Mental states are correlated with definite physical processes in the brain. You can not call up the one without producing the other. Furthermore, these physical processes being affections of the central organ of adjustment, have connections and relationships which make them centers of influence affecting more or less remotely the various organs and functions of the body. Thus the mind, or as I prefer to call it, mental action, influences not only the automatic functions of the brain, but also other bodily functions relegated for the most part to lower centers and controlled only indirectly by the brain through an exercise of inhibitory influence over them. Indeed, influences coming through the psychic life are constantly impressing themselves upon the physical organism and taking the shape of normal physiologic activities. Only the curious abnormalities which now and then arise attract our attention and excite our wonder. In our amazement at these illustrations of perverted action, we are in danger of overlooking the fundamental facts of mental and physical correlation in the human organism.

Certainly there is no more inviting study than that of mental phenomena from the standpoint of the physiologist, nor are there any more important therapeutic questions than those which relate to the proper handling of deviations from the normal in this department of vital activity.

Educators quite generally are now realizing the importance of a knowledge of psychology as part of the mental equipment of the up-to-date teacher. Quite generally, too, is the fact being recognized that the psychology which has value rests upon a physiologic basis. The question of the influence of mental impressions and mental exercise over physical development and activity seems scarcely to receive the attention at the hands of educators which its importance deserves. The alternative question of the influence of physical training and development over mental health and efficiency is receiving, and quite justly too, considerable recognition in modern methods and theories of teaching. Physical culture, drawing and other methods of developing manual dexterity have fully established their value. They serve to develop the motor capacities of the central organ of adjustment. They tend to make men of action prompt to meet the exigencies of life as they arise.

Dr. E. STUVER, Rawlins, Wyo.—Everyone appreciates the great influence exerted by the mind upon the body and the converse influence of the body on the development and integrity of the mind. I shall not enter into any general discussion of this subject, but desire to call attention to one phase of the question which I regard as of very great importance in the application of educational principles. The point which I desire to emphasize is that the child should not be regarded as a little man or woman, but rather as an epitome of the development of the race. If we recognize the fact that its ontologic or individual mental development corresponds to the phylogenetic or racial phases of development, through which the race has passed in reaching its present stage of evolution of the mind, we will at once appreciate the fact that, in order properly to direct the evolving mind of the child through its various ages of credulity, inquiry and faith, up to the fully developed age of reason, that the teacher should have, at least, a clear outline conception of the mental evolution of the race. I desire to congratulate the author on his exceedingly interesting and valuable paper.

Dr. L. DUNCAN BULKLEY of New York said that the influence of the mind over the physical frame is an established fact of which it is often very interesting to observe illustrations.

The ready control of the vascular system, as seen in blushing, often upon mental suggestion, or the paling of the countenance from fear, and the cold sweat occurring under mental emotion, are known to all. I have seen a number of cases where localized sweating of the hands or feet occurred most readily upon mental influences. When the mind was diverted the parts remained dry, but when attention was called to the part the perspiration oozed out and even ran off the part. But mental influences can go farther, and even produce direct lesions of structures in various organs, and he mentioned an interesting case reported by Leloir, where fright caused the sudden and severe development of eczema.

Mental influence can also act in an inhibitory manner and arrest secretions, and probably also check nutrition. He mentioned a very interesting case of a perfectly healthy young lady where the shock of a proposed slight surgical operation completely arrested digestion, so that a simple breakfast was vomited unchanged fully seven hours after it was taken, the suggestion of the operation and visit to the surgeon occurring on rising from breakfast.

The influence of the mind has undoubtedly much to do with recovery from disease, and Dr. Bulkley thought that some of the benefit resulting in the practice of specialists was in the influence of the mind in the way of hope and expectation.

SMALLPOX IN CUBA.

THE EPIDEMIC IN THE HOLGUIN AND GIBARA DISTRICTS OF CUBA, INCLUDING A BRIEF REPORT OF THE SANITARY CONDITION OF THE TROOPS IN THE DEPARTMENT.

BY R. S. WOODSON, M.D., U. S. A.

MEDICAL INSPECTOR DEPARTMENT OF SANTIAGO.

The harbor of Gibara is a small, open one and well washed. The town of 10,000 inhabitants, a walled city nicely laid off with cleanly streets, presents a pretty seaport, which, with the assistance of constant sea breeze and sanitation can be made a perfectly healthy spot for occupancy by troops.

The town and vicinity were carefully inspected for a suitable location for camp grounds, and the most suitable site selected, i. e., the open point of land to the seaward of the city occupied by a small Spanish fort—a level promontory in close proximity to the only available water-supply, consisting of a large, well-cared-for public cistern. The camp was nicely laid out, the fort taken as a guard-house and carefully disinfected, and an adjacent empty house designated as a hospital. Inasmuch as smallpox was prevalent in the city the command was placed in rigid quarantine, and it is recommended that no more troops be sent to this district until the sanitary situation can be controlled.

The mayor and health officers were next visited, and I was informed that for the past three years the city had been badly infected with smallpox and dysentery, that there had been over 1000 cases of the former with 250 deaths since Jan. 1, 1898, and that there had been over 800 deaths from all causes during that period. I took charge of the sanitary situation at the request of the military commander and instituted the following reforms and measures:

1. The Red Cross supplies, which were abundant, and which had been withheld from distribution by the Red Cross agents, were seized by military force.

2. An isolation hospital of 100 beds, fully equipped from Red Cross supplies, was established outside the city walls in the direction of the infected district.

Fifteen male and female immune nurses were employed at twenty and fifteen dollars respectively; an immune guard of eight men under charge of Sergeant King (M.D.), Company G, Second U. S. V. Infantry, were detailed as a permanent guard and acting hospital-corps detachment. Captain Massie (M.D.), Company G, Second U. S. V. Infantry, was placed in command. In two days forty patients were isolated and under treatment. The shed building, 300 feet long, was divided and subdivided for white and colored, and male and female. Two efficient cooks were employed and a well-stocked commissary established from Red Cross supplies. A detention hospital was then established in an adjacent building, and a large house on an adjacent hill was rented as a paying hospital for female patients of a better class. All infected houses of present and past cases were marked with a red cross to be disinfected. Just beyond the city wall is a settlement of 350 people in small thatched huts, badly infected and containing many cases, which will be isolated. At the suggestion of the commanding general of this department, these huts will be used for isolating purposes for the entire infected district and afterward destroyed. The Spanish hospital, well constructed and fairly well supplied, was seized and the goods confiscated for the use of the medical depart-

ment. The building is not used yet on account of infection, but is recommended as a general hospital for troops stationed on the north coast of Cuba. It is believed that the city of Gibara will become a health resort when the epidemic of smallpox now in existence there shall have been controlled.

Holguin, the principal city of the district, is similarly infected, and in much worse degree, there being in that town of 10,000 inhabitants, 800 cases of smallpox at the present time, and a correspondingly large number of cases of dysentery, typhoid fever and malaria cases. All civil government has been abandoned in this city, and its sanitary condition can be judged from the fact that 12,000 Spanish soldiers occupying the city have not established privy sinks. The situation in this district is grave and demands prompt and efficient action. The absolute necessities are: thorough isolation of patients and suspects; disinfection of infected foci; quarantine against infected adjacent districts; maritime quarantine; abundant disinfectants; medical supplies; rations for Cuban poor; 1000 cots with sheets, pillows, blankets, etc.; vaccine lymph for vaccinating 10,000 inhabitants; an efficient corps of physicians as a vaccinating and disinfecting committee, and a sanitary corps of civilian employees for thoroughly policing the city.

It is believed that with proper support, the situation in Gibara can be controlled in one month; in Holguin in two months and in the whole district in three months.

On October 29 I proceeded on horseback to inspect the sanitary conditions of the various hamlets along the line of the Holguin and Gibara railroad between these two cities. Parenthetically I will remark that there was an excellent dirt road and a beautiful open, fertile country.

Bahia de Rio Blanco, a small hamlet, 30 thatched huts, 200 inhabitants, six miles from Gibara. No smallpox, the disease having exhausted itself; all huts infected.

Arroyo Blanco, eight miles from Gibara, 300 inhabitants. No smallpox at present; 100 cases in past year, with many deaths; all huts infected.

Cantimplora, five miles from Gibara, a town of 600 people. No smallpox, the inhabitants having exercised some precautions against the disease.

Tondinga, 500 inhabitants, ten miles from Gibara. No smallpox in town at present. No history of past epidemic obtainable.

Auras, twelve miles from Gibara, a town of 1000, at present occupied by Spanish soldiers, contained many cases of smallpox of virulent type.

Agua Clara was next inspected as a probable location for troops, four miles from Holguin, at present occupied by Spanish soldiers. Water-supply very deficient; there were many cases of smallpox; all huts infected; locality as a probable camp site abandoned.

It is advised, first, that the remaining six companies of the Second U. S. Vol. Infantry be temporarily withheld from entering infected districts; second, that the six companies now in Gibara be held in quarantine at that point and that they do not proceed as yet to Holguin.

Having done everything in the premises with the means at hand, I next inspected Sagua de Tanamo. The latter town is somewhat inaccessible, necessitating twelve miles of travel in a row-boat to the landing, Esteron, at head of Sagua de Tanamo Bay; then ten miles on horseback to the city of Sagua. At Es-

teron is located the commissary store-house, under guard of three men. It is a filthy little hamlet of 300 inhabitants, where malarial fever is rife. All men who have been on duty at this place are invariably afflicted with malarial fever. I would recommend that these stores be moved up to Sagua with the company on duty there, to avoid the necessity of the above exposure. The road from Esteron to Sagua is in good condition. Basan, a small hamlet of 250 inhabitants, half-way to Sagua, is a healthy little town, containing no smallpox nor malaria.

Sagua de Tanamo, a town of 2500 inhabitants, situated on a high, well-drained hill, in the midst of a large, fertile valley, now under cultivation, giving the best evidence yet seen of marked regeneration from the effects of the war, is a comparatively healthy town. The water-supply is taken from the Sagua River, a clear, bold stream, running through the valley. The town is garrisoned by Company L, Third U. S. V. Infantry, under command of Major M. W. Harris, of that regiment. Acting Asst.-Surgeon W. H. Reynolds, in charge of the medical department, a faithful, hard-working, practical man, has established a good hospital in a rented building, where men receive careful professional attention. The general police of the camp is not good. All sinks were in an abominable condition, old sinks were not filled up and new sinks were not sunk beneath the level of the ground, but left to drain down into the adjacent valley, much to the detriment of the neighboring population. There were no kitchen sinks. No records have been kept of this hospital. The surgeon was instructed in military hygiene and hospital administration. The ration was complained of, as being deficient in fresh beef, and of proper diet for the sick.

At Sagua is located a 100-bed Spanish hospital, in fair state of preservation. The present occupancy of it was advised against, until thorough disinfection had been put into effect.

Baracoa was next visited—a town of 4000 inhabitants, garrisoned by three companies of the Third U. S. V. Infantry under command of Lieut.-Col. T. S. Wyly, who possesses all the requisites toward the making of an admirable soldier. The sanitary work that Colonel Wyly has done at Baracoa deserves special mention. He has moved his command from a well-selected camp-site into the Spanish hospital, situated on a high hill. All floors have been removed and earth taken away to the extent of two feet and refilled with fresh gravel, and covered over with a half-inch layer of concrete. Water-closets and shower-baths have been established. The water-supply is taken from the Baracoa waterworks, from the Macaguanigua River, piped up into a reservoir and distributed throughout the post. The hospital was in an excellent condition, records carefully kept, rations and cooking excellent; medical officers intelligent and energetic. A complete chemist laboratory of expensive instruments and rare chemicals was found. It is recommended that they be turned in to the U. S. general hospital, Santiago de Cuba, for the purpose of establishing a chemist laboratory at that institution.

Guantanamo was inspected, November 1. The headquarters and six companies of the Third U. S. V. Infantry were found encamped a short distance from the town of Guantanamo, the latter a city of 10,000 to 12,000 inhabitants. The camp was well selected, on a sloping hillside, well ditched and drained. All

privy and kitchen sinks were carefully dug and well policed. The sick report showed 25 per cent. sick, principal affection being malarial fever. The yellow fever outbreak has ceased to exist, no cases being found by the inspector. The water-supply, taken from the Guantanamo River, pumped into a reservoir, an iron tank, is there piped into a large iron cauldron and boiled. General police at camp is excellent. The hospital is carefully constructed and was found to be in excellent condition. The records were carelessly and improperly kept.

The following general impressions have been gathered from these and former inspections:

1. The lack of a hospital corps detachment at most of the regiments.
2. The inefficiency and ignorance of hospital stewards as regards their duties as such.
3. The low grade of the average medical officer, both commissioned and contract, especially the latter.
4. The fact that commanding officers, as a rule, are very much alive to the necessity of rigid sanitary precautions in this climate.

Upon arrival I was ordered to return at once to Holguin and Gibara and to assume entire control of the sanitary administration of the district. The below mentioned able corps of acting assistant-surgeons were ordered to report to me for duty in connection with the work of eradicating the disease: Myer Herman of New Orleans; Guel Dolz of Havana; W. O. Stone of Mississippi; Felipe Veranes, chief surgeon Cuban Army; Vicente Gomez of New York. We now have the city of Gibara under control and are at work upon Holguin.

SOCIETY PROCEEDINGS.

Southern Surgical and Gynecological Association.

Eleventh Annual Meeting, Dec. 6-8, 1898.

Dr. RICHARD DOUGLAS of Nashville, Tenn., presided over the meeting, which was held at the Gayoso Hotel, Memphis, Tenn.

Prayer was offered by Bishop Gailor.

Dr. ALEXANDER ERSKINE of Memphis delivered an "Address of Welcome" on behalf of the local profession, which was responded to by President Douglas, after which routine business was disposed of.

D. WILLIAM E. PARKER of New Orleans, La., presented a paper entitled

GUNSHOT WOUNDS.

He described the hospital conditions in Cuba and the wounds seen by him made by the modern bullet. He spoke of some experiments made under the direction of Major L. A. La Garde, surgeon U. S. A., as to the relative penetrating powers of the Mauser, Krag-Jorgensen and Springfield rifles. With ammunition of the years 1896 and 1897 the Mauser, fired at a distance of three feet from the muzzle into seasoned yellow pine posts, would penetrate 34 + inches; with ammunition of 1895 it would penetrate 32 + inches; with ammunition of the past year, the Krag Jorgensen, fired at the same distance, would penetrate 24 + inches, and the Springfield would penetrate but 5 inches; yet many lodged Mausers were found, and he was told by the Spanish chief surgeon that but six lodged Krag-Jorgensens were found by them. In speaking of wounds of special regions, he said that flesh wounds, as a rule, healed under one dressing. In the few cases that did not, the sloughing was at the points of entrance and exit, and not along the whole track of the bullet. Explosive effects were not seen by any of the surgeons. He stated that he had hoped to present some statistics as to the wounds of the war, but they could not be had. Wounds of the brain did well. He had heard of at least five cases that were still alive and doing well. But one case of wound of the spinal cord was operated upon and he was doing well. This patient had paralysis of both legs and of the bladder and rectum. Some spiculae of bone had been removed from the cord. At this time the

patient has perfect use of the right leg and partial use of the left, and has perfect control of his bladder and rectum. He said that while he had not in any way modified his opinion that laparotomy should be done for abdominal wounds in civil life, with the small modern bullet and lack of proper facilities this operation should not be attempted in the field, unless there should be symptoms of hemorrhage. About 50 percent. of these cases recovered without operation. Chest wounds did well and caused but little trouble. In cases of wounded vessels, hemorrhage did not seem greater than in cases wounded by other bullets. When nerves were injured, nerve suture was not attempted on account of the rush of work, but he thought it should be attempted as soon as possible. None of the hospitals had a sufficiently large number of surgeons or hospital-corps men, but he spoke of the efficiency of those who were there.

Dr. F. W. McRAE of Atlanta, Ga., followed with a paper on
PENETRATING WOUNDS OF THE ABDOMEN, WITH REPORTS OF CASES.

At the outset, the essayist referred to a resolution passed unanimously by the Association at the Nashville meeting in 1896, to the effect that in all cases of penetrating wounds of the abdomen it is the duty of the surgeon to make an exploratory incision so as to definitely determine whether the viscera have been injured or not. Since then a few able surgeons have dissented from this opinion. The propriety of surgical interference in cases of penetrating gunshot wounds of the abdomen will depend on one of three things: 1, the general condition of the patient; 2, dangerous internal hemorrhage; 3, wounds of the stomach or intestines large enough to permit extravasation. He quoted from contributions to this subject by Senn, Nunez, Winslow, Budinger, Vaughan, Woolsey, Robson, Chauvel, Michaux, Klemm, and others, and said, from the conflict of opinion and advice given by these and various other surgeons, one is at a loss to know just how to proceed in many cases. His own convictions, based on sixteen cases, which he narrated, are positive. While he has the greatest admiration and respect for the surgical opinions of Senn, he should be recreant to his convictions were he to accept the proposition of non interference laid down by Senn in his recent contributions to the subject. In most of the cases which have come under his observation where grave lesions of the abdominal viscera have existed, the symptoms of internal injury were practically nil, and the positive signs of grave damage almost entirely absent. In conclusion, he reiterated his firm conviction that every case of penetrating wound of the abdomen, where there is reasonable doubt as to injury of the abdominal viscera, should be subjected to at least an exploratory operation. This enables the surgeon to either absolutely be sure that no injury has been done to the viscera, or to repair, as far as possible, such injuries when they exist. The mortality following a simple exploratory operation per se is so small as not to weigh against the much greater mortality that necessarily follows the expectant plan of treatment. In the cases he had seen, the general and local signs have been so misleading and enigmatic that prior to the operation a conclusion on his part as to internal conditions would have been entirely guess work.

Dr. HORACE H. GRANT of Louisville, Ky., contributed a paper on

PRACTICAL MANAGEMENT OF BULLET WOUNDS OF THE ABDOMINAL VISCERA.

Observation and experience with operators coming frequently in contact with this lesion have determined that penetrating wounds of the abdomen demand laparotomy at the earliest possible moment after diagnosis and thorough inspection of the entire region endangered. It is established that not only is the mortality in untreated wounds of the abdomen almost 100 per cent. where the intestines are perforated, and very high in wounds of the solid viscera, but it becomes less promising every advancing hour, until by the second day peritonitis sets in and destroys the hopefulness of the prospect. Within the past two years the speaker has operated upon four cases. In each case the patient was seen early, in no instance later than four hours. In three, resection of the intestine was necessary. Three of these patients recovered; the fourth died from septic peritonitis due to the escape of a large quantity of fecal matter before operation. Autopsy disclosed a perfect intestine.

These three papers were discussed together.

Dr. W. L. ROBINSON of Danville, Va., said he had seen a good many cases of gunshot wounds of the abdomen, and nearly all of them died, either with or without operation. Early operative interference might save some of them.

Dr. G. S. BROWN of Birmingham said he knew of several cases of gunshot wounds of the abdomen that occurred in and