

that of southern Greenland, 5,500 (2,557 males and 2,943 females). The increase of population in 1885 was 86 in the northern and 31 in the southern part. The slow but steady increase forms a favorable contrast to the rapid decrease in the English and American parts of arctic America. The Danish government takes care of the natives, who fully repay the outlay of the government by the produce of their hunting and fisheries. The English and Americans, though they claim the country, leave them to the mercy of whalers and traders, whose disastrous influence will destroy them within a short time.

The whalers who annually visit Baffin Bay state that the enormous mass of land-ice which, in 1884, extended from the shore of Baffin Land to a distance of about sixty miles, did not give way until the summer of 1886. The ships were unable to approach the coast from Cape Bowen to Cape Searle for three years. After the ice had broken up, whales were found in great numbers in Cumberland Sound and near Cape Mercy, while in the previous years hardly any were met with on these grounds.

#### NOTES AND NEWS.

THE U. S. coast survey lost one of its most capable assistants recently by the death of Mr. Carlisle Terry, jun., who died at his home in Columbus, Ga. Mr. Terry was a young man of great promise, and his work on the Pacific coast during the past winter had been most successful, being highly commended by the authorities at Washington.

—A halibut weighing thirty-four pounds and measuring forty-one inches in length was captured recently in the lower Potomac, near Colonial Beach. This is the first authentic case of a halibut in fresh water. Hitherto it was supposed that the vicinity of Long Island was the extreme southern limit of the habitat of this fish. The specimen caught in the Potomac has been preserved in alcohol by the Smithsonian institution, and a cast has been made and placed on exhibition in the national museum.

—Three fine specimens of carp have been caught in a net in the lower Potomac, one weighing over seven pounds. The fish commission have preserved these fish in their large aquaria at Washington. Several white-fish and bass were also taken in the same locality. These are evidences of the good results attained by the U. S. fish commission in the propagation of food-fishes.

—The gem-collection in the national museum has just been enriched by the addition of the pearls

and diamonds given to President Van Buren by the Imaum of Muscat. These valuable jewels have been lying in the vaults of the treasury for nearly forty years, and were previously on exhibition in the patent office; but some of them were abstracted, and they were placed in the treasury vaults. There are one hundred and fifty pearls and one hundred and six diamonds, the latter aggregating twenty-one carats in weight.

—Prof. C. V. Riley, the entomologist of the agricultural department, has gone to California to investigate various matters which have been demanding the attention of his bureau for some time. His special mission is to investigate the Coltony cushion scale, an insect imported from Australia, which is doing immense damage to the citrus-orchards of California.

—The new naval observatory, for which congress appropriated \$400,000 several years ago, is to be built in the near future. Mr. Richard M. Hunt of New York has been appointed architect of the building. Contracts for the work on the observatory will be made, and the building operations will shortly begin.

—The second spring meeting of the Indiana academy of sciences will be held on May 19 and 20, 1887, at the 'Shades of Death,' near Waveland, Montgomery county, Ind. This place is situated on the banks of Sugar Creek, which here passes through a deep gorge cut in the sub-carboniferous sandstone.

—The Marine laboratory of the Johns Hopkins university has been opened at Nassau, New Providence, West Indies, under the direction of Dr. W. K. Brooks.

—The Harvard natural history society, having for a number of years been in a particularly dormant state, has recently, by the energetic work of its president, Mr. Nolan, sprung into life again. Under its auspices there will be a series of weekly lectures, or rather talks, at the society's rooms, upon the local fauna and flora. The first of the course is announced for March 30, to be delivered by Mr. Samuel Garman, upon the reptiles of Massachusetts. Other talks will follow, on the Wednesday evening of each week, by Mr. S. H. Scudder on butterflies, Dr. J. S. Kingsley on crustacea, Mr. James Emerton on spiders, Mr. William Brewster on birds, and others not yet announced.

—Mr. William H. Dall of the Smithsonian institution has just returned from a trip to Florida, embracing a trip up the Caloosahatchee River, where he went in search of fossils. His trip was most successful. This deposit was first discovered

two years ago, and the first visit to the fossil region was made last year by Professor Heilprin and Mr. Wilcox of Philadelphia. About half of this immense deposit is of an almost extinct class, and the remainder is of similar material to that found farther south, notably in the West Indies. Mr. Dall considers this fossil deposit the finest yet found in the United States. On Little Saratoga Bay a rock was found in which there were fragments of Indian pottery of rude workmanship, showing that the occupation of Florida dates back into the earlier ages.

— The U. S. coast survey is about to begin operations in the field, after a suspension of six months. The following work has thus far been mapped out by the superintendent. The geodetic levelling party, consisting of Assistants J. B. Weir, J. E. McGrath, and W. B. Fairfield, have suspended work in Mississippi and Alabama, the appropriation for its continuance being exhausted, and have returned to Washington. This party will take the field again in New York, and will run a line of precise spirit levels around the main harbor of New York, connecting all the benchmarks and tidal stations with this line of levels, and with the New York end of the transcontinental line. This line will also be connected with the line of levels which extends up the Hudson River from New York to Albany. A detailed hydrographic survey of a portion of Baltimore harbor will be commenced on the 1st of April by Assistants W. J. Vinal and E. L. Taney, under the immediate supervision of the engineer, N. H. Hutton, of the Baltimore harbor board. All the parties on the Pacific coast have received instructions to take the field, the appropriations being in such condition that the work will probably be carried on continuously from May 1 to Dec. 1. The telegraphic longitude parties in charge of Assistants Edwin Smith and C. H. Sinclair are instructed to take the field between April 1 and 20. Their first work will be the connection of Davidson's observatory, San Francisco, with Salt Lake City. This promises an important link in the longitude determinations of the Transit of Venus station near Fort Selden in New Mexico. The topographical and triangulation parties will take the field on the coast of Maine about the first of May, or earlier if the season permits. Three or four topographical parties on the north side of Long Island Sound are expected to fill in the few gaps in the topography that now exist between the shore-line and the New York, New Haven, and Hartford railroad. Assistant J. F. Pratt and Sub-assistant Fremont Morse have been instructed to make a preliminary topographical reconnaissance of Washington Territory on the Pacific

coast. A survey of this uninhabited, unapproachable, and almost unknown portion of the Pacific coast is greatly needed.

— There are sixty candidates for the fellowship of the Royal society this year, about the average number for the last four or five years. The council will in April select fifteen of these for recommendation to the society, and the election will take place on the 9th of June.

— The next session of the National academy of sciences will be held in Washington, D.C., beginning Tuesday, April 19, 1887, at 11 A.M.

— Dr. R. N. Cust, well known for his valuable linguistic and ethnological treatises, and particularly for his works on the 'Modern languages of the East Indies' and the 'Modern languages of Africa,' is preparing a similar work on the 'Modern languages of Oceania.'

— A reproduction of part of the map in the first bulletin issued by the New England meteorological society was given in *Science* for Jan. 2, 1885. Thirty-six observers then contributed to the society's records. The number is now a hundred and fifty.

— For five years the Brookville, Ind., society of natural history have given a course of free popular lectures. The course this year has thus far been the most popular of the series. The following lectures have been given this winter: Oct. 15, 'The study of man,' by D. G. Brinton; Nov. 26, 'The intelligence of instinct,' by J. P. D. John; Dec. 17, 'World-building,' by George M. Maxwell; Jan. 14, 'The study of mythology,' by L. H. Thomas; Feb. 4, 'Three weeks without water,' by H. W. Wiley. The following lectures are yet to be given: March 11, 'Life among the Japanese,' by T. C. Mendenhall; April 1, 'Our national park,' by J. M. Coulter; April 29, 'Agassiz,' by D. S. Jordan.

— Dr. Peale has brought together in his paper on the mineral springs of the United States, (Bull. U. S. geol. surv., No. 32, Washington) an immense amount of information about the mineral springs of this country. The list was formed primarily to aid in the statement of the commercial value of mineral waters as part of the mineral resources of the United States; but it will have a much wider usefulness than that would imply. It is small praise to say that this list is the most comprehensive that has yet been issued. The most complete before this, that of the American medical association, mentions about five hundred localities; while Dr. Peale has collected data as to 2,822 localities, including more than 8,000 springs. Even this is necessarily an imperfect enumeration, and must be regarded as 'preliminary to more de-

tailed work.' In addition, the list contains analyses of more than 800 springs, and, wherever possible, the temperature, volume, and character of each spring are given. Only those who have done similar work can appreciate the amount of thankless drudgery involved in this useful paper.

### LETTERS TO THE EDITOR.

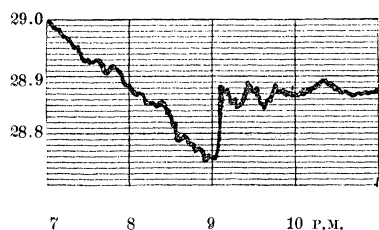
\* \* *The attention of scientific men is called to the advantages of the correspondence columns of SCIENCE for placing promptly on record brief preliminary notices of their investigations. Twenty copies of the number containing his communication will be furnished free to any correspondent on request.*

*The editor will be glad to publish any queries consonant with the character of the journal.*

*Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

### Barometer exposure.

ABOUT noon of Feb. 18 the barometer at Blue Hill observatory began to fall rapidly, and continued to do so until about 9 P.M. During this fall the wind steadily increased in velocity, and between 8 and 9 P.M. was blowing almost a hurricane. Immediately after 9 P.M. the hurricane-like roar of the wind suddenly ceased. Glancing up at the observatory barograph, I saw that it was rapidly rising, and within two or three minutes had risen more than a tenth of an inch. The barograph is of the Draper pattern, and multiplies three times. The accompanying diagram is a copy of the part of the barograph trace on Feb. 18, showing the rapid rise in pressure referred



to. There was thunder and lightning for about an hour preceding and following this sudden rise.

The following are the wind-velocities in miles per hour for each five minutes as obtained from a Hahl anemograph:—

Time (P.M.).....	8.30	8.35	8.40	8.45	8.50	8.55
Velocities (miles).....	65	60	64	69	71	69

After 9.50 the velocity varied but little for several hours. It is seen that between 9 and 9.05 P.M. there was a sudden decrease in the wind-velocity of about 35 miles, coinciding with the sudden rise in pressure; and, furthermore, each of the less-marked fluctuations of the barograph curve following this is connected inversely with corresponding variations in the wind's velocity.

The change in wind-velocity was evidently connected with the rise of the barograph at 9 P.M.; and the question presents itself, Was the rise of the barograph evidence of an actual existing difference of pressure in the atmosphere, or was it a merely mechanical effect of the wind sucking the air out of

buildings while the wind-velocity was high, and allowing it to flow in again as the wind-velocity decreased?

From what we know of the connection of wind-velocities with barometric gradients, it would be anticipated that such a difference of pressure in the atmosphere as would cause a rise of the barometer at any point to the extent of a tenth of an inch in a minute or two, would give rise to an enormous increase in wind-velocity. But, instead of finding the increased wind-velocity with the rise of pressure, there was just the opposite: hence the inference is, that the rise of the barograph was due to the decreased wind-velocity relieving the stress on the air in the building.

On examining the barograph trace obtained by Professor Davis at the Harvard laboratory, ten miles north of Blue Hill, it is found that an almost identical and equal jump of the barograph curve occurred within a few minutes of the rise at Blue Hill; so that, whatever the origin of the rise, it was evidently due to some general cause acting similarly over a comparatively large area.

The observations of the signal service taken all over the United States at 10 P.M. show that there existed at that time a large cyclonic storm central-north of Lake Superior. The circulation of the wind, as well as the bending of the isobars, also give undoubted evidence of the existence, at the same time, of a small secondary over New England.

An explanation of the sudden decrease of wind-velocity hence suggests itself. Previous to 9 P.M. the vicinity of Boston was on the outer edge of the secondary, where the isobars were greatly crowded and the wind-velocity high; but at 9 P.M. it suddenly entered the progressing central area of the secondary, where the pressure was more uniform, and the wind-velocity immediately decreased. This explanation necessarily involves the assumption that the pressure in the vicinity of Boston was lower after 9 P.M. than preceding it, and the apparent rise was merely a subjective effect due to the wind. No other assumption seems to me reasonable, especially when we find at 10 P.M. the wind over a small area circulating around and centring in toward southern New England.

H. HELM CLAYTON.

Blue Hill meteor. observ., March 25.

### On certain electrical phenomena.

I hasten to acknowledge that I unintentionally misrepresented Dr. Shufeldt in one sentence of my

9.00	9.05	9.10	9.15	9.20	9.25	9.30	9.35	9.40	9.45	9.50
65	31	36	48	35	15	18	30	37	36	33

letter in *Science*, No. 213. I was wrong in affirming that he stated that he had never observed such exhibitions in Washington; for what he really said was, that he had never observed them as far as his own person was concerned.

I hope Dr. Shufeldt will be equally ready to admit that he has misrepresented me in his reply to my remarks (*Science*, No. 216), where he has omitted the essential part of one of my sentences, and altered the remaining part, even going so far as to include the 'mangled remains' in quotation-marks. Any one who will take the trouble to examine my first letter will see that what I really advised him to do was to *critically examine* his facts, "possibly eliminating a