

THE GEM OF SCIENCE,

Knowledge is the food of the mind: and without Knowledge the mind must languish.

VOL. 1.

ANN ARBOR, JULY 10, 1846.

No. 5.

For the Gem.

AN ADDRESS TO A DAUGHTER.

Circumstances make it necessary that we should separate to a yet greater distance, and may not see each other again for many revolving years, perhaps never. Under such circumstances, my mind is naturally crowded with a variety of ideas and reflections on the past, the present, and on your future prospect in life for parenthial happiness. This happiness must necessarily be in a great measure realized by training your children in the way they should go, and depends essentially upon your own exertions. To this, therefore, you should accordingly bend all the energies of your mind, and devote to it unceasing vigilance:

But alas! When we are young we lack experience, and when we have acquired the knowledge necessary to guide the inexperienced feet of those whom God has committed to our care, the foundation of a proper education has not been laid, (an error which is extremely difficult to correct,) or they have grown out from under our control, and launched on the wide ocean of life to buffet the tempestuous waves of vice, selfishness and crime, with which civilization abounds, without a compass or a guide to conduct them into the haven of peace.

It is very difficult to lay down general rules, for the government of every child, that shall apply to all cases in their utmost detail of minuteness, because parents impress upon their children their own characters, both by procreation and by their conduct during their minority; and as the mental faculties, and consequently the conduct of parents differ, so will the mental capacities and propensities of their children also vary. But there are some general rules which are so nearly of universal application, the present state of society and the world, that you could not go amiss in their application once in ten thousand cases; and it is to these I would call your special attention, and press them upon your mind as maxims never to be forgotten; and what is more, with a little reflec-

tion, they will guide you to a correct course of conduct in nearly every emergency.

1. Be not afraid that your children will take cold in any temperature where you are not in danger of being frost bitten. Wash them regularly with cold water, fresh from the well, at least every evening, and oftener if they become fretful and peevish, over the whole body, and rub them dry with a towel. This will at first be disagreeable to them; but they will soon like it, and when they become too old for you to do it, they will attend to it themselves; and you will save in Doctor's bills more dollars than you spend hours in attending to this duty. When they are old enough, let them run out in the genial showers of heaven, and give them dry clothes afterwards only if they want them. If they should at any time be attacked with a fever, wrap them up in a cold wet sheet an hour or two, during the continuance of the fever, and lay them in a warm bed, and afterwards wash the sweat off in Salacratu water. Repeat this as often as the fever returns, and leave the Doctor with his poisons to wait upon those who are less wise. All local inflammations—such as quincy, croup, pleurisy, &c., may be cured in the same way, or by local applications of cold water with a fowel, often repeated; but on account of the thickness of the skull you must apply a bladder with cold water and ice, often renewed, to the head, in inflammation of the brain. It never fails to cure if persevered in.

2. Never scold or strike your children—always speak the truth calmly to them, and never deny them innocent recreation. If they do wrong or break any thing, reason the case calmly with them, and point out the pernicious consequences of their actions to themselves, and never fail to call their attention to the pain their misconduct inflicts upon their parents.—If you cannot see any evil resulting from their actions, and point it out to them, you ought not to reprehend them for those actions; for nothing is wrong, nothing sinful, but what is injurious to ourselves or others; and on the contrary,

nothing that injures ourselves or our fellow men, should go unproved. This is a universal truth.

3. In speaking to your children, always use the best and plainest language of which you are master; and when they grow older, have recourse to the greatest variety of expression with which the best writers and the Dictionary can furnish you. Correct all the inaccurate and ungrammatical expressions you may hear in their conversation; and never refuse to answer any questions, though it may require ever so close thinking and even recourse to books, which they may ask. Never frighten or deceive your children in any way, and you will always retain their utmost confidence, and may safely calculate upon their implicit obedience.

4. Never, no never, urge them out of the course of nature, if you can possibly avoid it; but on the contrary point out to them the pernicious tendency of all unnatural habits. No child has a natural inclination to use tobacco, nor spirits—not even tea and coffee, and any of these habits, when commenced in early life, becomes a great, and frequently a dreadful curse long before the user arrives at old age.

5. As soon as your children are old enough to walk out and talk, take them frequently out into the fields, along the murmuring streams, and into the woods, even on Sunday if you have no other time to spare. In spring point them first to the flowers, the budding trees, the velvet lawn, and the feathered songsters that praise their Creator in concert. In summer call their attention to the teeming earth producing food for man and beast, the berries provided for the birds, the grass for horses and cattle which are always at our service to carry us, or to give milk, butter, and cheese to nourish us—show them the golden waving grain that supplies us with bread in exhaustless abundance, and the grass which furnishes hay to fill the large barn with provender for our animals in winter. In fall direct them to the ripening fruit on the trees, and the decaying vegetation returning to its winter's sleep to rise again in early spring in ever renewed and perpetual succession.

And here you may remind them that we too must die as does the vegetation around us, and

return to the earth, as it does to rise again to newness of life, improved, beautified and made immortal by the power of that great and glorious Being—our kind and good Father in Heaven who blesses us with such an innumerable exhaustless multitude of good things in this transitory life.

In consequence of religious education, this is commonly considered a melancholy and disagreeable theme to dwell upon; when applied to ourselves, and is therefore avoided. But no good reason has ever been, or can be, given, why we should not contemplate it rationally as a part of God's immutable laws instituted for our benefit by a kind and beneficent Parent whose goodness shines around us with resplendent effulgence, whithersoever we turn our eyes.

But to return. By all means point out to your children, as soon as they can comprehend, the nice adaptation of one thing to another, showing the beneficent design of the Creator—His wisdom and power in building so stupendous a home for all his children, and stocking it with every thing needful, or adapted to their present state of existence; and hence draw their inevitable conclusion that a parent so good and so kind will never leave nor forsake them. Show your children the uses of the change of seasons in producing the vast variety of things that minister to our comfort and pleasure; point them frequently to the bright canopy of Heaven, the sun and the moon, and the stars, rolling on in their appointed orbits from age to age, without the least noise or jar, harmoniously and in everlasting succession, producing night and day alternately for our benefit; without which nature's works would be imperfect.

The fact is, you can never exhaust the subject of instruction and conversation with your children. "There are sermons in stones and good in every thing" that surrounds you on all sides. But to do so you must keep your own mind bright and polished by drinking continually copious draughts at the exhaustless fountain of knowledge. There are no books exactly suited to your purpose, but Dick's Christian Philosopher, and Fowler on self-improvement, which will cost but two dollars or less, are needful. The latter in particular, will teach you

better how to bring up your children than any other, and ought to be read constantly in every family. But you may say I have not time for this great task of bringing up my offspring aright—I shall send them to school to learn.—But you have time for hooping up wealth to leave them.

Depend upon it, they will never learn these most important things in school. They are not, and cannot be taught in a school-house built by human hands—They must be learned amid Jehovah's works—in God's own school-house—under the broad canopy of the skies, where they can be seen and heard and felt. This is the fountain of all knowledge; and the books studied in school only report it in a faint and dismal light, casting an obscure shadow before it. Books are merely aids to direct the mind to the subjects, and as such only ought they to be used. Cast your eyes abroad in the world, and you will find that the great majority of those who have inherited a fortune from their parents have either wasted it and become miserable outcasts of society, or perverted it to some provident purpose, so that it has done them more harm than good. The fact is, none are better off than those who create their own fortunes.—They then know whence they come, and will be able to take care of what they acquire.

6. Point out to your children the consequences of vice and crime connected as cause and effect; and demonstrate to them the fact that the latter follows the former as certainly as day follows night. Does the drunkard wallow in the mud, or the sheriff take a culprit to jail, do not fail to avail yourself of the circumstances to caution them against evil doing as the greatest misfortune that could befall them and their parents. This is one of the most powerful motives to virtue that can be held out to youth; for every person living is in the pursuit of happiness, and when fully persuaded that this Heavenly boon can only be found in virtuous conduct, he will certainly seek it there.

7. On all suitable occasions caution your children against cruelty to animals, and against wantonly tormenting or hurting the smallest insect. Teach them that the great and good Being who placed them here is the Father of all other created things; and that they ought to imitate their heavenly Father's kindness

on all occasions. This will have a most benign influence in curbing the preternaturally developed animal faculties of the rising generation of the present age, which now control with almost irresistible sway nine tenths of human kind in all enlightened countries.

8. I have not yet said any thing about religious worship, and scarcely know what to say. There is very little, indeed, of the practical religion of Christ, (and his religion is almost exclusively practical) in the world; and the less we suffer ourselves to be blinded by the shadow, which only serves to hide the substance, and affords not unfrequently a cloak to perpetuate iniquity under, the better we are likely to be off. I would however advise you to attend religious preaching whenever you have an opportunity to hear an able preacher who discusses the subject familiarly, so that you may be able to instruct your children. And the Bible, particularly the New Testament, will afford you an inexhaustible fountain of the most important instruction ever communicated to mankind. And what is more to be prized than all, it is the only source from whence we can learn our destination to a happy immortality beyond the present state of existence. Without it we should indeed be lost in an abyss of unfathomable darkness.

(To be Continued.)

CONSISTENCY.—Congressmen charge our country eight dollars a day while getting us into war; but they only allow the soldiers, who are to fight it out, eight dollars for a month. Can it be so much more dangerous and harder, or more meritorious a work to get a war up than to fight the battles? If the rate of pay had been reversed, would it not have looked far better! Consistency, thou art a jewel.—*True Tocsin.*

LIFT HIM UP.—Thy brother is in the ditch.—Pass him not by. Give him thy hand and raise him up. Temptation was too powerful for him; he yielded and has fallen. Pity him: say not a reproachful word. Cover his shame, and when he is himself, use kind words and thou wilt restore him to virtue again: Scores of the tempted and fallen have thus been saved. The path to heaven is thronged with holy spirits, who were once in the mire and dirt. Kindness saved them.

MAGNETISATION OF LIGHT.

Royal Society, Nov. 27.—The Marquis of Northampton, President, in the chair. Sir Frederick Theisger was admitted as a Fellow.

Mr. Faraday's paper 'On the Magnetisation of Light and the Illumination of Magnetic Lines of Force,' was concluded. For a long time past the author had felt a strong persuasion, derived from philosophical considerations, that, among the several powers of nature which, in their various forms of operation on matter, produce different classes of effects, there exists an intimate relation; that they are connected by a common origin, have a reciprocal dependence on one another, and are capable under certain conditions, of being converted the one into the other. Already have electricity and magnetism afforded evidence of this mutual convertibility; and in extending his views to a wider sphere, the author became convinced that these powers must have relations with light also. Until lately, his endeavors to detect these relations were unsuccessful; but at length, on instituting a more searching interrogation of nature he arrived at the discovery recorded in this paper, namely, that a ray of light may be electrified and magnetized, and that lines of magnetic force may be rendered luminous. The fundamental experiment revealing this new and important fact, which establishes a link of connexion between two great departments of nature, is the following:

A ray of light issuing from an Argand lamp is first polarised in the horizontal plane by reflection from a mirror, and then made to pass for a certain space, through glass composed of silicated borate of lead, on its emergence from which it is viewed through Nicholas' eye piece capable of revolving on a horizontal axis, so as to interrupt the ray, or allow it to be transmitted alternately in the different phases of its revolution. The glass through which the ray passes, and which the author terms the diamagnetic, is placed between the two holes of a powerful electro-magnet, arranged in such a position as that the line of magnetic force resulting from their combined action shall coincide with, or differ but little from the course of the ray in its passage through the glass. It was then found that if the eye-piece had been so turned as to

render the ray invisible to the observer looking through the eye-piece before the electric current had been established, it becomes visible, whenever, by the completion of the circuit, the magnetic force is in operation, but instantly becomes again invisible on the cessation of that force by the interruption of the circuit. Further investigation showed that the magnetic action caused the plain of polarisation of the polarized ray to rotate, for the ray was again rendered visible by turning the eye-piece to a certain extent, and that the direction of the rotation impressed upon the ray, when the magnetic influence was issued from the south pole and proceeding in the same direction as the polarized ray, was righthanded, or similar to that of the motion of the hands of a watch, as estimated by an observer at the eye-piece. The direction in which the rotation takes place will, of course, be reversed by reversing either the course of the ray or the poles of the magnet. Hence it follows that the polarized ray is made to rotate in the same direction as the currents of positive electricity and circulating, both in the helices composing the electro-magnet, and also as the hypothetical currents, which, according to Ampere's theory, circulate in the substance of the steel magnet.

The rotatory action was found to be always directly proportional to the intensity of the magnetic force, but not to that of the electric current; and also to be proportional to the length of that portion of the ray which receives the influence. The interposition of substances which occasion no disturbance of the magnetic forces, produced no change in these effects.—Magnets consisting only of electric helices acted with less power than when armed with iron, and in which magnetic action was consequently more strongly developed. The author pursues the inquiry by varying in a great number of ways, the circumstances in which this newly discovered influence is exerted, and finds that the modification thus introduced in the results are all explicable by reference to the general laws above stated. Thus the effect is produced, though in a less degree, when the polarized ray is subjected to the action of an ordinary magnet instead of one that derives its power from a voltaic current, and it is also weaker when a single pole only is employed. It is on the oth-

er hand, increased by the addition of a hollow cylinder of iron placed within the helix, the polarized ray traversing its axis being then acted upon with great energy. Helices act with equal power in any part of the cylindrical space which they enclose. The heavy glass used in these experiments was found to possess in itself no specific magneto-inductive action. Different media differ extremely in the degree in which they are capable of exerting the rotatory power over a polarized ray of light. It is a power which has no apparent relation to the other physical properties, whether chymical or mechanical, of these bodies; yet, however, it may differ in its degree, it is always the same in kind: the rotation it effects is invariably in one direction, dependent, however, on the direction of the ray and of the magnetic force. In this respect it differs essentially from the rotary power naturally possessed by many bodies, such as quartz, sugar, oil of turpentine, &c., which exhibit the phenomena of circular polarisation, for in some of these the rotation takes place to the right and others to the left.

When, therefore, such substances are employed as diognetics, the natural and the super-induced power tend to produce either the same or opposite rotations, and the resulting effects are modified according as they are cumulative in the former case and differential in the latter,—In the concluding section of the paper the author enters into general considerations on the nature of the newly discovered power of electricity and magnetism over light, and remarks that all these powers possess in common a quality of character which constitutes them a peculiar class, and afford an opening, which before was wanting for the appliance of these powers to the investigation of this and other radiant agencies. The phenomena thus brought to light confirm the views entertained by the author relative to the constitution of matter as being spheres of power, for the operation of which the conception of a solid nucleus is not necessary, and leads to the presumption that the influence of magnetism on bodies which exhibit no magnetic properties, consists in producing in them a state of electric tension tending to a current; while on iron, nickel, and other bodies susceptible of magnetism, currents are actually established by the same influence.

The author states that he is still engaged in the prosecution of these inquiries.—*Albion.*

ELECTRICAL PHENOMENA.—An account of human electricity was given in a number of Stillman's Journal some time ago, which might, if carried out, lead to some important conclusions in respect to human phenomena heretofore unexplained. The subject became so electric that sparks were drawn from and even spontaneously issued from the ends of her fingers. During the time, an intense aurora borealis showed itself. The phenomena continued for several months, the sparks being readily given out whenever the lady approached any conductor of electricity. She could touch nothing metallic without emitting an electrical spark, which was an annoying circumstance to her.—These appearances were proportionally heightened when the air was warm and the lady was in good spirits. During cold weather, and when she was in a melancholy mood, these phenomena were suspended. When sitting by a stove with her feet upon the metal edge, the sparks were drawn out at intervals of a few seconds, from three to six sparks per minute.—The lady was about thirty years of age, of sedentary habits and rather sickly. She had suffered from rheumatic and neuralgic affections about two years prior to this time.—*St. Louis Magnet.*

THE DRUMMOND LIGHT.—It is often asked by those who have witnessed the displays of the Drummond light in this city, why it is not used for lighting streets and public buildings?—There are some practical difficulties in the way, not easy to get over. The formation of the oxygen and hydrogen gasses is a troublesome and expensive process—then, to produce the light, they must be thrown in certain proportions and by separate jets upon a piece of lime, burning at a point of juncture. The lime requires to be frequently renewed, and each burner requires constant attention. It is a very pretty light, but too complicated, and requiring too much nicety, for any ordinary purpose.—Gas, properly made, and supplied at a reasonable profit, is probably the best—certainly the least troublesome—of artificial luminaries.—*N. Y. Atlas.*

CASE OF SMALL POX TREATED WITH WATER.

Mr. D. D. Spencer, of Ithica, after a visit to the city of New York, was somewhat affected the fourth day after his return home, with sickness at the stomach and feverishness, which symptoms continued during that day, (Tuesday,) and the two following days, increasing somewhat in force. As he was pursuing the water-cure treatment under the advice of Dr. Shew, of New York, for a rheumatic affection, he took on Tuesday two shower baths, morning and afternoon; wearing the wet girdle on that day, and during his subsequent indisposition.— On Wednesday the wet sheet in the morning, followed by cold bath by affusion, and shower bath a subsequent hour of the day. On Thursday, the same as on Tuesday. On Friday morning the wet sheet, followed by cold bath as before. At this time, appearances which indicated an eruption appeared on some parts of the body. The wet girdle was worn during the night; and on Saturday, when the morning shower bath was taken, a very full eruption appeared over the whole system. Totally unconscious of any exposure by which he could have imbibed infection, he was entirely ignorant of the character of eruption; and a physician of considerable eminence and long experience, who was consulted on this point, thought it presented the character of chicken pox, but was not liable to be communicated to, or endanger any one else. The water-cure treatment was continued, a second shower bath on Saturday, and shower bath on Sunday morning, with the girdle, night as well as day. On Monday morning, the eruption being quite full and fresh, the wet sheet was taken, with cold affusion, by pouring cold water over the shoulders, following; the only unpleasant effect being a slight cramping of the calves of the legs on the application of the cold bath, immediately subdued by rubbing with a coarse towel. After this, the wet sheet was discontinued, till the eruption disappeared; but the other applications, (the daily baths,) were continued, the larger dauche being subsisted for the second shower. It should be stated, that, from the commencement of the symptoms, costiveness ensued, and cold water clysters were used on retiring, and full injections of tepid water every morning; and the

stomach evacuated, (by vomiting,) on one occasion, before the appearance of the eruption, by the use of warm water. Not a particle of medicine was taken, other than pure soft water.

During all this time the patient was not confined to bed, or room, or house, for a single hour, by the force of the disease, but took his usual daily exercise, and attended to a considerable extent to business. And it is a remarkable fact, that though in constant intercourse with friends and the public, in thronged streets, and on one occasion in a large public assembly, he communicated the disease to no one except to the members of his family.

So, here is a case where a patient had the small pox, in the varioloid form, (having been vaccinated with the kine pox, in his childhood,) with a very general and full eruption, from the crown of the head to the soles of the feet, and was successfully treated by the water-cure administered by himself, all in total unconsciousness of the nature of the disease, till after his recovery from it! The water-cure worked like a charm, and it is believed saved a whole village from infection. The nearly simultaneous appearance of the disease in the different members of the family was the first intimation of its real character; and it should be added, that, under other treatment, in the hands of skillful physicians, a less amount of eruption was attended with much more serious consequences.—*Water-Cure Journal.*

SELECTED.

A LEAF OF TOBACCO.

And then my friends, just think there's naught exceeds

The filth that from a chewer's mouth proceeds.

Two ounces chewed a day, 'tis said produce

A half a pint of vile Tobacco juice,

Which, if continued five and twenty years,

(As from a calculation it appears)

With this foul stuff, would near five hogheads fill,

Besides old quids, a larger parcel still.

Nor am I with this calculation done:

He in that time has chewed half a ton—

A wagon load—of that which would of course,

Sicken a dog, or even kill a horse.

Could he foresee, but at a single view,

What he was destined in his life to chew,
 And then the product of his work survey,
 He would grow sick, and throw his quid away.
 Or could the lass, ere she had pledged to be
 His coming wife, her future prospects see;
 Could she but know that thro' his mouth would
 pass,

In this short life, this dirty loathsome mass,
 Would she consent to take his hand for life,
 And, wedded to his filth, become his wife?
 And if she would, say, where's the pretty miss
 That envies her the lips she has to kiss?
 Nor is this all. This dirty practice leads,
 To kindred habits, and to filthy deeds.
 Using this weed, an able statesman thinks,
 Creates a thirst for stimulating drinks.
 Full many a one, (who envies him his lot?)
 Smokes, and chews, and drinks, and dies a sot.
 If you would know the deeds of him that chews,
 Enter the house of God, and see the pews,
 The ladies' parlor, carpet, painted floor,
 The chimney-piece, and pannels of the door,
 Have all in turn been objects of abuse,
 Besmeared and stained with this Tobacco juice.
 I've seen the wall, beside a certain bed
 Of one who chews Tobacco—near the head,
 Bedaubed and blackened with this hateful juice,
 While near it lay old quids for future use.
 I've seen the woman who loved snuff so well,
 (How much she took no mortal tongue can tell,)
 Pick up old quids, and dry them by the fire,
 And grind them up to satiate her desire.
 I've seen the bride upon her wedding gown,
 The dirty pipe and filthy weed lay down,
 And then prepare the hateful thing to smoke,
 Before she had her nuptial silence broke;
 And, like a daughter true of mother Eve,
 Her new-made husband she did not conceive
 Was constituted head, and not a limb,
 She smoked herself, and gave the pipe to him:
 And he, like Adam, in submission true,
 Took from her hand the pipe, and smoked it
 too.

TAKING IT EASY.—"When a stranger treats me with disrespect," said a poor philosopher, "I comfort myself with the reflection that it is not myself that he slights, but my old coat and shabby hat, which to say truth, have no particular claim to admiration. So if my hat and coat choose to fret about it, let them but it is nothing to me."

ORIGINAL.

NATURE'S LAWS.

The laws of the universe, well understood
 Are a source of much pleasure—conducive of
 good;

All over creation, where man over trod,
 We may look up through Nature and see na-
 ture's God;

In all kinds of matter we find certain laws,
 Which tell us most plainly they sprung from
 cause

Which gave them existence, and rules by his nod
 All worlds, and all beings, and this we call God.

Inertia, Attraction, and Gravity too
 Were given to matter, and this none could do,
 Save one who has wisdom to wield well the rod
 Of government o'er all; and this one is God.

Did chance call from chaos all things as they are,
 And order the course of each planet and star?
 Those planets in systems of systems in space—
 Did blind chance arrange them, and give each
 its place?

No! Blindness could not see, nor ignorance
 know

The plan of arrangement, nor how to bestow
 Such equal proportions of motion and weight
 To each rolling body, the small and the great.

Thus, Sol in our system, as centre is placed
 To ballance all others while rolling apace;
 His chain of attraction they never can break,
 Nor yet gravitation, can they ever shake.

Near six hundred millions of miles in a year
 The earth travels round him, yet keeps in its
 sphere;

And carries pale luna along in its train—
 Could chance do all this! no, 'twere surely in
 vain.

Yet this is but nothing, compared with the
 whole

Star-spangled heavens spread out like a scroll;
 Whose laws are all changeless, through space
 spread abroad;

They all tell us plainly, "THERE'S SURELY A
 God."
 J. H. S.

Detroit, June, 1846.

It is estimated that the emigration from Eu-
 rope this summer, will be equal to 250,000.

THE GEM OF SCIENCE:

E. H. SANFORD, EDITOR.

ANN ARBOR, JULY 10.

SPECIAL NOTICE.

All persons who receive this paper, and do not intend to be considered subscribers for the volume, and pay for it too, are requested to return it immediately, with their name and post-office written on the margin, directed, "Gem of Science, Ann Arbor, Mich." When we say immediately, we mean without a single day's delay.

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ANALYSIS OF THE FACULTIES. No. 5.**A. VITATIVENESS.**

FUNCTION.—Love of life.

SMALL.—This size will give little or no regard for life, and the individual would be willing, either to live or die, as would suit his convenience, and liable to commit suicide.

FULL.—This will give some desire to live, and dispose one to look upon death with some reluctance; still he would hazard his existence if necessary.

LARGE.—Will dispose one to sobriety as his course is onward to the grave—will appreciate the blessings of an existence—have a strong desire to live—dread annihilation, and look upon death as the "KING OF TERRORS."

Its NATURAL LANGUAGE is shown by a wild and sober expression to the eyes and countenance and is indicated by a movement of the head in the direction of the organ, and partly to

one side, but differs very much from that of Combativeness, or Destructiveness.

LOCATION.—In the posterior, lateral and inferior convolutions of the cerebrum—beneath the mastoid process, and between Destructiveness and Amativeness.

GENERAL REMARKS.—This organ was discovered by Dr. Vimont of France; but it is not generally endorsed by Phrenologists. It would seem that some animals, and men, in whose heads caution is not shown, should possess a faculty attributed to this organ. And indeed, we have noticed several persons, who, in their business transactions in life, were reckless as to consequences—incautious, hasty, and would frequently become overwhelmed in difficulty, and yet they dreaded the thought of passing from one world into another. They looked upon death with reluctance. Others who have been circumspect and cautious in business transactions, have not unfrequently committed the wicked act of suicide, and hurled their spirits indifferently, into eternity! We are safe in calling it a wicked act, if the function of this organ is established; for a failure to cultivate and exercise the organ, and to cherish a desire to maintain an existence would be a transgression of a law established in the constitution of man.

The correctness of Dr. Vs' theory appears somewhat obvious; but whether he succeeded in getting the correct location or not, there is some evidence for believing that there are two faculties, differing somewhat from each other, that should be referred to Vitativeness and Cautiousness. Its exact size, may, in many instances, be difficult to ascertain, as its location is supposed to lie beneath a process or development of bone, to which a number of muscles are attached, and which is frequently believed by hasty examiners to be the organ under consideration. This results in a serious and erroneous conclusion, and either the principles of Phrenology, or the statement of the examiner is discredited. Either is bad enough, for it would heap obloquy upon the science. The difficulties in the way of this organ, and the importance of a knowledge of the anatomy of the brain, in pronouncing positively upon a trait of character, where these obstructions appear, is therefore apparent. Several supposed facts have already

been gathered in support of the function and location of the organ, and the theory of Dr. Vimont will probably soon be established or rejected.

SIZE THE MEASURE OF POWER.

We have before seen, *first*, that mind operates upon, and is connected with, matter; *secondly*, that this matter is the brain—the organ of the mind; *thirdly*, that the brain is a *plurality of organs*, through which the different faculties of the mind are manifested. A *fourth* principle in Phrenology is, that Size is the Measure of Power, other things being equal. This principle of Phrenology is grounded in the following facts:

1. Where there is no brain, there is no mind.
2. In proportion to the size of the brain, other things being equal, is the aggregate amount of mind. Hence the fact that the adult head that measures only sixteen inches in circumference (around Individuality and the occupant) renders its possessor an idiot!
3. Men of ordinary capacities have heads only of ordinary size; Therefore,
4. All *truly great* men have large heads, which follows as effects follow causes.

PROBABLE EXCEPTIONS.—It will be objected that there are many with small heads, who are men of no ordinary abilities. True, those men probably always have been surrounded by favorable circumstances and priviledges; they may possess good education, talk fluently, be active, remember occurrences, speak of the news of the day, and be always on the move—will make a great deal of stir, but no one will be able to divine why, with all the dust they raise, the noise they make, and the time they occupy, no more is *accomplished*. They will be distinguished for activity and zeal more than for strength and power, and would do well in ordinary business, or by following up one course through life; yet their brains would be over taxed, perplexed and injured, by what a large head would easily solve or comprehend.

But to the fourth proposition an objection may be brought, that persons of large heads have been idiotic! and that therefore Phrenology must fall!

Now the removal of this objection will serve to explain another important principle of the science—a condition upon which Vitality, and nervous energy, to a great extent, depends.—We examined an idiotic girl about 20 years of age, in Orleans County, N. Y., which was supposed to be an exception to Phrenology. The head was very fully developed, but Concentrativeness (which gives continuity of thought and feeling) was small. Another striking indication of idiocy was the deficiency of the Thoracic Region;* her lungs were small; the blood was not sufficiently impregnated and purified by atmospheric oxygen; and what blood was sent to the brain, must have been quite limited, unhealthy and des. ructive to the nervous energies. The Abdominal Region in this case was large. This also contributed to idiocy, as it would naturally have a tendency to draw away the nutriment from the Thoracic and Cephalic.†

Another instance quite as striking was that of a young man, examined by Dr. Chase and the editor, in the Cattaraugus "County House," at the solicitation of the superintendent in the summer of 1844. The brain of this lad was large and apparently nicely developed. But the Thoracic in this, as in the other case, was quite deficient, but the abdominal was still smaller! The consequence was similar to that before mentioned—a lack of support to the brain, caused by the absence of a proper flow of rich and healthy blood to the *encephalon*, and a uniformity in the development, and tone in the operations, of the whole system. The digestive organs, which perform some of the most important functions of animal life, were much impaired; and we hardly need say, the boy was idiotic.

These facts explain the *wherefore* of idiocy as connected with large brains; and the objection cannot lie vs. Phrenology, which is inseparably connected with physiology. Therefore, regard must be had to all the conditions of health of mind and body, in pronouncing upon character:

*That part of the system below the neck and above the diaphragm or waist.

† This region lies below the diaphragm and waist.

‡ Cephalic is the head,

and any departure from this, is a digression from the true principles of Phrenological Science. And so far are these facts from standing against Phrenology, like all others at all relating to the subject, they are additional evidence of the principles as above explained.

SIZE OR VOLUME, according to Phrenology, is the leading *measure of power*, while activity unites with size in giving quickness, intensity, and a restless desire to act; e. g. the balance wheel of a watch moves with much rapidity; but its size is small, and consequently its power comparatively weak, and so easily resisted, in fact, that its motion may be stopped by the strength of a single hair; whilst the beam of a steam engine moves slowly, but with such prodigious force that it can only be arrested by some extraordinary power.

By **ACTIVITY** we mean the *visacity* with which the faculties may be manifested; and when size is united with activity in a large brain and a symmetrical development of the whole system, the individual will possess a mind as *impetuous as the lightning's beam*.

Few persons possess all these conditions combined. But it is a fact which assists our argument that one cannot be *truly great* without a large head, well supported and moved by activity of mind and body. The signers of the Declaration of Independence had large heads, as do all persons that are calculated to mould and load off the public mind, and to stamp, indelibly, their sentiments upon the present generation, and hand them down the channel of mind, through successive ages.

Now then, wherever may be found a large brain and body proportioned to it, may be found great copiousness of mind when aroused by great occasions. Such a mind will be *felt* throughout the country. To it will all eyes be turned. Such a one will be admired, not less for his striking outline of person, broad and capacious chest and a *positive* brain, measuring towards twenty four inches in circumference, than for his power of holding communities and even multitudes by his impressive mind within the grasp of his own will. Such men, however, will make no more than a feeble effort on small occasions, and their minds will never be appreciated till it is *called out* by powerful stimulus on great and exciting occasions.



DANIEL WEBSTER

who ranges with the largest of healthy heads in the world, may be cited as proof of our position.

MAGNETISM.

Already has been shown the existence of a something in man which gives him ability or power to produce that unusual sleep, termed *Magnetic*. This has been shown by *facts* which are always unbending in their character, in opposition to which, no principle, no correct theory, no *truth* ever has existed or ever can exist; and the public mind, in the face and eyes of all these facts must rest assured in reference to the truth of those principles which are the subject of this article; and when the mind is once convinced of a truth, it must necessarily be convinced of the *importance* of that truth; hence the utility of the principles in the interesting cases we have reported in preceding numbers, in this number, and similar ones which we shall always take pleasure in giving publicity.

Nor is this power as has been supposed by many with whom we have conversed, an unnatural one. True, astonishing phenomena may be produced by a proper direction of this power, yet they are by no means unaccountable.

Their *rationale*, we trust, will be perfectly harmonized with nature in the course of the present volume; while the history of the world if carefully studied would be found a complete history of magnetism, whether the names of mesmer, or magnetism, or electricity be found in that history or not. And indeed, the principles are so general and so perfectly in accordance with nature, *they are practiced more or less by all!* and yet, in a majority of instances, men are unconscious of their existence and operations.

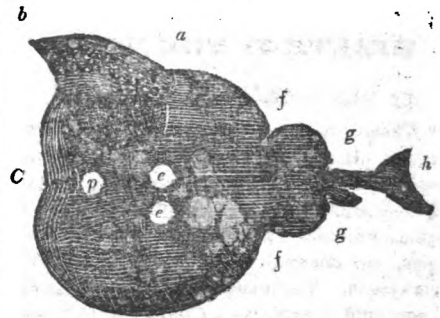
Our purpose now is to mention that it should be no more strange for man to possess the ability to discharge an influence by the volition of the will in an almost incredible degree, than it is for all animals and fishes, to possess it to a *limited* extent. Take, for instance, the Torpedo, a flat fish, which appears to be a species of ray, and which is found along the shores of the Mediterranean and Atlantic coast of France, and is sometimes taken on the south west coast of England. This will serve as an interesting illustration of that wonderful magnetic power which is sometimes seen in the animal kingdom, inferior to man. It was known to the ancients as capable of communicating a benumbing sensation to those who handle it, and to which they consequently gave the name of *Torpedo*. And it has been stated on good authority that several of the early physicians, both Roman and Arabian, ascribed to it an influence in subduing obstinate headaches, and even the gout itself!

Stephano Lorenzini in the *Philosophical transactions* for 1678, observes: "The chief wonder of this animal, and that which gives it its name, is the benumbing faculty which is seated in the two semi circular or falcated muscles on each side of the thorax, which consists of fibres, irregular, but as large as a goose-quill, and made up of bladders filled with a kind of water; one end of these fibres being fixed to the skin of the belly, and the other to that of the back, on which may be plainly seen the vestiges of the fibres' end. Now, when the fish contracts those fibres, there issue out corpuscles fitted to the pores of a man's skin, so as to enter upon immediate contact, but not otherwise, and disturb the posture of the parts, and to cause pain, as when one's elbow is hit or

knocked; and this comes most by the fingers ends, because these are ends of tendons. And this pain is more or less as the contraction of the fibres have immitted more or less."

Mr. Walsh in a paper on the subject, published in the *Philosophical Transactions* in the year 1773, was of opinion that the effect was *electrical*. He found that the shock of the Torpedo could be transmitted through conductors of electricity, such as water and metals, that it was interrupted by glass and sealing-wax, and that the back and breast of the animal were in different states of electricity. He ascertained that the shock when in air, was about four times as strong as when in water. It is stated also that his results have been confirmed and extended by different experimenters, and particularly by Dr. Davy, who succeeded in effecting chymical decomposition, the magnetization of steel, and the deviation of the magnetic needle, by the electrical current of the Torpedo.

The annexed figure represents a view of the under surface of the Torpedo. *a* is the right electric organ, exposed by



dissecting off the skin, which consists of white pliant columns, in a close and for the most part, hexagonal arrangement, giving a general appearance of a honeycomb in miniature. These columns have sometimes been denominated cylinders; but, having no interstices, they are all regular, and chiefly six-cornered. *b*, the skin which covered the organ, showing on its inner side a hexagonal network. *c*, the nostrils in the form of a crescent. *p*, the mouth in a crescent contrary to that of the nostrils, furnished with several rows of very fine teeth.—*e*, the bronchial apertures, five on each side.—*f*, *f*, the outward margin of the greater lateral fin. *g*, *g*, the two smaller lateral fins. *h*, the fin of the tail.

LADIES' DEPARTMENT.

ORIGINAL.

WHAT I LOVE.

I love, I love to wander through
The lovely wood and lowly dale,
To gather flowers of varied hue,
And hear the Turtle's mournful tale.

I love, I love at early dawn,
Whilst slumber o'er the world holds sway,
To wander o'er the dewy lawn,
And watch the coming day.

I love, I love at twilight hour,
When all around is calm and still,
To list, in some green-vine bower,
To the notes of the whip-poor-will.

I love, I love to contemplate
The glittering host that decks the sky,
My earth-bound thoughts to elevate,
To that lofty One, who dwells on high.

MISS H. ESTELLE D.

Franklin, Mich.

SELECTED.

HEALTH OF THE MIND.

BY MISS CATHARINE E. BEECHER.

“Under the head of excessive mental action, must be placed the indulgence of the imagination in novel reading and castle building. This kind of stimulus, unless counterbalanced by physical exercise, not only wastes time and energies, but undermines the vigor of the nervous system. The imagination was designed, by our kind Creator, as a charm and stimulus to animate to benevolent activity: and its perverted exercise seldom fails to bring the appropriate penalty.

A third cause of mental disease, is, the want of the appropriate exercise of the various faculties of the mind. On this point Dr. Combe remarks, ‘We have seen, that, by disuse, muscle become emaciated, bone softens, blood-vessels are obliterated, and nerves lose their characteristic structure. The brain is no exception to the general rule. Of it, also, the tone is impaired by permanent inactivity, and it becomes less fit to manifest the mental powers with readiness and energy.’ It is ‘the withdrawal of the stimulus

necessary for its healthy exercise, which renders solitary confinement so severe a punishment, even to the most daring minds. It is a lower degree of the same cause, which renders continuous seclusion from society so injurious to both mental and bodily health.’

‘Inactivity of intellect and of feeling is a very frequent predisposing cause of every form of nervous disease. For demonstrative evidence of this position, we have only to look at numerous victims to be found, among persons who have no call to exertion in gaining the means of subsistence, and no objects of interest on which to exercise their mental faculties, and who consequently sink into a state of mental sloth and nervous weakness. ‘If we look abroad upon society, we shall find innumerable examples of mental and nervous debility from this cause. When a person of some mental capacity is confined, for a long time, to an unvarying round of employment, which affords neither scope nor stimulus for one half of his faculties, and, from want of education or society, has no external resources; his mental powers, for want of exercise, become blunted, and his perceptions slow and dull.’

‘The intellect and feelings, not being provided with interests external to themselves, must either become inactive and weak, or work upon themselves and become diseased.’

‘The most frequent victims of this kind of predisposition, are females of the middle and higher ranks, especially those of a nervous constitution and good natural abilities; but who, from an ill-directed education, possess nothing more solid than mere accomplishments, and have no materials of thought,’ and no ‘occupation to excite interest or demand attention.’—The liability of such persons to melancholy, hysteria, hypochondriasis, and other varieties of mental distress, really depends upon a state of irritability of brain, induced by imperfect exercise.’

These remarks, of a medical man, illustrate the principles before indicated;—namely, that the demands of Christianity, that we live to promote the general happiness, and not merely for selfish indulgence, has for its aim, not only the general good, but the highest happiness, of the individual of whom it is required.

A person possessed of wealth, who has nothing more noble to engage his attention, than seeking his own personal enjoyment, subjects his mental powers and moral feelings to a degree of inactivity, utterly at war with health of mind. And the greater the capacities, the greater are the sufferings which result from this cause. Any one, who has read the misanthropic writing of Lord Byron, has seen the necessary result of great and noble powers bereft of their appropriate exercise, and, in consequence, becoming sources of the keenest suffering.

It is this view of the subject, which has often awakened feelings of sorrow and anxiety in the mind of the writer, while aiding in the development and education of superior female minds, in the wealthier circles. Not because there are not noble objects for interest and effort, abundant, and within reach of such minds; but because long-established custom has made it seem so Quixotic, to the majority, even of the professed followers of Christ, for a woman of wealth to practice any great self-denial, that few have independence of mind and Christian principle sufficient to overcome such an influence. The more a mind has its powers developed, the more does it aspire and pine after some object worthy of its energies and affections; and they are commonplace and phlegmatic characters, who are most free from such deep-seated wants.— Many a young woman, of fine genius and elevated sentiment, finds a charm in Lord Byron's writings, because they present a glowing picture of what, to a certain extent, must be felt by every well-developed mind, which has no nobler object in life, than the pursuit of its own gratification.

If young ladies of wealth could pursue their education, under the full conviction that the increase of their powers and advantages increased their obligations to use all for the good of society, and with some plan of benevolent enterprise in view, what new motives of interest would be added to their daily pursuits! And what blessed results would follow, to our beloved Country, if all well-educated females carried out the principles of Christianity, in the exercise of their developed powers!

It is cheering to know, that there are women, among the most intelligent and wealthy, who can be presented as examples of what may be

done, when there is a heart to do. A pupil of the writer is among this number, who, though a rich heiress, immediately, on the close of her school-life, commenced a course of self-denying benevolence, in the cause of education. She determined to secure a superior female institution, in her native place, which should extend the benefits of the best education to all in that vicinity, at a moderate charge. Finding no teacher on the ground, prepared to take the lead, and though herself a timid and retiring character, she began, with the aid of the governess in her mother's family, a daily school, superintending all, and teaching six hours a day. The liberal minded and intelligent mother co-operated, and the result is a flourishing female seminary, with a large and beautiful and well-furnished building; the greater part of the means being supplied by the mother, and almost all by the members of that family connection.— And both these ladies will testify, that no time or money, spent for any other object, has ever secured to them more real and abiding enjoyment, than witnessing the results of this successful and benevolent enterprise, which, for years to come, will pour fourth blessings on society.

Another lady could be pointed out, who, possessing some property, went into a new western village, built and furnished her schoolhouse, and established herself there, to aid in raising a community from ignorance and gross worldliness to intelligence and virtue. And in repeated instances, among the friends and pupils of the writer, young ladies have left wealthy homes, and affectionate friends, to find nobler enjoyments, in benevolent and active exertions to extend intelligence and virtue, where such disinterested laborers are needed. In other cases where it was not practicable to leave home, well-educated young ladies have interested themselves in common schools in the vicinity, aiding the teachers, by their sympathy, counsel, and personal assistance.

Other ladies, of property and standing, having families to educate, and being well qualified for such duties, have relinquished a large portion of domestic labor and superintendence, which humbler minds could be hired to perform, devoted themselves to the education of their children, and received others, less fortunate, to

share with their own these superior advantages. But, so long as the feeling widely exists, that the increase of God's bounties diminishes the obligations of self-denying service for the good of mankind, so long will well-educated women in easy circumstances, shrink from such confinement and exertion.

It is believed, however, that there are many benevolent and intelligent women, in this Country, who would gladly engage in such enterprises, were there any appropriate way within their reach. And it is a question, well deserving consideration, among those who guide the public mind in benevolent enterprises, whether some organization is not demanded, which shall bring the whole community to act systematically, in voluntary associations, to extend a proper education to every child in this Nation, and to bring into activity all the female enterprise and benevolence now lying dormant, for want of proper facilities to exercise them: There are hundreds of villages, which need teachers, and that could support them, if they were on the spot, but never will send for them. And there are hundreds of females, now unemployed, who would teach, if a proper place, and home, and support, and escort, were provided for them. And there needs to be some enlarged and systematic plan, conducted by wise and efficient men, to secure these objects.

Could such a plan, as the one suggested, be carried out, it is believed that many female minds, now suffering, from disease occasioned by want of appropriate objects for their energies, would be relieved. The duties of a teacher is to exercise every intellectual faculty, to its full extent; while in this, benevolent emotions are kept in full play. The happiest person the writer has ever known,—those who could say that they were as happy as they wished to be, in this world, (and she has seen such,)—were persons engaged in this employment.

The indication of a diseased mind, owing to a want of the proper exercise of its power, are, apathy, discontent, a restless longing for excitement, a craving for unattainable good, a diseased and morbid action of the imagination, dissatisfaction with the world, and factitious interest in trifles which the mind feels to be unworthy of its powers. Such minds sometimes seek alleviation in exciting amusements

others resort to the grosser employments of sense. Oppressed with the extremes of languor, or over-excitement, or apathy, the body fails under the wearing process, and adds new causes of suffering to the mind. Such, the compassionate Savior calls to his service, in these appropriate terms: "Come unto Me, all ye that labor and are heavy laden, and I will give you rest. Take My yoke upon you, and learn of Me," "and ye shall find rest unto your soul."

For the Gem.

FREEDOM.

BY E. C. SCHELLHOUS.

Now kindred minds together meet,
When science rules the gifted hour;
Let every heart in triumph beat,
And scorn the Tyrant's ruling power.

Columbia's sons, in freedom reign,
How happy and how blest are we!
For who can ever taste of pain,
While our lands, our homes are free.

Let monarchs' boast of wealth and pow'r,
And Kings may rule with Tyrant hands;
But give to me each passing hour,
In fair Columbia's happy land.

When with our banners waving high,
We'll tread the hight of science o'er,
With truth and virtue ever nigh,
Say, who can wish for blessings more.
Ann Arbor, July 4th, 1843.

FOURTH OF JULY.

The seventieth anniversary of this joyous day to American Freemen, was celebrated in this village in an orderly manner. All political parties and religious denominations were alike found mingling their sense of patriotism together in one common enthusiasm. Our streets were thronged with people and presented the appearance so often seen on similar occasions in our eastern cities.

In the evening, the town was illumined by an exhibition of fire-works, got up by some of the enterprising young men of our village.

The Magnetic Telegraph from Albany to Buffalo, was completed on Friday last, so that communications passed.

EDITORS' TABLE.

ST. LOUIS MAGNET.—We have received the first number of the second volume of this monthly periodical, containing 24 pages, edited and published by T. J. McNair, for one dollar per annum in advance. We have not given it a "mere cursory examination," but we have had time to give it a close inspection. It is a work that is worthy of support, and one which, if encouraged, will prove beneficial to society.

"THE PHONOGRAPHIC READER: A complete course of inductive lessons in Phonography," and

"THE COMPLETE PHONOGRAPHIC CLASS BOOK, containing a strictly inductive exposition of Pitman's Phonography, adopted as a system of phonetic short hand, to the English language; especially intended as a school book, and to afford the fullest instruction to those who have not the assistance of a living teacher, by S. P. Andrews, and Augustus F. Boyle," has been received from the publishers. These books advocate a new system of writing and printing.—Further remarks will be deferred on them till next number.

The **SCIENTIFIC AMERICAN** is received regularly: we should feel lost without it, and no mechanic or lover of science should fail to secure its perusal.

The Gem will hereafter be sent to subscribers in the present form for binding, without covers. This we do for the benefit of our subscribers who complain at paying at the rate of 60 cts. per year, for postage. But with the present arrangement we are deprived of the cover, our advertising department. This, however, we will overlook, if it will the better serve the wishes of our patrons, be more useful, and further advance the cause of truth. It will now be sent within thirty miles free of postage, and any where within the United States, subject to newspaper postage only, while it will contain much more reading matter than before.

Last Tuesday evening a lecture was delivered in the Court House in this village, by Rev. Mr. Pierce, of New York, to an interested audience. The subject was education, based upon physiological, phrenological and philosophical principles.

NEW ARRANGEMENT.

The undersigned, do, from this date, associate themselves together, in the publication of the **GEM OF SCIENCE**, to be known by the firm of "Sanford and Brothers."

EPHRAIM H. SANFORD, JOHN H. SANFORD,
DAVID SANFORD, EZRA SANFORD,

JAMES SANFORD.

AND ARBOR, JULY 1st, 1845.

The Gem will continue to be published under the direction and superintendence of E. H. SANFORD, the editor. SANFORD & BROTHERS.

Now is the time for our friends, agents and subscribers, to strive for an increase of good, by adding to our list of subscribers and remittances. We cannot work without the needful. Who will send first?

ANOTHER TEMPERANCE HOUSE.—E. F. Gay Esq., of Howell, has recently opened a new and commodious building, apparently well furnished in every department, and calculated to entertain the guest and to render the stay of the traveller and friend to sobriety agreeable and pleasant. This conspicuous house has been erected at much expense and trouble, while the charges will be found mild and reasonable. Let such houses, designed for *public good* be liberably patronized.

ACCIDENT.—Mr. Ira Allon, while engaged in putting a roof on a building which he was erecting in this village, fell, it is supposed, a distance of 14 feet. He was found at the foot of the building on the 3d inst., senseless. He was picked up and medical aid procured. Some hopes were entertained of his recovery, but he expired on the 6th instant.

EXCITED DESTRUCTIVENESS.—A public meeting has lately been held at Brandon, Miss., to make arrangements to go and fight the Mexicans. The Vicksburg Sentinel states, that the boys got the steam on a little too high, and as no Mexicans could be found in town, ten fights took place among themselves.

SUNDAY MAILS.—A Jackson paper states, that the mail, on all the daily routes, will hereafter be carried on Sunday.

SCRAPS.

☞ Gen. Vega, the Mexican General, is still in New Orleans. It is said that he has, through General Gaines, asked permission of the government to visit different parts of the United States, and that no doubt his request will be acceded to.

☞ The portion of Oregon retained by the United States as in the late treaty, according to the authority of Mr. Hines, who resided in Oregon for many years, as a Missionary of the Methodist church is "more than six times as large as the state of New York."

"Westward the star of empire takes its way."

HARVEST IN TURKEY.—The Union publishes the following extract of a letter from Constantinople:

"I take this occasion to remark that, in all probability, the harvest of grain throughout Turkey in Europe, and the northern part of Asia Minor, will, in consequence of the wetness of the season, be abundant. Wheat and barley are diminishing in price, and the demand from England has much subsided.

MELANCHOLY ACCIDENT.—An unfortunate accident occurred in this village last Wednesday afternoon. John Post, a painter, engaged in the removal of a large iron cross from the belfrey of the Congregational Church, fell to the ground from the height of about seventy feet, and was instantaneously killed. The deceased was a man much esteemed, and leaves a wife and three children to mourn his loss.—*Grand Rapids Eng.*

☞ A covered wagon containing a cooking stove, lodging apparatus, &c., and tenanted by seven persons, recently passed through Rochester on its way to Wisconsin.

The population of Manchester N. H., has increased within the last six years, from 3,225 to 10,225. Twenty years ago, there was not even a village at the place.

MAGNETIC TELEGRAPH.—We understand that the wires on the line between this city and Rochester have been put on to within four or five miles of town, and will probably reach the eastern line of the city this evening. It may take a day or two to bring the line into working order, but it is confidently believed it will be in regular operation between this city and Albany on Wednesday next: The line between Albany and New York is to be completed by the 15th of July at the farthest.—*Buff. Adv.*

☞ The Cholera is making rapid progress from Persia. It has crossed the Russian boundary and had broken out at Orenburg, in the Walian mining district, crossed the Voiga, and appeared on the European side, at Kasan, about 150 miles from St. Petersburg. In its former journey it travelled the same route. In 1829 it appeared for the second time at Orenburg, whence it spread to St. Petersburg, July, 1831, and reached England in October of the same year. In 1832 and '33, it traversed the United States from east to west, and from north to south.

One of the Mexican officers, in trying to rally his men, found he could not, and commenced to cut them up with his sword, when *his troops shot him dead.*

'That's what I call a real finished sermen,' remarked a man as he was coming out of Church. 'Yes, finished at last,' replied the other, though I thought it never would be.'

☞ The army under Gen. Taylor, at the last accounts, was moving up the Rio Grande.

THE GEM OF SCIENCE is published *Semi-Monthly*, by SANFORD AND BROTHERS, at ONE DOLLAR per annum in *advance*: 25 cents will be added for every quarter's delay. No paper will be discontinued till all arrearages are paid, except at the option of the publishers.