terval is unobserved. Like a dream of the night, when, with the quickness of thought, the mind ranges time and space almost without a limit, there is but a moment between the hour when the eye is closed in the grave, and when it wakes to the judgment.

SCIENTIFIC WONDERS.

The general faith in science as a wonder-worker is at present unlimited; and along with this there is cherished the conviction that every discovery and invention admits of a practical application to the welfare of men. Is a new vegetable product brought to this country from abroad, or a new chemical compound discovered, or a nominal physical phenomenon recorded, the question is immediately asked, *cui bono?* What is it good for? Is food or drink to be got out of it? Will it make hats, or shoes, or cover umbrellas?—Will it kill or heal? Will it drive a steam engine or make a mill go? And truly this *cui bono* question has been of late so satisfactorily answered, that we cannot wonder that the public should persist in putting it somewhat eagerly, to every discoverer or inventor, and should believe that if a substance has one valuable application, it will prove, if farther investigated to have a thousand. Gutta Percha has not been known in this country ten years; and already it would be more difficult to say what purpose it has not been applied to, than to enumerate those to which it had been applied. Guncotton, had not proved in its saddest way its power to kill, before certain ingenious Americans showed its power of healing, and forms one of the best sticking plaster for wounds. Surgeons had not employed ether and chloroform as anæsthetics for three years, and already an ether engine is at work in Lyons, and a chloroform engine in London. Of other sciences we need scarcely speak.—Chemistry has long come down from her atomic altitudes and elective affinities; and now scours and dyes, bakes, brews, cooks, and compounds drugs with contented composure. Electricity leaves her thunder bolt in the sky, and like Mercury dismissed from Olympus, acts as letter carrier and message boy. Even the mysterious magnetism, which once seemed a living principle to quiver in the compass needle, is now unclothed of mystery, and set to driving turning lathes. The public perceives all this, and has unlimited faith in man's power to conquer nature. The credulity which fed upon unicorns, phœnixes, mermaids, vampires, krakens, pestilential comets, fairies, ghosts, witches, spectres, charms, curses, universal remedies, pactions with Satan and the like, now tampers with chemistry, electricity and magnetism, as it once did with the invisible world. Shoes of swiftness, seven league boots, and Fortunatus's wishing caps are banished from the nursery; but an electro-magnetic steam fire balloon, which will cleave to the air like a thunderbolt and go as strait to its destination as the crow flies, is an invention which we may hope to see realized, before railways are quite worn to pieces. A snuff box full of the new manure which is about to be patented, will fertilize a field; and the same amount of the new explosive will dismantle the fortifications of Paris. By means of the fishtail propeller, to be shortly laid before the Admirality, the Atlantic will be crossed in three days.—*Edinburg Review.*

Burning Fluid.

As those dreadful accidents, so frequent and so distressing, arising from the use of the various simple and compound Turpentine fluids, may be entirely avoided by an understanding of the nature of these fluids, I send you the following, which I hope may be of interest to some of your readers, more especially as the explanations usually given to these phenomena are incorrect.

Camphene is pure spirits of Turpentine.—The various *burning fluids* are mainly *Turpentine* dissolved in *Alcohol* (Spt. of Wine) or in *Wood* Alcohol, (Wood Spirit,) by a process of distillation or otherwise. Camphor and some other combustible substances are added in some cases I believe. Now, as every body knows, both turpentine and alcohol are readily volatile of ordinary temperatures, and their vapors are highly combustible and are also very much heavier than the air. Any combustible gas or vapor will explode when mixed in suitable proportions with the air. Owing to the volatility of these liquids, the burning fluid, or camphene, or other fluids, whatever it may be called, will be always full of these vapors, antl when the fluid is poured out, a portion of the vapor is poured out with it, *air* of course running in and filling the place before occupied by both vapor and fluids. This is the moment at which the explosion takes place; for the vapor has thus been mixed with air and is highly explosive.

All danger is of course avoided when the can is opened and the lamp filled at a proper distance from any flame whether of lamp or fire. The principle reason why an explosion does not *invariably* take place when a burning lamp is filled from an open mouthed can, is that the great weight of the vapors cause them to flow directly downward and they do not reach the flame.

Any person understanding these facts, must be desperately fool-hardy who will thus fill a burning lamp, when the least breath of air may raise the train of vapor to the flame and explode the magazine in his hand, throwing the combustible fluid all on fire in every direction. The train of vapor proceeding from an open can of burning fluid, has been known to reach a flame at the distance of several feet, causing the explosion of the can.

These "burning fluids" are all very safe, and as all who use them know, very convenient when used with care, but all who do use them should understand their true nature. A vessel of any one of them should never be opened within several feet of any flame whatever. Nor should a lamp be lighted before it has been carefully wiped, that there may be none of the fluid upon the outside.—*Hartford Courant.*

Preservation and Restoration of Sight.

For Near-Sightedness.—Close the eyes and press the fingers gently, from the nose, outwardly, *across* the eyes. This flattens the pupil, and thus lengthens or extends the angle of vision. This should be done several times a day, till short-sightedness is overcome.

For Loss of Sight by Age, such as require magnifying glasses, pass the fingers or towel from the outer corner of the eyes inwardly, above and below the eye-balls, pressing gently against them. This rounds them up and preserves or restores the sight.

This is not offered as any thing new, though it is of incalculable value. Prof. Bronson is going about the country giving lessons for from $5 to 50, to enable persons to preserve or regain their sight, in the above manner.—He claims to be the discoverer of the idea; and it may be original with him. Yet, says the Phrenological Journal it was known long before Bronson's birth. The grandfather of a female friend of the editor practiced it fifty years ago, and by its means preserved his sight so as to be able to read fine print when eighty years old; and John Quincy Adams, in conversation with Lawyer Ford, of Lancaster, Pennsylvania, who wore glasses, told him if he would manipulate his eyes with his fingers from their external angles inwardly, he would soon be able to dispense with glasses. Ford tried it, soon restored his sight perfectly, and has since preserved it by the continuance of his practice.

Succinct History of the Contest in Great Britain on the Slave Trade.

Organized anti-slavery effort in Great Britain, may be dated at the first meeting of the London Committee, in 1787.

In 1788, the first effort in Parliament on slavery was made.

Efforts were made in 1789 and 1790 and 1791, but with no prospect of success. The question of abolition was treated in Parliament as antislavery petitions were by our Congress, the first few years of the antislavery struggle. In 1791 THREE HUNDRED THOUSAND persons refrained from *sugar* altogether; there was no free-labor sugar at that time.

In 1792 and 1793 a simple resolution by Mr. Wilberforce was carried in the House of Commons. but the Lords rejected it.

In 1795 and 1796, the effort was renewed and negatived.

In 1797, 1798, Mr Wilberforce's bill was defeated.

Nothing was done until 1804, when a bill passed the House of commons, but was defeated by the Lords.

In 1805, it was renewed and lost.

In 1806, the bill passed both houses.

Here was a struggle for eighteen years merely to obtain parliament to consent "that the trade carried on by British subjects for the purpose of obtaining slaves on the coast of Africa OUGHT to be abolished." It was negatived and barred out of the House of Commons *seventeen* times and admitted twice. It was admitted into the House of Lords but once. In 1806 (10th June) Mr. Fox moved "that the House, considering the slave-trade to be contrary to the principles of justice, humanity and policy, will with all practicable expedition take effective measures for its abolition." Carried by 114 to 15 in the Commons, 41 to 20 in the Lords.

In 1807, Lord Granville brought into the House of Lords, "A bill for the abolition of the slave trade." Passed by 100 to 36, and in Commons by 283 to 16.

This history furnishes us abundant evidence for hope and encouragement.

R. McCURDY.

The Farm.

[From the Ohio Cultivator.]

THE MODEL FARM OF OHIO.

The model farm of this State contains one hundred acres, seventy-five of which are well cleared, and the whole under fence. Sixty acres are embraced in one enclosure, and this includes all the arable and meadow land upon the farm. The buildings are all stone, neat, durable and commodious. The dwelling is not large, but spacious enough for the use of the family and a room and a bed or two for an occasional friend. The kitchen and stables are supplied with water from the same spring. No stock but hogs and sheep are permitted to graze. The cattle and horses are constantly kept in their stalls, and are always in good order. The cows are at all times fat enough for the butcher, and the growing stock at two years old attain the weight of ordinary steers at four. During the summer they are soiled with green food, consequently twenty acres in grass is sufficient to keep four horses and ten cows with their offsprings, until the young stock are ready for the market at three or four years old, when they average him thirty dollars per head. Of these he makes it a point to sell ten head a year. For his stock he raises one acre of roots, sugar beets, mangle-wurtzel, and turnips, each year, which yield him on an average about fifteen hundred bushels. Of corn he cultivates five acres a year, which by proper culture and judicious rotation, yields him five hundred bushels. Five acres in wheat gives yearly one-hundred and fifty bushels. Five acres of oats, three hundred bushels.

He has an orchard of eight acres, in which he has two hundred apple trees, twenty-five plum, one hundred peach, and fifty cherry trees. This is divided into four compartments of two acres each. Two of these he ploughs up every year, and in the spring plants them in Jerusalem artichokes. Here he keeps his hogs. In the two that are not ploughed, he has a clover and orchard grass lay, in which the swine feed from the middle of May to the first of August, when they are let into one of the artichoke yards and range at will into the two grass yards and this till winter, when they are passed into the second artichoke yard, where they are kept till the grass has sufficiently advanced in one of the fields to turn them into that. Thus upon grass, roots, and fruit, the swine are kept so thrifty that a few bushels of grain are sufficient to make them ready for the butcher. In this way he manages to kill thirty hogs a year, which will average four hundred pounds each. He gives them beet wintering.

His sheep range principally in the woods with a small pasture of five acres. He keeps seventy five head, which yield him three hundred pounds of wool a year.

As this farmer has raised a large family, and raised them all well, having given each child a good practical education, I was curious to look into his affairs, and, as he keeps a regular account current of his transactions, it gave him no trouble to inform me of the result of his mode of proceeding which is briefly as follows:

PRODUCT OF THE FARM.

10 beef cattle averaging $30 per head	$300
25 hogs, at $12 per head	300
200 bushels corn at 25 cents per bushel	50
Product of sheep	100
Do dairy	200
Do orchard	300
Other smaller crops	100
	$1,350
Average cost of hired labor per annum	300
	$1,050

Thus, from one hundred acres of land even in Ohio, this man has been able to lay by and invest at interest, on an average $500 a year for the last twelve years. Who has done better on a farm of one hundred acres? Of course, like others, he has suffered somewhat from unfavorable seasons, in some of his crops, but his correct system of culture, and intelligent management, generally makes up for every loss experienced from this source.

His system of saving and making manures turns every thing into the improvement of his soil—weeds, ashes, the offal of his stock, soap-suds, bones, and everything that will tend to enrich it, is carefully saved and properly applied.

The history of this man is brief, but, to the farmer, interesting. He began with the patrimony of good sense, sound health, and industrious habits. Excellent so far. In 1830, he had three thousand dollars in cash. He bought this farm in a state of nature, in 1830, for which he paid four hundred dollars. He expended four hundred dollars more in clearing his land, in addition to his own labor. He first put up a temporary cabin, in which he moved his family. One thousand dollars he put out at permanent annual interest, and the remainder, with the early profits of his farm, he appropriated to the erection of his buildings, which were complete in 1843.

In the selection of his fruit, he songht the best varieties, which always gave preference in the market. So of his stock. Everything he sends to the market commands the highest price, because it is of the best kind.

In his parlor is a well-selected library of some three hundred volumes, and these books are *read*. He takes one political, one religious, and two agricultural papers, and the North American Review; refuses all offices, and is with his family, a regular attendant at church, and a pious, upright, and conscientious man. He is the peace-maker in his neighborhood, and the chosen arbiter in all their disputes. He loans his money at six per cent., and will take no more.

He says he wants no more land for his own use than he can cultivate well; no more stock than he can keep well.

Here is a model of a man and a farmer, and the model of a farm. Who will be happy and follow his example?

Feeding Poultry.

The following method, from the Transactions of the Essex Co. Agricultural Society, will be found a good one:—Once a day, in Summer, feed on a mixture of corn and barley, or corn and oats. This will be sufficient, if your fowls have a large enclosure, where they can obtain gravel, insects, worms and green food; if they are confined to a small space, these substances must be supplied them liberally. In winter, keep corn, mixed sometimes with oats, constantly before them, as well as pounded oyster shells, burnt bones or clam shells; occasionally, give boiled potatoes, mashed and mixed with Indian meal or bran,—warm, but not hot. Let them have wood ashes, to dust themselves in, and an abundance of clean water, fresh every day; in freezing weather, the water should be lukewarm. Chickens require no food for the first twenty-four hours after they are hatched; we have, however been in the habit of giving them water, in about twelve hours from the time they leave the shell. After the first twenty-four hours, for the two succeeding months, give cracked corn, dry, three or four times a day; occasionally vary their food, by giving sometimes cooked meat, chopped fine and sometimes crumbs of bread. We think dry food much better for young chickens than dough, or any substance mixed with water.—An abundance of clean water should be constantly before them.

Striped Bugs in Melons, Cucumbers, &c.

We have before recommended the use of Haarlæm oil and Scotch snuff for the melon bug, and it has always proved effective. Yesterday our gardener threw around some melons and cucumbers, on which the striped bug had made its appearance, a quantity of *pulverized burnt bones*, and we have been noting the effect. The black color seems to be disagreeable to the bugs; they first rise when disturbed by the bone-dust, and for a few moments hover over the hills, but do not venture to land, except outside the blackened part of the hill, and after a few moments they *decamp*. We hope this method may prove effective, as the black coating of melon and cucumber hills, by increasing the amount of heat absorbed, is useful to them, and if at the same time the bug can be kept off, we shall be able to raise early fruit, as well as the gardeners of a few degrees south of us.—*Working Farmer.*