

temperature must precipitate a larger amount of moisture in a warm than in a cold climate. Thus the following table shows the average annual rainfall in different latitudes, according to the estimates of Prof. Loomis and Guyot; to which are added two columns, likewise indicating the decrease of rainfall with increase of latitude:

Lat.	Loomis. Rainfall in ins.	Lat.	Guyot. Rainfall in ins.	Annual Rainfall in inches.	Annual Rainfall in inches.
0°	104	0°	100	Tropics.... 102	Tropics... 96
10°	85	20°	80	Temperate zone.... 36	Italy.... 45
20°	70	30°	69	Frigid zone 12	England. 37
30°	40	40°	40		N. Germany... 22
40°	30	50°	30		St. Petersburg... 17
50°	25	60°	20		
60°	20	70°	10		
		80°	5		

It is evident that on the Pacific coast this general law is completely reversed, and it is equally obvious that there must exist some active physical cause adequate to produce this anomalous result.

(2.) The second abnormal result indicated by our table of rainfall on the Pacific coast is that at Cape Mendocino (or about latitude 40° to 41°) there is a sudden increase of the annual rainfall from about 20 inches to 44 inches, or more; with a more gradual augmentation from this latitude in advancing northward along the coast. (3.) The third abnormal result, indicated by the same table, is that between San Diego and Cape Mendocino (from latitude 32° 42' to latitude 40° 26') scarcely any rain falls during the three summer months; but that north of the latter point the rains are more uniformly distributed throughout the different seasons, although the winter still continues to be the period of greatest precipitation. The contrast in this respect between the distribution of the rainfall according to seasons on this coast and that on the Atlantic coast of the United States is strikingly exhibited by the following table of the average rainfall, according to seasons, at various points along the latter:

STATIONS.	North Lat.	Average Rainfall in Inches.			Extent of record in Years.
		Spring.	Summer.	Autumn.	
Fort Pierce.....	27° 30'	9.36	22.65	14.74	61
St. Petersburg.....	28° 30'	10.91	21.07	12.64	6
Savannah.....	32° 5'	10.65	20.02	8.43	23 1/2
Charleston.....	32° 47'	8	17.97	8.87	22
Fortress Monroe.....	37°	10.17	16.32	10.88	19 1/2
Fort McHenry.....	39° 16'	10.79	10.83	9.97	22 1/2
Philadelphia.....	39° 57'	11.19	12.68	10.46	43
Fort Columbus.....	40° 41'	11.35	11.06	10.07	42
New York.....	40° 45'	11.49	11.87	10.74	43 1/2
New Haven.....	41° 13'	10.78	11.58	10.76	24 1/2
Providence.....	41° 50'	10.73	9.75	10.32	54
Boston.....	42° 02'	10.54	10.14	10.48	55
Concord.....	42° 32'	10.40	9.51	9.48	30
Hanover.....	43° 12'	9.84	10.57	11.31	82
Brunswick.....	43° 54'	9.57	11.09	10.58	19
Caldwells.....	44° 11'	11.71	11.71	11.42	22
Fort Sullivan.....	44° 11'	10.57	10.46	10.40	41 1/2
Washington.....	38° 53'	10.16	12.77	8.10	5

(4.) The fourth fact shown by the table of rainfall on this coast is not anomalous, being in conformity with the general laws of rain. It is that the amount of annual rainfall in the great California and Oregon valleys is considerably less than it is on the sea-coast west of the Coast ranges. This is much more conspicuously true

in latitudes north of 41°, where it is surprising how quickly the atmosphere becomes drained of its vapors as we leave the coast and proceed inland. The Coast Range mountains along this portion of the coast being cooler, act more powerfully as condensers as the vapor-bearing winds are forced up the western slopes.—Prof. John Le Conte, in *Minnig and Scientific Press*.

POULTRY FATTENING BY THE FRENCH METHOD.

We have frequent inquiries as to the method of fattening employed at the large poultry establishments of France. It seems that the French system, after several failures, has taken root in Massachusetts, and our poultry growers will be interested to read of the methods employed. The following statements, from the pen of our occasional correspondent Mr. W. D. Philbrick, appeared some weeks ago in the *Boston Cultivator*:

It is probably well known that the process of fattening poultry for market is much better understood in France than in this country. A well-fattened chicken or turkey, according to the fashion of our market, is a bird that shows plenty of yellow fat, under the skin, along the back and sides, while with chickens, to be salable, the skin and legs should have a bright yellow color.

In France such poultry would be classed only as ordinary, and would be utterly rejected by the epicures who pay the highest prices for luxuries. The best poultry, according to the French standard, should show little fat under the skin, and this should be of a whitish color. The finest birds should be heavy in muscle, and tender, the skin white and delicate. These conditions are only attained by a system of forcing, which has been developed through years of patient experiment in France, and is now, for the first time, successfully imitated in this country.

Many previous attempts at imitating the French system have proved failures, but the persevering character of several parties who have recently established an enterprise for fattening poultry after the French system at Medfield, Mass., gives promise of success. One of their number spent considerable time in France working in establishments of this kind as a laborer, in order to master every detail of the business. At present the Medfield concern is killing daily about eighty fowls for the use of some of the best hotels in Boston.

The birds are purchased by agents in various parts of the State, and are placed temporarily in the "reception rooms" on arrival at the yard. These are simply well-ventilated sheds of ordinary character, where the fowls are fed and allowed to run at will until they are wanted for forcing. They are then placed in the fattening house, a warm, well-ventilated building, provided with coops for the purpose. For ten days they are subjected to a system calculated to remove the yellow fat, and then for ten days subsequent are crammed with a porridge of milk and meal (barley and rice being largely used, with some corn), and at the end of 20 days are immediately killed, their room being daily replaced by freshly purchased birds.

The building has accommodations for 1,700 birds; 84 are killed daily, and 84 more take their place from outside. The temperature of this building is kept at about 60° by steam pipes. The coops are daily cleaned out, the bottom boards being washed and steamed, to remove all taint. The coops are so small that only one bird can be kept in each. This attention to cleanliness, the labor of preparing food, and the dressing of fowls for market, gives constant employment to eight or ten men. Thirty cans of milk daily are required to mix the food. This milk is at present purchased of the neighboring farmers. The manure from this style of feeding is of a thick, pasty consistency, difficult to handle, but very rich, and highly esteemed by the farmers in the neighborhood, who willingly pay one dollar per barrel for it.

The poultry produced by this process is already highly esteemed by those who have

tested, and seems likely to come into greater favor as it is better known. It sells for about 10 to 15 cents per pound above the price of ordinary poultry, while it is claimed such poultry is worth this difference, since there is very little waste in the shape of the gross and indigestible yellow grease which encumbers the ordinary fat fowl.

Their arrangements are not yet fully completed, since they only began to build in July last. This spring they contemplate erecting several additional buildings and fixtures.

EUROPEAN INFLUENCE ON AMERICAN CURRENCY.

One of the strangest spectacles of modern times is that of a great country, known throughout the civilized world by the products of her skill and industry and the aggressive and tireless enterprise of her inhabitants—a country that has made her influence felt in every trade-center of the world, and can control the prices of production everywhere—meekly asking every morning of the money lenders of a city 3,000 miles away, and on the other side of the ocean, what her own coins are worth, the ore for which was dug out of her own mines, and stamped with the seal and pledge of her government.

Here is a country with inexhaustible stores of precious metals, easily mined, that are needed to develop the untouched resources of its broad prairies and teeming forests, practically looking up its vast treasures, and allowing its broad expanse of territory to lie unimproved, for no object in the world but the benefit of the money lenders in Europe and their agents here. Many papers are in the habit of quoting the price of silver in London, with the remark that this makes our dollars worth 87 or 97, or some other number of cents. Our country is in a position to-day to state, and her people to demand, the fact that here an American dollar is worth a dollar, whether the price of silver among the brokers of London be more or less. The best interest of our country imperatively demands that the money it may need should come out of our mines instead of the coffers of the money lenders of Europe. The interest that we have paid them would have peopled our territories, built railroads and school-houses, and covered our wildernesses and plains with cities and towns and manufactories, and made us the producing nation of the world. The future greatness of our people and nation depends largely upon the wisdom of its legislators and financiers in regard to the great question of mining. The bleeding artery of interest money that enriches the old country so that they are fattened as upon blood, and impoverishes us, can be closed by a proper encouragement of our mining industries. Our own mines can supply us with all the money that the industries of the country require. The mineral deposits already discovered are sufficient to guarantee a supply of precious metal for more than one generation, and we have as yet by no means begun to comprehend the extent of our mineral resources. The individual or nation is most unwise and foolish that borrows money and pays interest when they have in their possession resources that would bring the money and save the interest. The spectacle is presented to the world to-day of a great nation looking up her own treasures of gold and silver and precious metals, and paying interest for the gold.

Our people are patient and long-suffering, but we shall be surprised if there is not soon sent a petition that must be heard from the mining interest, against the injustice of a legislation, or want of legislation, that is doing it a positive injury. When that voice comes it will demand attention and action, for mining has almost in a day become an interest vast and important.—*Chicago Mining Review*.

VALENTINITE.—The mineral valentinite, Sb<sub>2</sub>O<sub>3</sub> hitherto unreported from the United States, occurs on antimonial ore at the Bagdad mine, Tempiute, Nevada, in radiated tufts of white fibers four m. m. in length.