

BURCH (J.D.)

FROM TRANSACTIONS
TEXAS STATE MEDICAL ASSOCIATION,
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LA GRIPPE.

Suggestive Letters from Eminent Men

BY

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lege, 1869-71, etc.

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LA GRIPPE—SUGGESTIVE LETTERS FROM EMI-
NENT MEN.

BY J. D. BURCH, A. M., M. D.,

AURORA, TEXAS.

This association has coughed and sneezed, hawked and wheezed, through three consecutive epidemics of la grippe, and the writer has not the slightest idea of asking the members to labor up from a probable epidemic 415 B. C. to this good year 1892, through the chronology of influenza, la grippe, blitz katarrh.

The Italian name, "Influenza," was most familiar to my boyhood days. The Italians believed the disease due to the "influence" of the stars—hence the name "influenza."

If, after our experience of the past winter, our scholarly brethren of Germany would again take up *their* name for this epidemic catarrhal fever, "blitz katarrh," and recoin it into "donnern und blitzen" (thunder and lightning), I think it would be declared legal tender nomenclature in Texas.

Hurrying through the centuries, from an attack on the Athenian army in Sicily more than four hundred years before Christ, we come more definitely to the epidemics of 1173, 1239 and 1299. Then we will glance at Gluge's chronological table, beginning in the fourteenth century, and by interjecting dates from the highest authorities, make, I believe, the most perfect table so given. As Dicken's word painting of love, we behold it "an old, old story."

Fourteenth century—1323 and 1326. Fifteenth—1410, 1411 and 1414. Sixteenth—1510, 1557, 1562, 1574, 1580 and 1593. Seventeenth—1658, 1669, 1675 and 1693. Eighteenth—1708, 1712, 1729, 1732, 1733, 1742, 1743, 1761, 1762 and 1775. Nineteenth—1800, 1803, 1831 and 1833. Aiken would add 1311



and 1403. Wilson has gotten from different authorities 1558, 1591, 1610, 1626, 1627, 1642, 1643, 1647, 1655, 1688, 1709, 1730, 1737, 1738, 1757, 1758, 1767, 1772 and 1788. Watson mentions 1782; Dr. Rush, 1790; Webster, 1795, 1797, 1798 to 1803. Many epidemics in Europe and America from 1788 to 1890. Condie gives 1787 and 1805 to 1827; Currie, 1807; Condie, 1816, 1826, 1830, 1832 and 1837. Many from 1837 to 1850-51; 1843, 1847, 1848, 1857, 1858, 1860, 1864, 1867, 1874 and 1879. Among the chief epidemics may be mentioned 1762, 1782, 1787, 1803, 1833, 1837, 1847 and 1889. Texas will remember 1889, 1890, 1891 and 1892.

The epizootics of 1872 and 1880 will be remembered by all lovers of the horse—the doctor's faithful friend. Those were epidemics of influenza, as shown by the morbid anatomy. I had a favorite saddle horse standing in a livery stable where there were a few less than forty horses. Thirty of these began to cough the same night or early morning. By evening of that day all were coughing.

This reminds me of the loss of two fine cows in Kentucky from what I there called "Texas fever." Here I would call it "Spanish fever." So in Italy they spoke of la grippe as the "German disease." In Germany they called it the "Russian pest." In Russia they would not foster the child, but said it was "Chinese catarrh." In America we can safely say it is a "foreign devil," and petition against its naturalization.

Our chronological table is valuable in several respects. It certainly upsets the old idea that the epidemics were cyclical.

Hand in hand walk an epidemic and pandemic catarrh. With a promise not to be prolix, and with obvious design, I give a few lines from Wilson: "In the year 1830 began a series of epidemics remarkable for their wide diffusion and the rapid succession with which they followed one upon another. The disease began in China; in September it reached the Indian archipelago; it swept into Russia and invaded Moscow in November; in January, 1831, it was raging in St. Petersburg; March found it in Warsaw, April in eastern Russia and Silesia;

in May it prevailed in Denmark, Finland and a great part of Germany, and in the same month it fell upon Paris; in June it was in England and Sweden; it was still creeping about middle Europe and lingering about Great Britain at the end of July; in the early winter it swept southward into Italy and westward across the Atlantic to North America, and was still harrassing the inhabitants of certain regions of the United States in January and February, 1832. Meanwhile it continued in the east, spreading to Java, farther India and the Indian archipelago. It continued in Hindostan after it had died out in Europe. But in January, 1833, it again visited Russia, and rolled thence southward and eastward over most of Europe. It is recorded that by February it had reached Galicia and eastern Prussia; in March it was in Prussia, Bohemia and Warsaw, and had extended ~~it~~ to Syria and Egypt; in April to many parts of Germany and Austria, and to France and Great Britain. Midsummer found the disease yet prevailing in some districts of Germany and north Italy, and in the early autumn it was in Switzerland and eastern France; in November it visited Naples. Epidemics so frequent, so widespread and so unsparing of individuals wherever the disease appeared, could not fail to excite a deep and general interest."

In the same paper I recently saw recorded the deaths of the eldest son of the Prince of Wales, two cardinals in the church of Rome, and innumerable peons, like myself, in the great work of life. Sir Morell MacKenzie, one of our distinguished specialists in throat and lung diseases, fell a sacrifice to la grippe; Dr. De Hays Agnew more recently. Truly, it is no respecter of persons, nor is it baffled by surroundings. Epidemics have flown on the wings of the swift over Europe in six weeks, or have gone creeping on the feet of the sloth in six months.

Writing of 1833, Watson says: "On the 3d of April of that year—the very day on which I saw the first two cases that I did see of influenza, all London being smitten with it on that and the following day—on that same day the Stag was coming up the channel, and arrived at 2 o'clock off Berryhead, on the

Devonshire coast, all on board being well at that time. In half an hour afterward, the breeze being easterly and blowing off the land, forty men were down with the influenza, by 6 o'clock the number was increased to sixty, and by 2 o'clock the next day to one hundred and sixty."

Condie, writing in 1858, says: "In its several visitations in this country it has usually commenced in one of the eastern States and extended southward along the seaboard with more or less rapidity. In 1807, however, it showed itself first in New York, spreading thence, as from a center, in every direction. It reached Canada on the north and the southern and western States in the course of three months. The amazing rapidity with which it diffused itself over the American continent resembled more the fleetness of the wind than the natural course of a disease." Plainly, this also shows that there is something in the atmosphere that is the exciting cause. Yet it is to a limited degree portable and contagious. Much proof could be offered, but it is unnecessary. Watson calls attention to numerous instances "in which the complaint has first broken out in those particular houses of a town at which travelers have recently arrived from infected places." Wilson quotes Drs. Guiteras and White: "An American gentleman in bad health contracted the disease in London, improved, suffered a relapse shortly afterward in Paris and died there at the end of December, 1879. His body was embalmed and sent home. Following the exposure of the remains of this person to the view of his family in Philadelphia there was an outbreak of influenza, with characteristic symptoms, which affected, in the first place, members of the family; afterward, friends living in close intercourse with them; next, the medical attendant of some of them, and, finally, the housekeeper and a patient or two of one of the physicians who wrote the paper, the whole number affected in Philadelphia being eighteen at the time of publication of the account. Subsequently two or three other cases were developed, but the disease did not extend beyond the immediate circle of those in direct communication with the invalid."

Noah Webster is authority for the statement that the epidemic of 1647 was the first mentioned in American medical history. In 1732-33 Saxony and Poland had an epidemic; thence to Germany, Switzerland and over Great Britain to France, Italy and Spain, to North America. We had la grippe in 1737, 1738, 1757, 1758, 1761, 1767, 1772 and 1781. Many epidemics in America during 1788 and 1790. Webster says: "The influenza of October and November, 1789, and that of April and May, 1790, were very general or universal in the United States, and unusually severe. A like influenza prevailed in the winters of 1825 and 1826." We suffered, indeed, from 1805 to 1827, 1831 and 1832; from 1857 to 1864. Da Costa gave a valuable account of the epidemic of 1879.

The great epidemic of 1847-48, described by Peacock as seen in London, surpasses all others.

There are exceptions to the rule, but epidemics usually prevail two months or less time in a certain locality. It is no respecter of persons, regions or countries. It has attacked the antipodes simultaneously; it has marched against the prevailing winds. Nor does the temperature of the atmosphere arrest it, as frost does yellow fever. It basks in the sunshine and hurries through the frost. Truly, a cosmopolitan king. Able writers believed la grippe depended on telluric influences. O'Neale, Henle and Holland, some thirty-five years ago, advocated strongly the animalcular theory as a cause. So late as 1858 Mr., afterward Sir Thomas Watson, probably the greatest writer of his day on the theory and practice of medicine, said to his London classes: "Another hypothesis, more fanciful, perhaps, at first sight than these (telluric, atmospheric, temperature or meteorological, magnetic and ozone theories), yet quite as easily accommodated to the known phenomena of the distemper, attributes it to the presence of innumerable minute substances endowed with vegetable or with animal life and developed in immense abundance under specific states of the atmosphere in which they float and by which they are carried hither and thither. Myriads of these animalcula, or of these

vegetable germs, coming in contact with the mucous membranes, and especially with that of the air passages, irritate (it is imagined) those surfaces and exercise a poisonous influence upon the system. Again, that the waters of this globe swarm with living creatures, which, invisible by our unaided eyes, the microscope has taught us. Others, too numerous to be estimated even by that wonder-showing instrument, in all probability exist. We can not doubt that the gaseous fluid which surrounds this planet equally teems with living atoms. We know that multitudes of insects and of cryptogamous plants, infinite in number with respect to our finite powers of computation *are* sometimes suddenly hatched or developed in places which were previously free from them. It is easy to conceive that atmospheric infusoria (so to speak) may rapidly congregate, or vivify, in masses sufficient to render deleterious the air we breathe." How near the accepted theory of today! Yet, how far from it when he adds: "That which most commends itself to my own acceptance, and which may also be most easily put to the test when the opportunity shall arise, is the ozone hypothesis." He refers to M. Schonbein's theory in a paper on ozone—1851. How fortunate that Pasteur and his followers have not accepted theories "which may also be most easily put to the test when opportunity shall arise." Having diligently sought opportunities, they have put all theories to a crucial test. Graves wrote: "The empire of Reason, extending from the old to the new world, from Europe to the antipodes, has encircled the earth, and she never sets on her dominions; individuals must rest, but the collective intelligence of the species never sleeps." Ancient dream of a grand man! Today behold Virchow's development of cellular pathology; Pasteur demonstrating that fermentation is "life without air," and demolishing the bastions of the devil—the doctrines of spontaneous generation; foretelling the results of bacterial processes in certain diseases; Devaine proving that a single spore may inoculate an animal; Lowenhœck giving the population of a drop of water at 500,000,000; Cohn telling us that a bacterium in two days

“will have multiplied to the incredible number of 281,500,000,000 ;” Koch, supported by Klebs and others, saying “bacteria do not occur in the blood, or in the tissues of a healthy living body, either of man or the lower animals.” What a glorious victory for science! Let not this victory be turned to worse than defeat by much of the false doctrine of evolution. I prefer to believe of Bechamp’s isolated microbes from the chalk of the second epoch of that “like produces like;” that bacteria or germs attacking or infecting the Athenian army four hundred years before Christ are the same “yesterday, today and forever.” If these bacteria caused influenza two thousand years ago, the same bacteria do it now. I believe in no other change for them save that which may be caused by change in the medium in which they exist, and that their ancient type is restored always by the restoration of the surroundings of the original type coming from the creator of all things, “both great and small.” Dr. Max. Jolles and Prof. Weichselbaum, with others, have, more than two years since, discovered in the sputa of cases of influenza a new micrococcus, resembling Friedlander’s bascillus or the pneumococcus of Fraenkel and Weichselbaum. This micro-organism is extremely small, “an absolute minimum of the indefinitely little.” But it can be viewed today by microscopes of three thousand or four thousand diameters, that, as Griffiths says : “If we could view a man under such a lens he would appear from three to four miles in length.” Atremla believes the microbe identical with that of simple coryza, and prefers the name of epidemic catarrhal fever.” Flint calls the disease under consideration “epidemic bronchitis.” I reserve some grippo-toxine problems for the close of this paper.

Briefly, the symptoms of la grippe are : Chills or rigors, soon followed by a tightness or severe headache or marked frontal pain; sensitive or watering eyes; sneezing often ushering in the attack ; discharge from the nostrils ; hoarseness, cough and, may be, difficult respiration ; frequently severe pains in the limbs and different parts of the body ; great muscular debility in influenza ; great articular pain in dengue. Symptoms are

varied as we meet the catarrhal, gastro-intestinal or nervous forms of la grippe. Temperature more or less elevated, generally, and, in many cases, notably disturbed circulation; pulse often quick and feeble; excessive expectoration and sweating is often seen not caused by treatment; frequently great disturbance of the digestive system, loss of appetite or loathing of food; sweet water from the "old oaken bucket" disgusting or vomited; great depression of spirits and loss of strength. No symptoms more characteristic and none more interesting to me. All powerful all pervading spore, bacteria or grippo-toxine; you cause a patient to immortalize himself by crying out: "The first day or two I was afraid I would die; the next day or so I was afraid I wouldn't; the balance of the time I didn't care whether I died or not." In a few days if no serious complication, gastric, pulmonary or nervous, the patient is convalescent. Great debility, so generally noted, continues with the aged or enfeebled from other cause or disease. As Dr. Rush expresses it, other diseases "put on its livery." The sudden and overwhelming invasion is only equalled by the often sudden and complete disappearance of the epidemic. The prognosis of uncomplicated cases is favorable. In bright, pleasant weather hundreds demand or require no treatment. They "tough it out" or "weather it out," as they term it. Remembering the often extreme debility and interrupted heart's action, together with the emphasis that Flint places on Dr. Gardner's observations (that have been our own), "during the prevalence of influenza other diseases are unusually severe, and the rate of mortality from all diseases is increased," we should treat la grippe with great conservatism, yet promptly, and with an eye to the most frequent complication, to avoid or prevent these, if possible. In the vigorous or otherwise healthful, with strong circulation and no dyspnea, I have not hesitated to give phenacetin and salol combined, feeling that I am giving an antipyretic, analgesic and antiseptic at once. I have used phenacetin to the exclusion of antipyrine, antifebrine, etc., since I could first get it. When first introduced here a "corner" was

made on it for a short time by a retail drug house of the State in order to secure prescription business. I always watch phenacetin, and never place it in the patient's hands to abuse. Few and small doses, with careful instructions. If feeble, or greatly disturbed circulation, with much pain, morphine and antropline, hypodermically; or, by the stomach, morphine and an alkali—sodium bicarbonate or sodium hyposulphite. For prominent head symptoms, pain and flushed countenance, if the stomach is tolerant, one of the bromides, with or without an opiate, and hot pediluvia. If I wish to avoid phenacetin, having a high and obdurate fever, I have seen beautiful results from full doses of quinine and small doses of salol combined. If the patient is feeble and small, poor, frequent circulation, I give digitalis, strychnia, arsenious preparations, ammonia and stimulants, with careful attention to diet. Nourishing but easily assimilated food at regular intervals. Much food at once, or rich food, frequently increases headache and adds to the fever, which is of a remittent type, with an evening exacerbation. Salicylate of sodium has enjoyed popularity in the gastro-intestinal form of la grippe; the joint idea being fairly carried out in that of salol. Salol has so much carbolic acid in it that its effect on the kidneys must be noticed. Mild aperients are sometimes required in the gastro-intestinal form of la grippe, with one of the best pepsins after food. With care toward intestinal antisepsis, we may use salicylate of bismuth, iodoform or zymocide. For throat or nose irritation, a cocaine gargle or wash. Prof. Laffont's recommendation of preparations of coca, to overcome astheina and shorten the attack, is meeting with favor. For the cough, an opiate with chloroform, or the adodyne of morphine and bicarbonate of soda, does well. Pneumonic forms of influenza require supportive treatment *ab initio*. It is not amiss in the south or southwest in any form of pneumonia. Prof. Keene has suggested an excellent food and stimulant if the patient requires both at once, and can not take chicken jelly, milk-oyster soup or other such nourishment, or such stimulants as mellow whisky, soft brandy, egg-nogg, milk punch. He directs the

whites of two eggs, shaken in a pint bottle with two ounces of lime water; shake vigorously; add half a pint of pure milk and and shake thoroughly; then add sugar, nutmeg and port wine to the taste. If the stimulant or spice is not wanted the other part is palatable, nutritious food. A small quantity, wine glass to small teaspoonful, every two or three hours, rather than more at longer intervals, for reasons given. Artificial digestants are most useful with iron, quinine, strychnia and arsenious preparations to the feeble convalescent. Mellen's food and milk, with or without brandy. They must be nourished. Dr. Dilafield is right; they *must* have food. Patients have starved to death on champagne and whisky. Sir Morell Mackenzie, so lately dead of la grippe, wrote strongly when he said of the disease, there is a "profound impression on the nervous system," a "deterioration of nerve force, prolonged and sometimes permanent." He urged the "stimulating and building up diet and hygienic treatment to ease and assist functional activities."

The complications and sequellæ of la grippe are numerous and varied.

Until this last epidemic I had not seen such frequent tendency to profound or dangerous interruptions of the heart's action, not to be ascribed to change of treatment at my hands. We had, evidently, in portions of our country the nervous form of influenza, of which that elegant gentleman and charming writer and talker, Samuel Henry Dickson, said: "The number of deaths in the city of London from epidemic cholera was less by a considerable amount than that produced by the next year's invasion of influenza." "Perhaps the most common of human maladies, and may be affirmed to constitute, directly and indirectly, one of the widest outlets of human life." The journals, the public press, both American and European, personal observation and that of associates over our State and country, made familiar the expressions "heart failure," "heart trouble," "paralysis of the heart" (much used in Louisville, Ky.), in the epidemic just passed. This caused me to write many of our most prominent American medical men, saying: "I know that

epidemics, historically, differ greatly, but can you offer any explanation for the greater frequency of 'heart failure' or 'paralysis of the heart' in this than in the epidemics just preceding?" I am greatly indebted for this intellectual symposium. It will be readily seen that I did not confine my question to the general practitioner. Here is a letter from a most careful reasoner, distinguished teacher and writer:

3900 SPRUCE STREET, PHILADELPHIA, March 9, 1892.

Dr. J. D. Burch, Aurora, Texas.

DEAR SIR: In answer to your question, "What reason can you offer for the frequency of heart trouble in the recent epidemic of influenza?" I can only say that the reason is in the essential nature of the disease. It is a pandemic disorder, *i. e.*, it occurs in widely separated regions simultaneously, and must be inferred to arise from some condition or contents of the atmosphere. It assumes a great variety of types, in which it resembles the zymotic diseases generally, but is peculiar in the great variety and dissimilarity of its local manifestations. The only constant phenomenon it presents, whatever the organs which it specially affects may be, is extreme prostration, which bears no direct relation to the other phenomena of the attack. This debility can only be explained by some peculiar affection of the nervous system or of the blood, or of both at once. No specific lesion of either has been demonstrated, but it seems to be admitted that a specific micro-organism does exist in the respiratory mucous membrane, in the blood and, perhaps, elsewhere. If this view is confirmed it would explain the variety of types presented by influenza, such as the pulmonary, the cerebral, the intestinal, etc., and it would account for the singular persistence of the nervous debility and the irritability of the heart observed in a greater or less degree in all epidemics of the disease, and which in your late epidemic appears to have reached a maximum.

Yours respectfully,

ALFRED STILLE.

Here is a letter from a man whose name is familiar across the continent, the president of the American Medical Association:

BOSTON, MASS., March 8, 1892.

DEAR DOCTOR: Thank you for your letter of inquiry, but I really have no opinion worth quoting as to the cause of the recent epidemics that have swept over both continents. Of its results, few physicians, east or west, north or south, but have been made painfully aware, and of long-continued debilitating consequences. Yours sincerely,

HENRY O. MARCY.

Doubtless before me are worthy students of this well-known teacher :

Dr. J. T. Burch, Aurora, Texas. NEW ORLEANS, LA., March 5, 1892.

DEAR SIR: I have not been a careful student of la grippe, but I incline strongly to concur with many others who believe the disease to be due to a poison or toxine engendered by a germ; that this poison acts specially on the nervous system, and often markedly so on the vagus, thus affecting both the heart and respiration. Yours truly,

STANFORD E. CHAILLE, M. D.

This from an eminent gynæcologist and beautiful writer :

600 MADISON AVENUE, NEW YORK, March 7, 1892.

DEAR DR. BURCH: I am entirely unable to explain the phenomenon of which you ask, unless it be that the nomenclature, "heart failure," has become a fad of late. La grippe has been fatal here only by creating pulmonary sequelæ. Sincerely,

T. GAILLARD THOMAS.

This is from a wonderful diagnostician and able teacher and writer, whose name you all know :

1700 WALNUT, PHILADELPHIA, PA., March 8, 1892.

Dr. J. D. Burch, Aurora, Texas.

MY DEAR DOCTOR: In answer to your letter, I think that both in this and in the epidemic of influenza of two years ago the cardiac symptoms were very common. They depend, in my judgment, upon the depressing influence of the poison itself on the nerve supply of the heart.

Yours very truly, J. M. DA COSTA.

This from an eminent physiologist :

BELLEVUE HOSPITAL MEDICAL COLLEGE,
NEW YORK, March 7, 1892. }

Dr. J. D. Burch, Aurora, Texas.

"Heart failure," "paralysis of the heart," and many such expressions, convey to me no very definite ideas; but I have always found cases in which recovery from la grippe was very slow. The question in your letter is very difficult to answer. Yours sincerely,

AUSTIN FLINT.

From the University of Virginia, medical department, chair of practice, this, by the pen of a scholar of highest authority :

Dr. J. D. Burch, Aurora, Texas.

March 8, 1892.

MY DEAR DOCTOR: Your letter of the 3d was received Sunday afternoon, but I have been so busy since that I have not had time to reply till now. Your account of the greater frequency of "heart failure" in your

section during the present epidemic of la grippe than in the previous epidemics is very striking. I hear that similar observations have been made in Louisville and elsewhere, and I know no cause for it whatever. We have had a different epidemic here. In the winter of 1889-90 I attended 323 cases of la grippe, and it was *far more severe* that year than since. Last year (1890-91) I saw only about 80 cases, and thus far I have seen about 150 during the present epidemic. The death rate here, however, has been small, though the symptoms were often very alarming. I saw a few days ago (in consultation), in another part of the State, a lady about seventy-three years old, whose general health was excellent, who was suddenly taken with a series of quite severe chills, coming on irregularly and followed by high fever and semi-comatose condition. There was not a *suspicion* of malaria in the case, and our view was that she had la grippe. I am glad to say that she is now recovering. I don't know why some epidemics are so much worse than others. I have been giving recently in the early stages, phenacetin, caffeine and atropia, and later on have substituted salol and quinine for the phenacetin, and this treatment has been very satisfactory in my hands.

Yours very truly,

WILLIAM C. DABNEY.

Another name, very high authority on nervous diseases, this note:

WASHINGTON, D. C., March 6, 1892.

DEAR DOCTOR: I have not had my attention directed to the subject of heart failure in connection with la grippe. I send you, however, a monograph of mine on "Weak Heart," which may prove of some interest to you.

Yours sincerely, WILLIAM A. HAMMOND.

From a distinguished writer, teacher and student, needing no introduction, this:

UNIVERSITY OF PENNSYLVANIA, }
OFFICE OF THE PROVOST, March 7, 1892. }

Dr. J. D. Burch, Aurora, Texas.

DEAR DOCTOR: I wish I had time to answer your interesting question carefully. I do not think there have been as many deaths during the last six months as in a like period in former years of this great epidemic. Both the profession and the public are more aroused to the dangers, and observations are more accurate and frequent. Besides this, I think there is no doubt that the general health and resisting power of the community have been reduced by the long prevalence of the epidemic influence. Moreover, I attribute a good deal to the fact that there has been a serious period of financial depression; many persons have been anxious, overworked and depressed. All this contributes its share toward making them less able to bear an attack of serious acute disease. I think the causes of

death you mention are usual expressions of nervous exhaustion affecting one or other nerve centers, as may happen in different cases.

Yours truly, WILLIAM PEPPER.

From the father of the American Medical Association, to whom we are all under so many obligations, this letter of thought and warning:

65 RANDOLPH ST., CHICAGO, ILL., March 3, 1892.

Dr. J. D. Burch, Aurora, Texas.

DEAR SIR: Your letter is received. All the epidemics of influenza or la grippe of which we have had any accurate history have been characterized by nervous and muscular weakness, often extending through a protracted convalescence and accompanied by marked increased mortality from pneumonia and acute affections of the respiratory organs. The prevalence of the disease during the last three years has been accompanied by the same characteristics, with the addition of greater development of gastric and intestinal irritation and striking impairment of the functions of the vaso-motor, cardiac and respiratory nervous systems. Whatever may be the specific cause of the disease (whether bacterial, toxalbumose or meteorological), it plainly has a strongly depressing or paralyzing influence over the nervous centers of animal life, and this quality has been more strikingly manifest this year than at any time before. I think, however, a large part of the cardiac and pulmonary failures and protracted nervous prostrations encountered in the present epidemic have been caused by the almost universal administration of so called alcoholic stimulants and such antipyretics as salicylates, antipyrine, phenacetin, etc., all of which directly diminish the taking up of oxygen from the air cells of the lungs, and the elimination of carbonic acid, and equally diminish the sensibility of the cerebro-spinal nerve centers. While they reduce the pyrexia, charmingly relieve the pains and restlessness, they are rapidly impairing the functions of the blood corpuscles, and so far paralyzing the vaso-motor nerves as to stealthily invite a fatal pneumonia, pulmonary œdema or cardiac paralysis. I have treated no case of influenza or la grippe during the last three years that terminated fatally, and I have given none of the remedies just named in their treatment. * * *

Yours truly,
N. S. DAVIS.

The last letter is from one whose name is familiar as any other given. Stonewall Jackson's surgeon writes as he handles a knife—decisive, clean cut and to the center of the matter:

Dr. J. D. Burch, Aurora, Texas.

RICHMOND, VA., March 8, 1892.

DEAR DOCTOR: I wish I could answer your question satisfactorily. In the last epidemic of la grippe the tendency was to pneumonia. In this

epidemic the tendency is to death by heart failure. In the first the disease seemed to expend itself in catarrhal symptoms. In the present it attacks the nerve centers, spinal cord and brain. To say why, is to go back to the origin of disease. This we can not do. I am afraid you have got a difficult question to determine.

Very truly yours,

HUNTER MCGUIRE.

At the close of last year, before the Medical Society of London, Dr. Althaus made for discussion, these affirmations: "1. Influenza was an infectious nervous fever, caused by a special poison (grippe-toxine) circulating in the blood and causing congestion of the medulla oblongata. 2. Perfect or imperfect recovery from an attack of influenza was owing to a sufficient or insufficient quantity of an antidote (antigrippe-toxine) being formed in the serum of the patient. 3. Immunity once acquired might be lost again by the disappearance of the antigrippe-toxine from the serum. 4. Grippe-toxine resembled the syphilitic virus in its tendency to attack all parts of the nervous system after the attack was over, but surpassed the syphilitic toxine in virulence and rapidity of action. 5. The three varieties of influenza—nervous, catarrhal and gastric—were not distinguished from one another by any pathological characters, but only by localization of grippe-toxine in different areas of the bulb. 6. The nervous form of la grippe was owing to congestion of the thermolytic, cardiac and other centers in the bulb. 7. The catarrhal form of la grippe was owing to congestion of the nervous mechanisms formed by the nuclei of the fifth pair and the vago-accessory nerves in the bulb. 8. The gastric form of la grippe was owing to congestion of the vomiting center of the bulb, the shock being sometimes transmitted to the splanchnic nerves, which are astomosed with the pneumogastric in the cœliac plexus. 9. There were afebrile cases of influenza, the principal symptom being intense mental depression, leading sometimes to suicide. 10. Until the antigrippe-toxine should have been isolated, revaccination with animal lymph appeared to be the best preventive."

It is too soon to affirm or deny the theories or hypotheses of pneumo-toxine or grippe-toxine. I confidently submit them to

distinguished members of this association fond of the microscope and well versed in pathology, chemistry and bacteriology.

I have watched with increasing zeal the splendid work in surgery and medicine accomplished by the younger members of this body. All hail to them!

DISCUSSION

H. A. WEST, M. D., of Galveston: I have listened with a great deal of pleasure to the very able paper of Dr. Burch, and was especially interested in hearing the replies from numerous eminent gentlemen in response to his interrogatories concerning the frequency of reported "heart failure" as the immediate cause of death in the recent epidemic of influenza. There is one explanation occurring to me which I have not heard mentioned, and which was forcibly presented to my observation during the past winter. I allude to the fact that many of the victims of influenza are the subjects of some chronic disease, either pulmonary, cardiac or nephritic. When a disease is so wide spread and so universal in its sway, necessarily many such individuals will be affected; these complications will not only account for sudden death in many instances, but will explain the large mortality in a disease apparently mild. A person may have a latent tubercular focus, existent in the lungs or glandular organs; he is taken with influenza, the fever, profound nervous depression, and the inflammatory processes, perhaps at the very seat of the tubercular infection, are all favorable conditions for the sudden development of an acute tuberculosis. We have, in fact, the same sequence of events so frequently observed after other acute infectious diseases, *e. g.* whooping cough and measles. In every community there are a number of persons the subjects of compensated and perhaps unrecognized heart disease. As long as the current of their lives run smoothly, they feel no evil effects; but let them be taken with a disease like epidemic influenza, "the golden bowl is broken; the pitcher is broken at the fountain;" compensation fails, the hypertrophied and dilated heart is no longer capable of meeting the demands made upon it, death ensues, and we have an explanation of heart failure. Many of those who die suddenly from influenza are the subjects of chronic diseases of the kidneys. To illustrate, I was called last winter, in the midst of the epidemic, to see an old lady who had not previously been my patient. She presented the ordinary history and symptoms of la grippe, but something about the patient made me suspicious of kidney trouble. I ordered a bottle of urine sent to the hospital for examination, but did not get it until the next day, when I discovered

it was highly albuminous and full of casts. However, before the examination was made the woman was dead. Here was a case of sudden death, fully accounted for in the light of the revelations furnished by the urine, but without which the verdict would have been "heart failure," pure and simple. Thus it seems to me extremely important not to leave out of view these common complications as largely accounting for heart failure as a cause of death following epidemic influenza.

