

Scientific American.

NEW YORK, JULY 1, 1854.

Types of Mankind.

"The greatest study of mankind is man."

A new work bearing the above title has recently been published by Lippincott & Grambo, the enterprising Philadelphia publishers. It is of imposing dimensions, and illustrated with nearly four hundred engravings. Its authors are J. C. Nott, M. D., of Mobile, Ala., and Geo. R. Gliddon, late U. S. Consul at Cairo, Egypt, and well known to the public as the exhibitor of the "Panorama of the Nile," and the Mummy of the Egyptian priestess, which on being unrolled in Boston in 1850, turned out to be of an opposite sex from that represented. It also contains a paper by Agassiz, one by Dr. Usher, illustrated selections from the unedited works of the distinguished Dr. Morton, and a memoir by Prof. Patterson, of Philadelphia. The author of the memoir stigmatizes the venerable Dr. Bachman, of Charleston, S. C., because he opposed Dr. Morton's views, and takes occasion to accuse the great Humboldt of "popular declamation," all of which is in very bad taste. The object of this work is as much for the overthrow of Christian philosophy as anything else. This is admitted by one of the principal authors, in a manner not very creditable to himself. This book should be read and studied by every christian clergyman in the world, for if its deductions are true, the christian religion must be false. If its statements and deductions are not true, the sooner they are thoroughly exposed, so much the better for the sake of truth and science.

It is assumed in this work that mankind, contrary to the general belief, and the Bible, are descended from quite a number of original pairs—not one Adam and one Eve—but perhaps eight and perhaps two hundred Adams and Eves. From facts presented in it, however, and respecting which there is no dispute, we would come to the opposite conclusion of its authors. Agassiz divides mankind into a number of races, and distributes them geographically, placing a different human race with each different fauna (the animals of a country.) Thus he considers the Esquimaux race confined to the Arctic regions, at the head, and belonging to the fauna of that climate; the white man, (European type) as belonging to the temperate regions and their fauna; and the Malay, Negro, Australian, Mongul, &c., belonging to different fauna, which he divides in a map into eight races, at the head of which is placed—naturally indeed—his old preceptor, Cuvier. One singular fact, however, is presented and admitted by Agassiz, which in our opinion overthrows his whole theory, and that is, while he distributes a separate race of men for every fauna, and distributes these geographically over the American continent into at least twelve different fauna, he says, "among the tribes of man inhabiting this continent, and indeed the most extensive investigation of their peculiarities, has led Dr. Morton to consider them as constituting but a single race from the confines of the Esquimaux down to the Southernmost extremity of the continent." No better argument could be furnished against providing a distinct human race for every fauna, than this one furnished by Agassiz himself.

Agassiz asserts that the belief in mankind being descended from a common stock runs into the Lamarkian development theory—that is, that life commenced at a point, and developed itself into a man. We must say that his theory of classifying different races of men and fauna runs into the development theory, for the Lamarkian philosophy of the vestiges of Creation, does not set out from a single point, but many points of life, distributed over our globe, and by Agassiz's theory of the different man races and fauna, a powerful argument is afforded for the development theory.

If men have been created in different races, each as part of the fauna of a country, how can we account, by the laws of natural science, for the progress of different nations (also their re-

trogessions) and their radical changes socially and politically during their history? It is impossible. According to the many-type theory, the Anglo-Saxon race must now be fulfilling the conditions of the Lamarkian one,—because they certainly differ as much from their acorn and pork eating, naked and painted ancestors, as a citizen of our Republic from a Mongul. Agassiz, to reconcile his theory with logic and philosophy, must prove that the different races of men do not change, and never have changed, just as the fauna with which he classifies his different races of men, never have changed.

The style of Prof. Agassiz is dignified and unassuming; we cannot say so much for that of either Dr. Nott or Mr. Gliddon. They, however, present a great mass of very curious information, well worthy of careful study, especially the former editor. But as in the case of Agassiz, we would draw very different conclusions from the very information which they have presented, from those at which they have arrived. One great idea connected with this theory of the diversity of the human races, arising from facts presented in this work to prove that mankind existed when races of animals now extinct lived on the earth, is the totally opposite one which can be furnished to that of Hugh Miller, Lyell, and other eminent geologists, who believe that there were six great creative epochs, and that man was the last created, about 6,000 years ago. From the skeleton of an Indian found at New Orleans while excavating at the gas works, Dr. Nott concludes that the human race existed on the Delta of the Mississippi 57,000 years ago.

We anticipate a great war among the professors of natural science, from the publication of this book, and one respecting which no man should be ignorant.

We have only commented upon the single part of this work furnished by Prof. Agassiz, and may embrace future convenient opportunities to review parts furnished by the other authors.

The Cholera.

The news has already spread throughout the length and breadth of our land, that fifty-four fatal cases of cholera occurred in one week in this city. We would state that nearly as many deaths from consumption take place every week in New-York, and from circumstances connected with those fatal cases of cholera stated, we believe no fears need be entertained of it as an epidemic.

During the prevalence of the great cholera epidemic of 1832, Dr. Beck, of Rutgers College, was commissioned by Gov. Throop, of New York, to procure information concerning its origin, character, and progress, and the mode of its treatment. The question of contagion was then much agitated, and accordingly, Dr. Beck gave it his studious attention, by tracing the progress of the disease from its first appearance at Quebec, June 8th, through all its course to this city, where it broke out on last day of that month. It is not a little remarkable, that it appeared within twenty-four hours, in various towns and boats on the St. Lawrence river; and in Plattsburgh, N. Y., in the case of an emigrant, who had been exposed to wet and cold, and had eaten voraciously just previous to the attack. The disease then appeared at once, in the most filthy part of that village, among irregular persons, who had no connection with the emigrant. In the State Prison at Sing Sing, N. Y., an insulated prisoner was taken with it on the 17th of June, and died in a few hours, and this before a single person was attacked in that village. After this some hundreds of cases occurred within the prison. This showed that contagion was out of the question, and yet many circumstances occurred tending to prove the contagious theory, such as the passage of the disease from place to place along the main channels of travel.

Throughout the whole extent of country visited, Dr. Beck found a general tendency to diseases of the stomach and bowels—caused, it is supposed, by a general epidemic constitution of the air, or in part by fear. The people are thus rendered peculiarly liable to attacks,

and slight exciting causes produce the disease. Under peculiar atmospheric constitution, persons crowded together in boats or neighborhoods are specially exposed, particularly where they are either filthy, badly fed or clothed, or intemperate; and in these circumstances the disease may be excited by the effluvia of cholera patients.

It is a striking fact, not peculiar to cholera, but noticed in the history of every pestilence which has desolated the world, that persons whose constitutions have been broken down by intemperance, are among its first victims. In the cases of diseases which have prevailed among us, the evidences of this are too numerous and striking to be particularized. Indeed, in many places a large proportion of the fatal cases are among the unfortunate.

We have seen many receipts published of compositions for the prevention and cure of cholera; none of which can be relied on as specific. Cleanly habits, temperance in eating and drinking, an avoidance of excitement, exposure to high heat, and damp night air, and keeping the bowels in proper order, are the best preventives.

The most proper course to be pursued when a person takes this disease, is to keep him warm, by applying stoppered bottles, containing hot water, to his feet and other parts of the body, administering a simple rhubarb aperient, and sending for a respectable physician as soon as possible.

Foreign Patents.

There seems to be an increasing disposition among American Inventors to secure their inventions by Patents abroad, as it is generally admitted that a wider field opens in foreign markets for the introduction of good improvements than exists here, so little comparatively having been done there in this department, if we may except Great Britain. We believe it is very generally conceded that capital is more easily procured abroad for the purpose of developing and introducing inventions. This is in a great measure due to the more permanent character of their manufacturing interests, and the constant and pressing demands for something new. In some departments, especially, we are almost wholly dependent upon other countries for our supplies, and in consequence of the rivalry which exists among manufacturers, they are more prompt to introduce any real improvement into their business. Thus it is that a field is open, and under proper management our ingenious inventors stand a good chance of success. They must, as a matter of course, assume some risk, and we do not feel willing to urge them to take foreign patents without due consideration, and even some doubt of success which attends every enterprise in its incipient stage. "To risk nothing is to gain nothing," is the generally received maxim of successful men of business. Our agents in London, Paris, and other European cities, are responsible in every sense, and will usually undertake the sale of good patented inventions, and if parties have capital to invest in foreign patents, they can secure them through our agency, and introduce them through the assistance of our agencies in Europe. It must be understood, however, that untried inventions cannot be undertaken on sale—their character for utility must be established, and facilities for exhibiting them must necessarily be furnished. It is out of the question to sell a patent in Europe unless its value is clearly proved by operation.

Reform of the Patent Laws.

A Bill has been introduced into the Senate, by the Committee on Patents, for a complete re-modeling of the patent laws. It provides for an additional number of examiners and assistants, and the reduction of fees to foreigners. It also provides for the issuing of patents for five years, and for their extension for fifteen years, by the Commissioner, upon payment of an increased fee. It is believed that this Bill cannot be discussed during the present session, and most likely it may meet with the fate of the one which was before the last Congress—be buried in forgetfulness. We will endeavor to place the bill before our readers at some future time.

Steam Carriage for Common Roads.

Some of our cotemporaries state that the steam carriage of J. K. Fisher, made a trip one evening, recently, from 26th street, to Liberty street, in Broadway, this city, traveling at the rate of six miles per hour, on the boulder pavement, and twelve miles per hour on the Russ pavement. They also assert that the inventor thinks his experiment was entirely successful. If this experiment amounts to success, we must say that it has been very cheaply obtained, for the rate of its speed was less than carriages of the same character which were tried twenty years ago. When plank roads were first introduced into our country, we thought that such carriages might be usefully and economically employed upon them, but an examination of a number of plank roads in this State five years ago, and a comparison of them with railroads for public conveyance, dissipated every idea that we ever entertained respecting them for such purposes.

The Steamer Rotary.

Our readers will remember the illustrated description of the Rotary Engine of Ebenezer Barrows, of this city, on page 25, Vol. 8, "Scientific American," and a number of notices at various times, in the same volume, of the performance of his steamboat—"Rotary Experiment." This boat, which plied last summer between Newark and Bellville, N. J., has changed its name to the above (it is no more the *Experiment*) and has been ordered into the United States service. If this engine proves to be as economical during the next, as it has during the past year, we have no doubt but Mr. Barrows will receive an immense amount of orders to furnish his engines for every purpose that other engines are now used. It is so compact, and has hitherto done so well, that it may prove to be the long desired "Rotary Steam Engine."

Merchant and War Steamers.

Oliver Byrne, C. E., has published a communication in the "Courier and Enquirer," in refutation of the opinion of the Navy Department, that "our commercial steamships are not adapted for war purposes." He asserts that the "Arctic," (Collins Steamer) is stronger than the steam frigate "Susquehanna." If this is so, then it is, in one sense, better for naval purposes, as it possesses greater speed, and this is certainly a great advantage. But is the machinery and the boilers of our merchant steamships so placed and arranged as to make them safe vessels of war? This is the most important consideration of all. If the boilers are not under the water line, then a single shot into one of them would be like a red-hot shot into a powder magazine. The boilers and machinery of our merchant steamers are not safely placed for their use as vessels of war.

Morse's Telegraph Patent.

The Commissioner of Patents has extended the patent of Professor Morse, dated June, 1840, for seven years. The eighth claim of Prof. Morse's patent, which was decided by the U. S. Supreme Court to be illegal, has been disclaimed, and the patent renewed, according to that decision. It has been stated that the extension met with strong opposition from parties interested in the House and Bain patents, but of this we have not yet any positive evidence.

Patent Office Report.

We are indebted to Judge Mason, Commissioner of Patents, for a printed copy of his report for 1853.

The claims of the patentees embraced in this document, were published by us weekly, during the year named; and the remarks and suggestions of the Commissioner, in connection therewith, have already been presented by us to our readers.

Tinning.

According to Becquerel, well-cleansed vessels of iron and copper may be tinned by dipping them into a solution of the double salt of chloride of tin and sodium, at the heat of 160 deg., assisted by moistening them first with a dilute solution of the chloride of zinc applied with a brush, or by dipping them into it.