FOR THE REGISTER.

OF GRAVITATION & COHESION. This is an abstruse subject, but in the proindeed, the various atoms for the formation of different matter in the animal and regetable world seem to be collected by life itself, is dependent on the attractive agent in nature. To enquire after the modus agendi of this agent, is held to be a vain, and fruitless attempt; but let such persons recollect, at one time it was held not only vain, but even presumptuous, to examine the motion of the earth, the distant magnitudes of the heavenly bodies, the discovery of which has been destined to invigorate commerce, and open up the habitable world to social intercourse. One discovery has prepared the way for another; and the chemical discovery that caloric is a body, and contains both the negative and positive electricity, may give some aid in our present enquiry after the modus agendi of gravitation and cohesion. It cannot be apprehended, that any investigation of this kind can be injurious while we have sufficient discretion to preserve all the true & mathematical pillars, which have been erected in the philosophical buildbodies are affected by the gravitating fuid, in proportion to their quantity of matter. And as this affection of bodies to the centre is not altered by any modification of bodies by their shape, color, or virtues on animal bodies-these arising from a different modification of the component parts, we have reason to apprehend that the cause of this tendency of bodies is uniform and universal in the material creation. The motion of the planets, both as to the diurnal and annual motions (and I shall before I have done shew you its application to rolar motion) are produced by the expansion or contraction of different mediums-and on the common principle of fluids to make or restore an equilibrium-and this, we therefore apprehend is the common modus agendi of the attractive matter, which gives gravitation

or weight to bodies, which is no other

than a tendency to the centre, through

an elastic medium of some kind. It must be confessed we are far from understanding completely the modus agendi of this universal agent, until we have examined as to the different mediums which can produce this tendency. If our reasoning is conclusive respecting the modus agendi in the planetary bodies, and respecting its universality, we are now left in the dark to seek for a medium cacentre. We find solid bodies capable of conducting and enlarging to our senses the sensation of sound-and we find a vibration of solids take place, by the communication of sound. Now vibration is a motion of particles, of which the solid is composed, but a vibration could not take place, unless the solid itself was saturated with some kind of a fluid aura; for the idea of vibration in a particle of matter, implies and pre-supposes an open space between them; nor could there exist an universal vibration, but through the medium of some elastic fluid. That there is a medium or fluid of this kind which saturates solid bodies, we may have some idea from the foregoing reasoning. And further, from the deep-toned vibration made in the earth by thunder, we have some grounds for apprehending that this medium is electric, which I shall call the sonorous medium. I might here introduce experiments to show that all material bodies are continually emitting invisible or visible rays. This may be seen by placing bodies in contact with fluids; and we cannot suppose that any body of matter could be continually emitting without receiving a supply of the same fluid.-Thus while the sun himself, the centre of the system, is emitting his rays in a repulsive form, he is at the same time from the senorous medium of the system re ceiving a supply of exhausted fuel. The densation of electricity, which is the souorous medium, will produce light .-This fact cannot be disputed. And the return of this fluid (the sonerous fluid) will be in proportion to the rarefaction made at the centre of bodies, which raof matter. It will return from the sur- twenty thousand dollars. rounding medium, and preserve the cir- For cons ructing a culvert to the Presiposes a surrounding atmosphere impreg- and three hundred dollars. nated with gross material bodies, as our knowledge of the active repulsive agent

upon the rays of light-and this properly is their property of repulsion; for enter ing into the earth's sonorous medium or the atmosphere, a frangibility and repulsion is generated sufficient to defend the per solution of which, we are interested. earth from the sun. The tendency of a body to the centre of the earth is given by a change of the cohesive matter. And the sonorous medium which saturates bodies, in proportion to their quantity of matter, as the rays of this sonorous medium is directed to the centre; for here a vathis agent. Thus not only motion, but | cuum is made, as on the sun himself, by concentration, for its return-and thus

gravitation is given to all bodies within

the earth's sonorous medium.

These are the best ideas of the modus agendi, which can be formed by this writer. And as the modus is universally applied to matter, thus cohesion is either the want of repulsive fluid, or in proportion to its presence or absence among the particles. Glass will transmit the rays of light, but we cannot apprehend it to be intimately blended with it in every particle, without supposing this union to create a fluid. Thus the sinews of the animal are made elastic by the union of these powers in the nerve.

Some objections are made to this solution.-By the returning sonorous medium no motion is given to the earth's atmosphere. But we must remember the atmosphere is too gross a fluid to have free admittance to the centre; and further, all the particles of gross matter floating ing. Some of these cannot be shaken, but I in the atmosphere are held down ov must remain and give strength to any and this gravitating fluid equally and univerevery part of a genuine edifice. Gravi- sally, and thus no motion could arise .tation is common to all bodies, and all When from some subterraneous cause, a directed to a point, we observe the whirlwind directing itself to that point-and by the spiral and enlarged circles on the revolving atmosphere, light bodies are carried up into the air. As to the sensation, let us remember, we would never have with the organs of vision, though it must be granted the sonorous fluid is much more dense than that of light. There is something which we cannot well express in the vibrations of thunder and large sounds, which perhaps strike our senses more than any phenomenon in nature, except it be the artificial electric machine. But we are not left without reason to conclude, that the foregoing is the true solution of this phenomenon; for where attraction ends, repulsion must begin; and this implies a convertability into each other-as electricity into light, and evaporation into frigidity. Without this unity and convertibility of the attractive aura, the harmony of motion might be interrupted, for any opposition to the force of repulsion, without changing its nature from generated elasticity, would in the same proportion augment its force and destroy motion, or that harmony of motion which regulares itself.

From these observations, together with pable of producing this tendency to the the general application of this explanation to the motions of nature, we may be fully satisfied, and on these grounds we

In the next Chapter I shall endeavor to explain Polar Attraction.

## Laws of the United States.

Resolution providing for the security in the transmission of letters, &c. in the public mails.

Resolved by the Senate and Houseof Representatives of the United States of America in Congress assembled, Tuat it shall be the duty of the Postmaster General to introduce, as soon as conveniently may be, on one or more of the most exposed routes, Richard Imlay's plan of copper cases, secured in iron chests, with inside locks and sliding bars, in such a way as to test its efficacy in preventing robberies of the mail: Provided, The extra expense for each mail carriage shall not exceed one hundred and fifty dollars.

Approved-April 26, 1822.

An Act making appropriations for the Public Buildings.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That, making the customary presents to tribes for continuing the work on the Centre or individuals in amity with the United Building of the Capitol, and other improvements on the President's House, the following sums of money be, and hereby are, appropriated:

refaction is in proportion to the quantity Building, the sum of one hundred and

cular figure of the planets. But while dent's House, painting, and necessary rethe electric aura occupies solids, and com- pairs of the same, the sum of three thous-

For improving the grounds around the atmosphere, we have a more distinct Capitol, twelve hundred and fifty dollars. dent of Indian trade, and from the factors dred and fifteen, credits such be entered dent of Indian trade, and from the factors dred and fifteen, who shall Sec. 2. And be it further enacted. That | and sub-factors, shall be paid over, as fast when emitted in the form of light. It is the said several sums of money be the transporting medium of vision, and paid out of any moneys in the Treasury appears to be destined to represent mat- not otherwise appropriated; Provided, ter, as to its color, shape and surface; however, That no money appropriated by and we must apprehend that all bodies this act shall be paid to any person for would appear unto us the same if no his compensation or perquisites, who is in change was made on the rays of light by their contact with bodies. This frangibility, whether produced by the invisible into the Treasury, all sums for which he rays from bodies or by the surface of the may be hable.

body they represent, a change is made Approved, May 1, 1822.

An Act to alter the times of holding courts in the Western District of Virginia, and

FRIDAY, JULY 12, 1822.

for other purposes. Be it enacted by the Senate and House of Refiresentatives of the United States of America, in Congress assembled. That instead of the times now prescribed by law for holding courts in the western district of Virginia, the said courts shall be held annually on the first Mondays of A. pril and September, at Wythe Courthouse; and at Lewisburg, on the Fridays succeeding the first Mondays of April and September; and at Clarksburg, on the fourth Mondays in May and October; to which days, respectively, all process returnable to the first days of the next succeeding term, shall be held returnable,

and returned accordingly. Sec. 2. And be it further enacted, That if the judge shall not attend, on the first day of any court, such court shall stand adjourned from day to day for three days, if the same cause continue; after which time, if the judge still fail to attend the court shall stand adjourned until the first day of the next term.

Approved-April 26, 1822.

An act to abolish the United States' Trading Establishment within the Indian

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That the President of the United States shall be, and hereafter is, authorized and required to cause the business of the United States' trading houses among Indian tribes, topical current of the sonorous medium is to be closed, and the accounts of the Superintendent of Indian trade, and of the factors, and sub-factors, to be settled and, for that purpose, the President is hereby authorized to select, from among the Indian agents, or others, a competent number of fit and suitable persons, to be felt the light had we not been prepared and appear at the office of the Indian trade in Georgetown, in the District of Columbia, and at each of the trading houses established among Indian tribes, on or before the third day of June next or as soon thereafter as can conveniently be done, to demand and receive of and from the Superintendent of Indian Trade, and of the respective factors, and subfactors, all the goods, wares, and merchandize, fors, peltries, evidences of debt, and property and effects of every kind, which may be in their power or possession, by virtue of their respective offices, and justly due and belonging to the United States; and the said agents selected for the purpose aforesaid, shall be furnished with the copies of the latest quarterly returns of the said Superintendent, factors and sub-factors, as rendered by them to the Treasury Department, and copies of any other papers in the said Department which will shew what is, or ought to be due and coming to the United States, from the said office of Indian trade in Georgetown, and from each of the trading houses established among Indians .-And the persons so selected shall enter into bond, with good and sufficient security, in such sums as may be required by the President of the United States, for the faithful discharge of the duties enjoined on them by the provisions of this act .-And, from and after the third day of June next, the act of the second of March, one thousand eight hundred and eleven, entitled "An act for establishing trading houses with Indian tribes," shall be continued in force for the purposes only of enforcing all bonds, debts, contracts, demands, and rights, which may have arisen, and all penalties and punishments which may have been, or may be incurred, under the provisions of the said act, and for the settlement of the accounts of the superintendent, factors, and sub-factors, at the Trea-

sury Department. Sec. 2. And be it further enacted, That the goods, wares and merchandize, which shall be delivered over to the agents of the United States, under the provisions of this act, shall be placed at the disposition of the President of the United States, subject, under his orders, towards satisfying or extinguishing the treaty obligations on the part of the United States, to keep up trading houses with the Indians; also, towards the payment of annuities due, or lively. to become due, to Indian tribes; also, in States, and the surplus, if any, may be sold to the best advantage, under the orders of the President, and the proceeds paid over to the Treasury of the United

the furs, peltries, effects, and property, received under the first section of this act, shall be sold in the manner the President Subscribed, of the six per cent stocks of may direct; the debts due and owing snall be collected under his orders; and all as received, into the Treasury of the Uni- be ntitled to a certificate, or certificates, ted States; Provided, That such sums | purporting that the United States owe to may be retained and applied, under the orders of the President of the United States, as may be necessary to defray the expenses of carrying this act into effect. Sec. 4. And be it further enacted, That as soon as may be, after the commencement of the next session of Congress, the lof September, one thousand eight hundred President of the United States hall com- and twenty-two, transferable in the same municate to Congress the manner in which | manner as is provided by law for the

he shall have caused this act to be exe- || transfer of the stock subscribed, and subcuted, shewing the amount of moneys, furs, peltries, and other effects, and the United States, in the proportion, and at amount and description of goods, wares, and merchandize, and the actual cash vatue thereof, received from the Superin-tendent of Iodian Trade, and each of the factors and sub-factors, under the provisions of this act.

Approved-May 6, 1822.

An act to authorize the Secretary of the Treasury to exchange a stock bearing an interest of five per cent. for certain stocks bearing an interest of six and seven per cent.

Be it enac ed by the Senate and House of Representatives of the United States of America, in Congress assembled, That a subscription to the amount of twelve millions of doll irs, of the seven per cent. stock, and of the six per cent. stock, of the year eighteen hundred and twelve, and also, for fourteen millions of the six per cent, stock of the years eighteen hundred and thirteen, fourteen, and fifteen be, and the same is hereby proposed: for which purpose, books shall be opened at the Treasury of the United States, and at the several Loan Offices, on the first day of May, one thousand eight hundred and twenty-two, to continue open until the first day of July next thereafter, for such parts of the above mentioned description of stocks as shall, on the day of subscription, stand on the books of the Treasury and on those of the several loan offices, respectively, which subscription shall be effected by a transfer to the United States, in the manner provided by law for such transfers, of the credit or credits standing on the said books, and by a surrender of the certificates of the stock so subscribed. Sec. 2. And be it further enacted, That for the whole or any part, of any sum, which shall be thus subscribed, of the six per cent. stocks of the years one thousand

eight hundred and twelve, and one thousand eight hundred and thirteen, credits shall be entered to the respective subscribers, who shall be entitled to a certificate. or certificates, purporting that the United States owe to the holder, or holders thereof, his, her, or their assigns, a sum to be expressed therein, equal to the amount of the principal stock thus subscribed, bearing an interest of five per centum per annum, payable quarterly, from the thirtieth day of June, one thousand eight hundred and twenty-two, transferable in the same manner as i provided by law for the transfer of the stock subscribed, and subject to redemption at the pleasure of the United States, in the proportion, & at the periods herein defined, viz. one third at any time after the thirty first day of December, one thousand eight hundred and thirty; one third at any time after the thirty-first day of December, one thousand eight hundred and thirty-one; and the remainder at any time after the thirty-first day of December, one thousand eight hundred and thirty-two; and that for the whole, or any part, which shall be thus subscribed, of the seven per cent. stock, credits shall be entered to the respective subscribers, who shall be entitled to a certificate, or certificates, purporting that the United States owe to the holder, or holders thereof, his, her, or their assigns, a sum, to be expressed therein, equal to the amount of the principal stock thus subscribed. bearing an interest of five per cent. per annum, payable quarterly, from the thirtieth day of June, eighteen hundred and twenty-two, transferable in the manner as is provided by law for the transfer of the stock subscribed, and subject to redemption at the pleasure of the United States, at any time after the thirty-first day of December, one thousand eight hundred and thirty three: Provided, That no reimbursement shall be made, except for the whole amount of such new certificate, nor until af er at least six months public notice of such intended reimbursement. And it shall be the duty of the Secretary of the Treasury to cause to be retransferred to the respective subscribers, the several sums by them subscribed, beyoud the amount of the certificates of five per cent stock, issued to them respect-

Sec. 3. And be it further enacted. That Sec. 3. And be it further enacted. That years of age.

if the amount of seven and six per cent. The Mulatto is nearly six feet high tocks, authorised to be subscribed by the first section of this act, shall not have been subscribed by the first day of July next, the remainder of that amount may be subscribed on the books of the Trea-Sec. 3. And be it further enacted, That day of July, and the first day of October next thereafter; and for the whole, or any part, of any sum which shall be thus the years eighteen hundred and twelve, eighteen hundred and thirteen, eighteen hundred and fourteen, and eighteen hunto the respective subscribers, who shall or their assigns, a sum, to be expressed therein, equal to the amount of the principal stock thus subscribed, bearing an interest of five per centum per annum. payable quarterly, from the thir leth day

ject to redemption, at the pleasure of the the periods, herein defined, viz : one third at any time after the thirty-first day of December, one thousand eight hundred and thirty; one-third at any time after the thirty-first day of December, one thousand eight hundred and thirty-one; and the remainder at any time after the thirty-first day of December, one thousand eight hundred and thirty-two; and that, for the whole or any part which shall be thus subscribed of the seven per cent. stock, credits shall be entered to the respective subscribers, who shall be entitled to a certificate or certificates purporting that the United States owe to the holder, or holders thereof, his, her, or their assigns, a sum, to be expressed therein equal to the amount of the principal stock hus subscribed, bearing an interest of five per centum per annum, payable quarterly, from the thirtieth day of September, one thousand eight hundred and twentytwo, transferable in the manner as is provided by law for the transfer of the stock subscribed, and subject to the redemption at the pleasure of the United States, at any time after the thirty-first day of December, one thousand eight hundred and thirty-three: Provided, That no feimbursement shall be made, except for the whole amount of such new certificate, oor until after at least six months' public notice of such reimbursement.

Sec. 4. And be it further enacted. That the same funds which have heretofore been; and now are, pledged by law for the ayment of the interest, and the redemption or reimbursement of the stock which may be subscribed by virtue of the provisions of this acr, shall remain pledged for the payment of the interest accruing on the stock created by reason of such subscription, and for the redemption or reimbursement of the principal of the same. It shall be the duty of the commissigners of the sinking fund to cause to be applied and paid, out of the said fund, yearly and every year, such sum and sums as may be annually wanted to discharge de interest accruing to the stock which manufe created by virtue of this act. The und commissioners are hereby authorized to employ, from time to time, such sum and sums out of the said fund, as they may think proper, towards redeeming, by purchase or reimbursement, in conformity with the provisions of this aci, the principal of said stock. And such part of the said annual sum of ten millions of dollars, vested by law in the said commissioners, as may be necessary and wanting for the above purposes, shall be and continue appriated [appropriated] to the payment of interest and redemption of the public debt, until the whole of the stock which may be created under the provisions of this act shall have been redeemed

Sec. 5. And be it further enacted. That nothing in this act contained shall be construed in any wise to alter, abridge, or impair, the rights of those creditors of the United States who shall not subscribe to the loan to be opened by virtue of this act Approved-April 20, 1822.

## WAKE JAIL BROKEN!

AST night the following Prisoners made their escape from said Jail, by breaking through the Walls thereof, viz THOMAS HASWELL, formerly of Louisburg, in this State, under a sentence of three years imprisonment for robbing the Mail of the United States.

ELIJAH R. ROGERS, confined for a Misdemeanor; but whose time of punishment would have expired, as soon as he could pay his prison charges.

JACK HARRIS, a Mulatto, who called himself a free man, but who was suspected to be a Runaway Slave, and confined on that account.

Haswell is about 30 years of age, 5 feet 8 inches high, has black Hair and Eyes, and large black Whiskers; is rather slender made; has a down look; was raised a Blacksmith, but has for several years been in the Mercantile Business and writes a fine ready hand. Rogers is six feet high, and about 20

about 35 years of age, has a small scar over the right eye, has lost his right eyetooth and a jaw tooth, and his back bears the mark of the whip. He says he was born in Bedford county, Virginia. FIFTY DOLLARS Reward will be

paid for the apprehension and recovery of Haswell, and FIVE DOLLARS for either Rogers or the Mulatto."

JOHN DUNN, Jailor. Raleigh, June 17.

JUST F JBLISHED, And to be had J. Gales's Bookstore, In Raleigh

PRICE TWELVE AND A HALF CENTS, TOTES on the cultivation and management of TOBACCO, from the plant bed to the prize; according to the most approved practices in Albemarle, and the adjacent Counties in Virginia.—Prepared by Peren MINOR, Esq. at the particular instance of the Editor of the "American Farmer," with whose permission they are now published.

May 29, 1822