Scientific Congress---Improved Instruments Wanted.

On the 23rd of August last, a congress was held in the city of Brussels; it was a convention of scientific gentlemen who were appointed by different civilized nations, to confer together upon the best means of carrying out a universal system of sea and land meteorological observations. Lieut. Maury, appointed by the American Government, was requested to direct the proceedings of the Convention, but he declined the honor, and M. Quetelet, of Brussels, was elected President. The proceedings of this Convention were very interesting. Lieut. Maury explained the objects for which the different representatives met. He said, "the proposal which induced the American government to invite this meeting, originated with the English Government, in which the United States Government was invited to co-operate, in respect to land meteorological operations.

Nineteen stations have been formed by the English authorities upon a uniform system, and the directions of the observations confided to the immediate supervision of the officers in command of the respective stations.

In the United States, meteorological observations had been made since the year 1816.

The American Government sympathised with the proposal of the English Government, but said: Include the sea, and make the plan universal, and we will go for it. I was then directed to place myself in communication with the shipowners and commanders of the Navy and Mercantile Marine, in furtherance of the plan.

It is from the information extracted from more than a thousand logs that I have been able to prepare the charts which have been published up to this time, showing the sailing routes and the direction of the winds and currents.

With a view, however, of extending still farther these nautical observations, the Government of the United States decided upon bringing the subject under the consideration of every maritime nation, with the hope of inducing all to adopt a uniform model of log book.

In order to place the captains navigating under a foreign flag in a position to co-operate in this undertaking, Mr. Dobbin, Secretary of the Marine Department at Washington, has instructed me to make known that the mercantile marine of all friendly powers might, with respect to the charts of the winds and currents, be placed on the same footing as those of the American marine; that is to say, that every captain without distinction of flag, who will engage to keep his log during the voyage, upon a plan laid down, and afterwards communicate the same to the American Government, shall receive gratis, the 'Sailing Directions' and the charts published.

It has consequently been suggested to the captains that they should provide themselves with at least one good chronometer, one good sextant, two good compasses, one marine barometer, and three thermometers for air and water. I make use of the expression 'at least,' because the above is the smallest number of instruments with which a captain can fulfill the engagement he contracts upon receiving the charts.

The object of our meeting then, gentlemen, is to agree upon a uniform mode of making nautical and meteorological observations on board vessels of war. In order to regulate the distribution of charts, which the American Government offers gratuitously to captains, it would, in my opinion, be desirable, that in each country a person should be appointed by the Government, to collect and classify the abstract of the logs, of which I have spoken, through whom also the charts should be supplied to the parties desirous of obtaining them."

The President:

GENTLEMEN: I think I shall be anticipating the wishes of the members of this meeting, by proposing to them to pass, in the first place, a vote of thanks to Lieut. Maury, and to record our gratitude for the enlightened zeal and earnestness he has displayed in the important and useful work, which forms the subject of our deliberations."

All the members in turn intimated their entire concurrence in the proposal made by the President, to express to Lieut. Maury, their admiration and their gratitude for the eminent services which he has rendered, and is still endeavoring to render to the science of navigation. Thanks are, therefore unanimously voted to Mr. Maury.

Lieut. Maury:

GENTLEMEN.—I am extremely grateful for the sympathy you have expressed, and the praise you have been pleased to bestow on my humble efforts. On my part, I beg to thank you for the kind assistance that you have afforded me. Allow me to add, that we are taking part in a proceeding to which we should vainly seek for a parallel in history. Heretofore, when naval officers of different nations met in such numbers, it was to deliberate at the cannons' mouth upon the most efficacious means of destroying the human species. To-day, on the contrary, we see assembled the delegates of almost every maritime nation, for the noble purpose of serving humanity by seeking to render navigation more and more secure. I think, gentlemen, we may congratulate ourselves with pride upon the opening of this new era."

[We could not think of abridging the above; it is so honorable to our country. Belgium has been called the "cock pit of Europe," because its soil has been wet with the blood of all the nations of Europe; there the fate of empires has been decided. How much pleasanter is such a convention; how much more creditable to humanity than all the red glories of Waterloo or Quatre Bras. Surely nations are growing wiser; science at least is lending her powerful and generous aid in making them more brotherly. The imperfection of good instruments, to carry out the objects of the Congress, was a prominent subject of discussion.

The Report of the Representatives states:—

"The imperfection of instruments in use at sea is notorious. The barometer having hitherto been used principally as a monitor to the mariner, to warn him by its fluctuations of the changes in prospect, its absolute indication of pressure has been but little regarded; and makers seldom, if ever, determined the real errors of these instruments, or, if known, still more rarely ever furnish the corrections with the instruments themselves.

It was the opinion of the Conference that it would not be impossible, considering the spirit of invention and improvement that is now abroad in the world, to contrive a marine barometer which might be sold at a moderate price, that would fulfill all the conditions necessary to make it a good and reliable instrument; and a resolution was passed to that effect, in order to call the attention of the public to the importance of an invention which would furnish the navigator with a marine barometer that at all times, and in all weathers at sea, would afford the means of absolute and accurate determinations.

The Conference was of opinion that the mercurial barometer was the most proper instrument to be used at sea for meteorological purposes.

With regard to thermometers, the Conference does not hesitate to say that observations made with those instruments, the errors of which are not known, are of little value, and it is therefore recommended, as a matter well worth the attention of co-operators in this system of research, whether some plan may not be adopted in different countries, for supplying navigators, as well in merchant-men as men-of-war, with thermometers, the errors of which have been accurately determined.

For the purpose of meteorology, various adaptations of the thermometer have been recommended, such as those which refer to hygrometry and solar radiation; and for temperature by thermometers with dry, wet and colored bulbs. With these exceptions, the only instrument, in addition to those generally used at sea, for which the Conference has thought proper to recommend, is that for specific gravity.

The reasons for recommending the use at sea of the wet, the white and black bulb thermometers are obvious; but with regard to the thermometer with a bulb the color of sea-water, and the introduction on board ship of a regular series of observations upon the specific gravity of sea-water, it may be proper to remark that, as the whole system of ocean currents and of the circulation of sea-water depends in some degree upon the relative specific gravities of the water in various parts of the ocean, it was judged desirable to recommend that observations should be carefully made with regard to it, both at and below the surface."

Here is a field standing broad and wide, for improvements in navigation, and improvements in philosophical instruments.

Bridge Over the Mississippi.

The "Rock Island (Ill.) Advertiser" speaks thus of the new bridge which is to cross the Mississippi from Rock Island to Davenport, in Iowa:—

"The bridge that is to span the mighty Mississippi. to unite with its iron band the shores of Illinois and Iowa, at this point, is at last located, let out to contract, and to be finished by the first day of December, 1854.

The bridge is to commence in this city, immediately above the depot, at or near the place where the upper iron foundry now stands, and is to cross the "slough," or east branch of the river, on a curve up stream, by three spans or arches, each 150 feet in length, and will strike the Island above the old fort ground. The curve will be continued regularly across the Island to the banks of the main channel, which will be crossed by five straight spans each 250 feet long, and a draw for the passage of vessels. The length of the main bridge will be about 1,600 feet from the Island to the Iowa shore, and when completed will be a wonder of magnitude, strength and beauty. Indeed, together with the natural magnificent scenery of the country hereabouts—the old fort with its reminiscences—the Island itself abounding in romantic interests, and the busy, thriving and beautiful cities of Rock Island and Davenport on either side of the "Father of Waters," will form a combination of landscrpe so grand that it will not be the least of attractions to draw travelers from all points of the world to gaze upon a living panorama, which they may never forget.

Deep Ocean Sounding.

The United States Ocean Surveying brig, Dolphin, left the Chesapeake Bay on the 31st of last May, for the purpose of sounding the Atlantic Ocean to Scotland, and making a series meteorological observations. The last we heard of her was, that she had completed a perfect line of soundings across the Atlantic to "Rockule," and was lying in the harbor of Southampton.

The distances between each place of sounding averaged about 100 miles. A line was run to the Azores, to the North of which, about a parallel of 45 miles in a south-west direction, an elevation was discovered on the bottom of the ocean of about 6,000 feet, the soil indicating a fine yellow chalky substance, mixed with a small portion of the finest sand. After leaving the Azores, the Dolphin took a westerly direction, still succeeding in discovering the bottom. Steering north, she made a direct line to the "three chimneys," where, at the depth of 1900 fathoms, bottom was also discovered. At this point, Lieutenant Barroman, in charge of the ship, finding the position of the weather unfavorable to a continuation of their research, made sail, and came into Southampton. The greatest depth at which bottom was reached, was 3,130 fathoms, in lat. from 41 to 43, lon. 51 to 56.

The temperature of the water was also tested at various depths, specimens of which have also been preserved. During the whole of the observations, particular attention was paid to the width, depth, and force of the current in different parts of the ocean, all of which have been carefully noted, for the purpose of being fully discussed and explained.

A young nobleman, celebrated for his Herculean strength and rashness, has made a voyage from Venice to Trieste alone, standing on two planks four feet long, by one foot wide and four inches thick, fastened by an iron clasp, and without any other help than a pole. He arrived at Trieste, seventy miles from Venice, safe and sound, having gained his wager.

Dr. Ick, a meteorologist, has decided that there is no connection between the moon and the weather.

Compliment to Joseph E. Holmes.

Several of the exhibitors and attaches of the Machine Department, presented Mr. Holmes, the Superintendent of the Machine Department, with a splendid gold watch and chain, last week, in a very quiet way, as a token of their respect and appreciation of the able and considerate manner in which he has conducted the affairs of his Department in connection with the interest of exhibitors and those employed under his charge. This is a deserved tribute to one who has effected so much for the Exhibition by personal effort, experience, and skill.

Quality of Milk.

Dr. Prout has shown that all our principal alimentary matters may be reduced to three classes: the saccharine, the oleaginous, and the albuminous, represented by butter, sugar, and white of egg. Now, milk consists of all three —the curd, which is chiefly albumen; the butter, chiefly oil; and a portion of sugar. Milk is the only substance prepared by nature so completely perfect as to be a compound of these three principles, and therefore its perfection, mixed with bread, as a food for children.

Railroad Houses.

On the Chicago railroad, the laborers live in cars, which are fitted up for the purpose of boarding them. They have the necessary conveniences for cooking, eating, and sleeping. They carry the cows along, which graze alongside on the prairies, and they are put in stalls when the locomotive village moves forward to a new place. This plan has been found to work well.

Guano for Cotton.

J. M. Dantler, a cotton planter of South Carolina, states that in 1852, by way of an experiment, he applied 241 pounds of Peruvian Guano, mixed with sand, to an acre of cotton plants, and that the additional yield was over 100 per cent. on the amount expended for the guano. An acre without guano yielded 135 pounds of seed cotton, while an acre to which it was applied produced 518 pounds.

Treatment of Cholera.

A new mode of treating cholera is to give a table-spoonful of powdered mustard in a tumbler of cold water as an emetic. After it has produced vomiting, a wine glass of brandy, with ten grains of cayenne pepper (powdered capsicum) stirred up in it, is given. If the patient survives such a dose, he must be proof against any disease.

Prize Paper upon the Vine Disease.

The "Society of Encouragement," of France, offers a prize of 3,000 francs to the author of the best paper upon the disease of the vine; a prize of 3,000 francs for the discovery of the most efficacious preventive against it.

A new beverage is introduced into France, called the Creaming Hop Champagne, said to be equal to the finest kinds of this wine by those who sell it, but it is made from rhubarb, and is a deception. This wine will be sold for the genuine champaigne, here, next year.

The vines in Portugal have been attacked with disease; port wine will be scarce next year; but then there is plenty of logwood, elder-berries, whiskey, and burnt sugar, and it can with these be easily counterfeited.

The receipts for tickets of admission to the Mechanics' Exhibition at Boston, recently closed, were $19,000. The number of paying visitors at the halls was seventy-six thousand.

M. Arago, the eminent French savan, died in Paris on the 1st inst. He is well known in America as the author of an excellent cheap work on Astronomy, which was edited by Dr. Lardner.

The fumes of chlorine will clean alabaster, if they are only applied for a short time.

The number of admissions to the Crystal Palace on Saturday was twenty-three thousand three hundred and seventy-one.

The French Journals record the successful experiments of a chloroform ship. Bah!