

MISCELLANEOUS.

Winds and Currents of the Sea.

In the English House of Lords, on the 26th of last month, Lord Wrottesley rose to direct the attention of the House to a correspondence between the United States' Government, Her Majesty's Government, and the Royal Society, in reference to a comprehensive scheme for improving the art of Navigation, in which the United States' Government had requested the co-operation of Her Majesty's Government. He said, the United States, sensible of the value of this plan, saw that in order to make it as effective as possible, it required to be extended. With this view they invited the co-operation of Her Majesty's Government, and the proposition was by them referred to the Royal Society to report on its merits. That learned body, by a report in the Spring of last year, spoke of the scheme in the highest terms of approval, and earnestly recommended its adoption. The British Association for the advancement of Science, by a resolution of their council, also expressed the high opinion they entertained of the merits of the scheme and of the great importance of this society; and, in order to show the value of its recommendation, he need not do more than state that since its establishment in 1831 it had raised £41,204 for scientific purposes. He alluded to the labors of Lieutenant Maury, the Director of the National Observatory at Washington, and spoke in highly complimentary terms of the scientific labor of that gentleman. It was necessary to tabulate all phenomena with the greatest possible accuracy, and he knew of no scheme better than that of Lieut. Maury for this purpose. He could not sit down without paying a tribute to the Americans, not only for originating the design in question, but for the characteristic vigor and energy which they had shown in its prosecution. He recommended the subject to the attention of Government.

Lieut. Maury has addressed a letter to Mr. Dobbin, the Secretary of the Navy, respecting the remarkable last passage of the "Sovereign of the Seas." He says—"This noble ship made the run from the Sandwich Islands to New York, in 82 days. She passed through a part of the 'Great South Sea,' which has been seldom traversed by traders—at least I have the records of none such.

Little or nothing except what conjecture suggested, was known as to the winds in this part of the ocean. The results of my investigations elsewhere, with regard to winds and the circulation of the atmosphere, had enabled me to announce as a theoretical deduction, that the winds in the "variables" of the South Pacific would probably be found to prevail from the westward with a tradewind-like regularity. Between the parallels of 45 and 55 degrees south from the meridian of the Cape of Good Hope eastward, around to that of Cape Horn, there is no land or other disturbing agent to intercept the wind in its regular circuits; here the winds would be found blowing from the west with greater force than from the east in the tradewind region, and giving rise to that long rolling swell peculiar to those regions of the Pacific, they would enable ships steering east to make the most remarkable runs that have ever been accomplished under canvas.

The 'Sovereign of the Seas' has afforded the most beautiful illustration as to the correctness of these theoretical deductions.

Leaving Oahu for New York, via Cape Horn, 13th Feb. last, she stood to the southward through the belts, both of the notheast and the southeast trades, making a course good on the average through them, a little to the west of south. She finally got clear of them March 6th, after crossing the parallel of 45 degrees south, upon the meridian of 164 degrees west.

The 8th and 9th she was in the horse latitude weather of the Southern hemisphere.

Having crossed the parallel of 48 degrees south, she found herself on the 10th fairly within the trade-like west winds of the Southern ocean; and here commenced a succession of the most extraordinary day's runs that have ever been linked together across the ocean.

From March 9th to 31st, from the parallel of 48 degrees south in the Pacific, to 35 degrees south in the Atlantic during an interval of twenty-two days, that ship made 29 degrees of latitude, and 126 of longitude. Her shortest day's run during the interval, determined by calculation (not by log) being 150 knots. The wind, all this time, is not recorded once with easting in it; it was steady and fresh from the westward.

In these twenty-two days that ship made five thousand three hundred and ninety-one nautical miles. But that you may the more conveniently contrast her performance with that of railroad cars and river steamers, I will quote her in statute miles.

Here, then, is a ship under canvas, and with a crew, too, so short, the captain informs me, that she was but half manned, accomplishing in twenty-two days the enormous run of six thousand two hundred and forty-five miles (one-fourth the distance round the earth), and making the daily average of two hundred and eighty-three statute miles and nine-tenths. During eleven of these days, consecutively, her daily average was three hundred and fifty-four statute miles; and during four days, also, consecutively, she averaged as high as three hundred and ninety-eight and three-quarter statute miles.

From noon of one to the noon of the next day, the greatest distance was three hundred and sixty-two knots, or four hundred and nineteen miles, and the greatest rate reported by the captain is eighteen knots, or twenty-one statute miles the hour. This is pretty fair railroad speed.

There is another circumstance, however, connected with this voyage of the 'Sovereign of the Seas,' which is worthy of attention, for it is significant, and a fact illustrative of the revolution in the ways of business which is being quietly wrought by the time-saving devices of the age. This splendid ship, after unloading her cargo in California, was sent to glean after our whalers, and she came home with oil gathered from them at the Sandwich Islands.

This adventurous class of our fellow citizens resort there in such numbers that the fees annually paid by the government for the relief of the sick and disabled seamen there, amount to upwards of \$50,000.

Now, if the Pacific Railway were built, the thousands of American seamen, and the fleets of American whale ships that annually resort to those islands for refreshment and repairs, would resort to California. There they would be in their own country; the oil would probably be sent home on railway instead of by clipper ship, and all the advantage of refitting so many ships, of treating and recruiting so many men, would inure to the benefit of our own citizens."

Unity of the Human Race.

Prof. Agassiz, in his recent course of lectures, delivered in Charleston, S. C., taught and proclaimed his disbelief in all men having descended by ordinary generation from Adam, or from one pair, or two or three pairs, of created originators of races. He believes, as we learn from the "Charleston Mercury," that not only was there an original diversity in races—in the five races, as they are sometimes termed—but that men were created in separate nations, each distinct nationality, which has played an important part in history, having had a separate origin. The Prof. says:—

"My own views on this subject differ widely from those of others who have before maintained an original diversity of races. In my opinion, not only did different races, or types of mankind, as the five races, so called, have a distinct origin, but each distinct nationality, which has played an important part in history, had a separate origin—men were created in nations.

We may trace in detail how far diversity is manifest in even less prominent shades. We will instance Spain on account of its isolation.

A Greek writer, 700 years before Christ, spoke of the fine, soft wool, brought from Spain by the Phœnicians. So the horses of Spain are mentioned as different from any known to the writer—doubtless the original stock of the Andalusian horses—as the sheep mentioned are the modern merino sheep.—

These were their only domesticated animals. They had no cattle till long after.

If there was such a community of origin among men, why had each region peculiar animals? why did they not transmit the same domestic animals which they had already subdued? On the contrary, those animals are distinct as the races among whom they were found. In early times there was little intercourse between nations; there was no mixture of national character. Their means of communication were next to none. Nations made up of mingled elements are a peculiar phenomenon."

With respect to the languages of nations, the Prof. says:—"Of all the languages which have been supposed to have sprung from a common source, and diffused and changed by tradition or transmission, we are referred to the Sanscrit, the Persian, the German, the Italian, the Greek, and the Latin, and others, as constituting one family. But these as far back as their history or tradition reaches, were distinct languages. Many were spoken simultaneously. The oldest Chinese monuments exhibit the same Chinese language which is spoken to-day; so of the ancient Egyptian, the Hebrew, the old Greek, which presents the same characteristics as modern Greek—they were always within the reach of tradition separate and distinct. These cases are very similar to sets of notes characteristic of different families of animals.

How, then, arose those languages so intimately allied, as for instance, the Spanish and Italian? They evidently grew from an admixture—a foreign invasion superadded to the original stock. Modern mixed nationalities are evident examples of the process.

The Professor next argues that the further back we go in our studies of archæology the more distinct do the human races become."

Prof. Agassiz has been bearding the lion in his den, we mean the Rev. Dr. Smyth, of Charleston, who has written a very able work on the unity of the human race—the Bible doctrine of all men being descended from a single pair—Adam and Eve. This is a scientific question, which, within a few years, has created no small amount of discussion among the lovers of the natural sciences. So far as it regards the different languages of men, the arguments of Prof. Agassiz are not very strong, for all the knowledge which we have historically of the languages of different nations is dated from a period later than the record of the confusion of tongues at Babel. Communication between the nations of old was greater than he would lead us to believe; the Phœnicians came to Wales for tin long before the Christian era, and the tradition (no doubt a true one) of the Romans being descended from the Trojans, is one which completely nullifies all he has advanced about separate nations having separate created progenitors, men being created in nations. As a question of science, this one possesses a peculiar interest, and we may revert to it at some other time.

To Prevent Milk from Souring.

A correspondent of the "Ohio Farmer" gives the following plan:

"Agreeable to your request I will give you an account of our experience in the dairy business, with regard to preserving milk from becoming sour. We have kept from fifty to a hundred and fifteen cows for several years, and have milked seventy-two the past season. We strain the milk at night into a tin vat set in a wooden one, into which we pump cold water for the purpose of cooling it. Thus it is kept sweet until morning, with very little trouble, when we strain in the morning's milk, which is warmed sufficiently by heating the water in the wooden vat. Thus we proceed until Saturday night, when the milk is set and a curd made which is kept until Monday morning and made into cheese. Sunday morning the milk is strained into wooden bowls, which are painted inside and out with a thick coat of paint, smooth and hard, and set in a cool place on the cellar bottom where it keeps sweet until Monday when it is skimmed and made into cheese. The result has been that we have not lost a bowl of milk the past summer. But milk set in tin pans has sometimes soured. We formerly preserved it in tin pans by putting a piece of clean ice into

each pan. The rest of the Sabbath may be enjoyed and the practice of making cheese on that day be discontinued.

Looms for Weaving Hair Cloth.

John Gledhill, of New York City, has made several improvements in looms, most of which are for weaving hair cloth, an article which has heretofore been manufactured but slowly, owing to the difficulty of introducing so many short pieces as the hair is composed of, to form cloth: several attendants were heretofore necessary to select and distribute the hairs, and at best the process was but a slow one.

By the present improvements Mr. G so constructs the power loom as to insure the making of hair cloth quite rapid, and at the same time requiring the attention of but one person to each loom. It will be difficult to give an accurate or comprehensive description of the various improvements made by the inventor in so brief a notice as this—engravings would be necessary in order to give a clear description of machinery of this character. Those acquainted with looms may, however, get a general idea of its principal improvements by the following explanation:—

The first improvement of Mr. G. relates to the lay motion, and is applicable to all power looms. It is desirable in all looms to allow as much time as possible for the passage of the shuttle or other device which carries the weft through the shed; this is more particularly the case in weaving hair cloth, as the device which takes the hair must pass through the shed or opening formed by the heddles upon the warp, and return while it is open; time may be gained for this purpose by allowing the lay or bar which brings up the threads or hair to form the cloth, to be kept back as long as possible in the widest part of the shed. An arrangement for the accomplishment of this purpose has been invented, which consists in transmitting motion from cranks upon the driving shaft to the lay, by connecting rods formed in two pieces, one being connected to the lay and the other to the crank, and both connected together by a suitable joint with a radius, rod capable of working freely on a fixed centre, so that the latter part of the lay motion in retreating, and the first part of its motion in beating up, are retarded, and the lay kept longer in the wider part of the shed. The heddles in the above arrangement are not balanced by weights in the usual manner, but one leaf is made by means of pulleys to balance another next to it, and so on. Several other improvements relate to the arrangements for weaving hair cloth, which are not applicable to common looms. By means of a very ingenious contrivance the hair is taken and carried to its proper place in the cloth, the opposite ends of the hair being alternately taken, so that the cloth will not be rendered uneven by the taper. The inventor is a practical mechanical man, and we hope this improvement may tend to bring this fabric into more general use.

New Mode of Gearing Reciprocating Motion.

D. Stevens, of Leon, N. Y., has taken measures to secure a patent for an improvement in the mode of gearing reciprocating motion—no belts, pulleys, or wheels of any kind are used in the arrangement invented by Mr. S., he simply uses the double toggle joint motion, and carries it past its toggle or moving centre, so as to obtain two strokes of a cross beam, or an entire revolution of a crank for each single stroke of a motor attached to the toggle joint; by this method a most effectual and simple gearing may be constructed.

Nails Growing in the Flesh.

A late writer in the "Ohio Cultivator" gives the following remedy: Cut a notch in the middle of the nail every time the nail is pared. The disposition to close the notch draws the nail up from the sides. It cured mine after I had suffered weeks with its festering.

To Cure Warts.

Warts on the hand may be cured by washing them several times a day in strong soda water, and allowing them to dry without wiping. So says a correspondent, and he is correct.