column area on both sides was involved, was throughout most complete on the left side and in the crescentic area near the gray commissure. The latter area seemed also to be the seat of the most numerous capillary hemorrhages.

Long. section Median Nerve.

Medulla.—The lower half of the medulla, or at least all portions below the restiform bodies, had unfortunately been destroyed in the process of removal. Numerous sections taken from various levels alone failed to show any abnormalities whatever.

Cross-section Median Nerve.

Anterior cerebral artery.—Sections from various portions of this artery showed only a very slight thickening of its external coat.

SUMMARY.

It will be seen that this case had a typical beginning—local syncope, accompanied by much pain and associated with local asphyxia in the same limb. The typical venous marblings were present in both extremities and were very pronounced. The gangrene was of the mummy-like order, coming on without blisters, and the characteristic conical finger points with their shrunken and shriveled skin were most conspicuous. The local asphyxia of the left ear was well marked. We find also asphyxia developed in the right hand without accompanying or preceding local syncope. Death ensued before the latter development of the disease could appear.

The course of this case was however markedly different from the clinical description outlined by Grasset. He recognizes three periods: that of invasion, lasting from a few days to a month; that of development, with the accompanying pains and the commencement of gangrene; and that of elimination of eschars, extending over a period varying from ten days to ten months, the mean duration being from three to four months.

Cold, traumatism, renal and cardiac disease, atheroma, malarial and local poisoning, diphtheria, grippe, gout, organic and functional disease of the nervous system are so often associated with Raynaud's disease that they assume an etiologic value. At times, however, no apparent cause can be found, in which case the affection may be termed idiopathic. The theory generally accepted today as to the pathology of the disease is that held by Raynaud himself, viz., that there is a contraction of the small arteries, a tetanic spasm of nervous origin of the great sympathetic. He believes in a central origin because of the symmetry of the alterations.

In the above case the postmortem would point to a

renal and cardiac complication, though the marked cord lesion must not be overlooked, as a possible etiologic factor. Had this last any relation to the symptoms? From its character it must have antedated the onset of the acute symptoms, though not those first observed by the patient herself. The bilateral areas involved most were not those through which most fibers from the upper extremities pass, but those of the lower extremities, which were latest affected. The left column was more affected than the right and the symptoms were much more pronounced on the left than on the right side. The degeneration of the left median nerve was probably due to the condition of the left hand.

This case was referred to me by Dr. J. B. Brimhall of St. Paul.

THE STRESS OF MODERN CIVILIZATION AS A FACTOR IN THE CAUSATION OF INSANITY.

Presented to the Section on Neurology and Medical Jurisprudence, at the Forty-ninth Annual Meeting of the American Medical Association held at Denver, Colo., June 7-10, 1898.

BY FREDERIC S. THOMAS, M.D.,

PROFESSOR MENTAL DISEASES CREIGHTON MEDICAL COLLEGE, OMAHA.
COUNCIL BLUFFS, IOWA.

In presenting a few thoughts upon this subject, I desire not to be exhaustive, but to present points merely for your consideration. The author does not claim the stress of modern civilization to be an exclusive factor in the causation of insanity, yet one which should not be dismissed without consideration. He believes that it is the most intimately associated with the formative period of life; that it is a causative factor in the development of neurotic temperaments. Instead of modern culture making the masses more resistive and better qualified for life's battle, in many instances, by reason of over-stimulation and faulty cerebral development, it tends to weaken the inhibitory qualities of the brain.

We are told that man in uncivilized life has but one source of pleasure, viz.: The gratification of his animal desires and passions. In his ultra civilized state, however, we find him possessed of another and higher condition—"a psychical existence—an intellectual life." This changed condition, the result of an irresistible evolutionary process, has transferred him from the field of ethnology to the domain of psychology.

A comparative study of mental alienation of both the uncivilized and the highly civilized races shows an unusually high per cent. of insanity in the latter. Omitting from our consideration epilepsy, trauma and their results, little or no insanity is observed among the unenlightened races. The higher the scale of intelligence and the more exacting the demands upon a people, the more likelihood there is apparently, of brain disease.

That civilization, and especially our modern civilization, should be a factor in its causation, though humiliating to admit, seems nevertheless to be true. Civilization itself is a departure from man's primitive condition. It is a development which gives to him a sort of dual existence and establishes within him an artificial standard. It has made new and extensive demands upon his energies; it has taken nutritive fluids out of their former and accustomed channels, that the brain might be supplied with the best vitalizing fluids of the body.

Anatomically we know the brain is made up entirely

of cells, fibers and ground substances, with the necessary framework of connective tissue, blood-vessels etc. If the processes going on in this structure be limited to its capacity, no harm is expected. If, however, the brain be subjected to the stresses of modern civilized life, a possible over-stimulation and consequent injury may result therefrom. Studying our subject from a histologic standpoint, we find that the nerve-cell belongs to the highest order of animal life aggregation. It possesses specialized nerve function and becomes a necessity in maintaining a proper relation between the infinite number of protoplasmic elements which compose the living animal.

We find that a mental process is the product of cell metabolism resulting from stimulation. The nerve fibers or processes from the nerve-cells, when bunched together in the great centers, must be insulated. There must also be communication between the cells of different and similar function, that the animal, as a whole, may fulfill its highest mission. We know that the muscle-cell, without its individual metabolism, would be useless, even though stimulated by an intact nerve-cell. The same can be said of a brain-cell. We know, in either case, perfect nutrition is essential. The latter being the most highly organized, would suffer the most from nutritive disturbances.

The immature elements of most recent development and highest in the scale reflect very early the disastrous effect of excessive or diminished nutrition. Considering the relatively large size of the cerebrospinal system of a child at birth, the immaturity of its elements, and, in conjunction with this, the rapidity of growth in the first five years of life—from about eleven ounces at birth to forty ounces in the sixth year—we need not search further than environment for a possible production of early neuroses. Trivial causes produce profound impressions. Instability of the peripheral nerves, instability of the centers, lack of inhibition in the motor ganglion cells, accompany rapid development, diminished resistance and early exhaustion from undue stimulation. If this be true, will not the stress of modern civilization act most perniciously during the formative period of a human being's existence, by reason of undue stimulation, and from this reason will it not so weaken the nerve centers that the neuroses of childhood can but give place to mental enfeeblement or destruction in the adult?

"The prevailing tendency of modern civilized life is to over-stimulation of children. The tendency pervades our whole educational system. It permeates juvenile literature, it is manifest in childish recreations and has invaded the home. Such overstraining and stimulation of the nervous organism can not fail to cause harmful effects during childhood, and frequently produces neurasthenic and nervous temperaments in later life." The five senses were given to us by our Creator that the brain might take cognizance of His created energies. That we might approach nearest to His divine attributes, especially His omnipotence, the human brain was made of material most sensitive. Not that it could receive and record only the images about it by the aid of the reflected rays from the sun, or to analyze the sound waves, but also to receive and understand that which came to it through taste, smell and touch. In our environment of modern civilized life, the delicate structures of the ear and brain, which were so constructed as to recognize the tone, pitch and harmony of sound, are being

shocked by the discordant screams of the locomotive, the noise of the street-car with its clanging bells, the rumbling of the heavy wagons upon our stony pavements, the monotonous cry of the newsboys, the auctioneer or the fruit vender upon our street corners. By reason of all this, the beautiful and refreshing sleep of childhood is disturbed and the growing brain, which demands so much repose during this period of life, has been made to suffer therefrom.

The human eye, even more delicate in construction than any other organ in the body, no longer has reflected upon its retinal expanse the beauty of field and flower; the rolling landscape; the crystal streams with their green verdured banks, or the blue, starry vault above us, but is made to witness the revolting scenes of men maddened by their scramble for gold, or begrimed by the heat of toil in the busy marts of trade. The delicate olfactory cells which gather strength and delight from the pure air of the country, laden with the aroma of growing flowers and ripening grain, which gladden the heart of childhood, are dulled and blighted by the smoke and stench of our cities. Instead of this maddening whirl and strife of modern civilized life, could the eyes of childhood but be limited to see nature in her pristine beauty; the ears hear only the sweet carol of birds and the melody in the rustling leaves of the forest trees; then the sweet lullaby songs of mother would never cease to ripple harmoniously in the chambers of memory. If these things could hold a place in our modern civilized life, no one would dare say that the stress of modern civilization was a factor in the causation of insanity.

UTERINE HYPERESTHESIA.

Presented to the Section on Neurology and Medical Jurisprudence, at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

BY EPHRAIM CUTTER, M.D.

NEW YORK CITY.

Included in this are uterismus, vaginismus, esophagismus, caputismus, pedismus, spinismus, crinismus and all pains that are reflex from the uterus, either touchal or experienced subjectively alone. To show that such cases are common, permit the following illustration:

Mrs. A. complained of swelling and pain in both ankles, called rheumatism, but there was no morphology of rheumatic blood. Intra-uterismus was found and treated with iodoform vectors. It was cured and also the ankle joint troubles.

Miss B. had vaginismus so that she had to be etherized for an examination, which revealed an anteverted and anteverted uterus. After the use of iodoform vaginal capsules the vaginismus was cured and afterward the uterine lesions of place were relieved by mechanical means.

Miss C., aged 30, could not swallow solid food. Bougies showed that there was no organic stricture of the gullet. Careful exploration revealed a verted and flexed uterus, relief of which was followed by the alleviation of the painful esophageal spasmodic actions.

Mrs. G., one of the best and bravest patients, was ill with a hyperesthetic swelling of the back of the left hand. I touched it gently. "Oh, doctor," screamed she, "don't touch my hand. I would rather you would knock me down." Rheumatism was looked for but its blood morphology was absent. I said that the womb must be at fault. She disputed it. But it was found to be hyperesthetic and retroverted. When these were relieved the hand got well.

Many women have complained of inability to wear shoes and walk, because their feet were so sore, and yet there would be nothing abnormal about the feet. But when their uterine hyperesthesia and lesions of place were relieved the feet were also.

A woman married and the marital functions were disturbed