

them for the purpose of stimulating the circulation of the part injured and of thus bringing to them a freer flow of their desired food, which the skin resents. The prurigo-like papule, the purpuric macule, the livid and lichenoid efflorescence and the wheal, the œdematous nodule, which give an unmistakable individuality to the bite of the louse, flea, mosquito and bedbug respectively, cannot possibly be reproduced, or in any way imitated, by the puncture or laceration of the cutaneous tissues with a clean metallic instrument. They are the result of contact with some peculiar and distinct virus or irritating substance in each case, and are to be considered in this connection quite apart from the secondary and general lesions which follow upon and are caused by the subsequent scratching they excite.

If there be sufficient evidence in what I have adduced to show the possibility of adding this as another instance to the list of illustrations first mentioned of the mysterious law of protection by inoculation, it will strengthen still more the conviction that an ever-increasing number of foreign elements is engrafted upon man's normal essence as he progresses in life, which are more or less lasting and transmissible in their effects, and which essentially modify his primitive nature.

#### A SKETCH OF THE CASE OF THE LATE DR. LOUIS E. PARTRIDGE, OF NATICK.

By G. J. TOWNSEND, M.D., South Natick.

DR. PARTRIDGE, in health, was about six feet in height, of a florid complexion, light hair, inclined to grow fat, and weighed 210 lbs.; æt. 36. In early manhood he grew up tall and thin, and his friends, fearing a tendency to phthisis, took him out of school for two years, keeping him constantly in the open air during that period. He then regained his health and strength, and always seemed to be vigorous above the average. His habits were invariably good, with the single exception that he was a great smoker.

About ten years ago, he attended an autopsy of a syphilitic patient, and soon after a case of abortion, undoubtedly from syphilitic taint, as the patient had nodes, after that, substernal tenderness and aberration of intellect, &c. From one of these two cases, probably the latter, he contracted a peculiar ulcer upon his right thumb. Finding that simple means would not relieve it, and that I could not induce him to give up

work, I sent him to Dr. H. J. Bigelow, who at once put him under active constitutional treatment, and sent him to the sea-shore. In two or three months, he seemed quite well again, though he had a pretty severe constitutional infection, and lost all his hair, and ever after, his hand seemed unsteady, as if he had not perfect control over any of the muscles of the forearm.

His practice increased rapidly in numbers and extent, involving long rides and much night work. In the fall of 1866, four years before his death, his friends began to notice that his manner was peculiar, he was very boastful, offensively so, at times, and was also very easily excited over a trivial matter. At the dedication of the new Masonic Temple in June, he walked with his Lodge over the whole route of the procession, and his friends then saw something strange about him, ascribing it to the heat of the sun. I was often asked if he had not had a sunstroke.

Early in July he came to me, and complained of feeling dull and inclined to somnolence, falling asleep in his carriage. Knowing that he had had a great deal of night work, I urged upon him the necessity of curtailing his practice, and of giving up his out-of-town patients, at any rate. To this he would not listen.

About the middle of July, he complained of dull headache in the forehead and at the vertex, and said that he could not sleep night or day. His prescriptions at this time were occasionally very peculiar and even unreasonable, doing some mischief and alarming his patients, while at other times his judgment seemed as good as ever.

Deeming these symptoms very serious, I gave him full doses of bromide of potash, which made him sleep, and finally persuaded him to take a vacation. He went to the White Mountains for a week or two, enjoyed himself highly, and returned apparently improved, though not fit for work. He then went to the sea-shore, and there the more formidable symptoms of his disease developed. On his return, he consulted Dr. Walker, who gave a very grave prognosis, and, I understood, considered his symptoms as indicative of softening of the brain.

His condition at that time was as follows:

His gait, very early affected in his disease, was unsteady, staggering, like an intoxicated man, and he was constantly inclined to pitch forward. He finally lost all power over his lower extremities, though at no time was one side more paralyzed than the other. His articulation was difficult and indistinct, his tongue rolling about

as if he had no control over its muscles. There was no aphasia, he knew what he wanted to say, had the words at his command, but simply had difficulty in uttering them.

He was absent and lost at times, forgetful, repeating the same thing over and over, amusing himself with trifles, like a child, and then brightening up and saying what a fool he was. Again he would be excitable and nervous, but at no time really maniacal. He complained more or less of headache, referring it mostly to the vertex, and also of burning heat there, but the pain was never severe or acute, nor did it occur in paroxysms. It was essentially chronic in character, from beginning to end. His appetite, good at first, gradually failed, and finally, after he had lost all intellect, he ate mechanically whatever was put in his mouth, giving little or no evidence of hunger or thirst. His bowels were irregular, usually constipated, though he had frequent attacks of diarrhœa, which were very troublesome, after he lost all power over his sphincters. Towards the last, they were moved only by injections. His sexual appetite was lost very early in his case.

His organs of special sense retained their functions to an unusual degree, especially his sight and hearing were good even towards the very last.

His case progressed very slowly. From being boastful, telling me often how much more money he was making than I, with "gold-bearing bonds," &c. relating also all sorts of extravagant stories and projects, he gradually grew more quiet, amusing himself, by the hour together, cutting paper, and, though restless at first, trying to exert his gradually diminishing muscular power, he at last would sit just where he was placed, and even if he slid off on to the floor, would be just as contented there as anywhere.

In spite of every care, some months before his death an ulcer formed over the sacrum, which spread literally to a frightful extent, involving the spine as well as the soft parts, flakes of bone peeling off as well as of soft parts. At this time he had lost all feeling below his waist, and nothing that was done to the ulcer seemed to cause him the slightest inconvenience.

A short time before his death, from being quiet most of the time, he began to make a peculiar and distressing noise, night and day, so that it was necessary to give him full doses of morphine to enable the inmates of the house to rest. He sank ra-

pidly from this time, and died quietly, about the middle of last December.

In attempting a differential diagnosis in his case, we at once recognized the symptoms as anomalous. The imaginary wealth, the great projects, the peculiar staggering gait, seemed to indicate general paralysis, and yet they were hardly pronounced enough to make it a clear case.

The rolling of the tongue, the peculiar difficulty in articulating, the tendency to stupor, with bright intervals, looked like softening. But there was no hemiplegia, no rigidity of the flexors, no convulsions, no impairment of sight or hearing.

There were periods of excitement, usually brief, but at no time any acute delirium. There was progressive loss of faculty rather than any periods of exaggeration. Indeed, I hardly think that any of us who had watched the case were prepared for the revelations of the autopsy.

The autopsy was carefully made by Dr. Lincoln, Dr. Bryant and myself being present. The following were the gross appearances:—

General emaciation extreme. Dura mater very firm, somewhat adherent to calvarium on median line; adhesion most marked on left side; firmly adherent to arachnoid for an inch and one half from the median line, on the left. Serous effusion to  $\text{zviij}$ . beneath arachnoid, which had a gelatinous aspect. Convolutions generally atrophied and very soft externally. Left hemisphere bulging to appearance, externally. On section of left hemisphere, a slice of ten lines in thickness opened the left ventricle, which was enormously dilated and full of serum, holding at least  $\text{zj}$ . The whole substance of the brain was very pale and anæmic. Right ventricle was perhaps two thirds the size of the left, and also full of serum. There was serous effusion at base of brain. The walls of the fissure of Sylvius were firmly adherent on left side, free on right. Cerebellum atrophied, as, in fact, was the whole brain.

Spinal cord was very firm, almost cartilaginous, and apparently atrophied. Below medulla, the cerebellum was very soft and pultaceous.

Whole amount of serous effusion was not less than  $\text{zxiv}$ .

As to the other organs, the liver was enormous, and extended below the level of the umbilicus. Gall-bladder was much distended. The lungs were perfectly healthy.

The portions of the brain preserved for microscopic examination were the top of

the left hemisphere, pons and upper part of cord, cerebellum (right side), central portion of base of left hemisphere.

Dr. S. G. Webber, of Boston, very kindly consented to make the microscopical examination, and I give the results in his words:

The grey matter was much diminished in thickness. At the vertex, about one third or one fourth the usual thickness. One or two sections, in the fresh state, showed very few nerve cells.

After hardening in chromic acid, from near vertex, only a few cells of any size were seen, and they were filled with granules, *not fatty*, and but few showed a distinct nucleus. There were seen, in sections treated with glycerine, many small granular bodies, apparently nuclei with short processes, perhaps remains of nerve cells, or the intercellular tissue—neuroglia—had an increase of cell elements. There were a large number of irregular circular spaces filled with homogeneous translucent matter, containing in their centre a granular body (nucleus cells degenerated, with the nucleus remaining?).

Towards the outer edge of the convolution there seemed to be very few normal cells. Granular corpuscles were numerous, in some sections forming apparently a quarter part of the external layer of the convolution; in other parts occurring in groups. There were also more of the clear spaces with granular nucleus, towards the edge of the grey matter. Deeper towards the interior of the grey matter there were more normal cells in some sections, many especially of the long triangular cells. In some sections, however, even these seemed to be wanting.

The vessels were not varicose, nor twisted, nor tortuous. Some few had thickened walls. The perivascular spaces were enlarged quite generally. There was exudation of granular coloring matter in the perivascular spaces, with many granular bodies.

Thus we have no fatty cells—the received pathological appearances in general paralysis; no inflammatory softening, rather that of atrophy; no tubercle, and a marked, almost universal cell degeneracy, the consequence, mainly, as I receive it, of the pressure of the immense and most unusual effusion of serum—beyond anything I have ever seen in an adult.

As to causes, I have little to say, except that they were probably as chronic as the effects. There was probably no one cause, but a series: the syphilitic infection in the first place, depressing the whole tone of the system, as it always does; then a con-

stant, ever-increasing mental strain; then the exposure to the rays of the almost vertical sun; and, lastly, very probably, the too constant use of tobacco.

There was no specific treatment of the case, as it was evident from the first that organic changes had taken place upon which medicine could have no influence.

#### CASE OF DEPRESSION OF THE FRONTAL BONE DURING LABOR.

By E. A. W. HARLOW, M.D., Boston.

THE two cases of depression of the frontal bone, recently reported in the JOURNAL, reminded me of a similar case I had a few years ago.

The patient, about 30 years of age, was attended in her first confinement by another physician, since deceased, who delivered her, with the forceps, of a dead child. In her second labor, I attended her. The os uteri being widely dilated, though the head was high, I ruptured the membranes. The pains were strong, but for some hours the head made little or no progress. Passing my hand into the vagina, and examining the brim, I found the promontory of the sacrum projecting more than usual, thus shortening the antero-posterior diameter. Instrumental assistance was accordingly proposed, which the patient and her friends strongly resisted, she being apprehensive that fatal injury to the child might thereby result. Some time afterwards, it being found that the fetus made no advance, and that the os uteri, especially the anterior lip, had become greatly swelled, the use of the forceps was again urged; and after another physician had been called in, who fully concurred with me respecting the importance of immediate delivery, she gave her consent. In making traction, I found it necessary to employ considerable force in order to overcome the obstruction, and in a short time a boy of the average size was born. It appeared nearly dead, but after efforts for about fifteen or twenty minutes to revive it, respiration was established.

On the left side of the forehead there was an indentation of the size of a dollar, the centre of which, the frontal eminence, was depressed about an inch from its normal position. It was not inferred that the forceps had anything to do with this condition of the bone, the mark of the instrument, which was very distinct, being on the *right* side of the forehead. The indentation was attributed to the pressure, for many hours, of the left frontal bone against the projecting