

separated by vesication from scalding, and sterilized on December 26, then covered with borated cotton and laid away in an office desk, when skin-grafting was done Jan. 12, 1896, forty days after separation from the cutis. No. 4 was with the same material, 164 days. No. 5 was the same as No. 3 and 4, grafts revitalized, showing as rapid and vigorous growth as in any of preceding cases, 418 days after its separation from cutis.

To conclude then this method should supersede all others because of the following facts:

1. The surgeon can always have an abundance of material ready for immediate use, and the artificial skin produced is more firm and elastic than that produced by any other method.

2. The cuticle when first removed should be sterilized, when it will soon become dry at ordinary temperature, care being taken to remove all folds or wrinkles and that it be kept entirely free from moisture.

3. The granulating surface should be thoroughly irrigated with warm normal salt or boric acid solution before applying grafts.

4. Grafts should not be moistened before being used, but should be dry, and great care should be taken that the proper surface be applied. Operator catching skin with common artery forceps, a piece can be clipped off one-twelfth inch wide and one inch in length, out of which twelve grafts should be made not more than one-half inch apart.

5. The grafted surface should be covered with sterilized gauze saturated with a mixture of balsam peru and castor oil, one drachm to one ounce, over which should be laid sterilized borated cotton, three to four layers.

6. Proximate dressing should not be disturbed under ten to fifteen days, unless pus is being formed, when it should be removed and carefully irrigated with boric acid solution, and new dressings applied.

DISCUSSION.

Dr. GEORGE M. STERNBERG of Washington—I would like to ask if Dr. Lusk ever used the skin from a blister produced by heat. It is very remarkable that the heat does not destroy the cuticle, and I think it would be important to determine the death point of the epithelial cells. I would suggest that if practicable some one might make this experiment.

Dr. R. H. SAYRE of New York—I am somewhat surprised at the vitality of living tissues exposed to dry hot air. In the treatment of chronic arthritis, in exposing joints to a high grade of air the skin will endure from 350 to 400 degrees F., and I did not suppose this possible. Some persons can not stand more than 180 to 220 degrees. It occasionally happens, however, that after the lapse of a few days you will find ulcerated spots on the skin which look like a blister. Apparently this intense heat will at certain spots cause sloughing of the tissues, which is very slow in regenerating.

Dr. THOMAS H. MANLEY of New York—I hope we do not understand Dr. Lusk to say that this species of grafting was recommended to supplant skin-grafting proper, as this is really epidermal grafting. I presume he intends this method for superficial destruction of the layers of the integument. He would not recommend it, I should think, in that class of cases where the skin is entirely swept away. This method is similar to the Thiersch method and the only questions that will arise are as to how durable it is and as to whether there is any tendency to the scar formation which is so common in the Thiersch method. In parts of the body covered by the garments, where there is not much motion, I can understand that the plan suggested by Dr. Lusk is probably better than any other. It is most extraordinary to conceive of the simplicity of it, and the fact that we are able to keep the tissues so long renders it one of the most valuable methods of skin-grafting that we have. How far can this layer of the epidermis supply this loss of skin is the point. In extensive injuries to limbs there are two important questions: First, what can we do in the destruction of bone; and second, what can we do where there is not much destruction of bone, but there is much destruction of

the skin. I would like to ask if, where there has been an extensive area of gangrene of the integument, this method would apply.

Dr. Lusk—Dr. Manley may be right, but his method would be called plastic surgery. In all the works that I have consulted skin-grafting is the only term used. I do not know of any heat that will hurt the skin except the heat that destroys the entire skin, such as boiling in a salt solution. My own experience was with a man who had plunged head first into a bin containing boiling brine. Four weeks after the accident I decided to commence skin-grafting and it was successful in every way. Dr. Roswell Park saw it and paid me a very high compliment for the discovery. The legs, arms, and a part of the body were skinned, and from seven to eight hundred inches were necessary to do the operation. I soaked the material in a peroxid solution and then applied it. So far as cicatricial contraction is concerned there were only a few corrugated bands. There were two ulcers, due to a slough, which healed entirely.

DIAGNOSIS OF MINOR PHYSICAL INJURIES AND THEIR RELATION TO ACCIDENT INSURANCE ASSOCIATIONS (WITH ILLUSTRATIONS OF CASES).

Presented to the Section on Surgery and Anatomy, at the Forty-eighth Annual Meeting of the American Medical Association held at Philadelphia, June 1-4, 1897.

BY LISTON H. MONTGOMERY, M.D.

CHICAGO.

Accident insurance and personal injuries to policyholders, are subjects to which I have devoted some thought and attention during the past few years, and I am a staunch advocate of the former. As a rule, the reasonableness of its cost should commend itself to every worthy male adult subject who is eligible to avail himself of the privilege of procuring a certificate of membership in some one or more of the various substantial insurance associations throughout the country.

The business of accident insurance companies is mainly conducted by the secretary and a board of directors, and in the matter of claims, by the claims committee aided by the wisdom and advice of the surgeon, the medical director or medical examiner. The office that the surgeon fulfils is a most important one; one whose motive power and influence usually commands great respect from his business associates. To him is oftentimes referred questions that are more or less intricate on account of their not being understood by the board of directors or claims committee, and this, according to my experience, is much more frequently the case when, as the title of this paper suggests, the injuries appear to be trivial or insignificant in character, notwithstanding the report of the attending physician or surgeon would indicate that just the opposite is the case.

Personal injuries are as varied in kind, character and degree as the kaleidoscopic changes in a man's lifetime and the causes producing them are as innumerable as it is possible to imagine. It is not to be wondered at, therefore, if a scientific descriptive report of an injury to a patient by the attending physician should require additional explanation or elucidation by the company's surgeon. In other words, without the aid or advice of a company's medical representative, it would not be possible to adjust and dispose of all cases of bodily injury in a satisfactory manner, and diplomacy of an honorable character is necessary in some instances to achieve this much desired result.

The declaration or blank form of application which

a person is required to fill out before a policy is issued, stating name in full, age, birth-place, residence, occupation, etc., to enable the board or proper officer to decide which class of risk the person shall be placed in, in most instances contains the following: That the policy-holder shall "live up to" or agree to abide by the constitution and by-laws of the association not obligating it to pay for injuries received or which may happen while the policy-holder is under the influence of intoxicating liquors or in consequence thereof; nor where there is no visible mark on his body; nor for intentional injuries inflicted by himself; not while engaged in violating the law; nor from voluntary or involuntary taking of poison or any contact with poisonous substances; nor death due to suicide, whether sane or insane, or due to mental infirmity, hernia, medical or surgical treatment (except amputation of a limb necessitated solely by injuries sustained in accident); and the acceptance of the certificate of membership further absolves the company from being made a party to legal proceedings upon the basis and provisions herein stated, and lastly, the "insured" further agrees that the company's surgeon shall be privileged to make a physical examination of his alleged injuries as often as such official may deem necessary. And yet in the face of all these, and perhaps additional declarations, the policy-holder not infrequently will assail the reputation of our best companies and threaten their extermination by instituting unwarranted legal proceedings, particularly in these days when, singularly enough, cases are known where learned judicial decisions have been handed down which, it appears to me, were either a perversion or a disregard of the contract.

I have selected a few out of the many cases that have been referred to me for examination or which have come under my surveillance during the past year, showing what basis the claimants had to recover indemnity and what some persons actually believed they were entitled to, due to an occurrence, mishap or whatever term one sees fit to name it, even to calling it an accident in all that this term implies, and in none of these cases was there a suspicion of any motive of deception being practiced.

The subjoined cases are non-exaggerated instances of descriptive reports from claimants and from very excellent physicians, that I have been called upon to explain for adjustment during the past year, although I disclaim any intention of stating that they were not scientifically accurate so far as diagnosis was concerned.

Mr. D., a resident in one of the suburbs of Chicago, had the misfortune to get his levator labii superioris alæque nasi muscle lacerated by being thrown from his buggy, and as a result was totally disabled for six weeks. Upon visiting this gentleman and carefully reviewing the case, a satisfactory adjustment of ten days was agreed on, inasmuch as no cicatrix or permanent deformity remained.

It may not be devoid of interest to cite the following case for the Section to deliberate and decide whether the injury was occasioned or caused by violent, external and accidental means: A gentleman occupying a chair at his hotel, with his right leg over the left in practically an extended position, smoked and conversed with a fellow-traveler. On attempting to rise from his chair he was suddenly attacked with severe pain in his right knee and could not walk up stairs to his room. He admitted that he had not

strained any of the ligaments about his joints nor otherwise injured himself, and claimed never to have had rheumatism; and yet he was totally disabled for a period of seventeen days. This gentleman having been the subject of a similar experience about six months previously I was requested to investigate his case. My diagnosis was "floating bodies in his right knee joint" and that he was not entitled to indemnity according to the rules of the association in which he was insured. He demurred at this and threatened to bring suit against the association. The result was the amount of his claim was paid and his policy was canceled. Recently this gentleman has had a similar attack, just as I expected he would.

Here is another illustration of a so-called personal injury and description of an accident as different from the preceding case as one can well imagine. A gentleman while stopping at a small city in Michigan in July, 1896, proceeded to call on his patrons. He was quite active during the day, as he subsequently stated, and concluded his day's business in apparently his usual excellent state of health. He rested over the Sabbath and attended services at one of the churches. Monday morning at about 7 o'clock, without exertion on his part, while he was arranging his toilet he suddenly began to expectorate blood. During the ensuing four days (up to the following Thursday evening) he experienced not less than five similar attacks of this kind. He returned to Chicago and did not resume traveling for four weeks. He subsequently filed a claim for this period, claiming that his loss of time and total disability was induced by his over-exertion (which he called an accident) on the Saturday previously, or thirty-six to forty hours prior to his first hemorrhage.

The following somewhat unusual case may be deemed of sufficient importance to chronicle in this report, as to the writer's mind it is unique as well as a singular illustration of how the unexpected might happen. A gentleman was ill with indigestion or he had some other form of temporary stomach difficulty. He was being treated by his physician and after three or four days, although attending to his usual vocation, he began to feel the physiologic toxic effects of the remedy he was taking and was obliged to remain at home for another week before complete convalescence was established. This gentleman filed a claim for this length of time, claiming that his total disability was the result purely and simply of an accident.

During the past winter my attention was called to a case of phlegmon or small abscess located under the chin of a gentleman and caused, as the claimant stated, by his barber cutting him while being shaved, when he had as a result, blood poisoning for ten days(?). Upon careful examination it was clearly proved that the gentleman had an inverted or ingrowing hair. A minute pustular eruption had formed, and when the barber had called the attention of his patron to this he was requested to remove the offending hair, as also to evacuate the drop of pus that had been secreted. This slight traumatism resulting in what the attending physician called "sepsis," was the cause of this claimant filing a claim for the above length of time.

Cases of trimming a corn, bunion, wart, etc., have come under my observation within the past year, wherein a form of septicemia resulting in apparent total disability lasting from one to three weeks super-

vened, and the insured filed their claims for these various periods.

On Monday, during one of the early fall months of last year, a gentleman while riding in a railway coach near Clinton, Iowa, was reading his newspaper, holding same in his left hand. Simultaneously he had his right hand resting on the back of the seat in front of him. Suddenly he experienced a stinging or pricking in the dorsum of the little finger of his right hand. He examined his finger, but saw nothing unusual. After vigorously rubbing the spot he again proceeded to read, but the stinging sensation remained unabated (at least for the time being). In a little while he had occasion to look over into the seat on the back of which his hand had previously been resting when he noticed a black spider. He naturally concluded that the spider had stung him, and killed it. He continued to attend to his business until the following Monday morning, one week having elapsed, when his hand began to show evidence of infection. The result was he was totally disabled for ten days.

Cases of lame back due to a strain of some of the tissues about this portion of the body are probably as frequently met with as any other form of bodily injury, and are often puzzling in character, mainly because there is nothing to indicate this, discoloration being absent. No zones of anesthesia, areas of tenderness, hyperesthesia, edema nor other signs of inflammation are present; no constitutional disturbance is present, and other subjective symptoms are normal. Frequently a congeries of symptoms arise, complex in their nature, difficult of diagnosis as well as prognosis and probable duration of disability. Only last month I was summoned to a city some one hundred and sixty-five miles from Chicago to visit a case of this kind, due to an accident which occurred January 4, and was supposed at the time to be of a most trivial character. This case had during the past five months developed through reflex disturbances and other causes of a cognate character, all manner of complications or sequelæ of a most distressing kind, in which may be enumerated dysuria and tenesmus, pleuritic complications, most obstinate constipation, gastric disturbances, paralysis, as well as other cerebral and cerebro-spinal symptoms of the meninges and cord; so that for weeks the patient's life was despaired of. In other words, a diffused traumatic neurosis had followed an apparently slight physical injury.

A case was quite recently referred to me where a sparrow was flying through the air and darted toward a gentleman's face. Its bill came in contact with his left eye resulting in a puncture of the iris. This accident was a most singular one and the traumatism has resulted in multiple neuritis, difficult to prognosticate what the final result may be.

A gentleman, 28 years of age, who had a long-standing hernia and for which he wore a truss, was carrying a box weighing between forty and fifty pounds in an unguarded moment when he omitted to have his truss adjusted. Strangulation ensued. The case was treated during the first few days by taxis, applications of hot fomentations and anodynes, with negative results, and it was found necessary to perform an operation for the radical cure of his malady. He was totally disabled for weeks and filed his claim for this period. The result in this case was a decision that his was not a case for indemnity according to the by-laws of the association in which the gentleman was insured.

Bicycle accidents.—A word in this connection regarding the so-called bicycle accidents, wherein abrasions and contusions of the cuticle and injuries to various parts of the body may occur to a greater or a minor degree. In this connection, I have seen the following case: A cyclist fell from his wheel and sustained a trivial bruise or contusion over the region of the appendix vermiformis. In five or six days active symptoms of the inflammation of the appendix supervened and the gentleman was totally disabled for fifteen days. Naturally enough he attributed his disability to the violent manner in which he was thrown from his wheel, whereas it seemed to me, technically and correctly speaking, that this was coincident or incident to it, as at the time of his mishap the weather was inclement and there was a reasonable doubt that dampness and exposure and even other causes contributed to his attack. Suppose this man had died and an autopsy failed to reveal a foreign body in his vermiform appendix, the chances are that it would have cost the accident association in which he was insured \$5,000.

At Oregon, Ill., on March 14, 1897, a gentleman was hunting. The weather was inclement and he wore a pair of rubber boots larger than he was accustomed to, with the result that he produced a minute abrasion on the fourth toe of his right foot. It was proved that the boots he wore were defective and his feet became very damp. What was diagnosed by the attending physician as septicemia supervened and the claimant filed a claim for four weeks' indemnity for total disability, accompanied by an affidavit from his physician, who stated that the abrasion and consequent infection was due to an accident. The claim was rejected.

The subjoined case explains itself as being directly opposite to the foregoing, which I did not personally investigate, though my attention was called to it on account of its recent occurrence and for other reasons. I refer to the noted "sore toe case" wherein it was decided that an accident insurance policy must be paid where death resulted from wearing a tight shoe. A judge of the United States Circuit Court sitting at St. Louis handed down a decision in the case of *Smith v. The Western Commercial Travelers' Association* (Dec. 16, 1896), giving the beneficiary a judgment for \$2,165. The plaintiff was the beneficiary and widow of a member of this association holding a policy for \$5,000, payable in the event of death by "external violent accidental means." Up to August, 1895, Mr. Smith appeared to have been an exceptionally strong healthy man. About this time he commenced to "break in" a new pair of shoes. The friction caused an abrasion, although, from evidence that he gave, reasonable attention was paid to the inflamed surface; it grew worse, and by September septicemia supervened, and on October 3 he died from the latter cause. According to the learned judge, as the decision was handed down, death was the direct abrasion of the toe caused by the tight shoe, and the conclusion arrived at was that death was occasioned by immediate external, violent and accidental means within the true meaning of the policy, and why a judgment for \$2,165 was given instead of for the full amount does not seem to have been explained.

Rules on mosquito bite.—The following is the latest ruling regarding this little animal, handed down by a Frankfort (Ky.) court May 22: The court of appeals in the case of *Mrs. S. O. v. The United States Mutual*

Accident Association, decided that the lower court was wrong and that she was entitled to \$5,000, the amount of an accident policy carried by her husband, who died from a mosquito bite which he received while he was asleep; the court holding it to be an accident in the meaning of the law.

The last case that I desire to present may not be regarded as a minor physical injury in the strict sense that is usually implied, as it was a fracture of the left fibula and at the time of its occurrence and for upward of three weeks afterward no one, not even the patient nor his physician, believed but what a perfect cure would follow. On March 4, 1897, a gentleman, 60 years of age, fell on a slippery sidewalk and fractured his left fibula about three inches above the ankle. It was not a Pott's fracture, and a dislocation or subluxation of the tibia at the ankle joint occurred. This gentleman lived ninety miles from Chicago, whither he was removed the day following his mishap. The fracture was reduced, a substantial plaster-of-paris dressing was applied and the patient progressed favorably until Sunday evening, March 28, twenty-four days after the accident. At about 8 o'clock he was suddenly seized with dyspnea, cold perspiration, flickering pulse, anxious facies; indeed, with all the symptoms of speedy dissolution. The attending physician, who had not deemed it necessary to visit his patient during the preceding three or four days, was summoned and found his patient in collapse. So rapid was his decline that death ensued at 2 o'clock the morning of the 29th. Here is a case where an unlooked-for fatal result occurred to a man who had always been known to be well and healthful, correct in his habits and who, on the Sunday preceding his death, sat up for five or six hours, dressed, reading and conversing with members of his family. He also ate a hearty noonday meal and luncheon at tea time. There was no neurotic or rheumatic history in the case nor anything to lead one to suspect that any pathologic change had occurred in his system, and yet, without apparent cause, this man rapidly sank and died in the manner I have just described. News of his death was telegraphed to the accident association of which I am chief medical examiner, and I visited the man's home and decided that an autopsy was necessary to decide the cause of death. This was held the next morning in the presence of six physicians, the attorney for the beneficiary, the undertaker and the secretary of the association which I represented. Every organ was found to be normal, including bladder, liver, kidneys, suprarenal capsules, mesentery, stomach, gall bladder, intestines, vermiform appendix, lungs, pulmonary vessels, the cavæ, the coronary arteries, the aorta, right and left sides of the heart, including the valves and columnæ carneæ and other structures of the heart; however, when investigating the left ventricle, a white fibrinous clot six inches in length was discovered. This extended up through the ascending aorta, and it was decided by the medical gentlemen present that the cause of death was due to the antemortem clot. No infarct nor embolus within the pulmonary tissue or pulmonary vessels could be detected. We were positive that the clot was antemortem, as it adhered to the papillæ of the tissues of the left ventricle. There was no lesion or anything else pathologic about the heart, except a weakened, flabby and softened condition of the cordæ tendinæ. What relation or connection this form of injury could possibly bear toward the surgical patho-

logic condition found in the heart of this man, I confess I am not able to explain, unless it was due to the weakened condition of the cordæ tendinæ. The case is now pending an adjustment.

I desire to refer again to so-called floating bodies in joints. Halstead (*Annals of Surgery*, September, 1895) draws the following conclusions:

1. That the etiology of some of these bodies is not fully understood, but that the condition described by König under the name of osteochondritis desiccans explains the most of those that are otherwise found in normal joints.

2. That few, if any, are the direct result of violence.

3. That the most pronounced symptom is the sudden onset of severe pain in the joint with locking of the joint, usually in a nearly extended position; this being followed by acute inflammatory processes in the joint involved.

4. That the lengthening of the femur (in movable bodies in the knee) may occur as a result of irritation produced by the pressure of these bodies.

5. That the only treatment for this condition is their removal by direct incision, preferably under cocaine anesthesia, as soon as the diagnosis is made.

In conclusion.—In submitting this imperfect report I disclaim any intention of leaving the impression that in any of these cases was there existing collusion between patient and physician, or any motive of deceptive thought by any of the claimants or on the part of the attending physicians, but I simply wish to point out a few possible errors in judgment that creep in or are likely to do so in slight physical injuries where an accident policy is carried.

DISCUSSION.

Dr. REYBURN of Washington, D. C.—I would like to say a word with regard to physicians who have suffered from septic infection. I had a confinement case and soon afterward developed symptoms of infection which disabled me for seven weeks. The accident insurance company refused remuneration, and I would ask what is the use of physicians insuring in these companies unless they can be paid for expenses of this kind. I would like to ask if accident insurance companies can not be made to pay for accidents of this kind.

Dr. WILLIAM T. BISHOP of Harrisburg, Pa.—I have had experience both ways. One of the most essential difficulties as to an accident policy is the fact that when you eliminate the number of exceptions there is practically no risk left on their part, and they will beat you in every way. There is in many cases an exception in which a medical man can not antagonize the medical men of the country. The company will often find a traumatism which does not exist. We want to reconstruct insurance companies and ourselves. Cases of septic infection should certainly be included, and we should not waste our money in paying for insurance policies if this can not be done. If the medical man of the company was treated more fairly in many cases by medical men it would be beneficial.

Dr. REGINALD H. SAYRE of New York—My experience has been similar to that of Dr. Reyburn. When taking out my policy I asked if I could recover if I should break my arm or leg, and the agent told me that would not count at all as the clause would not operate in such a case. Some time after I broke my thumb and was prevented from operating for several weeks. I suffered pecuniary loss and put in my claim for damages against the company. I received a check for the amount with a letter stating that the company did not wish to insure me in the future. It is true, these companies do not pay claims if they can avoid it.

Dr. W. W. KEEN of Philadelphia—I agree that insurance companies should be liable for septic infection during operations. It is as much an accident as falling from a bicycle, and even more so sometimes by sacrificing life. I have always insisted when taking out a policy that it should cover all cases of septic infection. Sometimes the companies demand a higher rate and I have paid it, although I saw no reason why I should pay it. However, we must be just with the companies and not expect them to do more than they agree.

Some of their policies state that there must be a total disability and they base their rates on this fact. In a case of partial disability we should not expect them to pay the full amount or to hold them liable. We must be just both ways, but I think they are unjust to physicians, and especially surgeons, in demanding an extra rate.

Dr. I. N. QUIMBY—I have been insured in accident companies for some time and I know of one or two New York companies who pay for partial disability. One company paid me one-half the weekly allowance. They make the claim that the physician is guilty of contributory negligence, and this they have no right to do. When they make this claim you can do nothing, for it is practically dishonesty.

Dr. ALLEN of New York City—This question of septic infection should be more understood by the physician. I remember a case of a physician dying from septic poisoning, and the question arose whether or not he had an abrasion on his finger when he operated. There was some doubt about this, but he may have had a hang-nail on this finger; and the company would not pay. There was considerable trouble on this point and finally the man was found to have had an abrasion. If it had not been for this fact the company would have paid for the accident. They have a number of fine printed clauses which we do not always read and are therefore not aware of.

Dr. DWIGHT—I am not connected with any accident company, but I do not see why the company should pay in a case of infection. The septic poisoning might just as well have been the result of some internal disturbance and may have resulted from within the mouth. There may be no relationship between the injury and the result, and may not have been due to the operation at all. This matter should be settled in some way satisfactory to the company and the insured.

Dr. L. H. MONTGOMERY—The circumstances alter the case. If there is nothing stated in the policy regarding sepsis, perhaps some companies would succeed in avoiding paying. I know of no company who will not pay indemnity for any accident that results in blood poisoning unless there is a clause inserted against it.

STATE MEDICINE TO THE PRESENT TIME.

Presented to the Section on State Medicine, at the Forty-eighth Annual Meeting of the American Medical Association at Philadelphia, Pa., June 1-4, 1897.

BY FRANKLIN STAPLES, M.D.

WINONA, MINN.

State Medicine, the department of science and government pertaining to public sanitation and public health, is a development of modern times, is largely a product of the civilization of the latter half of the present century; yet in its rapid extension it has become nearly universal, has an important place in the state enactments of nearly all nations. Physicians were recognized by law in very early times, and were provided for in the armies and at the courts of kings. In the Middle Ages something was known of medical jurisprudence. Legal medicine is said to have been founded by one Paolo Zachias of Rome, at the beginning of the seventeenth century. What is mentioned as state medicine, taught in the German universities in the eighteenth century, was but the forensic medicine of the times relating to laws in medical jurisprudence. The establishment of state medicine in all countries follows much later than the development of medicine and surgery and the making of physicians.

The principle declared by the fathers of our nation, that life, liberty and the pursuit of happiness are the inalienable rights of all people, and the acknowledged fact that it is the province of government to ensure these rights by suitable laws, are at the foundation of what now exists in this department, as in others pertaining to the welfare of the human race.

The character of the advancement in state medicine and the standards of excellence attained are noticed as indicating the intelligence, culture and

good government of a state or country. Greater difficulty has been experienced in some of our States than in others in the establishment of sanitation by law; but for contrasts in sanitary affairs and conditions, the differences between countries must be observed. The difference in government and a reason for want of progress in civilization appear in the following, which is mentioned as an illustrative case: France not long since proposed a reciprocity with Turkey for interchange of vital statistics. Blanks were sent to the heads of departments. One of these went to the Moslem magistrate of old Damascus. The information furnished by the Turk is as follows: 1. "What is the death rate of your city?" *Answer*.—"In Damascus every one must die at the command of Allah. Some die young and some die old, but every one must die." 2. "What is the rate of births?" *Answer*.—"I can not answer this question. Allah knows all that." 3. "How is the supply of drinking water?" *Answer*.—"Since time immemorial nobody died for want of water in the city of Damascus." Concerning the general sanitary condition, the learned magistrate's answer was, "Since Allah sent his prophet, Mohammed, into this world with fire and sword, things are better." This much for a defective civilization of antiquity continuing in modern times. Fortunately, not many such governments have survived to the present time.

The following concerning progress among our States is suggestive of important facts: In a certain State of the interior, the State Board of Health appealed to the legislature for the passage of a better State sanitary law, and addressed to the members a circular letter, from which the following are extracts: "There is annually lost in this State not less than \$5,000,000 through unnecessary disease and unnecessary death." The State is urged to save this great annual loss by better sanitary laws properly executed. The circular, in its just and reasonable appeal, further gives the case as follows: "The major portion of the bill proposed has been drawn from the laws of Massachusetts, New York, Michigan and Pennsylvania. These States, through their health laws, have gained much wealth and power. . . . The old law of our State is not up-to-date. It does not take account of recent discoveries in sanitary science, and fails to meet many conditions necessary to accomplish thorough health work. It may be likened to an old, wheezy engine that coughs and groans as it hauls its insignificant load." It is supposed that the legislature came to time with the new law.

The question of first rank among the nations in the matter of state sanitation may be considered. State medicine in England is a little older than is that of the United States; the whole time of the former being a little more and the latter a little less than half a century. Moreover, the English system has an advantage, in that in its management and support it is national rather than local.

The English parliament became informed and interested in the subject of national sanitary improvement in 1844. Laws were passed, and state medicine became and has continued to be an important feature in the government. In the United States, state medicine properly began in the State of Massachusetts with the formation of the State Board of Health in 1869. Eight years were required for the making of the first ten boards in as many States. At the present time there are thirty-eight State boards in the forty-six