it is far more frequently lacerated from precipitancy. On this point, I fear that I cannot confine my strictures to those who have no knowledge of midwifery. It is an old observation, that "a little knowledge is a dangerous thing", and in the case which I am now supposing, a little knowledge is worse than none. When the pains are suspended the cause may be misunderstood; ergot of rye is given, powerful expulsive efforts are excited, and the perinæum gives way. Or perhaps the practitioner may have some skill in the use of the forceps or vectis; he believes faithfully that a great deal of time is lost in waiting for the return of pains which can be so easily assisted: the instrument is applied, and the head brought down upon the perinæum, which, being unprepared, of course gives way. This risk becomes a certainty, if unhappily the accoucheur should imagine that the merit of an obstetric, as of a surgical operation, consists in the quickness with which it is done. To remove a stone from the bladder in a few minutes, is a great proof of surgical skill; to remove the head from the pelvis in the same space of time, is equally an evidence of obstetric rashness; the perinæum is torn to a considerable extent, and a serious injury to the patient is the consequence.

To proceed, however, with the phenomena which we are observing, let us suppose that the head and shoulders of the child have safely passed over the perinæum. The greatest difficulty is overcome; the expulsion of the body and limbs gives no trouble, and consequently receives but little attention. Yet I know no stage in this process which requires more. In order to render this intelligible, permit me briefly to review what takes place. The womb is partially, but not completely emptied of its contents; and that contraction of the fundal muscles now commences, which terminates in a state of permanent contraction. Hitherto the contractions and relaxations have been equal; now the degree of contraction greatly exceeds the subsequent relaxation. As the body of the child passes out, this contraction steadily continues, the lower portion of the womb and cervix closing in successively toward the centre, according as it is emptied. Thus, the order in which these fibres contract is clearly seen; the fundus first, then the body, lastly the cervix. *Pari passu* with these changes in the uterus, a corresponding change is observed in the abdominal muscles. They also contract on the retiring uterus, compress the intestines closely upon it, and by these means the uterus maintains its state of contraction.

If nature were left quite to herself, the body and limbs would, by successive pains, be slowly extruded; and those final efforts which expel the child, would also detach the placenta.

The after-birth might remain loosely in the uterine cavity, or in the vagina, or be expelled with the child; but in any case the risk of hæmorrhage is removed, because, the separation from the uterus being completed, its source is cut off. No draining can occur through its spongy structure; and the more perfect contraction of the uterine fibres prevents any hæmorrhage from the sinuses.

These facts are sufficient to point out the causes of failure, as well as the errors which may be committed in the management of this stage. Some of these causes depend on the constitution of the patient. The contractile force of the uterus may be diminished; hence its relaxations are greater than they should be, and hæmorrhage is the consequence. Or it may happen that the correspondence between the contractions of the uterus, and those of the abdominal muscles, is lost: the latter may continue in a state of contraction, when the former is relaxing; hence the superincumbent viscera are pressed down upon the yielding fundus, a cup-shaped depression is produced, an inverted action is set up, and invagination follows, which may terminate in complete inversion, as sometimes happens in very rapid labours.

Another, and much more frequent cause depending upon the constitution, exists in the abdominal parietes. In the explanation given, it was assumed that these muscles retained their natural strength; and when they do so, they

are quite sufficient of themselves to support the uterus. But far too commonly they are in a perfectly opposite condition: they are almost atrophied: the constant use of stays weakens the tone of these muscles. The intestines are deprived of their proper support, and the natural healthy action of the uterus is deranged: the final contraction of the fundus (a contraction which reduces it to one-tenth of its previous size) is not supported; consequently its relaxation is far too great; hæmorrhage follows; and thus a very obvious cause, easily provided against, may, if neglected, produce the most serious consequences.

The attention of the intelligent practitioner is directed to the expulsion of the body and limbs of the child, just as much as to any other part of the delivery. He is anxious to secure uniform contraction of the uterus; to give it artificially that support which the abdominal muscles cannot afford; and thus to render the expulsion of the placenta as easy a matter as the expulsion of the child. But if the parturient woman fall into the hands of a person without education, without any knowledge of the phenomena of which she is a witness, what takes place? No attention is paid to the contractions of the uterus; the child is, perhaps, drawn suddenly away from the passages, while the fundus is left to itself. The contractions are consequently deranged; the cervix and body may contract first, and the placenta be of course retained. To remedy this, the funis is pulled from time to time, at first gently, then more strongly, until at length, one of two results follow: either hæmorrhage takes place, because the placenta is partially but not completely separated; or the fundus uteri is drawn down and inversion is produced. Thus, by mere ignorance, retention of the placenta may be most unnecessarily produced; by further mismanagement it may be followed by hæmorrhage; and even by violence the uterus may be inverted, and the life of the unfortunate patient be the penalty of misplaced confidence.

Time will not permit me to quote examples to illustrate my argument; but this is the less necessary, because I know that the intelligent practitioners whom I address can call to mind in the range of their experience, sufficient instances to support my statements. I trust, however, that in this account of what takes place in labour, from the opening of the womb to the expulsion of the placenta, I have shown sufficiently that it is not everybody that may practise midwifery; and that a most serious and unnecessary sacrifice of human life may be the consequence of entrusting this natural process to ignorant persons. In my next and last lecture, I shall endeavour to point out the remedy for this abuse; and this will lead to the consideration of the new regulations for obstetric education.

Henrietta Street, Cavendish Square, April 1853.

CASES OF CARDIAC AND ARTERIAL DISEASE.

By FREDERICK J. BROWN, M.D.

CASE I. DILATATION OF THE AORTA COMMUNICATING WITH A FALSE ANEURISM EXTERNAL TO THE THORACIC PARIETES.

ALEXANDER FRAZER, aged 46, a fish-hawker, residing in Chatham, applied to me on 29th August, 1852. His habits were reported to be temperate, and he stated that he never used raw spirits. I learned from him that, during the hopping season of 1850 (which is in September), he was engaged in drawing out a pole, when it suddenly parted from the ground, and he fell flat on his back. He immediately experienced severe pain through the thorax, extending from the middle dorsal vertebra to the sternum. On returning to his home, directly after the accident, he suffered from a burning "red-hot" sensation within the chest, and a cord-like tightness around the body, on a level with the nipples: cough and dyspnoea supervened. The poor man attributed the dorsal pain, which continued severe, to rheumatism, and did not apply to a surgeon until February 1851, nearly six months after the accident.

Frazer was first seen by Mr. Dulvey, of Brompton next Chatham, on Feb. 19. The report for that date states, that there was an aneurism situated high in the thorax, just below the right sterno-clavicular articulation; and that there was great irritation of the bronchial tubes, with very distressing cough, dyspnoea, and difficult expectoration. He had at this time pain down both arms, and pain in the right breast; and the pain in the vertebral region, the "red-hot" sensation within the chest, and the tightness around the thorax, continued. The prescriptions were, a blister to the chest, and pills of tartar emetic, henbane, and blue pill.

February 26th. The bronchitic symptoms were very much subdued; the action of the heart was greatly increased. The prescriptions were—four leeches to be applied once a week to the aneurismal tumour; tartar emetic ointment to be rubbed beneath the clavicles: and the following pills and mixture:—

R.—Pilul. hydrarg. gr. v,
Pulveris digitalis gr. ss,
" scillæ gr. ij,
Extract. hyoseyami gr. v. Misce.

Fiant pilule duæ omni nocte sumendæ.

R.—Infusi digitalis 3iv,
Tinctur. hyoseyami 3iss,
Liquoris ammoniæ acet. 3iss,
Liquoris antimon. tart. 5j,
Spir. ætheris nitrosi 5iij,
Mistur. camphoræ 3iv. Misce.

Sumat 3i quartis horis.

March 27th. He was so much relieved, that he could walk to Mr. Dulvey's house (nearly a mile, and mostly up hill) without much trouble. The directions had been fully carried out. The aneurism had not increased in size, but there was still considerable difficulty of breathing. The prescription was the following:—

R.—Pilule scillæ comp. 5iss,
Antimon. tartatis gr. j,
Pilule saponis cum opio gr. x,
Pulveris digitalis gr. ij. Misce.

Fiant pilule xxiv, quarum sumat duas ter die.

These pills relieved him very much; and in four or five weeks afterwards, the patient resumed his occupation of a fish-hawker, for the first time since his fall on the back. He continued the pills for about a month, and then Mr. Dulvey lost sight of him until March 1852, when he came to him, begging for a supply of the pills.

Frazer applied to me on August 29th, 1852. I learned that he had attended at the Rochester and Chatham Dispensary for some time. He informed me that a convulsive jumping of his whole body first appeared during the winter of 1851-2; also that his voice had become altered in character; and that he had felt a strong pulsation in the dorsal region. He further stated that a swelling had appeared four months since (about April 30th) in the situation of the third intercostal space on the right side, and that it had increased, and had changed its position. This was probably the tumour, which is described by Mr. Dulvey as being situated about the second intercostal space in February 1851, and which the patient termed "a kernel". It is evident that the tumour had been visible since February 1851, and that its augmentation and change of position occurred after April 30th, 1852. The patient stated that he had spat streaks of blood, but denied that he had ever experienced dysphagia. He had suffered from a sensation of tightness in the throat.

PRESENT STATE. The countenance was pale and anxious, and the muscles of expression were greatly developed. The tongue was bare, red, and dry; the pulse 108, locomotive, and vibratory. Respiration was tranquil, but wheezing. He was not subject to attacks of dyspnoea. The voice was husky. He lay on the affected side when in bed, because of a dragging sensation in the tumour, produced by lying on the sound side. He had pain in both arms, especially the right. There was no œdema of the chest or the arms, nor enlargement of the veins of the thorax. He had no headache or giddiness, nor flatulence. He had cough, with

mucous expectoration. He slept for several hours in the night, but then rose, on account of pain in the tumour and in the right scapula and dorsal spine. He ate and drank fairly, but felt weak. He was not disturbed by dreams.

PHYSICAL SIGNS. There was a conical pulsating tumour, involving the nipple on the right side, of the size of a lemon, and exactly resembling the breast of a virgin. Impulse was felt through the tumour in every direction, synchronous with the heart's action. The pulsation was forcible, and the first and second cardiac sounds were heard in the tumour, with the stethoscope placed over the right half and over the centre; but when the instrument was placed over the portion of the tumour nearest to the mesial line of the body, a deeply seated diastolic murmur was heard at a distance from the ear. The cardiac dulness exceeded four inches square. Cardiac pulsation was plainly visible at the lower border of the sixth rib, and to the left of the nipple. The impulse was heaving and forcible; the rhythm irregular. An occasional systolic murmur was heard at the apex; a double harsh murmur at the lower sternum, principally affecting the second sound; a single sawing diastolic murmur in the proper course of the aorta; a single diastolic murmur in the course of the pulmonary artery, of a harsher character than that heard over the aorta; a double harsh murmur at the top of the sternum, and at each sterno-clavicular articulation; and in the right side of the neck a single, systolic, very rough murmur. There was strong visible pulsation and confused murmur in the left side of the neck (the side opposite to that on which was the aneurism). The loudest systolic murmur was that in the right neck, whilst the loudest diastolic murmur was seated over the second costal cartilage, on the right side, as if this were the aperture of the aneurism.

October 1st. The tumour was noted as being very painful, and increasing in size.

October 13th. He was seized at seven A.M. with sudden swelling and distension of the right breast, as high as the shoulder. The aneurism appeared to have burst beneath the pectoralis muscle. The pulse was weak and irritable. The patient had violent perspiration, succeeded by coldness; and severe pain in the breast. The pulsation continued. The skin became warm in the evening.

October 15th. The upper part of the breast was of a greenish-yellow, and the arm, as low as the elbow, of a violet colour, showing the extent of the extravasation. The pain had been relieved by laudanum. Respiration was sibilant.

October 18th. (Edema of the legs had been present for two days past; and this day there was œdema of the right hand and forearm. The radial pulse was distinct. He suffered pain in the breast, also in the left arm.

October 25th. The countenance was haggard. Large clear vesicles were scattered over the right breast. The distension caused much pain, both in the breast and the right arm.

October 28th. Thin crusts existed in the situation of the vesicles.

November 3rd. The lower extremities were much swollen. There was a dusky redness over the aneurismal tumour, and an ichorous discharge from the surface of the breast. Apprehension was felt lest gangrene should occur.

November 4th. He felt severe pain in the tumour. No relief was afforded by drugs.

November 5th. The tumour was quite black: and there was a mahogany-coloured discharge from the abraded surface.

November 8th. The right hand was livid, as well as œdematous. The pulse was perceptible at the wrist. The patient was occasionally delirious. He perspired. He lay forwards over a pillow placed on a table.

November 9th. He died at two A.M. The attendants heard a sudden noise, and perceived blood rushing out of the right arm. The patient observed that "he was done", laid his head on his folded arms upon the table, and quietly expired. It is said that half a pailful of blood was poured out.

EXAMINATION OF THE BODY, thirty-two hours and a half after death. Rigor mortis was present. There was œdema of the lower extremities, of the right forearm, and of the thoracic parietes. The right breast was prominent and black, but not sloughy. There was a sloughy aperture in the axilla, capable of admitting the little finger, which led to a cavernous space beneath the pectoral muscles.

Heart and Aorta. The thorax was opened on the left side, to permit the heart and aorta to be examined previously to an incision being made through the right breast. The pericardium was totally adherent to the heart. The heart was considerably enlarged, flaccid, and thin; and its parietes were degenerated by greasy change of texture. Soft clots were found in the left ventricle; the right ventricle was empty. Blood was present in the inferior vena cava. The valves on the right side were healthy. There was mahogany staining of pulmonary artery. The mitral valve was much stretched by long, thin chordæ tendinæ; it was not thickened. The aortic valves were destroyed by ossiform changes. Ossiform plates commenced at the orifice, and extended throughout the whole thoracic aorta. The abdominal aorta was not examined. The whole of the ascending aorta and the arch were dilated into a great fusiform aneurism, capable of receiving a very large closed fist. The dilatation stopped at the commencement of the descending aorta; but the coats of this part of the vessel were so brittle as to tear on traction. The arteries arising from the arch were sound. The pneumogastric nerve and the recurrent, on the right side, were found to be in their natural position, and not compressed. The nerves on the left side were not carefully examined.

The lining of the fusiform aneurism consisted of a membrane stiffened by calcareous change, and broken into small plates in various places. The valves had nearly disappeared; they formed low ridges. No rent or ulceration was discovered; but a large-sized finger could readily pass through a smoothly lined channel, about two inches in length, into an aneurism external to the ribs. The opening in the aorta was circular, prolonged, and without any edges: it appeared to lead out through the second intercostal space, on the right side of the sternum.

External Tumour. On making an incision through the right breast, it was found that the nipple constituted the apex of a false aneurism, situated externally to the ribs, and extending from the second to the sixth rib. The second, third, fourth, and fifth ribs, were driven inwards (apparently by the force of the pulsation during life), so as to present a concave surface to the integument, with their convexity towards the lung. The second and fifth ribs were necrosed; and the third and fourth were softened like young pork-bone.

The false aneurism was divided into three loculi by firm fibrous laminae. Superficial to the loculi was a large quantity of laminated fibrine, which, when removed, permitted of communication between the cells. Laminae, two inches in thickness, occupied the apex of the aneurism (which was situated at the nipple, as before stated). The loculi contained red-coloured serum and recent clots. The loculus seated lowest on the chest was the smallest. The false aneurism had become diffused (see history, Oct. 13th) by an aperture in the superior loculus. The blood had extended up beneath the pectoralis major muscle, and had forcibly thrown upwards the clavicle. Some of the blood had found passage, by a devious course, to the wrist. When the whole of the diffused aneurism, and the proper false aneurism, had been emptied of fibrine and clots, the appearance was that of the cavity of the thorax, on one side, inasmuch as the ribs were concave outwards. The difference between the proper false aneurism and the diffused aneurism was striking: the latter contained no laminated fibrine. The blackness of the nipple was due to discoloration only, and not to gangrene.

Lungs. On removing the ribs, the right lung was found to be considerably wasted; it was emphysematous and œdematous. Moderately firm adhesions existed at the apex, and over the lower lobe. The lung adhered to the

dilated aorta. Some serum was found in the cavity of the right pleura. There was no tubercle. The left lung was emphysematous. Black colouring matter was found in both lungs.

Abdomen. The liver was cinnamon-coloured and fatty. The gall-bladder contained bright yellow bile. The spleen was lake-coloured and firm. The kidneys were enlarged; the capsule was morbidly adherent in parts in the right kidney. The left kidney was much enlarged, indurated, and granular. It contained one large superficial cyst, and numerous minute cysts in one tubular bundle. The descending colon was large, and distended with flatus.

CASE II. DILATATION OF THE LEFT SIDE OF THE HEART, WITH ULCERATION OF THE AORTA.

George Cox, aged nearly 36, a bargeman, residing in Rochester, applied to Dr. John D. Brown, of Strood, on April 29th, 1852. His statement was, that he had been ill only two months, and that he had continued at his occupation up to the date of his application. His habits were not reputed intemperate, and he was not particularly subject to rheumatism; but he had had pains in his arms occasionally.

The symptoms present were dyspnoea, greatly increased by exertion; flushed countenance; and vibratory, large, loose pulse, 104 in number. The physical signs were tumultuous movement of the subclavian arteries, and locomotive, radial, and carotid pulse; extended cardiac dulness, with distant impulse and irregular rhythm; double sawing murmur over the heart, generally loudest at the aortic orifice, and extending up the carotid arteries; the second sound over the pulmonary artery exceedingly strong, and thumping in character, closely resembling a murmur; and a crispy emphysema-sound over the heart, on deep inspiration.

The patient was so much relieved by leeching and the exhibition of blue pill and opium, that he imprudently went away in his barge (though incapable of labour); but he returned to his home on May 12th, when he was again visited.

His condition was found to be greatly deteriorated. The urine was albuminous, and the eyelids were œdematous. The pulse was frequent, and the respiration embarrassed. The murmur at the apex was double, as at the previous examination; but it was single and systolic over the aorta.

May 14th. Œdema pulmonum was detected, and symptoms of uræmia were present on the 19th, but subsided in twenty-four hours, under the use of calomel, with leeching over the kidneys, and blistering at the nucha.

May 21st. The patient's extremities were cold, and his respiration much embarrassed.

May 25th. He died at 4 A.M., having been conscious to the last.

EXAMINATION OF THE BODY, thirty-eight hours after death. There was no loss of flesh or of fat. There was general anasarca, and some serous fluid in the peritoneal cavity; but no hydrothorax.

Thorax. The pericardium contained four or five ounces of sanguineous serum. Old adhesions of the pleura existed on the right side; also on the left side, causing the lung to adhere over the pericardium. There was emphysema of the anterior border of the left lung. Both lungs were œdematous, and easily lacerable. The heart was nearly equal in size to that of a calf: when placed on the table, it sank down like a bladder. The left auricle and ventricle were greatly dilated, and they constituted the whole of the heart that was visible; for the right auricle and ventricle were involuted in the septum and left ventricle, and completely concealed. The parietes of the left ventricle did not exceed half an inch in thickness. The mitral valve was very large, and stained purple, but not diseased. The aorta was the seat of extensive disorganization, viz., granular ulceration beneath the valves, and at their line of junction; ulceration in the pouches; separation of the attachment common to the middle and left segments, so that these segments formed one great valve; dilatation of

the sinus for the left coronary artery, equal to the size of a walnut: augmented calibre of the aorta; two ulcers in the ascending aorta—one situated an inch and a half above the valves, extending in the long axis of the artery, and capable of lodging two ordinary thimbles—the other commencing about two and a half inches above the valves, and capable of lodging one thimble (each ulcer being three times as long as its width). The edges of the ulcers were distinct to the touch; but red granulations nearly filled the cavities. The lining membrane of the aorta was smooth. The aortic valves were incompetent when tested by water. Blood was found in only one cavity of the heart, viz., the left auricle, in which it was liquid. The right auricle was empty, and very small. The right ventricle was small, and enclosed as before stated. The columnæ carnae were very strong, and the little finger could be inserted its whole length into a diverticulum in the septum, between two such columnæ. The total weight of the heart was probably not more than twelve ounces. The muscular tissue was not visibly degenerated.

Abdomen. The liver was not enlarged. The spleen was turgid. Both kidneys were very weighty, probably four times as much so as natural. The capsules separated easily, leaving smooth surfaces. A large amount of sanguineous serum escaped on slicing the organs. The cortical structure was packed with greyish-white deposit.

Chatham, Kent, March 24th, 1853.

THE CLIMATES OF THE WORLD, IN REFERENCE TO THEIR EFFECTS ON MAN'S GENERAL WELFARE AND DESTINY.

By T. G. HAKE, M.D., Physician to the Suffolk General Hospital.

(Continued from p. 125 of No. for Feb. 11.)

THE continent of America, stretching as it does from pole almost to pole, and embracing an immense breadth of land, offers a striking example of a series of natural climates; while that of Europe, chiefly if not wholly owing to the influence of the Gulph Stream, enjoys a climate which is strictly exceptional. The parallelism of latitude then, so generally indicative of similar inland climates, fails to unite the opposite shores of America and Europe under the same zones. The countries of New York and Spain (situated in 40° north latitude), of the Canadas and France (in 50° north latitude), of Labrador and Great Britain (in 55° north latitude), lie in the same parallels: but the mean temperature of New York (50° F.) equals only that of north Germany and the midland counties; of the Canadas (40° F.) that of Norway, Sweden, and St. Petersburg; and of Labrador (32°) that of the North Cape. Indeed, such is the interference of circumstances, local as well as general, with the climate of a country or even district, that the isothermal line of mean annual temperatures has only a qualified value, and might be extended to the seasons and even months, without fully reducing all the differences which exist to a uniform scale.

It is in vain then to seek for isogenetic zones in the same parallels, or old divisions of the globe into frigid, temperate, and torrid zones; and even the isothermal line, as above stated, is not a strict guide in the inquiry. Countries lying within the tropics present every variety of climate; but though the mean annual temperatures of Europe are individually repeated among the mountain ranges and table lands of Mexico, it does not therefore follow that these two remote regions contain the same isogenetic zones. Experience proves the contrary to hold true. It is the boast of some travellers that man is enabled to live in every quarter of the world, and that in this he stands alone in the animal kingdom; but the physiologist corrects this error.

The native of Europe attains longevity, and his race becomes acclimated in Canada; but his life is shortened, and his race is cut off, in Mexico and the tropical regions around. On the other hand, the African finds a congenial

climate in these latter countries; he is easily acclimated too in temperate, but perishes in frigid zones. In order, therefore, to map out the habitable globe into isogenetic zones, it would be necessary to institute a series of physiological inquiries, in reference, first, to the welfare of individuals who have migrated from one country to another; and next, to the physical and mental characteristics of their descendants. No other course is competent to determine that this or that climate has its duplicate elsewhere; and that man has a home in which the features of his race, and the productions of his native soil, can be preserved.

The influence of the Gulph Stream, which has made Europe an exceptional climate, blends a group of countries of very different latitudes into one isogenetic zone. The Danes, the Saxons, and the Normans, judging of them in a physical sense, have found a congenial climate in Great Britain, as well as the Celts, who cannot be said to have deteriorated in health during the many centuries they have inhabited this country and Ireland. Therefore, in mapping out an isogenetic zone for England, the countries of Europe, whose shores are washed by the Gulph Stream, and those lying along the coast line from Spain to the North Cape, should be included, besides such others, situated inland, as have from time to time supplied our population, and whose descendants embrace the same hardy races as still flourish in these islands; races with whom an interchange of region might be further made without material alteration in the physiological characteristics of their people. That the native of Great Britain, and his descendants, can live in even the more remote parts of Europe, in the south and east, there is little doubt—though not without change of temperament: but this subject will be illustrated hereafter, when the effects of climates, situated beyond our zone, on the Anglo-Saxon constitution, are examined.

Experience shows that the isogenetic zone of these islands is not confined to the limits thus marked out in Europe, but that it stretches across the ocean to Canada and her dependencies, and that it includes some of the northern states of America, to be specified presently. It is stated by eye-witnesses, that throughout the countries which extend from Newfoundland to the lakes of the American continent—Cape Breton, Prince Edward Island, New Brunswick, Nova Scotia, and the Canadas—the natives of British origin preserve their characteristic features; not acquiring the atrabilious aspect, dark hair and eyes, of the United Statesman, nor his emaciated look, but retaining the fair complexion, blue eyes, and other traits of an Anglo-Saxon descent. Nor is the climate of these countries less favourable to the agriculture than to the man of Great Britain. If the cattle is smaller on the whole than at home, this must not be put to the account of climate, but rather to breed. The beef, unlike that of the States, is usually fine and tender. The horse, if not yet bred equal to the English, is of a good kind, and capable of bearing great fatigue; it is often ridden thirty or forty, or even sixty miles without being fed; and will return in the same manner the next day without injury. The sheep thrive remarkably; and if tended with care, they maintain a rivalry with English flocks; and the same may be said of swine—but these, if not attended to, become long snouted, and tall, more like greyhounds, and if left to range through the woods acquire great swiftness. All kinds of grain cultivated in the mother country thrive and ripen perfectly in these dependencies, and produce heavy crops, which are equal in quality to any in the world. Legumes, bulbous roots, above all the potato, indeed every kind of culinary vegetable, arrive at great perfection; while every sort of fruit known in this country ripens equally well there, and is of excellent quality.

In no country do the inhabitants retain health and vigour to a later period of life than in British America; but the bloom of youth is, generally speaking, sooner lost than in England; a circumstance attributable in some measure to the hard life led in the colony, compared with that of the mother country. And the young arrive at maturity at an earlier period than in England—a physiological fact not to