faith.) His temperature was 101.3 before tuberculin, 101.75 after.

May 17. Previous to giving him the third injection of fifteen minims, I found the following physical signs: Bronchial breathing over the left lung in front, almost cavernous over right lung in front, and the same over both lungs behind. On percussion, I found the note flat over the left apex, and over most of both lungs behind, and the cracked pot sound over the right lower lobe behind. The temperature was 98+ before the injection, and 97.75 after; the cardiac beat was very weak at the wrist, but fair when auscultated over the region of the heart. The skin over the perineal or ischio-rectal abscess was ham-colored and extended to and included the anal margin on the right side. He had taken the three last powders of morphin during the night; had one passage yesterday and one today; has had no chills since, but spells of perspiration. I opened the abscess with the aid of local anesthesia—ethyl chlorid and cocain—and evacuated a stinking abscess; then I irrigated and applied a wet dressing.

May 18. His temperature was 100.5. The abscess cavity was found to be very small. He has had a passage daily, but managed to keep the abscess clean. "I took only two creosote pills yesterday," he said, "because I felt weak over the stomach." These pills were not gelatin coated. I ordered carbolic acid, muslin bandages, iodoform gauze, absorbent cotton, iodoform and a fountain syringe before the operation, and use them daily for dressing the abscess.

May 19. He says that his mother was married sixteen years when he was born. He was the fourth child. Temperature before injection was 99.9, after injection 98.8, showing a decrease.¹

May 23. Ordered a milk punch three times a day. The temperature on the 21st, had been 98.5 before and 99 after the injection. Today the thermometer showed 97.5 before, and 98.5 after; pulse 120; cough severe. Prescribed ammon. chlor. gr. 2½, mist. glyc. comp. 3 ii, every four hours.

May 25. There is loud bronchial breathing over front of right chest below, and especially over upper lobe of left lung behind; cavernous breathing and flat percussion note over circumscribed area of left lung. (Forgot my thermometer.) Pulse weak and rapid.

May 27. His weight, he told me, was 88 pounds. Lower extremities showed these measurements: Circumference above knee, right, 6½ inches, left, 9½ inches. This evidently indicates that he had infantile paralysis at two years, and not hip disease, as previously supposed, although this is not conclusive. He felt chilly a few times this morning, between 7:30 and 9:00 A.M. Temperature 102.25 before, 102 after; perineum dressed as usual.

May 31. Temperature before injection was 101, 101.5 after. Nitrate of silver touched to abscess wound. Injected one-half

dram tuberculin solution from this time on. Pulse 129. Ordered strychnin, ⅓ grain, wine pepsin, 1½ drams three times a day.

June 2. Temperature was 102.5 before, 103 after. Stopped creosote and ordered quin. sulph. 5 gr. t. i. d., and milk punch every four hours, and iodoform ointment as application to perineal wound.

June 4. Temperature before injection, 97.75; after, 98.25. Had only taken four capsules since; dulness over upper chest; voice and breathing diminished or absent at different places.

June 7. (Called on third day instead of second by mistake.) Stopped quinin and ordered creosote again. Temperature 97 before, 97.25 after; pulse 108, after injection 100. The pulse has been exceedingly weak during the whole illness.

June 9. Temperature before injection 99, after 99.75.

June 1, I quoted the above facts to the Medical Progress Society of the West Side German Dispensary, New York, during the discussion of which it was stated that I should not have increased the dose so rapidly. I gave as my reason for doing this, that the directions called for an increase up to 7680 times the original dose, and therefore a rapid increase seemed necessary, in order to reach the maximum dose at a reasonable time.

I abstract the principal notes from the red circular which accompanies the German tuberculin. As before stated, roughly speaking, 1½ minims, or two drops, are diluted with 13 ounces of water, in sterilizing apparatus, to which 36 grains of salt and 3 ounces of glycerin have been previously added, the whole being repeatedly filtered through sterilized filter paper until absolutely clear. The object of the glycerin is to preserve it, since each dilution lasts an unlimited length of time. The circular further states that the tuberculin must be kept in a cool, dark and dry place. The commencing dose is 15 minims of the dilution, unless a reaction appears, when it must be still further reduced. I made it a rule to take the temperature before and after each injection. If the temperature rose over half a degree, I gave 5 minims less at the next injection. If it remained the same or became lower, as frequently happened, I increased the dose five minims. Occasionally, however, five minims of an increase was found to be too much, so three minims were added instead. The circular goes on to say that carbolic acid solution and similar liquids are not permissible as diluents. The injections are made subcutaneously about every second day. "Any febrile symptom," the circular says, "caused by the injection, must have entirely disappeared before a fresh injection is made." Now, it is impossible to say always that a rise in the patient's temperature two days after the injection, was caused by the tuberculin. Therefore, my rule has been generally to ignore this, simply treating high temperature, weak pulse and cough symptomatically. Dr. Dessau asked at the discussion above referred to, why I used other remedies at the same time. The principal reason was because the tuberculin did not relieve the urgent symptoms, and this is what the family demanded. I believe, however, that the tuberculin did prolong the patient's life. "With doses of 5 milligrams,"—one-half bottle—"and upward," the circular goes on to say, "it is not advisable to make more than two injections within the week, and with still larger doses not more than one. As a rule, the dose is increased to 20 milligrams"—two bottles of undiluted tuberculin—"and if no reaction follows the injection of this dose, the treatment is discontinued or only repeated at long intervals. For injection,² any part of the body where large folds of skin can be

¹ I do not understand exactly what the decreases mean.

² This tuberculin corresponds to the "T. R." of Professor Koch.

raised may be used." I have found the buttocks about the most convenient place, as a rule, using the opposite sides in succession. The very finest "Green" needle obtainable should always be used for hypodermic syringes, and they should be made to screw on the larger aspirating syringes for the use of larger doses. Special syringes are not required. "The local reaction disappears generally within twenty-four hours. This evidently refers to the pain and swelling. The swelling generally disappears within a minute, as soon as the fluid is absorbed, and with a very fine needle, the pain is very trifling and only transient. I believe that it can not be too strongly emphasized, and teachers should take more pains to impress it upon students, that in giving *deep* injections, particular care should be taken to see that all air is excluded from the barrel of the syringe; fatalities are continually occurring through ignorance on this point.

It is generally advised to rub the swollen area with the finger. I do not believe in this: 1, because it is not necessary; 2, because it is apt to force out some of the injection again; and 3, because the puncture may be infected with the finger. "The usual antiseptic regulations are to be followed in preparing the needle and syringe." The skin also might be added. After use, I always work the syringe in some sewing machine (sperm) oil, to keep it in good condition. By doing this the syringe will need little more than an occasional leather washer or a needle. Physicians rarely take time to wash and disinfect their hands before giving a hypodermic injection.

June 11 I was informed that the patient had a chill at 4 P. M. on the day that I gave him the last injection. This was given at 10 A. M. I found his temperature to be 101.75 before the present injection and 102.75 after. This was the greatest rise he had from the injection since the treatment. On percussion, the upper part of the chest behind was found to be flat, and on the right side the cracked-pot sound was heard. On auscultation the respiration was found to be diminished behind at the upper part, and in front on the left side. Bronchial breathing was present over the rest of the lungs. The pulse was too soft to be counted. (This occurred quite frequently.) He received 22 minims at this injection.

June 13. Temperature was 103.3 (always in the mouth); room very hot. After 15 minims his temperature remained stationary. I ordered 10 grains phenacetin t. i. d., and carbolic ointment for the perineal wound. Patient lives in two back rooms over a second-hand junk shop. In these two rooms there were living four males and two females, all grown but one. As there were only two beds to be seen, the question is how they managed to accommodate themselves.

June 15. I found the patient drinking beer and eating rye bread. He rarely or never receives the daily sponge bath which I have ordered. Milk punches he does not like, and without milk he says he can not take brandy. He does not understand that he can take it in water. Before injecting 10 m., temperature was 97.6; after, same.

June 17. Before injecting 20 minims, 102.3; after, 102.5. He says that the cough is severe, also that he ate cake, etc.; and that he took no medicine nor powders since. Pulse is uncountable. Punches ordered.

June 19. Before injection (25 minims by mistake instead of 20 minims), temperature was 101; three minutes later, temperature 101.5. Complained today of pain over left apex.

June 21. This patient is 17 years old. Find bronchial breathing over left chest both before and behind; over the right the breathing is almost absent both in front and behind. Pulse 120; temperature before injecting 20 minims 99.5. After one minute, 99.25, a fall of $\frac{1}{4}$ degree. After two minutes, the same.

June 23. Bronchial breathing over both lungs in front, cavernous over middle of left lung behind; percussion unsatisfactory (patient so weak I did not wish to annoy him). Temperature 100.1 before injecting 25 minims. Before one minute, no change; after one minute, 99.5; after twenty minutes, the same.

June 25. Before injection temperature was 97.5; after injecting 30 minims it was 97.25. Very hot day. Had a red-hot fire, and patient was inhaling the vapors from a boiling wash six feet away from his bed, and was in a heavy perspiration.

June 27. Temperature before injection, 102; after injecting 25 minims, 102.6. He had chills this morning while sitting at the window; had difficulty in breathing and was very weak; pulse was 150. Ordered carbonate of ammonia and digitalis.

June 29. Temperature 100; coarse mucous râles all over the chest; pulse 120. After 30 minims tuberculin solution, temperature 99.75. Ordered to begin creosote pills again and take more brandy or whisky.

July 1. After reading an article on tuberculosis in a medical journal I was especially impressed by two facts: 1, that a great many people who are supposed to be free from tubercle are really tubercular in mild degree, and this coincides with my view; and 2, that the phthisical patient suffers as much from septicemia as from the tubercle itself. On the strength of this I decided to try the streptococcus antitoxin. I obtained Gibier's antitoxin, the directions on the vial being very brief, principally stating that in cases of septicemia or erysipelas two injections may be given immediately, and afterward one injection every six hours until improvement results. I decided to give my patient 30 minims for the first dose. This increased his temperature from 102.75 to 102.9. I followed this with 30 minims of tuberculin dilution, which raised it to 103. I then ordered, to be taken by the mouth, 5 drops of the tuberculin dilution three times a day, in water. His pulse before treatment was 144, after both injections, 145. His cough is "sticky,"

Compressed-air apparatus.

and the expectoration is half pus and half frothy saliva. The patient is very low and can hold out very little longer. The perineal abscess or fistula has been again discharging for two days.

July 3. At 2 P. M. his temperature was 103.5; after tuberculin, 103.6; pulse 156. Took no drops (tuberculin), but took digitalis. I ordered repeated syringing of abscess and more stimulant. He is so weak that he has to be carried from one bed to the other. The cough is very annoying.

July 5. Patient's sister said that he seemed to be very low last night and "could not get the catarrhs up." He ate bread and milk for yesterday's breakfast, and a pear between breakfast and dinner. He was sponged with alcohol and water about 12 o'clock. Ate another pear between dinner and supper. For dinner he had bread and milk, half a tomato and salad with olive oil. For supper he had rice boiled in meat soup. Took the drops once last evening before feeling bad, but was not feeling very well all day. Had wine and bread this morning, and a peach. He sleeps a little, on and off, during both day and night, but not long at a time. Temperature 99.75; after 15 minims streptococcus, 99.9; pulse 125. Ordered carbonate of ammonia, ipecac and elixir. The relatives paid no attention to directions.

July 7. Patient died at 6:30 this morning.

The case lasted about three months, and yet there is no evidence showing that Koch's improved antitoxin had any curative effect on this patient. If the cure requires a mild case to begin with, and good hygienic surroundings as an adjuvant, we can truly say that we have plenty of such cures under creosote, and even, for that matter, without it.

The other cases which I have put on this treatment do not furnish any useful data, since they previously improved just as much without it. During the whole treatment of the case described, I had not used one-fifth of the first two-dram-to-the-pint mixture. I should also add, that during the course of treatment some charitable people, instead of first asking my opinion about sending the patient to the country, offered to take him away, and then came to me later. This false hope made things a little disagreeable for me.

In order to carry out future investigations of this character more satisfactorily, it seems that our medical associations should assume control of several dispensaries and hospitals in various sections of the city, where at the same time the charity question could be properly supervised by the profession itself.

The tuberculin treatment has, apparently, no advantage over creosote, and has the disadvantage to the patient that it requires constant professional attendance, unless mouth administration can be substituted for the hypodermic needle. But this has hardly been yet determined. I tried it here to avoid two successive injections, not wishing to mix the two antitoxins.

Since writing this paper, the author has invented a compressed-air apparatus for tubercular cases, (See illustration.) Any person can use this at his own home, by attaching it to his water faucet.

SOCIETY PROCEEDINGS.

Chicago Society of Internal Medicine and Chicago Medical Society.

Joint Meeting held Jan. 25, 1899.

Dr. JOHN A. ROBISON, president of the Chicago Society of Internal Medicine, occupied the chair.

Dr. HENRY M. LYMAN addressed the meeting extemporaneously on

ACUTE ARTICULAR RHEUMATISM.

He gave an account of the disease as it used to be observed and as now seen, saying that there is a striking contrast between rheumatism as it presents itself clinically, modified by treatment of the present day, and what it was when he began the practice of medicine.

Rheumatism is supposed to be a microbic disease in which the nutrition of the body is modified by the action of microbes generating certain poisons or toxins that circulate with the fluids of the body and so far influence the nutrition of the tissues as to permit of the occurrence of the inflammatory symptoms—fever, pain, swelling and redness in certain definite territories, notably about the joints of the body. The joints of the lower extremities are involved more frequently than those of the upper extremities. The knee, perhaps more frequently than other joints, is subject to this swelling, and microbes are the supposed causes of this disease, but he is not certain, for he has many a time read the observations of notable students and microscopists describing particular microbes which they had discovered in the tissues of rheumatic patients, so that it is hardly orthodox to utter the possible belief that the microbes that generate these poisons are not of foreign origin, are not intruders from without the body, but are themselves constituent cells of the tissues of the body. He is not sure that this may not, sometimes at least, be the microbe that produces rheumatism. Certain it is, we find microbes in the tissues that are affected in a case of rheumatism. Certain it is, too, that these microbes are found in many diseases, such as yellow fever, measles, scarlatina, plague, and many other diseases which he believes are of microbic origin. While many observ-

ers describe microbes that produce poisons which occasion the disease, there is not yet that satisfactory unanimity of opinion among the profession as to so common and important a disease as rheumatism.

He drew a picture of rheumatism as he saw it forty and fifty years ago, when it was said to be less common in England than gout. It is a disease, however, that is common enough in all parts of the world. Even in the Arctic Ocean, during the thawing weather that occurs in the summer, Arctic navigators speak of rheumatism among the crews of their ships. However, in fair weather, in northern climates under the Arctic zone, rheumatism is not a common disease. This lends additional force to the hypothesis that rheumatism is one of those diseases of nutrition that is characterized by retardation of nutrition, by defective oxidation, for it is known that this retardation of nutrition and defective oxidation are most common in warm and damp climates. During dry and cold clear winter weather those processes are so much accelerated as to arrest many of the phenomena that are characteristic of rheumatism. However, rheumatism prevails in all parts of the world.

Usually the acute form begins with a chill, followed by a febrile movement, copious perspiration, frequently disturbance of the alimentary canal. Sometimes, as in all acute febrile diseases, the symptoms are ushered in with considerable disturbance of alimentation; even nausea and vomiting may occur. Intense pain is usually felt, sometimes diffuse at the first, then concentrating itself upon the knee joint or upon a number of joints. The joint rapidly swells; the skin over it becomes slightly reddened, and there is inflammatory edema. There is not that enlargement of the veins that is observed in gouty cases. In gout, which in many respects so closely resembles rheumatism, when a large joint is invaded, the swelling is the same as in rheumatism. The redness is greater; the veins which lead from the joint are dilated, frequently tortuous and enlarged, whereas in rheumatism this is not so conspicuous. Effusion takes place around and into the joint; there is considerable exudation. He recalls one case of rheumatism in which he made an exploratory incision and found that the tissues around the joint were occupied by a clear serous fluid without any appearance of turbidity or of suppuration, and without the visible presence of any leucocytes, excepting microscopically. It was simply a hyaline liquid exudation that occupied an area of space under the skin. It is stated on good authority that cases have been observed in which suppuration actually occurred. This, however, must be late in the course of the disease, and as a consequence of associated action of pyogenic germs upon the tissues that are thus affected.

In addition to the local disorder, there is great disturbance of the nervous system, great exaltation of the sensory processes, so that the pain experienced by the patient is much more severe than the ordinary pain from a luxation of a joint, from a bruise, or from an ordinary inflammation. This is one of the characteristics of the disease; as a consequence of the malnutrition of the patient his nervous centers and nervous apparatus are deteriorated in their character to such a degree that they react violently to all impressions that are calculated to give pain. The consequence is that a patient suffering from polyarthritis rheumatica will lie helpless and motionless, dreading the possibility of movement, and crying out even if you approach too near him. He has seen patients reduced to a condition of childish wailing by merely pointing the finger at an inflamed knee, it being so tender and sensitive that it could not be moved without excruciating agony. He has seen patients suffering from polyarticular inflammation in all the limbs lying in such helplessness that it required the aid of four strong men to lift the sheet or blanket upon which the patient was lying. To move the sufferer from one particular bed to another was almost an impossibility. The patients were bathed with perspiration, having that peculiar acid smell which was thought by many to be characteristic of rheumatism, and due to the poisonous acids that excited the rheumatism, on the theory that it was lactic or some other acid that produced the disease. It has been shown, however, that this is not a necessary phenomenon; that the presence of the offensive smelling acids is the result of lack of cleanliness, resulting in fermentation of sebaceous matter in the perspiration itself. Associated with the sebaceous matter of the skin, which is exuded upon the surface of the skin, decomposition gives rise to this peculiar odor, and if the skin is kept clean, so that there shall be nothing but perspiration, the perspiration is neutral in its reaction and devoid of unpleasant odor. Under these conditions patients may lie for a variable period of time.

In some cases he has seen inflammation attack a large joint, as the elbow or the knee-joint, and in the course of thirty-six hours, after having swelled to a very considerable degree, hav-