increased. The vapours when they are thus dilated, rarefi d and diffused through all the celestial regions, may probably by little and little, by means of their own gravity, be attracted down to the passing planets, and become intermingled with their atmospheres.

That for the conservation of the water and moisture of the planets, comets seem absolutely requisite, from whose condensed vapours and exhalations, all that moisture, which is spent in the process of vegetation and putrefaction and turned into dry earth, &c. may be re-supplied, and recruited.

For all vegetables grow and increase wholly from finids; and the greater part, is turned by put efaction into, earth again, an earthy slime being perpetually precipitated to the bottom of puttefying liquors Hence the quantity of dry earth must continually increase, and the moisture of the globe decrease, and at last be quite ev porated, if it has not a continual supply from som. part or other of the universe.

And it is reasonable to suppose that the spirit which makes the fines , subtilest and the best part of our air, and which is absolutely requisite for the life and being of things, comes principally from th comets. So far then from viewing conets with any apprehensions of dread, we ought to consider them. as the harbingers of the merciful dispensation of providence towards us. Although comets are only successive in appearance, they are permaneut in reality, and perpetually r n-wing and imparting, that essential requisite, perhaps so important to our vital existence

to have a great affinity to the zodiacal light, and to the aurora borealis, and that the common cause of them all, is the action of the suns light on the atmosphere of the comets, of its If, and of the earth. That the impulse of the rays of light, on the ptmosphere of comets, may drive some of the finer particles of that atmosphere, far beyond its limits, and that this force or impulse, combin d with that of gravity, towards the comet, would produce a tail, which would always be in opposition to the sun, if the comet did the move. But the motion of the comet in its orbit, and about an axis, must vary the position and figure of the tail, giving it a curvature, and a deviation from a line drawn from the centre of the sun, to that of the comet; and that this deviation of the tail, will be greater as the orbit of the comet has the greater curvature, and as the motion of the come is more rapid. It may even happen that the velocity of the comet, in its perihelion, may be so great, that the force of the sun's rays may produce a new thil, before the old one can follow, in which case the comet might have two or more tails. The possibility of this is confirmed by the comet of 1744, which was observed to have several tails while it was in its perihelion. The attractive qualities in planets and comets before mentioned, although apparently contradictory, seem to exist. or how are we to reconcile and explain such opposite effects, from one and the same cause ; for attraction, if the repulsive qualities are admitted, has a tendency to obviate many things in themselves inexplicable That such ideas may, perhaps, not have numerous advocates, doe s not satisfactorily prove the non-· existence of those contrary qualities; however, we find no difficulty in believing the theory of positive and negative electricity, and experince justifies the belief Much has been said and admitted on the subject of attraction, gravitation, projectile, centrifugal and centripetal forces ; but how are we satisfactorily to I finite power, prompted by infinite goodexplain the immense attractive power of ness, having an infinite space to exert itthe sun, that at the amazing distance of

doubt) would attract and draw the comets, measurable be contained within the liin particular, to its own body, by its cen- mits of space, or be defined by human tripetal force, never more to part, and calculation. We also might join the the sun. That not being the case, is evi- he says, "How great, how wise, how

in, or near a certain distance of the atmosphere of the sun, fly off into infinite space; which probably may depend on the materials composing the comet. It is then not irrational, to suppose, that they are repulsed, for the purpose of performing again the revolutions, prescribed by that unerring first cause, who made and gave laws to the uni erse. The repulsive qualities of the sun may depend on a certain

density of materials, contained in the comet, which may be acted upon, by that heat or light, which produces such extensive atmospheres, around the comets, and the matter in the sun, may contribute largely towards it. Some comets approach very near the san, when in their perihelion, while others, perhaps pressessing less of this quality, what ever it may be, are kept at an awful distance.

No doubt can be entertained but that our system is governed by laws immutable, for it is impossible that the result of chance, however fortuitous, could have produced, or have compelled; stubborn crude materials, to arrange themselves in such beautiful and exquisite order.

The magnitude of comets, have not been satisfactorily noticed, they are generally supposed to be much larger than our moon and some of them equal to some of the primary planets. Helvelius made the diameter of the comet of 1652. to that of the earth as 52 to 100. The atmosphere of comets, is ten, or fifteen times as great as that of the nucleus, the former in the comet of 1682 was measured by Flamstead: it was found to be two minutes, but the diameter of the nucleus only eleven seconds. The di-The tails of comets are supposed ameter of that of 1744, when at that distance of the sun from us, measured about

dent, for all comets, when attracted with- good, must he be, who made and governs count of ill health. the whole.

FOREIGN.

PHILADELPHIA, OCT. 2.

By the arrival of the Fanny, we have accounts from Cadiz to the 28th August, at which time it was not known that the Florida Treaty was ratified by King Ferdinand. The six months allowed for its ratification by the Spanish government, it will be recollected expired on the 26th when the Fanny sailed.

Letters from Cadiz dated the 28th of August, represent that the yellow fever bout 8 miles from Cadiz and that apprehensions were entertained of its reaching Cadiz. The inhabitants were generally removing, and all business was at a stand. Numerous bodies of troops were in the neighborhood of Cadiz and it was supposed they would be embarked from some ful, and were in hopes of reducing Cumaother point. Nothing is said of the Trea- na. ty in these letters

Other letters from Cadiz state, that the merchants of that place were debarred making shipments in American vessels, on account of the uncertainty of the Treaty being ratified.

Extract of a letter from the Cape of Good Hope, dated Cape Town, May 5. " The Caffres have broken out, and a very serious war is carried on at present on the borders. It is said that the Savages are to the amount of 50,000; and a detachment of 6,000 attacked Graham's town on Saturday week about 12 o'clock in the day, but were repulsed, and 150 left dead on the field. They carried off of 20th April, stated that he was ready 300 wounded. Orders have been issued in every district of the colony, for the young boors to enrol themselves to oppose the enemy. The settlers are in a bad state, as the Caffres have stolen all their cattle. " May 10 .- The 13th regiment, commanded by Col. Willshire, have come up with the main body of the Caffres near Graham's town, and have defeated them with great loss. Since then they have withdrawn from the British territory."

reasonable in the common conception of self in, so that our imaginations can set culation. Our shops are all filled with and gene rat knowledge of it. things, that the vast attractive power of no bounds to it." Of that which is finite, active young Creoles, who are getting the sun, if it does attract from such vast to that which is infinite, there is no pro- well forward in the world. Produce ham, proceeded in the Engineer. regions, (of which there remains but little portion; neither can that which is im- scarce-prices high. Ox hides 32 to 34 rials-sheep wool 18."

Accounts were received from Buenos the comet would then become a part of above author with solemn fervency when-Aug. A new director had been appointed in place of Puerrydon resigned on ac-

> Lord COCHRANE's squadron had captured the American Schooner Montazuma of Baltimore on account of having on board munitions of war contracted for by Don Onis, He had made several other captures, and had taken sums of money out of the neutral vessels having asscertained it to be Spanish property.

FROM VENEZUELA.

General BOLIVAR has had brilliant success in the province of Tunja, in New-Grenada, and the royal force there was of August. It was very sickly at Cadiz nearly destroyed .- When his last despatches were sent off, viz. June the 28th, he was preparing to march for the capitol (Santa Fe) at the head of 6000 troops. had broken out at Islay, a large town a- He had previously formed a junction with Gen. SANTANDER in Cassanare.

Paez has obtained another victory over a part of MORILLO's army, on a branch of the Apure.

General Urdenata and Col. English are reported to have been very success-

Col. ELSOM had arrived at Angostura with the residue of his regiment. It is now 700 strong.

Gen. Arismendi was in Angostura, under arrest for disobedience of orders; but it was believed he would be acquited.

Having had scarcely time to form a hasty abstract from a very long but satisfactory letter, we abstain from comment, which in most cases every reader can best make for himself. Balt. Am.

FROM NEW GRENEDA.

We were, with regret at the moment, the first to communicate the news received from the Spanish Maine, concerning Don Pedro Wall : letters from himself. to embark for Porto Bello : and were apprized afterwards that a vessel had sailed about the beginning of May, which had fallen into the hands of the Spaniardsthe whole on board of which were shot : this vessel sailed from the same port at which Mr. WALL's letter was previously written. The account of his death we received from Washington city-a gentleman in office there having stated that he had seen the name of Don Pedro Gual among those that had been shot. It is with great satisfaction that we are now informed, by a letter of date 12th of August, from one one of the West India Islands, written on that day by himself, that he still lives a prosperous gentleman. By the same conveyance that has brought this pleasing information from New Grenada, we learn that Gen. St. Ander had penetrated the interior of April last, with a respectable army, where he obtained many advantages over the royalists, and found the inhabitants every where ardent in favor of the independence of Europe. It was believed that the city of Santa Fe de Bagota had fallen into his hands. The Vice Roy had found himself in a situation so critical that he gave orders to draw 500 men from the garrisons of Carthegena and Santa Martha, to reinforce him, in order to resist the patiot army. This royal reinforcement had marched, in July, from the sea coast. and should their size equal our sun which age to the latter place, with considerable The situation of New Grenada may be appreciated, when succors of men and money have been required from Carthagena and Santa Martha where the greatest distress already prevailed, and where, If it were possible for the utmost stretch ma, of Baltimore, was captured on the for months past, the troops had been subof the human imagination, to conceive coast of Peru, in April, by Lord Coch- sisted only by daily contributions levied any idea adequte to such prodigious, stu- rane's squadron, on account of having, from the inhabitants. Very interesting advices may be therefore expected every day. Had McGregor not changed his destination from the plan under which he "Lord Cochrane having made an ex- was instructed to act, the fate of Newharmony and precision, such ideas must cursion along the coast of Peru, to the Grenada would have been decided in Ju-Aurora.

Major Long, Ma jor O'Fallon, and Lieut. Gra-

Col. Atkinson, commander of the expedition for the Yellow Stone, left Frankling on the 13th inst. for Fort Osage, and from thence would proceed immediately for the Council Bluffs.

Col. Chambers, and the troops under his command, still remain at Fort Osage.

The steam boat Expedition, with provisions, troops, &c. was within 20 miles of Fort Osage on the 10th inst. Of the three steam boats belonging to Col. Johnson, that have ascended the Missouri, the Expedition, either from her construction, or other causes appears to have been the most fortunate.

The Johnson (another of the steam boats) was on Monday last 16th inst. near the mouth of Grand river, on a sand bar, her rudder broke ; and it was supposed that a part, if not the whole, of her cargo would have to be taken up by keel boats.

The Jefferson steam boat, which was mentioned in our last as having been lying about 30 miles below Franklin, for some time past, is unable to proceed any higher up the Missouri, and has been abandoned. Her cargo is to be taken up in keel boats.

From a series of astronomical and other observations, taken at Franklin, on board of the United States' steam boat Western Engineer, the following deductions have been made :

Latitude, 38 degrees 57 minutes 9 second N. Longitude, 92 degrees 53 minutes 36 seconds W. From Greenwich.

Do. 15 degrees 58 minutes 6 second W. from Washington city. Magnetic variation, 11 degrees 42 minutes 5 second E.

Magnetic dip, 69 degrees 25 minutes.

Rise and fall of the River Missouri, at Camp Belle-Fontaine, in 1803.

From the Daily Report of the officer of the guard, under the orders of General

one minute, therefore its diameter must be about three times the diameter of the earth; at another time, the diameter of its nucleus was nearly equal to that of Jupiter.

If the sun, the plands, and the comets, are all inhabited, (and there is no good reason to doubt it,) and all the fixed stars be suns, (which can hardly be doubted,) their immense distance, would exclude i them from our view, if their light, transmitted to us, was not of the solar kind. The analogy may also be proved very satisfactorily; the sun revolves on its axis, so does the star Algol, so does Lyreæ, Cephei, Antinoi, Ceta, and many moreprobably all. Again, our sun has spots, so has the star Algol, and so have those already mentioned, and probably every star in the heavens. On our sun these star Ceti, as is evident from the irregutheir own axes, are shorter and some are longer than our sun. As to the number in breadth, 44,000 stars. On the 22d of but did not overtake her. August 1792, he found no less than 258,-000 stars passed through the field of view lying in the port of Ensenada, was run of his Telescope in 41 minutes of time. The greater perfection Telescopes are provided with an Artigas commission. brought to, the more stars are discovered. Now, considering those stars to be suns, is 1,384,462 times larger than the earth, money on board, was taken by an armed and that those sun's, have their planets, boat in the night, and the passengers and comets all inhabited, what a vast field | landed on the beach. opens itself to view for animated nature.

tion-innumerable worlds and systems all in rapid motion, each pursuing the by Cheval er Onis. separate paths prescribed to them, with have a powerful tendency by contemplation, to exalt our minds above the limited prejudices of superstition, with a pleasing and certain conviction of the immutability of a supreme all seeing Creator, we should join a sublime author who says, "The universe is the work of in-

as a comet, so that in its approach on its course. But how those stars should

FROM BUENOS AYRES. AUGUST 5.

Extract of a Letter.

"A new director, ad interim, went into office in Buenos Ayres, on the 10th spots are changeable, so they are on the of June, in the person of Don Joze Romdeau, Puerrydon not being able on aclarity of its changeable lustre. While their acount of ill health, to remain in the sigeneral periods continue unalterable, toation until the appointment of a new some of their revolutions or rotations on director, according to the forms of the constitution, could take place.

" The American ship Horatio, Skinof fixed stars, they may be considered in- ner. sailed 10th June, without a clearnumerable. Dr. Herschel reckoned in a ance; a brig, commanded by Capt. Galspace, eight degrees in length and three vin, was despatched to bring her back,

> " The Chilian privateer Congress, away with by the crew-it is supposed,

"A l'ortuguese trader between Buenos Ayres and Montevideo, on her voy-

"The American schooner Montezupendous, and magnificent works of crea- as Lord Cochrane stated in his official report, munitions of war, contracted for

northward, left the greater part of the ly. squadron at Callao, under the command of Admiral Blanco, who, before his return, left the station, but put into Valparaiso, in want of provisions. The ut- Santa Fee, the capitol of New Greand with an indescribable satisfaction, most activity prevailed to supply the fleet, and to renew the blockade, while Blanco was arrested, to be tried by a court martial.

" Lord Cochrane had made several captures, and taken several sums of moeleven thousand two millions of miles, sible mass, which must again disappear as ney out of neutral vessels after having attracts so heavy and dense a body those stars separated, and each proceeded ascertained them to be Spanish property. "We have much talk here of the war one of the officers of the United States' to the sun, its velocity is increased ac- thus meet, coalesce, and form a body accounts from Gibraltar respecting the steam boat Western Engineer, to the ed-Spanish expedition from Cadiz. God itors, dated Fort Osage, Aug. 10, we learn the sun; and that in or near its perihe- resemble a tail, and again separate is to- forbid we should have any fear of them. that she arrived, there on the 1st inst, and This opinion, Aristotle overturned by lar here; and young as this country is in proceeded as far as the mouth of the Kan-880 thousand miles per hour. It seems substituting another in its stead but equal- financial concerns, they only owe one mil- sas, about 40 miles. lion and a half of dollars. Let them have Messrs. Say, Jesup, Peale, Seymour, & The ancient Chanceites and Atheits, only ten years more, and they will give Biddle, and Swift, accompanied by Mr. posed the heavenly space full of , an in- believed the solar system to be the result an example to the world of what a people Dougherty, assistant Indian agent and finite number of stars; many of them too of chance, and self created; the incor- can do in spite of every prejudice, and interpreter, left the boat at Fort Osage, remote or too small, to come under the no- rectness of which must be evident ; for to in spite of internal enemies when with- and proceeded by land to visit the Kan-

Information had reached St Thomas or the 15th of September, of the capture of nada, on the 17th, by BOLIVAR the patriot General.



FRANKLIN, (MO) AUG. 20. Scientific Expediton .- By a letter from

the mouth of th		1	11								
A SHOT	RISE.					FALL. Feet In					
F. I. C. 20									F	eet	In.
Feb. 6 to 23											
24 to March 5.	•	•	•	•	•	•	•	٠		1	10
March 6 to 15 .	•	•	•	4	1	6					5
16 to 30	•	•	٠	•	•	٠	•	٠	•.	3	1
31 to April 2	•	٠		۲ I		1)		31		
April 3 to 8							•	•		1	7
9 to 14				2	2	6					
15 to 30		•	•	•						2	
May 1 to 14		•								1	5
15 to 17								ŝ.			
18 and 19										4	
18 and 19 20 to 22				2	2	2		ж ^т .			ιć.
23 to 25											
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29 to 30										4	
June 1 to 3								P			
4 to 7										1	8
8 to 16	3	đ		i	ı.	2		•	1		.u.,
17 to July 2 .		Ĵ,				~		÷.,		7	1
July 3 to 11	•		1	•	2	-	ſ	•	*	1	
										9	1
12 to 20	-	•	•	۰.		:	•	•	•	~	1
21 to 31	•	•	•	1	E :	0				0	0
Aug. 1 to 12	1	•	•	٠,	1	4		•	٠	4	5
12 to 17 ,	1	•	:		9	1	1				
Total rise from F	eb	•	0	-	1	1	-				
to August 17 Fall during same t				47		1()			25	3

Net gain 22 7 From the 17th August the river subsided till the 19th of December, when it closed over with ice.

The rise of the Missouri is periodical, and may be counted upon annually, with sufficient certainty for all practical pur-

The causes of its rise are permanent and uniform. They depend upon the melting of the snows upon the different tributary streams, which, from their geographical positions, are bound, by the laws of nature, to bring down their tributes at successive periods, from early in the Spring till late in the Summer. These tributaries are-

1. The Great Osage-entering the Missouri 133 miles from its mouth, in north latitude 38, 22. Its sources in latitude 35, 36, and 37. Six hundred miles in length, and 397 yards wide at the mouth.

2. The Kanzas-entering the Missouri 300 miles from its mouth, in latitude 39, 59, 1,200 miles in length; its sources between the parallels 38 and 40.

3, The Platte-joining the Missouri 600 miles from its mouth, in lat. 41. 2,000 miles in length; its sources in the

cording to the square of its distance from which in all positions of the sun, should lion. it flies at such an astonishing velo- tally inexplicable. city, as almost to stagger credulity-say

+ Those who lived before Aristotle, suptice of astronomers.

ity of their motions, and uniting into a vi- said of the Deity.

ly as erroneous.

say that any one thing is cause of itself, out foreign aid. And a comet according to them, was is to say that it existed before it did ex-

" Republican principles are very popu- departed on the 10th. On the 12th she

sas Indians, and from thence to the Paw- cipal of these rivers are Gallatin's, Ma-" Our American commerce to Buenos nees, and will join the Engineers at the a nast heap or assemblage of these stars, ist, which is absurd ; or else, that its ex- Ayres is of no value. British imports Council Bluffs. This mode of progressmeeting together by reason of the inequal- istence was necessary, which can only be have been very great; the markets ex- ing will enable the naturalists to explore miles in length, also joined the Missouri,

Rocky Mountains, between parallels 41 and 42.

4. The Yellowstone-entering the Missouri, 1,800 miles above its mouth, in lat. 48; about 1.100 miles long; its sources in the Rocky Mountains, between the latitudes 42 and 44.

5. Rivers which issue directly from the Rocky Mountains, between the latitudes 44 and 49, and unite their streams above the Falls of the Missouri, from 2,500 to 3,000 miles above its mouth. The prindison's, Jefferson's Medicine, and Maria. (About 30 rivers from 100 to 560 tensively depressed and no spirit of spe- the country leisurely, and obtain a correct between its mouth and the Rocky hour