

But the singular and puzzling fact remains to be mentioned. The bones of the Mastodon, Elephant, Rhinoceros, Hippopotamus, Tapir, Bear, Hyæna, Stag, &c. which have been found in caves, and in the alluvial soil in many parts of Europe and Asia, have been discovered in alluvial gravel, covered by a very ancient Trachitic breccia at Mont Perrier. These animals have disappeared from the earth, (for they are all of extinct species,) and are supposed to have been destroyed by the deluge; yet here we find their bones covered by, or rather inclosed among volcanic rocks which must be regarded as postdiluvian, for the reasons already mentioned. The animals must, of course, have lived in the neighbourhood at the time when these volcanic rocks were deposited on the surface of the country. Shall we then infer that the deluge was only partial, and did not visit Auvergne? Or shall we suppose that these animals lived after it, and were destroyed by some other catastrophe? Shall we also suppose that all the changes we have described have taken place within 5000 years? We do not pretend to see our way at present through these difficulties. Geology presents many problems which cannot be solved at the first glance; but the proofs of a general deluge are so numerous and strong, that we have no doubt of means being ultimately found to reconcile the facts we have mentioned with its existence at or near the period commonly assigned to it.

#### IV.—*On the Climate of the North-Western Mountains.*

##### *A general statement of the Weather for February, 1829.*

Clear,	10 days
Fair, but cloudy and partially cloudy,	5 ditto
Rainy, stormy, snow and hail,	13 ditto
Thunder,	5 ditto
Clear, on the 1st, 3d, 4th, 5th, 6th, 9th, 10th, 15th, 16th, and 28th.	
Fair, but cloudy and partially cloudy, on the 7th, 8th, 11th, 18th, and 26th.	
Rainy, stormy, snow and hail, on the 2d, 12th, 13th, 14th, 17th, 19th, 20th, 21st, 22d, 23d, 24th, 25th, and 27th.	
Thunder, on the 14th, 21st, 23d, 26th, and 27th.	

##### *Height of the Barometer.*

	Inches	Th.
Mean maximum for the month,	22,828	51,2
Mean minimum,	22,767	45,2
Mean of the daily means,	22,797	48,1
Greatest altitude, on the 28th, at 10 A. M.	22,924	52,5
Least ditto, on the 13th, at 4 P. M.	22,650	45,

##### *Temperature of the air.*

Mean maximum,	44,2
Mean minimum,	33,2
Mean of the daily means,	38,6
Greatest, on the 26th, at 2 P. M.	51,5
Least, on the 15th, at sunrise,	26,2
Mean,	38,8

##### *Temperature of the house.*

Mean maximum,	40,5
Mean minimum,	37,4
Mean of the daily means,	38,9
Great. on the 19th, at sunset,	44,8
Least, on the 16th, at sunrise,	32,3
Mean,	38,5

##### *Hygrometrical state of the Air.*

Leslie's Hygrometer, greatest, on the 9th and 10th: on the former day at 2 P. M., and on the latter at noon,	44
Ditto ditto, least, on the 13th and 24th: on the former day at 3 P. M., and on the latter at 10 A. M.	4
Kater's ditto, greatest, on the 23d, at 1 P. M.	736
Ditto ditto, least, on the 11th, at 4 15 P. M.	197

##### *Statement of the Winds, shewing their direction and force during February, 1829.*

West, on the 1st, 4th, 6th, 7th, 10th, 11th, 13th, 15th, 20th, 21st, and 22d,	little	11 days
Ditto, on the 8th, 9th, 14th, and 28th,	gentle	4 ditto

East-north-east, on the 2d, 18th, 19th, and 24th,	light	4 days
Ditto, on the 12th and 26th,	little	2 ditto
Ditto, on the 16th and 17th,	gentle	2 ditto
North-west, on the 3d and 5th,	little	2 ditto
East, on the 23d,	ditto	1 ditto
South-south-west, on the 25th,	light	1 ditto
North-east, on the 27th,	gentle	1 ditto

—

*A general statement of the Weather for March, 1829.*

Clear,	18 days
Fair, but cloudy and partially cloudy,	4 ditto
Rainy, stormy, snow and hail,	9 ditto
Thunder,	4 ditto
Clear, on the 3d, 4th, 5th, 8th, 9th, 10th, 11th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 26th, 27th, and 28th.	
Fair, but cloudy and partially cloudy, on the 7th, 12th, 21st, and 25th.	
Rainy, stormy, snow and hail, on the 1st, 2d, 6th, 22d, 23d, 24th, 29th, 30th, and 31st.	
Thunder, on the 22d, 23d, 25th, and 31st.	

*Height of the Barometer.*

	Inches.	Th.
Mean maximum for the month,	22,927	58,1
Mean minimum,	22,857	51,2
Mean of the daily means,	22,892	54,6
Greatest altitude, on the 13th, at 10 A. M.	23,046	62,7
Least ditto, on the 2d, at 3 P. M.	22,722	44,0

*Temperature of the air.*

Mean maximum,	56,7
Mean minimum,	42,9
Mean of the daily means,	49,8
Greatest, on the 21st, at 1 P. M.	65,1
Least, on the 3rd, at sunrise,	30,8
Mean,	47,9

*Temperature of the house.*

Mean maximum,	50,6
Mean minimum,	46,0
Mean of the daily means,	48,3
Greatest, on the 17th and 20th : on the former day, at 1, 3, and 4, 45 P. M. and the latter day at 4, 45 P. M.	56,7
Least, on the 3d at sunrise, and 8 A. M.	35,3
Mean,	46,

*Hygrometrical state of the Air.*

Leslie's Hygrometer, greatest altitude, on the 17th, at noon,	96
Ditto ditto, least ditto, on the 4th, at sunrise and 10 P. M.,	3
Kater's ditto, greatest ditto, on the 2nd at sunset,	706
Ditto ditto, least ditto, on the 17th at 3 P. M.,	108

*Statement of the Winds, shewing their direction and force during March, 1829.*

East-north-east, on the 1st, 3rd, 4th, 7th, 11th, 15th, 16th, 17th, 22d, 23rd, 25th, 28th, and 30th,	gentle	13 days
Ditto, on the 5th, 13th, 24th, and 31st,	little	4 ditto
Ditto, on the 9th and 14th,	moderate	2 ditto
South-west, on the 2nd,	little	1 day
West, on the 6th and 21st,	ditto	2 days
Ditto, on the 8th, 18th, 19th, 20th, 26th, 27th, and 29th,	gentle	7 ditto
Ditto, on the 12th,	moderate	1 day
North-east, on the 10th,	gentle	1 ditto

P. G.

*Remarks by the Editor.*—Our correspondent has doubtless observed the discrepancy between Kater's and Leslie's Hygrometers. It is evident that *both* cannot be right, and it is nearly certain that neither are. The error in the graduation of Leslie's has already been pointed out in our number for January, p. 24. As to Kater's, it is, we fear, liable to the objections made against every hygrometer formed of an organic substance, irregularity of scale, and eventually impaired action. The moist bulb thermometer is every way preferable to either of them.

the experiment; and it was with this idea that we devoted ourselves with so much perseverance to the comparison of the several scales.

*Remarks by the Editor.*

This paper concludes the first part of the enquiry undertaken by Messrs. Dulong and Petit, as will be observed, by referring back to the introduction prefixed to their first paper, Vol. i. p. 29. The second part comprehends the *Laws of Cooling*, and embraces, still more important results than the first. We hope to be able to conclude the second part in the course of the present volume.

IV.—*On the Climate of the North-Western Mountains.*

*A general statement of the Weather for April, 1829.*

Clear,	11 days
Fair, but cloudy, and partially cloudy,	10 ditto
Rain, stormy and hail,	9 ditto
Thunder,	6 ditto
Clear, on the 1st, 8th, 9th, 10th, 16th, 17th, 21st, 22d, 24th, 25th, and 26th.	
Fair, but cloudy, and partially cloudy, on the 2d, 11th, 15th, 18th, 19th, 20th, 22d, 28th, 29th, and 30th.	
Rainy, stormy, and hail, on the 3d, 4th, 5th, 6th, 7th, 12th, 13th, 14th, and 27th.	
Thunder, on the 3d, 4th, 6th, 7th, 13th, and 27th.	

*Height of the Barometer at Bréri, from the 1st to 8th inclusive.*

	Inches	Th.
Mean maximum,	22,873	57,5
Mean minimum,	22,797	50,9
Mean of the daily means,	22,835	54,2
Greatest altitude, on the 3d, at 10 A. M.	22,896	56,7
Least ditto, on the 5th, at 6, 30 A. M.	22,776	48,4

*Temperature of the Air.*

*Temperature of the House.*

Mean maximum,	56,2	Mean maximum,	50,8
Mean minimum,	42,6	Mean minimum,	46,3
Mean of the daily means,	49,4	Mean of the daily means,	48,5
Greatest, on the 2d, at 2 P. M.	62,3	Grtst. on the 2d, at 1, 2 and 3 P.M.	53,3
Least, on the 8th, at sun-rise,	41,	Least, on the 4th, at sun-rise & 8 AM.	45,1
Mean,	51,6	Mean,	49,2

*Hygrometrical state of the Air.*

Leslie's Hygrometer, greatest altitude, on the 2d, at 2 and 3 P. M.	69
Ditto ditto, least ditto, on the 4th, at 9, 30 P. M.	4
Kater's ditto, greatest ditto, on the 4th, at 9, 30 P. M.	673
Ditto ditto, least ditto, on the 2d, at 4, 45 P. M.	239

*The following were observed at intermediate places, during the March from Kotgérh to Soobathoo.*

Place.	Date.	Barometer.			Thermometer attached.			Ther. detach- ed; or in the air and shade.			Kater's Hygro- meter.	
		Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.
At Matiana, (1)	9.	92,506	22,454	22,480	67,3	59,8	63,5	70,	51,6	60,8	260	186
Phágu, (2)	10.	22,364	22,330	22,350	62,2	57,5	59,8	65,7	50,7	58,2	177	138
Simla, (3)	11.	23,122	23,046	23,084	62,4	59,2	60,8	72,4	55,7	64,	221	130
Ditto,	12.	23,074	23,018	23,046	61,2	59,6	60,6	70,2	55,7	62,9	221	164
Sairi house, (4)	13.	25,382	25,308	25,345	74,7	69,6	72,1	80,6	63,3	71,4	150	114

*Height of the Barometer at Soobathoo, (5) from the 14th to 30th, inclusive.*

	Inches.	Th.
Mean maximum,	25,848	80,1
Mean minimum,	25,782	3,1
Mean of the daily means,	25,815	6,6
Greatest altitude, on the 16th, at 10, 30 A. M.	25,955	74,7
Least ditto. on the 27th, at 5 P. M.,	25,690	78,

*Temperature of the air.*

Mean maximum,	84,2
Mean minimum,	65,7
Mean of the daily means,	74,9
Greatest, on the 24th, at 4 P. M.	90,7
Least, on the 17th, at sunrise,	55,5
Mean,	73,1

*Temperature of the house.*

Mean maximum,	80,1 (6)
Mean minimum,	73,1
Mean of the daily means,	76,6
Greatest on the 29th, at 3 P. M.	87,
Least, on the 16th, and 17th,	} 66,
on both days, at sun-rise,	
Mean,	76,5

*Hygrometrical state of the Air.*

Kater's Hygrometer, greatest altitude, on the 15th at sunrise,	237
Ditto ditto, least ditto, on the 24th and 29th, on the former day at sunset, and on the latter, at 2, 3, 4, and 5 P. M.,	54

*Statement of the Winds, shewing their direction and force, during April, 1829.*

West, on the 1st, 2d, 7th, 10th, 17th, and 21st,	gentle,	6 days.
Ditto, on the 9th,	moderate,	1 day.
East-north-east, on the 3d, 4th, and 6th,	gentle,	3 days.
Ditto, on the 5th,	stormy,	1 day.
North-west, on the 8th,	gentle,	1 ditto.
South-west, on the 11th, 13th, 15th, 27th, and 29th,	ditto,	5 days.
Ditto, on the 14th, 16th, 18th, 24th, 25th, and 26th,	moderate,	6 ditto.
Ditto, on the 19th and 20th,	strong,	2 ditto.
South-east, on the 12th,	gentle,	1 day.
West-north-west, on the 22d,	ditto,	1 ditto.
South-west, on the 23d,	moderate,	1 ditto.
Ditto, on the 30th,	gentle,	1 ditto.
North, on the 28th,	ditto,	1 ditto.

P. G.

- (1) In North latitude, 31°.12'. East longitude, 77°.25', and elevation above sea level, by Barometrical observation, 7900 feet.
- (2) ditto, 31.05 ditto, 77.19 ditto ditto, 8017 ditto.
- (3) ditto, 31.06 ditto, 77.11 ditto ditto, 7300 ditto.
- (4) ditto, 31.04 ditto, 77.03 ditto ditto, 4730 ditto.
- (5) ditto, 30.58 ditto, 76.59 ditto ditto, 4205 ditto.
- (6) The attached Thermometer also indicates the temperature of the house.

V.—*Some Remarks on the Mantis Tribe of Insects. By the late Dr. J. Adam.*

The varieties of the insect tribes, met with in India, may be said to be innumerable; and hence opportunities are afforded for the study of entomology, that do not occur in more temperate regions of the globe. The singularity of their appearance, and the striking changes, which many of them undergo, by offering a wider range of enquiry, as respects the economy of the insect itself, or its relation to other animals, combine moreover to confer a greater interest on the science, and allure those to its pursuit, who might otherwise, consider such researches as frivolous and unworthy of their notice. Among the most remarkable insects for their external form, in India, may be reckoned the various individuals of the *Mantis* tribe, of which the accompanying are examples; namely the *M. gonygloides* and *M. siccifolia*. According to the latest classification, this tribe has been divided into the two families of the *Mantida* and *Phasmida*, founded on a difference in the structure of the fore foot or leg; this member in the former, being *raptorious*, or provided with a sharp claw, and a hollow on the leg and thigh, and a double series of spurs, for the better securing its prey;—and in the latter, being simple and destitute

was immediately measured by the gauge. The stop-cock of the outer tube or case was then shut, and we commenced our observations. When the experiment was to be performed in air, the contents of the halloo were first rarefied, in order to render the junctions more perfect, and the quantity of air which had been abstracted was then re-admitted. Finally, when the experiment was to be performed in a gas, the balloon was first exhausted, a certain quantity of the gas admitted, and the exhaustion made a second time: the full proportion of gas was then admitted, which was thus found contaminated with the smallest possible quantity of air.

We shall terminate this description with observing, that the dimensions of the thermometer had been adjusted, so that the observation of its rate of cooling might commence at 300° (572° F.) in a vacuum. The experiments in air and other gases demanding a little more management, and requiring the fluid to possess an equilibrium of temperature throughout, could not be commenced much above 250°, (482° F.)

Every thing being arranged, as we have described, whether for observations in a vacuum, or in a gaseous medium, there only remained to observe, by means of a watch with seconds-hand, the indications of the thermometer at equal intervals of time; these indications, however, requiring two corrections, which we shall explain. First, it will be observed, that in the arrangement of our apparatus, the stem of the thermometer became always, in a few moments, of the temperature of the air; each indication of the instrument was then too small, by a number of degrees equal to the quantity by which the mercury in the stem would have expanded, had it been raised from the temperature of the air to that of the bulb. This correction there was of course no difficulty in calculating, and we were careful to apply it to each observation. The second correction had for its object, to reduce the indications of the mercurial thermometer to that of air; and for this purpose, we made use of the table given in the first part of this memoir.

When we had, in this way, obtained the correct series of temperatures, we applied the formula of calculation, which we have above explained. The series was then divided into several different parts, each of which was represented by expressions of the form  $m a t + \beta^{12}$ , in which  $t$  designates the time. These served afterwards to calculate the rate of cooling for different excesses of temperature, which rates, however, required a little diminution easily determinable in each case. To understand in what this correction consists, it may be sufficient to remark, that the cooling of the bulb of the thermometer, proceeding from the loss of heat throughout its surface, is always a little augmented by the descent of the cold mercury from the stem of the instrument. Now the volume of this mercury being known, and also its temperature, this last correction was easily calculated, which, though very small, was not to be neglected.

Such were the methods of observation and calculation followed throughout in all our experiments. We contented ourselves with determining the rates of cooling for each 20 degrees, and fearing to swell this paper unnecessarily, we have omitted all the intermediate steps of calculation by which the results have been established.

We shall now proceed to the detail of our experiments, in the order in which they have been made.

Our preliminary researches having taught us the influence exerted on the law of cooling, by the nature of the surface, it became necessary to study this law for different kinds of surfaces; and it was further necessary that these surfaces should be such, as not to be affected by the heat to which they should be exposed. Those which alone appeared to fulfil this condition, are glass and silver. We have, therefore, made all our experiments on a thermometer, first, with its natural surface, and secondly, having the bulb covered with very thin silver leaf. These two surfaces, it is known, have very different radiating powers; glass being the most powerfully radiating of all bodies, and silver the least so. The laws to which we have been led, in comparing the rates of cooling, as due to these two surfaces, are so simple, as to be beyond all doubt general, in their application to all bodies.

#### V.—*On the Climate of the North-Western Mountains.*

##### 1. *A general Statement of the Weather at Subathoo, for May, 1829.*

Clear,	16 days.
Fair, but cloudy, and partially cloudy,	9 ditto.

Rainy, stormy, and hail,	6 days.
Thunder,	7 ditto.
Clear, on the 2d, 5th, 6th, 7th, 8th, 10th, 11th, 12th, 13th, 17th, 18th, 21st, 22d, 23d, 24th, and 30th.	
Fair, but cloudy, and partially cloudy, on the 3d, 4th, 9th, 20th, 25th, 26th, 27th, 28th, and 29th.	
Rainy, stormy, and hail, on the 1st, 14th, 15th, 16th, 19th, and 31st.	
Thunder, on the 4th, 14th, 15th, 16th, 19th, 28th, and 31st.	

*Height of the Barometer.*

	Inches	Ther.
Mean maximum for the month,	25,834	85,1
Mean minimum,	25,750	77,7
Mean of the daily means,	25,791	81,4
Greatest altitude on the 1st, at 9 P. M.	25,965	81,
Least ditto on the 29th and 30th, on the former day at 5 P. M.		
and on the latter at sun-rise, 5 P. M. and sun-set,	25,635	83,
		on both days.

*Temperature of the Air.*

Mean maximum,	88,7
Mean minimum,	69,8
Mean of the daily means,	79,2
Greatest on the 29th, at 3 P. M.	94,3

Least, on the 16th, at 9 P. M.,	57,5
Mean,	75,9

*Temperature of the House.*

Mean maximum,	85,1
Mean minimum,	77,7
Mean of the daily means,	81,4
Greatest on the 30th and 31st, on the former day at 5 P. M. and on the latter at 3 P. M.	90,3
Least, on the 17th, at sun-rise,	69,
Mean,	79,6

*Hygrometrical State of the Air.*

Kater's Hygrometer, greatest altitude on the 16th, at sun-set,	703
Ditto ditto, least ditto, on the 11th, at 4, 45 P. M. and sun-set,	50

*Statement of the Winds, shewing their direction and force, during May, 1829.*

South-west, on the 1st, 3d, 4th, 5th, 6th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 20th, 23d, 24th, 25th, 26th, 27th, 29th, 30th, and 31st,	moderate, 22 days.
Ditto, on the 2d, 7th, 8th, 17th, 21st, and 22d,	gentle, 6 ditto.
Ditto, on the 18th,	little, 1 day.
Ditto, on the 28th,	strong, 1 ditto.
North-east, on the 19th,	gentle, 1 ditto.

*2. A General Statement of the Weather at Subathoo, for June, 1829.*

Clear,	10 days.
Fair, but cloudy, and partially cloudy,	5 ditto.
Rainy and stormy,	15 ditto.
Thunder,	13 ditto.
Clear, on the 2d, 3d, 4th, 5th, 6th, 10th, 12th, 13th, 14th, and 18th.	
Fair, but cloudy, and partially cloudy, on the 1st, 19th, 26th, 27th and 30th.	
Rainy and stormy, on the 7th, 8th, 9th, 11th, 15th, 16th, 17th, 20th, 21st, 22d, 23d, 24th, 25th, 28th, and 29th.	
Thunder, on the 1st, 3d, 7th, 8th, 9th, 15th, 17th, 21st, 22d, 23d, 24th, 28th, and 29th.	

*Height of the Barometer.*

	Inches	Ther.
Mean maximum, for the month,	25,690	83,6.
Mean minimum,	25,613	78,3.
Mean of the daily means,	25,651	80,9.
Greatest altitude, on the 9th, at noon,	25,875	78,5.
Least ditto, on the 4th and 6th, on both days, at sun-rise,	25,490	82,3 and 84,7

*Temperature of the Air.*

Mean maximum,	84,4
Mean minimum,	72,
Mean of the daily means,	78,2
Greatest, on the 2d, at 5 P. M.	95,8

*Temperature of the House.*

Mean maximum,	83,6.
Mean minimum,	78,3.
Mean of the daily means,	80,9.
Greatest, on the 4th, at 4 P. M.	91,6

Least, on the 8th, at 8 A. M.	61,	Least, on the 8th, at 8 A. M.	72.3.
Mean,	78.4	Mean,	81.9.

*Hygrometrical State of the Air.*

Kater's Hygrometer, greatest altitude, on the 29th, at 8 A. M.	805
Ditto ditto, least ditto, on the 2d, at sun-set,	66

*Statement of the Winds, shewing their direction and force, during June, 1829.*

South-west, on the 1st, 2d, 5th, 6th, 7th, 13th, 14th, 15th, 18th, 19th, and 27th,	moderate, 11 days.
Ditto, on the 3d and 4th,	brisk, 2 ditto.
Ditto, on the 10th, 20th, 21st, 25th, 26th, and 30th,	gentle, 6 ditto.
North-east, on the 8th, 9th, 22d, 23d, 24th, 28th, and 29th,	little, 7 ditto.
Ditto, on the 16th,	gentle, 1 day.
North-west, on the 11th,	ditto, 1 ditto.
West, on the 12th,	ditto, 1 ditto.
South, on the 17th,	little, 1 ditto.

*Remarks.*

The rainy season commenced on the 16th, as indicated by the Hygrometer, but did not fairly set in till the 18th.

P. G.

VI.—*Miscellaneous Notices.*I.—*River Steam Navigation in France.*

We recently had occasion to notice, that a steam boat, on an improved construction, had been making an experimental trip on the river Garonne from Bordeaux to Toulouse, in the south of France, which promised considerable advantages in the navigation of rivers, with rapid currents, and shallow water.

We now learn the following particulars of this expedition, which bids fair to affect such important improvements in the internal communication of France; for canal navigation in the neighbouring kingdom is still greatly inferior to the state it has attained in this country.

We understand, from our correspondent, that this steam boat is of English manufacture, having been built, on a new model, by Messrs. Bush and Co. of the Regents-Park Basin, for a Steam Navigation Company at Bordeaux. It is stated to possess a remarkably shallow draft of water, in proportion to its tonnage. It is about 80 feet in length, and 18 feet width of beam, with a pair of engines of forty horse power, constructed upon the high pressure principle, similar to most of the steam boats built in the United States.

As far as we can learn, these engines combine all the advantages proposed by Mr. Gurney's patent, in the substitution of tubes of wrought iron, in lieu of boilers for generating the steam, combined with the advantages proposed by Mr. Perkins, in using steam of extraordinary elastic power.—In the first place, all possibility of accident, by explosion, is avoided, by substituting tubes for a boiler in raising high pressure steam, while the mechanical power of the engine is increased, perhaps 50 or 60 per cent, by allowing steam, at a temperature of 400 degrees, or upwards, to expand to double its original volume in the working cylinders. We understand these engines are also calculated to condense nearly the whole of the water used for raising the steam; thus preventing that waste of steam, and loss of fuel, usual in most other kinds of high-pressure engines. This must prove a very valuable improvement in sea-going steam vessels, where salt water is necessarily used: sea-water having a tendency to block up the pipes or boilers with saline incrustations; and which a few years back produced a dreadful accident at New York, in America. The draft of water of the new steam boat at Bordeaux, is stated, by our correspondent, as only 2 feet 2 inches, when laden with fuel, water, and having 50 passengers on board. The voyage from Bordeaux to Toulouse is estimated (by water) at upwards of two hundred miles; and the new steamer is stated as having performed this journey in about 14 hours, exclusive of stoppage, or about five miles per hour, against a strong current. On the return voyage to Bordeaux, the steamer performed the distance in 15 hours, notwithstanding many parts of the river were so shallow as scarcely to allow the passage of the boat without grounding. The experiment is stated as having produced a great sensation among the mercantile interests in the south of France, connected with the Medi-